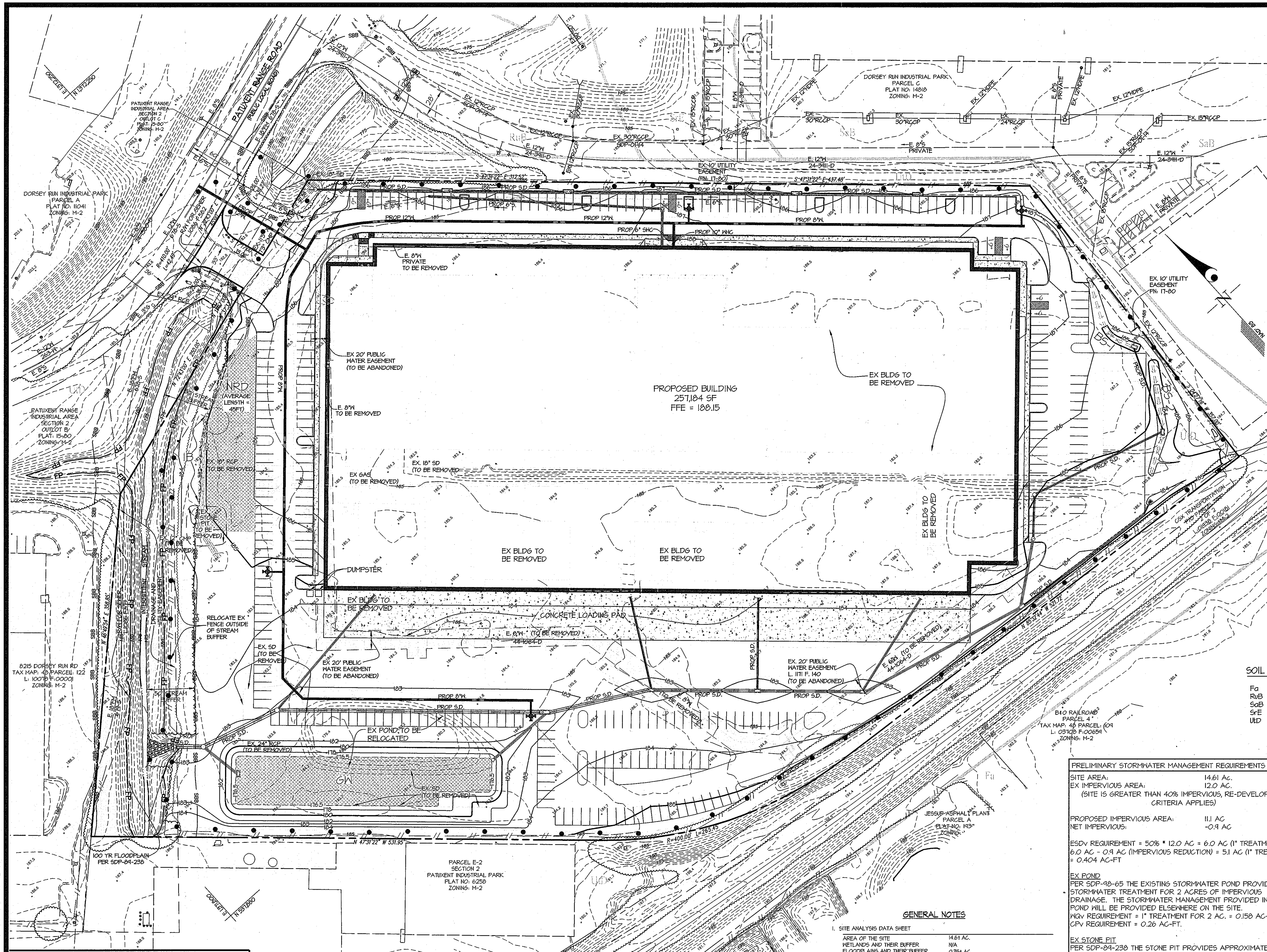
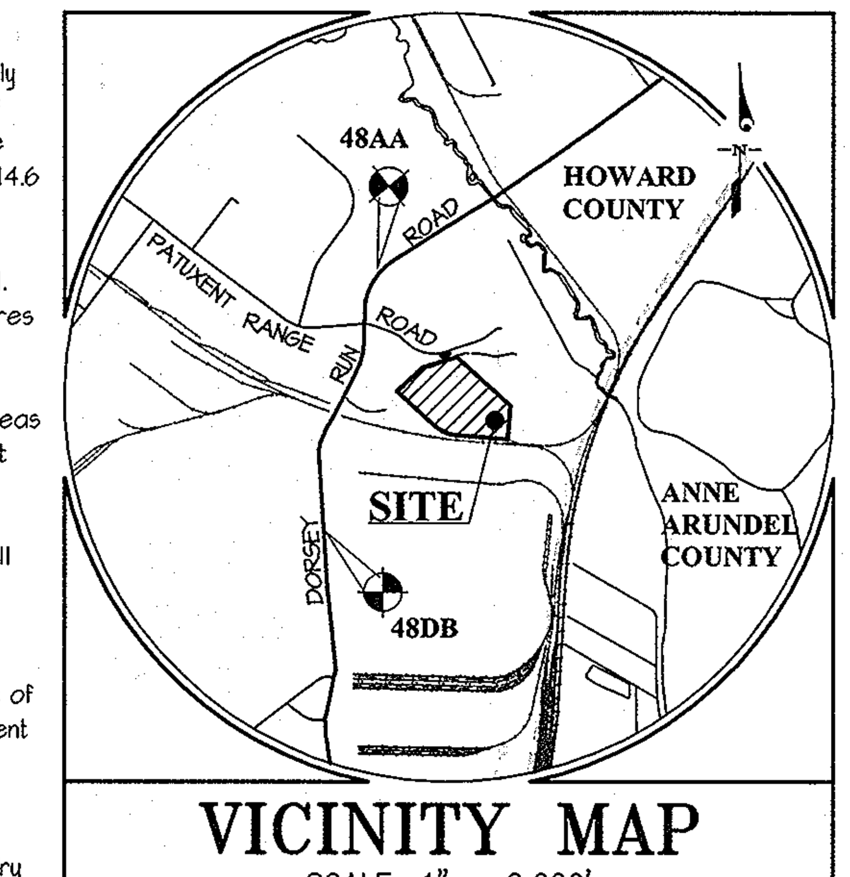


ESD DESIGN NARRATIVE

The site, Patuxent Park Industrial Area Parcel A, is a previously developed industrial warehouse and storage yard. As part of this project, the entire site will be razed and a new warehouse building and parking will be built in its place. The site area is 14.6 acres with 12 acres of existing impervious area. This site is greater than 40% impervious and qualifies for redevelopment under section 5.5 of the MDE 2000 Stormwater Design Manual. The site currently has a dry stormwater pond that treats 2 acres of parking lot drainage and a stone pit that provides approximately 1,500 cubic feet of storage. The existing stormwater management devices will be relocated to other areas on the site in addition to providing the stormwater management required for redevelopment. Stormwater management for the site will be provided by a combination of impervious area reduction and implementing ESD practices. Impervious area will be reduced by roughly 1 acre and various ESD practices will provide the remaining treatment. Non-rooftop disconnect in combination with infiltration berms will be used to treat part of the western parking lot. Bio-swales will be used to treat part of the eastern parking lot. The bulk of the stormwater management will be provided in a gravel wetland located in the southwest corner of the site. In addition to providing ESDv required by redevelopment, the gravel wetland will also provide the stormwater management that was previously provided by the dry pond and the stone pit.

Since over 80% of the site is impervious, there are not many natural resources. The existing natural resources that do exist on the site will be both protected and enhanced. A stream buffer will be placed around the intermittent stream that flows along the northern side of the site. Any existing impervious within this 50' stream buffer will be removed. A forest conservation easement will be placed over the forest that exists in the vicinity of the stream and additional forest will be planted within the stream buffer. The existing flow patterns for the site will remain unchanged. The bulk of the site will continue to drain to the stream that flows along the northern property line. The amount of impervious area on site will be decreasing, however due to the industrial nature of the site, it will remain highly impervious. The underlying soils have extremely poor infiltration rates so pervious pavement is not an option for the site. The sediment and erosion has been preliminarily designed so that it will not require any additional disturbance to the site.



VICINITY MAP

SCALE: 1" = 2,000'

BENCHMARKS			
48AA	ELEV. 240.102	N = 539,314.91	E = 1,371,534.26
48DB	ELEV. = 238.836	N = 536,575.70	E = 1,371,005.79

ADC MAP: 5054 GRID: D7

LEGEND

EXISTING CONTOUR
PROPOSED CONTOUR
STREAM BUFFER
STREAM BANK
LIMIT OF DISTURBANCE
EXISTING TREELINE
PROPOSED/ ULTIMATE TREELINE
100 YEAR FLOODPLAIN
EXISTING BUILDING
PROPOSED BUILDING
EDGE OF PAVEMENT
CURB & GUTTER
PROP. SEWER LINE
EX. 8" S. — EX. SEWER MAIN
FIRE HYDRANT — WATER LINE
EX. 8" W. — EX. WATER MAIN
PROP. STORM DRAIN
EX. STORM DRAIN
STEEP SLOPES 25+%
SIDEWALK
SOIL BOUNDARY
GnA — SOIL TYPE
BUILDING RESTRICTION LINE
PROPERTY LINE
EX. EDGE OF PAVEMENT
EXISTING EASEMENT
GW — TYPE — ESD SWM DEVICE

TYPES OF DEVICES:

MBR - MICRO-BIORETENTION
GW - GRAVEL WETLAND
BS - BIO-SWALE
NRD - NON-ROOFTOP DISCONNECT
IB - INFILTRATION BERM

INFILTRATION BERM

SOIL TYPES

Fa Fallsington sandy loam, 0 to 2 percent slopes
RuB Russett and Beltsville soils, 2 to 5 percent slopes
SaB Sassafras loam, 2 to 5 percent slopes
SrE Sassafras and Croom soils, 15 to 25 percent slopes
UtD Urban land-Udorthents complex, 0 to 15 percent slopes

PRELIMINARY STORMWATER MANAGEMENT REQUIREMENTS

SITE AREA: 14.61 Ac.
EX IMPERVIOUS AREA: 12.0 Ac.
(SITE IS GREATER THAN 40% IMPERVIOUS, RE-DEVELOPMENT CRITERIA APPLIES)

PROPOSED IMPERVIOUS AREA: 11.1 AC
NET IMPERVIOUS: -0.9 AC

ESDv REQUIREMENT = 50% * 12.0 AC = 6.0 AC (1" TREATMENT)
6.0 AC - 0.9 AC (IMPERVIOUS REDUCTION) = 5.1 AC (1" TREATMENT)
= 0.404 AC-FT

EX POND
PER SDP-98-65 THE EXISTING STORMWATER POND PROVIDES STORMWATER TREATMENT FOR 2 ACRES OF IMPERVIOUS DRAINAGE. THE STORMWATER MANAGEMENT PROVIDED IN THIS POND WILL BE PROVIDED ELSEWHERE ON THE SITE.
WQv REQUIREMENT = 1" TREATMENT FOR 2 AC. = 0.158 AC-FT
CPv REQUIREMENT = 0.26 AC-FT.

EX STONE PIT
PER SDP-89-238 THE STONE PIT PROVIDES APPROXIMATELY 1500 CU-FT OF STORAGE. THIS WILL BE ADDED TO THE WQv REQUIREMENT FOR THE SITE.

TOTAL SWM REQUIREMENTS
ESD/WQv TREATMENT = 5.1 AC + 2 AC (1" TREATMENT) = 24,485 CF + 1500 CF (STONE PIT) = 25,984 CF (0.596 AC-FT)

CPv REQUIREMENT = 0.26 AC-FT

PRELIMINARY STORMWATER MANAGEMENT PROVIDED BY DEVICE

ESD/ WQv TREATMENT BY DEVICE

GRAVEL WETLAND:		0.511 AC-FT
BIO-SWALES:		0.024 AC-FT
NON-ROOFTOP DISCONNECT:		0.014 AC-FT
INFILTRATION BERM:		0.047 AC-FT
	TOTAL:	0.596 AC-FT

CPv TREATMENT BY DEVICE

GRAVEL WETLAND:		0.26 AC-FT
	TOTAL:	0.26 AC-FT

** GRAVEL WETLAND WILL PROVIDE A TOTAL STORAGE OF 0.771 AC-FT

GENERAL NOTES

1. SITE ANALYSIS DATA SHEET

AREA OF THE SITE	14.6± AC.
WETLANDS AND THEIR BUFFER	N/A
FLOODPLAINS AND THEIR BUFFER	0.35± AC.
FORESTS	0.74± AC.
STEEP SLOPES 15% AND GREATER	1.07± AC.
ERODIBLE SOILS PROJECT AREA	0.0± AC.
LIMIT OF DISTURBANCE AREA	13.6± AC.
PROPOSED SITE USES	INDUSTRIAL
GREEN OPEN AREA	3.6± AC.
PROPOSED IMPERVIOUS AREA	11.0± AC.

2. APPLICABLE DPZ FILE REFERENCE: F-70-23, SDP-71-05, SDP-74-12, SDP-82-184, SDP-85-137, SDP-89-238, SDP-98-65

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

SHEET INDEX

1. ENVIRONMENTAL CONCEPT PLAN
2. ESD DRAINAGE AREA PLAN
3. SEDIMENT CONTROL CONCEPT PLAN

NOTES
1. 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
2. THIS SITE IS SUBJECT TO SECTION 16.1202 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL. FOREST CONSERVATION OBLIGATIONS WILL BE FULFILLED UNDER THE FUTURE SITE DEVELOPMENT PLAN.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Division of Land Development — Date 9/04/12
Chief, Development Engineering Division — Date 9/7/12

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE – SUITE 250 – BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

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DATE	REVISION	BY	APP'R.

PREPARED FOR:
Patuxent 8235, LLC
898 AIRPORT PARK RD
SUITE 210
GLEN BURNIE MD 21061
DAVE LAZAS
410-347-7170

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, 2014
8/28/12

STATE OF MARYLAND — CARLTON K. GUTSCHICK — REG. NO. 12975 — PROFESSIONAL ENGINEER

ENVIRONMENTAL CONCEPT PLAN

PATUXENT PARK INDUSTRIAL AREA

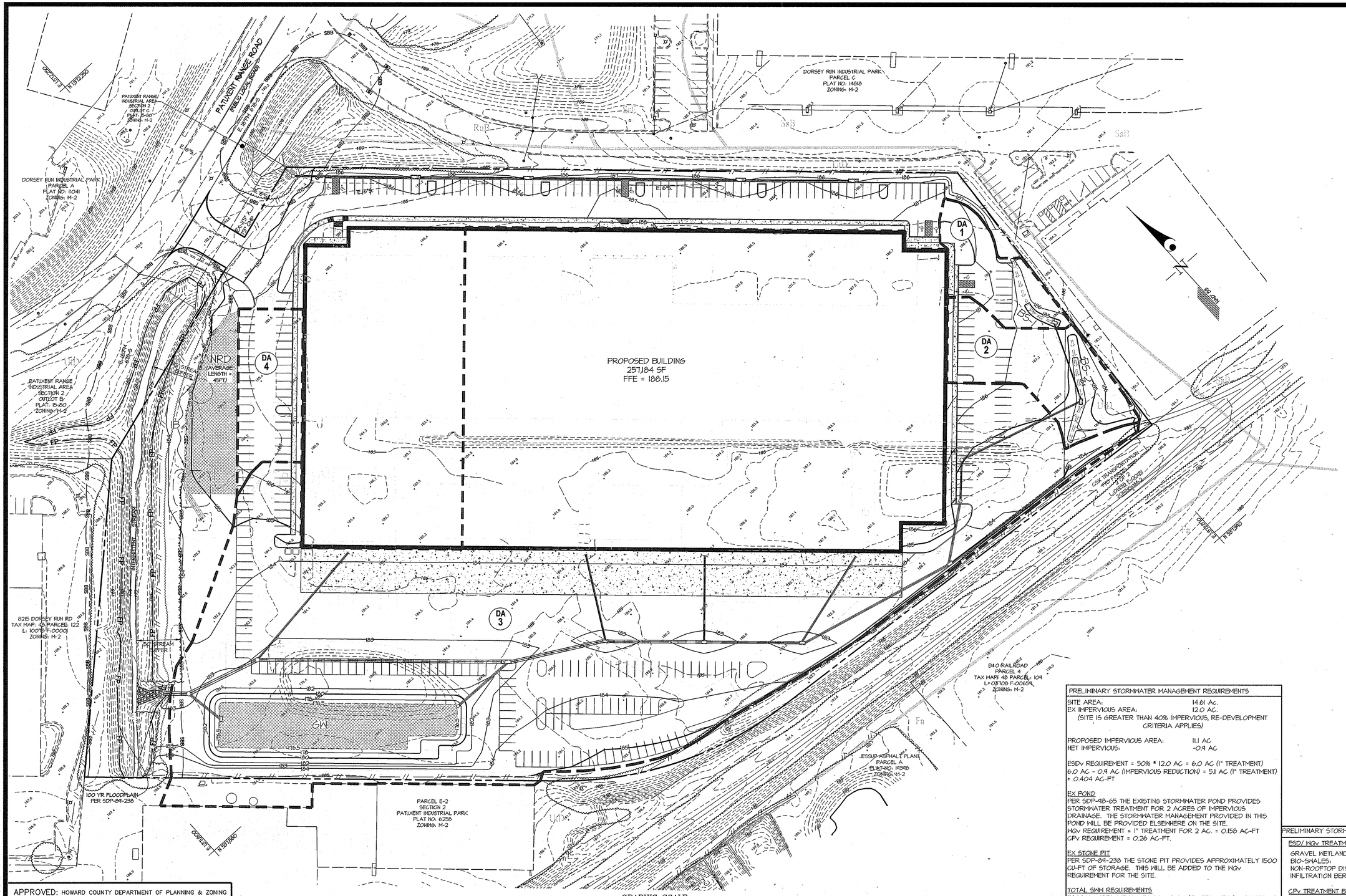
PARCEL A

PLAT NO: 17-80

ELECTION DISTRICT No. 6 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	M-2	12014
DATE	TAX MAP – GRID	SHEET
AUG., 2012	48-3	1 OF 3

ECP-12-061



LEGEND

ESD DRAINAGE DIVIDE

GW — TYPE
ESD SWM DEVICE

TYPES OF DEVICES:

MBR -	MICRO-BIORETENTION
GW -	GRAVEL WETLAND
BS -	BIO-SWALE
NRD -	NON-ROOFTOP DISCONNECT
IB -	INFILTRATION BERM

NOTE: ALL SOILS ON SITE ARE TYPE 'D' SOILS

Drainage Area	Area (SF)	% Impervious
1	10,385	70%
2	17,441	65%
3	408,280	05%
4	12,785	100%

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APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Division of Land Development — Date 9/04/12

Chief, Development Engineering Division — Date 9/7/12

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DATE	REVISION	BY	APP'R.

PREPARED FOR:
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SUITE 210
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STATE OF MARYLAND — VICTOR K. GUTSCHICK — PROFESSIONAL ENGINEER

8/28/12

ENVIRONMENTAL CONCEPT PLAN - DRAINAGE AREA MAP

PATUXENT PARK INDUSTRIAL AREA

PARCEL A

PLAT NO: 17-80

ELECTION DISTRICT No. 6 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	M-2	12014
DATE	TAX MAP - GRID	SHEET
AUG., 2012	48-3	2 OF 3

ECP-12-061

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Division of Land Development — Date 9/04/12

Chief, Development Engineering Division — Date 9/7/12

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8/28/12

STATE OF MARYLAND — CARLTON K. GUTSCHICK — REG. NO. 12975 — PROFESSIONAL ENGINEER

SEDIMENT CONTROL CONCEPT PLAN

PATUXENT PARK INDUSTRIAL AREA
PARCEL A
PLAT NO: 17-80

ELECTION DISTRICT No. 6 — HOWARD COUNTY, MARYLAND

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ECP-12-061