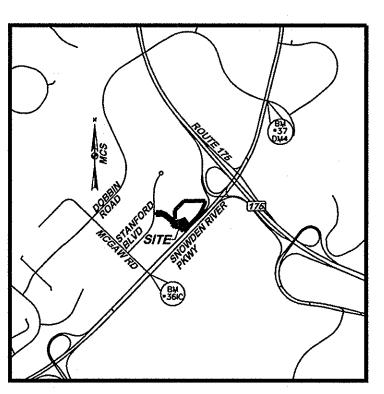
<u>LEGEND</u>	
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EX. CONCRETE CURB AND GUTTER	EX_C&G
EX. CURB AND GUTTER TO BE REMOVED	**********
EX. EDGE OF PAVING	
EX. CONCRETE TO BE REMOVED	(TBR)
DESIGNATION EX. BUILDING	₋
EX. SIGN	EX.SIGN - EX.ID SIGN
EX. STORM DRAIN, MANHOLE & INLET	[SO]
EX. RIP-RAP	
EX. SANITARY SEWER.	<u>EX.8"S</u>
MANHOLE & CLEANOUT EX. WATER MAIN, VALVE & FIRE HYDRANT	⊕
EX. ELECTRIC LINE EX. GAS LINE	GM ⊗ G G G G G G G G G G G G G G G G G G G
EX. TELEPHONE LINE,	7
POLE & BOX EX. POLE WITH LIGHT	* (*) +
EX. UTILITY POLE	<u>٠٠٠ </u>
& GUY WIRE EX. BOLLARD	•
EX. OVERHEAD LINE	
EX. INDEX CONTOURS	
EX. INTERMEDIATE CONTOURS	396
EX. TREE LINE	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
EX. TREE	(
"EXISTING" DESIGNATION	EX.
BUILDING RESTRICTION LINE	BRL
LANDSCAPE RESTRICTION LINE	1
PR. EASEMENT	
PR. CONCRETE CURB & GUTTER	PR.C&G
PR. IMPERVIOUS AREA	
PR. CONCRETE	
THE SOMETE	
PR. RIP-RAP	
PR. STORM DRAIN, MANHOLE & INLET	● PR.15"D
PR. SANITARY SEWER	PR.6"S
& CLEANOUT PR. WATER MAIN.	PR.6"W □ □
VALVE & FIRE HYDRANT	
PR. INDEX CONTOURS	400
PR. INTERMEDIATE CONTOURS	396
PR. SIGN	· · · · · · · · · · · · · · · · · · ·
PR. BOLLARD	©
PR. PARKING COUNT	8
"PROPOSED" DESIGNATIO	PR.
LIMIT OF DISTURBANCE SOIL BORINGS	⊛ swm-1
a a la arrivitata	₩ 3₩ηι-1

ENVIRONMENTAL CONCEPT PLAN **FOR** TEXAS ROADHOUSE

COLUMBIA CORPORATE PARK - PARCEL A-35 8840 STANFORD BOULEVARD COLUMBIA, MARYLAND 21045



VICINITY MAP

ADC MAP *4935-K10 ADC MAP COORDINATES: 76° 49'00" / 39° 11'00"

BENCH MARK

ELEVATIONS ARE BASED ON NAVD 88 DATUM PER HOWARD COUNTY CONTROL POINTS: CONTROL POINT *36IC: N 553,292.394; E 1,364,105,493; EL.385.767 DESCRIPTION: STANDARD CONCRETE MONUMENT SET FLUSH WITH SURFACE AT CORNER OF

SNOWDEN RIVER ROAD AND McGAW ROAD CONTROL POINT •37DM4: EL.362.706
DESCRIPTION: 3/4" REBAR SET 0.3' BELOW
SURFACE AT CORNER OF SNOWDEN RIVER
ROAD AND DOBBIN ROAD

		SHEET INDEX
1 OF 3	C-1	COVER SHEET
2 OF 3	C-2	EROSION AND SEDIMENT CONTROL PLAN - PLAN, NOTES AND SEQUENCE OF OPERATIONS
3 OF 3	C-3	STORM WATER MANAGEMENT PLAN - DRAINAGE AREA MAPS

SWM DESIGN NARRATIVE

The proposed development is within Parcel A-35 of the Columbia Corporate Park. It consists of a restaurant (7,420 sf) and associated parking. The area is currently being used as a parking lot. The subject site is draining towards an existing pond which is providing 2-, 10- and 100-yr quantity management as shown on previously approved drawings (SDP-87-193 & FDP-117-AII). The current zoning is New Town (NT).

The majority of the proposed development is impervious (73% */-). Therefore, it qualifies as redevelopment. With a small increase in impervious area, the proposed development is also subject to new development requirements. As a result, stormwater management shall be addressed according to both redevelopment and new development requirements. The redevelopment portion of the site will be treated by a Filterra (13' x 7') while a micro-bioretention facility will fulfill ESD volume requirements for the new development portion. Recharge requirements are being fulfilled through a stone trench under the micro-bioretention facility. under the micro-bioretention facility.

Natural resource protection and enhancement: As mentioned above, most of this subject site is impervious. The remainder has already been graded/compacted. The surrounding existing landscaping will remain intact. As a matter of fact, proposed landscaping will be provided to enhance

Maintenance of natural flow patterns: Natural flow patterns are being preserved. This is reflected in the proposed grading as shown on the stormwater

Reduction of impervious areas through better site design, alternative surfaces, non-structural practices:
The proposed development was strategically placed as shown on the plans to minimize total site imperviousness while maintaining visibility from Snowden River Parkway. The majority of the subject site is impervious (73% +/-). While a reduction in impervious area wasn't achieved, the increase is very minimal (4.2% +/-). Alternative surfaces weren't a feasible option due to the type/property of onsite soils. The existing grades as well as the type of terrain (impervious)

Integration of erosion and sediment controls into SWM strategy:
This typically is in reference to the placement of primary ESC practices such as traps and basins so that they're not placed in the same location as SWM practices that will ultimately rely on ground infiltration. The subject site doesn't feature any traps or basins. Inlet protection is being provided for all new inlets and some existing ones as well.

Implementation of ESD planning techniques and practices:
As mentioned above, the proposed development was strategically placed as shown on the plans to minimize total site imperviousness. Every effort was made to maintain the existing landscaping as well as the drainage pattern. The landscaping will actually be enhanced within the proposed development. The size of the subject site and the amount of existing impervious areas precluded the use of any natural areas and landscape features to manage the runoff from the proposed impervious area. The type/property of the onsite soils further streamlined the type of ESD practices that could be used to fulfill ESD requirements. As a result, a micro-bioretention practice will be used to fulfill ESD requirements for new development and a Filterra for redevelopment. Both practices will slow down runoff to maintain discharge timing and increase infiltration and evapotranspiration.

SITE DATA

I. GENERAL SITE DATA

7. EXISTING USE: PARKING LOT
8. PROPOSED USE: RESTAURANT (7,420 SF)
9. EXISTING WATER: PUBLIC (CONTRACT *24-1667-D)
10. EXISTING SEWER: PUBLIC (CONTRACT *20-1768-D)
11. MAXIMUM BUILDING HEIGHT:
ALLOWED: 50', PROPOSED: 27'-6"

TOTAL SITE AREA: 6.6528 Ac

2. TOTAL DISTURBED AREA: 50,000 SF or 1,15 Ac

3. TOTAL IMPERVIOUS AREA: 38,173 SF OR 0.88 Ac (WITHIN LOD)

4. GREEN OPEN AREA: 11,827 SF or 0.27 Ac (WITHIN LOD)

5. TOTAL ALLOWED BUILDING COVERAGE = 3.3264 Ac (50% OF PARCEL AREA)

6. WETLANDS (BUFFER): 0.00 Ac

7. FLOODPLAIN (BUFFER): 0.00 Ac

8. FORESTS: 0.00 Ac

9. STEEP SLOPES (15% AND GREATER): 0.00 Ac

10. ERODIBLE SOILS: 0.00 Ac

GENERAL SITE NOTES

- AS PER SECTION 16.1202 (b) (iv) A PLANNED UNIT DEVELOPMENT WHICH HAS PRELIMINARY DEVELOPMENT PLAN APPROVAL AND 50 PERCENT OR MORE OF THE LAND IS RECORDED AND SUBSTANTIALLY DEVELOPED BEFORE DECEMBER 31, 1992, THIS SITE IS EXEMPT FROM ANY REFORESTATION REQUIREMENTS.
- 2. TRAFFIC STUDIES WILL BE INCLUDED IN THE SITE DEVELOPMENT PLAN SUBMISSION.
- 3. A COMMUNITY INPUT MEETING ISN'T REQUIRED AS THE SITE ISN'T WITHIN 200 FEET FROM ANY RESIDENTIAL AREAS.
- 4. FIELD RUN TOPOGRAPHY HAS BEEN PROVIDED BY DUVAL AND ASSOCIATES. SURVEY DATE: NOVEMBER 12, 2015.
- AN ENVIRONMENTAL REPORT FOR THIS PROJECT WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. ON JANUARY 12, 2016. FINDINGS OF THAT REPORT REVEAL THAT THERE ARE NO WETLANDS, STREAMS, OR THEIR BUFFERS OR FOREST PRESENT WITHIN OR ADJACENT TO THE PROPOSED
- 7. PARKING LOT ISLAND LANDSCAPING FOR THE EXPANSION OF THIS SITE SHALL BE PROVIDED AT THE SITE DEVELOPMENT PLAN STAGE IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE. REMOVAL OF ANY EXISTING PERIMETER LANDSCAPING WILL BE REQUIRED TO BE REPLACED.

GENERAL NOTES

1. APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN AND/OR REDLINE REVISION PLAN. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SHALL OCCUR AT THE SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN STAGES AND/OR REDLINE REVISION PROCESS. 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.

OVERALL STORMWATER MANAGEMENT DESIGN SUMMARY				
TOTAL DEVELOPABLE AREA (LOD)	50,915 SF OR 1,169 Ac			
PROPOSED IMPERVIOUS AREA	38,330 SF OR 0.880 Ac			
EXISTING IMPERVIOUS AREA	36,790 SF OR 0,845 Ac			
IMPERVIOUS AREA TO BE TREATED BY FILTERRA	18,395 SF OR 0.422 Ac			
IMPERVIOUS AREA TREATED BY FILTERRA	19,780 SF OR 0.454 Ac			
IMPERVIOUS AREA TO BE TREATED BY MICRO-BIO.	1,540 SF OR 0.035 Ac			
IMPERVIOUS AREA TREATED BY MICRO-BIO.	2,828 SF OR 0.065 Ac			
WATERSHED	LITTLE PATUXENT RIVER			

	APPROVED: DEPARTMENT OF PLANNING AND ZONING					
	Chand Calo	l	·			4.15.16
	Chief, Development	Engineer	ing Division		*	Date
	- Kert Shel	well				4-7-16
	Chief, Division of L	and Deve	elopment M	В		Date
			ADDRES:	S CHART		
	LOT / PARCEL NO		, , ,	STREET ADD	RESS	
	A-35/356		884	O STANFORD I	BOULEVA	RD
			v., . + +			
THE COORDINATE SYSTEM OF ALL DRAWINGS IS BASED ON THE NORTH AMERICAN DATUM OF 1983. THE			PERMIT INFOR	MATION CHART		
ELEVATION SYSTEM OF ALL DRAWINGS IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988.	SUBDIVISION NAME COLUMBIA CORF	PORATE PAF	₹K	SECTION / AI	REA L	OT / PARCEL NO. A-35 / 356
HORZ: NAD 83/91: VERT: NAVD 88	PLAT NO. or L/F	GRID NO.	ZONING	TAX MAP NO.	ELEC. D	IST. CENSUS TRAC

Baltimore Land Design Group Inc.

Consulting Engineers 230 SCHILLING CIRCLE, SUITE 364 • HUNT VALLEY, MARYLAND 21031 PHONE: 410.229.9851 • FAX: 410.229.9865 • BLDG@BLDGINC.COM



PROFESSIONAL CERTIFICATION IHEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, IWONA ROSTEK-ZARSKA, AND THAT IAM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21245, EXPIRATION DATE: JUNE 9, 2016.

OWNER

MERRITT-CCP II LLC

2066 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 (410) 298-2600 FAX: (410) 298-9644

DEVELOPER / APPLICANT MERRITT-CCP II LLC

2066 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 (410) 298-2600

FAX: (410) 298-9644

REVISIONS				
DATE	NO.	DESCRIPTION	BY	
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COVER SHEET

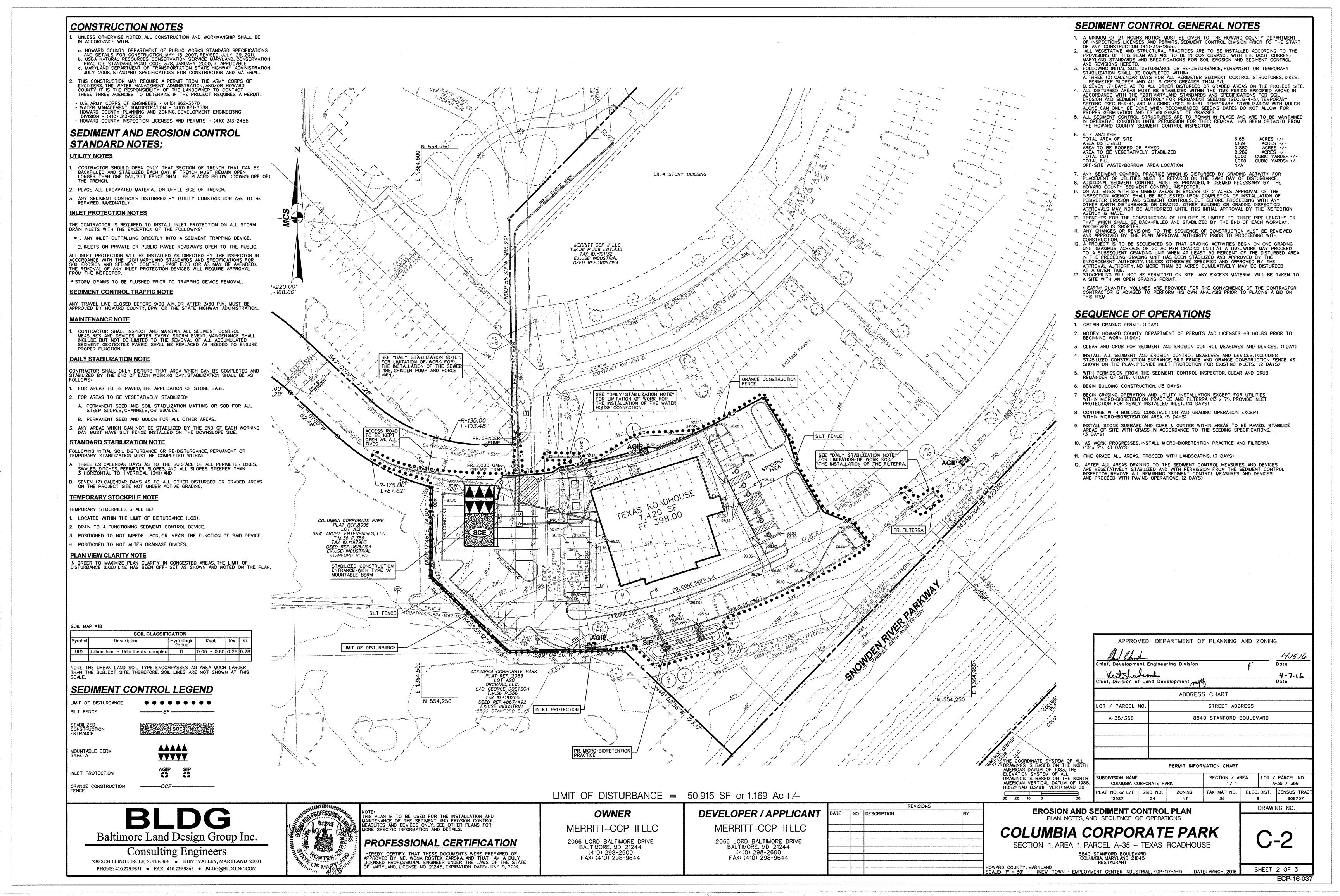
COLUMBIA CORPORATE PARK

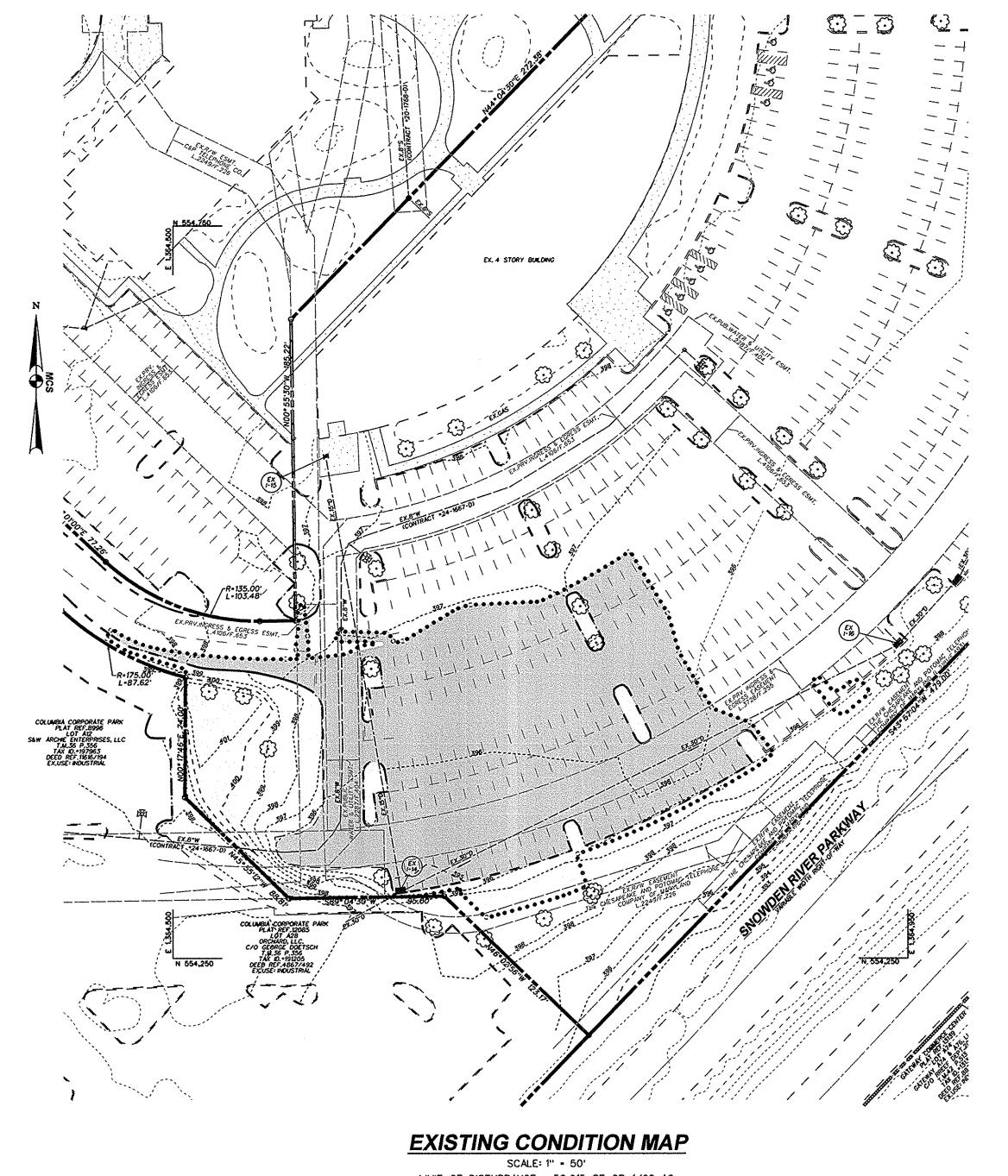
SECTION 1, AREA 1, PARCEL A-35 - TEXAS ROADHOUSE 8840 STANFORD BOULEVARD COLUMBIA, MARYLAND 21045 RESTAURANT

SCALE: AS SHOWN (NEW TOWN - EMPLOYMENT CENTER INDUSTRIAL, FDP-117-A-II) DATE: MARCH, 2016

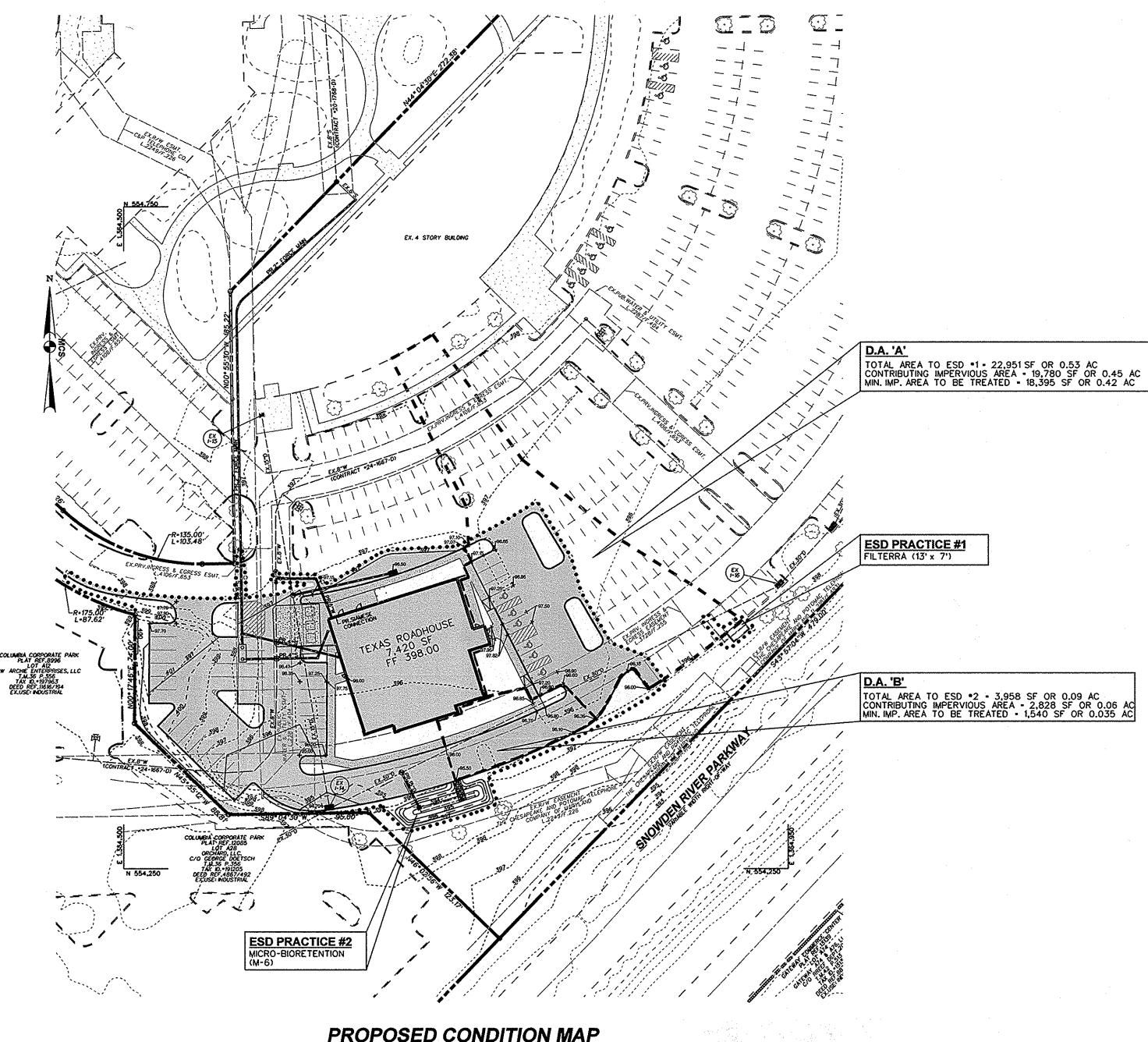
DRAWING NO.

SHEET 1 OF 3





LIMIT OF DISTURBANCE - 50,915 SF OR 1.169 AC EX. IMPERVIOUS AREA - 36,790 SF OR 0.845 AC EX. PERVIOUS AREA - 14,125 SF OR 0.324 AC



PROPOSED CONDITION MAP SCALE: 1" - 50"

LIMIT OF DISTURBANCE - 50,915 SF OR 1.169 AC PR. IMPERVIOUS AREA - 38,330 SF OR 0.880 AC PR. PERVIOUS AREA - 12,585 SF OR 0.289 AC

STORM WATER MANAGEMENT **DESIGN SUMMARY**

THIS SITE FALLS UNDER BOTH THE REDEVELOPMENT AND NEW DEVELOPMENT CRITERIA. THEREFORE, SWM SHALL BE PROVIDED BY EITHER A REDUCTION OF EXISTING IMPERVIOUS AREA WITHIN THE LIMIT OF DISTURBANCE (LOD) BY 50% AND/OR PROVIDING WATER QUALITY TREATMENT FOR AN EQUIVALENT AREA FOR THE IMPERVIOUS AREA THAT COULD NOT BE REDUCED.

IN ADDITION, STORM WATER MANAGEMENT SHALL BE PROVIDED ACCORDING TO THE NEW DEVELOPMENT REQUIREMENTS IN THE NEW DESIGN MANUAL FOR ANY NET INCREASE IN IMPERVIOUS AREA WITHIN THE LIMIT OF DISTURBANCE.

LIMIT OF DISTURBANCE = 50,915 SF
EX. IMPERVIOUS AREA WITHIN LOD = 36,790 SF
PR. IMPERVIOUS AREA WITHIN LOD = 38,330 SF
PR. INCREASE IN IMPERVIOUS AREA = 1,540 SF (4,2% +/-)
WATER QUALITY TO BE PROVIDED FOR 50% OF EX. IMPERVIOUS AREA = 18,395 SF
ESDV TO BE PROVIDED FOR INCREASE IN IMPERVIOUS AREA = 1,540 SF

ESD TARGETS REQUIRED:

REDEVELOPMENT, Pe = 1.0"
MIN. REQUIRED IMPERVIOUS AREA TO RECEIVE WATER QUALITY TREATMENT = 18,395 SF NEW DEVELOPMENT, Pe = 2.0"
MIN. REQUIRED IMPERVIOUS AREA FOR ESDV COMPUTATIONS = 1,540 SF ESDV REQUIRED (MIN.) = 244 CF Rev REQUIRED (MIN.) = 13 CF

ESD TARGETS PROVIDED:

REDEVELOPMENT - ESD PRACTICE *1 STRUCTURE TYPE: FILTERRA (13' X 7') DRAINAGE AREA 'A' Pe = 1.0" IMPERVIOUS AREA TREATED = 19,780 SF NEW DEVELOPMENT - ESD PRACTICE *2 STRUCTURE TYPE: MICRO-BIORETENTION (M-6) DRAINAGE AREA 'B' Pe * 2.09" IMPERVIOUS AREA TREATED * 2,828 SF ESDV PROVIDED * 477 CF Rev PROVIDED * 72 CF THE COORDINATE SYSTEM OF ALL DRAWINGS IS BASED ON THE NORTH AMERICAN DATUM OF 1983. THE ELEVATION SYSTEM OF ALL DRAWINGS IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988. HORZ: NAD 83/91: VERT: NAVD 88

APPROVED: DEPARTMENT OF PLANNING AND ZONING hief, Development Engineering Division Chief, Division of Land Development mp 4-7-16 Date ADDRESS CHART LOT / PARCEL NO. STREET ADDRESS 8840 STANFORD BOULEVARD A-35/356 PERMIT INFORMATION CHART SECTION / AREA LOT / PARCEL NO. COLUMBIA CORPORATE PARK A-35 / 356 TAX MAP NO. | ELEC. DIST. | CENSUS TRAC PLAT NO. or L/F GRID NO. ZONING

REVISIONS DATE NO. DESCRIPTION

NOTE: THE URBAN LAND SOIL TYPE ENCOMPASSES AN AREA MUCH LARGER THAN THE SUBJECT SITE. THEREFORE, SOIL LINES ARE NOT SHOWN AT THIS SCALE.

SOIL CLASSIFICATION

Ksat

LIMIT OF DISTURBANCE • • • • • • • • • •

UtD Urban land - Udorthents complex

SWM LEGEND

EX. / PR. IMPERVIOUS AREA

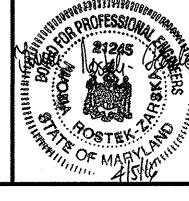
EX. / PR. GRASS

ESD PRACTICE

SOIL MAP *18

Baltimore Land Design Group Inc.

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DRAINAGE AREA MAPS COLUMBIA CORPORATE PARK

SECTION 1, AREA 1, PARCEL A-35 - TEXAS ROADHOUSE 8840 STANFORD BOULEVARD COLUMBIA, MARYLAND 21045 RESTAURANT

HOWARD COUNTY, MARYLAND SCALE: AS SHOWN (NEW TOWN - EMPLOYMENT CENTER INDUSTRIAL, FDP-117-A-II) DATE: MARCH, 2016

STORM WATER MANAGEMENT PLAN

DRAWING NO.

SHEET 3 OF 3 ECP-16-037

606707