

BLANDAIR PARK - PHASE 6

HOWARD COUNTY, MARYLAND

CAPITAL PROJECT #N-3102

ENVIRONMENTAL CONCEPT PLAN ECP-22-025

ENVIRONMENTAL SITE DESIGN/SWM NARRATIVE

THE SITE WAS EVALUATED FOR STORMWATER MANAGEMENT, AS REQUIRED BY THE STORMWATER MANAGEMENT ACT OF 2007 AND THE HOWARD COUNTY DESIGN MANUAL VOLUME I. THESE REGULATIONS REQUIRE THAT ENVIRONMENTAL SITE DESIGN (ESD) BE IMPLEMENTED TO THE MAXIMUM EXTENT POSSIBLE FOR EVERY NEW PROJECT. ENVIRONMENTAL SITE DESIGN IS A SITE DESIGN STRATEGY TO:

- OPTIMIZE CONSERVATION OF NATURAL FEATURES.
- MINIMIZE IMPERVIOUS SURFACES.
- SLOW DOWN RUNOFF TO MAINTAIN DISCHARGE TIMING AND INCREASE INFILTRATION AND EVAPOTRANSPIRATION.
- USE OTHER NONSTRUCTURAL PRACTICES AND INNOVATIVE TECHNOLOGIES AS APPROVED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE).

BY IMPLEMENTING ESD, THE ULTIMATE GOAL IS TO MAINTAIN THE RUNOFF CHARACTERISTICS OF THE SITE TO MIMIC PREDEVELOPMENT WOODS IN GOOD CONDITION.

IN THIS PROJECT, THE OVERALL EXISTING DRAINAGE AREAS ARE MOSTLY MAINTAINED TO NATURAL DRAINAGE CONDITIONS. THE LIMIT OF DISTURBANCE IS MINIMIZED BY CLUSTERING THE MICRO-BIORETENTION AND FOCAL POINT HIGH FLOW MEDIA MICRO-BIORETENTION FACILITIES, ADJACENT TO IMPERVIOUS AREAS AND TOWARDS THE INTERIOR OF THE SITE. PAVEMENT WIDTHS ARE REDUCED WHERE POSSIBLE. ALTERNATIVE SURFACES (PERMEABLE PAVERS) ARE PROPOSED FOR A PORTION OF THE PARKING SPACES IN THE PARKING LOT. NO STRUCTURAL STORMWATER MANAGEMENT FACILITIES ARE REQUIRED. HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS WILL MAINTAIN ALL OF THE PROPOSED ESD PRACTICES.

THE ENTRANCES TO THE SITE MEET ALL HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS STANDARDS. THE SITE IS DESIGNED TO MINIMIZE DISTURBANCE TO EXISTING NATURAL FEATURES SUCH AS FOREST AREAS, STREAM BUFFERS AND WETLAND AREAS.

***EROSION AND SEDIMENT CONTROLS WILL BE PROVIDED THROUGH A USE OF A STABILIZED CONSTRUCTION ENTRANCE, SUPER SILT FENCE, INLET PROTECTION, TREE PROTECTION FENCE AND OTHER APPROVED MEASURES. THE AREA DISTURBED FOR EROSION AND SEDIMENT CONTROL IS INCORPORATED INTO THE STORMWATER MANAGEMENT DESIGN.

THE SITE WILL MAXIMIZE THE USE OF ESD PRACTICES BY INCORPORATING MICRO-BIORETENTION AREAS, FOCAL POINT HIGH FLOW MEDIA MICRO-BIORETENTION AREAS AND PERMEABLE PAVERS AREAS WHERE ALLOWABLE.

TO SIZE THE ESD PRACTICES, RCN VALUES ARE DETERMINED BASED ON A SITE AREA'S LAND USE OF WOODS IN GOOD CONDITION. PE TARGETS ARE THEN ESTABLISHED FROM THE VALUES SET IN TABLE 5.3 OF THE ENVIRONMENTAL SITE DESIGN CRITERIA. A TARGET ESD VOLUME IS THEN CALCULATED FOR THE DRAINAGE AREA BASED ON THE PE AND THE PROPOSED SITE IMPERVIOUS AREAS. THE TARGET ESD VOLUME IS 17,411 CF AND THE TARGET PE VAULE IS 1.6 INCHES.

INDIVIDUAL ESD PRACTICES ARE THEN LOCATED WITHIN THE SITE AND SIZED BASED ON THE DRAINAGE AREA AND IMPERVIOUS AREA FLOWING TO THE PRACTICE. THE TOTAL OF THE ESD VOLUMES CAPTURED BY EACH ESD PRACTICE SHALL MEET THE TARGET ESD VOLUME INITIALLY CALCULATED FOR THE ENTIRE SITE.

BY MEETING THE ESD VOLUME, WATER QUALITY VOLUME (WQV) AND RECHARGE VOLUME (REV) AND CHANNEL PROTECTION VOLUME (CPV) ARE SATISFIED.

FOR THIS PROJECT, A TOTAL OF 14 INDIVIDUAL ESD PRACTICES ARE PROPOSED: 8 MICRO-BIORETENTION FACILITIES, 4 FOCAL POINT HIGH FLOW MEDIA MICRO-BIORETENTION FACILITIES AND 2 PERMEABLE PAVER AREAS.

A WAIVER FOR DISTURBANCE WITHIN THE STREAM BUFFER WILL NEED TO BE APPROVED PRIOR TO SDP APPROVAL.

A WAIVER FOR OVERFLOW PARKING IN A GRASSED AREA WILL NEED TO BE APPROVED PRIOR TO SDP APPROVAL.

GENERAL NOTES

1. APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN DOES NOT CONSTITUTE ANY APPROVAL OF SUBSEQUENT SUBDIVISION OR SITE DEVELOPMENT PLANS. ADDITIONAL PLAN COMMENTS MAY BE PROVIDED UPON THE REVIEW OF THE APPLICABLE DEVELOPMENT PLANS IN ACCORDANCE WITH THE LAND DEVELOPMENT AND ZONING REGULATIONS.

BENCHMARK DATA

30HA: N 566030.6258, E 1357989.5444, ELEV. 386.983

36BC: N 563264.1261, E 1359585.7197, ELEV. 409.981

REVISIONS	

SITE ANALYSIS DATA CHART

TOTAL PROPERTY AREA: 298.08 ACRES
 AREA OF PLAN SUBMISSION: 7.48 ACRES
 LIMIT OF DISTURBED AREA: 7.48 ACRES
 PROPOSED IMPERVIOUS COVER: 3.00 ACRES*
 ALL AREAS BELOW ARE TAKEN FROM WITHIN THE LOD
 STEEP SLOPES AREA: 0 SF
 FLOODPLAIN AREA: 0 SF
 WETLANDS AREA: 0 SF
 STREAM BUFFER AREA: 14,982 SF (0.34 AC)

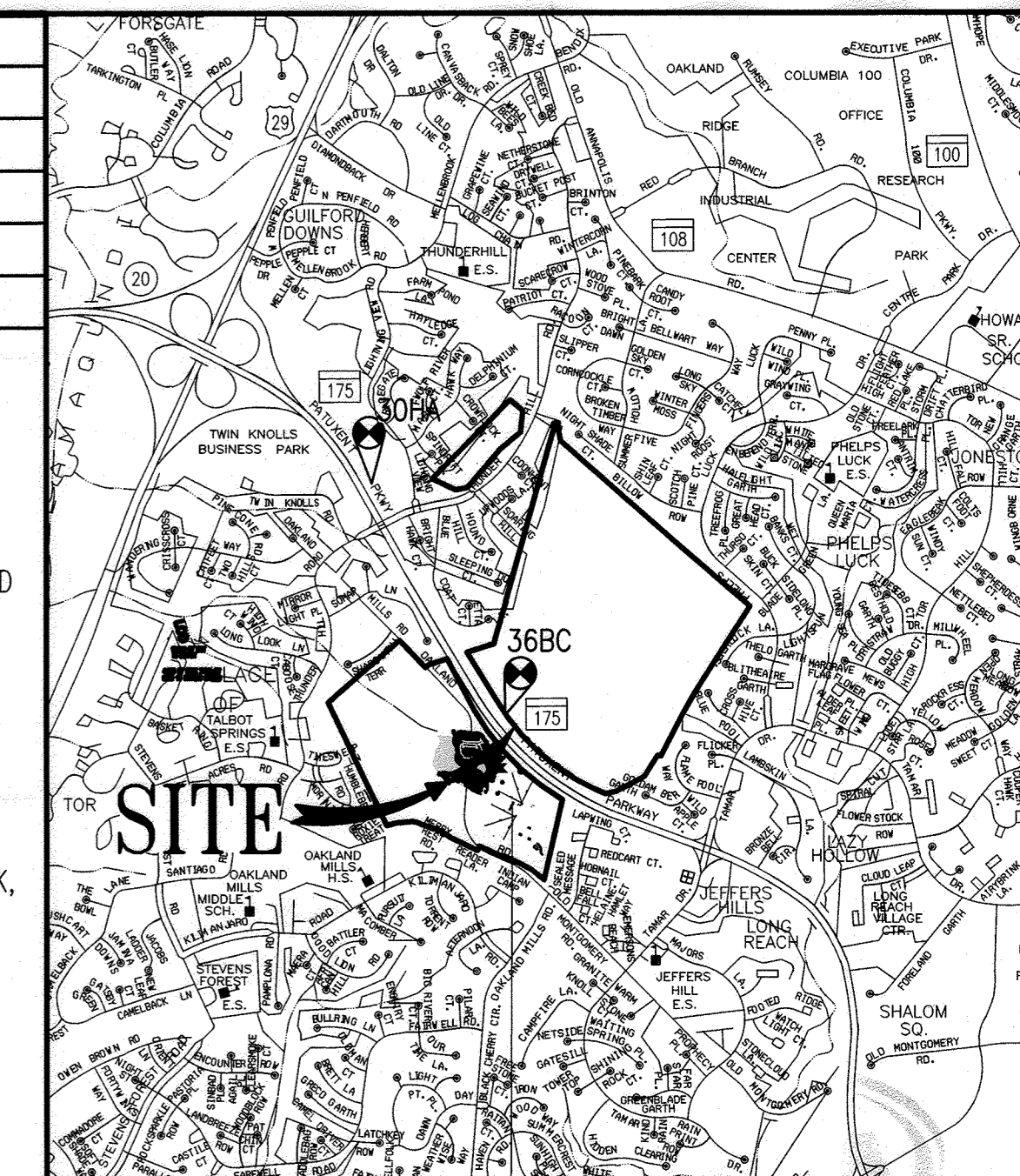
PRESENT ZONING DESIGNATION: RC-DEO, PER THE COMPREHENSIVE ZONING PLAN, EFFECTIVE OCTOBER 8, 2013

PROPOSED USES: PICKLE BALL COURTS, SKATE PARK, BASKETBALL COURTS

PARKING SPACES PROVIDED: 122 SPACES
 139 OVERFLOW SPACES

APPLICABLE DPZ FILE NUMBERS: ECP-11-023, SDP-10-007; WP-10-013; SDP-12-063; WP-13-176; WP-14-105, SDP-15-036

*NOTE: NUMBER CALCULATED CONSIDERING ALL ALTERNATIVE SURFACES ARE IMPERVIOUS



ADC MAP: HOWARD COUNTY
 MAP 16
 GRID: A6

VICINITY MAP
 1" = 2000'

LIST OF DRAWINGS

1. ESD0.1 COVER SHEET
2. ESD1.1 ENVIRONMENTAL CONCEPT PLAN
3. ESD1.2 OVERALL DRAINAGE AREA MAP EXISTING CONDITIONS
4. ESD1.3 OVERALL DRAINAGE AREA MAP PROPOSED CONDITIONS
5. ESD1.4 ESD DRAINAGE AREA MAP
6. ESD1.5 CONCEPT EROSION AND SEDIMENT CONTROL PLAN
7. ESD1.6 ESD DETAILS AND NOTES



SITE

LOCATION MAP

1" = 400'

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 5.9.22
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 5/3/22
 CHIEF, DIVISION OF LAND DEVELOPMENT

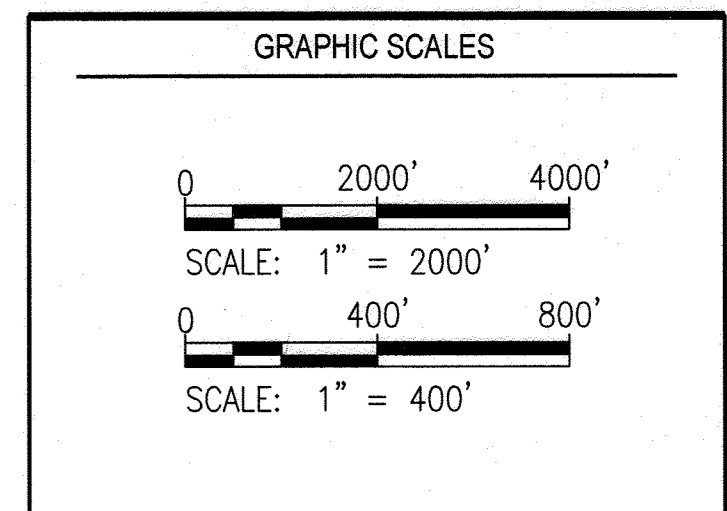
OWNER: HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS
 7120 OAKLAND MILLS ROAD
 COLUMBIA, MD 21046
 ATTN: MR. JASON THOMPSON
 VOICE 410-313-4031
 FAX 410-313-4646

DEVELOPER: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 3430 COURT HOUSE DRIVE
 COLUMBIA, MD 21045
 ATTN: MR. BRANDON LOVE
 VOICE 410-313-6153
 FAX 410-313-6144

ADDRESS CHART	
PARCEL #	STREET ADDRESS
3	PARK ENTRANCE: 5752 OAKLAND MILLS ROAD

PERMIT INFORMATION CHART			
WATER CODE: PUBLIC	SEWER CODE: PUBLIC	BUILDING: N/A	STREET ADDRESS: N/A
PROJECT NAME: BLANDAIR PARK - PHASE 6	SECTION/AREA: N/A	PARCEL: 3	
L/F: 4391/55 5203/439	GRID #5	ZONING: RC-DEO	TAX MAP BLOCK: 36 ELEC. DIST: 5 CENSUS TRACT: 6066.04

Whitman, Requardt & Associates, LLP
 801 South Caroline Street, Baltimore, Maryland 21231
 Phone: 410-235-3450 Fax: 410-243-5716



SIGNATURE

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. 19376
 EXPIRATION DATE: 09/22/2023

BLANDAIR REGIONAL PARK - PHASE 6

COVER SHEET

Drawing No.

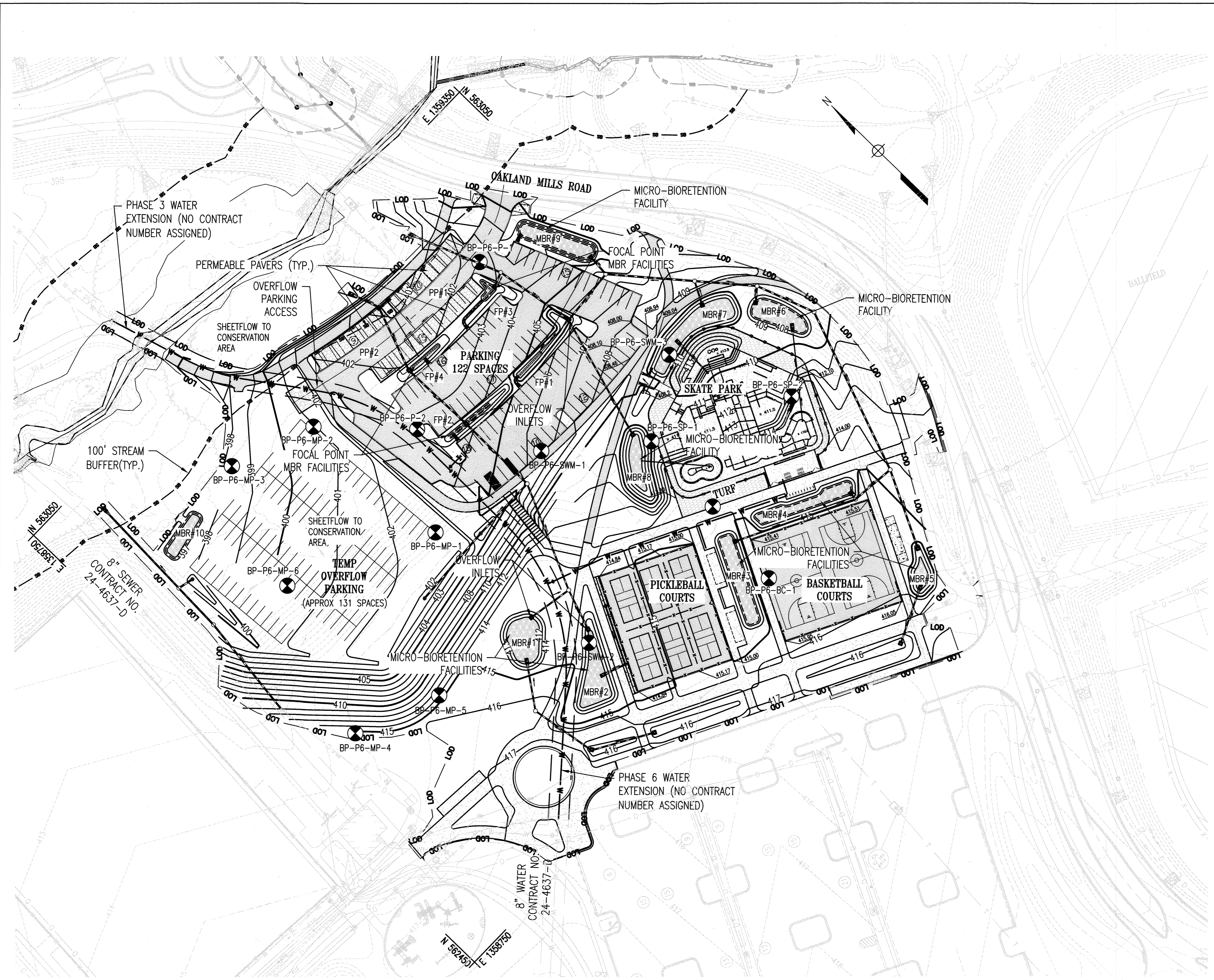
ESD0.1

Scale: AS SHOWN

Date: 4/26/2022 Sheet 1 of 7

Des: JTD Drawn: JTD Check: AUO

ECP-22-025



- LEGEND**
- STORM DRAIN
 - UNDER DRAIN
 - WATER LINE
 - SEWER LINE
 - PROPOSED MAJOR CONTOUR 425
 - PROPOSED MINOR CONTOUR 424
 - ROADWAY EDGE
 - SIDEWALK EDGE
 - LIMIT OF DISTURBANCE
 - 75' STREAM BUFFER
 - WATERS OF THE U.S. STREAM BANK
 - ASPHALT PAVEMENT
 - PERMEABLE PAVERS
 - CONCRETE WALKWAY
 - MICRO-BIORETENTION FACILITY
 - SYNTHETIC TURF
 - INLET
 - INLET (SMALL)
 - MANHOLE
 - SOIL BORING

REVISIONS	

HOWARD COUNTY
 DEPARTMENT OF RECREATION AND PARKS
 7120 OAKLAND MILLS ROAD
 COLUMBIA, MD 21046

DEPARTMENT OF PUBLIC WORKS
 7125 RIVERWOOD DRIVE SUITE B
 COLUMBIA, MD 21046

WRA
 Whitman, Reardon & Associates, LLP
 801 South Caroline Street, Baltimore, Maryland 21231
 Phone: 410-235-3450 Fax: 410-243-5716

PROPERTY
 TAX MAP 36, GRID 5, PARCEL 3,72
 ZONING: RC-DEO
 ELECTION DISTRICT 3/7

GRAPHIC SCALES

 SCALE: 1" = 60'

SIGNATURE

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. 19878, EXPIRATION DATE: 09/22/2023

BLANDAIR REGIONAL PARK - PHASE 6

ENVIRONMENTAL CONCEPT PLAN
 Drawing No.
ESD1.1
 Scale: 1" = 50'
 Date: 4/26/2022 Sheet 2 of 7
 Des: BWJ Drawn: JTD Check: AUO

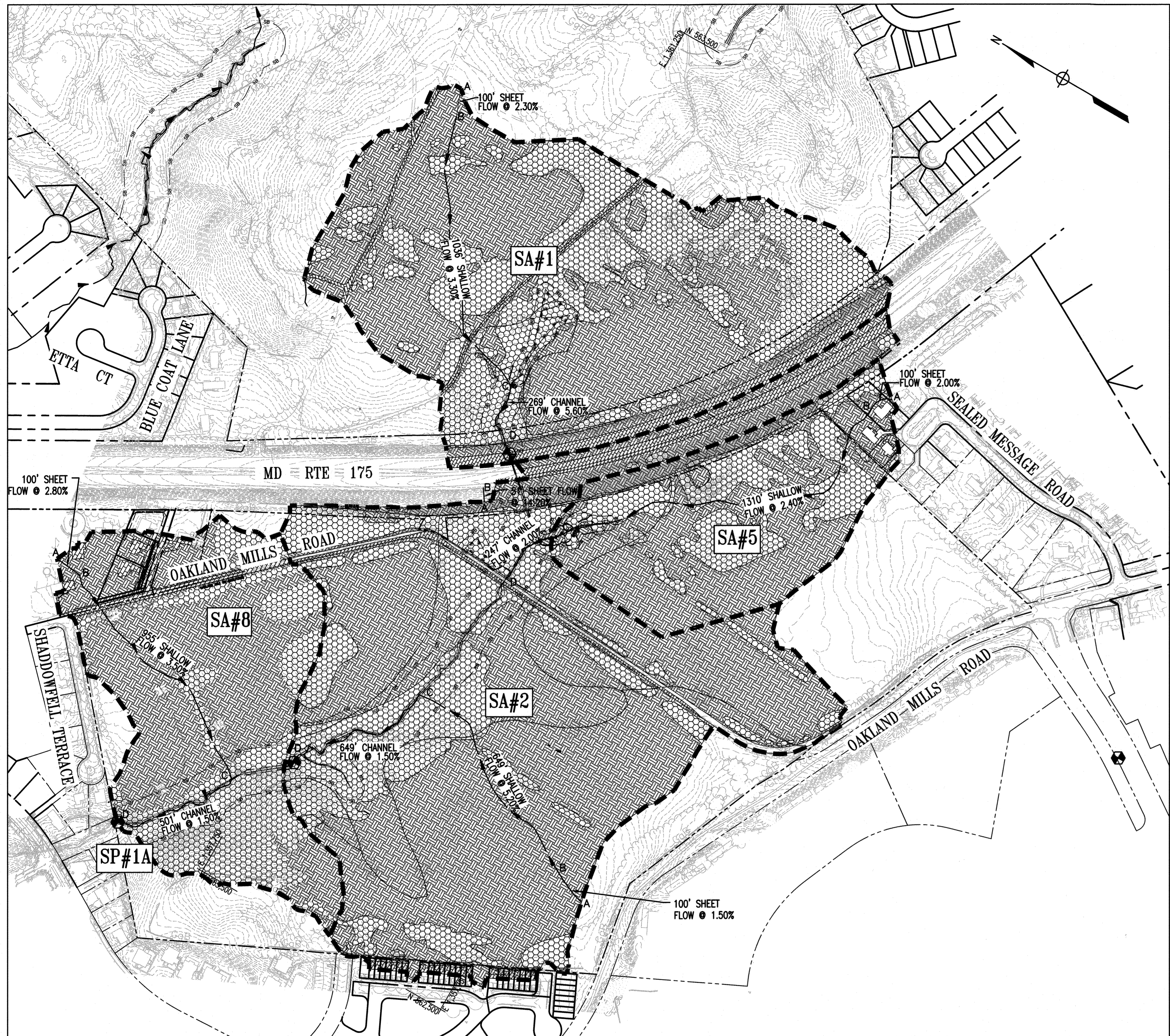
ENVIRONMENTAL CONCEPT PLAN
 1" = 50'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

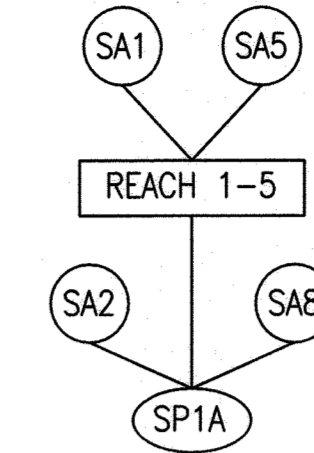
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 5.9.22

CHIEF, DIVISION OF LAND DEVELOPMENT

 DATE: 5/3/22



DRAINAGE SCHEMATIC



REVISIONS	

HOWARD COUNTY

DEPARTMENT OF RECREATION AND PARKS
7120 OAKLAND MILLS ROAD
COLUMBIA, MD 21046

DEPARTMENT OF PUBLIC WORKS
7125 RIVERWOOD DRIVE SUITE B
COLUMBIA, MD 21046



Whitman, Reardon & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

Phone: 410-235-3450 Fax: 410-243-5716

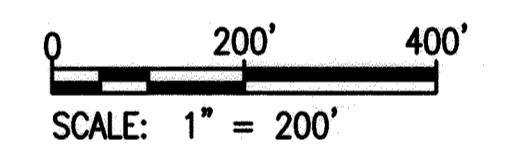
PROPERTY

TAX MAP 36, GRID 5, PARCEL 3,72

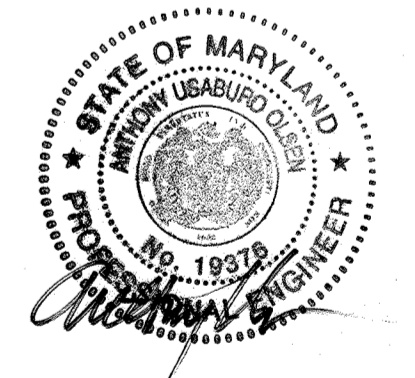
ZONING: RC-DEO

ELECTION DISTRICT 3/7

GRAPHIC SCALES



SIGNATURE



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. 19378
EXPIRATION DATE: 09/22/2022

BLANDAIR REGIONAL PARK - PHASE 6

OVERALL DRAINAGE AREA MAP
EXISTING CONDITIONS

Drawing No.

ESD1.2

Scale: 1" = 200'

Date: 4/26/2022 Sheet 3 of 7

Des: JTD Drawn: JTD Check: AUO

ECP-22-025

EXISTING DRAINAGE AREA
1" = 200'

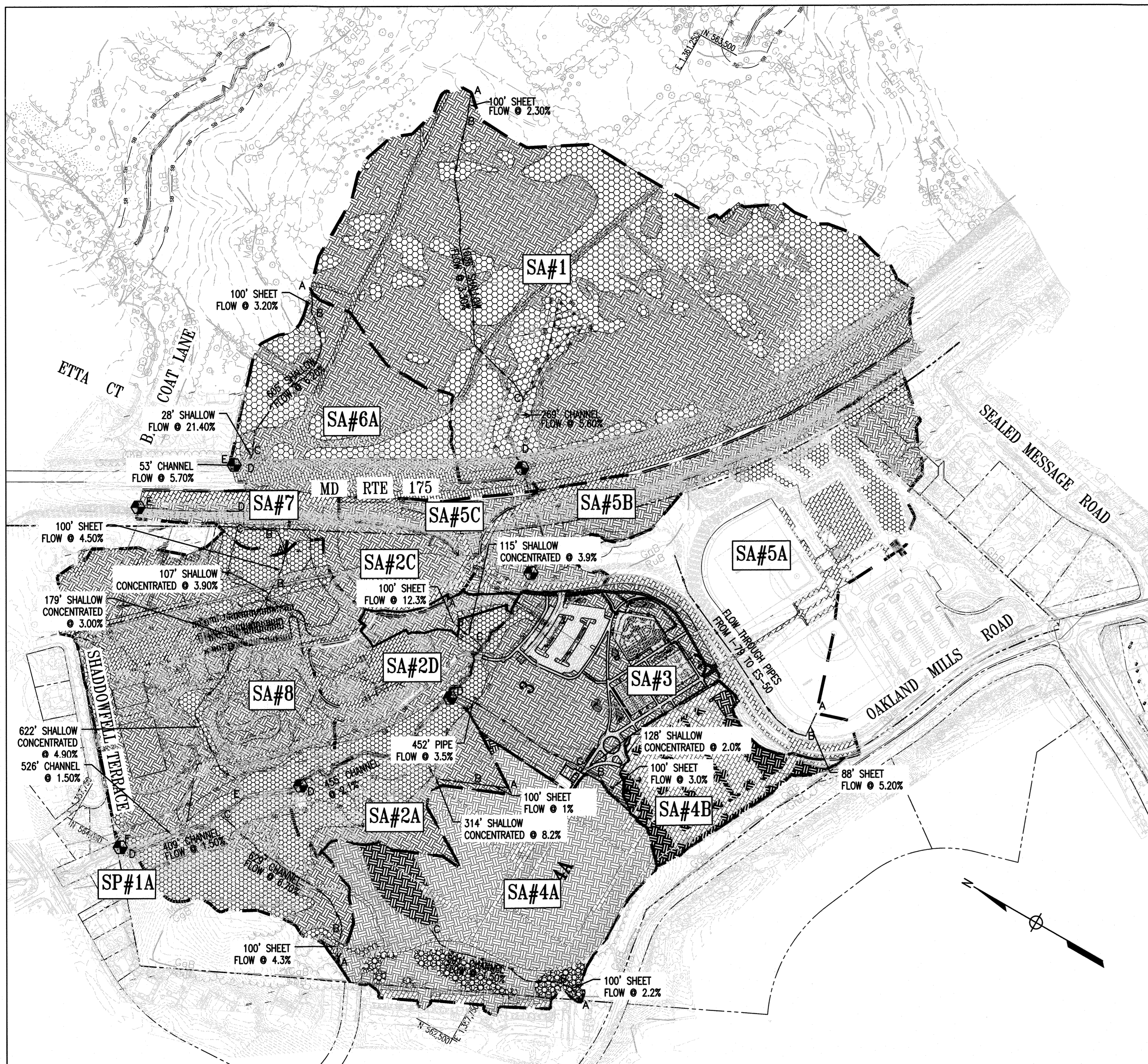
Soil Symbol	HSG	Soil Description
GnB	C	Glennville-Baile silt loams, 0-8% slopes
GgB	B	Glennelg loam, 3-8% slopes
ChB	B	Glennelg-Urban land complex, 0-8% slopes
MaC	B	Manor loam, 8-15% slopes
RuB	C	Russett and Beltsville soils, 2-5% slopes
UaF	D	Udorthernts, Highway, 0-65% slopes

DRAINAGE LEGEND

- EXISTING DRAINAGE DIVIDE
- SOIL DIVIDE
- TIME OF CONCENTRATION PATH
- WOODS
- MEADOW
- IMPERVIOUS

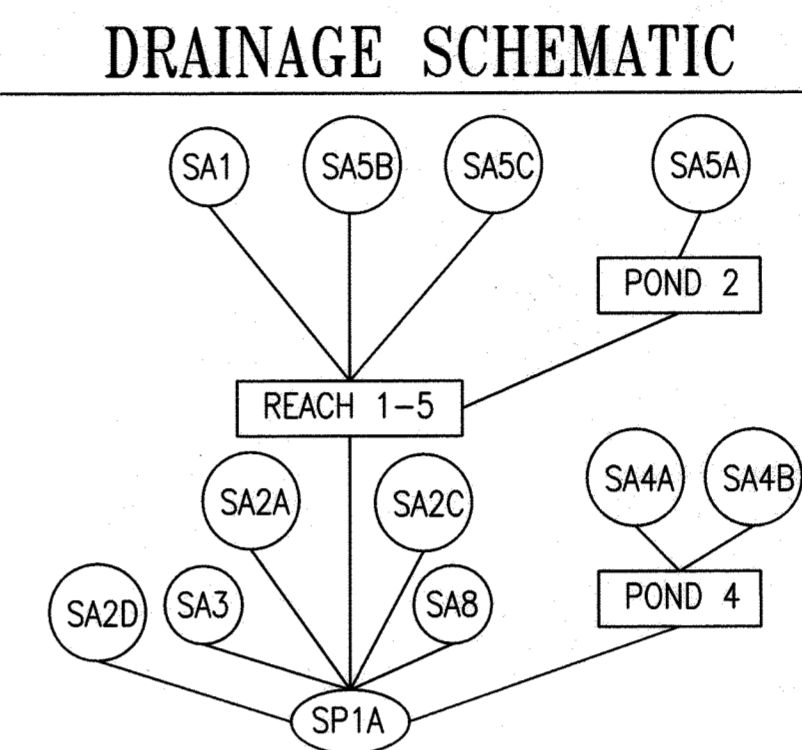
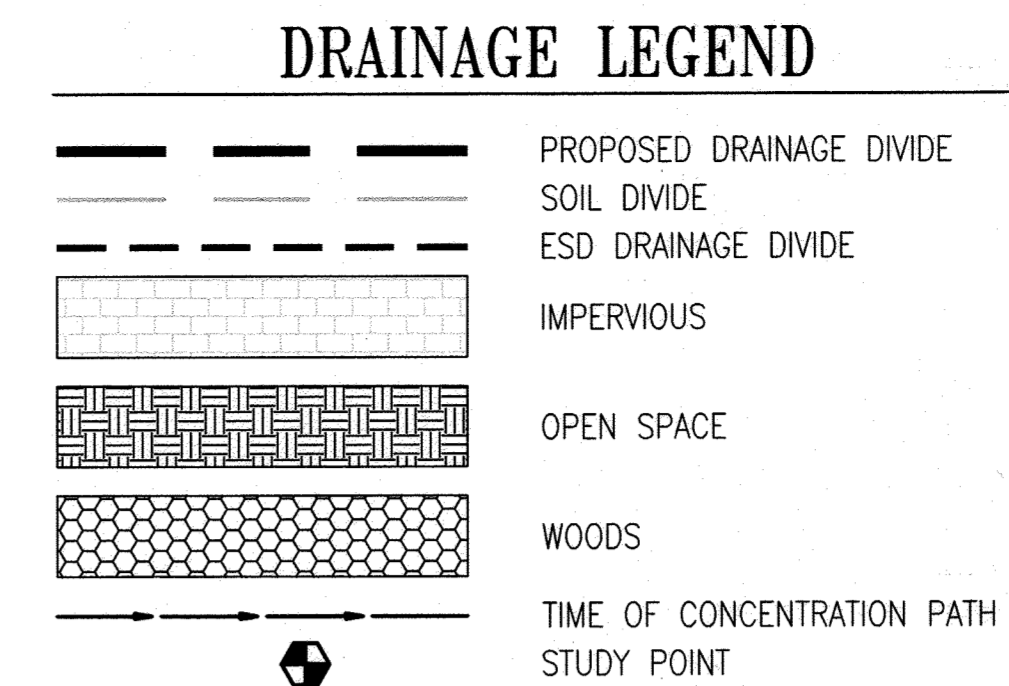
APPROVED: DEPARTMENT OF PLANNING AND ZONING
Paul Elwood 5.9.22
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE

FILENAME: \\VA-60329-006-CADD\42030006\ESD1.2.DWG



PROPOSED DRAINAGE AREA MAP
1" = 200'

Soil Symbol	HSG	Soil Description
CnB	C	Glenville-Baile silt loams, 0-8% slopes
GgB	B	Glenelg loam, 3-8% slopes
GhB	B	Glenelg-Urban land complex, 0-8% slopes
MaC	B	Manor loam, 8-15% slopes
RuB	C	Russett and Beltsville soils, 2-5% slopes
UaF	D	Udorthents, Highway, 0-65% slopes



REVISIONS

HOWARD COUNTY
DEPARTMENT OF RECREATION AND PARKS
7120 OAKLAND MILLS ROAD
COLUMBIA, MD 21046

DEPARTMENT OF PUBLIC WORKS
7125 RIVERWOOD DRIVE SUITE B
COLUMBIA, MD 21046



PROPERTY
TAX MAP 36, GRID 5, PARCEL 3,72
ZONING: RC-DEO
ELECTION DISTRICT 3/7

GRAPHIC SCALES

SIGNATURE



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. 19376 EXPIRATION DATE: 09/22/2022

BLANDAIR REGIONAL PARK - PHASE 6

OVERALL DRAINAGE AREA MAP
PROPOSED CONDITIONS

Drawing No.
ESD1.3

Scale: 1" = 200'
Date: 4/26/2022 Sheet 4 of 7
Des: JTD Drawn: JTD Check: AUO

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 5.9.22
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 5/3/22
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



ESD DRAINAGE AREA MAP
1" = 50'

LEGEND

- ESD DRAINAGE AREA
- PERMEABLE PAVERS
- MICRO-BIORETENTION/FOCAL POINT
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- SYNTHETIC TURF
- SOIL DIVIDE
- LOD - LIMITS OF DISTURBANCE

BLANDAIR PHASE 6
ESDv PROVIDED SUMMARY

FACILITY	DESCRIPTION	DA	HSG	%IMP	TARGET Pe	Pe PROV	ESDv REQ	ESDv PROV	REV PROV
MBR# 1	MICRO BIORETENTION	19,387 SF	C	30%	1.6 IN	2.6"	744 CF	1,813 CF	290 CF
MBR# 2	MICRO BIORETENTION	15,760 SF	B	60%	1.6 IN	2.6"	1,192 CF	1,982 CF	294 CF
MBR# 3	MICRO BIORETENTION	12,551 SF	C	58%	1.6 IN	2.6"	923 CF	1,905 CF	280 CF
MBR# 4	MICRO BIORETENTION	18,030 SF	C	71%	1.6 IN	1.6"	1,619 CF	1,631 CF	269 CF
MBR# 5	MICRO BIORETENTION	8,460 SF	C	34%	1.6 IN	2.6"	366 CF	543 CF	82 CF
MBR# 6	MICRO BIORETENTION	16,097 SF	C	41%	1.6 IN	2.6"	827 CF	1,343 CF	233 CF
MBR# 7	MICRO BIORETENTION	18,350 SF	C	79%	1.6 IN	2.2"	1,830 CF	2,591 CF	476 CF
MBR# 8	MICRO BIORETENTION	10,012 SF	C	30%	1.6 IN	2.6"	385 CF	626 CF	170 CF
MBR# 9	MICRO BIORETENTION	14,131 SF	C	49%	1.6 IN	2.6"	869 CF	1,413 CF	268 CF
MBR# 10	MICRO BIORETENTION	22,487 SF	C	0%	1.6 IN	0"	0 CF	855 CF	141 CF
FP# 1	FOCAL POINT MBR	11,721 SF	C	57%	1.0 IN	1.0"	528 CF	528 CF	0 CF
FP# 2	FOCAL POINT MBR	11,742 SF	C	53%	1.0 IN	1.0"	492 CF	492 CF	0 CF
FP# 3	FOCAL POINT MBR	4,136 SF	C	69%	1.0 IN	1.0"	225 CF	225 CF	0 CF
FP# 4	FOCAL POINT MBR	18,775 SF	C	62%	1.0 IN	1.0"	919 CF	919 CF	0 CF
PP# 1	PERMEABLE PAVERS	8,680 SF	C	98%	1.6 IN	1.9"	1,099 CF	1,280 CF	179 CF
PP# 2	PERMEABLE PAVERS	8,389 SF	C	98%	1.6 IN	1.7"	1,063 CF	1,123 CF	344 CF
Total ESDv Provided=							19,268 CF	30,255 CF	
Total Site ESDv Required=							17,411 CF	2,578 CF	

Site ESDv Requirement

LOD	Imp Area	% Imp	Target Pe	Rv	ESDv Requirement (cf)		
SF	AC	SF	AC	%	Inches	Rv=0.05 + 0.009 x %I	(Pe)(Rv)(DA) /12
325,882	7.48	130,502	3.00	40%	1.6	0.41	17,411

Soil

Symbol	HSG	Soil Description
GnB	C	Glenville-Baile silt loams, 0-8% slopes
GgB	B	Glenelg loam, 3-8% slopes
GhB	B	Glenelg-Urban land complex, 0-8% slopes
MaC	B	Manor loam, 8-15% slopes
RuB	C	Russett and Beltsville soils, 2-5% slopes
UoF	D	Udorthents, Highway, 0-65% slopes

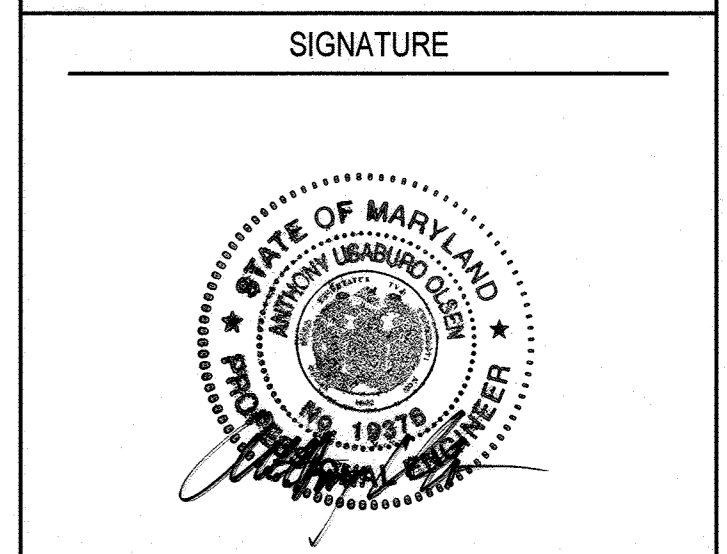
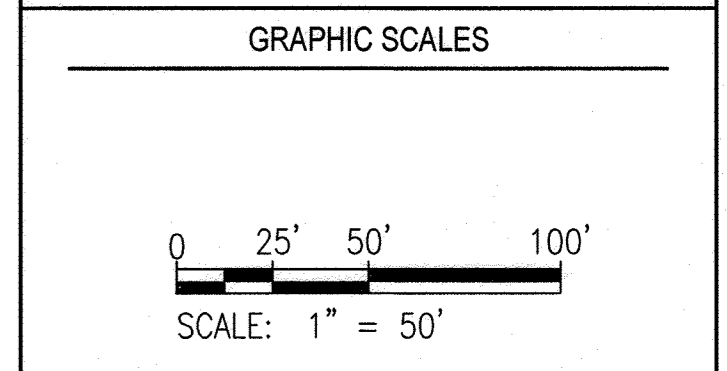
APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 5.9.22
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 5/3/22
 CHIEF, DIVISION OF LAND DEVELOPMENT

REVISIONS

HOWARD COUNTY
 DEPARTMENT OF RECREATION AND PARKS
 7120 OAKLAND MILLS ROAD
 COLUMBIA, MD 21046
 DEPARTMENT OF PUBLIC WORKS
 7125 RIVERWOOD DRIVE SUITE B
 COLUMBIA, MD 21046



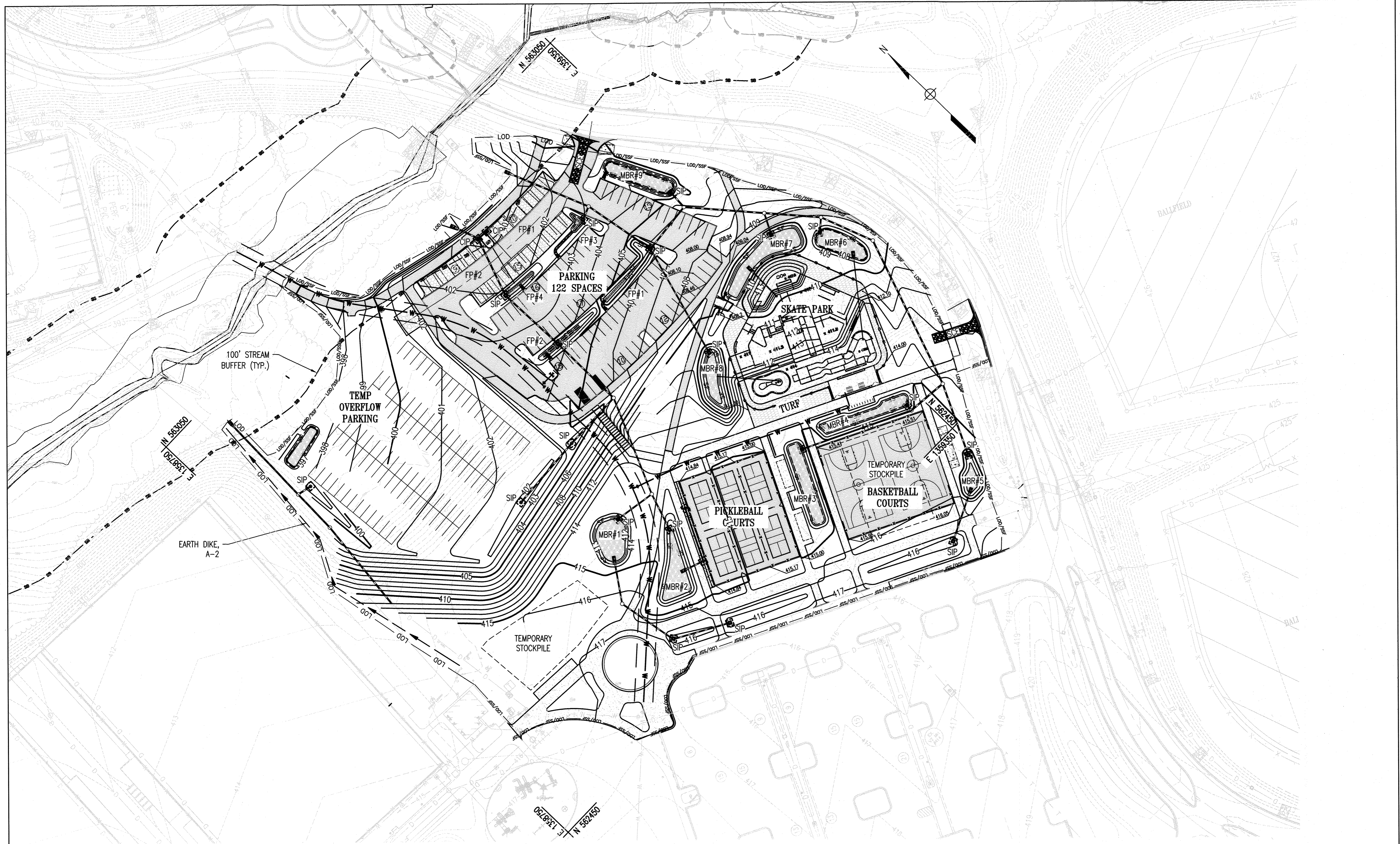
PROPERTY
 TAX MAP 36, GRID 5, PARCEL 3,72
 ZONING: RC-DEO
 ELECTION DISTRICT 3/7



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. 19378, EXPIRATION DATE: 09/22/2022

BLANDAIR REGIONAL PARK - PHASE 6

ESD DRAINAGE AREA MAP
 Drawing No. **ESD1.4**
 Scale: 1" = 50'
 Date: 4/26/2022 Sheet 5 of 7
 Des: SAD Drawn: SAD Check: AUO




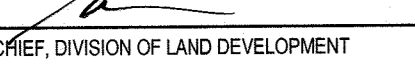
CONCEPT EROSION AND SEDIMENT CONTROL PLAN
1" = 50'

STANDARD STABILIZATION NOTE

FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN: A) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND B) SEVEN CALENDAR (7) DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

LEGEND

— LOD —	LIMIT OF DISTURBANCE
— LOD/SSF —	SUPER SILT FENCE ON LOD
— SSF —	SUPER SILT FENCE
— SF —	SILT FENCE
— EARTH DIKE —	EARTH DIKE
— TREELINE/LIMIT OF CLEARING —	TREELINE/LIMIT OF CLEARING
— INLET PROTECTION —	INLET PROTECTION
— TEMPORARY STOCKPILE —	TEMPORARY STOCKPILE
— STABILIZED CONSTRUCTION ENTRANCE —	STABILIZED CONSTRUCTION ENTRANCE

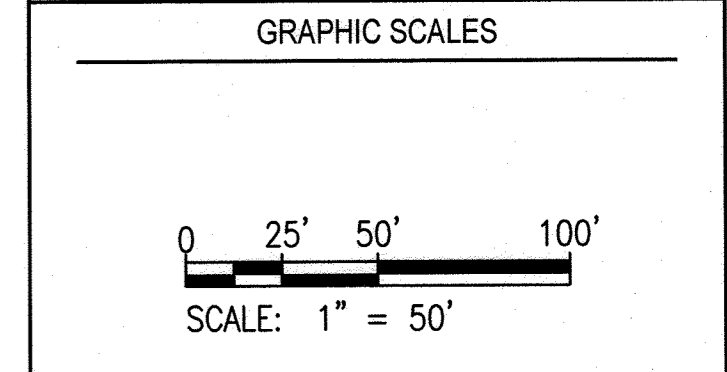
APPROVED: DEPARTMENT OF PLANNING AND ZONING
 **5.9.22**
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
 **5/3/22**
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

REVISIONS	


HOWARD COUNTY
 DEPARTMENT OF RECREATION AND PARKS
 7120 OAKLAND MILLS ROAD
 COLUMBIA, MD 21046
 DEPARTMENT OF PUBLIC WORKS
 7125 RIVERWOOD DRIVE SUITE B
 COLUMBIA, MD 21046

WRA
Whitman, Reardon & Associates, LLP
 801 South Caroline Street, Baltimore, Maryland 21231
 Phone: 410-235-3450 Fax: 410-243-5716

PROPERTY
 TAX MAP 36, GRID 5, PARCEL 3.72
 ZONING: RC-DEO
 ELECTION DISTRICT 3/7



SIGNATURE

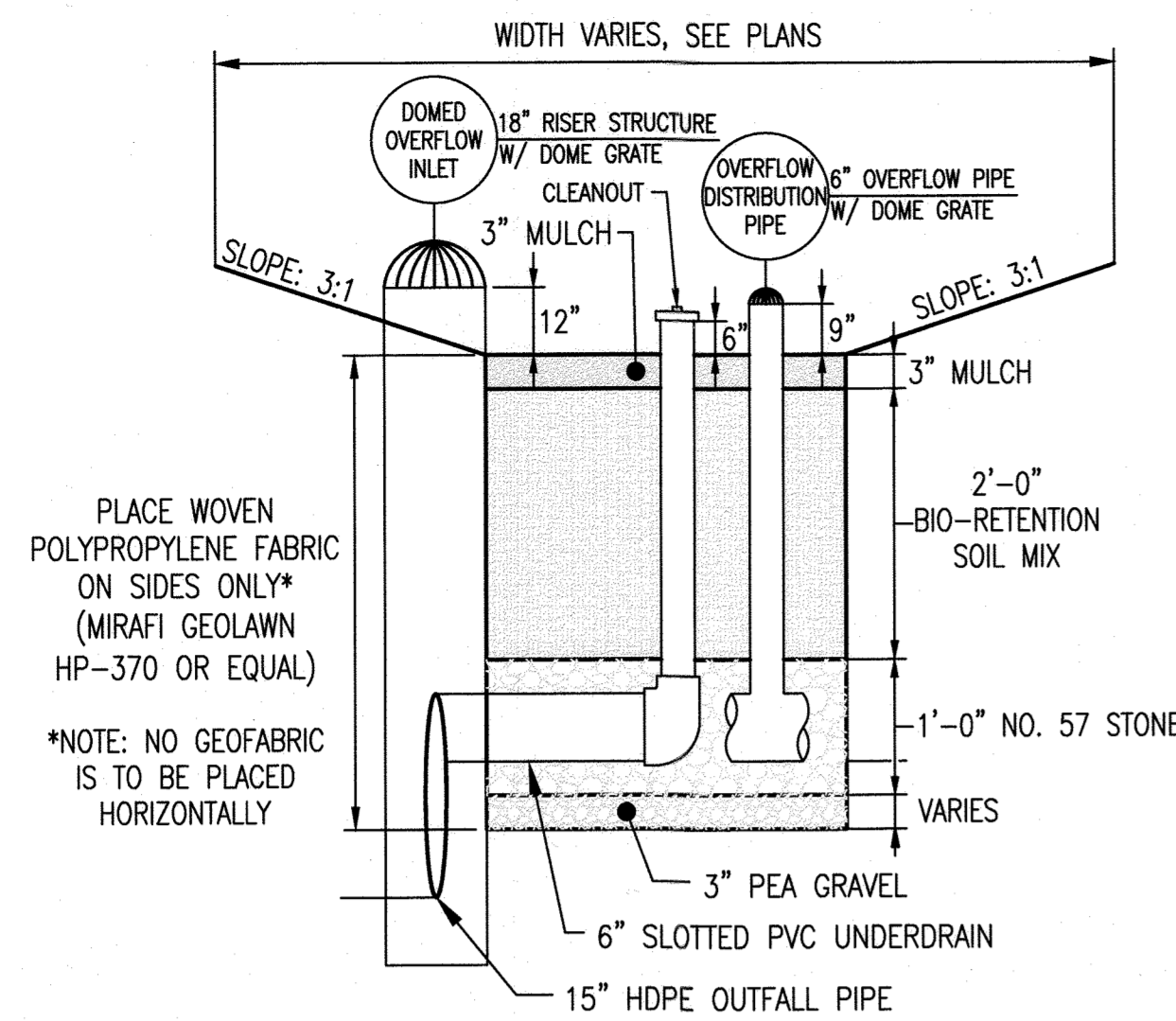


PROFESSIONAL CERTIFICATION:
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 19378 EXPIRATION DATE: 09/22/2023

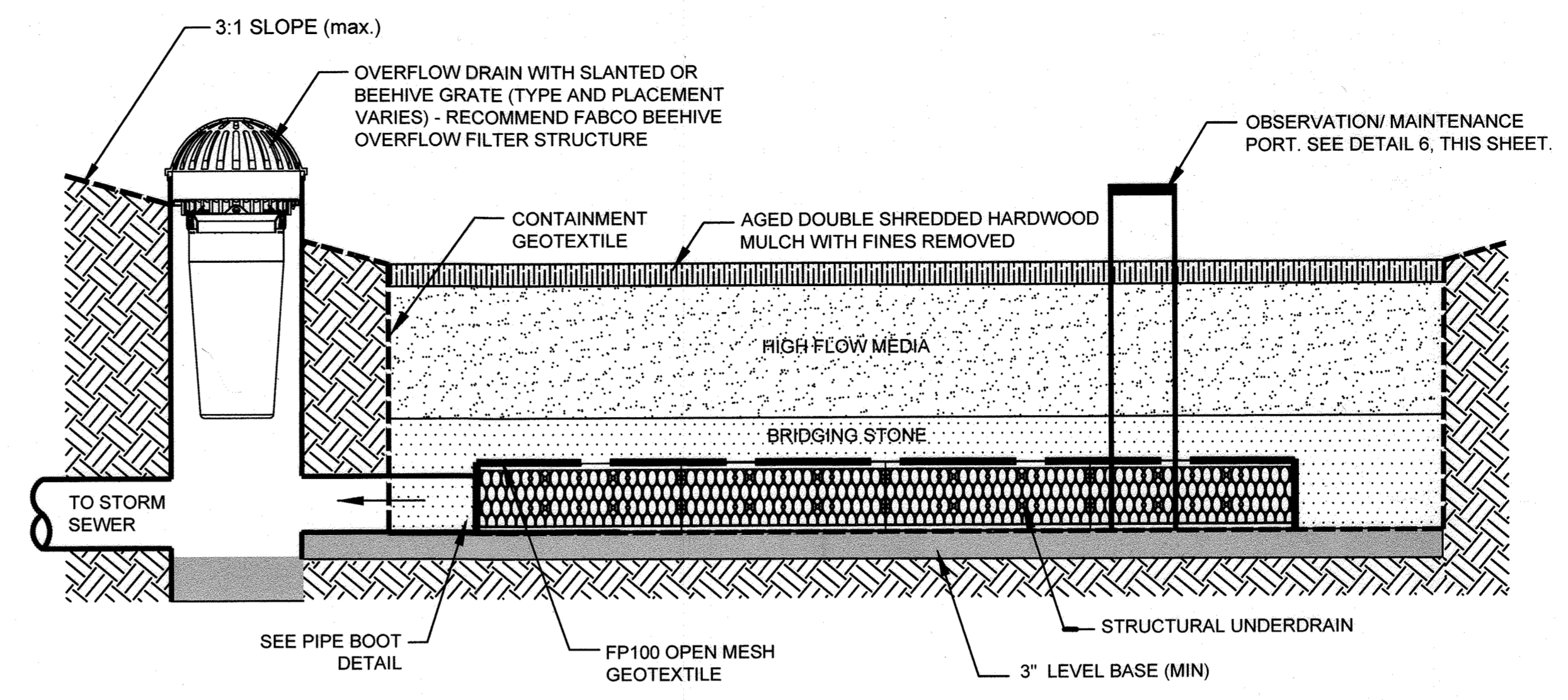
BLANDAIR REGIONAL PARK - PHASE 6

CONCEPT EROSION AND SEDIMENT CONTROL PLAN
 Drawing No.
ESD1.5

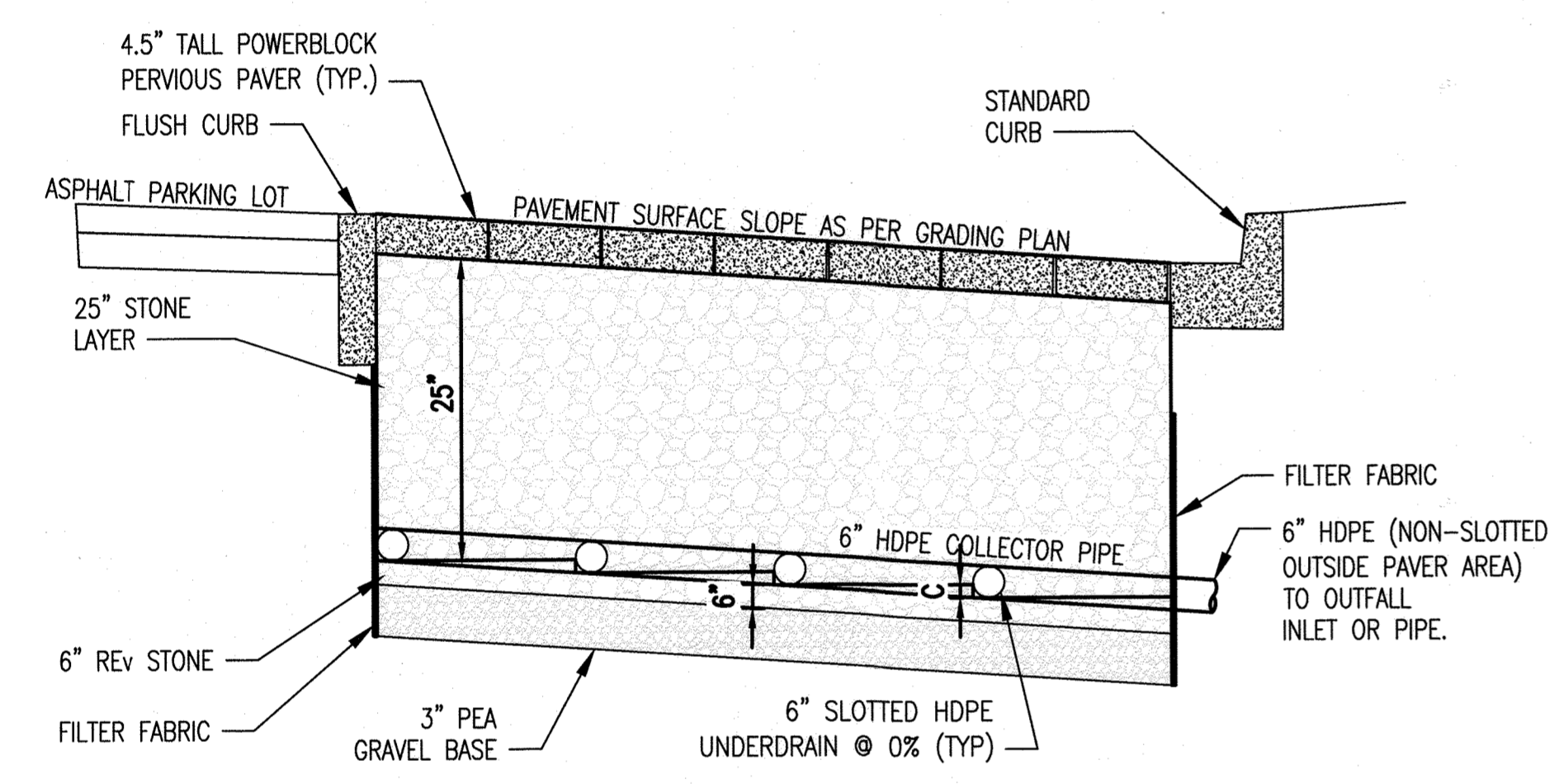
Scale: 1" = 60'
 Date: 4/26/2022 Sheet 6 of 7
 Des: SAD Drawn: SAD Check: AVO



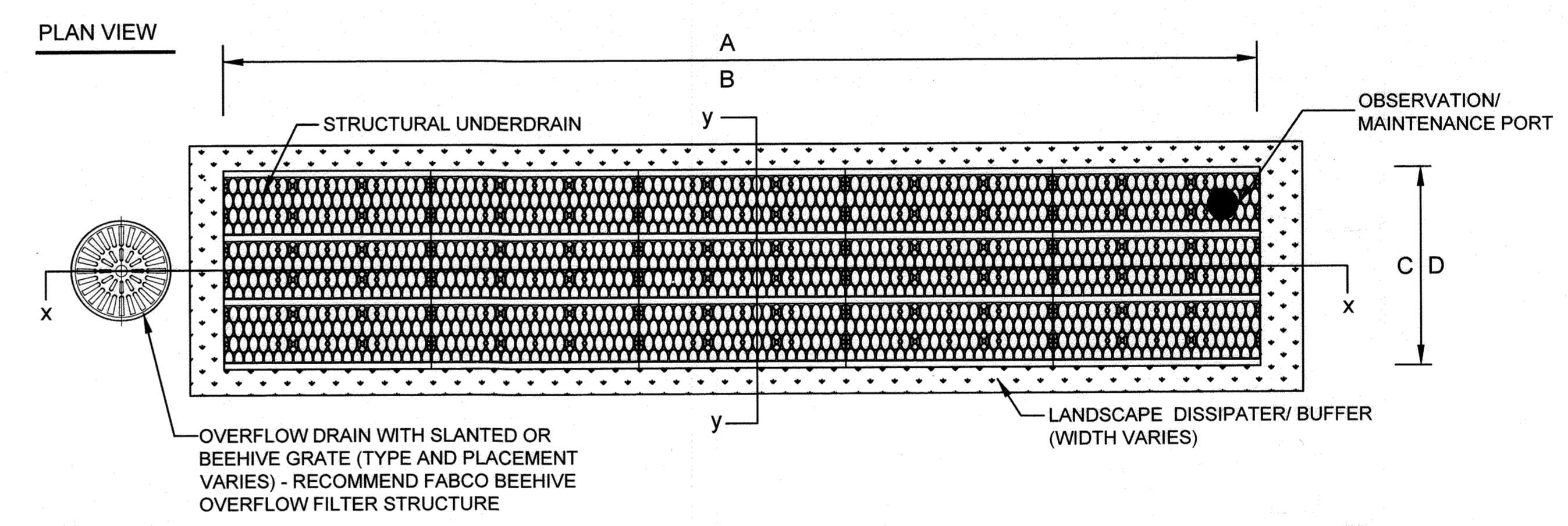
A MICRO-BIORETENTION FACILITY DETAIL
ESD1.6 SCALE: N.T.S



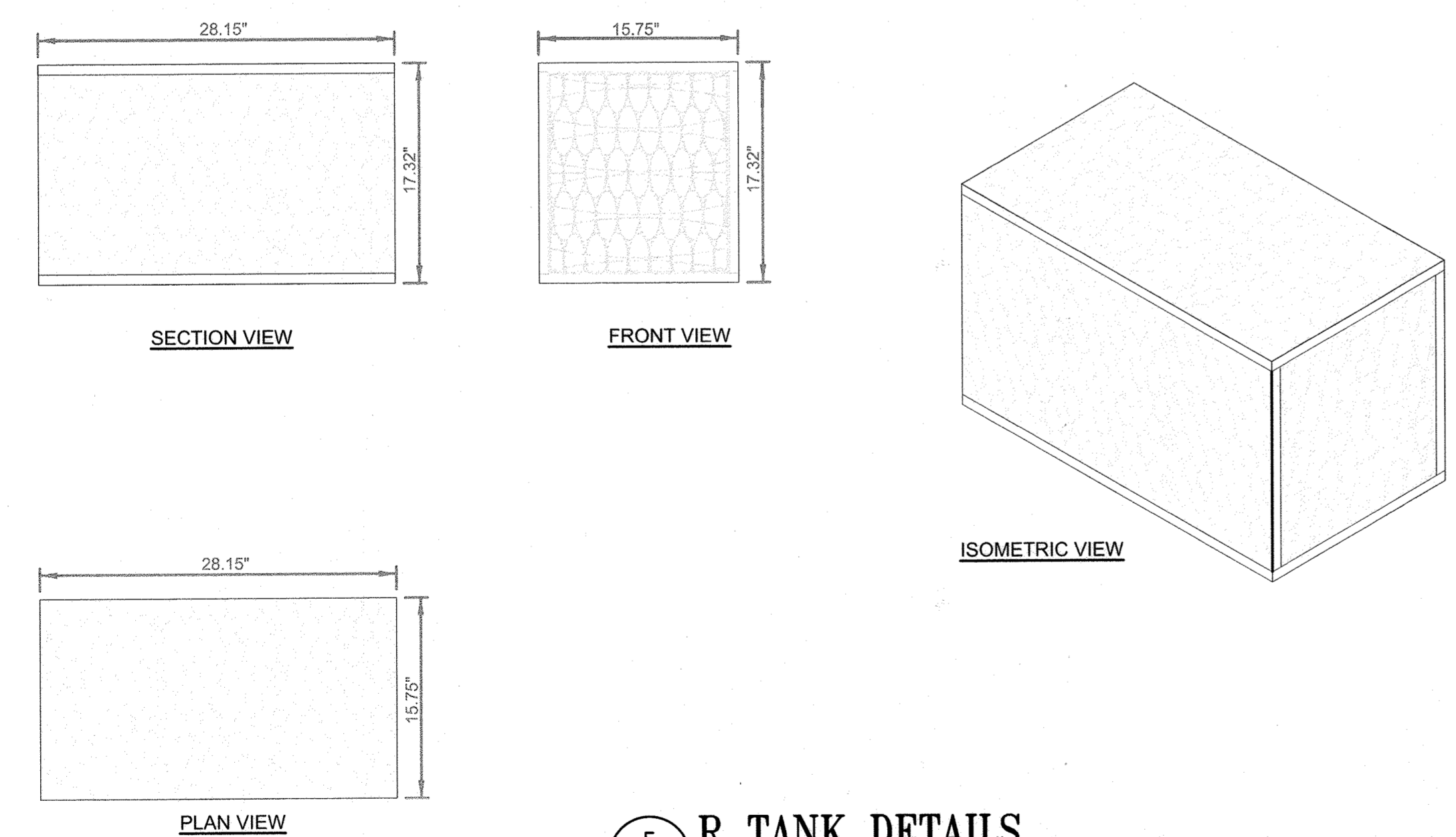
C FOCAL POINT FACILITY SECTION
ESD1.6 SCALE: N.T.S



B PERVIOUS PAVEMENT DETAIL
ESD1.6 SCALE: N.T.S



D FOCAL POINT FACILITY DETAILS
ESD1.6 SCALE: N.T.S



E R TANK DETAILS
ESD1.6 SCALE: N.T.S

MODULE DATA	
GEOMETRY: LENGTH = 28.15 IN. (715 MM) WIDTH = 15.75 IN. (400 MM) HEIGHT = 17.32 IN. (440 MM) TANK VOLUME = 4.44 CF STORAGE VOLUME = 4.22 CF VOID INTERNAL VOLUME: 95% VOID SURFACE AREA: 90%	LOAD RATING: 33.4 PSI, (MODULE ONLY) HS25, (WITH ACF COVER SYSTEM) MATERIAL: 100% RECYCLED POLYPROPYLENE SMALL PLATES PER SEGMENT/TOTAL: 5/5

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 5.9.22
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 5/3/22

REVISIONS	

HOWARD COUNTY
 DEPARTMENT OF RECREATION AND PARKS
 7120 OAKLAND MILLS ROAD
 COLUMBIA, MD 21046
 DEPARTMENT OF PUBLIC WORKS
 7125 RIVERWOOD DRIVE SUITE B
 COLUMBIA, MD 21046

WRA
 Whitman, Reardon & Associates, LLP
 801 South Caroline Street, Baltimore, Maryland 21231
 Phone: 410-235-3450 Fax: 410-243-5716

PROPERTY
 TAX MAP 36, GRID 5, PARCEL 3.72
 ZONING: RC-DEO
 ELECTION DISTRICT 3/7

GRAPHIC SCALES

SIGNATURE

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. 18378 EXPIRATION DATE: 08/22/2023

BLANDAIR REGIONAL PARK - PHASE 6

ESD DETAILS AND NOTES
 Drawing No.
ESD1.6
 Scale: NOT TO SCALE
 Date: 4/26/2022 Sheet 7 of 7
 Des: JTD Drawn: JTD Check: AUO