

**GENERAL NOTES**

1. THE EXISTING TOPOGRAPHY SHOWN HEREON IS A COMPOSITE OF FIELD RUN SURVEYS WITH TWO FOOT INTERVALS, PREPARED BY SHANBERGER AND LANE DATED OCTOBER 30, 2001 AND BY VOGEL ENGINEERING + TIMMONS GROUPS DATED NOVEMBER 2013 AND SUPPLEMENTED WITH ADDITIONAL EXISTING TOPOGRAPHY TAKEN FROM AN AERIAL PHOTOGRAPHIC SURVEY CONDUCTED BY POTOMAC AERIAL SURVEYS, DATED JANUARY 2008, AND FROM APPROVED GRADING PLAN SDP-10-030 WHICH IS TO BE REACTIVATED UNDER CAPITAL PROJECT J-4148-C.
2. THE PROJECT BOUNDARY SHOWN HEREON IS BASED ON A PLAT BY ROBERT H. VOGEL ENGINEERING, INC., DATED MARCH 2013. COORDINATES AND ELEVATIONS ARE BASED ON MARYLAND COORDINATE SYSTEM - NAD83(1991) AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 43HA AND 48A.
3. THE SUBJECT PROPERTY IS ZONED M-2 PER THE 10/06/2013 COMPREHENSIVE ZONING PLAN.
4. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS.
5. THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
6. PUBLIC WATER AVAILABILITY THROUGH CONTRACT NO. 24-4399-D.
7. PUBLIC SEWER AVAILABLE THROUGH CONTRACT NO. 14-4597-D.
8. EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND AND SEWER EXTENSION PLANS AND AVAILABLE RECORD DRAWINGS.
9. THERE IS NO 100YR FLOODPLAIN ON SITE.
10. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO BURIAL GROUNDS OR CEMETARIES OR HISTORIC STRUCTURES LOCATED ON-SITE.
11. THERE ARE SEVERAL SMALL AREAS OF NATURALLY OCCURRING STEEP SLOPES ON SITE, WITHIN THE LIMITS OF THE EXISTING STREAM BUFFER THAT WILL NOT BE DISTURBED UNDER THIS PLAN. THERE ARE NO NATURALLY OCCURRING STEEP SLOPES WITHIN THE DEVELOPMENT AREA FOR THIS PLAN.
12. THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION. THE FOREST CONSERVATION OBLIGATION FOR THIS PLAN HAS BEEN MET UNDER SDP-10-030(F) PLAT NUMBER 22345, BY PROVIDING ONSITE RETENTION OF 1.01 AC, ONSITE REFORESTATION OF 0.24 AC, AND A FEE IN LIEU OF PAYMENT OF \$41,817.75 TO THE MDCO, FOREST CONSERVATION FUND FOR THE REMAINING 1.28 AC. OF REFORESTATION OBLIGATION (1.28 AC. = 55,757 S.F. X \$0.75 = \$41,817.75).
13. 145,663 S.F. OF FOREST STAND #1 AS DEFINED UNDER SDP-10-030 IS LOCATED ON THIS SITE. APPROXIMATELY 53,022 S.F. OF THE ORIGINAL FOREST STAND #1 WAS CLEARED FROM PARCEL 108A UNDER CAPITAL PROJECT J-4148-C. ANOTHER 88,804 S.F. IS PROPOSED TO BE CLEARED UNDER THE GRADING PLAN FOR SDP-10-030. APPROXIMATELY 63,411 S.F. OF FOREST STAND #2 AS DEFINED UNDER SDP-10-030 IS LOCATED ON THIS SITE. APPROXIMATELY 19,009 S.F. OF THE ORIGINAL FOREST STAND #2 WAS CLEARED UNDER CAPITAL PROJECT J-4148-C. THE ORIGINAL 209,074 S.F. OF FOREST STAND, 48,239 S.F. REMAINS AFTER CLEARING UNDER CAPITAL PROJECT J-4148-C AND SDP-10-030. 43,806 S.F. OR 1.01 AC. OF THE REMAINING FOREST IS PLACED UNDER A PUBLIC FOREST CONSERVATION RETENTION EASEMENT AND ANOTHER 10,191 S.F. (0.24 AC.) WAS REPLANTED IN A FOREST CONSERVATION RETENTION EASEMENT UNDER SDP-10-030. EXISTING FOREST REMAINING ONSITE AT INITIATION OF THIS PROJECT, INCLUDING FOREST CONSERVATION RETENTION AND REFORESTATION EASEMENTS, IS 58,420 S.F. OR 1.34 AC. AN ADDITIONAL 1,985 S.F. OF THE REMAINING FOREST STAND IS PROPOSED TO BE CLEARED FROM FOREST STAND #1 ALONG THE NORTHERN AND EASTERN BOUNDARY. NO ADDITIONAL DISTURBANCES TO FOREST STAND #2 ARE PROPOSED UNDER THIS PLAN. APPROXIMATELY 56,435 S.F. OR 1.28 AC. OF FOREST WILL REMAIN ON PARCEL 108-A AT THE COMPLETION OF THIS PLAN.
14. THE SITE WAS FIELD INVESTIGATED BY ECO-SCIENCE PROFESSIONALS, INC. ON JUNE 29, 2017. STREAMS, WETLANDS AND THEIR BUFFERS ARE PRESENT ONSITE, BUT NOT WITHIN THE DEVELOPMENT AREA. THE SMALL POND SHOWN WITHIN THE DEVELOPMENT AREA WAS DETERMINED BY ECO-SCIENCE PROFESSIONALS TO BE AN EXISTING WET BASIN WITHIN AN EXISTING SWM FACILITY. IT WAS CREATED AS PART OF THE CONSTRUCTION OF DORSEY RUN ROAD UNDER CAPITAL PROJECT J-4148-C AND IS NOT A NATURAL OCCURRING REGULATORY WETLAND AND WAS CREATED SPECIFICALLY FOR THE BENEFIT AND USE OF PARCEL 108-A FOR FUTURE DEVELOPMENT, HOWEVER IT DOES NOT MEET THE NEEDS OF THE PROPOSED DEVELOPMENT UNDER THIS PLAN. ONLY EXISTING RUNOFF IS BEING RECEIVED BY THIS POND. IT DOES NOT RECEIVE RUNOFF FROM DORSEY RUN ROAD OR ANY OTHER EXISTING IMPERVIOUS AREAS ACTING AS STORAGE FOR DORSEY RUN ROAD.
15. A NOISE STUDY NOT REQUIRED FOR THIS PROJECT WILL BE PROVIDED AT SITE DEVELOPMENT STAGE.
16. A GEOTECHNICAL REPORT FOR THIS PROJECT WAS PREPARED BY SITE RESOURCES INC., DATED MAY 30, 2002 AND REVISED BY ROBERT H. VOGEL ENGINEERING, DATED APRIL 2010 AND JULY 2013. PREVIOUS DEVELOPMENT PLANS SDP-10-030 DETAIL THE CLEARING AND ESTABLISHMENT OF FOREST CONSERVATION EASEMENTS, HOWEVER CLEARING AND GRADING WERE NEVER COMPLETED AND THE PLAN BECAME INACTIVE. A NEW FIELD REVIEW, SPECIMEN TREE ASSESSMENT AND ENVIRONMENTAL REPORT WERE COMPLETED BY JOHN CANOLES AND ECO-SCIENCE PROFESSIONALS, DATED NOVEMBER 2020. WP-21-058 PROPOSES TO RE-ACTIVATE SDP-10-030 AND THE MASS GRADED CONDITIONS ARE NOW SHOWN AS EXISTING FOR THE PURPOSES OF THIS PLAN, SUPPLEMENTED WITH PLANS OF RECORD AND RECENT FIELD RUN TOPOGRAPHY.
17. DORSEY RUN ROAD IS CLASSIFIED AS A MAJOR COLLECTOR. SITE ACCESS SHALL BE VIA A PROPOSED 30' WIDE COMMERCIAL ENTRANCE ALONG DORSEY RUN ROAD.
18. THERE ARE NO EXISTING DWELLINGS OR STRUCTURES ON SITE.
19. THE PROPOSED PLAN IS FOR TRACTOR TRAILER PARKING AND STORAGE TO SERVE TEAM DORSEY, LLC. NO BUILDINGS OR OTHER STRUCTURES ARE PROPOSED ON SITE.
20. STORMWATER MANAGEMENT FOR THE PROJECT IS PROVIDED BY THE USE OF ESDV MICRO-SCALE PRACTICES AND BEST MANAGEMENT PRACTICES IN ACCORDANCE WITH THE 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUMES 1 AND II, CHAPTERS 3 AND 5 AND ENVIRONMENTAL SITE DESIGN CRITERIA. ESDV MICROSCALE AND BMP PRACTICES INCLUDE TWO (2) STORM FILTER SYSTEMS TWO (2) SURFACE SAND FILTERS (F-1) AND ONE (1) MICRO-BIORETENTION FACILITY (M-6) AS WELL AS ADDITIONAL GRAVEL STORAGE AT THE BOTTOM OF FACILITIES FOR RECHARGE VOLUME AS REQUIRED BY HOWARD COUNTY. THE SITE IS LOCATED IN THE DEEP RUN WATERSHED, WHICH ALSO REQUIRES MANAGEMENT OF THIN 100 YEAR STORAGE QUANTITY VOLUME WILL BE PROVIDED WITHIN THESE FACILITIES AND DETAILED CALCULATIONS WILL BE PROVIDED AT SDP STAGE. ALL FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
21. APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN AND/OR RED-LINE REVISION PLAN. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOVARD COUNTY ZONING AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN AND/OR RED-LINE REVISION PROCESS. THE APPLICANT AND CONSULTANT SHOULD EDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
22. APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) BY THE HOWARD COUNTY DEPARTMENT DOES NOT GRANT APPROVAL OF THE PROPOSED SEDIMENT CONTROL SCHEME.
23. REFERENCE WAIVER PETITION WP-21-058 APPROVED ON FEBRUARY 12, 2021.
24. THE DIRECTORS OF THE DEPARTMENT OF PLANNING AND ZONING APPROVED THE REQUEST, TO WAIVE SECTIONS 16.156(a)(1)(i) TO ALLOW:

**ENVIRONMENTAL SITE DESIGN NARRATIVE:**

1. THE PROJECT SITE IS ZONED M-2 AND ITS AREA IS APPROXIMATELY 4.81 ACRES. OF THAT, APPROXIMATELY 3.14 AC. WILL BE DISTURBED UNDER CAPITAL PROJECT J-4148-C. IN CONNECTION WITH THE CONSTRUCTION OF DORSEY RUN ROAD, SPECIFICALLY FOR THE BENEFIT OF THE SUBJECT PROPERTY, AND WAS PART OF THE RIGHT OF WAY NEGOTIATIONS. THIS POND PREDATES THE CURRENT STORMWATER MANAGEMENT REGULATIONS. AT THE SOUTH END OF THE SITE THERE IS A PROTECTED ENVIRONMENTAL AREA INCLUDING A STREAM AND ITS BUFFER, WETLANDS AND WETLAND BUFFERS WHICH WERE INVESTIGATED AND DELINEATED BY ECO-SCIENCE PROFESSIONAL ON JUNE 29, 2017 AND EXISTING FORESTS STANDS WHICH WERE DELINEATED BY SITE RESOURCES, INC. A NEW FIELD REVIEW, SPECIMEN TREE ASSESSMENT AND ENVIRONMENTAL REPORT WERE COMPLETED BY JOHN CANOLES AND ECO-SCIENCE PROFESSIONALS, DATED NOVEMBER 2020. FOREST AND ENVIRONMENTAL AREAS ARE PROTECTED BY A PREVIOUSLY ESTABLISHED FOREST RETENTION EASEMENT AND A REFORESTATION EASEMENT AS ESTABLISHED UNDER SDP-10-030(F). THERE IS AN AREA OF EXISTING FOREST STAND OUTSIDE OF THE EXISTING FOREST CONSERVATION EASEMENT, WHICH MAY BE SUBJECT TO ADDITIONAL DISTURBANCE UNDER THE PROPOSED PLAN. THE SITE DRAINS TO THE SOUTH. THERE IS NO DISTURBANCE PROPOSED TO ANY STREAM OR STREAM BUFFER. NO WETLAND OR WETLAND BUFFER DISTURBANCE IS PROPOSED. THE SMALL AREA OF PONDING SHOWN WITHIN THE DEVELOPMENT AREA WAS DETERMINED BY ECO-SCIENCE PROFESSIONALS TO BE AN EXISTING WET BASIN WITHIN AN EXISTING SWM FACILITY. IT WAS CREATED AS PART OF THE CONSTRUCTION OF DORSEY RUN ROAD UNDER CAPITAL PROJECT J-4148-C AND IS NOT A NATURALLY OCCURRING, REGULATORY WETLAND. THE DEVELOPMENT PLAN CALLS FOR ITS REMOVAL SINCE IT PREPARES CURRENT STANDARDS AND DOES NOT MEET THE NEEDS OF THE PROPOSED CONCEPT.
2. NO CHANGE TO THE NATURAL DRAINAGE PATTERNS ARE PROPOSED, PLEASE REFER TO THE PROPOSED GRADING, SHEET 2.
3. THE CONCEPTUAL REDUCTION IN IMPERVIOUS AREA THROUGH BETTER SITE DESIGN IS ACHIEVED THROUGH THE ENVIRONMENTAL SITE DESIGN (ESD) FOR THE PROJECT. THE ESD CONCEPT INCLUDES RETENTIVE IN THE USE OF MICRO-SCALE AND BEST MANAGEMENT PRACTICES INCLUDING TWO (2) STORM FILTERS, TWO (2) SURFACE SAND FILTERS (F-1) FACILITIES AND ONE (1) MICRO-BIORETENTION (M-6) FACILITY AS WELL AS PROVIDING ADDITIONAL RECHARGE VOLUME BENEATH THESE FACILITIES. THESE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
4. SEDIMENT CONTROL FOR THIS SPECIFIC SITE PLAN WILL BE PROVIDED THROUGH THE USE OF SUPER SILT FENCE PERIMETER CONTROLS, SEDIMENT TRAPS AND INLET PROTECTION. SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH CURRENT REQUIREMENTS AND SHALL BE APPROVED BY THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
5. STORMWATER MANAGEMENT FOR THE PROJECT SHALL BE MET THROUGH THE USE OF MICRO-SCALE AND BEST MANAGEMENT PRACTICES IN ACCORDANCE WITH ENVIRONMENTAL SITE DESIGN CRITERIA INCLUDING TWO (2) STORM FILTERS, TWO (2) SURFACE SAND FILTERS (F-1) FACILITIES AND ONE (1) MICRO-BIORETENTION FACILITY (M-6) AS WELL AS PROVIDING ADDITIONAL RECHARGE VOLUME BENEATH THESE FACILITIES. THESE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
6. THE RESULTS OF THE ENVIRONMENTAL SITE DESIGN FOR THIS PROJECT WILL REFLECT "WOODS IN GOOD CONDITION".
7. THE PROJECT SITE IS LOCATED WITHIN THE DEEP RUN WATERSHED, THEREFORE, 100 YEAR QUANTITY MANAGEMENT IS REQUIRED. WE HAVE ELECTED TO USE MICRO-BIORETENTION AND STORM FILTER DEVICES TO TREAT THE FIRST 1.00" OF THE ESDV, WITH THE SURFACE SAND FILTER AS TREATING THE REMAINDER OF THE 2.09" REQUIRED PER THE 100 YEAR VOLUME WILL BE STORED ABOVE THE ESDV AND FACILITIES ARE SIZED WITH ADDITIONAL VOLUME TO OVER-MANAGE FOR THE BYPASS AREAS.

TARGET PE = 2.09" (1.00" TO BE TREATED IN THE STORMFILTERS AND MICRO-BIORETENTION AREAS AND THE REMAINDER TO BE TREATED IN THE SAND FILTERS.)  
 TARGET ESDV = 7,404 CU FT  
 PROVIDED ESDV = 17,254 CU FT (STORM FILTER=6,848 CU. FT. // MBR=408 CU. FT. // SAND FILTER=12,683)  
 100 YR. VOL. REQUIRED: 17,918 CU. FT. // 0.41 AC. FT (ALL AREAS COMBINED)  
 100 YR. VOL. PROVIDED: 23,792 CU. FT. // 0.55 AC. FT. +/- (ALL AREAS COMBINED)

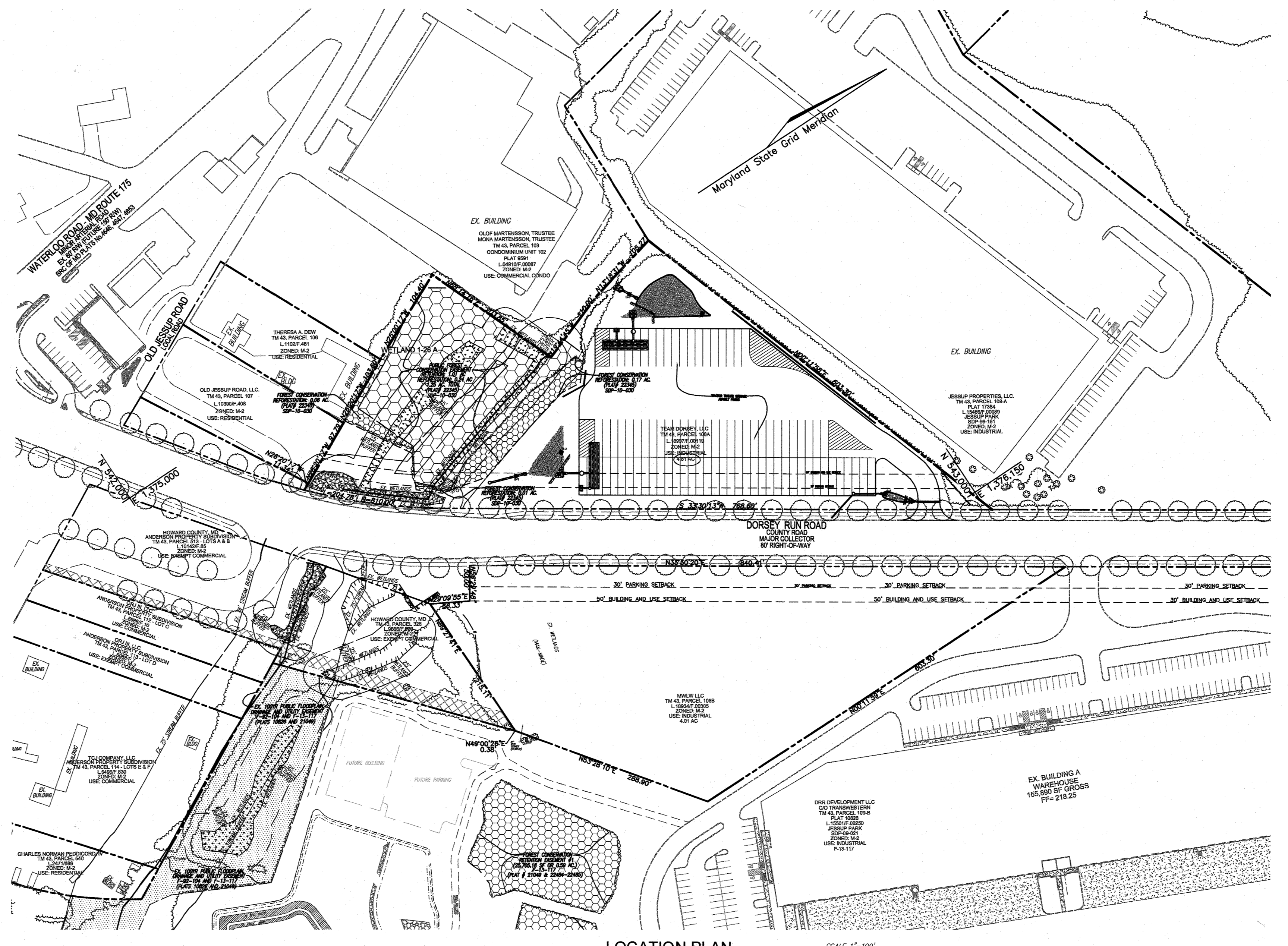
CONDITION	Q2 (CFS)	Q10 (CFS)	Q100 (CFS)
PRE-DEVELOPED CONDITION	1.47	4.73	13.47
DEVELOPED CONDITION (UNMANAGED)	8.44	15.22	28.69
DEVELOPED CONDITION (MANAGED)	1.47	4.73	13.47

DESCRIPTION	TOTAL REQUIRED (CU. FT.)	SWM #1 PROVIDED (CU. FT.)	SWM #2 PROVIDED (CU. FT.)	SWM #3 PROVIDED (CU. FT.)	TOTAL PROVIDED (CU. FT.)
ESDV STORAGE	7404	6220	10604	408	17322
100 YEAR STORAGE	23583	11921	12352	0	24273

\*ADDITIONAL VOLUME PROVIDED IN SWM FACILITY #1 AND #2 TO OFFSET UNMANAGED AREAS SWM #3 (PROVIDES ESDV ONLY) AND BYPASS AREA #4.

# JESSUP PARK PARCEL 108-A ENVIRONMENTAL CONCEPT PLAN

## 7868 DORSEY RUN ROAD JESSUP, MARYLAND 20794

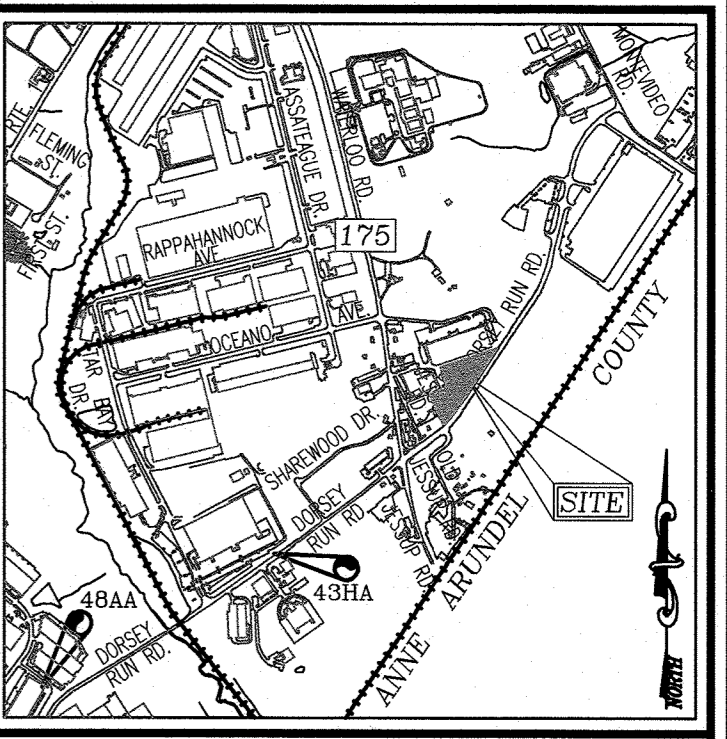


**NOTES:**

1. APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED BUILDING AND/OR GRADING PERMIT
2. REVIEW OF THIS PLAN FOR COMPLIANCE WITH ZONING AND SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SHALL OCCUR AT THE SITE DEVELOPMENT AND PERMIT STAGES; AND THEREFORE, THIS PLAN IS SUBJECT TO ADDITIONAL AND MORE DETAILED COMMENTS AS THE PLAN PROGRESSES THROUGH THE PERMIT PROCESS.
3. THERE ARE ENVIRONMENTAL FEATURES: THIS SITE WAS PREVIOUSLY GRADED UNDER CAPITAL PROJECT J-4148-C. THE NATURAL AREAS THAT REMAIN ON THE PROJECT ARE LOCATED IN THE WESTERN PORTION OF THE SITE AND CONSIST OF A STAND OF FOREST, THE MAJORITY OF WHICH IS PROTECTED BY FOREST CONSERVATION EASEMENTS, CONSISTING OF 1.01 ACRES OF RETENTION AND 0.24 ACRES OF REFORESTATION, ESTABLISHED UNDER SDP-10-030(F).
4. THE SITE DRAINS TO THE SOUTH. THERE IS NO DISTURBANCE PROPOSED TO ANY STREAM OR STREAM BUFFER. NO WETLAND OR WETLAND BUFFER DISTURBANCE IS PROPOSED. THE SMALL AREA OF WETLANDS SHOWN WITHIN THE DEVELOPMENT AREA WAS DETERMINED BY ECO-SCIENCE PROFESSIONALS TO BE AN EXISTING WET BASIN WITHIN AN EXISTING SWM FACILITY AND IS NOT A NATURALLY OCCURRING, REGULATORY WETLAND. THERE IS AN AREA OF EXISTING FOREST STAND OUTSIDE OF THE EXISTING FOREST CONSERVATION EASEMENT, WHICH MAY BE SUBJECT TO DISTURBANCE UNDER THE PROPOSED PLAN.
5. THERE IS NO FLOODPLAIN ON SITE.
6. FOREST CONSERVATION IS PROVIDED UNDER SDP-10-030 WHICH IS BEING REACTIVATED UNDER WP-21-058. REMOVAL OF SPECIMEN TREES SHALL BE COMPLETED UNDER THE REACTIVATED GRADING PLAN AND ARE SHOWN HEREON FOR INFORMATIONAL PURPOSES ONLY.

**SITE ANALYSIS DATA CHART**

- A. TOTAL PARCEL AREA: 4.81 AC.
- B. AREA OF STREAMS AND BUFFERS: 36,847 S.F. / 0.85 AC.±
- C. AREA OF WETLANDS AND BUFFERS: 48,551 S.F. / 1.11 AC.±
- D. AREA OF FLOODPLAIN: 0 S.F. / 0.00 AC.±
- E. AREA OF FOREST: 58,435 S.F. / 1.30 AC.±
- F. AREA OF MDE STEEP SLOPES (20% & GREATER): 31,016 S.F. OR 0.71 AC.±
- G. NONE OF THESE INDIVIDUAL AREAS ARE GREATER THAN 20,000 S.F. CONTIGUOUS.
- H. ERODIBLE SOILS: 73,028 S.F. / 1.68 AC.
- I. LIMIT OF DISTURBED AREA: 136,916 S.F. / 3.14 AC. +/- (INCLUDES DISTURBANCE TO RIGHT OF WAY FOR DRIVEWAY CONNECTION)
- J. PROPOSED DEVELOPMENT AREA: 136,916 S.F. / 3.14 AC. +/- (INCLUDES ONSITE AND RIGHT OF WAY DISTURBANCES)
- K. PROPOSED USE: TRACTOR AND TRAILER PARKING AND STORAGE
- L. GREEN OPEN AREA: 45,806 S.F. / 1.05 AC. (\*WITHIN THE LOD)
- M. PROPOSED IMPERVIOUS AREA: 91,110 S.F. / 2.09 AC. (\*WITHIN THE LOD)
- N. PRESENT ZONING DESIGNATION: M-2
- O. DPZ FILE REFERENCES: CONTRACT NO. 24-4399, CONTRACT NO. 14-4597-D, BA-0265C, SDP-03-164 AMERICAS (VOIDED), WP-11-095, WP-12-084, WP-13-084, WP-13-143, SDP-10-030, J-4148-C, WP-21-058, BA-19-043V



**VICINITY MAP**  
 SCALE: 1"=2000'  
 ADC MAP: 20 K4

**BENCHMARKS**  
 HOWARD COUNTY BENCHMARK 48AA  
 N 539,314.900 E 1,371,539.251 ELEV.: 240.78'  
 HOWARD COUNTY BENCHMARK 43HA  
 N 540,761.716 E 1,373,837.365 ELEV.: 224.89'

**LEGEND**

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING STREAM
- EXISTING STREAM BANK
- EXISTING CURB AND GUTTER
- EXISTING TREELINE
- EXISTING TREES
- PROPOSED CURB AND GUTTER
- EXISTING WETLANDS
- EX. FOREST CONSERVATION EASEMENT (RETENTION) (PLAT # 22345 - L5287/F.683 & PLAT 21049, 22484 & 22485 - L15501/F.00250)
- EX. FOREST CONSERVATION EASEMENT (REFORESTATION) (PLAT # 22345 - L5287/F.683)
- PROPOSED STORMWATER FACILITY
- EX. PUBLIC 100 YEAR FLOODPLAIN DRAINAGE & UTILITY EASEMENT (PLAT 10826)

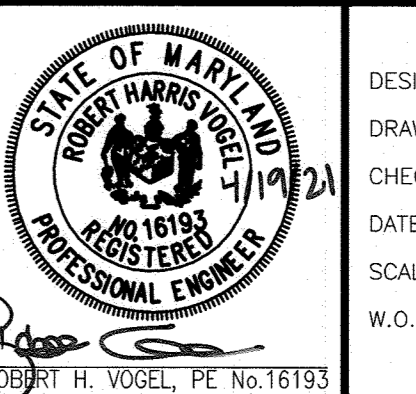
**SHEET INDEX**

DESCRIPTION	SHEET NO.
COVER SHEET	1 OF 4
SOILS MAP AND GRADING AND SOIL EROSION AND SEDIMENT CONTROL PLAN	2 OF 4
ESDV STORMWATER TABLES, NOTES AND DETAILS	2 OF 4
SWM DRAINAGE AREA MAPS AND SUMMARY TABLES	4 OF 4

**ENVIRONMENTAL CONCEPT PLAN COVER SHEET**

**JESSUP PARK PARCEL 108-A**  
 7868 DORSEY RUN ROAD  
 JESSUP, MD 20794  
 L 16140 / F. 00371

**VOGEL ENGINEERING**  
**TIMMONS GROUP**  
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043  
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

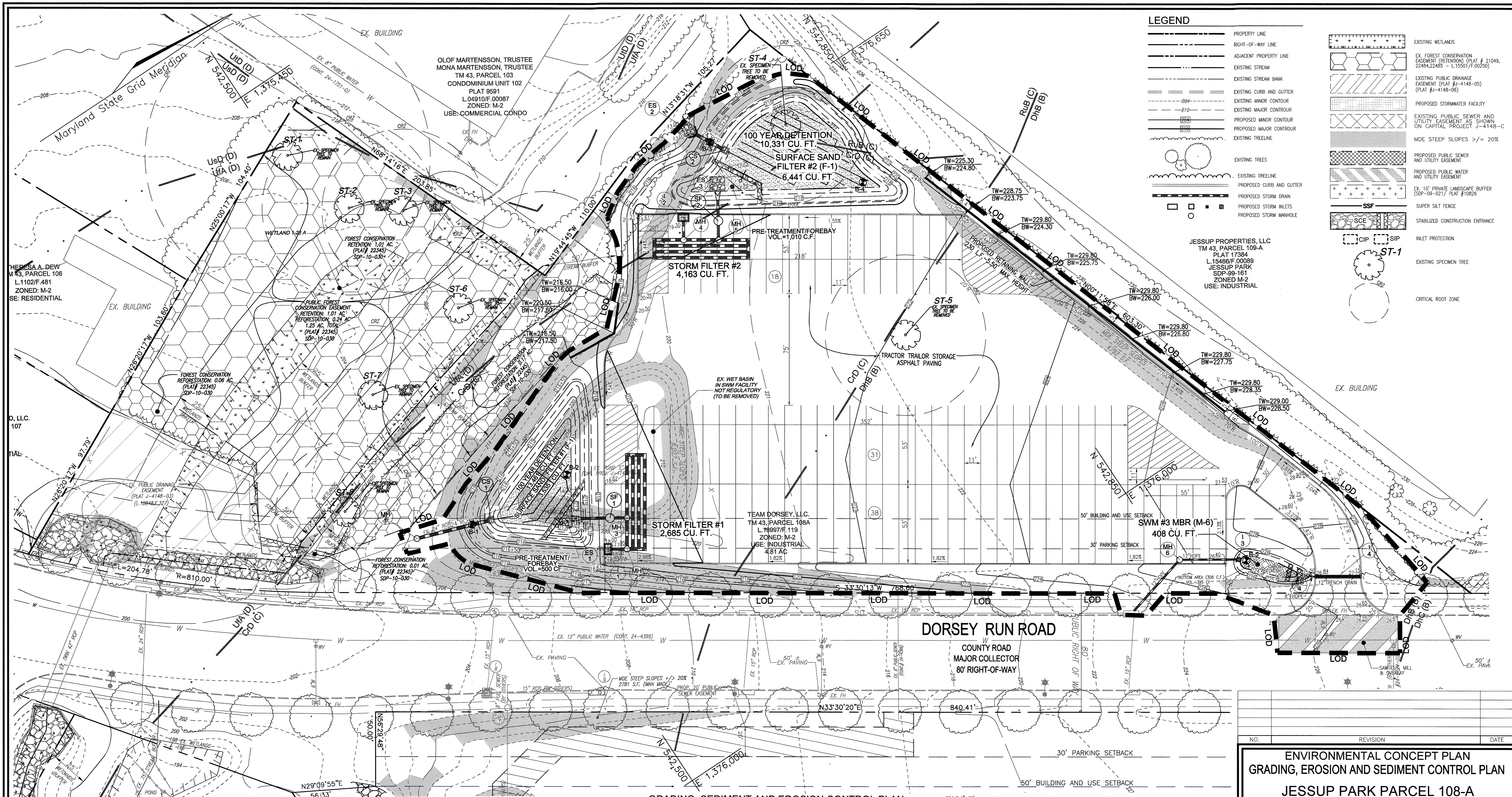


DESIGN BY: RHV/GAH  
 DRAWN BY: GAH  
 CHECKED BY: RHV  
 DATE: APRIL 2021  
 SCALE: AS SHOWN  
 W.G. NO.: 04-76

PROFESSIONAL CERTIFICATE  
 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. 16183, EXPIRATION DATE 09-27-2022

1 SHEET OF 4

**OWNER/DEVELOPER**  
 TEAM DORSEY, LLC  
 C/O ERIC ROSENBAUM  
 2308 FORT WILLIAM DRIVE  
 OLNEY, MD 20832  
 (301) 787-0220



GRADING, SEDIMENT AND EROSION CONTROL PLAN

SCALE: 1"=30'

Key (X#)	Species	Size (in dbh)	CRZ (feet radius)	Comments	To Remain / To Be Removed
1	Willow oak	64	96	Good	To Remain
2	Willow oak	39	58.5	Fair to poor, twin stems decay noted	To Remain
3	Willow oak	36.5	54.75	Good	To Remain
4	Willow oak	35.5	53.25	Good condition	To Be Removed
5	Black oak	36	54	Fair condition, twin stems, some dieback	To Be Removed
6	Willow oak	31.5	47.25	Good condition	To Remain
7	Willow oak	31	46.5	Good condition	To Remain
8	Red oak	31	46.5	Poor condition, notable dieback	To Remain

NOTE: SPECIMEN TREES TO BE REMOVED UNDER GRADING PLAN SDP-10-030, REACTIVATED UNDER WP-21-058. REFER TO NOTE #25 ON SHEET 1.

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	HYDRIC	HYDRIC INCLUSIONS	PRIME FARMLAND	<15% SLOPE W/ EROSION POTENTIAL
DhB	DOWNER-HAMMONTON SANDY LOAM, 2 TO 5 PERCENT	A	.15	NO	NO	NO	NO
DhC	DOWNER-HAMMONTON SANDY LOAM, 5 TO 10 PERCENT	A	.15	NO	NO	NO	NO
C/D	GROOM AND EVESBORO SOILS, 10 TO 15 PERCENT SLOPES	C	.32	NO	NO	NO	NO
RuB	RUSSET AND BELTSVILLE SOILS, 2 TO 5 PERCENT SLOPE	C	.28	NO	NO	YES	NO
UFA	URBAN LAND-FALLSINGTON COMPLEX, 0 TO 2 PERCENT SLOPE	D	-	NO	YES	NO	NO
UsD	URBAN LAND-SASSAFRAS-BELTSVILLE COMPLEX, 5 TO 15 PERCENT SLOPE	D	-	NO	NO	NO	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY  
 NOTE: 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

NOTE:  
 EITHER PERMANENT OR TEMPORARY STABILIZATION IS TO BE APPLIED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR REGARDLESS OF DAYS/DATES IN THE STANDARD SEDIMENT CONTROL NOTES AND/OR SEEDING SPECIFICATIONS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 [Signature] 6/17/21  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 [Signature] 4/26/21  
 CHIEF, DIVISION OF LAND DEVELOPMENT

NO. \_\_\_\_\_ REVISION \_\_\_\_\_ DATE \_\_\_\_\_

**ENVIRONMENTAL CONCEPT PLAN  
 GRADING, EROSION AND SEDIMENT CONTROL PLAN**

**JESSUP PARK PARCEL 108-A**  
 7868 DORSEY RUN ROAD  
 JESSUP, MD 20794  
 L. 16140 / F. 00371

TAX MAP 43 GRID 22 PARCEL 108-A  
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**VOGEL ENGINEERING**  
 TIMMONS GROUP  
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043  
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

DESIGN BY: RHW/GAH  
 DRAWN BY: GAH  
 CHECKED BY: RHW  
 DATE: APRIL 2021  
 SCALE: AS SHOWN  
 W.O. NO.: 04-76

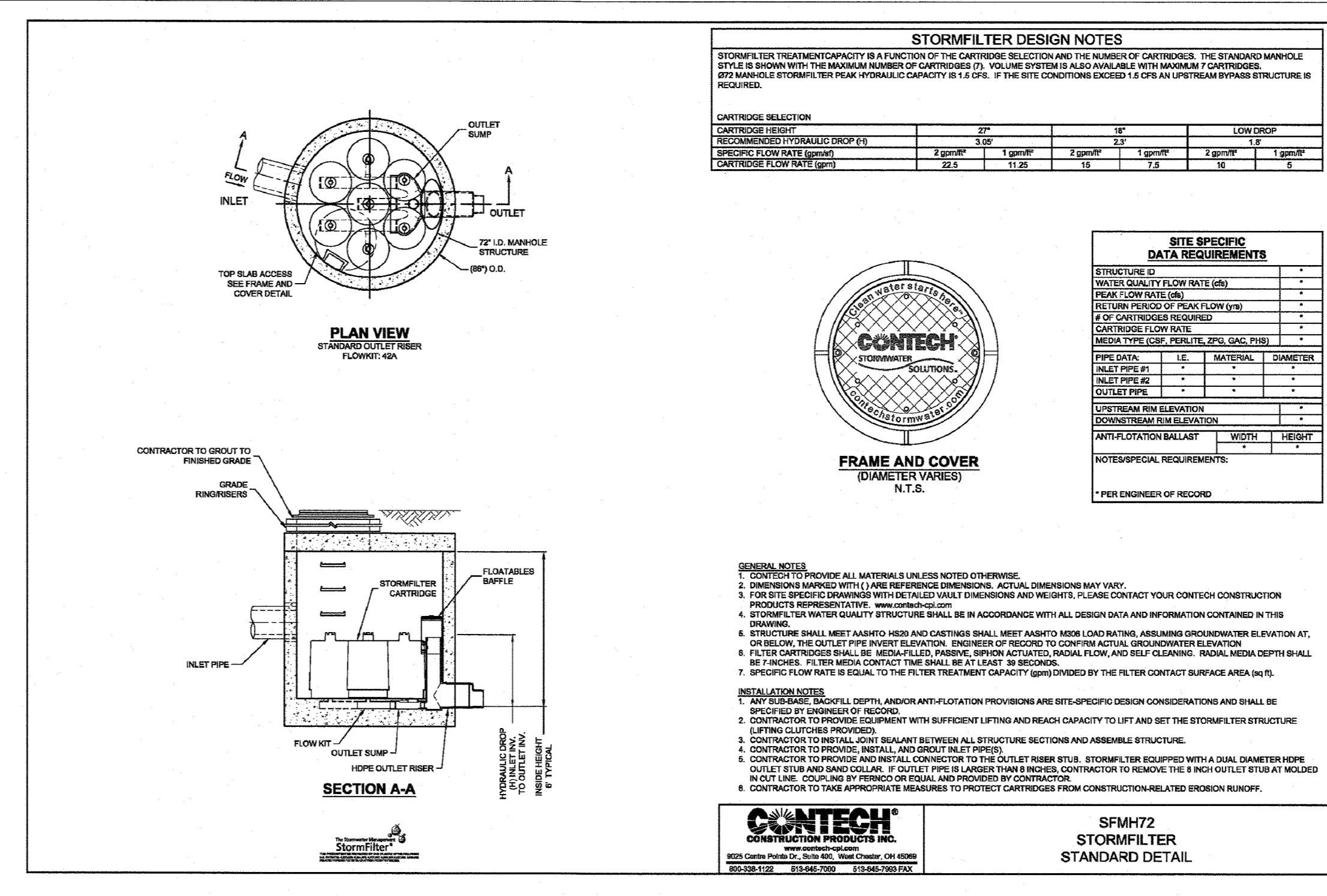
STATE OF MARYLAND  
 ROBERT H. VOGEL, PE No. 16193

PROFESSIONAL CERTIFICATE  
 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. 16193, EXPIRATION DATE 08-27-2022.

2 SHEET OF 4

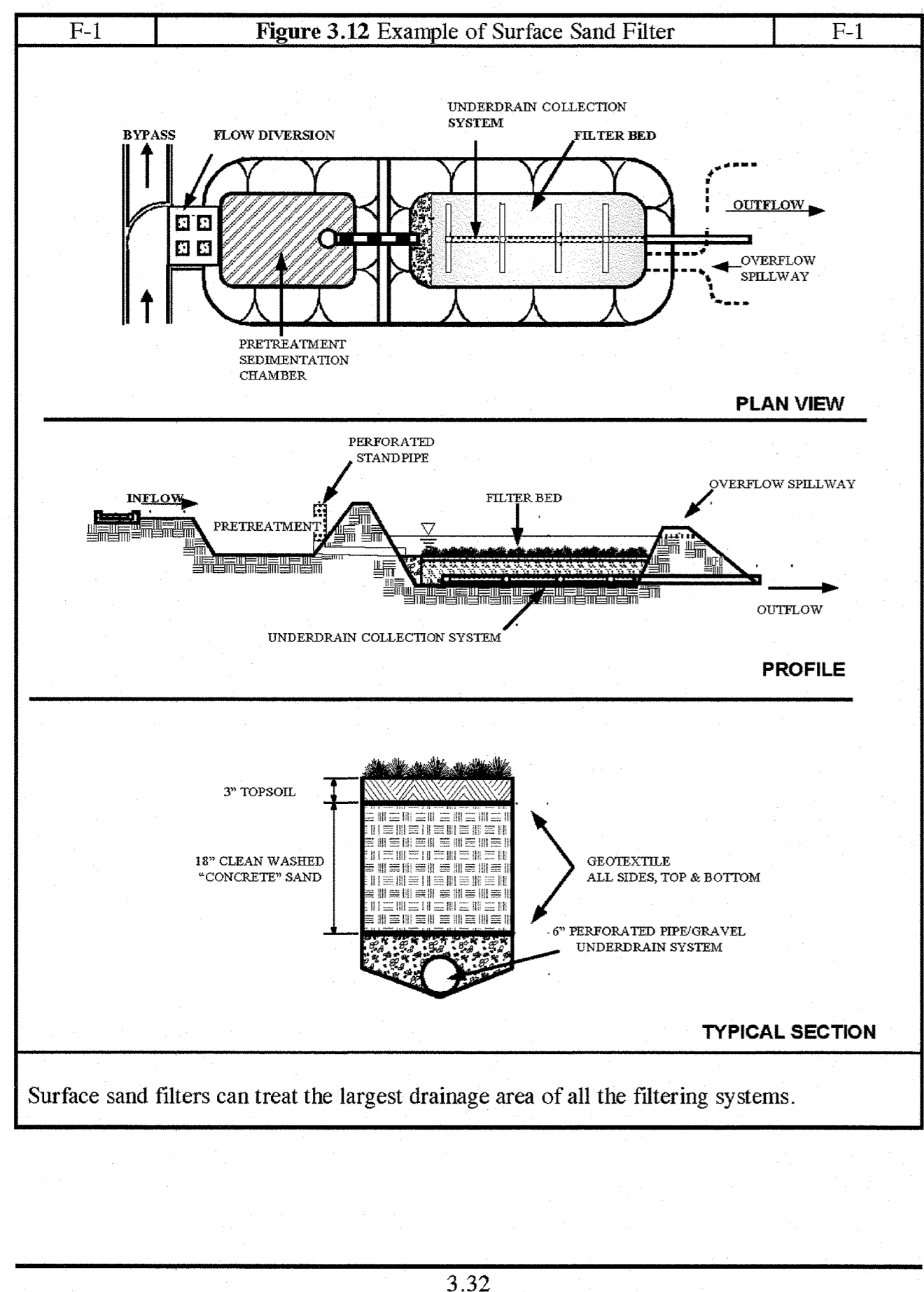
**JESSUP PARK TRAILER STORAGE - ESDv COMPUTATIONS**

SITE DEVELOPABLE AREA: 3.14 AC		136916 SF		Designed by: gah									
TARGET Pe: 2.09 IN				Date: 1/21/21									
SITE IMPERVIOUS: 66.54 PERCENT				Checked by: rhv									
SITE Rv: 0.6489				Date:									
SITE ESDv REQUIRED: 7404 CF +/-		Site Rev Required = 1417 cf											
Rv=0.05+0.009XI		(1.0x0.95xA)/12											
V min=1.0" rainfall		(2.6x0.95xA)/12											
Vmax=1yr rainfall=2.6"													
DA #	% IMPERV	Rv	DA (SF)	DA (AC)	MINIMUM VOLUME	MAXIMUM VOLUME	2.09" VOLUME	VOLUME PROVIDED*	IMPERV (SF)	IMPERV (AC)	GREEN AREA	RECHARGE PROVIDED	REMARKS
DA #1	76.70	0.7403	43452	1.00	2681	6969	5602	2685	33326	0.77	0.23		CONTECH STORM FILTER 2685 CF (TO BE SIZED FOR 1" AT SDP)
STORM FILTER													
Surface Sand Filter (F-1)								3535				647	Surface Sand Filter (F-1) 1940 SF SSF @ 1.5' PONDING 354 Pre-treatment Required 3535 x 0.1 647 5602 Rev Recharge 0.83 x 0.4
DA #2	78.12	0.7531	66341	1.52	4163	10824	8701	4163	51824	1.19	0.33		CONTECH STORM FILTER 4163 CF (TO BE SIZED FOR 1" AT SDP)
STORM FILTER													
Surface Sand Filter (F-1)								6441				1252	Surface Sand Filter (F-1) 3755 SF BIO @ 1.5' PONDING 644 Pre-treatment Required 6441 x 0.1 1252 8701 Rev Recharge 0.83 x 0.4
DA #3	46.42	0.4678	4636	0.11	181	470	378	408	2152	0.05	0.01	102	MICRO-BIORETENTION (M-6) 408 306 SF MBR @ 1.0 PONDING 38 Pre-treatment Required 378 x 0.1 102 306 Rev Recharge 0.83 x 0.4
STORM FILTER													
Surface Sand Filter (F-1)													
#3 MBR (M-6)													
TOTALS	76.29	0.7366	114429	2.63	7024	18264	7404	17232	87302	2.00	0.58	2001	



- Media Cartridge Filtration System Drawing Specifications
- Each rechargeable, media-filled, filter cartridge shall incorporate a protective hood over the media cartridge and a siphon-actuated surface self-cleaning mechanism to increase the effective life of the filter media and to reduce the accumulation of material on the cartridge/media interface.
  - Media filter cartridges shall operate at a predetermined flow rate through the use of an integrated flow control orifice located within each filter cartridge outlet manifold.
  - The media-filled cartridges shall trap particulates (TSS) and have the capacity to adsorb pollutants such as dissolved metals, nutrients and hydrocarbons.
  - At the design flow rate the maximum filter hydraulic loading rate is not to exceed 2.1 gallons per minute per square foot of filter surface area and the average contact time shall be no less than 35 seconds.
  - The media cartridge filtration system shall consist of no less than 0.12 cubic feet of filter media for each 1-gallon per minute of water quality treatment flow.
  - Filter cartridges shall be of a design that has demonstrated a minimum sediment retention capacity of 22 pounds of silt/loam per cartridge in laboratory tests without a reduction in hydraulic capacity. Laboratory data shall be corroborated with field observations and/or data demonstrating equivalent or improved longevity without impacting normal hydraulic performance.
  - The filtration system shall have the State of Washington Department of Ecology, General Use Level Designation (GULD) Certification and current approval status from the New Jersey Department of Environmental Protection. (NDEP).

Chapter 3. Performance Criteria for Urban BMP Design ..... Stormwater Filtering Systems



3.32 TYPICAL F-1 SURFACE SAND FILTER DETAILS SCALE: N.T.S.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 6.17.21

CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 4/20/21

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED SURFACE STORMWATER FILTRATION SYSTEMS (F-1, F-4, AND F-5)

- THE STORMWATER WETLAND FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHALL BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE FACILITY IS FUNCTIONING PROPERLY.
- THE TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF ONCE PER YEAR, WHEN VEGETATION REACHES 18" IN HEIGHT OR AS NEEDED.
- FILTERS THAT HAVE A GRASS COVER SHALL BE MOWED A MINIMUM OF THREE (3) TIMES PER GROWING SEASON TO MAINTAIN A MAXIMUM GRASS HEIGHT OF LESS THAN 12 INCHES.
- DEBRIS AND LITTER SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
- VISIBLE SIGNS OF EROSION IN THE FACILITY SHALL BE REPAIRED AS SOON AS IT IS NOTICED.
- REMOVE SILT WHEN IT EXCEEDS FOUR (4) INCHES DEEP IN THE FOREBAY.
- WHEN WATER PONDS ON THE SURFACE OF THE FILTER BED FOR MORE THAN 72 HOURS, THE TOP FEW INCHES OF DISCOLORED MATERIAL SHALL BE REPLACED WITH FRESH MATERIAL. PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIALS AND LIQUID MUST BE FOLLOWED BY THE OWNER.
- A LOGBOOK SHALL BE MAINTAINED TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
- THE MAINTENANCE LOGBOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
- ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION SYSTEM HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

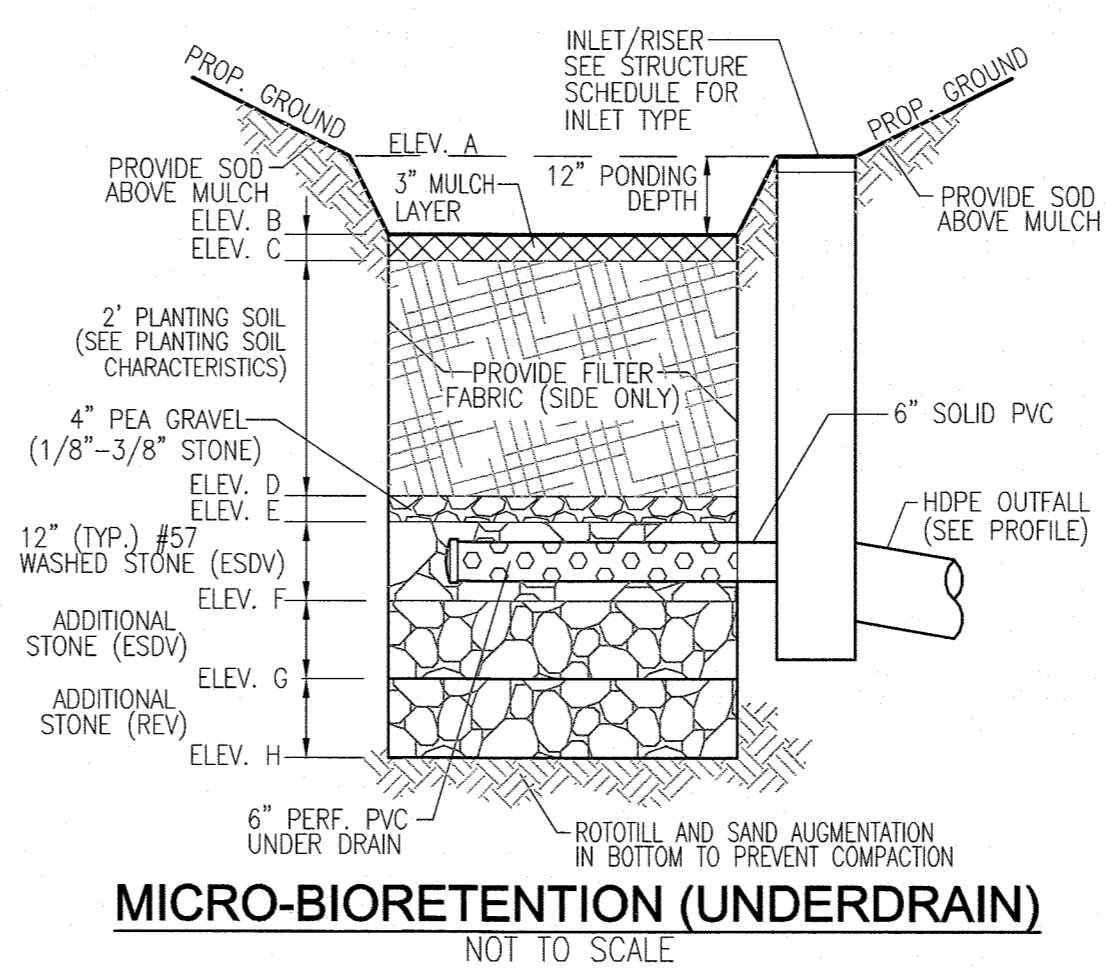
OPERATION AND MAINTENANCE SCHEDULE FOR (M-6), (M-7) AND (M-8) MICROBIORETENTION AREAS

- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
- SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
- MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
- SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

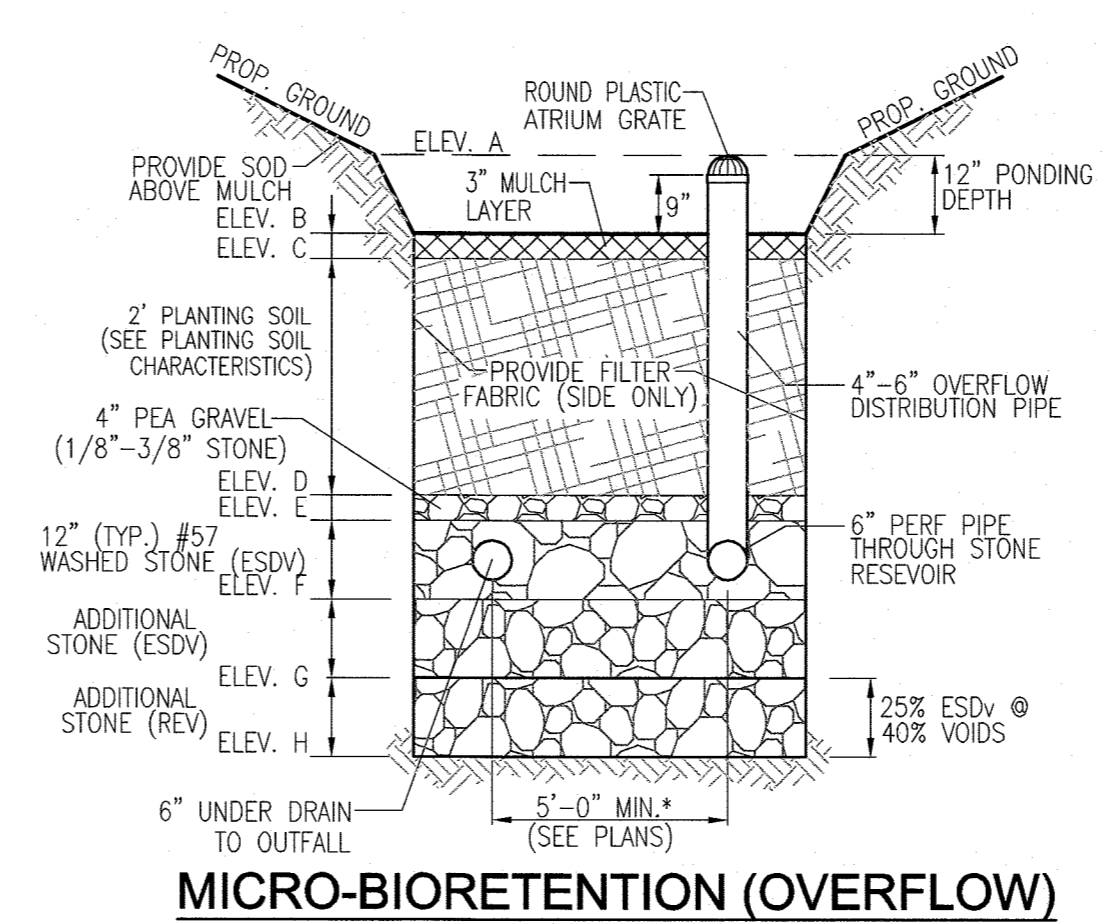
MICROBIORETENTION AND RAINGARDEN NOTES:

- ONLY THE SIDES OF MICROBIORETENTION ARE TO BE WRAPPED IN FILTER FABRIC. FILTER FABRIC BETWEEN LAYER OR AT THE BOTTOM OF THE MICROBIORETENTION WILL CAUSE THE MBR TO FAIL, AND THEREFORE SHALL NOT BE INSTALLED.
- WRAP THE PERFORATED MBR UNDERDRAIN PIPE WITH 1/4" MESH (4x4) OR SMALLER GALVANIZED HARDWARE CLOTH.
- PROVIDE 5' MINIMUM SPACING BETWEEN UNDER DRAIN AND PERFORATED PIPE THROUGH STONE RESERVOIR OR SPACE PIPE EQUALLY ACROSS BOTTOM FOR SMALL BIOS. (SEE PLANS)

NOTE: 50% OF MICRO-BIORETENTION AND RAIN GARDEN SURFACE AREA SHALL BE PLANTED.



MICRO-BIORETENTION (UNDERDRAIN) NOT TO SCALE



MICRO-BIORETENTION (OVERFLOW) NOT TO SCALE TYPICAL MICRO-BIORETENTION M-6 (MBR#1, MBR#3, MBR#4 AND MBR#5)

NOTE: EITHER PERMANENT OR TEMPORARY STABILIZATION IS TO BE APPLIED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR REGARDLESS OF DAYS/DATES IN THE STANDARD SEDIMENT CONTROL NOTES AND/OR SEEDING SPECIFICATIONS.

NO.	REVISION	DATE

ENVIRONMENTAL CONCEPT PLAN  
ESDv STORMWATER TABLES, NOTES AND DETAILS

JESSUP PARK PARCEL 108-A  
7868 DORSEY RUN ROAD  
JESSUP, MD 20794  
L. 16140 / F. 00371

TAX MAP 43 GRID 22  
2ND ELECTION DISTRICT

ZONED: M-2  
PARCEL 108-A  
HOWARD COUNTY, MARYLAND

**VOGEL ENGINEERING**

**TIMMONS GROUP**

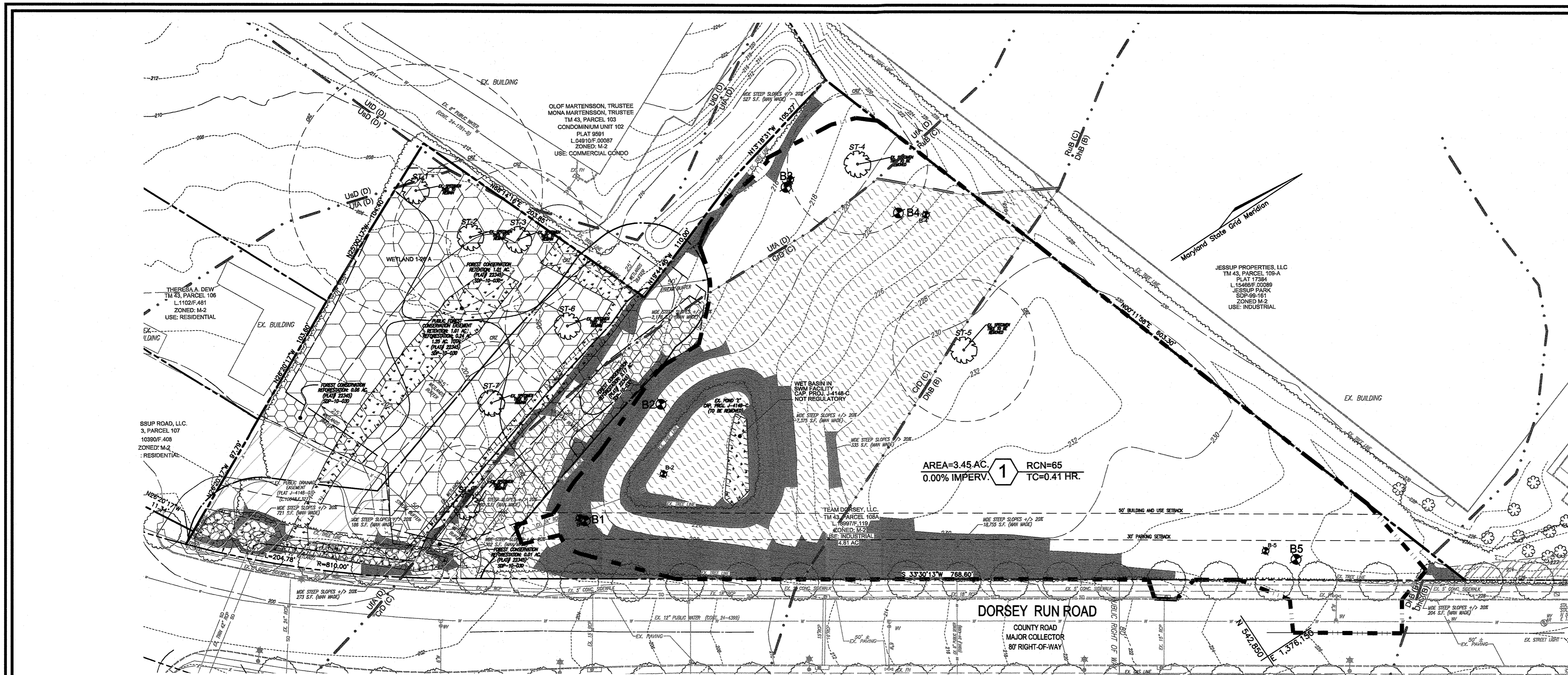
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043  
P: 410.461.7666 F: 410.461.8961 www.timmons.com

DESIGN BY: RHV/GAH  
DRAWN BY: GAH  
CHECKED BY: RHV  
DATE: APRIL 2021  
SCALE: AS SHOWN  
W.O. NO.: 04-78

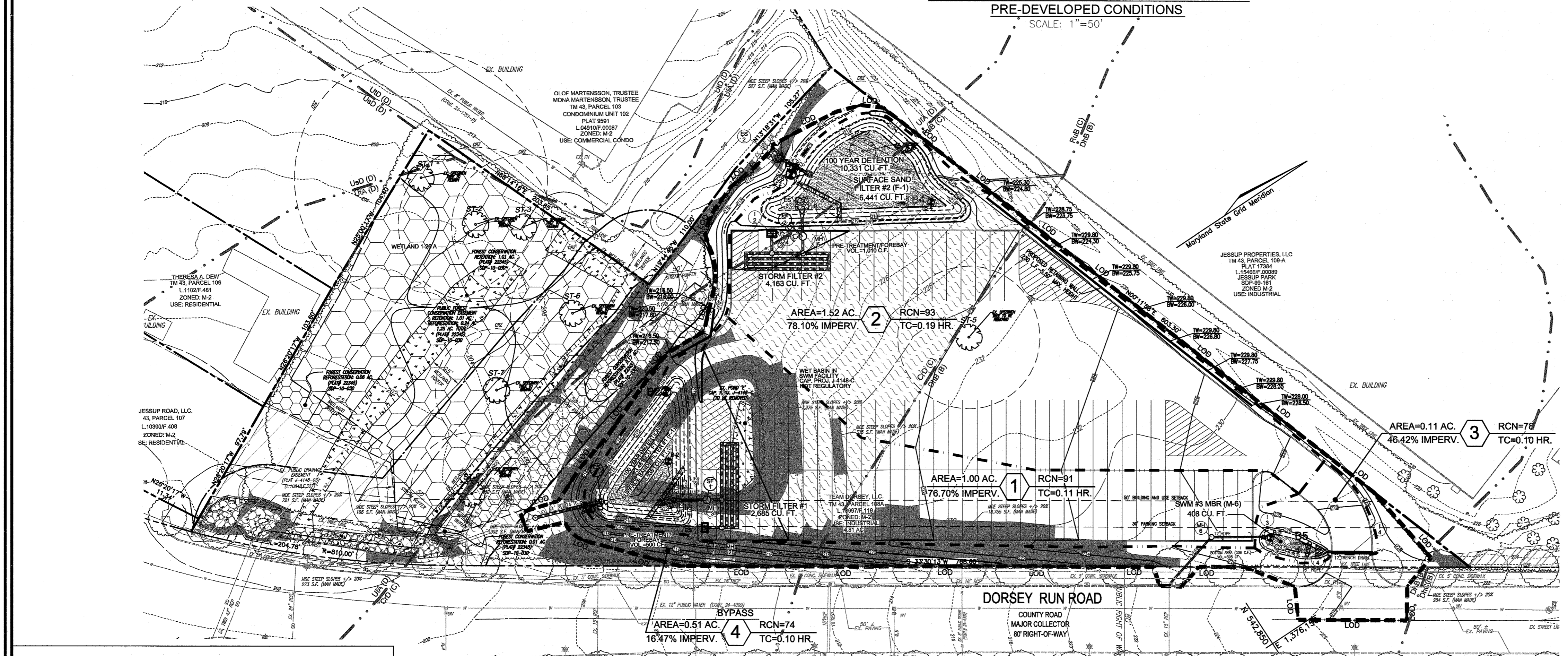
PROFESSIONAL CERTIFICATE  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 16193 EXPIRATION DATE 09-27-2022

3 SHEET OF 4

OWNER/DEVELOPER  
TEAM DORSEY, LLC  
C/O ERIC ROSENBAUM  
2308 FORT WILLIAM DRIVE  
OLNEY, MD 20832  
(301) 787-0220



STORMWATER MANAGEMENT DRAINAGE AREA MAP  
PRE-DEVELOPED CONDITIONS  
SCALE: 1"=50'



STORMWATER MANAGEMENT DRAINAGE AREA MAP  
DEVELOPED CONDITIONS  
SCALE: 1"=50'

**LEGEND**

PROPERTY LINE	EXISTING PUBLIC DRAINAGE EASEMENT (PLAT #J-4148-05) (PLAT #J-4148-06)
RIGHT-OF-WAY LINE	PROPOSED STORMWATER FACILITY
ADJACENT PROPERTY LINE	EXISTING PUBLIC SEWER AND UTILITY EASEMENT AS SHOWN ON CAPITAL PROJECT J-4148-C
EXISTING STREAM	EXISTING MAJOR CONTOUR
EXISTING STREAM BANK	PROPOSED MINOR CONTOUR
EXISTING MINOR CONTOUR	PROPOSED MAJOR CONTOUR
EXISTING MAJOR CONTOUR	PROPOSED CURB AND GUTTER
PROPOSED MINOR CONTOUR	EXISTING CURB AND GUTTER
PROPOSED MAJOR CONTOUR	EXISTING TREELINE
PROPOSED CURB AND GUTTER	EXISTING TREES
PROPOSED STORM DRAIN	PROPOSED TREELINE
PROPOSED STORM INLET	PROPOSED STORM DRAIN
EXISTING WETLANDS	PROPOSED STORM INLET
	EXISTING WETLANDS

**STORMWATER MANAGEMENT SUMMARY CHART**

CONDITION	Q2 (CFS)	Q10 (CFS)	Q100 (CFS)
PRE-DEVELOPED CONDITION	1.47	4.73	13.47
DEVELOPED CONDITION (UNMANAGED)	8.44	15.22	28.69
DEVELOPED CONDITION (MANAGED)	1.47	4.73	13.47

**VOLUME SUMMARY CHART**

DESCRIPTION	TOTAL REQUIRED (CU. FT.)	SWM #1 PROVIDED (CU. FT.)	SWM #2 PROVIDED (CU. FT.)	SWM #3 PROVIDED (CU. FT.)	TOTAL PROVIDED (CU. FT.)
ESDv STORAGE	7404	6220	10604	408	17232
100 YEAR STORAGE	23583	11921	12352	0	24273

\*ADDITIONAL VOLUME PROVIDED IN SWM FACILITY #1 AND #2 TO OFFSET UNMANAGED AREAS SWM #3 (PROVIDES ESDV ONLY) AND BYPASS AREA #4.

**MAPPED SOILS TYPES - SAVAGE MAP #25**

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	HYDRIC	HYDRIC INCLUSIONS	PRIME FARMLAND	<15% SLOPE / EROSION POTENTIAL
DhB	DOWNER-HAMMONTON SANDY LOAM, 2 TO 5 PERCENT	A	.17	NO	NO	NO	NO
DhC	DOWNER-HAMMONTON SANDY LOAM, 5 TO 10 PERCENT	A	.17	NO	NO	NO	NO
Cd	CROOM AND EVESBORO SOILS, 10 TO 15 PERCENT SLOPES	C	.37	NO	NO	NO	YES
RuB	RUSSET AND BELTSVILLE SOILS, 2 TO 5 PERCENT SLOPE	C	.43	NO	NO	YES	NO
Ua	URBAN LAND-FALLSINGTON COMPLEX, 0 TO 2 PERCENT SLOPE	D	.28	NO	YES	NO	NO
Ud	URBAN LAND-SASSAFRAS-BELTSVILLE COMPLEX, 15 TO 15 PERCENT SLOPE	D	-	NO	NO	NO	NO

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY  
NOTE: 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

NO.	REVISION	DATE

**ENVIRONMENTAL CONCEPT PLAN**  
ESDv DRAINAGE AREA MAPS AND SUMMARY TABLES  
**JESSUP PARK PARCEL 108-A**  
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ROBERT H. VOGEL, PE No. 16193

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
CHIEF, DIVISION OF LAND DEVELOPMENT  
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