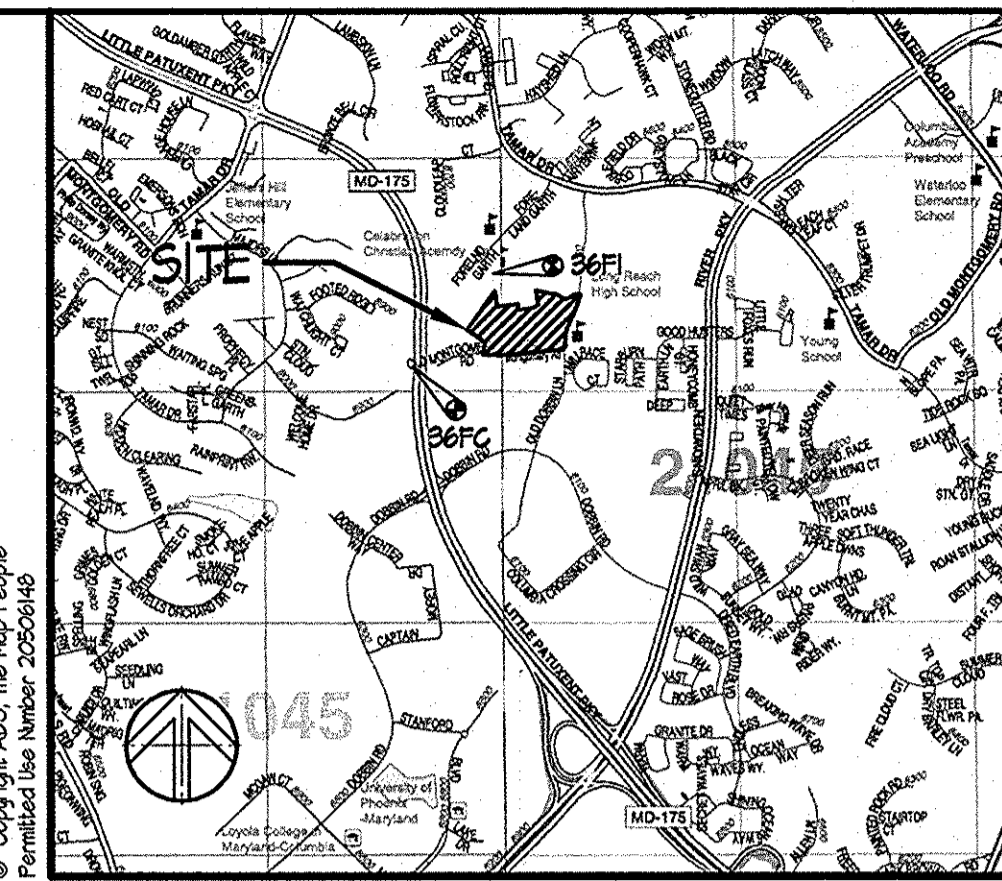


CONTEXT PLAN



VICINITY MAP
 (HOWARD COUNTY MAP - ADC 2012 - 33 F2 & 34 A2)
 1"=2000'

SURVEY NOTE
 BEARINGS, DISTANCES, COORDINATES AND ELEVATIONS AS SHOWN HEREON ARE BASED ON THE MARYLAND STATE SYSTEM OF PLANE COORDINATES, NAD 83 (2011 Adjustment) (EPOCH 2010) AND THE NAVD 83 VERTICAL SYSTEM FROM GPS OBSERVATIONS TO HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS SURVEY DIVISION CONTROL STATIONS AS CITED BELOW, DURING A FIELD-RUN SURVEY BY HANOVER LAND SERVICES, INC. ON SEPTEMBER 11, 2015.

STATION	NORTH	EAST	ELEVATION	DESCRIPTION
36FC	559,912.554	1365,648.217	375.141'	DISC IN CONCRETE
36FI	560,281.412	1364,550.276	426.213'	DISC IN CONCRETE
37DA	559,661.308	1366,051.542	374.149'	DISC IN CONCRETE
37DB	560,301.943	1366,048.240	395.412'	DISC IN CONCRETE

GENERAL NOTES

- TOPOGRAPHIC DATA ARE A COMBINATION OF HOWARD COUNTY GIS DATA AND TOPOGRAPHIC SURVEY CONDUCTED BY A/I DATA.
- SITE IS ZONED NT PER THE 2013 COMPREHENSIVE ZONING PLAN.
- SITE IS EXEMPT FROM FOREST CONSERVATION PER SECTION 16.1202(b)(1)(M) FOR A PLANNED UNIT DEVELOPMENT WITH PRELIMINARY DEVELOPMENT PLAN APPROVAL AND 50% OR MORE OF THE LAND RECORDED AND SUBSTANTIALLY DEVELOPED PRIOR TO DECEMBER 31, 1992.
- PREVIOUS FILE NUMBERS: FDP-47-A-IV PART II, F-00-021, F-44-14, F-43-114, F-88-111.
- TOPOGRAPHIC AND UTILITY DESIGNATION DATA HAS BEEN TAKEN FROM SURVEY PLAN ENTITLED "BOUNDARY AND TOPOGRAPHIC SURVEY FOR COLUMBIA ASSOCIATION TENNIS PAVILION PREPARED BY A/I DATA DATED OCTOBER 11, 2015. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION OF UTILITIES BY DIGGING TEST PITS, BY HAND, AT ALL UTILITY CROSSINGS PRIOR TO CONSTRUCTION.
- STORMWATER MANAGEMENT WILL BE PROVIDED BY ENVIRONMENTAL SITE DESIGN (ESD) PRACTICES. THE FACILITIES ARE TO BE PRIVATELY MAINTAINED.
- APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN, SITE DEVELOPMENT PLAN, OR GRADING OR BUILDING PERMIT. 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 PLAN, OR GRADING AND BUILDING PERMIT STAGES.
- DISTURBANCE TO STREAM CHANNELS IS WITHIN THE PARAMETERS OF SECTION 16.116(b)(1) OF THE ZONING REGULATIONS.
- NON-CREDITED OPEN SPACE IMPROVEMENTS MUST BE EVALUATED AGAINST THE MINIMUM OPEN SPACE REQUIRED FOR NT PER THE FDP AND AN FDP AMENDMENT WILL BE REQUIRED TO IDENTIFY NON-CREDITED OPEN SPACE.
- PERMISSION FOR OFF-SITE IMPROVEMENTS WILL BE PROVIDED WITH THE SDP.

DESIGN NARRATIVE

THE PROPOSED LAYOUT INCLUDES A NEW TENNIS CENTER, DRIVEWAY, AND PARKING LOT AT THE INTERSECTION OF OLD DOBBIN ROAD AND OLD MONTGOMERY ROAD. STEEP SLOPES, WETLANDS, PERENNIAL AND INTERMITTENT STREAMS, AND THEIR ASSOCIATED BUFFERS, ARE IDENTIFIED WITHIN THE PROPERTY BOUNDARY ON THE PLAN. THE SITE LIES OUTSIDE OF THE 100-YEAR FLOODPLAIN. THE PROPOSED LAYOUT IS LOCATED OUTSIDE OF THE STREAM AND WETLAND BUFFERS AND IN AN AREA WHERE SLOPES ARE LESS THAN 25%.

THE SITE CONTAINS AN ERODED CHANNEL THAT WAS FORMED AS A RESULT OF STORMWATER RUNOFF FROM A CULVERT. THIS EPHEMERAL CHANNEL DOES NOT HAVE ASSOCIATED BUFFERS. RUNOFF FROM THIS CULVERT IS PROPOSED TO CONVEY THROUGH PROPOSED PIPES THAT WILL DRAIN TOWARDS THE SAME STREAM CHANNELS. EFFORTS HAVE BEEN IMPLEMENTED TO GRADE THE SITE SUCH THAT DRAINAGE PATTERNS HAVE BEEN RETAINED, AND PROVISIONS FOR STABLE CONVEYANCE OF RUNOFF HAVE BEEN MADE.

THE ESD PRACTICES PROPOSED ARE MICRO-BIORETENTION FACILITIES. THESE SWM PRACTICES ARE PROPOSED WITHIN THE LIMIT OF WORKS TO CAPTURE AND TREAT RUNOFF FROM IMPERVIOUS AREAS. THE RUNOFF IS TEMPORARILY STORED THESE FACILITIES WHERE STORMWATER WILL FILTER THROUGH A SYSTEM OF LAYERED PLANTING MEDIA, SAND, AND GRAVEL WITHIN A LANDSCAPED AREA. ESDS HAVE BEEN DESIGNED TO PROTECT NATURAL RESOURCES, MAINTAIN NATURAL FLOW PATTERNS, AND MINIMIZE THE AMOUNT OF IMPERVIOUS AREA PROPOSED AS PART OF THIS DEVELOPMENT PROJECT.

DRAWING INDEX

SHEET NUMBER	SHEET TITLE
EGPO.01	COVER SHEET
EGPO.02	EXISTING CONDITIONS PLAN
EGPO.03	EROSION & SEDIMENT CONTROL PLAN
EGPO.04	STORMWATER MANAGEMENT PLAN

OWNER/DEVELOPER:
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 PO BOX 883, COLUMBIA, MD 21044
 c/o COLUMBIA ASSOCIATION 410-381-3351

SITE ANALYSIS DATA

TOTAL PROPERTY AREA	11.74 AC
EXISTING IMPERVIOUS AREA	0.00 AC
EX. WETLANDS / WETLAND BUFFER	1.84 AC
EX. FLOODPLAINS / BUFFER	0.00 AC
EX. FORESTS	10.10 AC
STEEP SLOPES (15% TO 25%)	1.54 +/- AC
STEEP SLOPES (> 25%)	0.54 +/- AC
LOD AREA	5.70 +/- AC
EXISTING IMPERVIOUS AREA (LOD)	0.00 AC
PROPOSED IMPERVIOUS AREA (LOD)	1.76 +/- AC
EXISTING GREEN OPEN AREA (LOD)	0.00 AC
PROPOSED GREEN OPEN AREA (LOD)	3.94 +/- AC
ERODIBLE SOILS (LOD)	3.16 +/- AC
PROPOSED SITE USAGE	RECREATIONAL FACILITY

SOIL TABLE

SOIL NAME	HYDROLOGIC SOIL GROUP	EROSION FACTOR, K _n
JcB - JACKLAND SILT LOAM	D	0.43
LcC - LEGORE SILT LOAM	C	0.28
LmB - LEGORE-MONTALTO SILT LOAMS	C	0.02
LoB - LEGORE-MONTALTO-URBAN	C	0.32
LrD - LEGORE-RELAY GRAVELLY LOAM	C	0.28
SoB - SAGSAFRAS	B	0.37
UoB - URBAN LAND-SAGSAFRAS-BELTSVILLE	D	0.37

SOIL MAP NUMBER 18 FROM HOWARD COUNTY SCD #EBSITE. EROSION FACTOR, K_n FOR SOIL SURVEY OF HOWARD COUNTY, MD 2003. COMAR DEFINES HIGHLY ERODIBLE SOILS AS THOSE SOILS WITH SLOPES GREATER THAN 15% OR SOILS WITH A K FACTOR GREATER THAN 0.35 AND WITH SLOPES GREATER THAN 5%.

LEGEND (ALL SHEETS)

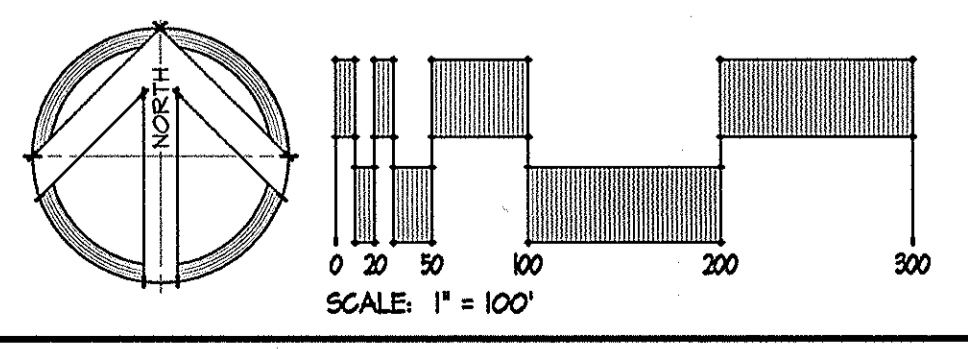
	PROPERTY LINE		EXISTING STREAM
	EXISTING CONTOURS		EXISTING STREAM BUFFER
	EXISTING TREELINE		PROPOSED REINFORCED TURF
	EXISTING TREES		PROPOSED CONTOURS
	EXISTING ROAD		LIMIT OF DISTURBANCE
	EXISTING CURB		PROPOSED IMPERVIOUS
	EXISTING WATER		PROPOSED BUILDING
	EXISTING SANITARY SEWER		LIMIT OF WORK
	EXISTING GAS		SLOPES 15% - 25%
	EXISTING ELECTRIC		SLOPES >25%
	EXISTING WETLANDS		PROPOSED ESD FACILITIES
	WETLAND BUFFER		EXISTING SOILS
	PROPOSED WOODSLINE		

APPROVED: DEPARTMENT OF PLANNING & ZONING

 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 4/15/16

 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 4/5/16

ADDRESS CHART		PERMIT INFORMATION CHART			
LOT/PARCEL	STREET ADDRESS	SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.	
LOT 96 / PARCEL 0651	OLD DOBBIN LANE, COLUMBIA, MD 21045	VILLAGE OF LONG REACH	SECTION 3, AREA 2	96 / 0651	
LOT 2 / PARCEL 0521	OLD DOBBIN LANE, COLUMBIA, MD 21045	FLAT # OR LIF	GRID #	ZONING	TAX MAP NO. ELECTION DISTRICT
		14067	7	NT	97 16
		WATER CODE	SEWER CODE	CENSUS TRACT	
		550		606608	



REVISIONS:

SEAL:

DRAWN BY: LXL/AMH/DJS
 CHECKED BY: DJS

SCALE: AS NOTED

DATE: 3/29/2016

SRI PROJECT NO. 15034

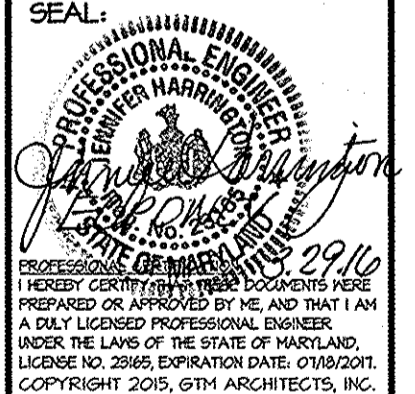
DRAWING NO.

ECP.01

**COLUMBIA, MARYLAND
 EXISTING CONDITIONS
 PLAN**

**LONG REACH
 TENNIS CLUB**

REVISIONS:

SEAL:


DRAWN BY: LXL/AMH/DJS
 CHECKED BY: DJS
 SCALE: AS NOTED
 DATE: 3.29.2016
 SRI PROJECT NO.: 15034
 DRAWING NO.:

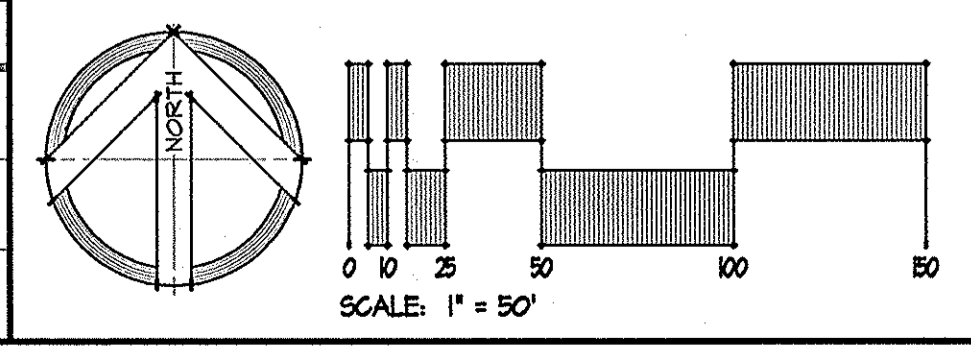
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ECP-16-035



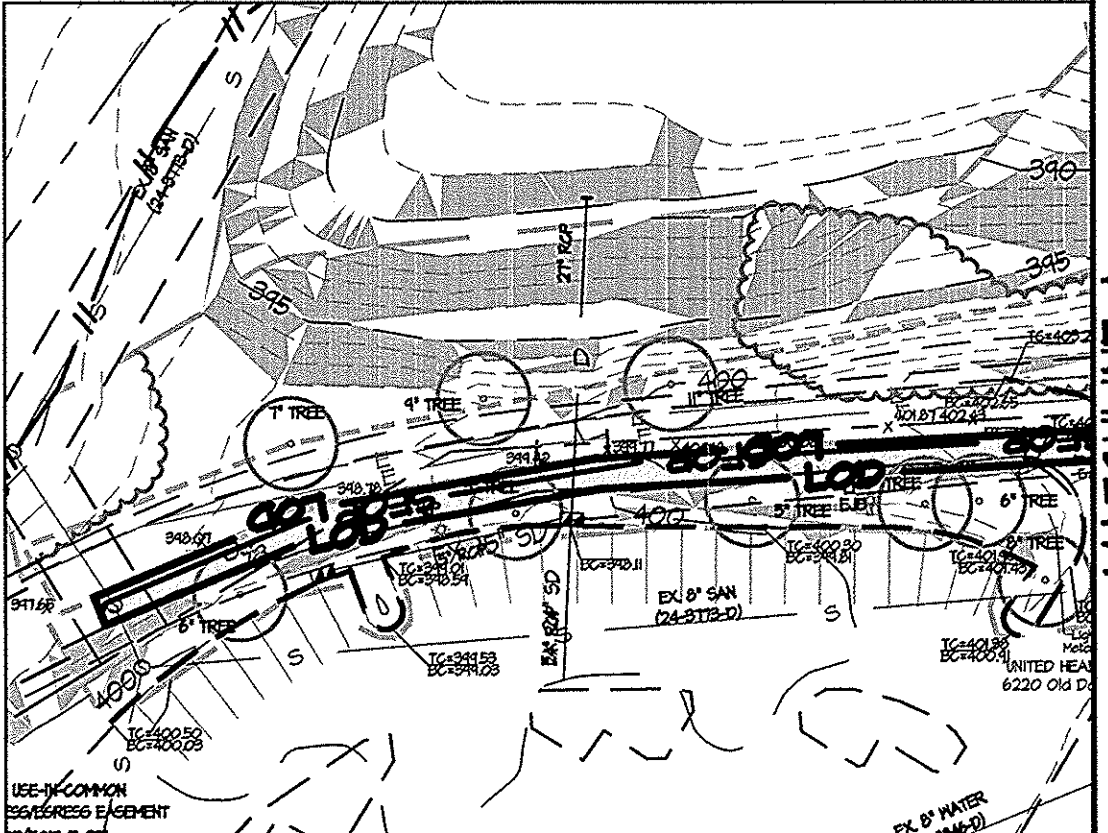
APPROVED: DEPARTMENT OF PLANNING & ZONING
 Chief, Development Engineering Division 4/5/16
 Chief, Division of Land Development 4/5/16

ADDRESS CHART		PERMIT INFORMATION CHART			
LOT/PARCEL	STREET ADDRESS	SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.	
LOT 96 / PARCEL 0651	OLD DOBBIN LANE, COLUMBIA, MD 21045	VILLAGE OF LONG REACH	SECTION 3, AREA 2	96 / 0651	
LOT 2 / PARCEL 0521	OLD DOBBIN LANE, COLUMBIA, MD 21045	FLAT # OR L/F	TAX MAP NO.	ELECTION DISTRICT	CENSUS TRACT
		14067	31	16	606600
		WATER CODE	SEWER CODE		
		550	-		



NOTE:
 NETLAND BOUNDARY IS ONLY DELINEATED
 ALONG THE PROPOSED LOD.
 OWNER/DEVELOPER:
 THE HOWARD RESEARCH AND
 DEVELOPMENT CORPORATION
 PO BOX 828, COLUMBIA, MD 21044
 c/o COLUMBIA ASSOCIATION 410-381-3551

Z:\15\15034-CA_Tennis_Foundation\04-DWG\EGP_0.02_Existing_Conditions_Planning\ECP0.02_Mar_29_2016_09:06pm.dwg



LEGEND

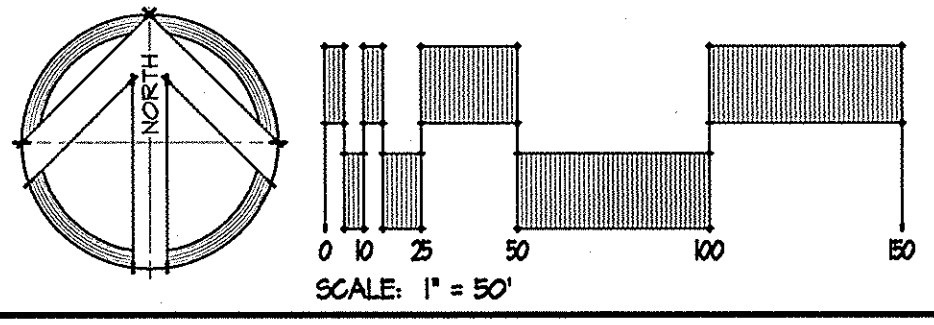
FL-10	10' FILTER LOG
SFOP	SILT FENCE ON PAVING
SSF	SUPER SILT FENCE
SF	SILT FENCE
DF	DIVERSION FENCE
SIP STANDARD	INLET PROTECTION
RPS	REMOVABLE PUMPING STATION
FB	FILTER BAG
(Symbol)	STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM

APPROVED: DEPARTMENT OF PLANNING & ZONING

[Signature] 4.15.16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 4.5.16
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

ADDRESS CHART		PERMIT INFORMATION CHART			
LOT/PARCEL	STREET ADDRESS	SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.	
LOT 96 / PARCEL 0651	OLD DOBBIN LANE, COLUMBIA, MD 21045	VILLAGE OF LONG REACH	SECTION 3, AREA 2	96 / 0651	
LOT 2 / PARCEL 0521	OLD DOBBIN LANE, COLUMBIA, MD 21045	FLAT # OR L/F	TAX MAP NO., ELECTION DISTRICT	GENUS TRACT	
		14061	31 16	606608	
		WATER CODE	SEWER CODE		
		550	-		



OWNER/DEVELOPER:
 THE HOWARD RESEARCH AND
 DEVELOPMENT CORPORATION
 PO BOX 888, COLUMBIA, MD 21044
 c/o COLUMBIA ASSOCIATION 410-381-3551

SITE RESOURCES
 Comprehensive Land Planning & Site Design Services
 1515 Acetowne Pike • Phoenix, Maryland 21181
 (410) 683-3888 • Fax (410) 683-3889

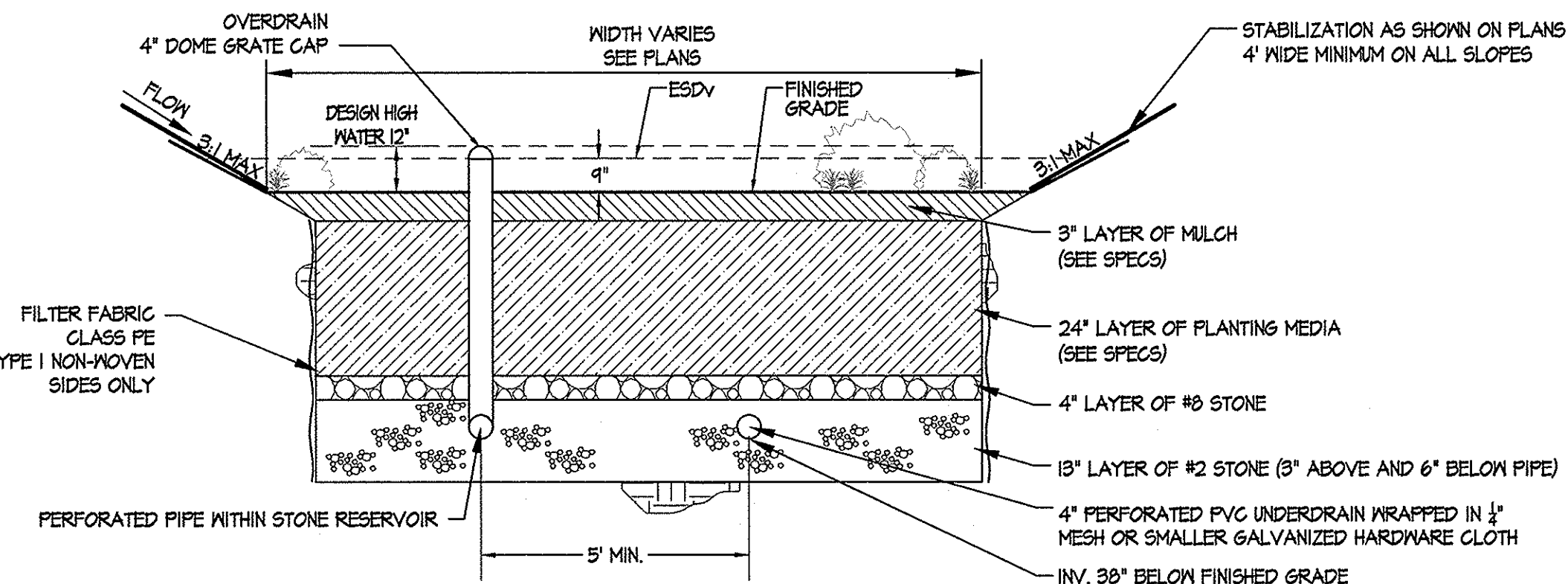
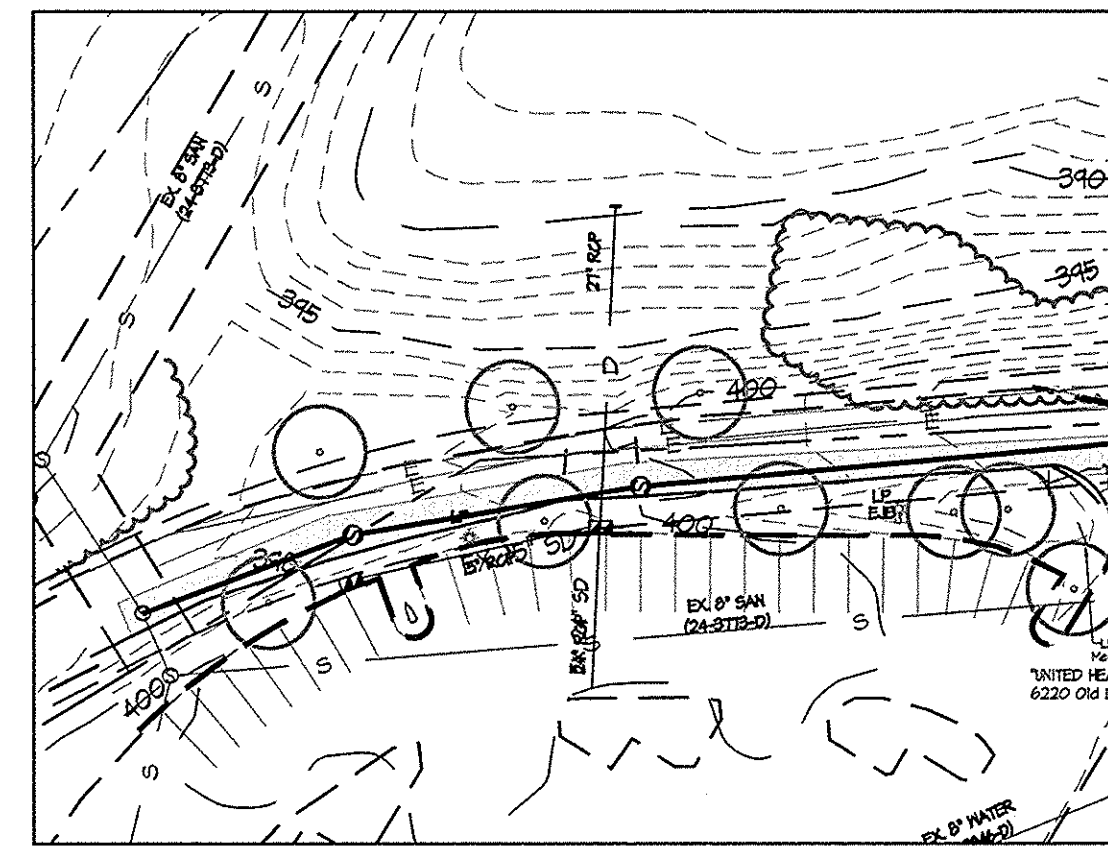
**COLUMBIA, MARYLAND
 EROSION & SEDIMENT
 CONTROL PLAN**

**LONG REACH
 TENNIS CLUB**

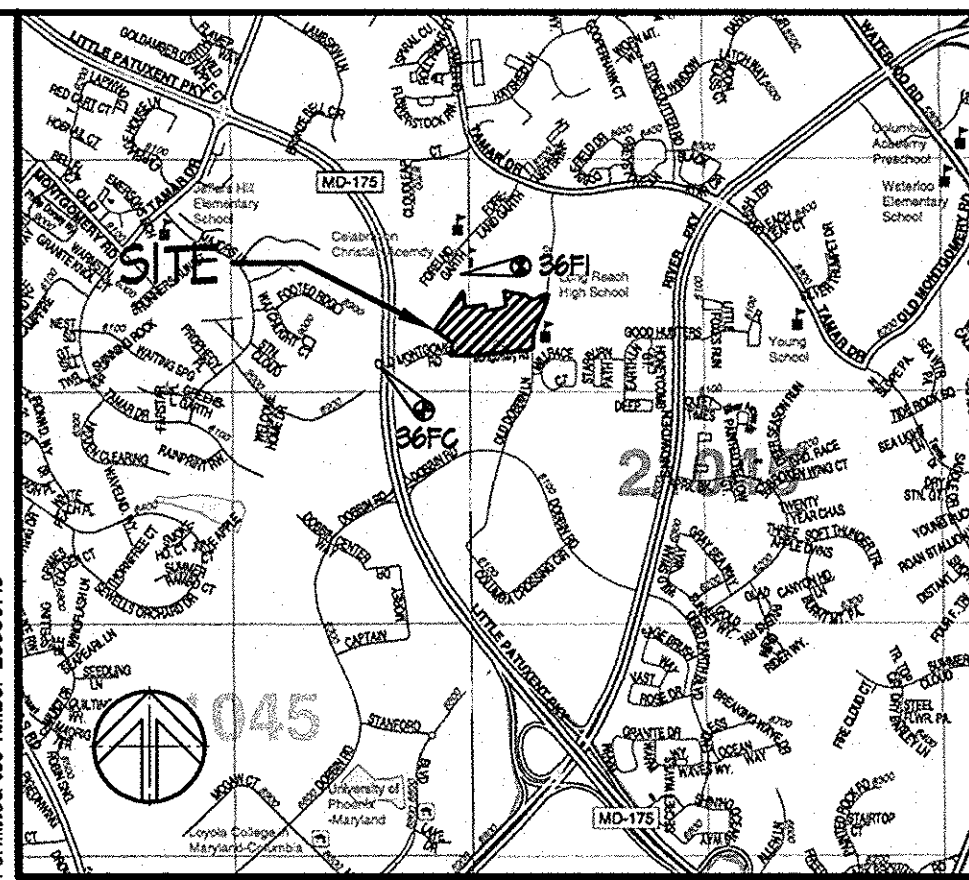
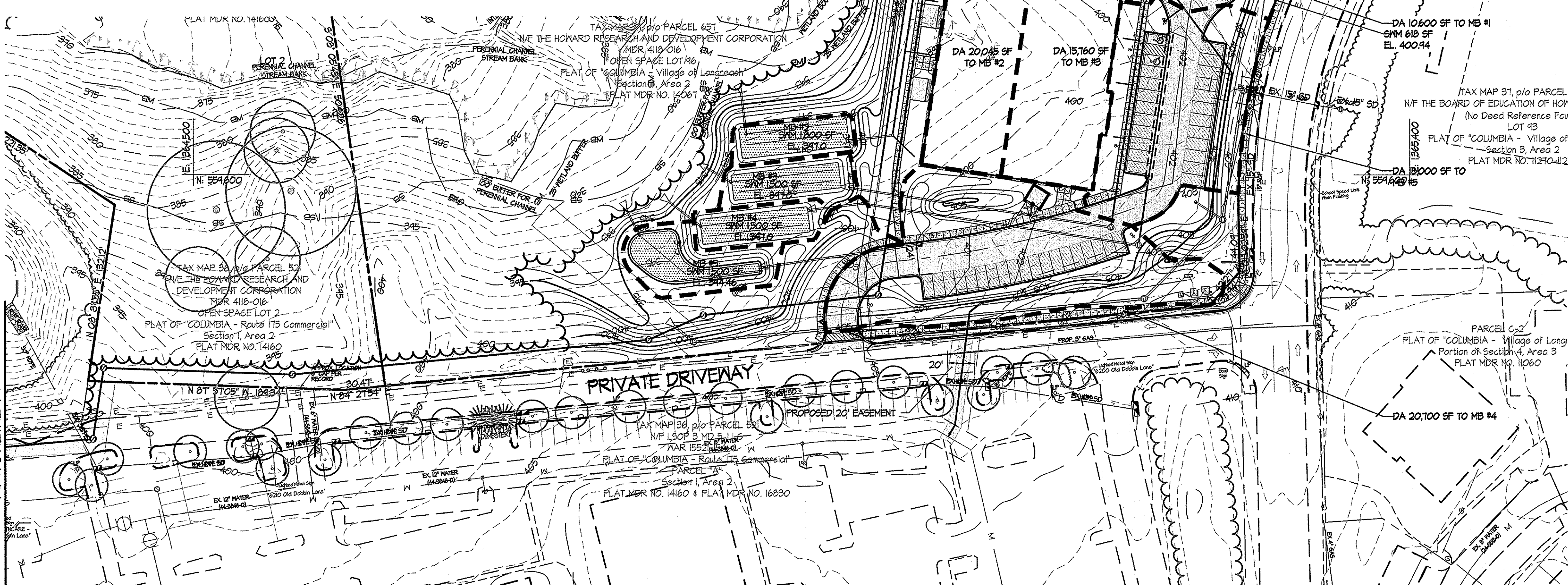
REVISIONS:

SEAL:

DRAWN BY: LXL/AMH/DJS
 CHECKED BY: DJS
 SCALE: AS NOTED
 DATE: 3.29.2016
 SRI PROJECT NO. 15034
 DRAWING NO. **ECP0.03**



1 MICRO-BIORETENTION (M-6) (24" DEPTH) NOT TO SCALE

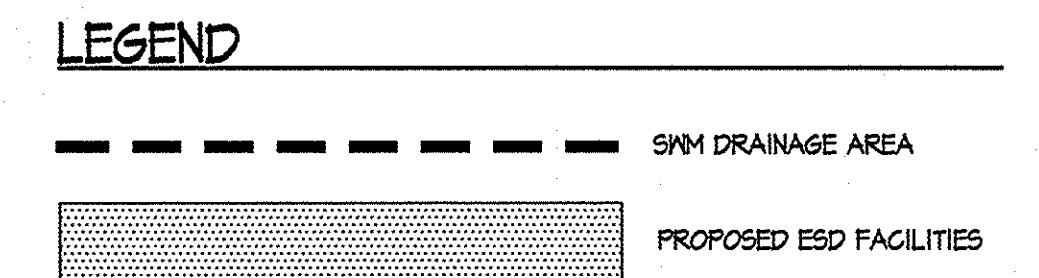


VICINITY MAP 1"=2000'

SITE AREA TABULATION	
TOTAL PROPERTY AREA	= 11.74 Ac
EX. IMPERVIOUS AREA	= 0.0 Ac < 40%
SWM STUDY AREA	= 5.70 +/- Ac
EX. IMPERVIOUS AREA	= 0.0 +/- Ac
PROP. IMPERVIOUS AREA	= 1.76 +/- Ac
TARGET Pe	= 1.44 Inches

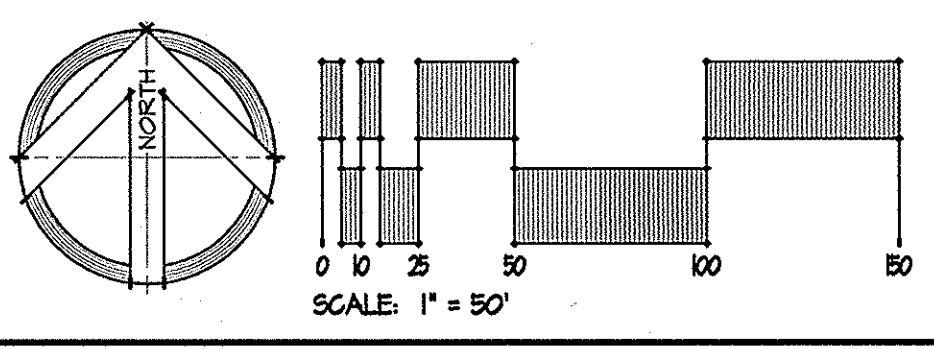
SWM STORAGE REQUIREMENTS		
REQUIREMENT	VOLUME REQ'D (CUBIC FEET)	VOL. PROVIDED (CUBIC FEET)
ESDV	10,111 +/-	10,118 +/-
REV	450 +/-	2,024 +/-

TREATMENT SUMMARY TABLE					
PRACTICE	DRAINAGE AREA (AC)	IMP. AREA TREATED (AC)	ESD VOL. PROVIDED (CF)	RECHARGE VOL. (CF)	Pe TREATED (IN)
MICRO-BIORETENTION#1	0.24	0.15	618	124	1.13
MICRO-BIORETENTION#2	0.45	0.31	1,200	360	1.64
MICRO-BIORETENTION#3	0.36	0.24	1,500	300	1.48
MICRO-BIORETENTION#4	0.46	0.22	1,500	300	1.86
MICRO-BIORETENTION#5	0.41	0.21	1,500	300	1.92
MICRO-BIORETENTION#6	0.42	0.28	1,600	320	1.63
MICRO-BIORETENTION#7	0.46	0.24	1,600	320	1.57
TOTAL	1.76	1.01	10,118	2,024	



APPROVED: DEPARTMENT OF PLANNING & ZONING
 Chief, Development Engineering Division
 Chief, Division of Land Development
 DATE: 4/15/16
 DATE: 4/5/16

ADDRESS CHART		PERMIT INFORMATION CHART			
LOT/PARCEL	STREET ADDRESS	SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.	
LOT #6 / PARCEL 0651	OLD DOBBIN LANE, COLUMBIA, MD 21045	VILLAGE OF LONG REACH	SECTION 3, AREA 2	#6 / 0651	
LOT 2 / PARCEL 0521	OLD DOBBIN LANE, COLUMBIA, MD 21045	FLAT # OR L/F	TAX MAP NO. ELECTION DISTRICT	14067 7 NT 31 16	CENSUS TRACT 606608
		WATER CODE	SEWER CODE	550	



OWNER/DEVELOPER:
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 (410) 683-3888 • Fax (410) 683-3889

COLUMBIA, MARYLAND
 STORMWATER
 MANAGEMENT PLAN

LONG REACH
 TENNIS CLUB

REVISIONS:

SEAL:
 PROFESSIONAL ENGINEER
 STATE OF MARYLAND
 No. 53916
 3/29/16

DRAWN BY: LXL/AMH/DJS
 CHECKED BY: DJS
 SCALE: AS NOTED
 DATE: 3/29/2016
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 DRAWING NO.

ECP0.04

ECP-16-035