

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY STANDARDS AND SPECIFICATIONS. ALL WORK AND MATERIALS SHALL COMPLY WITH O.S.H.A. STANDARDS.
- THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
 MISS UTILITY: 1-800-257-7777
 BUREAU OF UTILITIES: 410-313-4900
 A&T: 1-800-257-1133
 B.G.A.E. (CONSTRUCTION SERVICES): 410-637-8713
 B.G.A.E. (EMERGENCY): 410-637-8713
 STATE HIGHWAY ADMINISTRATION: 410-531-5533
 COLONIAL PIPELINE CO.: 410-795-1390
- SITE ANALYSIS:**
 TOTAL PROJECT AREA: 1.5475 AC.
 PRESENT ZONING: EMPLOYMENT CENTER INDUSTRIAL
 USE OF STRUCTURE: FOUR-STORY SELF-STORAGE BUILDING
 TOTAL BUILDING COVERAGE/FOOTPRINT: 33,470 SF (0.77 AC. OR 49.65% OF GROSS AREA)
 EXISTING BUILDING: 22,788 SF
 PROPOSED BUILDING ADDITION: 10,672 SF SF
 TOTAL BUILDING AREA: 44,460 SF
 1ST FLOOR: 33,470 SF
 2ND FLOOR: 17,044 SF
 3RD FLOOR: 27,052 SF
 4TH FLOOR: 27,052 SF
 PAVED PARKING LOT/AREA ON SITE: 11,822.28 SF (0.27 AC. OR 17.44% OF GROSS AREA)
 AREA OF LANDSCAPE ISLAND: 1,032.06 SF (0.02 AC. OR 1.53% OF GROSS AREA)
 LIMIT OF DISTURBED AREA: 1.46 AC.
 CUT: 845 CY
 FILL: 1149 CY
- PROJECT BACKGROUND:**
 LOCATION: COLUMBIA, MD.; TAX MAP 30, PARCEL 269, LOT 107
 ZONING: NT - EMPLOYMENT CENTER INDUSTRIAL
 SUBDIVISION: COLUMBIA
 SECTION: AREA 1, N/A
 DEED REFERENCE: L.8320/F.317 PLAT=23390
 DEED REFERENCE: ECP-14-088; F-19-102
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/ CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
- ANY DAMAGE TO PUBLIC RIGHT-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY, PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND AND SEWER EXTENSION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTORS INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- ALL REINFORCED CONCRETE FOR STORM DRAIN STRUCTURES SHALL HAVE A MINIMUM OF 28 DAYS STRENGTH OF 3500 P.S.I.
- ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUMUTCD). THE STREET AND REGULATORY SIGNS MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETED.
- ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
- SOIL COMPACTION SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER TO CONFIRM ACCEPTABILITY OF PROPOSED PAVING SECTION, BASED ON SOIL TEST PRIOR TO CONSTRUCTION.
- THE COORDINATES SHOWN HEREON ARE BASED UPON HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE SYSTEM. HOWARD COUNTY MONUMENT NOS. 301E AND 301F WERE USED FOR THIS PROJECT.
- THE PROPERTY LINES SHOWN HEREON IS BASED ON A FIELD-RUN BOUNDARY SURVEY PERFORMED BY ROBERT H. VOGEL ENGINEERING, INC. DATED MARCH 25, 2014.
- THE EXISTING TOPOGRAPHY SHOWN HEREON IS TAKEN FROM A FIELD RUN SURVEY BY ROBERT H. VOGEL ENGINEERING, INC., AND WAS PERFORMED IN MARCH 2014.
- GEOTECHNICAL REPORT PREPARED BY HILLIS-CARNES; DATED MAY 7, 2014.
- THE GEOTECHNICAL ENGINEER TO CONFIRM PAVING SECTION PRIOR TO CONSTRUCTION. ALL PAVING TO BE MINIMUM HOWARD COUNTY STANDARD DETAIL P-2 UNLESS OTHERWISE NOTED.
- ALL CURB AND GUTTER TO BE HOWARD COUNTY STANDARD DETAIL 3.01 UNLESS OTHERWISE NOTED.
- WHERE DRAINAGE FLOWS AWAY FROM CURB, CONTRACTOR TO REVERSE THE GUTTER PAN.
- ALL ELEVATIONS ARE TO FLOWLINE/BOTTOM OF CURB UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- CONTRACTOR RESPONSIBLE FOR CONSTRUCTING ALL HANDICAP RAMPS AND HANDICAP ACCESS IN ACCORDANCE WITH CURRENT ADA REQUIREMENTS.
- PUBLIC WATER AVAILABLE THROUGH CONTRACT 228-WBS.
- PUBLIC SEWER AVAILABLE THROUGH CONTRACT 228-WBS.
- TRAFFIC ANALYSIS PREPARED BY THE TRAFFIC GROUP, DATED JUNE 2, 2014; APPROVED 10/06/14.
- THE SUBJECT PROPERTY IS ZONED NT 'NEW TOWN' PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- THERE ARE NO WETLANDS, STREAMS, STEEP SLOPES, SPECIMEN TREES, OR 100-YEAR FLOODPLAIN LOCATED ON SITE.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- ALL REINFORCED CONCRETE FOR STORM DRAIN STRUCTURES SHALL HAVE A MINIMUM OF 28 DAYS STRENGTH OF 3500 P.S.I.
- ALL STORM DRAIN STRUCTURES SHALL HAVE ROOF LEADERS WHICH EMPTY INTO STORM DRAIN SYSTEM.
- PERIMETER, SWM AND PARKING LOT LANDSCAPING SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL, SUBJECT TO THE AMOUNT OF \$7,800 FOR 10 SHADE TREES AND 20 EVERGREENS SHALL BE PROVIDED WITH THE DEVELOPER'S AGREEMENT FOR THIS SITE DEVELOPMENT PLAN, SDP-15-009.
- ANY EXISTING STREET TREES DAMAGED OR DESTROYED DURING CONSTRUCTION WILL BE REPLACED BY THE CONTRACTOR.
- THIS PROJECT IS EXEMPT FROM THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR THE FOREST CONSERVATION BECAUSE IT IS IN THE NT ZONING DISTRICT AND THIS PROPERTY HAS A SITE DEVELOPMENT PLAN APPROVED PRIOR TO DECEMBER 31, 1992.
- THIS PROJECT IS SUBJECT TO COMPLIANCE WITH THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. DEVELOPMENT OR CONSTRUCTION ON THIS PROPERTY MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION OR BUILDING GRADING PERMIT APPLICATIONS.
- MD ROUTE 108 (OLD ANNAPOLIS RD) IS CLASSIFIED AS A MINOR ARTERIAL ROAD; RED BRANCH ROAD IS CLASSIFIED AS A MAJOR COLLECTOR ROAD.
- ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED (QUICK PUNCH) SQUARE TUBE POST (1 1/2" GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED SQUARE TUBE SLEEVE (1 1/2" GAUGE) - 3' LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO QUICK PUNCH HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL FOLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- THIS BUILDING WILL HAVE AN AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM.
- ALL EXTERIOR LIGHTING TO COMPLY WITH THE REQUIREMENTS FOUND IN ZONING SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS (DETAILS ON SHEET 7).
- A KNOX BOX IS REQUIRED TO BE PLACED ON THE FRONT OF THE BUILDING. IT SHALL BE PLACED TO THE RIGHT OF THE MAIN ENTRANCE AT A RANGE OF 1'-3" IN HEIGHT AND NO MORE THAN 8' LATERSLID FROM THE DOOR. ITS LOCATION IS SHOWN ON THESE PLANS. THE BOX SHALL BE ELECTRONICALLY SUPERVISED TO NOTIFY THE OWNER THAT IT IS BEING ACCESSED (INTEGRATED WITH THE FIRE ALARM SYSTEM).
- LANDSCAPING NOT PERMITTED WITHIN 7'-1/2" OF EACH SIDE OF THE FIRE DEPARTMENT CONNECTION. PROVIDE A CLEAR UNOBSTRUCTED ACCESS PATH TO THE FIRE DEPARTMENT CONNECTION. NFPA-131.4.
- FIRE LANES SHOULD BE PROVIDED IN THIS SITE TO ALLOW EMERGENCY VEHICLE ACCESS. EITHER FIRE LANE SIGNAGE SHOULD BE INSTALLED, OR THE CURBS SHOULD BE PAINTED IN RED AND STENCILED TO IDENTIFY THE ROAD AS A FIRE LANE.
- STREET LIGHT PLACEMENT AND THE TYPE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (2006), SECTION 5.5.A. A MINIMUM OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- THERE ARE NO BURIAL GROUNDS, CEMETERIES, OR HISTORIC STRUCTURES LOCATED ON THIS PROPERTY.
- TRASH COLLECTION AND RECYCLABLES TO BE PRIVATE.
- SIGNAGE HAS BEEN PROVIDED ON THE BUILDING IDENTIFYING THE BUILDING ADDRESS.
- STORMWATER MANAGEMENT FOR THIS PROJECT IS BEING PROVIDED BY ENVIRONMENTAL SITE DESIGN UTILIZING A MICRO-BIORETENTION (M-B) FACILITY TO ACCOMMODATE THE TOTAL ESQ VOLUME REQUIRED. THE SWM FACILITY SHALL BE PRIVATELY OWNED AND MAINTAINED.
- THIS PROJECT RECEIVED APPROVAL FROM OKLAND RIDGE BUSINESS CENTER INC. GRANTING APPROVAL ON 07/07/14.

ezStorage SELF-STORAGE 9002 RED BRANCH ROAD LOT 107, PLAT 23390 L.8320/F.317 SITE DEVELOPMENT PLAN

BENCHMARKS
 COORDINATES BASED ON NAD 83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 301E, 301F.
 HOWARD COUNTY BENCHMARK
 30 1E N 568536.34 E 1364955.61 ELEV. 504.10
 30 1F N 568033.11 E 1363934.26 ELEV. 473.36

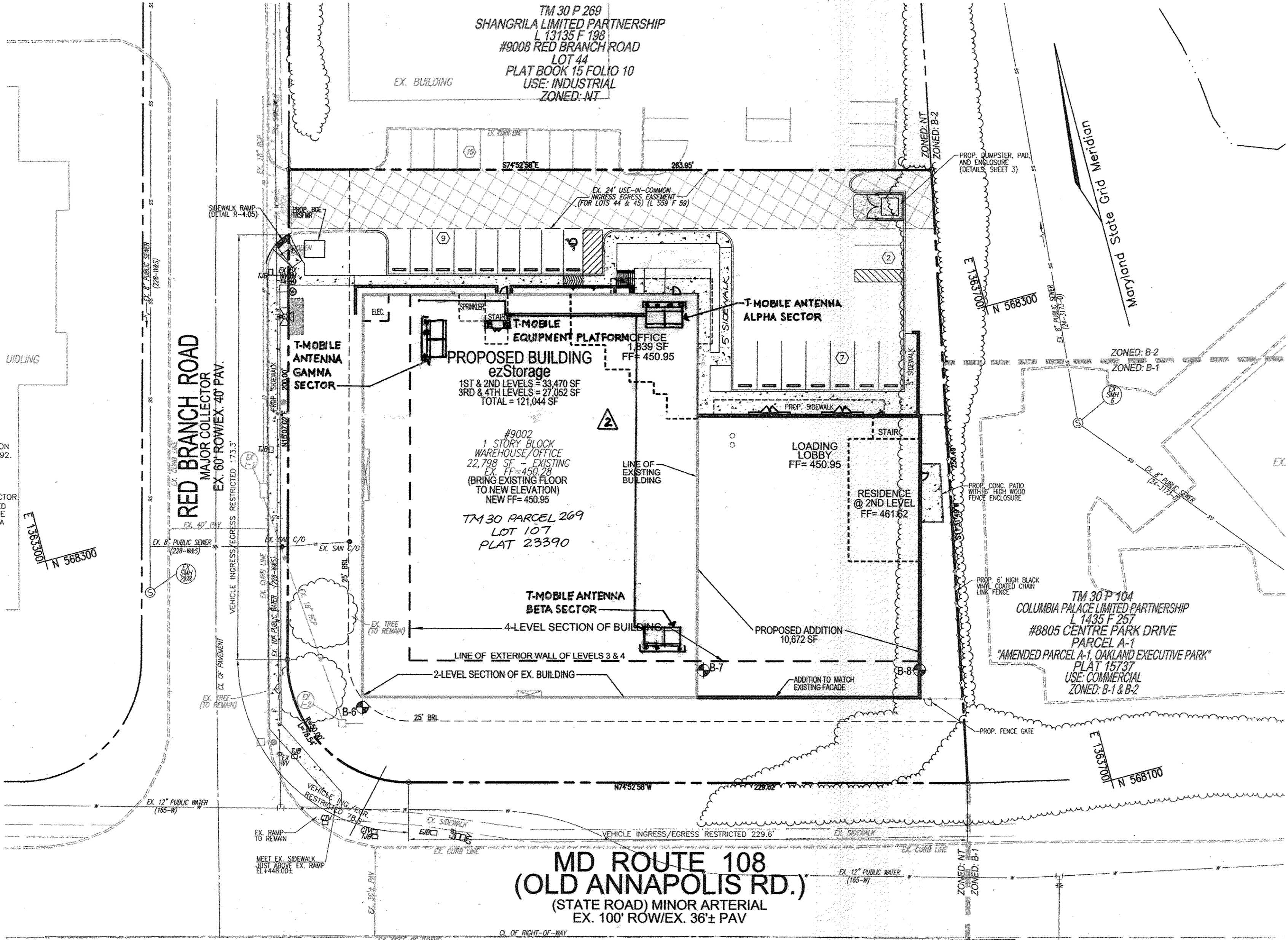
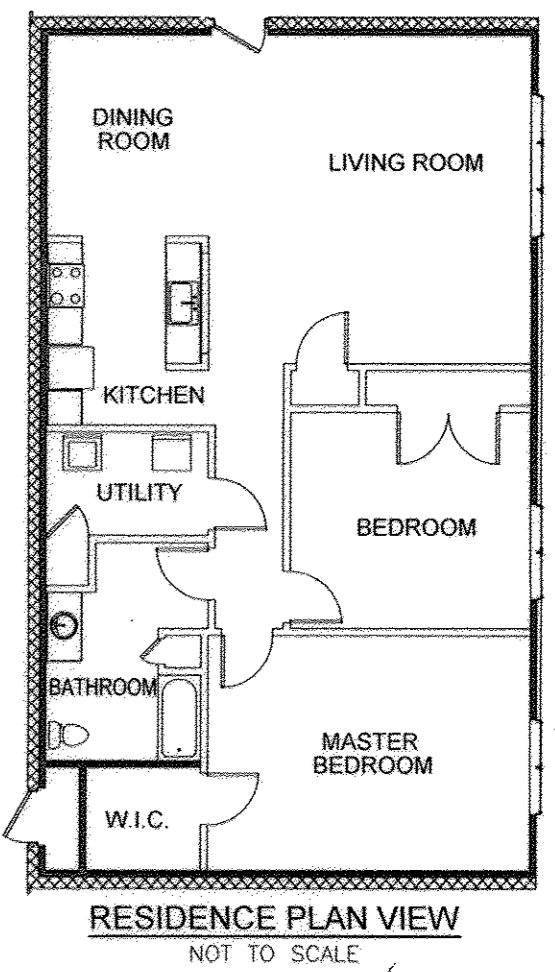
LEGEND:

- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- PROPOSED SIDEWALK
- 20' PUBLIC WATER AND UTILITY EASEMENT
- PROP. MICRO BIORETENTION AREA (M-B)
- EX. 24' USE-IN-COMMON INGRESS/EGRESS EASEMENT (FOR LOTS 44 & 45) (L 559 F 59)

VICINITY MAP
 SCALE: 1"=200'
 ADC MAP/GRID = 16/4C

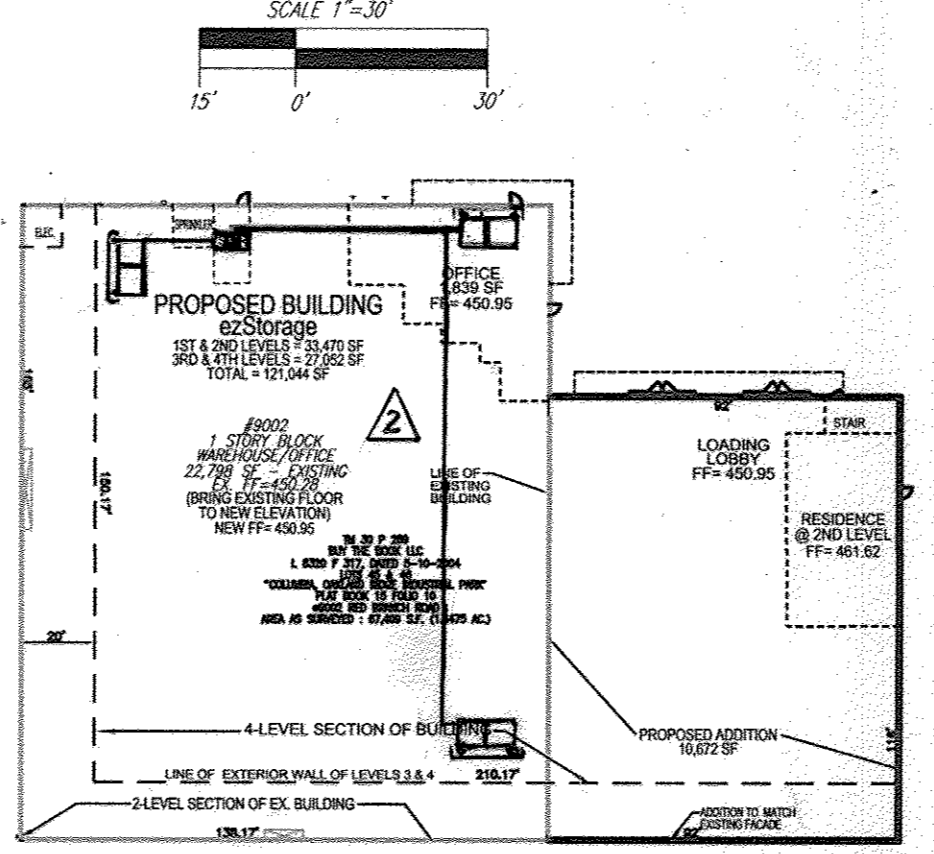
SHEET INDEX

DESCRIPTION	SHEET NO.
COVER SHEET	1 OF 7
SITE LAYOUT PLAN AND DEMOLITION PLAN	2 OF 7
SITE DETAILS; SEDIMENT CONTROL DETAILS	3 OF 7
GRADING, SEDIMENT AND EROSION CONTROL PLAN AND NOTES	4 OF 7
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SWM NOTES AND DETAILS; UTILITY PROFILES	6 OF 7
LANDSCAPE PLAN	7 OF 7



MD ROUTE 108 (OLD ANNAPOLIS RD.)
 (STATE ROAD) MINOR ARTERIAL
 EX. 100' ROW/EX. 36'± PAV

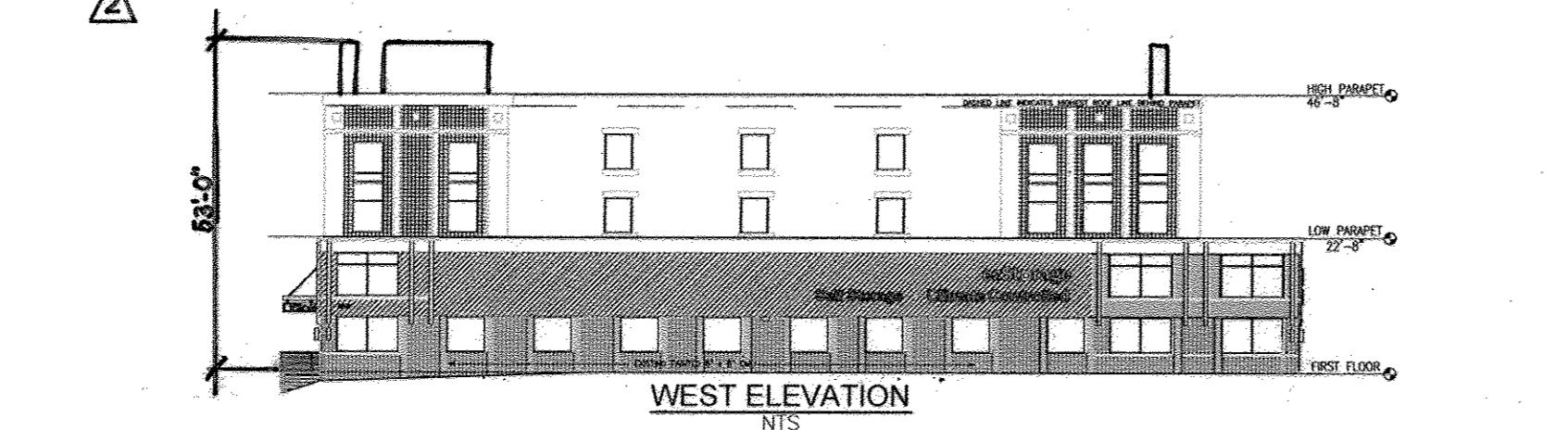
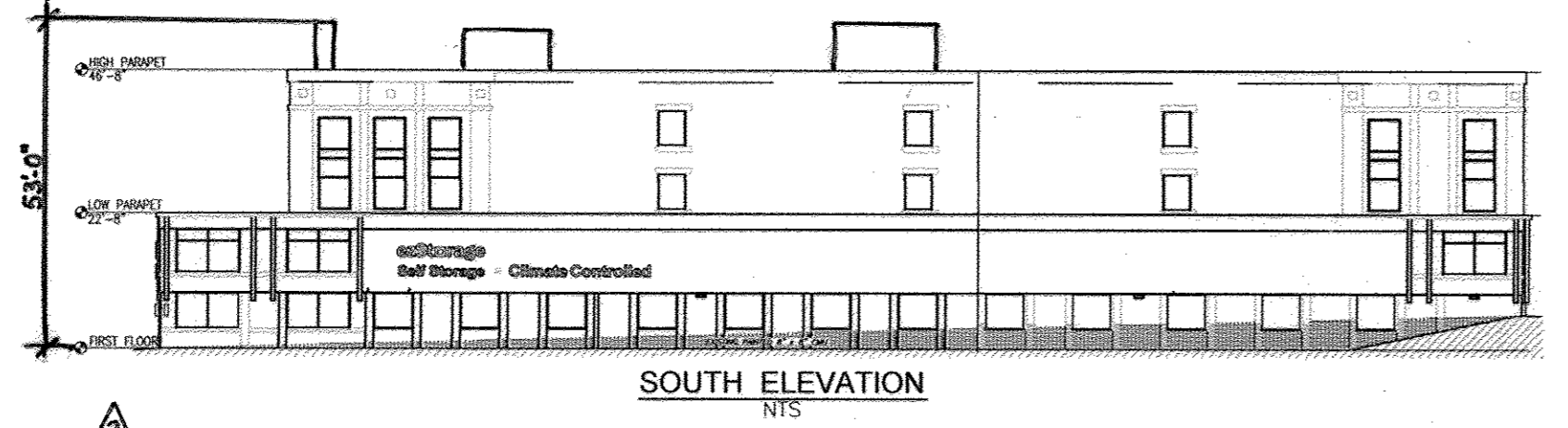
LOCATION PLAN
 SCALE: 1"= 30'



PARKING TABULATION

REQUIRED	REQUIRED
SELF STORAGE BUILDING: 121,044 SF (ALL FLOORS)	8 SPACES
STORAGE:	
@ 4.0 SPACES/1000 SF OF OFFICE (1,839 SF)	8 SPACES
GENERAL OFFICE: 1,839 SF	6 SPACES
@ 3.3 SPACES/1000 SF	2 SPACES
RESIDENCE: 1,381 SF	18 SPACES
@ 2 SPACES/DWELLING UNIT	18 SPACES*
TOTAL SPACES REQUIRED:	18 SPACES*
TOTAL SPACES PROVIDED:	18 SPACES*

*INCLUDES 1 HANDICAP SPACES



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Chiswick 6-5-15
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Kevin S. ... 6-19-15
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

David L. ... 6/19/15
 DIRECTOR DATE

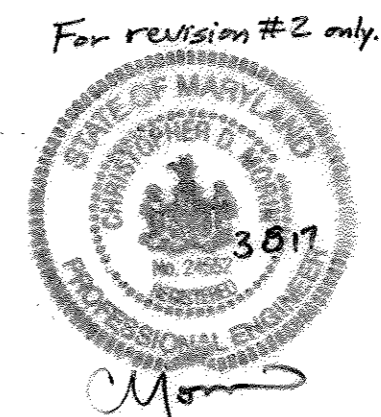
NO AS-BUILT INFORMATION THIS SHEET

ADDRESS CHART

LOT NO.	STREET ADDRESS
BUILDING A	9002 RED BRANCH ROAD

PERMIT INFORMATION CHART

SUBDIVISION NAME	SECTION/AREA	PARCEL/LOTS
OAKLAND RIDGE INDUSTRIAL PARK	N/A	PARCEL 269/LOTS 107
PLAT # OR L/F	BLOCK NO.	ZONE
PLAT# 23390	17	NT-EC INDUSTRIAL
TAX MAP NO.	TAX MAP N/A	ELECT. DIST.
30		2ND
CENSUS TR.	6012.02	
WATER CODE:	B01	SEWER CODE:
		302000



OWNER/DEVELOPER
 COLUMBIA NORTH LAND LLLP
 6221 SNOWDEN RIVER PARKWAY
 SUITE 300
 COLUMBIA, MARYLAND 21045

DEVELOPER/OWNER
 BUY THE BOOK LLC
 C/O ENTERPRISE INFORMATION
 9002 RED BRANCH ROAD
 COLUMBIA, MD 21046
 (410) 713-1130

NO.	REVISION	DATE
2	T-MOBILE WIRELESS INSTALLATION	3/6/17
1	REMOVE SWITCH BACK RAMP; ADD HANDICAP ACCESSIBLE SIDEWALK; REMOVE LOT LINE; CHANGE OWNERSHIP 6/4/15	

SITE DEVELOPMENT PLAN
COVER SHEET
 ezStorage
 SELF-STORAGE
 9002 RED BRANCH ROAD
 LOT 107 PLAT 23390
 ZONED: NT
 TAX MAP 30 BLOCK 17
 2ND ELECTION DISTRICT
 PARCEL 269, LOT 107
 HOWARD COUNTY, MARYLAND

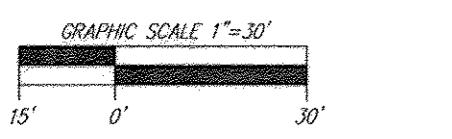
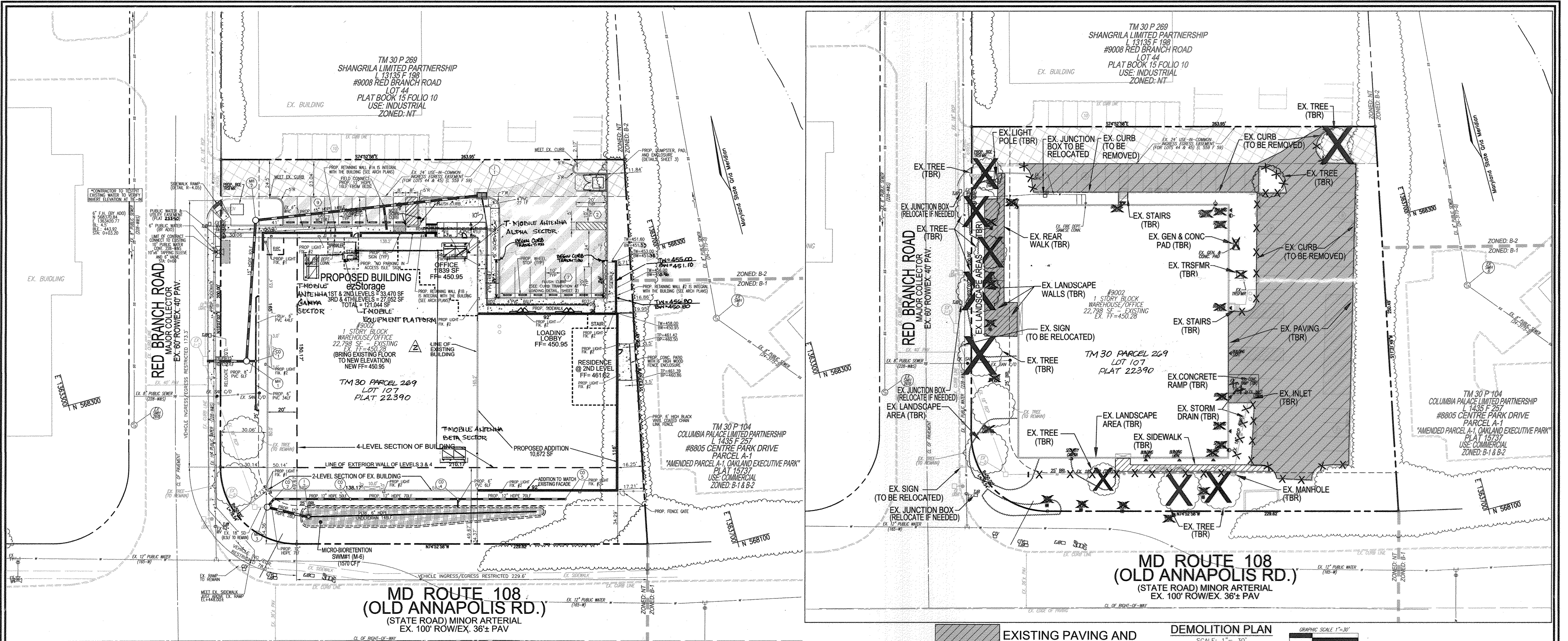
ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8487 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: DZE
 DRAWN BY: DZE/KG
 CHECKED BY: RHV
 DATE: APRIL 2015
 SCALE: AS SHOWN
 W.O. NO.: 14-10

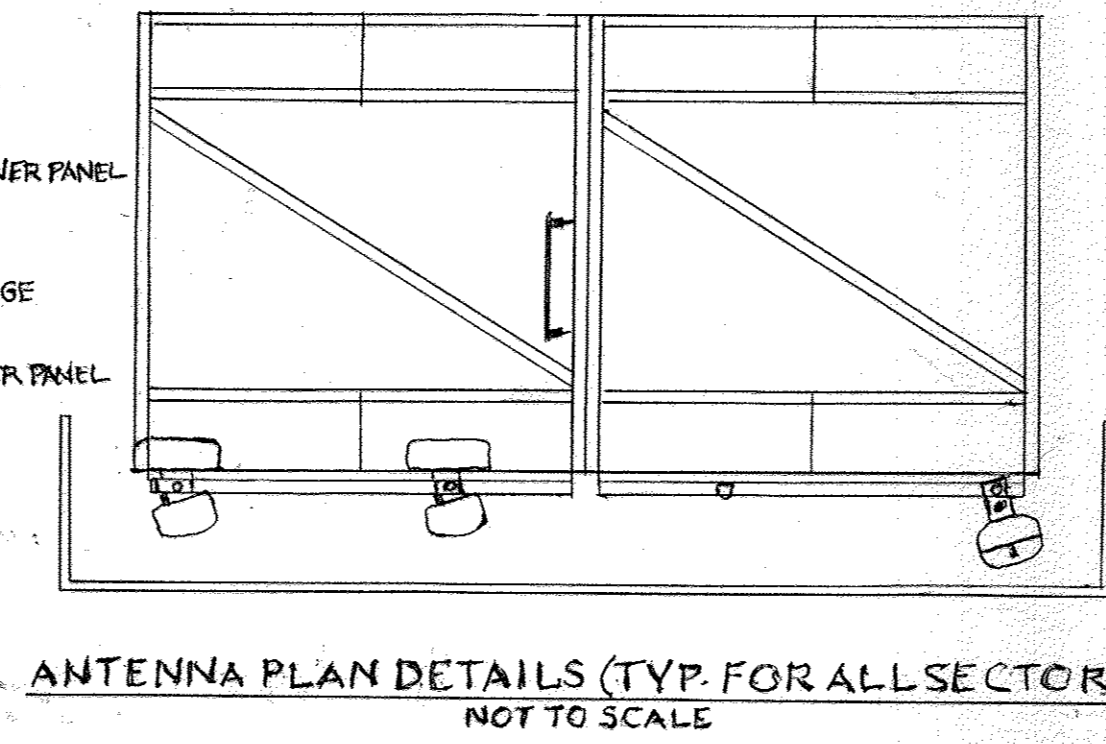
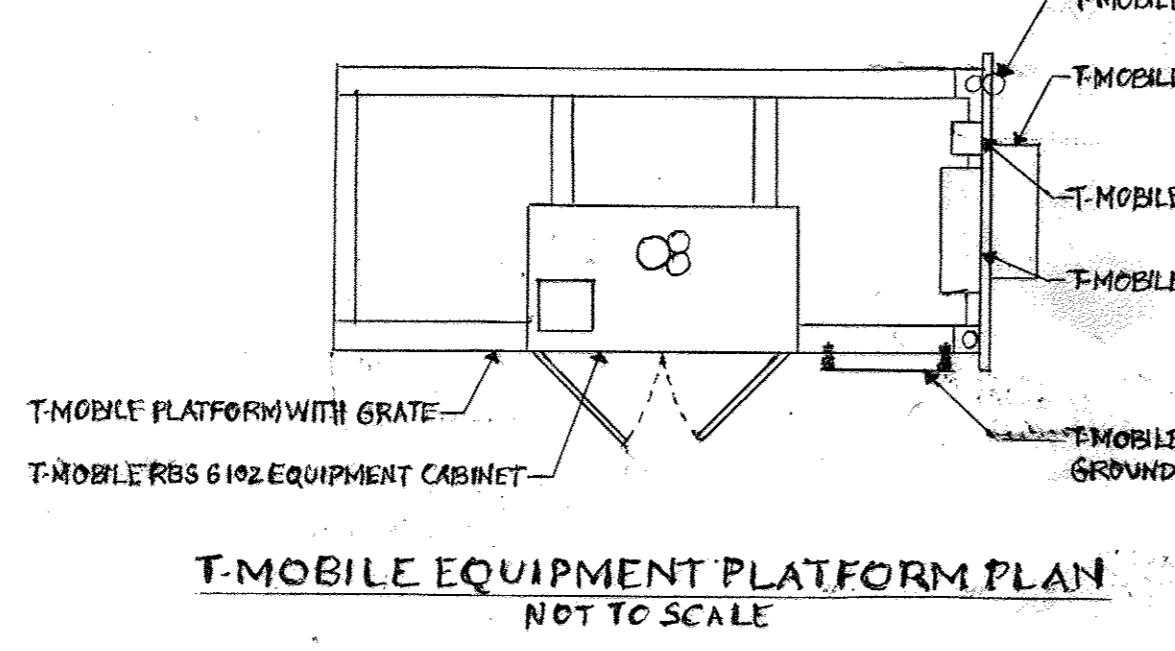
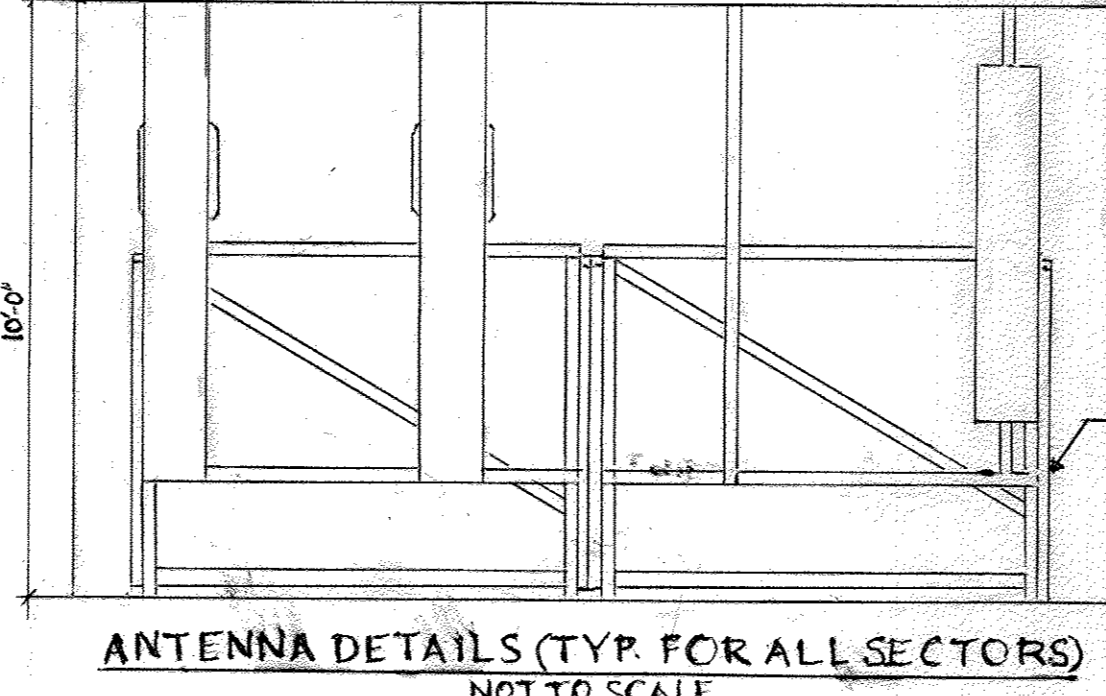
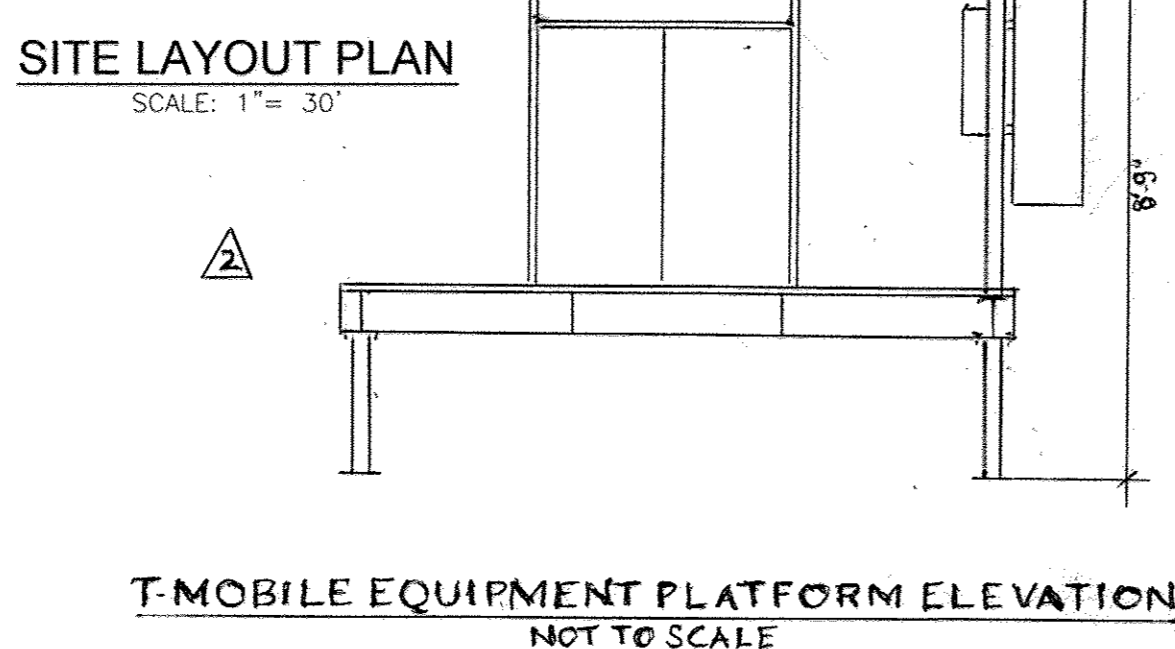
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 29527, EXPIRATION DATE: 09-27-2019

1 SHEET OF 7



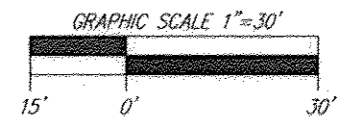
LEGEND:

	PROPOSED CONTOUR		EXISTING FENCE
	EXISTING CONTOUR		PROPERTY LINE
	EXISTING OVERHEAD LINES		ADJACENT PROPERTY LINE
	EXISTING WATERLINE		RIGHT-OF-WAY LINE
	EXISTING GAS LINE		PROPOSED SIDEWALK
	EXISTING GUARD RAIL		EXISTING CURB AND GUTTER
	EXISTING METAL FENCE		PROPOSED CURB AND GUTTER
	EXISTING WOOD FENCE		PROPOSED WHEEL STOP
	EXISTING ELECTRICAL BOX		PROPOSED STORM DRAIN INLET
	EXISTING POLE		PROPOSED STORM DRAIN
	EXISTING LIGHT POLE WITH CONCRETE BASE		20' PUBLIC WATER AND UTILITY EASEMENT
	EXISTING MAILBOX		PROP. MICRO BIORETENTION AREA (M-6)
	EXISTING SIGN		EX. 24' USE-IN-COMMON INGRESS/EGRESS EASEMENT (FOR LOTS 44 & 45) (L. 559 F. 59)
	EXISTING SANITARY MANHOLE		LIMITS OF NEW PAVING (PAVING SECTION ON SHEET 3)
	EXISTING CLEANOUT		
	EXISTING FIRE HYDRANT		
	PROPOSED PARKING COUNT		

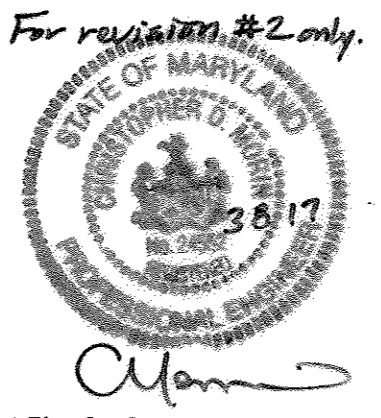


EXISTING PAVING AND LANDSCAPE WALK/WALLS TO BE REMOVED

DEMOLITION PLAN
SCALE: 1"=30'



- DEMOLITION NOTES:**
- DISCONNECT EXISTING LANDSCAPE IRRIGATION SYSTEM & REMOVE VALVES AT BUILDING.
 - EXISTING BUILDING LIGHTING AND SECURITY CAMERAS TO BE REMOVED.
 - EXISTING BUILDING DOWNSPOUTS AND STORM DRAIN PIPE ALONG EAST SIDE OF BUILDING TO BE REMOVED.
 - EXISTING TELEPHONE JUNCTION BOXES, VALVES, METERS, AND SIGNS TO BE ADJUSTED TO GRADE AND/OR RELOCATED WITH THE INSTALLATION OF THE SIDEWALK ALONG RED BRANCH ROAD.



OWNER/DEVELOPER
COLUMBIA NORTH LAND LLLP
8221 SHOWNDEN RIVER PARKWAY
SUITE 300
COLUMBIA, MARYLAND 21045

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

John Edwards
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 6/5/15

Kathleen Smith
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 6/19/15

Robert H. Vogel
DIRECTOR
DATE: 6/19/15

DEVELOPER/OWNER
BUY THE BOOK LLC
700 ENTERPRISE INFORMATION
9002 RED BRANCH ROAD
COLUMBIA, MD 21045
(410) 743-4100

NO.	REVISION	DATE
2	T-Mobile wireless installation	3/9/17
1	REMOVE SWITCHBACK RAMP; ADD HANDICAP ACCESSIBLE SIDEWALK; REMOVE LOT LINE; CHANGE OWNERSHIP	6/14/15

**SITE DEVELOPMENT PLAN
SITE LAYOUT PLAN AND
DEMOLITION PLAN**

ezStorage
SELF-STORAGE
9002 RED BRANCH ROAD
LOT 107 PLAT 23390
ZONED: NT

TAX MAP 30 BLOCK 17
2ND ELECTION DISTRICT

PARCEL 269, LOT 107
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL
ENGINEERING, INC.**
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8407 MAIN STREET
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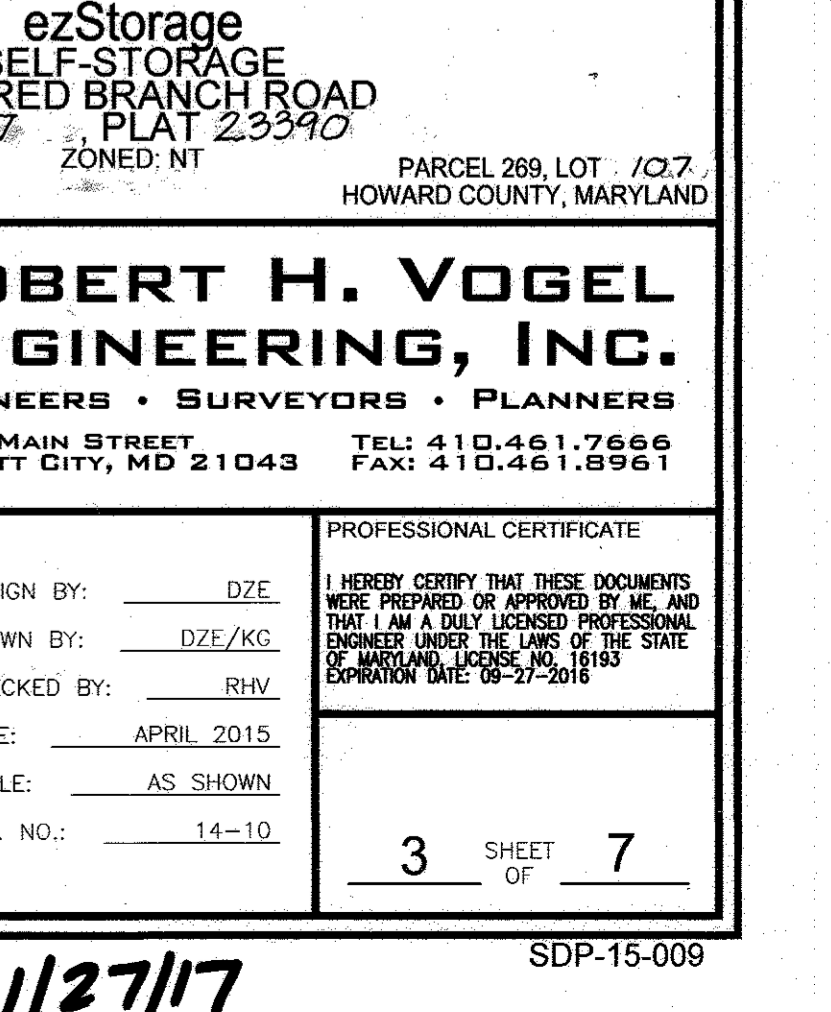
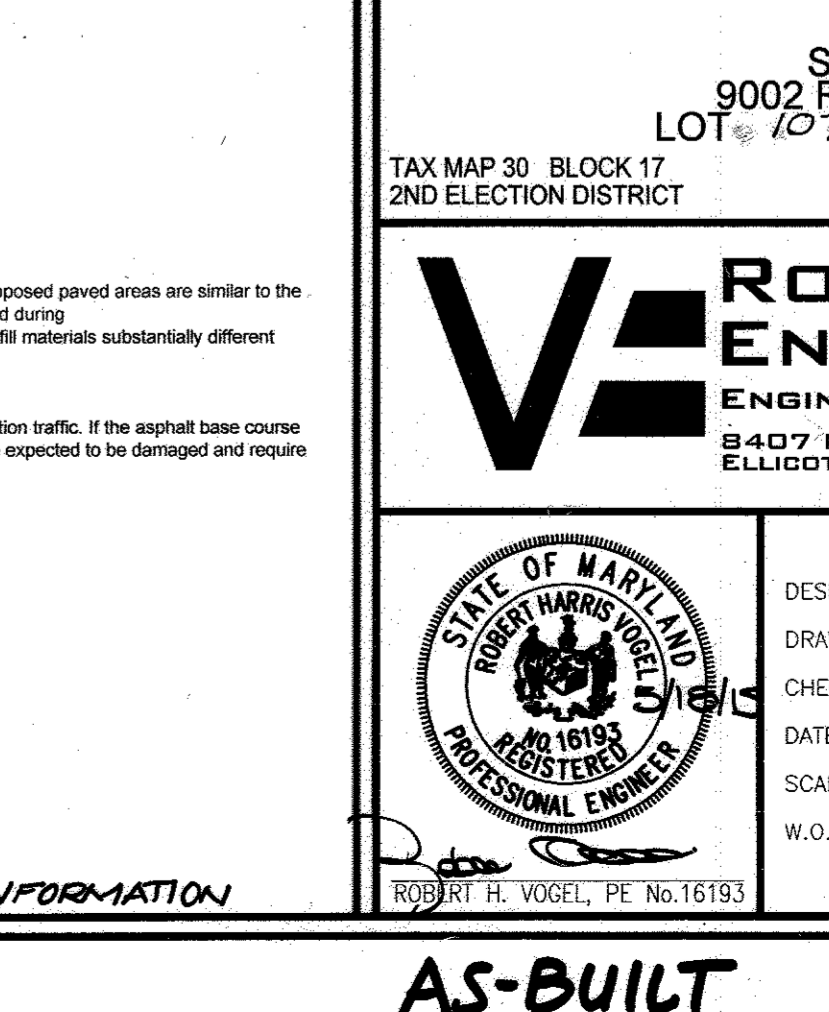
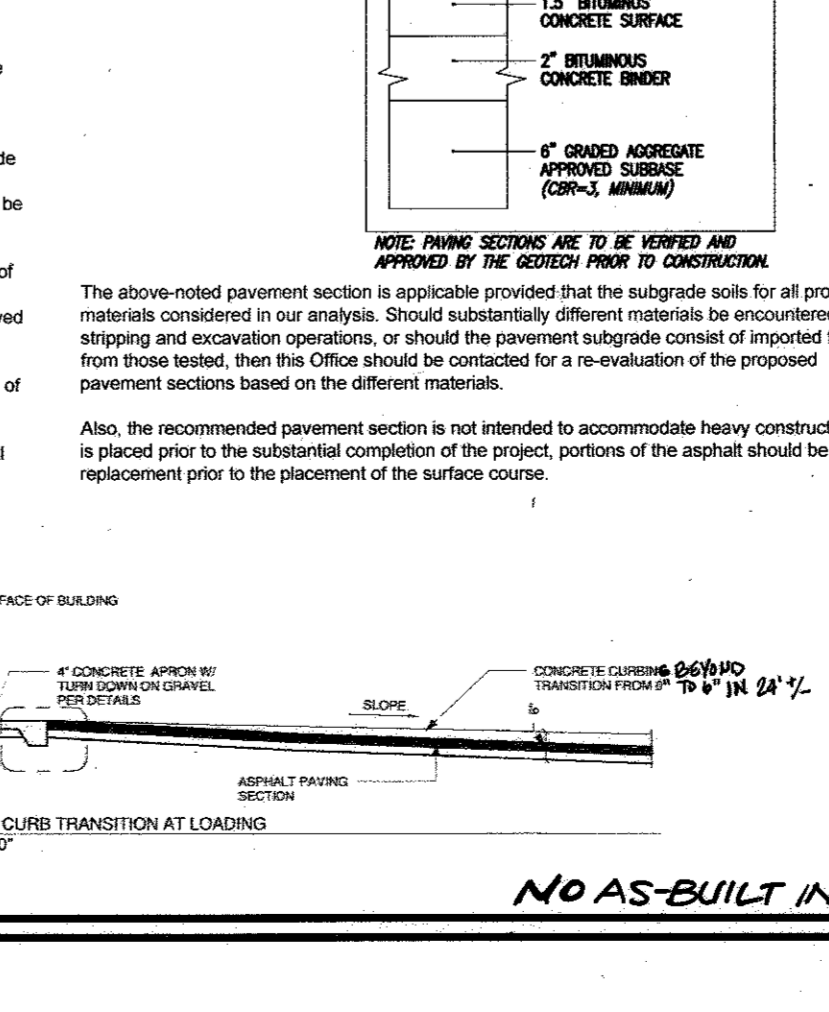
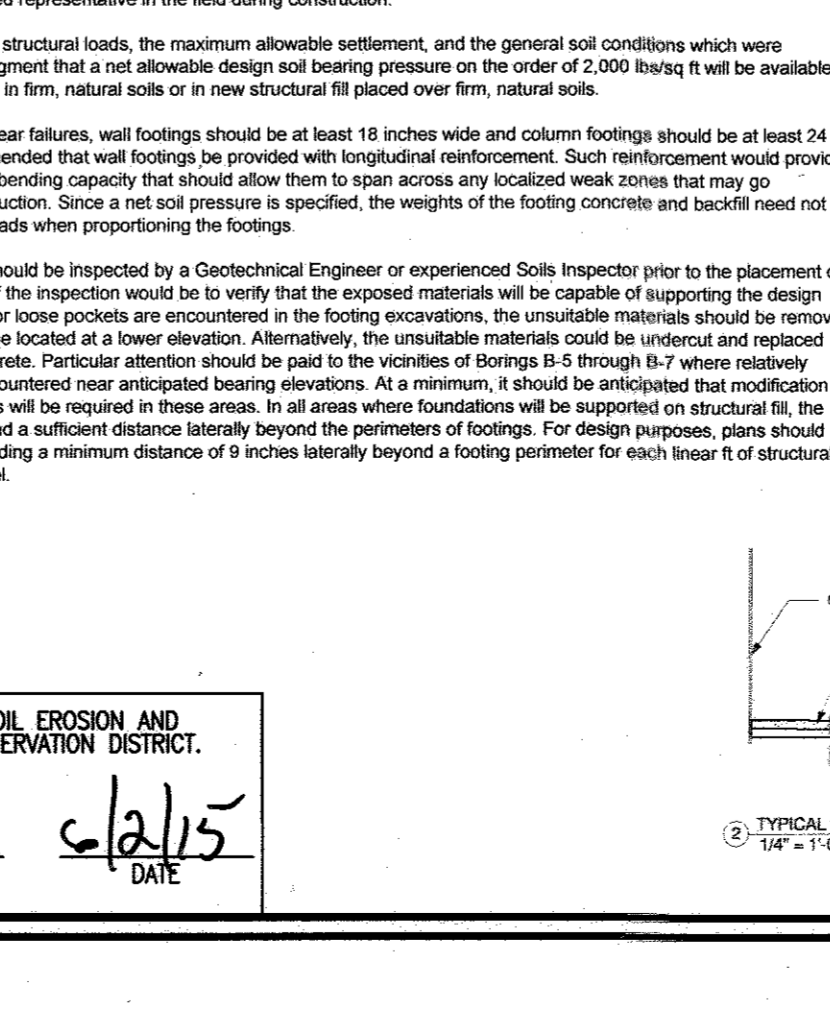
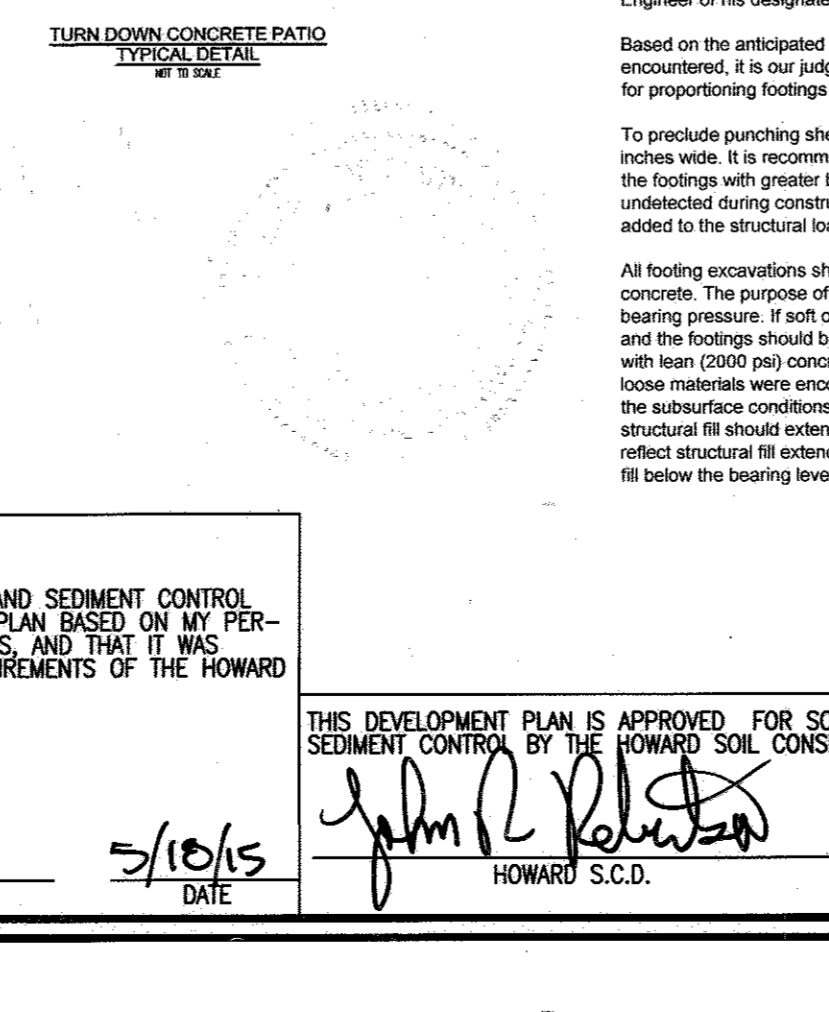
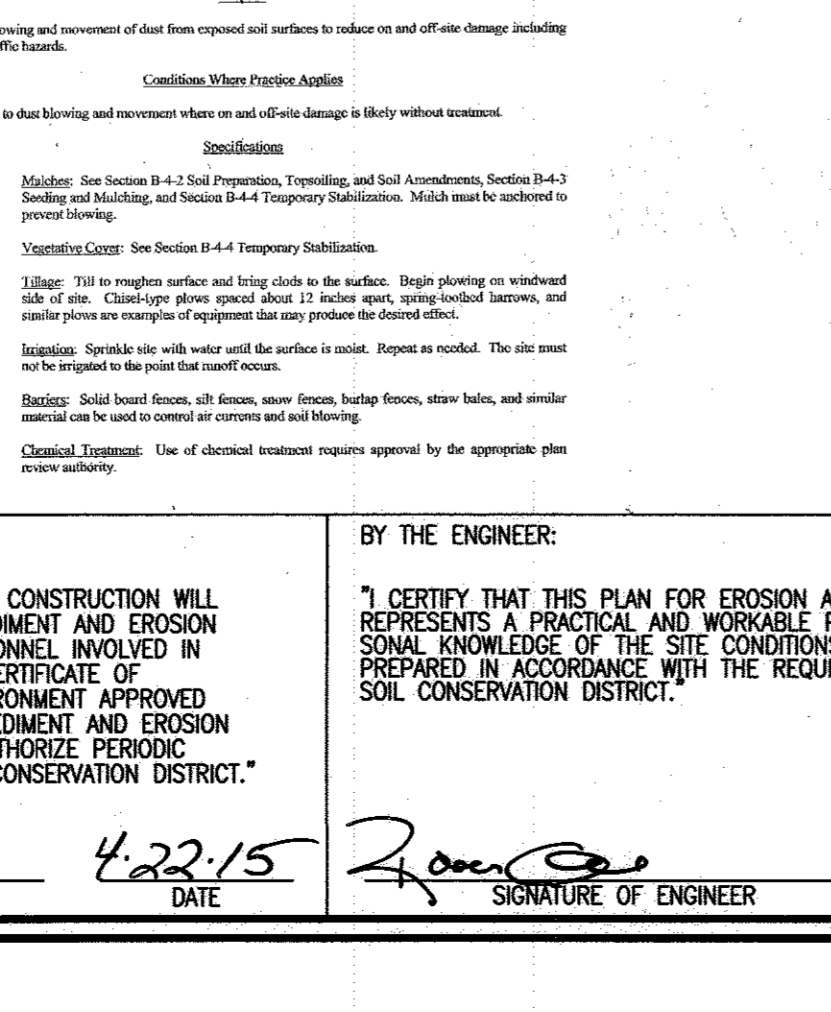
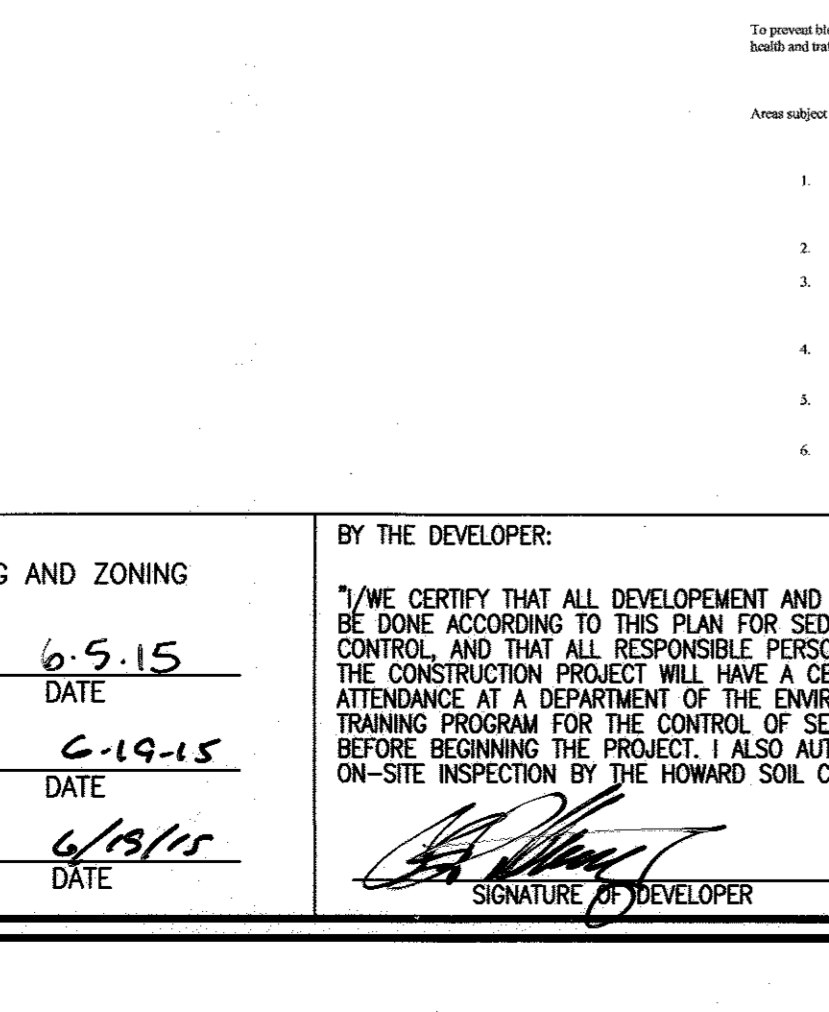
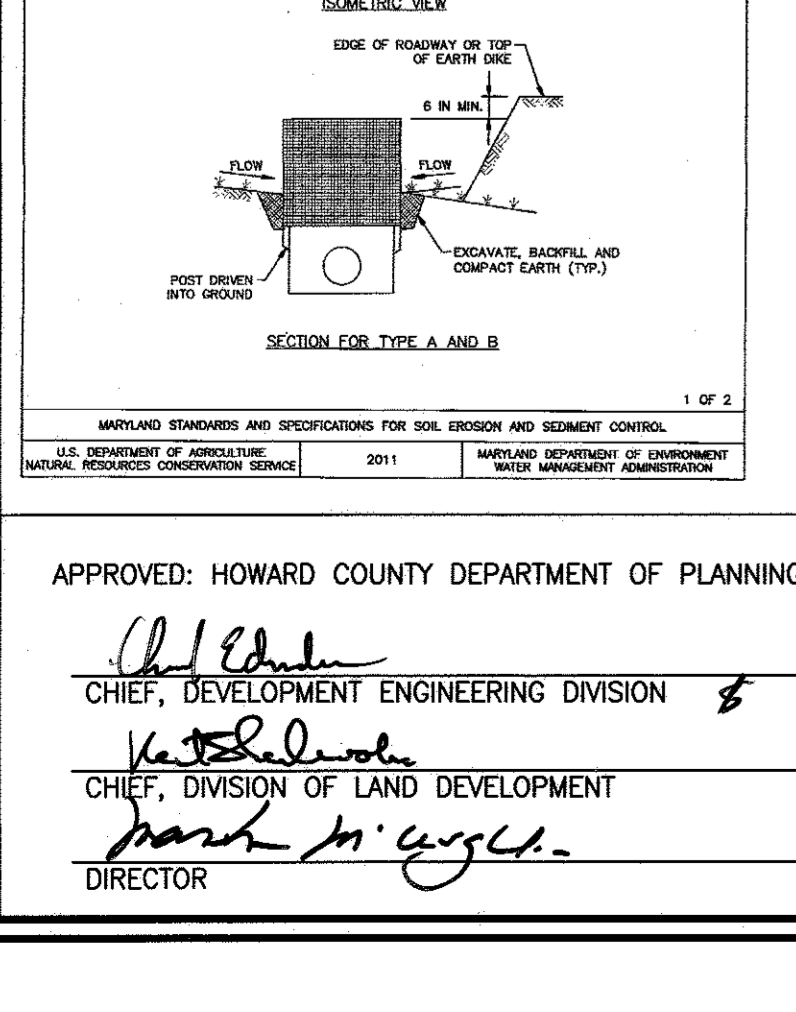
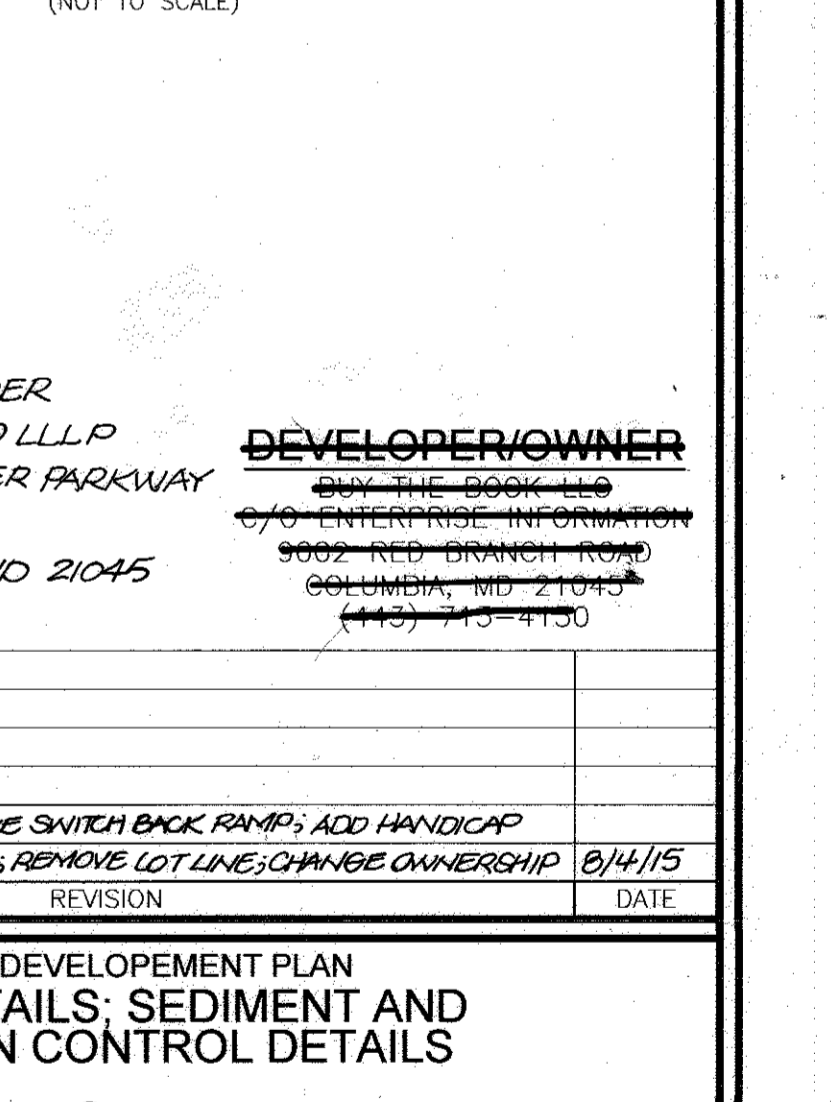
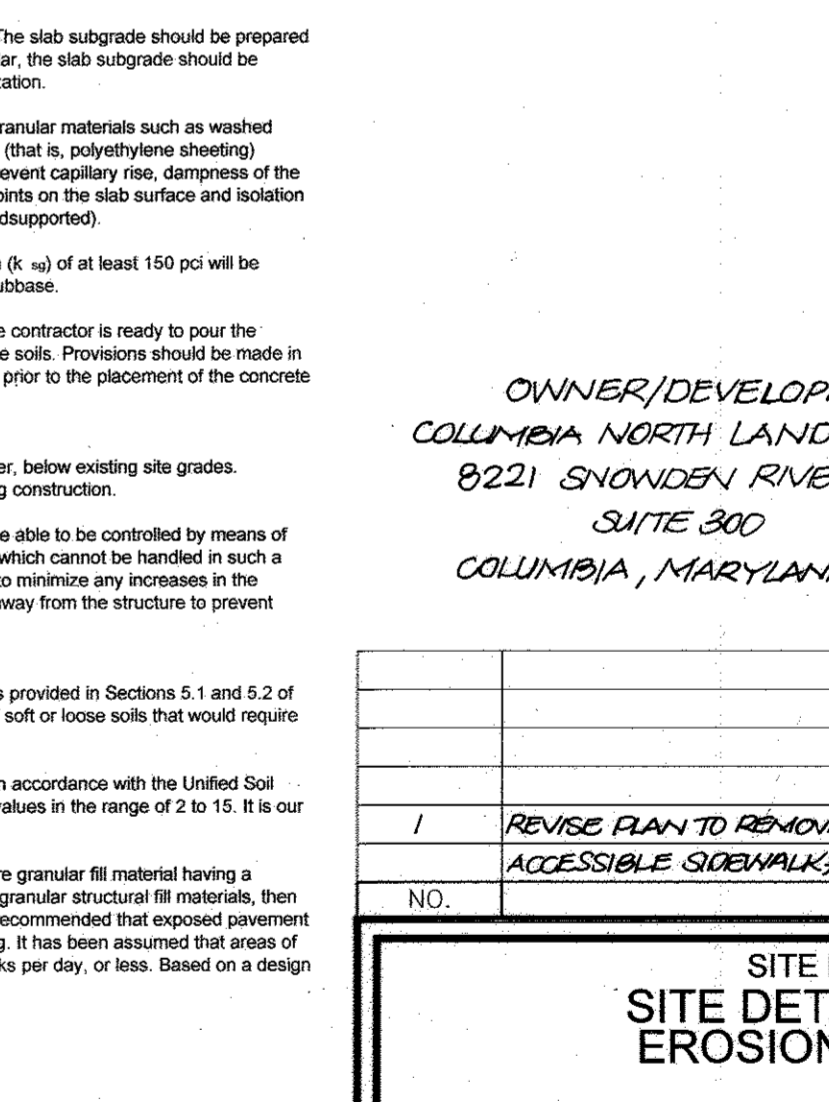
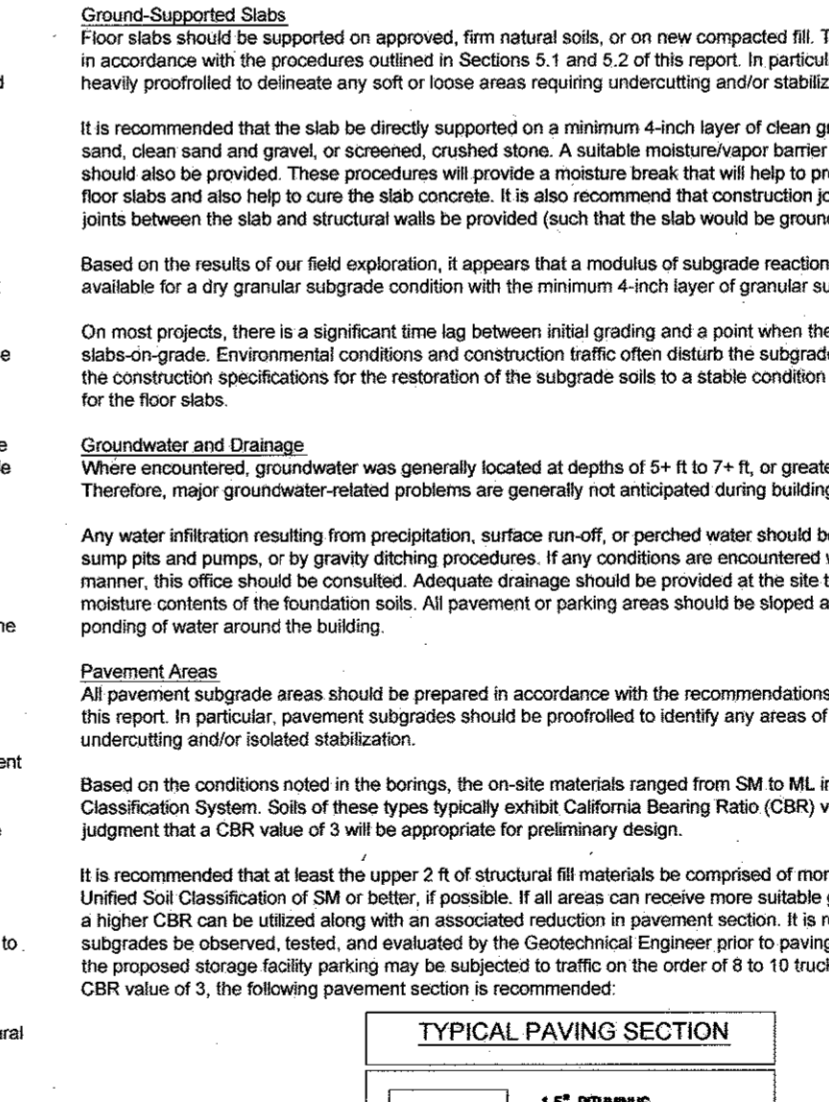
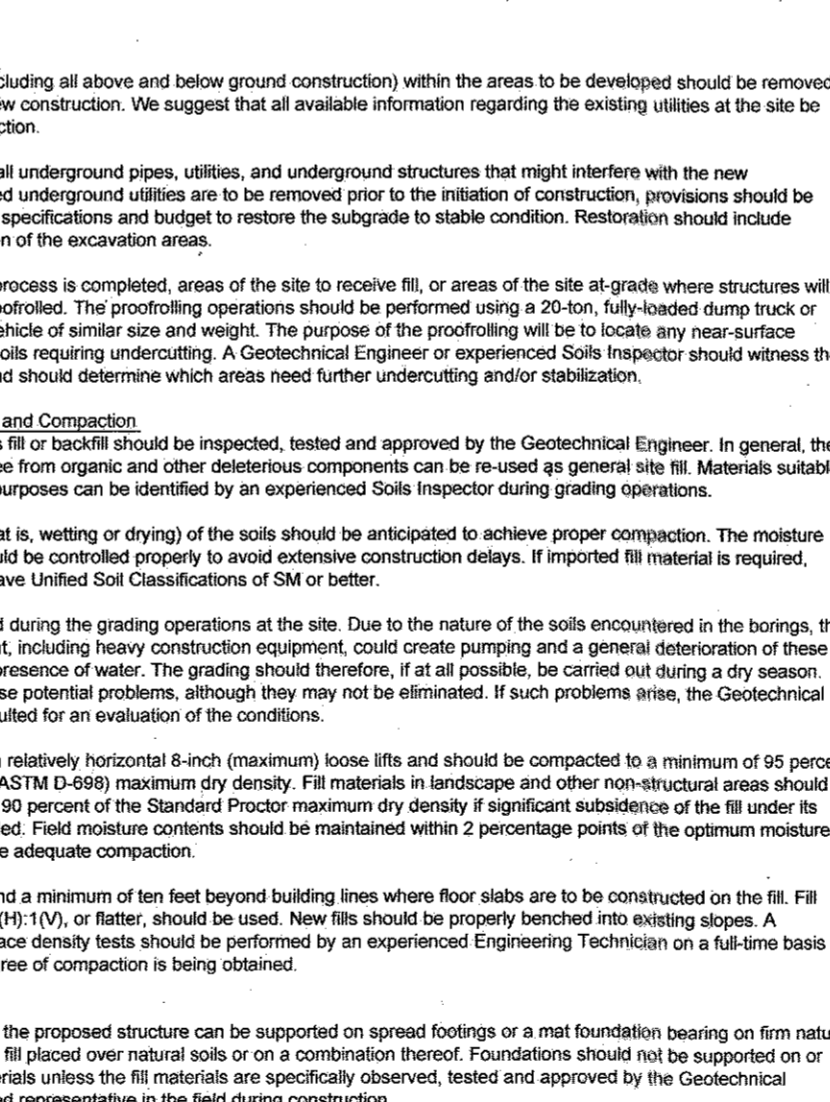
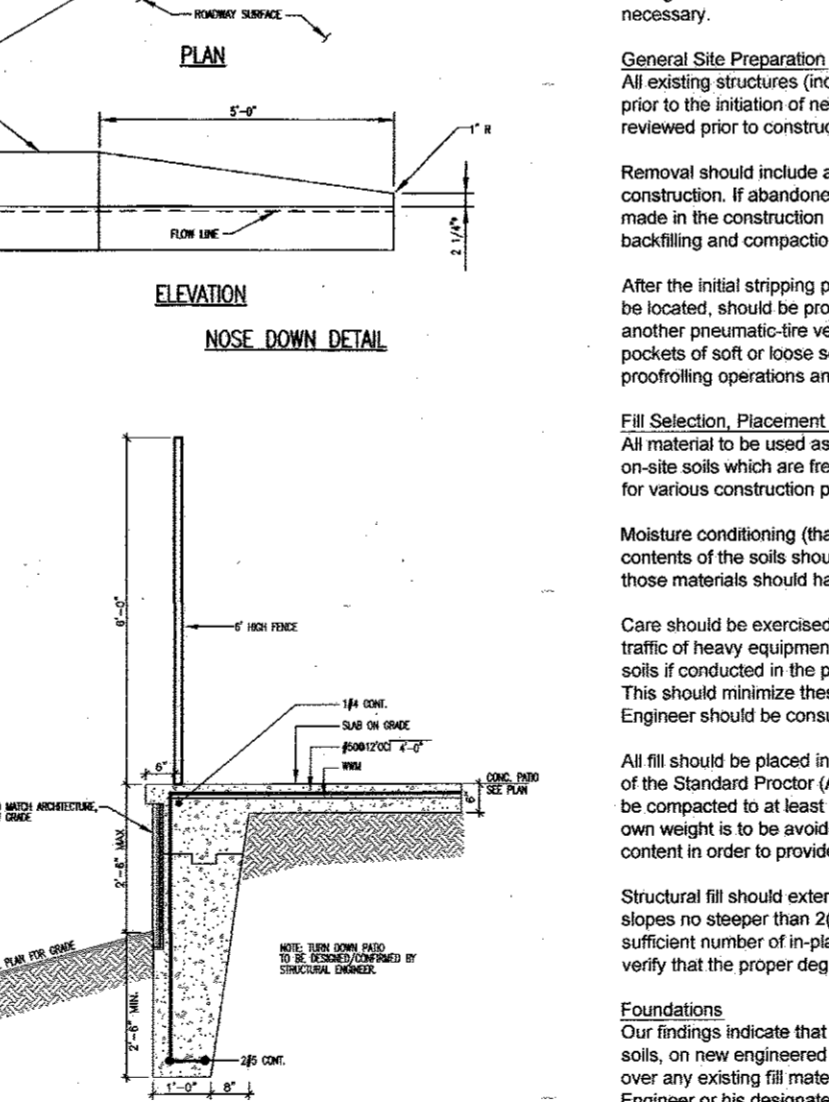
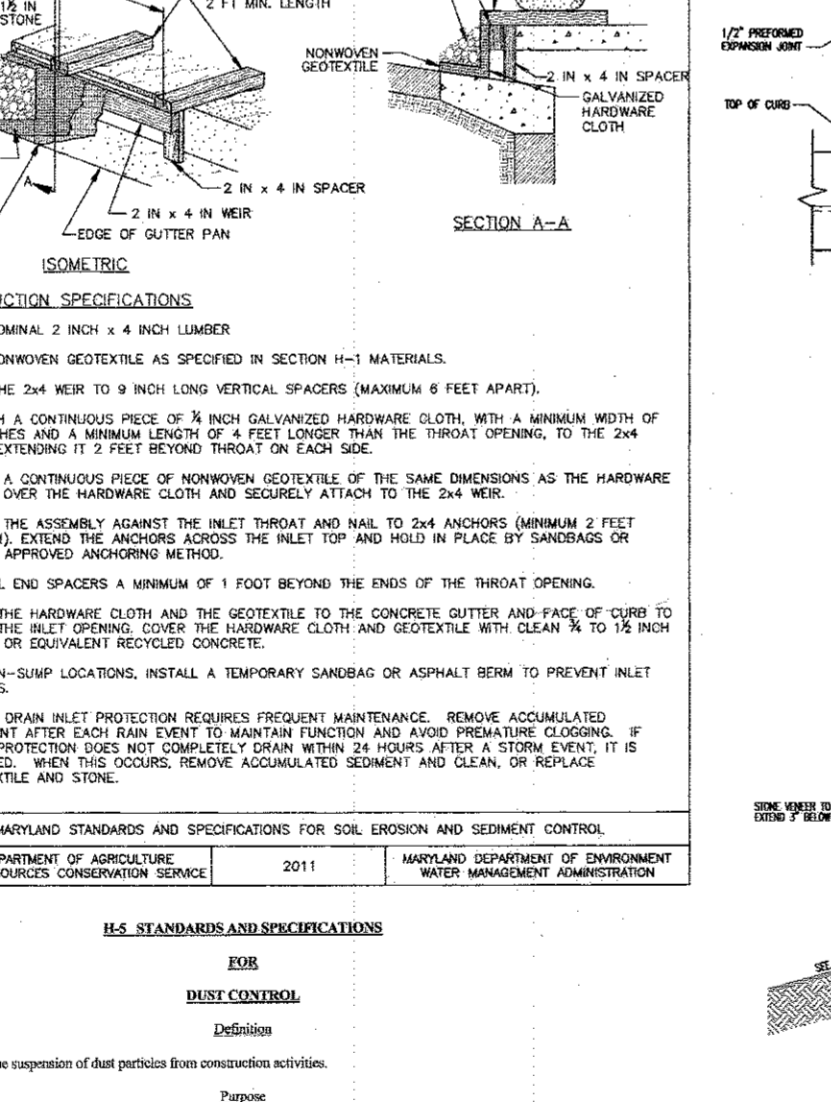
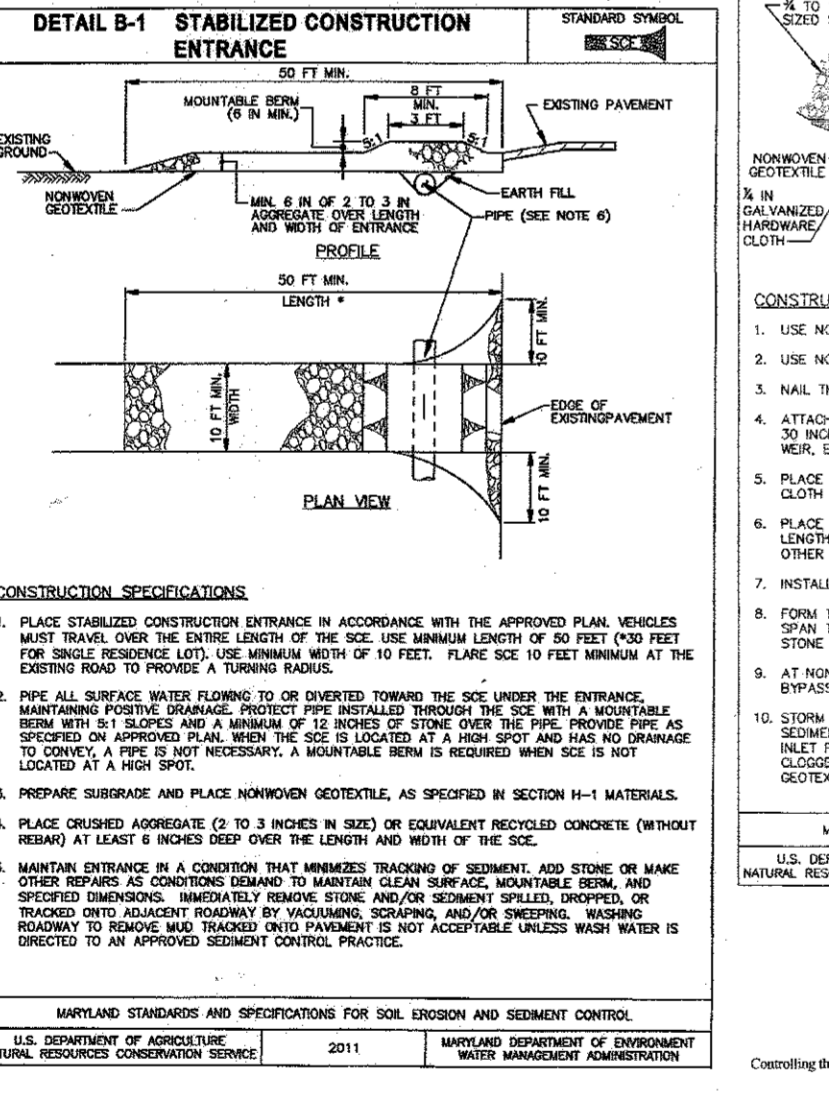
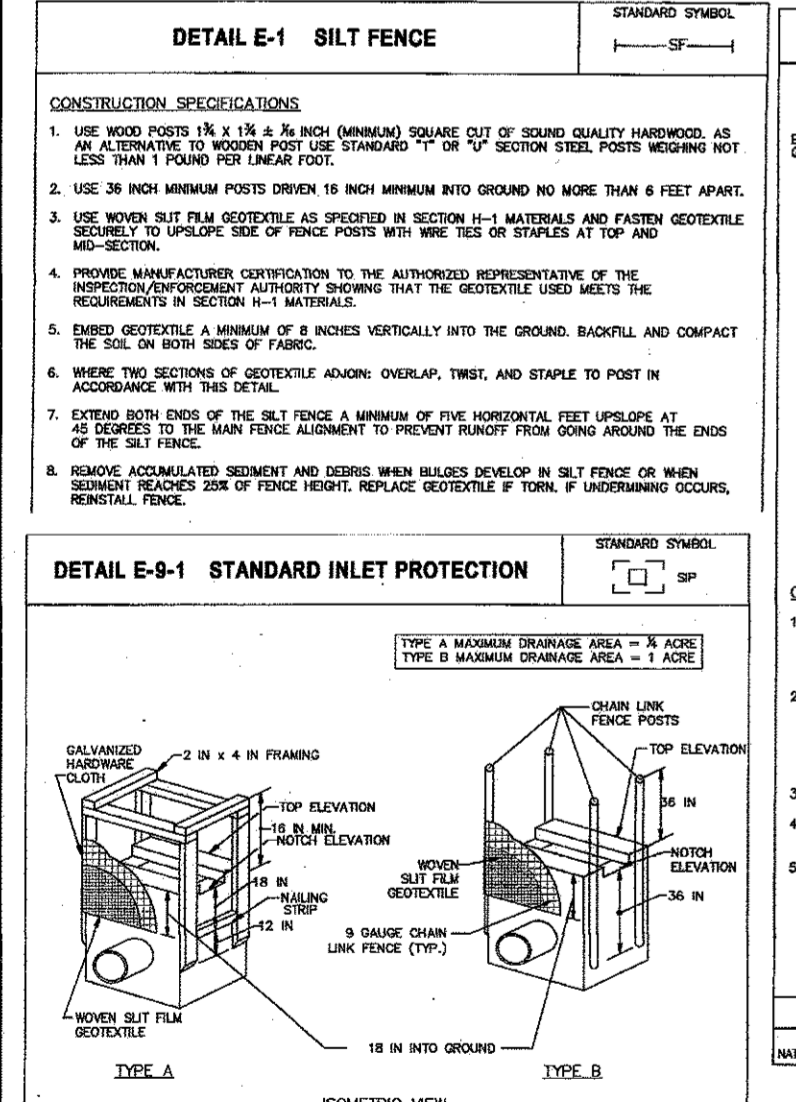
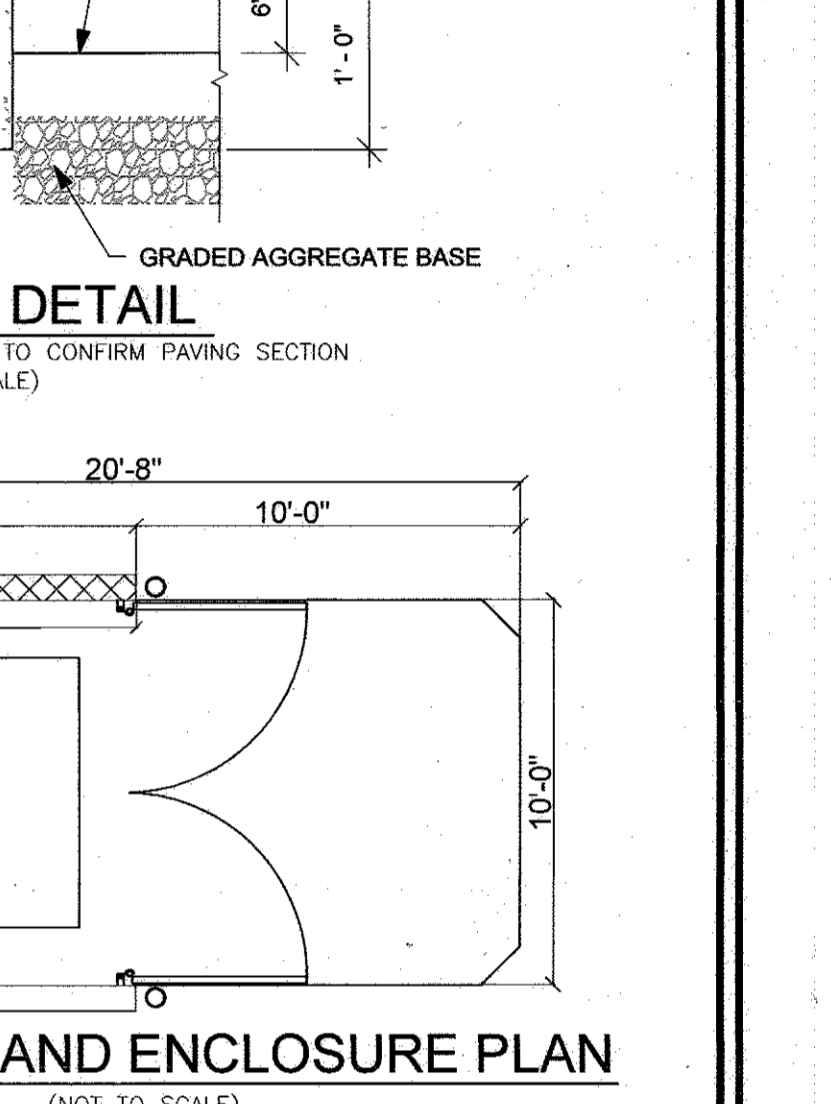
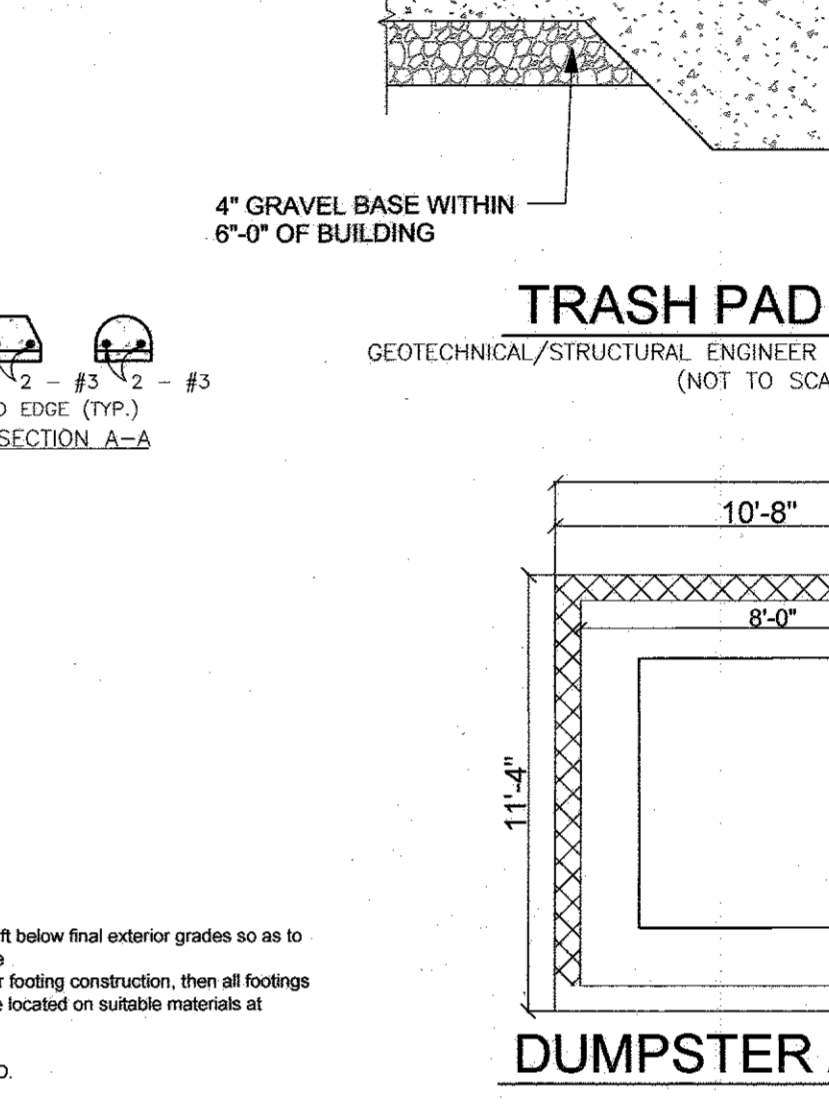
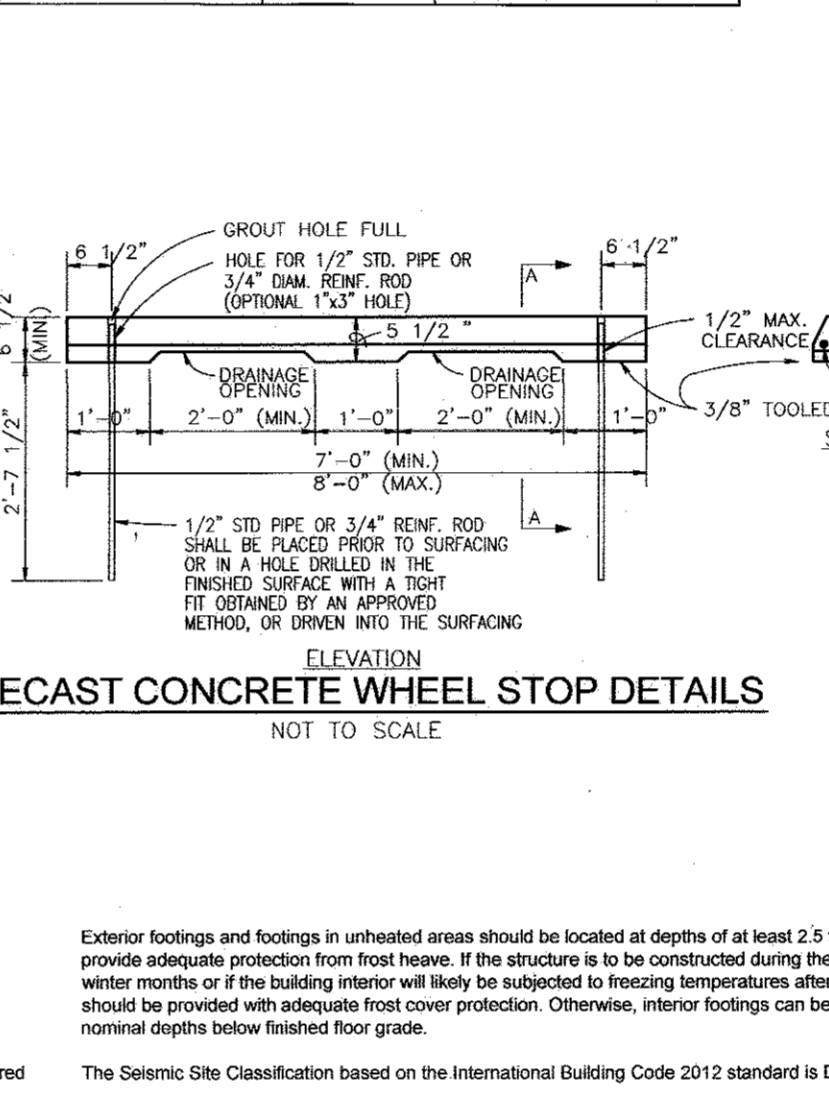
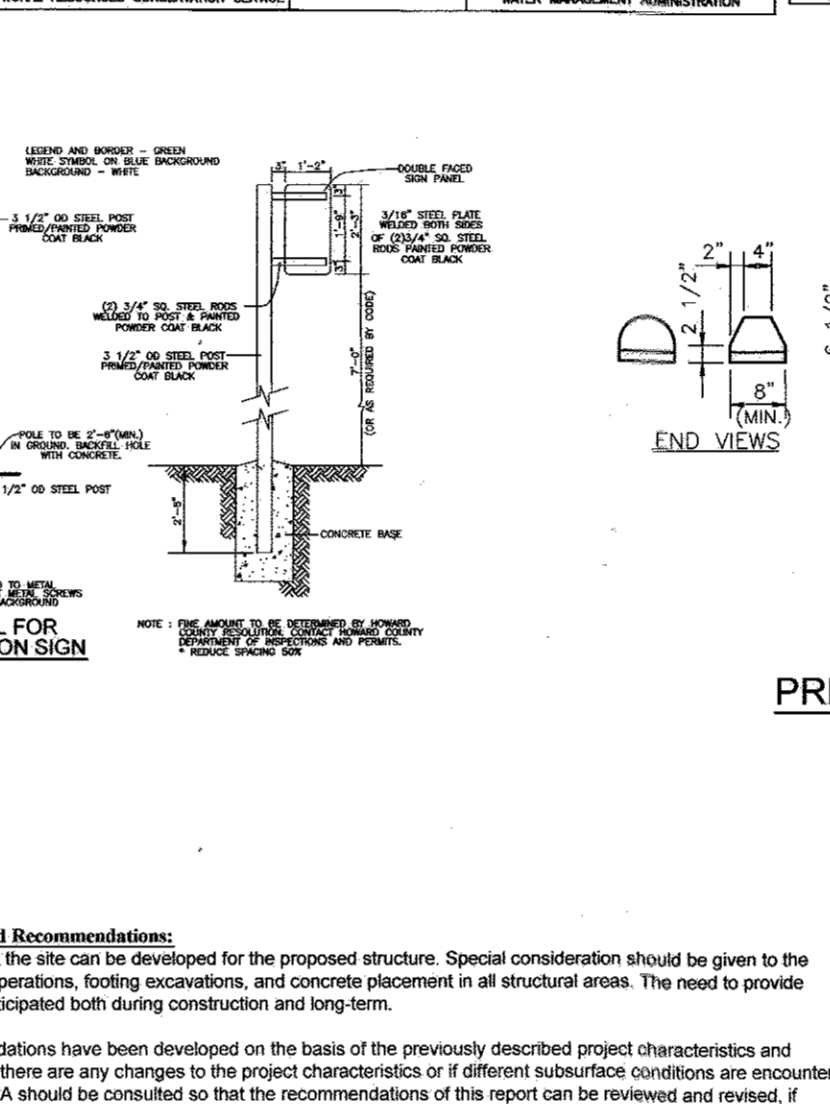
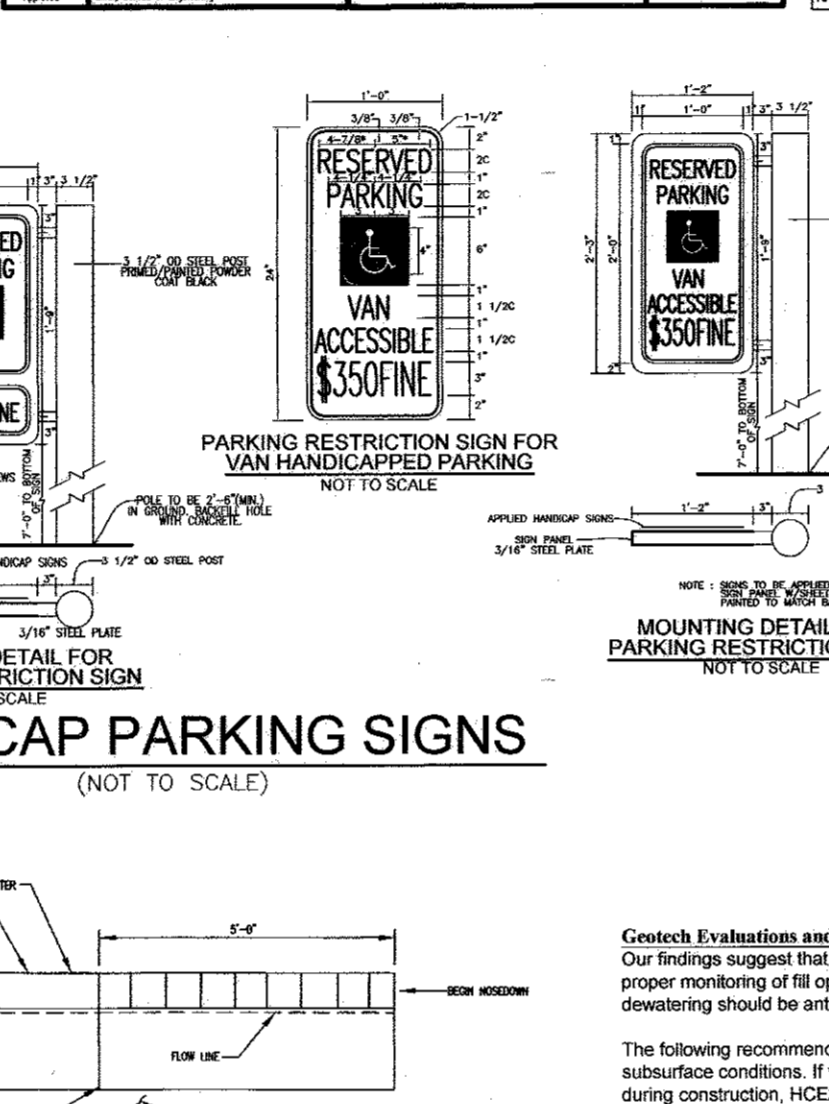
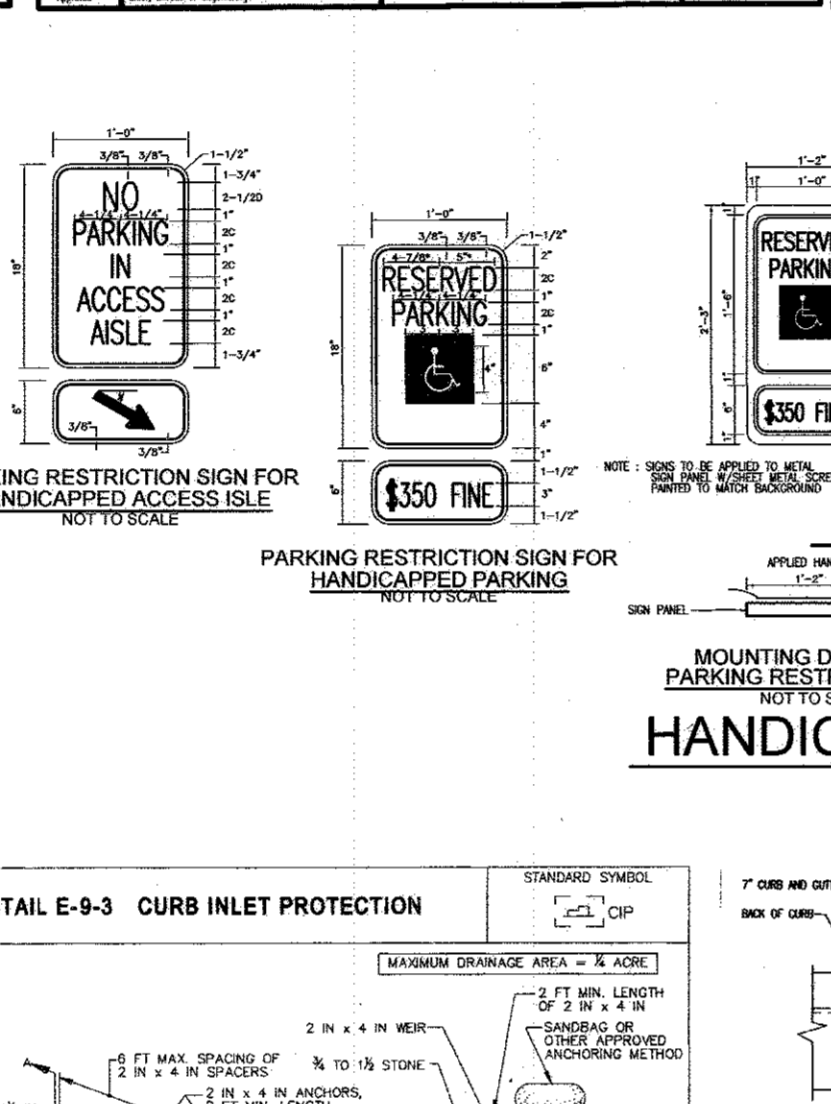
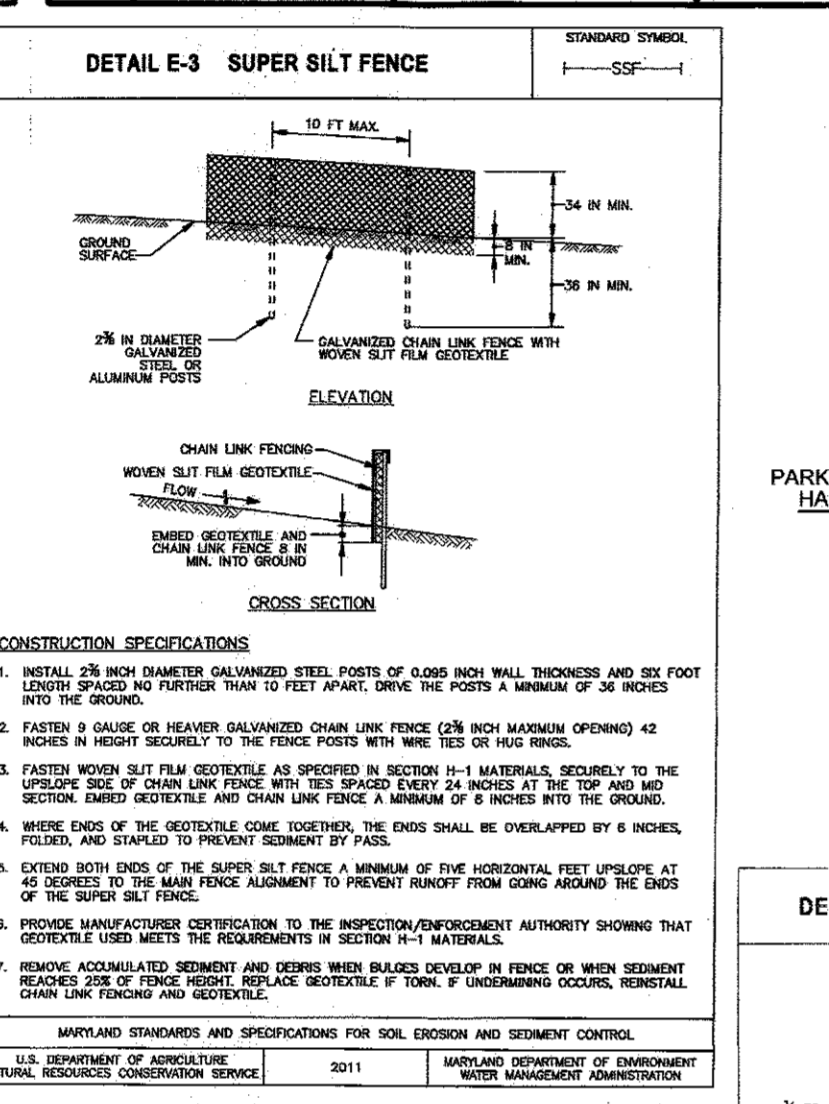
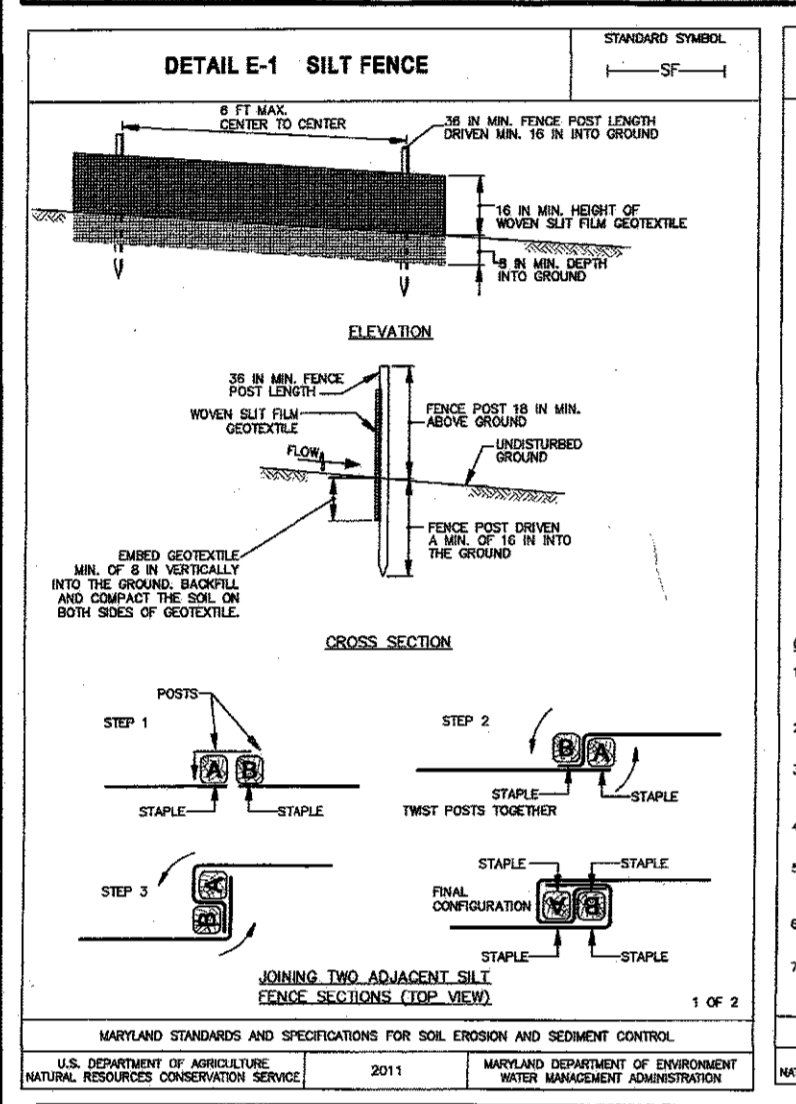
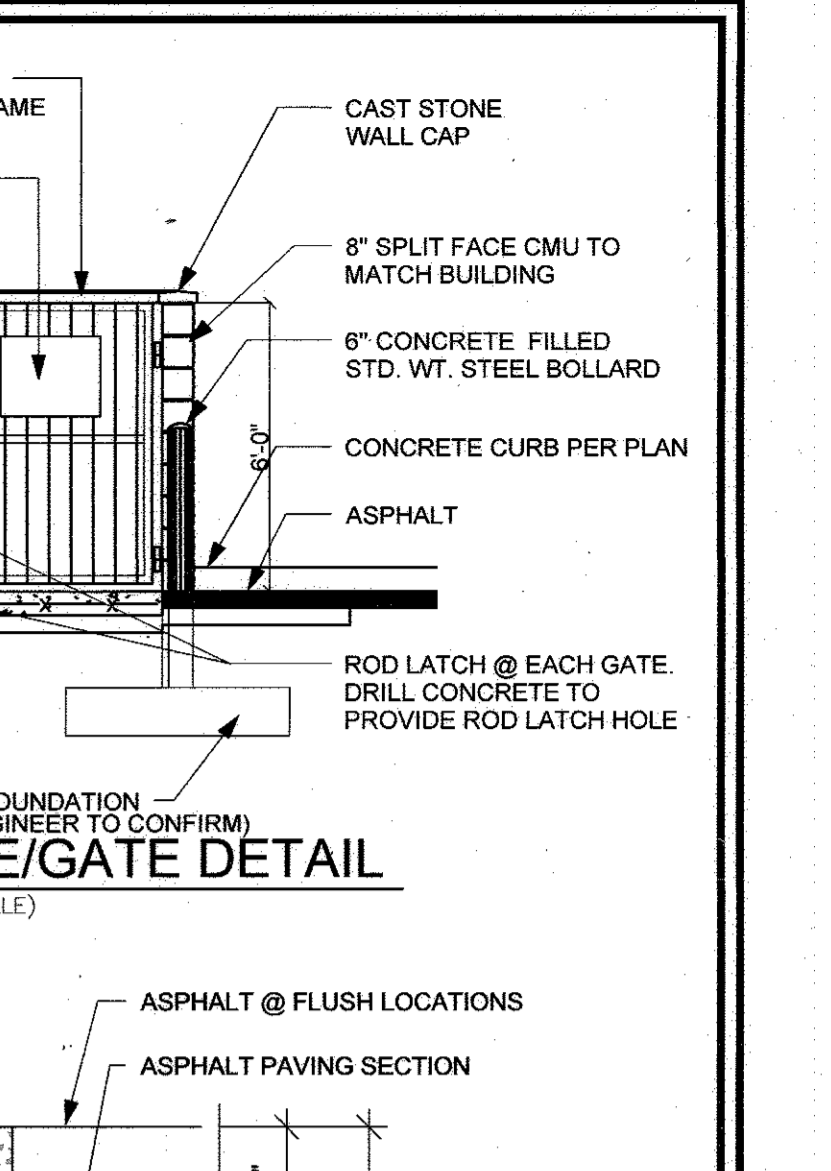
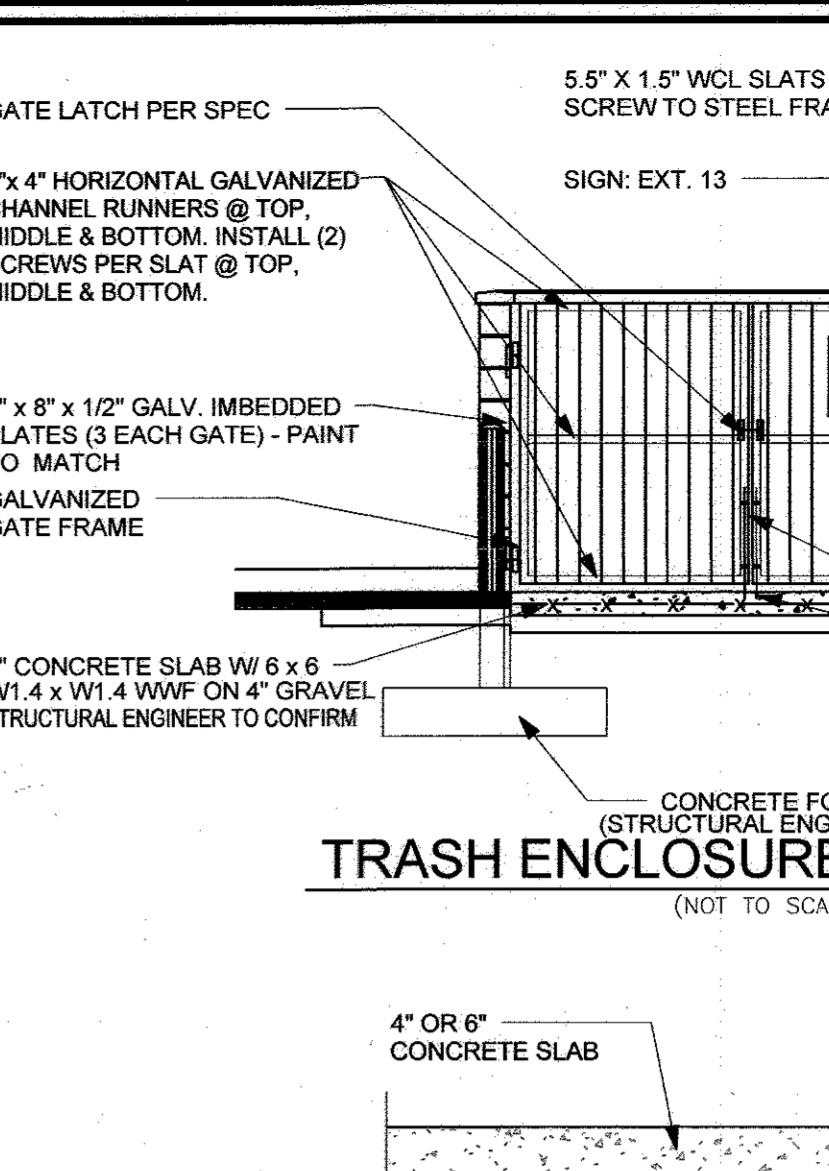
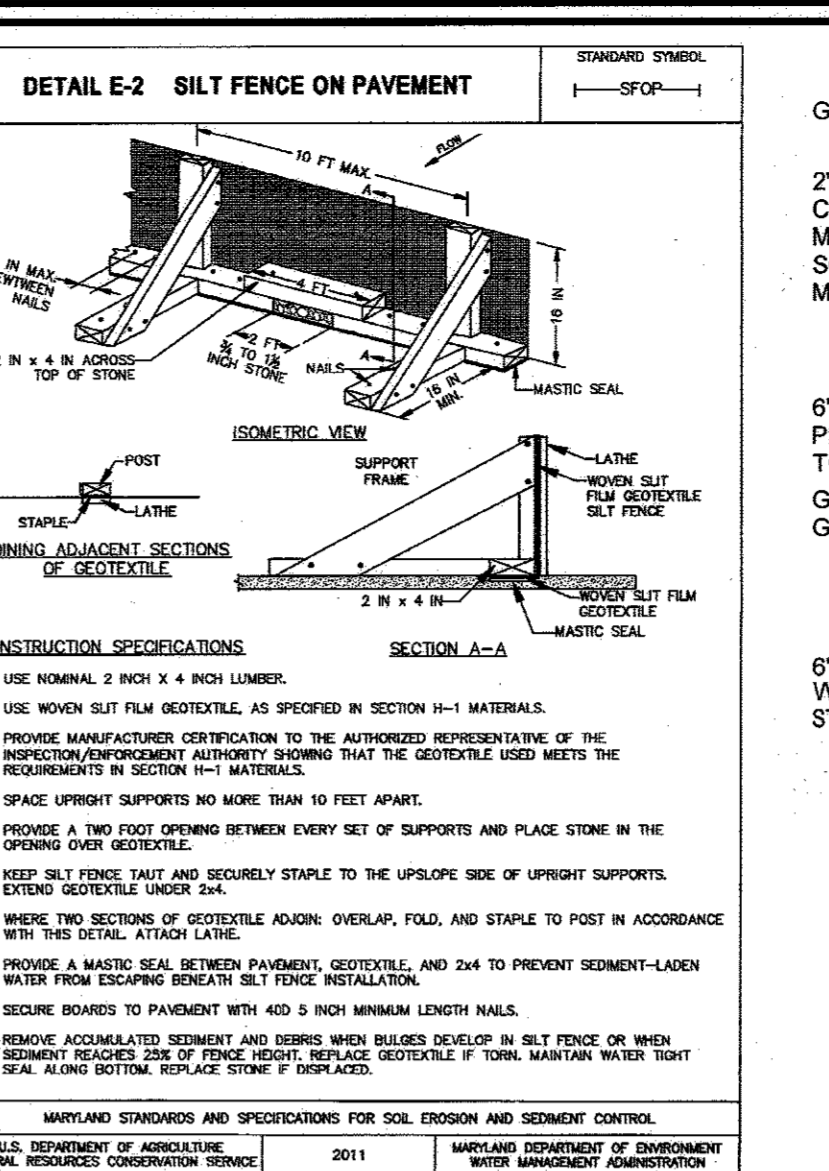
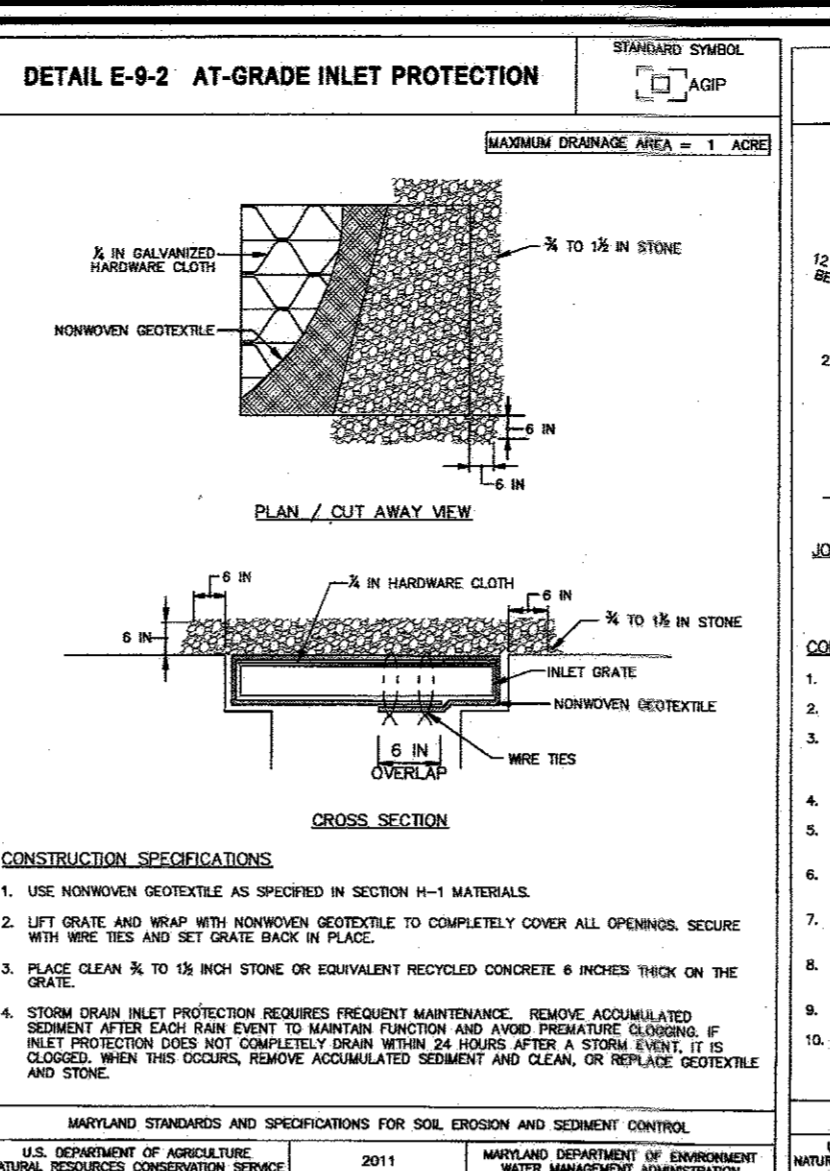
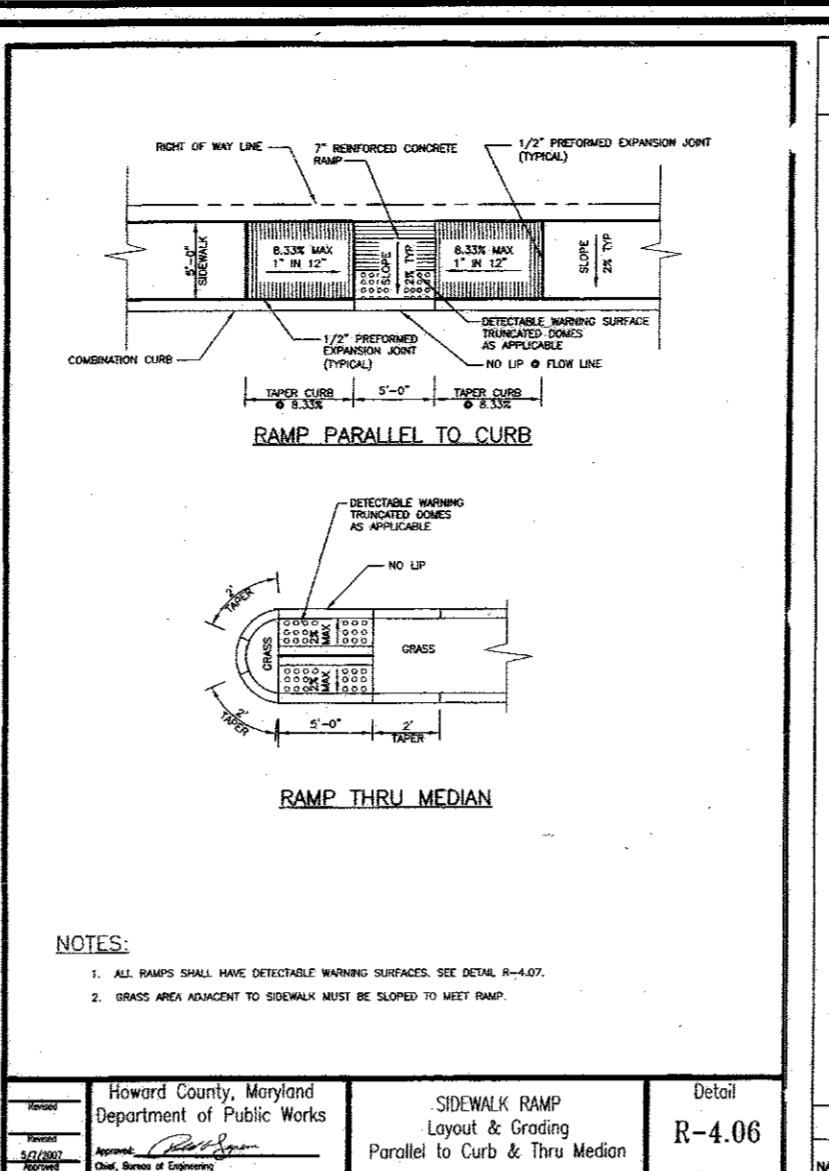
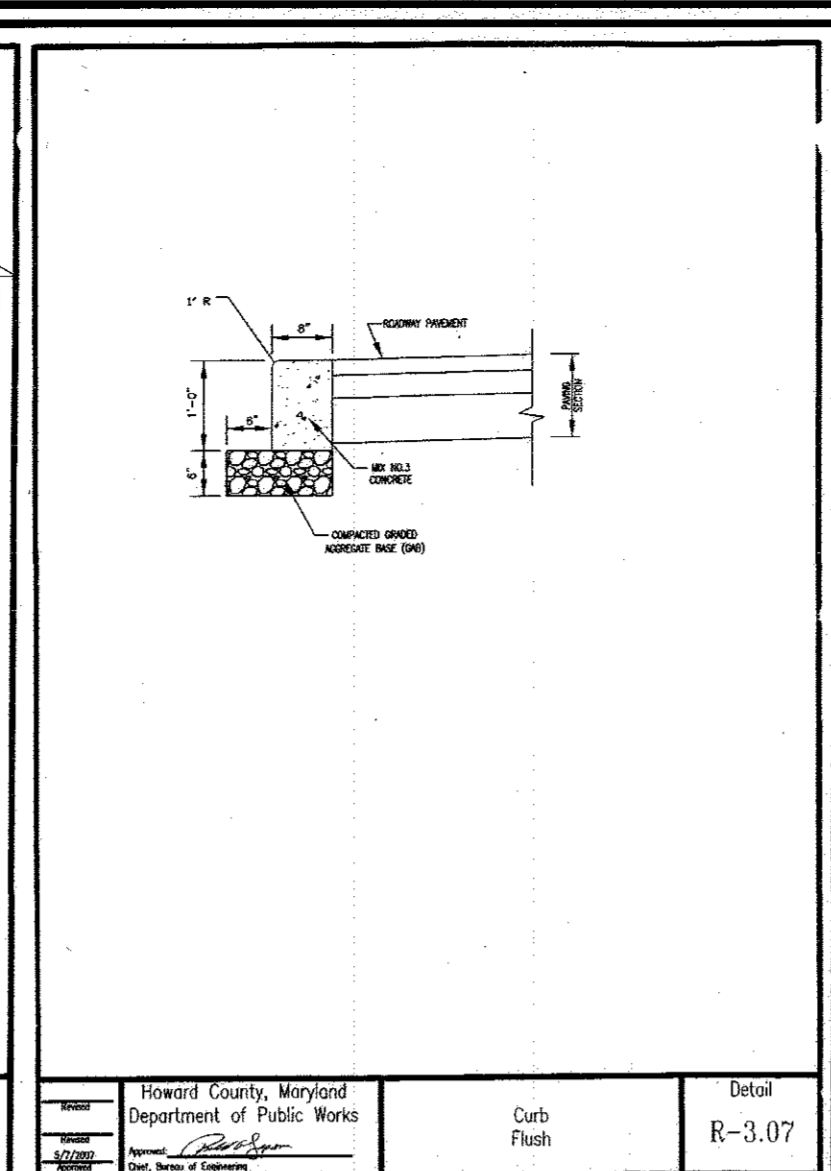
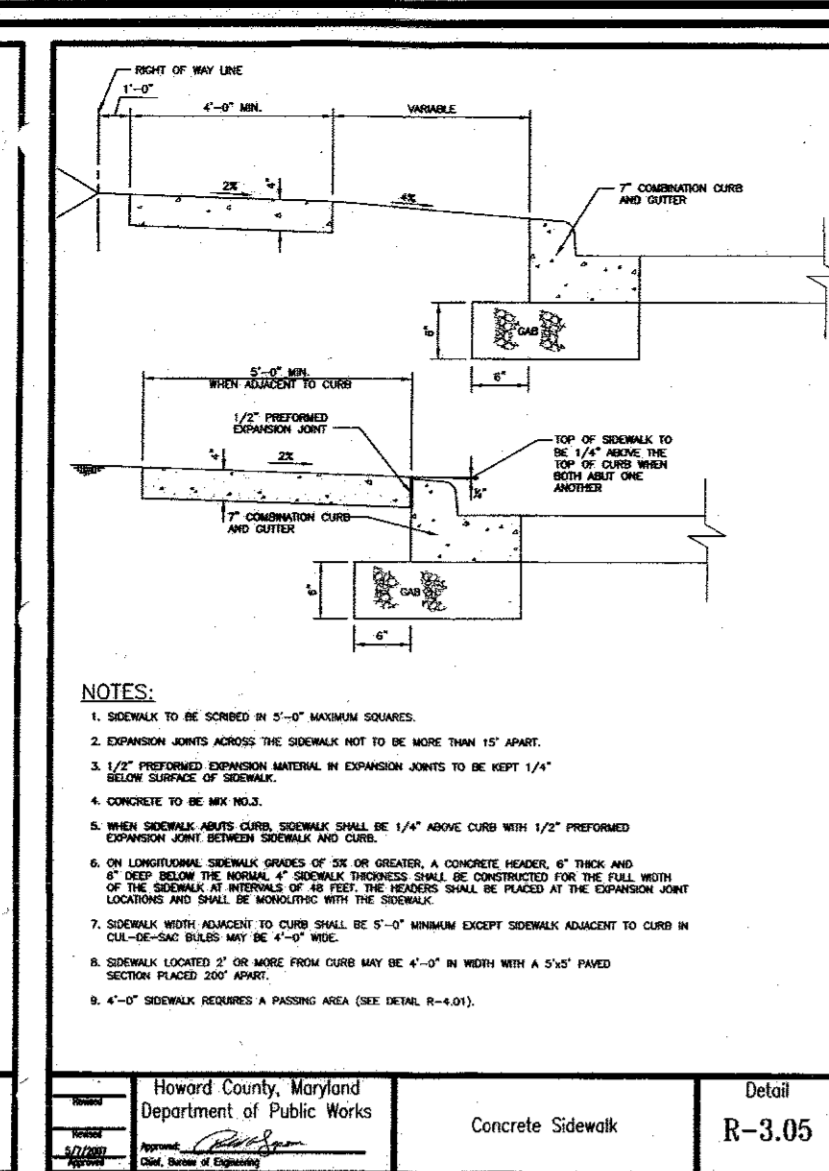
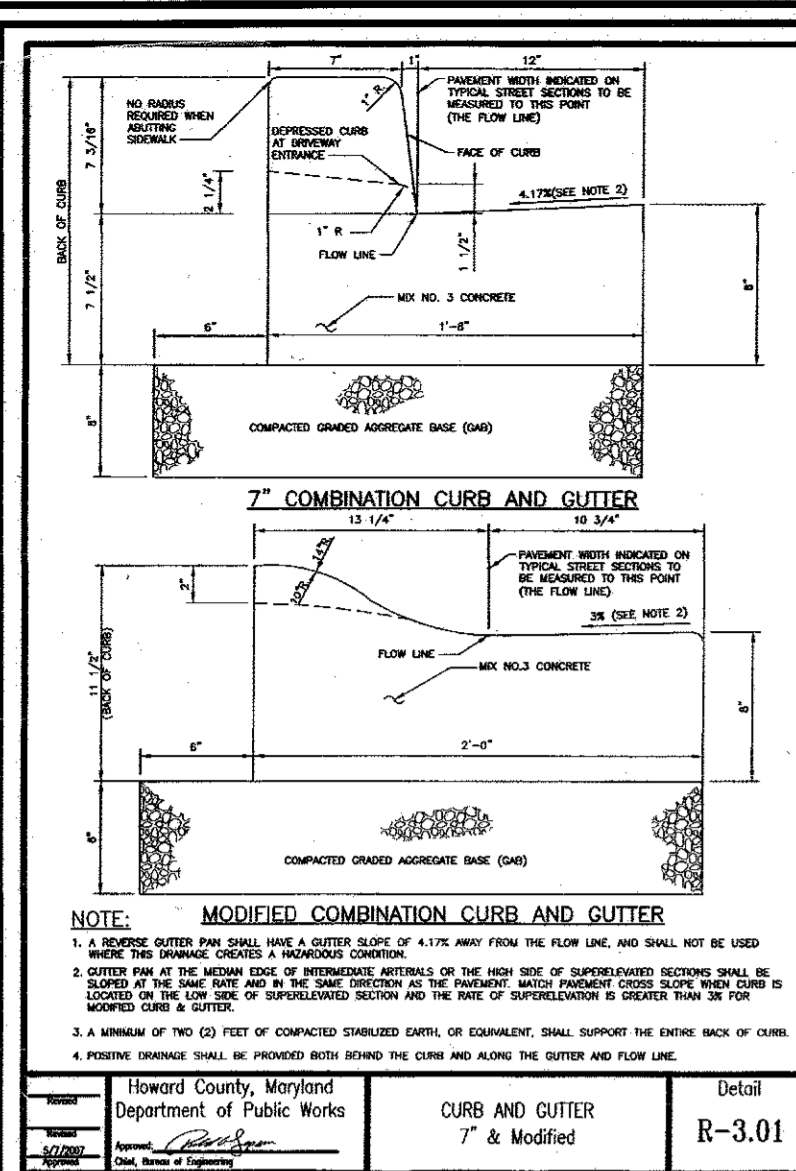
PROFESSIONAL CERTIFICATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16183, EXPIRATION DATE 06-27-2018

DESIGN BY: DZE
DRAWN BY: DZE/KG
CHECKED BY: RHV
DATE: APRIL 2015
SCALE: AS SHOWN
W.O. NO.: 14-10

2 SHEET OF 7

NO AS-BUILT INFORMATION THIS SHEET



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 6-5-15

BY THE DEVELOPER:
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
 DATE: 4-22-15

BY THE ENGINEER:
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 DATE: 5/10/15

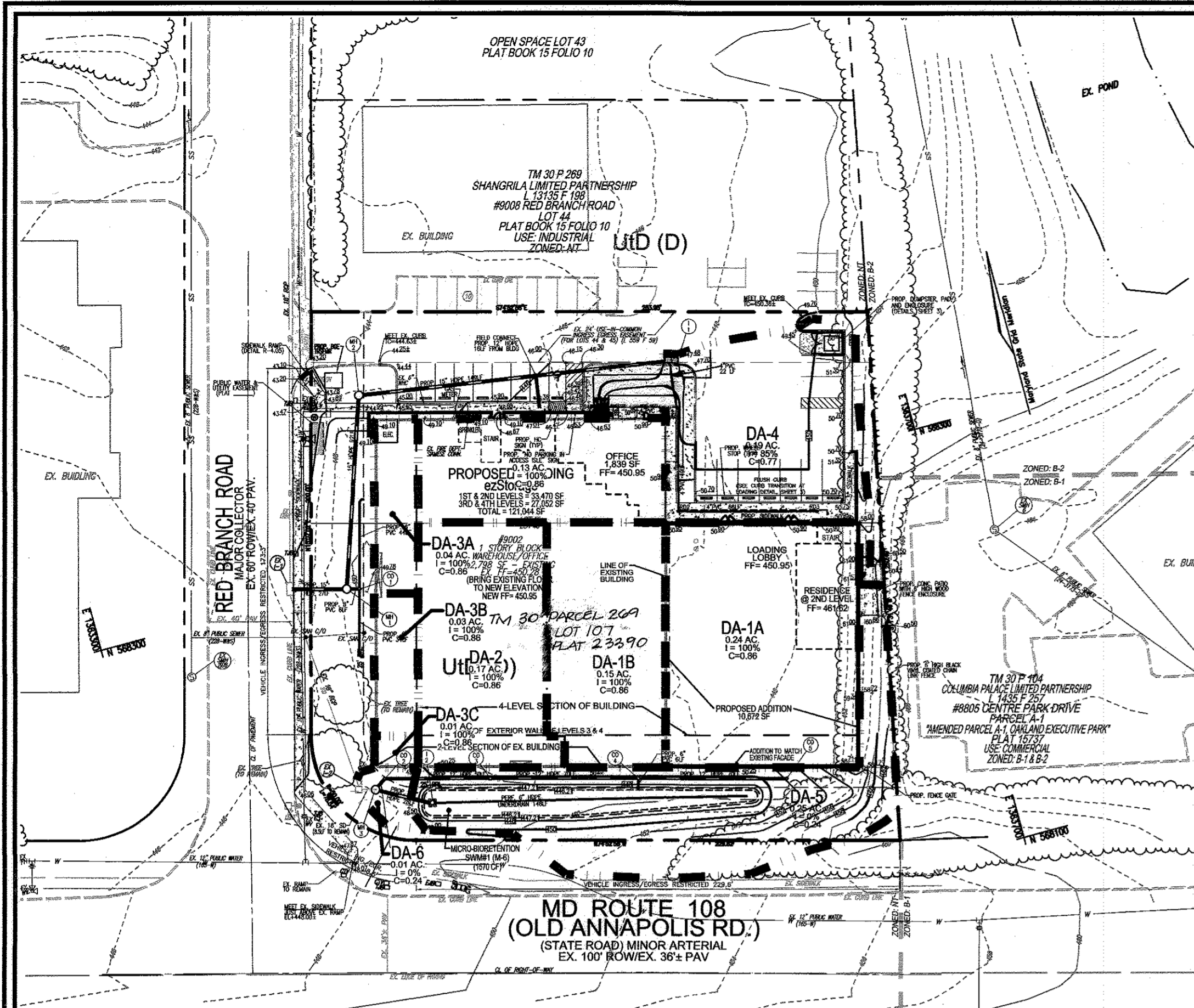
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 DATE: 6-2-15

NO AS-BUILT INFORMATION

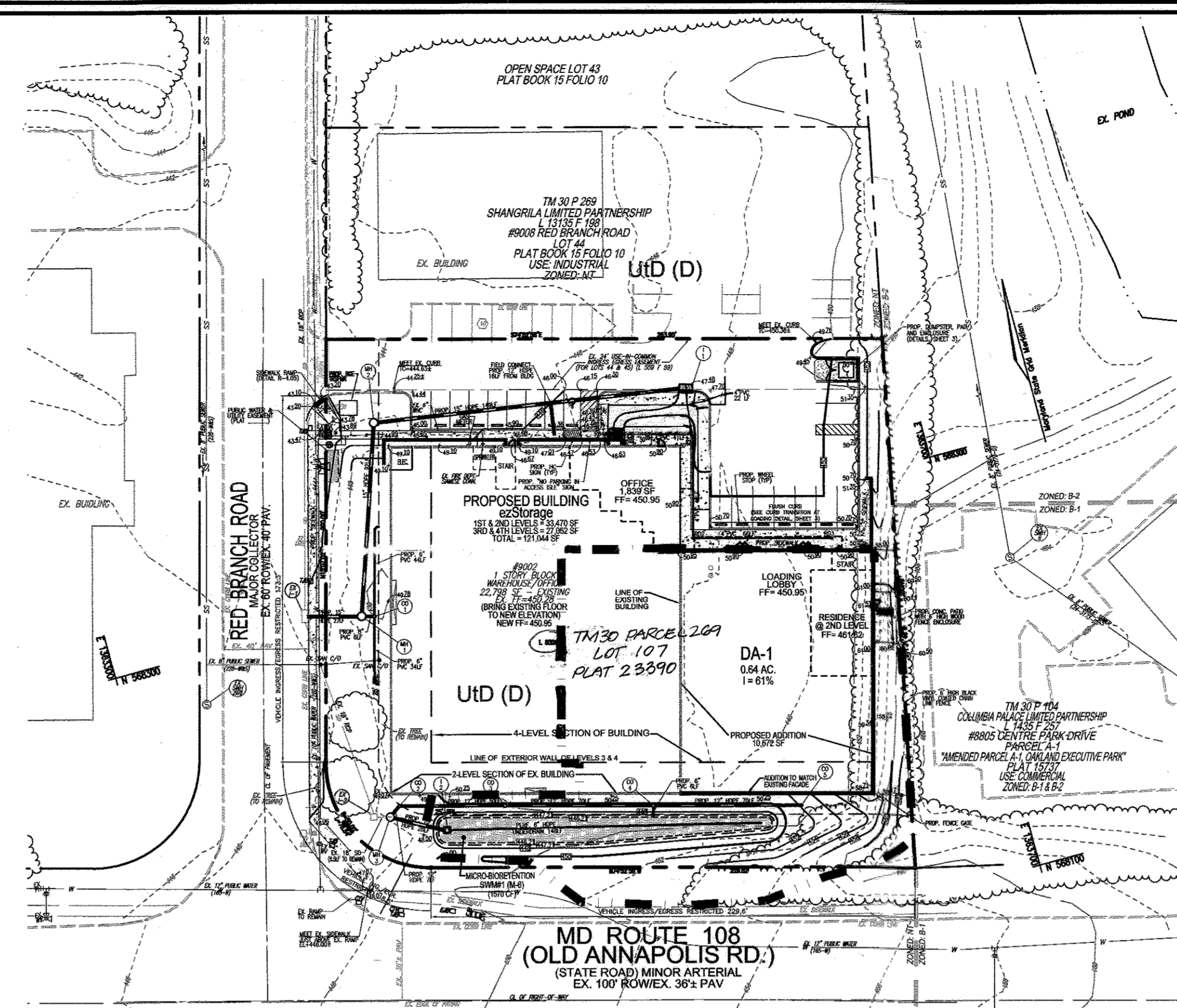
AS-BUILT 1/27/17

DESIGN BY: DZE
 DRAWN BY: DZE/KG
 CHECKED BY: RHV
 DATE: APRIL 2015
 SCALE: AS SHOWN
 W.O. NO.: 14-10

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
 DATE: 6-27-16

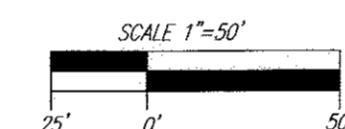
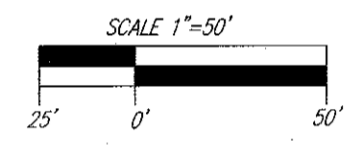


STORM DRAIN DRAINAGE AREA MAP



SWM DRAINAGE AREA MAP

- LEGEND:**
- PROPOSED CONTOUR
 - - - EXISTING CONTOUR
 - EXISTING OVERHEAD LINES
 - EXISTING WATERLINE
 - EXISTING GAS LINE
 - EXISTING GUARD RAIL
 - EXISTING METAL FENCE
 - EXISTING WOOD FENCE
 - EXISTING ELECTRICAL BOX
 - EXISTING POLE
 - EXISTING LIGHT POLE WITH CONCRETE BASE
 - EXISTING MAILBOX
 - EXISTING SIGN
 - EXISTING SANITARY MANHOLE
 - EXISTING CLEANOUT
 - EXISTING FIRE HYDRANT
 - PROPOSED PARKING COUNT
 - BORING
 - SOILS BOUNDARY
 - EXISTING FENCE
 - PROPERTY LINE
 - ADJACENT PROPERTY LINE
 - RIGHT-OF-WAY LINE
 - PROPOSED SIDEWALK
 - EXISTING CURB AND GUTTER
 - PROPOSED CURB AND GUTTER
 - PROPOSED WHEEL STOP
 - PROPOSED STORM DRAIN INLET
 - PROPOSED STORM DRAIN
 - PROP. MICRO DIRECTIONAL AREA (M-6)
 - EX. 24' USE-IN-COMMON INGRESS/EGRESS EASEMENT (FOR LOTS 44 & 45) (L 559 F 59)
 - DRAINAGE DIVIDE



SOILS LEGEND
HOWARD COUNTY SOILS MAP 18

SYMBOL	NAME / DESCRIPTION	GROUP	K' VALUE	ERODIBLE
UdD	URBAN LAND - UDORTHENTS COMPLEX, 0 TO 15 PERCENT SLOPES	D	0.37	YES

NOTE:
THE STORMWATER MANGEMENT DESIGN DETAILS ARE LOCATED ON SHEET 6.

HILLIS - GARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: EZ Storage Columbia North
Location: Columbia, Maryland

Depth	SOIL SAMPLE LOCATION	Description	Boring and Sampling Notes	Res.	NAP	SPT Blows	N	SPT Blows	N
0'	D	Black silty clay with sand and silt to medium silty clay (CL, ML)		1.1		10	30	30	30
12'	D	Proximal PE		2.1		3			
18'	D			2.0		7			
10'	D	Change from proximal PE to silty sand with some sand (SM, SC)		1.2		4			
7'	D			2.2		4			
14'	D	Groundwater encountered at 18 FT		1.3		4			
18'	D			2.4		7			
18'	D			2.4		7			
18'	D			3.5		10			

HILLIS - GARNES ENGINEERING ASSOCIATES, INC.
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Project Name: EZ Storage Columbia North
Location: Columbia, Maryland

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7'	D			2.2		4			
14'	D	Groundwater encountered at 18 FT		1.3		4			
18'	D			2.4		7			
18'	D			2.4		7			
18'	D			3.5		10			

OWNER/DEVELOPER:
COLUMBIA NORTH LAND L.L.P.
8221 SNOWDEN RIVER PARKWAY
SUITE 300
COLUMBIA, MARYLAND 21045

DEVELOPER/OWNER:
COLUMBIA NORTH LAND L.L.P.
8221 SNOWDEN RIVER PARKWAY
SUITE 300
COLUMBIA, MARYLAND 21045

NO.	REVISION	DATE
1	REMOVE SWITCHBACK RAMP; ADD HANDICAP ACCESSIBLE SIDEWALK; REMOVE LOT LINE; UPDATE OWNERSHIP	8/4/15

SITE DEVELOPMENT PLAN
STORM DRAIN DRAINAGE AREA MAP
AND SWM DRAINAGE AREA MAP

ezStorage
SELF-STORAGE
9002 RED BRANCH ROAD
LOT 107 PLAT 23390
ZONED: NT

TAX MAP 30 BLOCK 17
2ND ELECTION DISTRICT

PARCEL 269, LOT 107
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLIOTT CITY, MD 21043
TEL: 410.421.7666
FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: DZE
DRAWN BY: DZE/KG
CHECKED BY: RHV
DATE: APRIL 2015
SCALE: AS SHOWN
W.O. NO.: 14-10

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, EXPIRES 06-30-2018.

5 SHEET OF 7

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

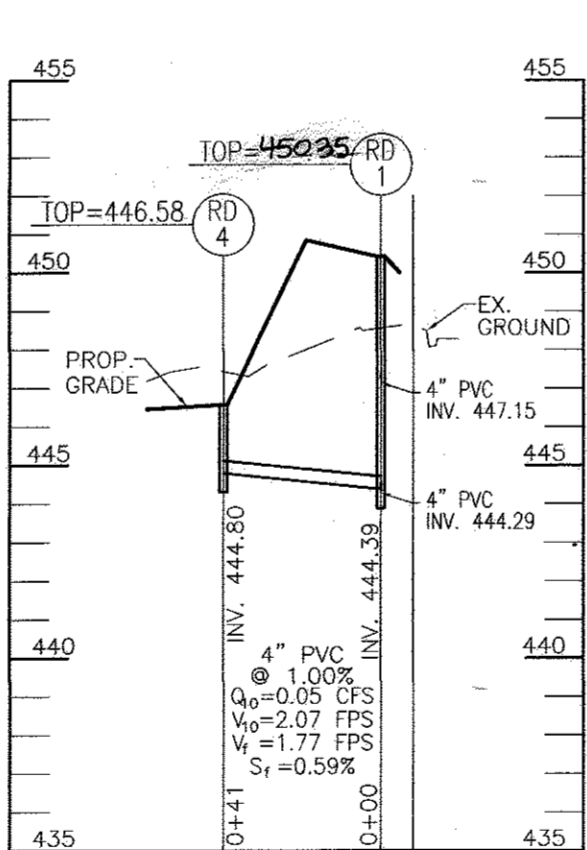
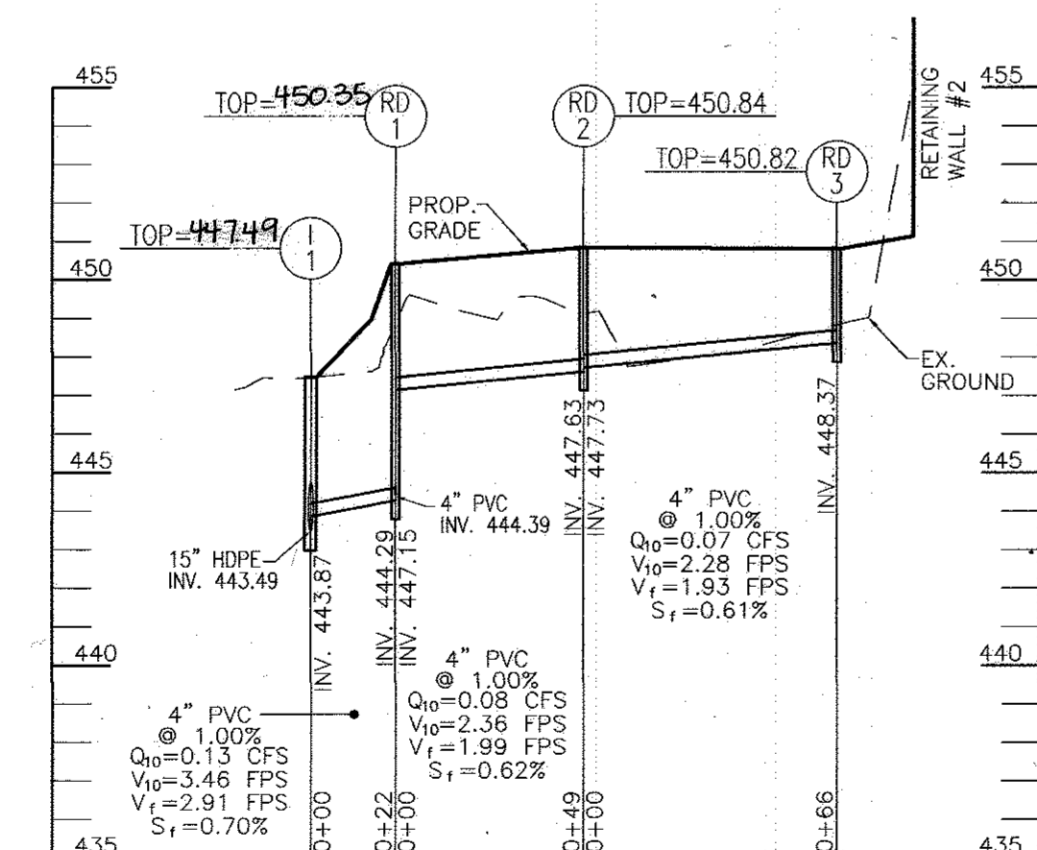
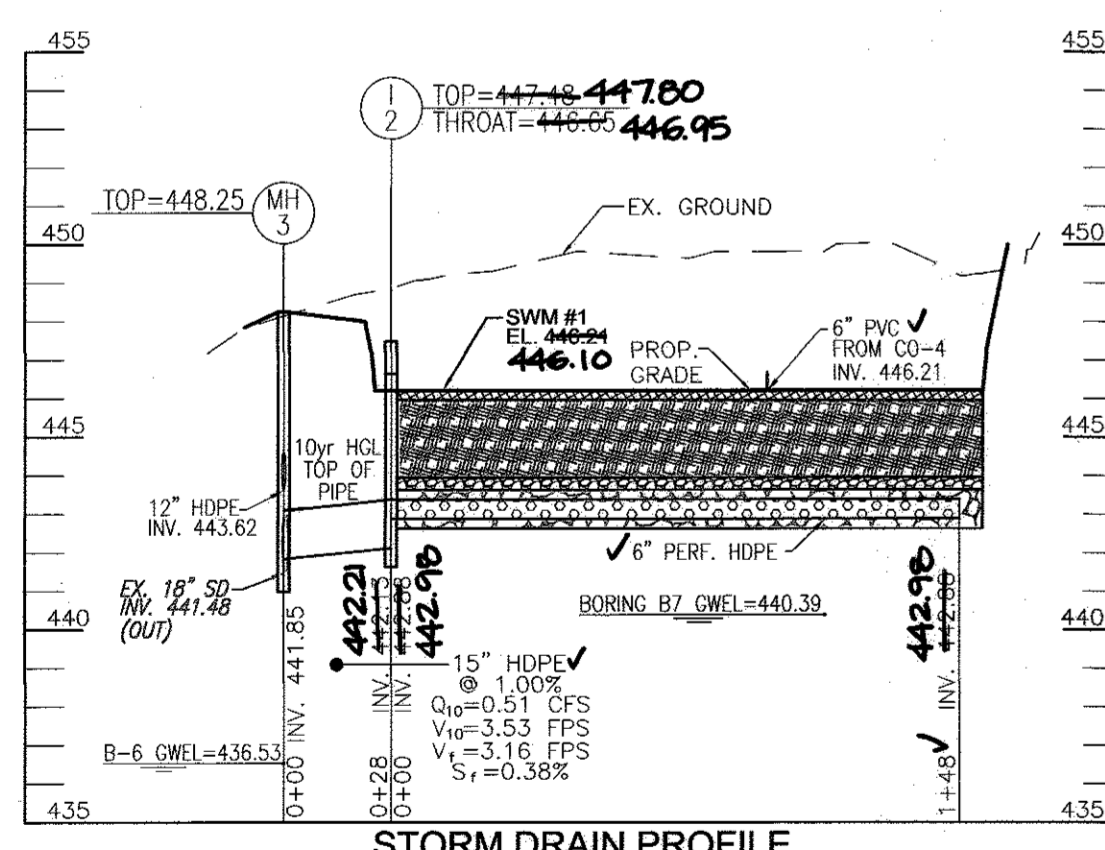
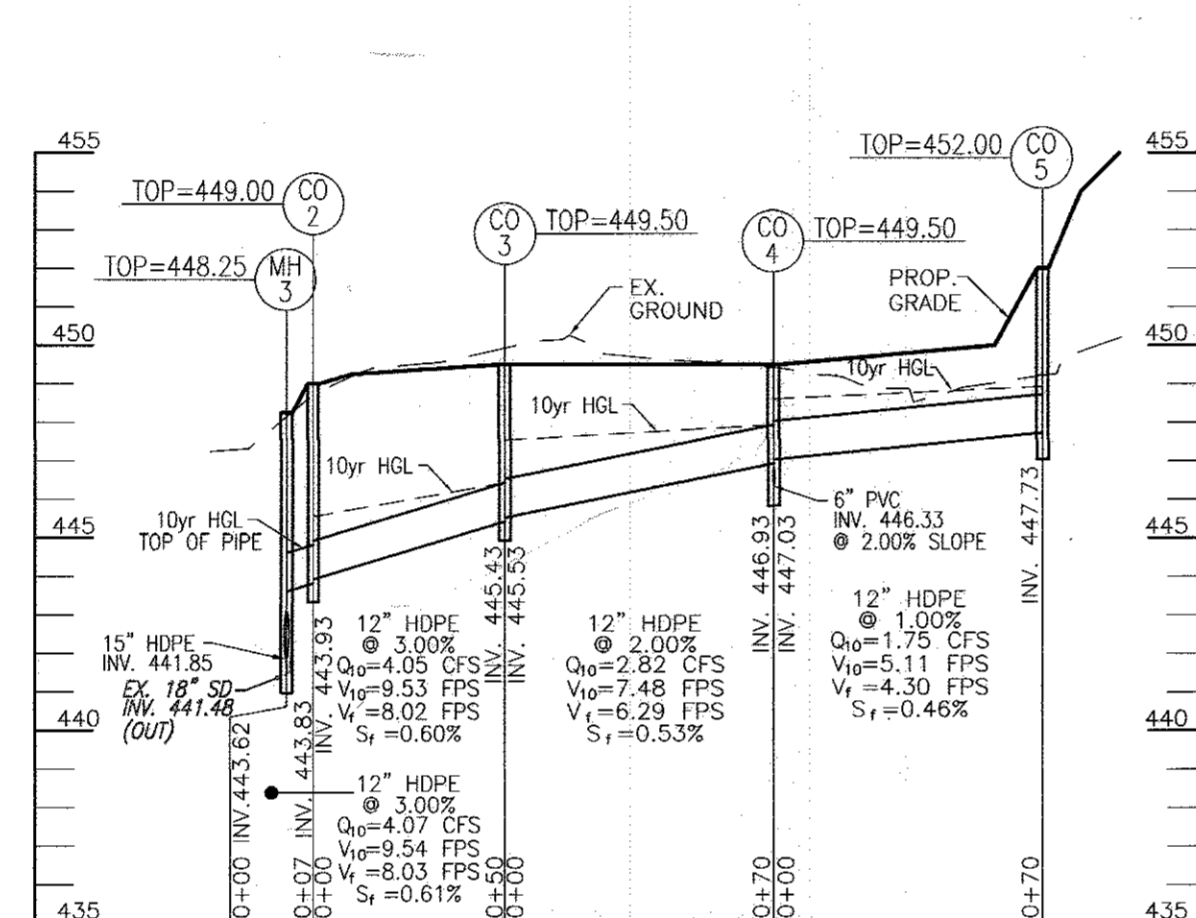
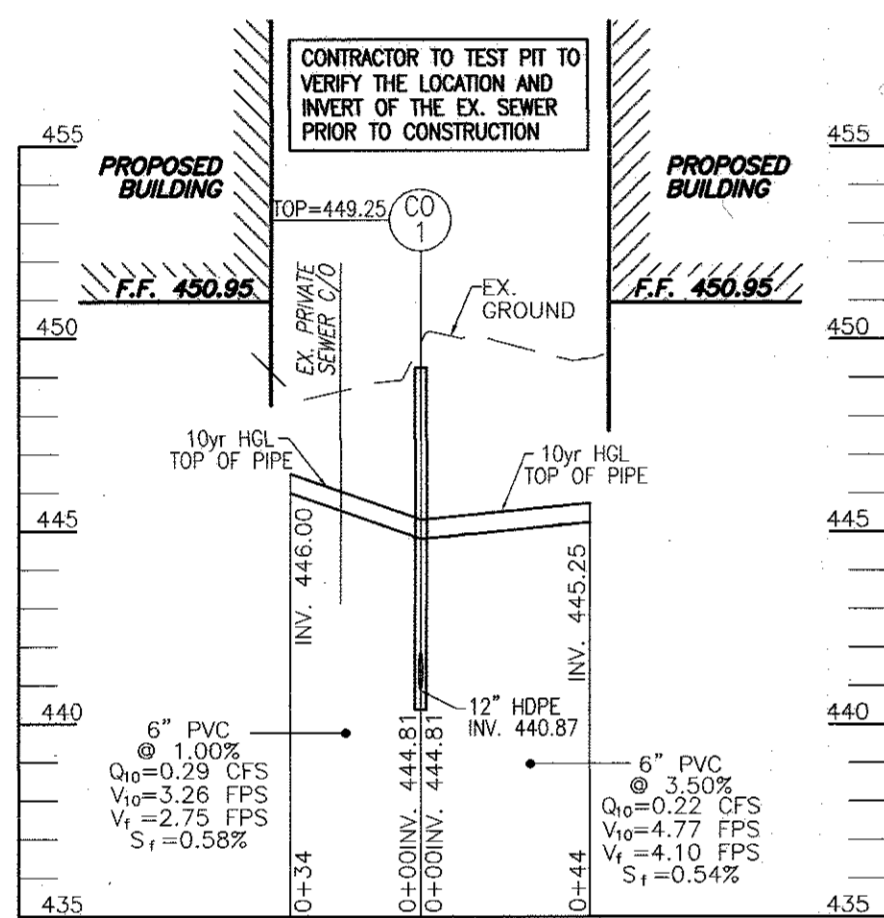
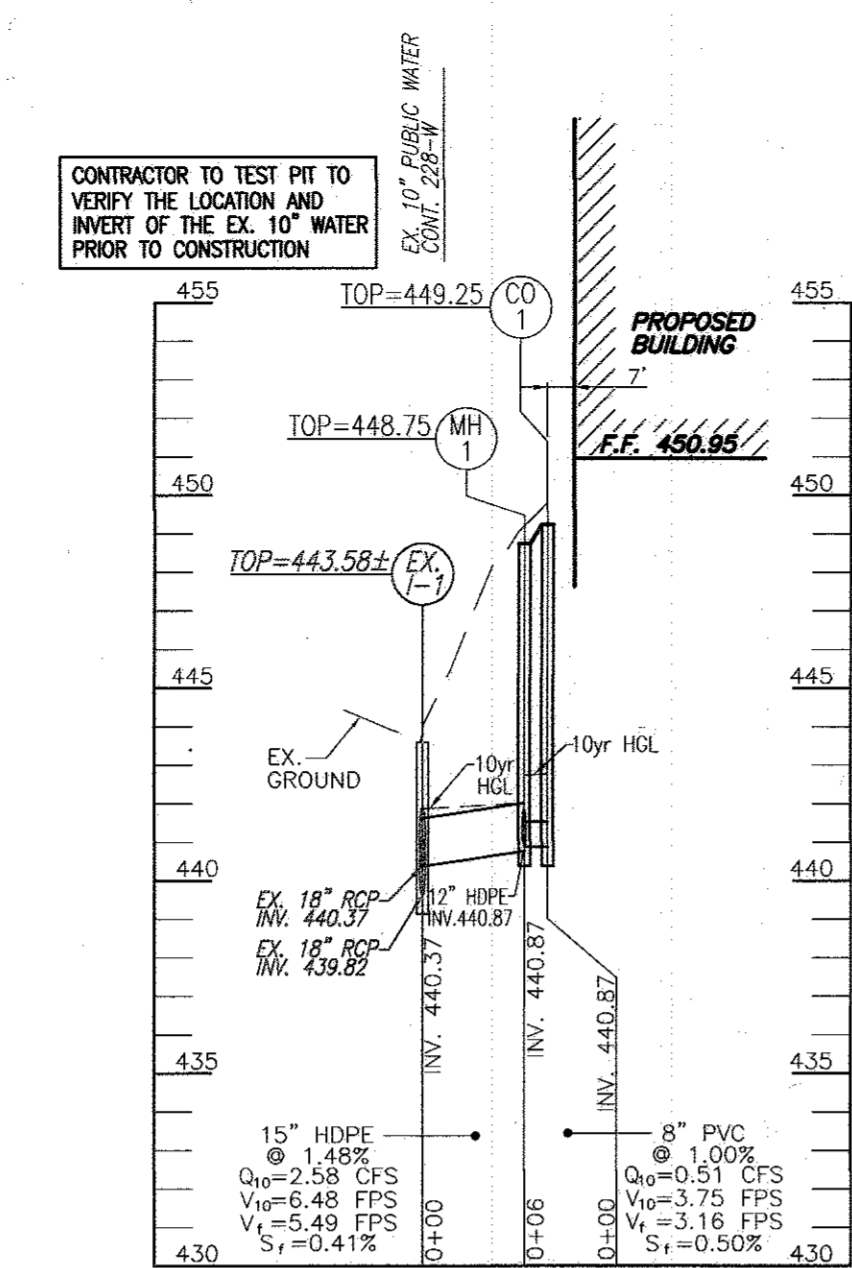
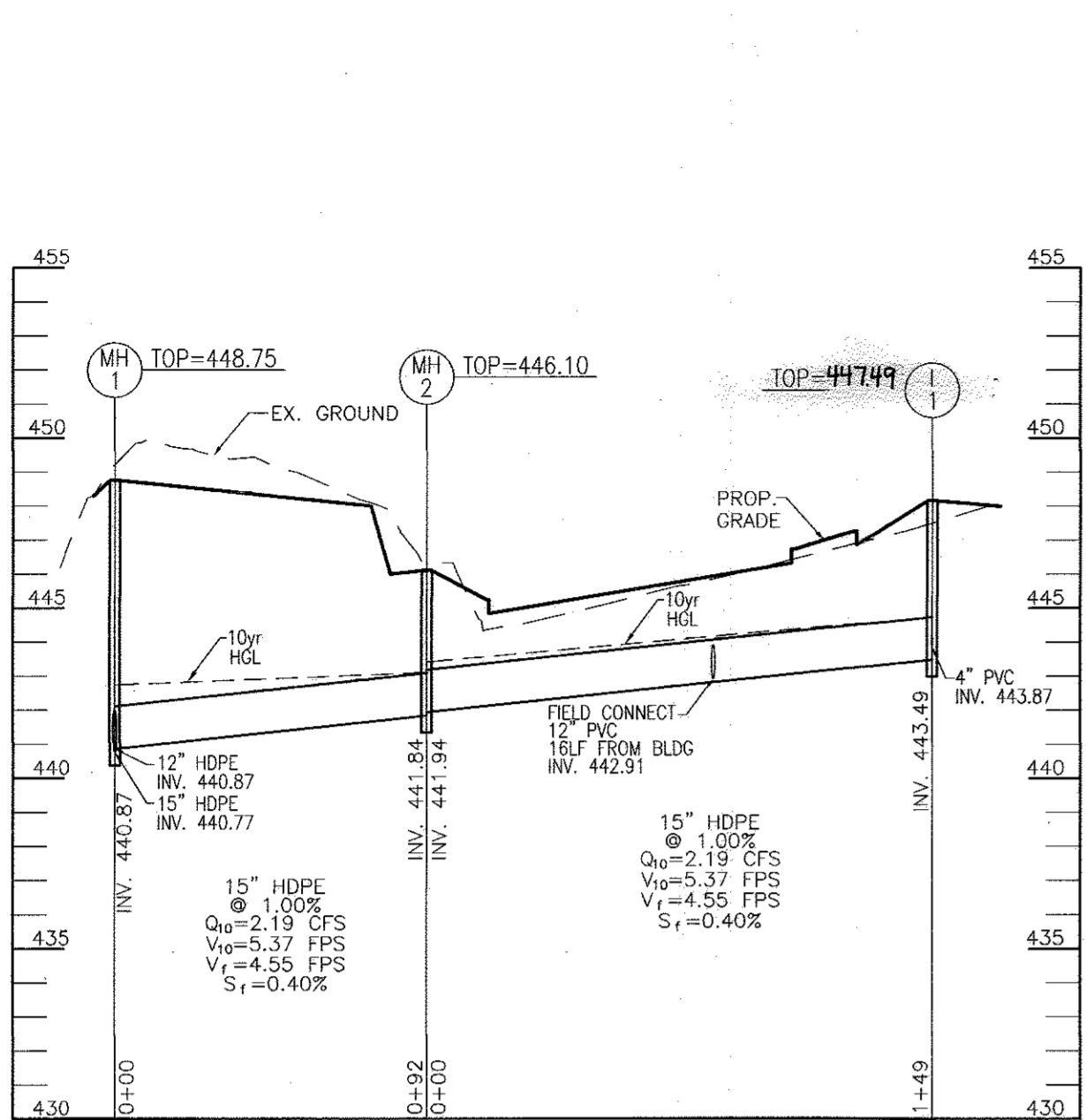
Chad E. Egan
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 6-9-15

Kristin R. Lewis
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 6-8-15

David A. Wright
DIRECTOR
DATE: 6/9/15

NO AS-BUILT INFORMATION THIS SHEET

AS-BUILT 1/27/17

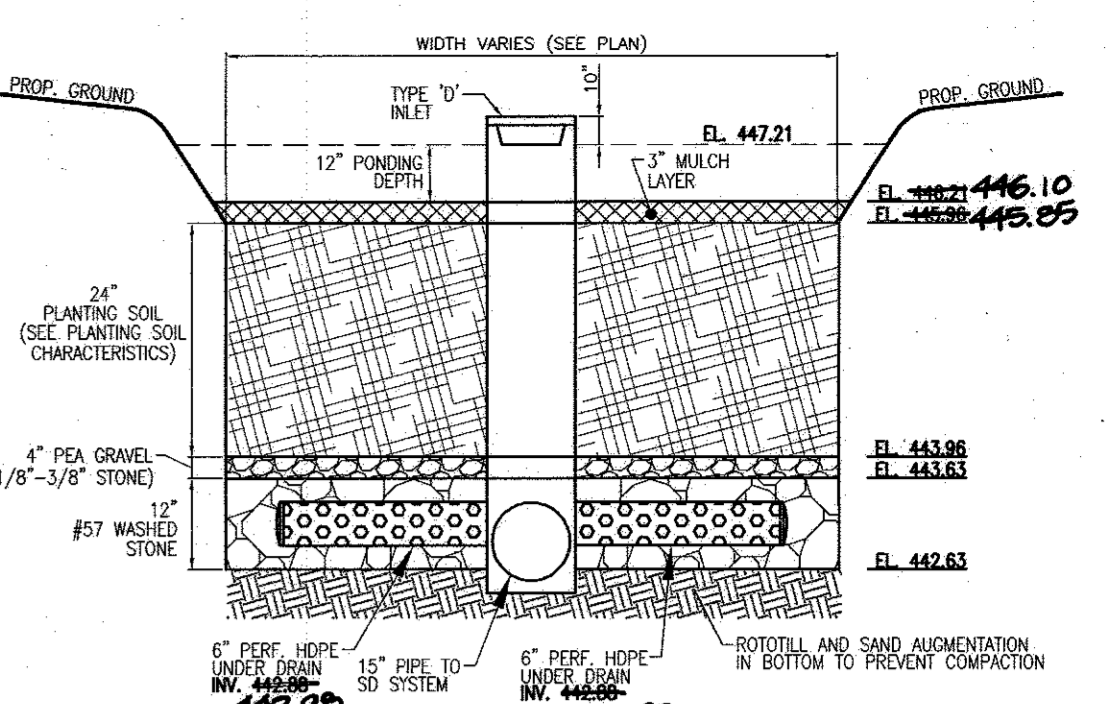


APPENDIX B.4.C SPECIFICATIONS FOR MICRO-BIOTRETION, RAIN GARDEN, LANDSCAPE INFILTRATION & INFILTRATION BEDS

- 1. MATERIAL SPECIFICATIONS**
THE ALLOWABLE MATERIALS TO BE USED IN THESE PRACTICES ARE DETAILED IN TABLE B.4.1.
- 2. FILTERING MEDIA OR PLANTING SOIL**
THE SOIL SHALL BE A UNIFORM MIX. FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR BLENDED WITH THE MICRO-BIOTRETION PRACTICE THAT MAY BE HARMFUL TO PLANT GROWTH OR PROVE AN OBSTACLE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BENZENE, GRASS, DIAPYCNUS, JOHNSON GRASS, OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 15.08.01.05.
THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA:
 - SOIL COMPONENT - LOAMY SAND OR SANDY LOAM (USDA SOIL TEXTURE CLASSIFICATION)
 - ORGANIC CONTENT - MINIMUM 10% BY DRY WEIGHT (ASTM D 2974). IN GENERAL, THIS CAN BE MET WITH A MIXTURE OF LOAMY SAND (60%-65%) AND COMPOST (35% TO 40%) OR SANDY LOAM (30%), COARSE SAND (30%), AND COMPOST (40%).
 - CLAY CONTENT - MEDIA SHALL HAVE A CLAY CONTENT OF LESS THAN 5%.
 - PH RANGE - SHOULD BE BETWEEN 5.5 - 7.0. AMENDMENTS (E.G., LIME, ROLPH SULFATE PLUS SULFUR) MAY BE MIXED IN TO THE SOIL TO INCREASE OR DECREASE PH.
 THERE SHALL BE AT LEAST ONE SOIL TEST PER PROJECT. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, AND ADDITIONAL TESTS OF ORGANIC MATTER AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL, IF TOPSOIL IS IMPORTED. THEN A TEXTURAL ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOPSOIL WAS EXCAVATED.
- 3. COMPACTION**
IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF BIOTRETION PRACTICES AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION TO REMOVE ORIGINAL SOIL. IF PRACTICES ARE EXCAVATED USING LOADERS, THE CONTRACTOR SHOULD USE WIDE TRACK OR WASH TRUCK EQUIPMENT, OR LIGHT EQUIPMENT WITH TIRE TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE WEARS, OR HIGH-PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.
COMPACTION CAN BE AVOIDED AT THE BASE OF THE BIOTRETION FACILITY BY USING A PRIMARY TILING OPERATION SUCH AS CHISEL, FLOW, RUPPER, OR SUBROLLER. THESE TILING OPERATIONS ARE TO REFRACATURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.
ROTOTILL TO 3 INCHES OF SAND INTO THE BASE OF THE BIOTRETION FACILITY BEFORE BACKFILLING THE OPTIONAL SAND LAYER. PUMP ANY PONDING WATER BEFORE PREPARING (ROTOTILLING) BASE.
WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE.
WHEN BACKFILLING THE BIOTRETION FACILITY, PLACE SOIL IN LOTS 12" TO 18". DO NOT USE HEAVY EQUIPMENT WITHIN THE BIOTRETION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRODE BIOTRETION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH WASH TRUCKS.
- 4. PLANT MATERIAL**
RECOMMENDED PLANT MATERIAL FOR MICRO-BIOTRETION PRACTICES CAN BE FOUND IN APPENDIX A, SECTION A.2.3.
- 5. PLANT INSTALLATION**
COMPOST IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLOAT, AND SHOULD BE PLACED IN THE INVERT AND OTHER LOW AREAS. MULCH SHOULD BE PLACED IN SURROUNDINGS TO A UNIFORM THICKNESS OF 2" TO 3". SHREDDLED OR CHIPPED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. PINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIOTRETION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDLED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.
ROOTSTOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION. TREES SHALL BE BRACED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL.
GRASSES AND LEGUME SEED SHOULD BE STRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS.
- 6. UNDERDRAINS**
UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:
 - PIPE - SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTM F 758, TYPE PS 28, OR AASHTO M-278) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED, 4" RIGID PIPE (E.G. PVC OR HDPE).
 - PERFORATIONS - PERFORATED PIPE IS USED, PERFORATIONS SHOULD BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER FOOT. PIPE SHALL BE WRAPPED WITH A 1/4" (NO. 4 OR 4x4) GAUGED HARDWARE CLOTH.
 - GRAVEL - THE GRAVEL LAYER (NO. 57 STONE PREFERRED) SHALL BE AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN.
 - THE MAIN COLLECTOR PIPE SHALL BE AT A MINIMUM 0.5% SLOPE.
 - A RIGID, NON-PERFORATED OBSERVATION WELL MUST BE PROVIDED (ONE PER EVERY 1,000 SQUARE FEET) TO PROVIDE A CLEAN-OUT PORT AND MONITOR PERFORMANCE OF THE FILTER.
 - A 4" LAYER OF FEA GRAVEL (1/4" TO 3/8" STONE) SHALL BE LOCATED BETWEEN THE FILTER MEDIA AND UNDERDRAIN TO PREVENT MIGRATION OF FINES IN TO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 24".
 THIS MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5%. OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).
- 7. MISCELLANEOUS**
THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

OPERATION AND MAINTENANCE SCHEDULE FOR LANDSCAPE INFILTRATION (M-3), MICRO-BIOTRETION (M-6), RAIN GARDENS (M-7), BIOTRETION SWALE (M-8), AND ENHANCED FILTERS (M-9)

1. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. 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 PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUME II, TABLE A.4.1 AND 2.
2. THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT. REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TRIM DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.
3. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
4. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.



MICROBIOTRETION NOTES:
 1. ONLY THE SIDES OF MICROBIOTRETION ARE TO BE WRAPPED IN FILTER FABRIC. FILTER FABRIC BETWEEN LAYER OR AT THE BOTTOM OF THE MICROBIOTRETION WILL CAUSE THE MBR TO FAIL, AND THEREFORE SHALL NOT BE INSTALLED.
 2. WRAP THE PERFORATED MBR UNDERDRAIN PIPE WITH 1/4" MESH (4x4) OR SMALLER GALVANIZED HARDWARE CLOTH.

MICRO-BIOTRETION (SWM #1)

NOT TO SCALE

DA	% IMPERV	Rv	DA	ESDv	MINIMUM	MAXIMUM	VOLUME	VOLUME
1	54	0.54	0.45	1766	883	2296	1570	
TOTAL ESDv BY SUBAREA				1766			1570	

*Micro-biotretions utilized in each subarea at the rate of 75%.

Appendix B.4. Construction Specifications for Environmental Site Design Practices

Table B.4.1 Materials Specifications for Micro-Biotretion, Rain Gardens & Landscape Infiltration

Material	Specification	Notes
Plantings	see Appendix A, Table A.4	plantings are site-specific
Filtering soil (2" to 4" deep)	loamy sand (60-65%) & compost (35-40%) or sandy loam (30%) & coarse sand (30%) & compost (40%)	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D 2974)	aged 6 months, minimums no pine or wood chips
Mulch	shredded hardwood	
Pre-gravel diaphragm	see grav. ASTM D-448	NO. 3 OR NO. 9 (1/4" TO 3/8")
Curtain drain	monolithic stone, washed cobble	stone: 2" to 5"
Geotextile	AASHTO M-43	NO. 37 OR NO. 6 AGGREGATE (30" to 36")
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4" to 6" rigid plastic 40 PVC or SDR35
Perforated in place concrete (if required)	MESA Mix No. 3, C ₁ -1500 psi @ 28 days, normal weight, air-entrained, reinforcing to meet ASTM A615-60	28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved State or local standard requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACS Code 195.8.09; vertical loading (H-10 or H-20); allowable horizontal loading (based on soil permeability and analysis of potential tracking)
Sand	AASHTO M-6 or ASTM C-33	0.075 to 0.04"

ENVIRONMENTAL SITE DESIGN PRACTICE

DRAINAGE AREA #	AREA TREATED	FACILITY NUMBER	PERMEABLE PAVEMENT	ADD UNDER PERM. PAVE.	LANDSCAPE INFILTRATION	PERVIOUS SWALE	BIO SWALE	GRAVEL TRENCH	MICRO BIO RETENTION	ADD UNDER MICRO BIO	ESDv VOLUME
1	30927	SWM#1	0	0	0	0	0	0	0	0	1570
SUBTOTAL 1			0	0	0	0	0	0	0	0	1570
TOTALS:			0	0	0	0	0	0	0	0	1570

TOTAL AREA 30927 SF
0.71 AC

TOTAL ESDv PROVIDED: 1570

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Phelan
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 6-5-15

Kathleen
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 6-19-15

Frank R. Long
DIRECTOR
DATE: 6/19/15

AS-BUILT CERTIFICATION
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

16193 1/27/17
 ROBERT H. VOGEL PE NO. DATE



OWNER/DEVELOPER
 COLUMBIA NORTH LAND LLLP
 8221 SNOWDEN RIVER PARKWAY
 SUITE 300
 COLUMBIA, MARYLAND 21045

STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	TOP ELEV.	THROAT ELEV.	INV. IN.	INV. OUT.	COMMENTS
I-1	DOUBLE "WR" INLET	N 568360.0 E 1363596.5	447.49	-	443.49	HO. CO. STD. D-4.35	
I-2	TYPE "D" INLET	N 568189.1 E 1363433.1	447.48	446.65	442.88	HO. CO. STD. D-4.10	
MH-1	4'-0" STANDARD PRECAST MANHOLE	N 568297.4 E 1363420.1	448.75	-	440.87	HO. CO. STD. G-5.12	
MH-2	4'-0" STANDARD PRECAST MANHOLE	N 568384.3 E 1363449.5	446.10	-	441.94	HO. CO. STD. G-5.12	
MH-3	4'-0" STANDARD PRECAST MANHOLE	N 568202.1 E 1363408.6	448.25	-	443.62	HO. CO. STD. G-5.12	
CO-1	CLEANOUT	N 568295.8 E 1363426.0	449.25	-	444.81	HO. CO. STD. S-2.22	
CO-2	CLEANOUT	N 568206.1 E 1363414.2	449.50	-	443.93	HO. CO. STD. S-2.22	
CO-3	CLEANOUT	N 568174.6 E 1363530.5	449.50	-	445.53	HO. CO. STD. S-2.22	
CO-4	CLEANOUT	N 568156.3 E 1363598.4	445.00	-	447.03	HO. CO. STD. S-2.22	
RD-1	ROOF DRAIN	N 568339.3 E 1363584.4	450.84	-	447.15	HO. CO. STD. S-2.22	
RD-2	ROOF DRAIN	N 568291.7 E 1363581.5	450.84	-	447.73	HO. CO. STD. S-2.22	
RD-3	ROOF DRAIN	N 568274.5 E 1363645.1	450.82	-	448.37	HO. CO. STD. S-2.22	
RD-4	ROOF DRAIN	N 568350.1 E 1363554.6	446.58	-	444.80	HO. CO. STD. S-2.22	

NOTE: 1. TOP ELEVATIONS ARE AT CENTER TOP OF GRATE FOR DOUBLE TYPE "S" INLET, CENTER TOP OF MANHOLE FOR TYPE "D" INLET, AND TOP OF MANHOLE COVER FOR PRECAST MANHOLES.
 2. FOR TOP SLAB SLOPES SEE GRADING PLAN.
 3. SEE ARCHITECTURAL PLANS FOR DOWNSPOUT AND ROOF DRAIN DETAILS.
 4. ALL CUSTOM AND NON-STANDARD STRUCTURES TO BE DESIGNED BY A QUALIFIED STRUCTURAL ENGINEER.

PIPE SCHEDULE

SIZE	TYPE	LENGTH
4"	PVC-SD	178 LF
6"	PVC-SD	78 LF
6"	PERF. HDPE (SWM)	148 LF
8"	PVC	6 LF
12"	HDPE	206 LF
15"	HDPE	296 LF

DEVELOPER/OWNER
 BY THE PROJ. ILL
 /s/ ENTERPRISE INFORMATION
 9002 RED BRANCH ROAD
 COLUMBIA, MD 21045
 (410) 743-1130

NO.	REVISION	DATE
1	REMOVE SWITCHBACK RAMP; ADD HANDICAP ACCESSIBLE SIDEWALK; REMOVE LOT LINE; UPDATE OWNERSHIP	6/4/15

SITE DEVELOPMENT PLAN
 SWM DRAINAGE AREA MAP, SWM NOTES AND DETAILS; SOILS MAP

ezStorage
 SELF-STORAGE
 9002 RED BRANCH ROAD
 LOT 107 PLAT 23390
 ZONED: NT PARCEL 268, LOT 107
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

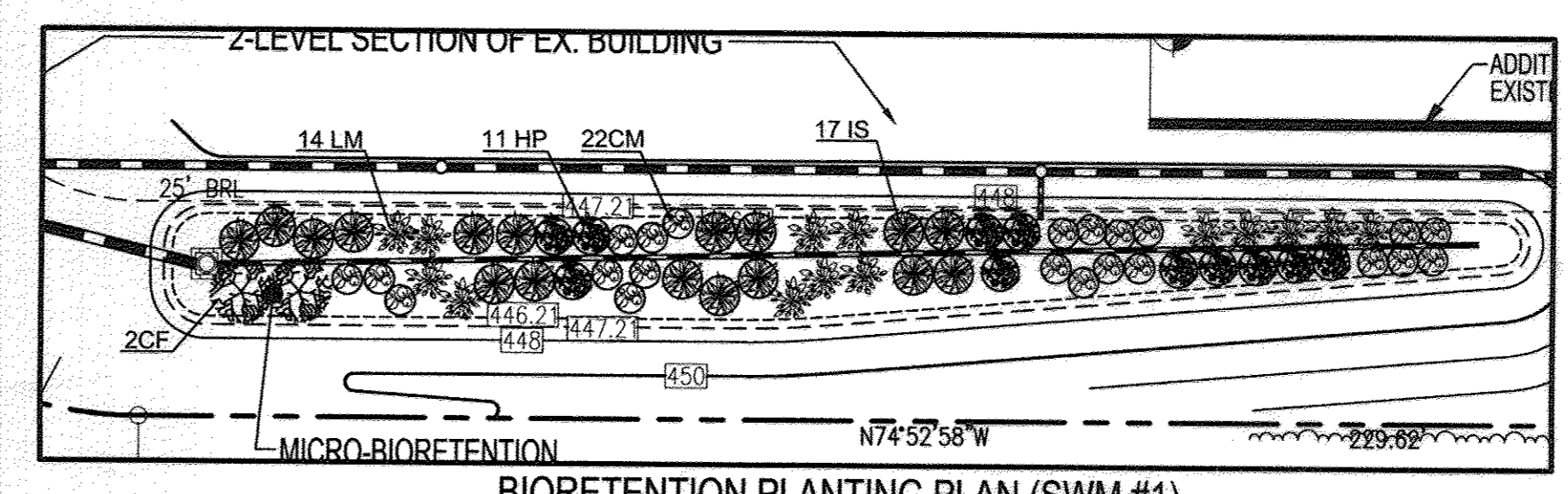
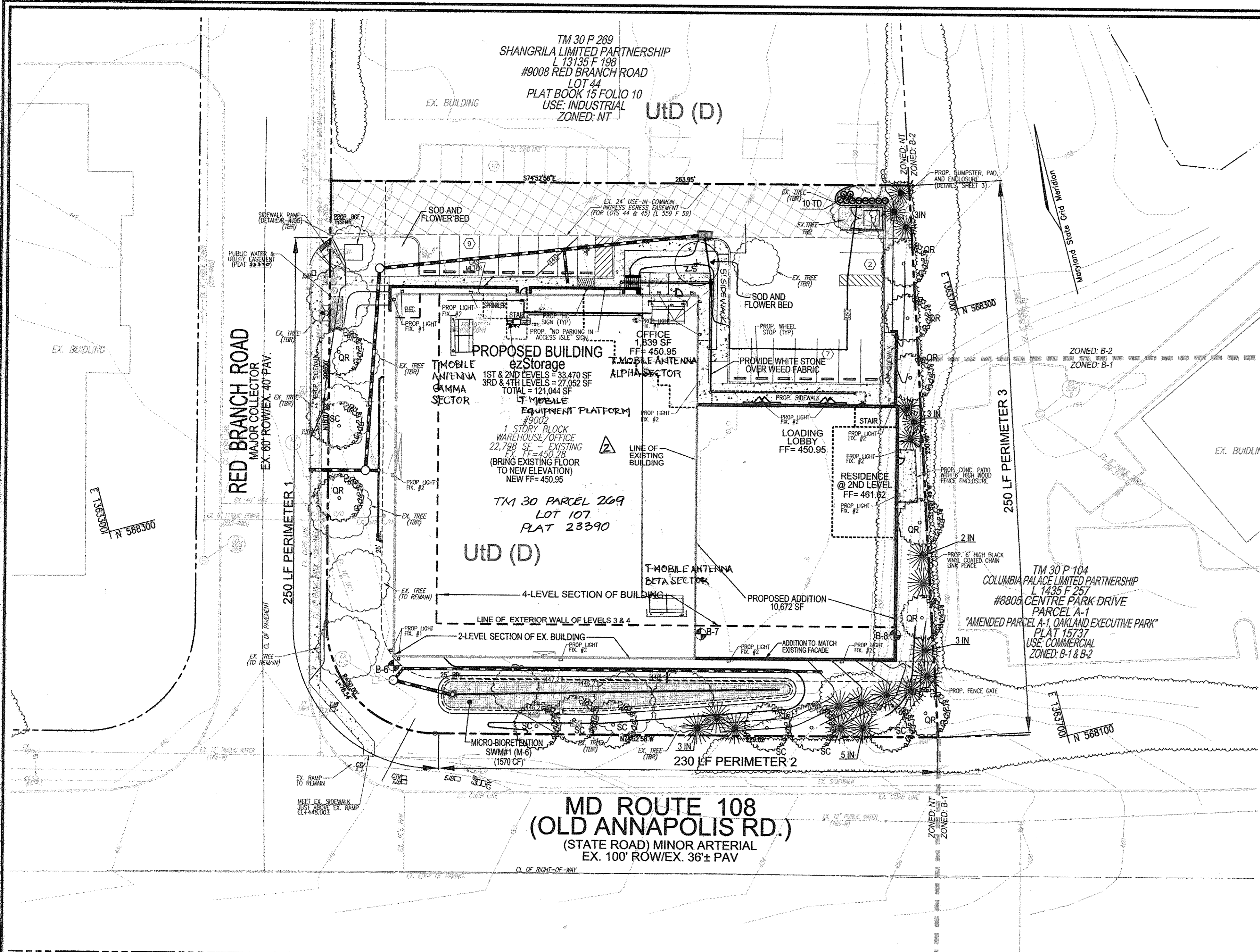
ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS - SURVEYORS - PLANNERS
 8407 MAIN STREET ELUGOT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.7661

DESIGN BY: DZE
 DRAWN BY: DZE/KG
 CHECKED BY: RIV
 DATE: APRIL 2015
 SCALE: AS SHOWN
 W.O. NO.: 14-10

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, EXPIRES ON 06-27-2019.

6 SHEET OF 7

AS-BUILT 1/27/17



BIORETENTION PLANTING PLAN (SWM #1)
SCALE: 1" = 20'

KEY	QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
IS	17	IRIS SIBERICA 'BENNERUP BLUE'	1 GALLON	18" O.C.
HP	11	HEMEROCALLIS X 'PRAIRIE BLUE EYES'	1 GALLON	30" O.C.
LM	14	LIRIOPE MUSCARI 'BIG BLUE'	4" HT	SPECIM QUALITY STRAIGHT LEADER
CF	2	CORNUS SERICEA 'FLAVIRAMEA'	4" HT	SPECIM QUALITY STRAIGHT LEADER
CM	22	CONVALLARIA MAJALIS 'LILY-OF-THE-VALLEY'	1 QT.	12" O.C.

LINEAR FEET OF PERIMETER	STEMS PROVIDED
328 LF	66
CREDIT FOR EXISTING VEGETATION (NO. YES AND LINEAR FEET)	NO
CREDIT FOR OTHER LANDSCAPING (NO. YES AND X)	YES, 100%
NUMBER OF TREES PROVIDED	0 SHADE TREES 0 EVERGREEN TREES
NUMBER OF TREES PROVIDED	SEE BIORETENTION PLANT LIST

NUMBER OF PARKING SPACES	NUMBER OF TREES REQUIRED (1/20 SPACES)	NUMBER OF TREES PROVIDED
18	1	1
SHADE TREES	1	1
OTHER TREES (2:1 SUBSTITUTION)	0	0
SHRUBS (10:1 SUBSTITUTION)	0	0

KEY	QUAN	BOTANICAL NAME	SIZE	CAT
OR	8	CORYLUS CORNUCOSTATA	2 1/2" - 3" CAL.	B & B
SC	7	PRUNUS SARGENTII	2 1/2" - 3" CAL.	B & B
ZS	1	ZELCOVA SERRATA 'VILLAGE GREEN'	2 1/2" - 3" CAL.	B & B
IN	18	ILEX NELLIE R. STEVENS	5' - 6" HT.	B & B
TO	10	TAKEUCHI YENSIFORMIS	2 1/2" - 3" HT.	B & B

CATEGORY	ADJUNCT TO PERIMETER PROPERTIES AND ROADS				ADJUNCT TO DUMPSTER
	1	2	3	4	
PERIMETER/FRONTAGE DESIGNATION	B	C	A	D	
LANDSCAPE TYPE	250'	230'	250'	30'	
FRONTAGE/PERIMETER					
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	NO	NO	NO	
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET)	NO	NO	NO	NO	
NUMBER OF PLANTS PROVIDED	1:50	1:40	1:60	1:40	17
SHADE TREES	1:40	1:20	1:20	1:20	20
EVERGREEN TREES	0	0	0	0	0
SHRUBS (10:1 SUBSTITUTION)	0	0	0	0	0
EXISTING SHADE TREES	2	0	0	0	2
DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED					
* SUBSTITUTE 1 SHADE TREE FOR 10 SHRUBS IN PERIMETER 1A					
** 6 REQUIRED EVERGREENS IN PERIMETER 1 PLANTED IN PERIMETER 3					
*** 4 REQUIRED EVERGREENS IN PERIMETER 2 PLANTED IN PERIMETER 3					

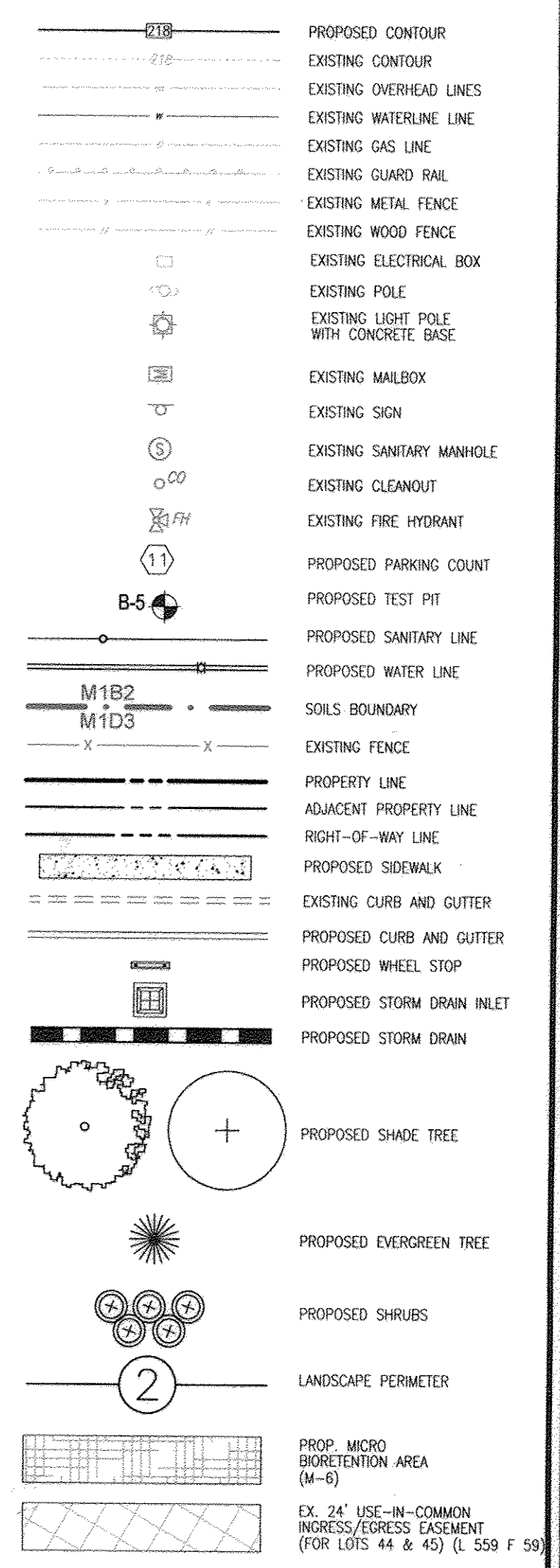
GENERAL NOTES:

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. THE REQUIRED PARKING AND PERIMETER LANDSCAPING WILL BE BONDED PER THIS SUBMISSION.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$7,800.00 FOR THE REQUIRED 10 SHADE TREES, 20 EVERGREEN TREES.

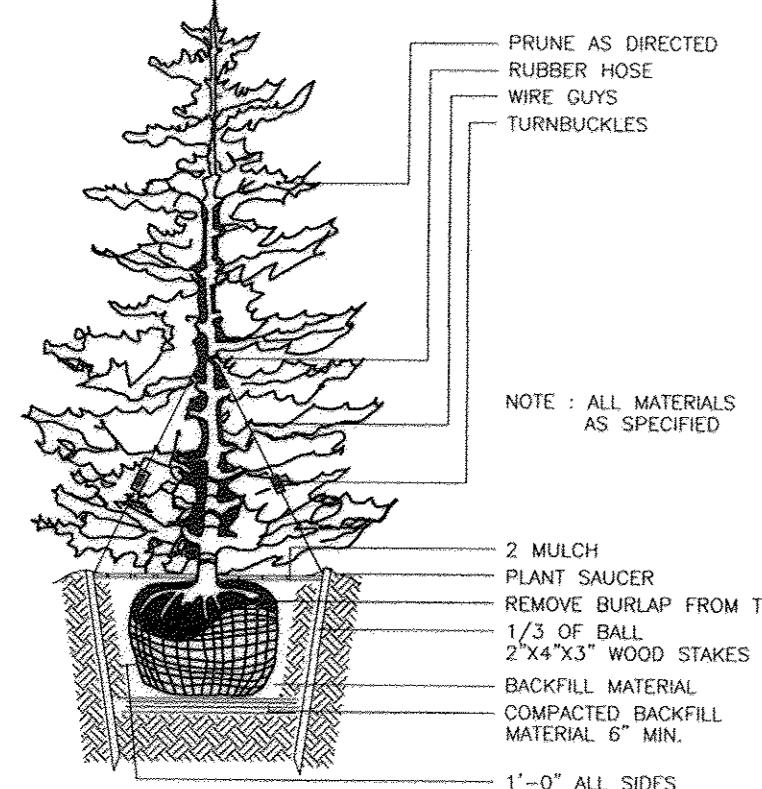
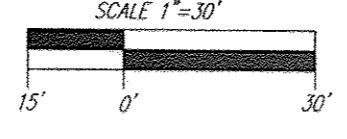
LANDSCAPE SCHEDULE NOTE:

- ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT ANSI SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH HED PLANTING SPECIFICATIONS.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
- FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
- CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.

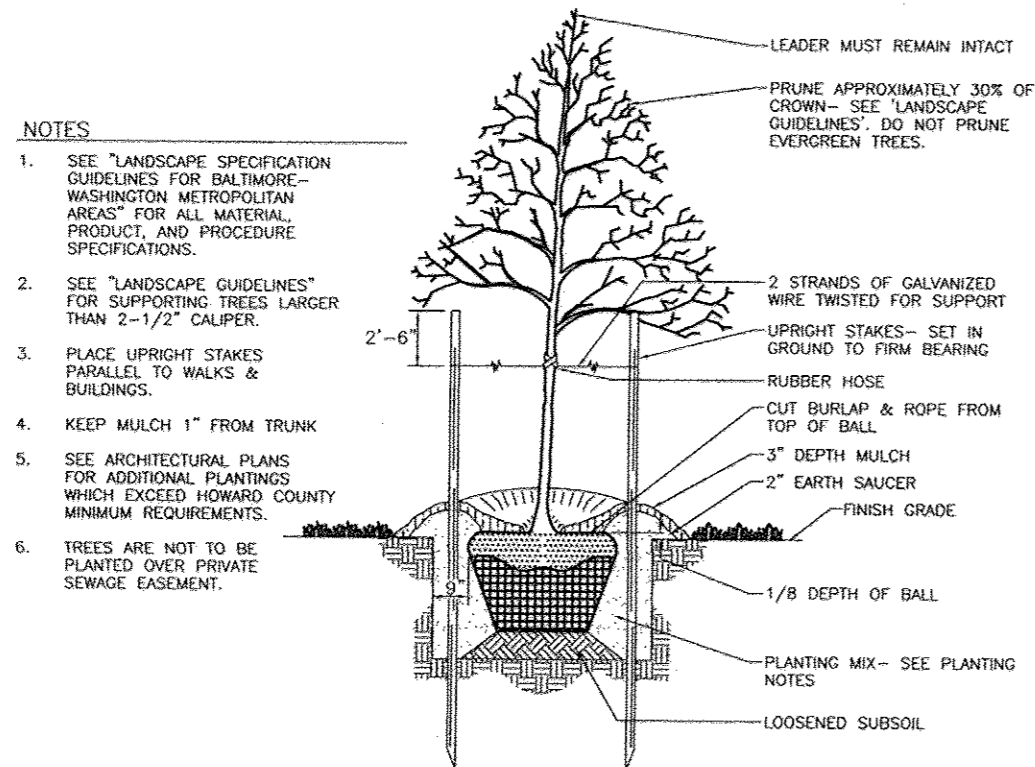
LEGEND:



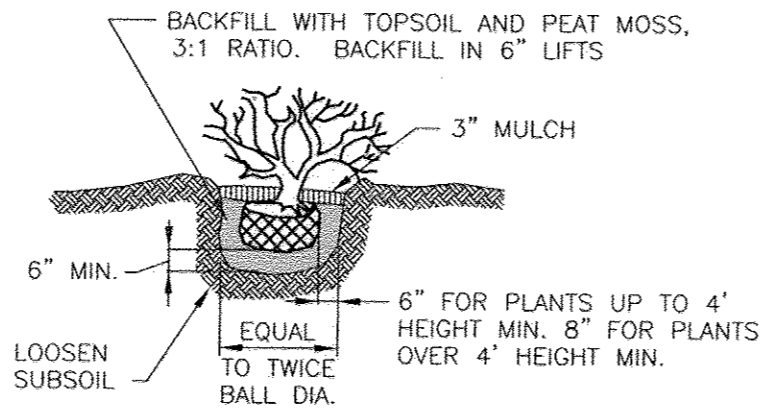
LANDSCAPE PLAN
SCALE: 1" = 30'



TYPICAL EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE

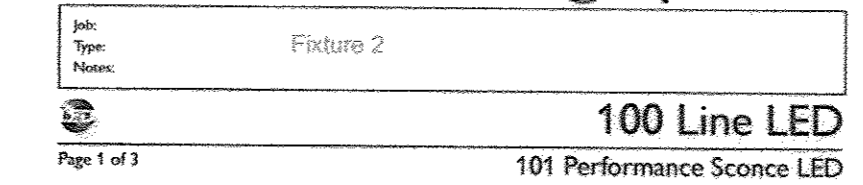
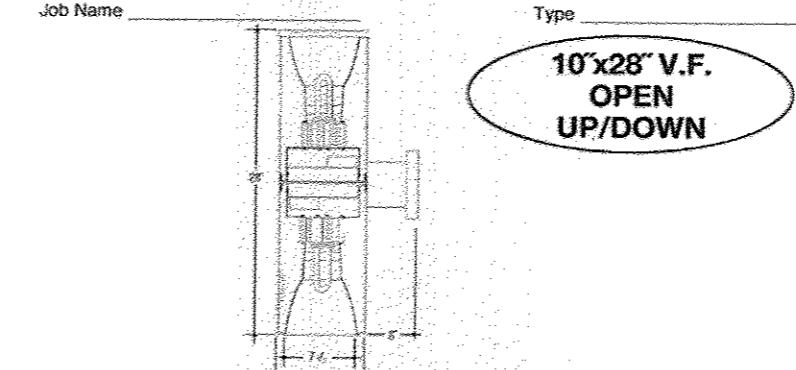


TREE PLANTING AND STAKING
DECIDUOUS TREES UP TO 2-1/2" CALIPER
NOT TO SCALE



SHRUB PLANTING DETAIL
NOT TO SCALE

Architectural Cylinders



100 Line LED
101 Performance Sconce LED

Color	Wattage	Lumen
White	100W	10,000
Blue	100W	10,000

Color	Wattage	Lumen
White	100W	10,000
Blue	100W	10,000

Color	Wattage	Lumen
White	100W	10,000
Blue	100W	10,000

LIGHTING DETAILS
NOT TO SCALE
NO AS-BUILT INFORMATION THIS SHEET

OWNER/DEVELOPER
COLUMBIA NORTH LAND LLLP
8221 SNOWDEN RIVER PARKWAY
SUITE 300
COLUMBIA, MARYLAND 21045

NO.	REVISION	DATE
2	T-Mobile Wireless Installation	3/8/17
1	REVISE PLAN TO REMOVE SWITCH BACK RAMP, ADD HANDICAP ACCESSIBLE SIDEWALK; REMOVE LOT LINE; UPDATE OWNERSHIP BATHS	3/8/17

SITE DEVELOPMENT PLAN
LANDSCAPE PLAN
ezStorage
SELF-STORAGE
9002 RED BRANCH ROAD
LOT 107 PLAT 23390
ZONED: NT
PARCEL 269, LOT 107
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8991

DESIGN BY: DZE
DRAWN BY: DZE/KG
CHECKED BY: RHW
DATE: APRIL 2015
SCALE: AS SHOWN
W.O. NO.: 14-10
7 SHEET OF 7

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Chief, Development Engineering Division
DATE: 6-5-15

DEVELOPER'S/BUILDER'S CERTIFICATE
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.
DATE: 4-22-15

AS-BUILT 1/27/17
SDP-15-009