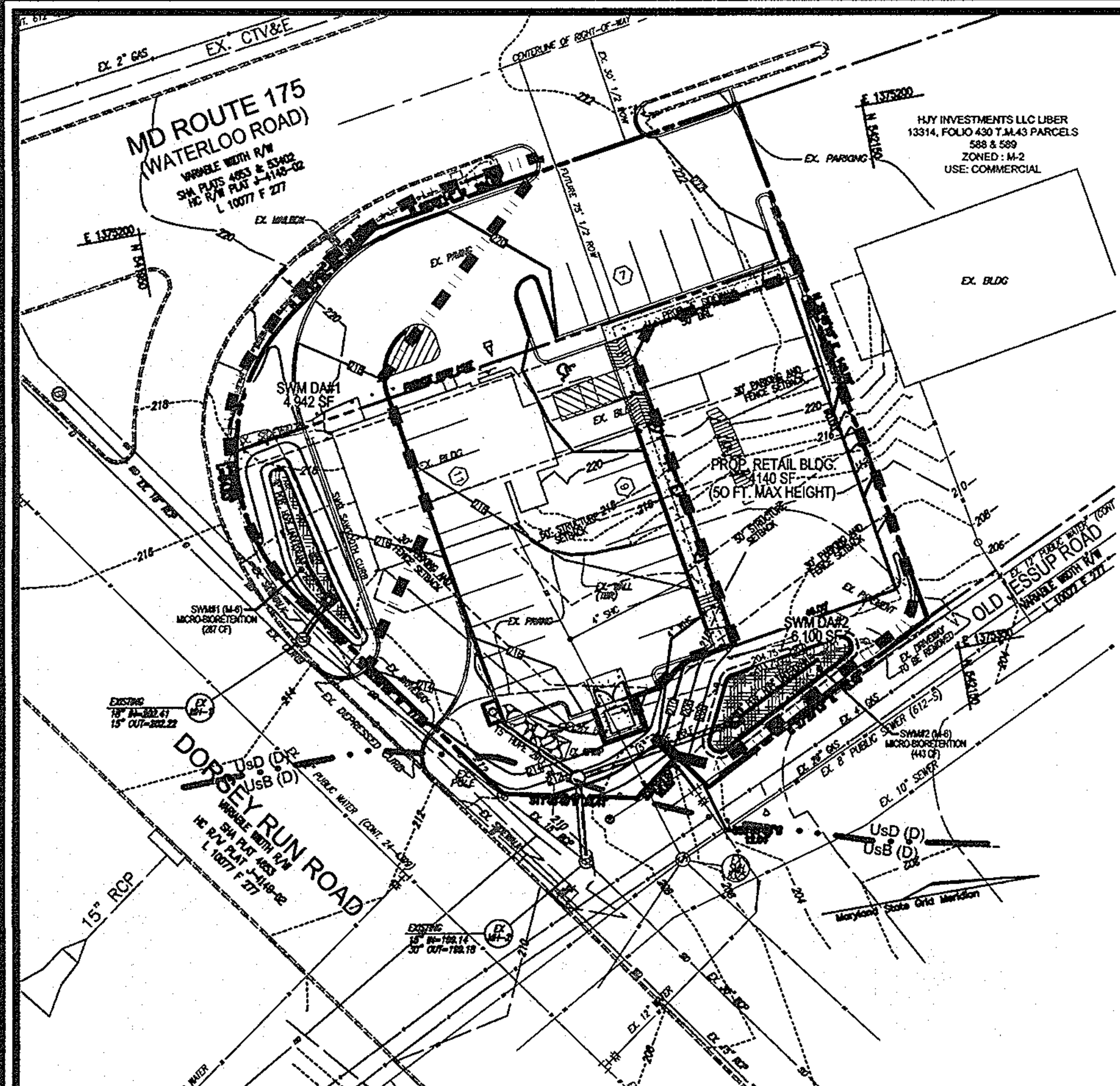
MEL'S LIQUOR
7852 SW OLD JESSUP ROAD
L.10188/F.162
ENVIRONMENTAL CONCEPT PLAN

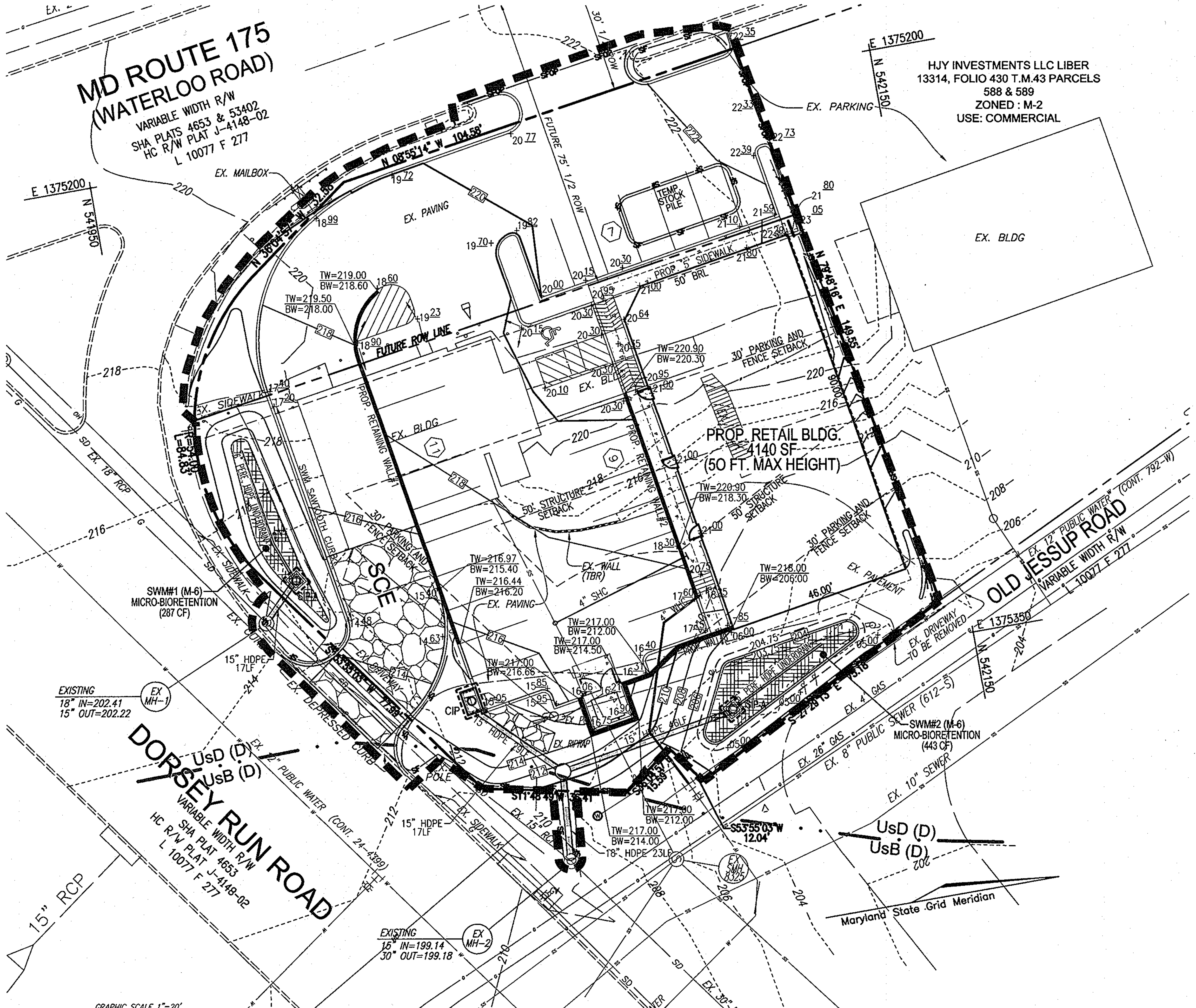


SWM DRAINAGE AREA MAP
SCALE: 1" = 40'

SOILS LEGEND HOWARD COUNTY SOILS MAP #25				
SYMBOL	NAME / DESCRIPTION	GROUP	ERODIBLE	'K' FACTOR
UsD	URBAN LAND- SASSAFRAS-BELTSVILLE COMPLEX, 5 TO 15 PERCENT SLOPES	D	YES	0.37

GENERAL NOTES

1. 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.
2. 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.
3. THE EXISTING TOPOGRAPHY SHOWN HEREON IS TAKEN FROM AN FIELD RUN TOPOGRAPHIC SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC; DATED OCTOBER 26, 2012.
4. COORDINATES AND ELEVATIONS ARE BASED ON MARYLAND COORDINATE SYSTEM – NAD83(1991) AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 43HB AND 43HC.
5. THE PROPERTY LINES SHOWN HEREON IS BASED ON A FIELD-RUN BOUNDARY SURVEY PERFORMED BY ROBERT H. VOGEL ENGINEERING, INC. DATED OCTOBER 26, 2012.
6. ALL ELEVATIONS ARE TO FLOWLINE/BOTTOM OF CURB UNLESS OTHERWISE NOTED.
7. THE GEOTECHNICAL ENGINEER TO CONFIRM PAVING SECTION PRIOR TO CONSTRUCTION. ALL PAVING TO BE PAVING PER GEOTECHNICAL RECOMMENDATIONS.
8. THE SUBJECT PROPERTY IS ZONED M-2 PER THE 02/02/2004 COMPREHENSIVE ZONING PLAN AND THE COMP LITE ZONING REGULATION AMENDMENTS EFFECTIVE ON 07/28/06.
9. PUBLIC WATER AVAILABLE THROUGH CONTRACT NO. 792-W. PUBLIC SEWER AVAILABLE THROUGH 612-S.
10. THERE ARE NO BURIAL GROUNDS, CEMETERIES, OR HISTORIC STRUCTURES LOCATED ON THIS PROPERTY.
11. THERE IS NO 100YR FLOODPLAIN, STREAMS, WETLANDS OR STEEP SLOPES LOCATED ON SITE.
12. ANY EXISTING STREET TREES DAMAGED OR DESTROYED DURING CONSTRUCTION WILL BE REPLACED BY THE CONTRACTOR.
13. THE FOREST STAND DELINEATION WAS PREPARED BY ENVIRONMENTAL SYSTEMS ANALYSIS, DATED 09/02/13.
14. 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.
16. 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 4-5' IN HEIGHT AND NO MORE THAN 6' LATERALLY FROM THE DOOR. IT'S 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).
17. 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-1 13.1.4
18. 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.
19. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) – 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
20. ALL EXTERIOR LIGHTING TO COMPLY WITH THE REQUIREMENTS FOUND IN ZONING SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
21. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE 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.
22. STORMWATER MANAGEMENT FOR THIS PROJECT IS BEING PROVIDED BY ENVIRONMENTAL SITE DESIGN UTILIZING MICRO-BIORETENTION FACILITIES ~~AND PERVIOS PAVING (WITH ADDITIONAL STONE DEPTH)~~ TO ACCOMMODATE THE TOTAL ESD VOLUME REQUIRED. SWM FACILITIES TO BE PRIVATELY OWNED AND MAINTAINED.
23. TRASH AND RECYCLING COLLECTION TO BE PRIVATE.
24. THE PROPOSED BUILDING WILL HAVE AN AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM.
25. THERE ARE NO SPECIMEN OR CHAMPION TREES WITHIN THE LOD.
26. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHING THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION AREAS AND 100 YEAR FLOODPLAIN.
27. SIGNAGE SHALL BE PROVIDED ON THE BUILDING IDENTIFYING THE BUILDING ADDRESS, AND EACH SUITE SEPARATED BY LETTER.
28. THE EXISTING BUILDING WAS DESTROYED BY FIRE (SECTION 129.C), AND THE RECONSTRUCTED BUILDING AND PARKING WILL BE LOCATED AT THE SAME OR GREATER SETBACK FROM MD ROUTE 175 AND DORSEY RUN ROAD.

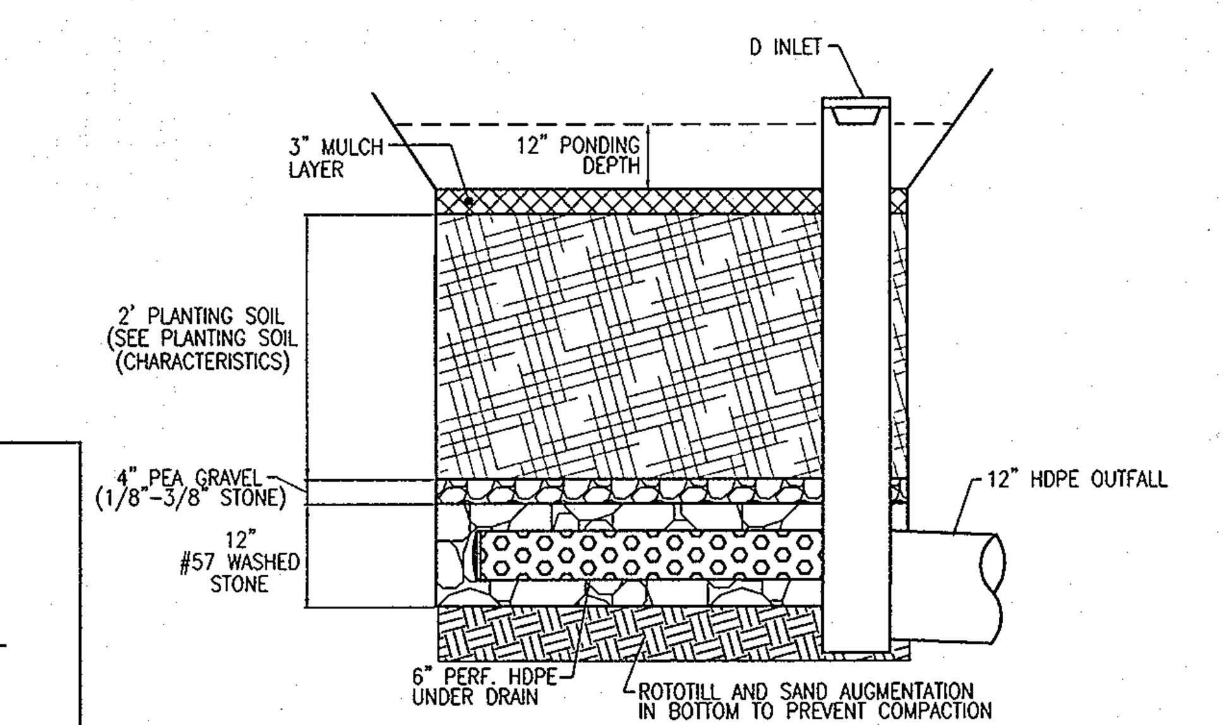


CONCEPT PLAN
SCALE: 1" = 20'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3-11-14

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/10/14



MICRO-BIORETENTION
NOT TO SCALE

NOTES:

1. APPROVAL OF THIS SIMPLIFIED ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED BUILDING AND/OR GRADING PERMIT
2. REVIEW OF THIS PLAN FOR COMPLIANCE WITH ZONING AND SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SHALL OCCUR AT THE PERMIT STAGES; AND THEREFORE, THIS PLAN IS SUBJECT TO ADDITIONAL AND MORE DETAILED COMMENTS AS THE PLAN PROGRESSES THROUGH THE PERMIT PROCESS.
3. THERE ARE NO ENVIRONMENTAL FEATURES: FLOODPLAIN, WETLANDS, STREAMS, STEEP SLOPES OR FOREST THAT EXISTS ON THIS PROPERTY OR WITHIN THE DEVELOPED AREA.

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

1. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULTCH 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, TREAT 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.

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

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

Material	Specification	Size	Notes
Plantings	see Appendix A, Table A.4	n/a	plantings are site-specific
Planting soil [2' to 4' deep]	loamy sand (60 - 65%) & compost (35 – 40%) or sandy loam (30%), coarse sand (30%) & compost (40%)	n/a	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum; no pine or wood chips
Pea gravel diaphragm	pea gravel: ASTM-D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")	
Curtain drain	ornamental stone: washed cobbles	stone: 2" to 5"	
Geotextile		n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE (3/8" to 3/4")	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe; 3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with ¼-inch galvanized hardware cloth
Poured in place concrete (if required)	MSHA Mix No. 3; f'_c = 3500 psi @ 28 days, normal weight, air-entrained; reinforcing to meet ASTM-615-60	n/a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) *not using previously approved State or local standards* requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACI Code 350.R/89; vertical loading [H-10 or H-20]; allowable horizontal loading (based on soil pressures); and analysis of potential cracking
Sand	AASHTO-M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone (AASHTO) #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.

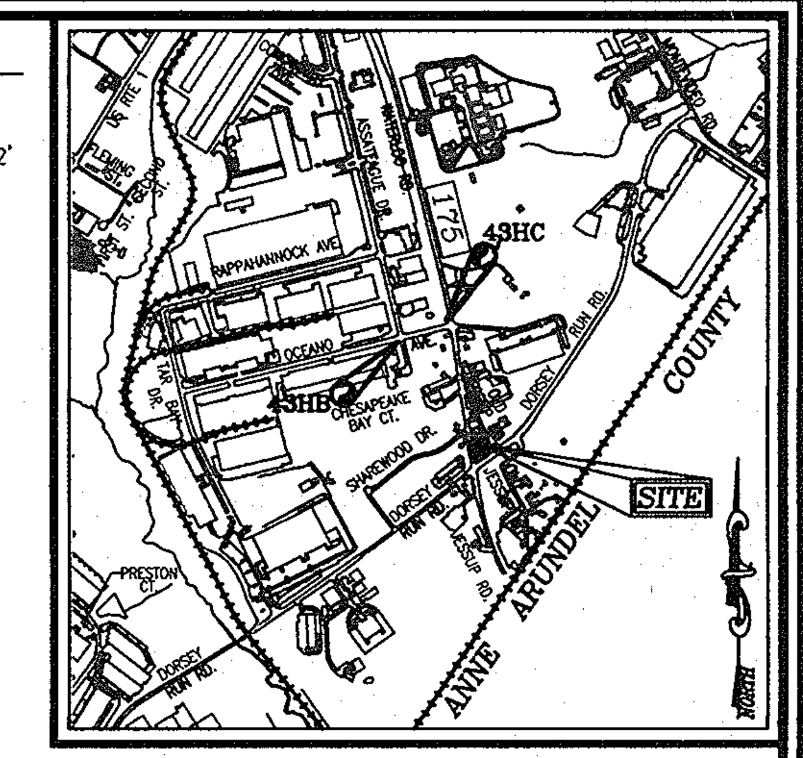
APPENDIX B.4.C SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDEN, LANDSCAPE INFILTRATION & INFILTRATION BERMS

BENCHMARKS

HOWARD COUNTY BENCHMARK 43HC
N 543386.1639 E 1374935.8379 ELEV.: 225.925'
HOWARD COUNTY BENCHMARK HB
N 543166.729 E 1374425.0243 ELEV.: 251.622'

SITE DATA

LOCATION: JESSUP, MD.; TAX MAP 43, PARCEL 248.
1ST ELECTION DISTRICT
PRESENT ZONING: M-2
PARCEL AREA: 0.55 AC.
DPZ REFERENCES: L.10188/F.162
USE OF STRUCTURES: RETAIL
TOTAL BUILDING COVERAGE: 4,140 SF.
PAVED PARKING LOT/AREA ON SITE: 14,030 SF OR 0.32 AC.
AREA OF LANDSCAPE ISLAND: 362 SF
LIMIT OF DISTURBED AREA: 25,831 SF OR 0.59 AC.
WETLANDS ON SITE: 0.00 AC.
WETLAND BUFFERS ON SITE: 0.00 AC.
STREAMS AND THEIR BUFFERS ON SITE: 0.00 AC.
AREA OF ON-SITE 100 YEAR FLOODPLAIN: 0.00 AC.
AREA OF EXISTING FOREST ON SITE: 0.00 AC.
AREA OF STEEP SLOPES: 0.00 AC
AREA OF ERODIBLE SOILS:0.00 AC.
AREA MANAGED BY ESDV (*THIS PLAN): 0.25 AC.
*IMPERVIOUS AREA : 0.16 AC.
*GREEN AREA : 0.09 AC.



VICINITY MAP
SCALE: 1"=2000'
ADC MAP/GRID = 5054/F6

ENVIRONMENTAL SITE DESIGN NARRATIVE

1. THERE ARE NO WOODED AREAS, 100-YEAR FLOODPLAIN, WETLANDS OR STREAMS. THE TOPOGRAPHY DOES NOT RESULT IN ANY STEEP SLOPES. THE PROPERTY DOES NOT CONTAIN SPECIMEN TREES. THIS SITE CONSISTS OF URBAN LAND SOILS, CLASSIFIED AS HYDROLOGIC SOIL GROUP 'D'. THEARE ARE NO NATURAL RESOURCES THAT WILL REQUIRE PROTECTION.

2. THE SITE NATURALLY SLOPES FROM WEST TO EAST AND IS PREDOMINANTLY PAVED. THE SITE HAS BEEN DESIGNED TO MAINTAIN THESE NATURAL FLOW PATTERNS.

3. THE CONCEPTUAL REDUCTION IN IMPERVIOUS AREA THROUGH BETTER SITE DESIGN IS ACHIEVED THROUGH THE ENVIRONMENTAL SITE DESIGN (ESD) FOR THE PROJECT TO THE MAXIMUM EXTENT PRACTICABLE (MEP). THE ESD CONCEPT PROPOSES THE USE OF TWO MICRO-BIORETENTION FACILITIES (M-6). THESE FACILITIES WILL DISCHARGE TO THE EXISTING STORM DRAIN SYSTEM WHICH EVENTUALLY OUTFALLS AT STREAM SOUTH EAST OF THE SITE. THE PROPOSED ESD PRACTICES SHALL BE PRIVATELY OWNED AND MAINTAINED.

4. SEDIMENT CONTROL FOR THIS SPECIFIC SITE PLAN WILL BE PROVIDED THROUGH THE USE OF PERIMETER CONTROLS (SILT FENCE, AND SUPER SILT FENCE) AND INLET PROTECTION. SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH THE CURRENT REQUIREMENTS AND SHALL BE APPROVED BY THE HOWARD SOIL CONSERVATION DISTRICT.

5. AS STATED IN #3 ABOVE, STORMWATER MANAGEMENT FOR THE PROJECT SHALL BE MET THROUGH THE USE OF MICRO BIORETENTION FACILITIES (M-6).

6. NO WAIVERS ARE ANTICIPATED TO FULFILL THIS CONCEPT.

Pe= 2.00
ESDv=(PexRvxA)/12
Rv=0.05+0.009xI
V min=1.0" rainfall (1.0xRvxA)/12
Vmax= 1yr rainfall=2.6" (2.6xRvxA)/12

DA	% IMPERV	Rv	DA	ESDv REQ	MINIMUM VOLUME	MAXIMUM VOLUME	VOLUME PROVIDED *
1	59	0.58	0.11	479	240	623	287
2	68	0.67	0.14	676	338	879	443
	TOTAL ESDv BY SUBAREA			1156			730

* Provided Volume is less than ESDv Require because Bio-retention utilized in each subarea at the rate of 75%.

DRAINAGE AREA #	AREA TREATED	FACILITY NUMBER	PERMEABLE PAVEMENT	ADD UNDER PERM. PAVE	LANDSCAPE INFILTRATION	PERVIOUS SIDEWALK	BIO SWALE	GRAVEL TRENCH	MICRO BIO RETENTION	ADD UNDER MICRO BIO	ESDv VOLUME
			ENVIRONMENTAL SITE DESIGN PRACTICE								
1	4942	SWM#1	0	0	0	0	0	0	0	287	287
		SUBTOTAL 1	0	0	0	0	0	0	0	287	287
2	6100	SWM#2	0	0	0	0	0	0	0	443	443
		SUBTOTAL 1	0	0	0	0	0	0	0	443	443
		TOTALS:	0	0	0	0	0	0	0	730	730

TOTAL AREA 11042 SF
0.25 AC

TOTAL ESDv PROVIDED: 730

LEGEND

EXISTING CONTOUR
PROPOSED CONTOUR
EXISTING CURB AND GUTTER
PROPOSED CURB AND GUTTER
EXISTING UTILITY POLE
EXISTING LIGHT POLE
EXISTING MAILBOX
EXISTING SIGN
EXISTING SANITARY MANHOLE
EXISTING SANITARY LINE
EXISTING CLEANOUT
EXISTING FIRE HYDRANT
EXISTING WATER LINE
EXISTING FENCE
PROPERTY LINE
RIGHT-OF-WAY LINE
SOILS BOUNDARY
PROPOSED SIDEWALK
EXISTING TREELINE
PROPOSED TREELINE
PROPOSED STORM DRAIN
PROPOSED STORM DRAIN DRAIN INLET
SILT FENCE
SUPER SILT FENCE
LIMIT OF DISTURBANCE
CURB INLET PROTECTION
AT GRADE INLET PROTECTION
STABILIZED CONSTRUCTION ENTRANCE
~~PROPOSED PERMEABLE PAVEMENT~~

OWNER/DEVELOPER

JAGDAMBE, LLC.
6804 CREEKWOOD CT.
CLARKSVILLE, MD 21029-1746
410-903-7898
C/O NORESH KUMAR

NO.	REVISION	DATE

ENVIRONMENTAL CONCEPT PLAN

ESDv CONCEPTUAL PLAN AND DETAILS

MEL'S LIQUOR
7852 SW OLD JESSUP ROAD
ZONED: M-2
L.10188/F.162

TAX MAP 43 BLOCK 21 — PARCEL 248
1ST ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

STATE OF MARYLAND — ROBERT HARRIS VOGEL — No. 16193 — PROFESSIONAL ENGINEER
ROBERT H. VOGEL, PE No.16193

DESIGN BY: RHV
DRAWN BY: DZ
CHECKED BY: RHV
DATE: FEB. 2013
SCALE: AS SHOWN
W.O. NO.: 12-60

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 EXPIRATION DATE: 09-27-2014

1 SHEET OF 1

ECP-14-044