BUILDING 2

GATEWAY COMMERCE CENTER

SITE DEVELOPMENT PLAN
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

GENERAL NOTES

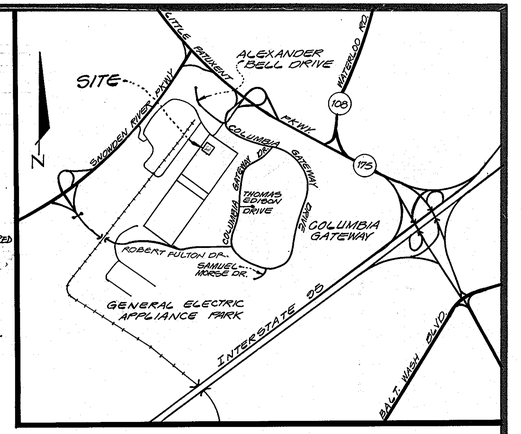
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF CONSTRUCTION INSPECTION AT (410)313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
3. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
4. ALL PROPOSED RAMPS SHALL BE IN ACCORDANCE WITH CURRENT A.D.A. STANDARDS. MAXIMUM SIDEWALK CROSS SLOPE TO BE 2%.
5. SITE AREA: 3.19 AC (JACK-N-JILL); 7.06 AC. (PEPSI)
6. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
7. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
8. EXISTING TOPOGRAPHY TAKEN FROM PLANS PREPARED BY PHOTO SCIENCE, INC.
9. COORDINATES AND BEARINGS ARE BASED UPON THE MD. STATE PLANE SYSTEM.
10. WATER AND SEWER SERVING THIS PARCEL IS PUBLIC.
11. STORMWATER MANAGEMENT FOR THIS SITE IS ACCOMODATED ON PARCEL 'G', LOT 1 (F-92-1001) BY THE EXISTING REGIONAL SWM POND "A" IN ACCORDANCE WITH THE NON-RESIDENTIAL SWM REGULATIONS AND NON-RESIDENTIAL DETENTION FACILITIES FOR THE PEPSI IMPROVEMENTS.
12. ALL CURB RADII ARE 5' UNLESS NOTED OTHERWISE.
13. UTILITY INFORMATION TAKEN FROM AS-BUILT PREPARED BY FISHER, COLLINS & CARTER.
14. ALL TIE DIMENSIONS TO THE PROPERTY LINES FROM BUILDINGS AND PARKING AREAS ARE APPROXIMATE (EXISTING FEATURES) AND SHOULD NOT BE USED FOR CONSTRUCTION STAKE OUT.
15. ON NOVEMBER 16, 1992, WP 93-48, WAIVER OF SECTION 16.113 (F)(6), WAS GRANTED, TO ALLOW A PRIVATE COMMERCIAL DRIVEWAY TO HAVE DIRECT ACCESS TO AN ARTERIAL HIGHWAY.
16. USE TRENCH BEDDING CLASS "C" FOR STORM DRAINS.
17. PAVED AREAS INDICATED ARE PRIVATE.
18. PROJECT BACKGROUND: ZONING CASE ZB-015 SEE DEPT. OF PLANNING & ZONING FILE NUMBERS: S-84-44, S-85-55, F-88-51, F-87-106, F-85-53, WP-84-150, WP-85-34, F-90-175, WP-85-35, WP-86-81, WP-88-17, WP-88-63, WP-90-141, AA-91-15, ZB-015, S-92-10, SDP-92-42, F-92-15, F-92-57, F-92-136, F-92-140, WP-93-48, F-93-47, SDP-93-42.
19. RECORDING REFERENCE: PLAT No. 10004, PLAT 13139
20. THIS PROJECT IS EXEMPT FROM THE REQUIREMENTS OF SECTION 16.1202(b)(1)(v) OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BECAUSE IT IS WITHIN A PLANNED BUSINESS PARK OF AT LEAST 75 ACRES WHICH HAS A PRE LIMINARY PLAN APPROVAL BEFORE DECEMBER 31, 1992

PRIVATE SEWER NOTES

1. USE HOWARD COUNTY STANDARDS & SPECIFICATIONS FOR ALL CONSTRUCTION.
2. SEWER LINES SHALL BE P.V.C.
3. PROVIDE A JOINT IN ALL SEWER LINES WITHIN 2'-0" OF ALL MANHOLES.
4. MANHOLES SHALL BE 4'-0" DIAMETER.
5. CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION.
6. CONTRACTOR SHALL NOTIFY THE BUREAU OF UTILITIES AT LEAST 5 WORKING DAYS IN ADANCE OF CONSTRUCTION.
7. EXISTING UTILITIES WERE TAKEN FROM AVAILABLE RECORDS WITH SOME FIELD VARIATIONS. CONTRACTOR SHALL TAKE ALL PRECAUTIONS HE DEEMS NECESSARY TO AVOID DAMAGE TO EXISTING UTILITIES. ANY DAMAGE MUST BE REPAIRED TO THE SATISFICATION OF THE OWNER, AT THE CONTRACTOR'S EXPENSE.

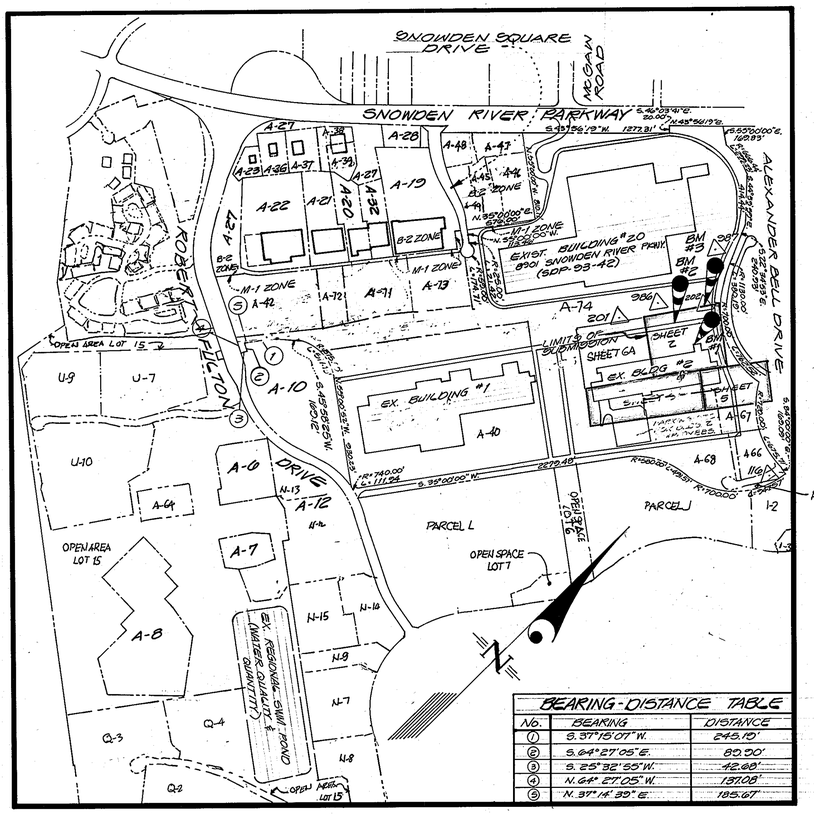
SITE ANALYSIS

1. ZONING: M-1
2. LIMITS OF SUBMISSION = 139,104 S.F. OR 3.19 AC. (JACK-N-JILL) AND 7.06 AC. (PEPSI)
3. EX. LANDSCAPE AREA = 113,870 S.F.
4. PROP. LANDSCAPE AREA = 82,009 S.F.
5. AREA OF PARCEL: 5,033,716 S.F. OR 115.56 ± AC.
6. PROP USE OF BUILDING 2 IS: WAREHOUSE
7. THE PURPOSE OF THIS PLAN IS TO SHOW THE LOCATION OF ADDITIONAL LOADING DOCKS AND IMPROVEMENTS FOR PEPSI BEVERAGE COMPANY.
8. AREAS OF USE:
   - WAREHOUSE: 267,744 SF
9. PARKING REQUIRED: 0.5 SPACES/1000SF × 134 REQUIRED
10. PARKING PROVIDED:
    - 210 SPACES (241 PERMITTED - 5 (REMAINING) 180 EXISTING ; 30 PROPOSED (1 HANDICAP REQUIRED); 2 EXISTING (REMAINING) + 3 PROPOSED)
    - 225 TRAILER/TRUCK SPACES
11. TOTAL BUILDING COVERAGE FOR BUILDINGS 2 AND 20 = 1,280,475 ± SF OR 29.40 AC.



VICINITY MAP

SCALE: 1" = 2000'
ADC MAP 39, GRID A-5



KEY MAP

SCALE: 1" = 600'

BEARING-DISTANCE TABLE

No.	BEARING	DISTANCE
1	S 37°15'07" W.	248.10'
2	S 64°27'05" E.	80.50'
3	S 25°32'55" W.	42.60'
4	N 64°27'05" W.	137.08'
5	N 37°14'39" E.	185.67'

ADDRESS CHART

BUILDING	PARCEL NUMBER	STREET ADDRESS
2	PARCEL 513 LOT/PARCEL A-74	6701 ALEXANDER BELL DRIVE

SHEET INDEX

1. COVER SHEET
2. SITE PLAN
3. SEDIMENT CONTROL & D.A.M.
4. SEDIMENT CONTROL DETAILS & NOTES
5. SCHEDULES, DETAILS & PROFILES
6. SEWER PLAN
7. SEWER PROFILES
8. TRUCK COURT AND TRAILER PARKING EXPANSION
9. BUILDING ADDITION AND PARKING LOT IMPROVEMENTS
10. SD DRAINAGE AREA MAP
11. SWM DRAINAGE AREA MAP
12. UTILITY PROFILES AND SITE DETAILS
13. SWM DETAILS

LEGEND

- EXIST. PAVING TO BE REMOVED
- PROP. PAVING
- PROP. CONCRETE
- PROP. TRACTOR TRAILER PARKING SPACES (30)
- EXIST. LANDSCAPING (8)
- EXIST. UTILITY STRUCTURE NUMBERS (407)
- PROP. UTILITY STRUCTURE NUMBERS (100)
- EXIST. CONTOURS 354
- PROP. CONTOURS 354
- TO BE REMOVED TBR
- TO BE ABANDONED IN PLACE TBAP
- TO REMAIN TR

CONTROL STATIONS

LOCATION	DESCRIPTION
TRAVERSE STA. 202	N. 492205.747, E. 853417.434
TRAVERSE STA. 086	N. 491752.767, E. 852778.408
TRAVERSE STA. 087	N. 492640.894, E. 853140.855
TRAVERSE STA. 201	N. 491073.505, E. 852627.446
TRAVERSE STA. 116	N. 491757.255, E. 855040.824

FOR REVISION DATED 06/04/13 ONLY

STATE OF MARYLAND — ROBERT WAYNE GRABER — No. 16198 — PROFESSIONAL ENGINEER

6/6/13

BENCH MARKS

LOCATION	DESCRIPTION
NORTHWEST SIDE OF BLDG. 2 @ BUMP OUT IN BLDG.	B.M. #1 - "□" CUT @ TIP OF CONC. WHEEL GUIDE ELEV. = 330.76
400' SOUTH OF MAIN PERIMETER ROAD ALONG FENCE LINE, WEST SIDE OF BLDG. 2	B.M. #2 - E.B.B. FIRE HYDRANT #23 ELEV. = 344.23
NORTHWEST SIDE OF BLDG. 2, 270' SOUTH OF MAIN PERIMETER ROAD ALONG MAIN ROAD BETWEEN BLDGS. 20 & 2	B.M. #3 - TRAVERSE STATION 202 ELEV. = 343.13

STATE OF MARYLAND — CHRISTOPHER K. GUTSCHICK — 22073 — REGISTERED PROFESSIONAL ENGINEER

CK Gutschick

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPT.
COUNTY HEALTH OFFICER — DATE 8-11-93

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
DIRECTOR — DATE 8/16/93
CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE 8/16/93

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS & PUBLIC ROADS HOWARD COUNTY DEPT. OF PUBLIC WORKS
DIRECTOR — DATE 8/16/93
CHIEF, BUREAU OF ENGINEERING M.K. Oakley — DATE 8/9/93

SUBDIVISION NAME		SECT./AREA		PARCEL
GATEWAY COMMERCE CENTER		N/A		513 LOT/PARCEL A-74
PLAT	BLOCK	ZONE	TAX ZONE MAP	ELEC. DIST.	CENSUS TR.
13139	6	M-1	42	6	6067.03

DATE	REVISION	BY	APP'R.
06/04/13	MODIFY TRAILER DOCK AREA TO INCLUDE A BUILDING ADDITION AND EXISTING PARKING LOT	RHV	
2/19/10	ADD TRUCK COURT AND TRAILER PARKING EXPAND EX. TRUCK COURT	RHV	
2/23/00	ADDED SEWER NOTES / SHEET NUMBERING	KLF	

GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866
TELEPHONE: (301)421-4024 NO.VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

PREPARED FOR:
THE HOWARD RESEARCH & DEVELOPMENT CORP.
THE ROUSE BUILDING
10275 LITTLE PATUXENT PKWY.
COLUMBIA, MD. 21044
(301) 992-6027

COVER SHEET
GATEWAY COMMERCE CENTER
BUILDING #2
PARCEL 513 LOT/PARCEL A-74
HOWARD COUNTY, MARYLAND — 6TH ELECTION DISTRICT

CENSUS TR.	WATER CODE	SEWER CODE
6067.03	E06	4900000

DES.: MJT	SCALE: AS SHOWN	ZONING: M-1	G.L.W. FILE No.: 91-056
DRN.: HK	DATE: DEC. 1992	TAX MAP No.: 42 BLOCK/GRID: 6	SHEET: 1 OF 13
CHK.: MJT			

SDP-93-86

171109

Paving Notes

1. All proposed paving shall be P-3, except where noted otherwise.
2. Minimum surface grade shall be 1% and shall direct runoff towards an inlet or acceptable sheet flow condition.
3. All areas shall have positive drainage.
4. Match existing paving where applicable.
5. Match surface paving to top of rails.
6. Adjust all inlets to new paving elev. where required. Use "traffic" style frames & grates.

KEY

- IP — INLET PROTECTION
- LOD — LIMITS OF DIST.
- SF — SILT FENCE
- 362 — PROPOSED CONTOUR

STATE OF MARYLAND — MARY C. GILES — REG. NO. 18193 — REGISTERED PROFESSIONAL ENGINEER

THIS CERTIFICATION IS FOR CHANGES IN THE BOXED AREA ONLY.

Mary C. Giles 11.5.98 for revision in boxed area only.

LIMITS OF SUBMISSION BLDG. 20 SEE SDP 93-42

LIMITS OF SUBMISSION

EX. BUILDING (VACANT)

EXISTING WATER STORAGE TANK & PUMPING STATION

EX. 20' B.G.& E. EASEMENT FOR DISTRIBUTION DUCT BANKS L.1043 F.440

EX. ELECTRICAL DUCTBANK

REMOVE EXISTING PAVEMENT WITHIN LIMITS OF DISTURB.

PROPOSED EDGE OF PAVEMENT

INLET PROTECTION

MATCH EX. PAVING

TRAVERSE "B02" BENCH MARK #23

TRENCH DRAIN 30'

BENCH MARK #1

TO ROBERT FULTON DRIVE & BLDG. 1

TO BLDG. 20

COLUMBIA GATEWAY DRIVE (80' WIDE R/W) PLAT 20,000 SECTION III-1

BELL DRIVE

ALEXANDER (PUBLIC) (60' WIDE RIGHT OF WAY)

EXISTING BUILDING #2

F.F.E. = 343.08

NOTE: DUE TO THE COMPLEXITY OF DEPICTING IMPROVEMENTS FOR PEPSI BEVERAGE COMPANY ON THIS SHEET, ALL EXISTING AND PROPOSED CONDITIONS FOR THE PROPOSED IMPROVEMENTS HAVE BEEN SHOWN ON SHEETS 8 & 9.

SEE MATCHLINE THIS SHEET

MATCH LINE - SEE SHEET 5

PRE-CAST WHEEL STOP LOCATION DETAIL (NO SCALE)

EXISTING NORTH ELEVATION NO SCALE

FOR REVISION, DATED 06/04/13 ONLY: STATE OF MARYLAND — ROBERT K. PATTERSON — No. 18193 — PROFESSIONAL ENGINEER

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPT.
COUNTY HEALTH OFFICER — DATE 8-11-93

APPROVED: HOWARD COUNTY DEPT OF PLANNING & ZONING
DIRECTOR — DATE 8/16/93
CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE 8/16/93

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS & PUBLIC ROADS HOWARD COUNTY DEPT. OF PUBLIC WORKS
DIRECTOR — DATE 8/16/93
CHIEF, BUREAU OF ENGINEERING M.K. Patterson — DATE 8/9/93

GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866
TELEPHONE: (301)421-4024 NO.VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.
06/04/13	MODIFY TRAILER DOCK AREA TO INCLUDE A BUILDING ADDITION AND EXISTING PARKING LOT	RHV	
2/16/10	ADD TRUCK COURT AND TRAILER PARKING; EXPAND EX. TRUCK COURT	RHV	
11/4/98	ADDITION OF BERM W/IN 60K AREA PER REDLINE APPROVED 10/26/98	MAM	
4/13/00	SHEET NUMBERING	KLP	
11/8/95	ADDED PARKING AT NORTHERN CORNER OF BUILDING		

PREPARED FOR:
THE HOWARD RESEARCH & DEVELOPMENT CORP.
THE ROUSE BUILDING
10275 LITTLE PATUXENT PKWY
COLUMBIA, MD. 21044
(301) 992-6027

SITE DEVELOPMENT PLAN

GATEWAY COMMERCE CENTER

BUILDING #2

PARCEL 513 LOT/PARCEL A-74

HOWARD COUNTY, MARYLAND — 6TH ELECTION DISTRICT

DES.:	SCALE	ZONING	G.L.W. FILE No.
MJT	1"=50'	M-1	91-056
DRN.: HK	DATE	TAX MAP No.	SHEET
CHK.: RKP	DEC. 1992	42 BLOCK/GRID: 6	2 OF 13

SDP-93-86

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT. ARRANGE PRE-CONSTRUCTION MEETING WITH SEDIMENT CONTROL INSPECTOR.
2. INSTALL STONE CONSTRUCTION ENTRANCES AS INDICATED.
3. INSTALL REMAINDER OF SEDIMENT CONTROLS.
4. GRADE SITE.
5. INSTALL STORM DRAIN.
6. FINE GRADE AND STABILIZE SITE WITH BASE COURSE PAVING, SEED AND MULCH OR SOD. AFTER AREAS CONTRIBUTING TO SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND PERMISSION IS GRANTED BY THE SEDIMENT CONTROL INSPECTOR, BACKFILL SEDIMENT TRAPS, CONSTRUCT REMAINING STORM DRAIN. PROVIDE INLET PROTECTION AS REQUIRED. STABILIZE ALL REMAINING AREAS.
8. INSTALL SURFACE COURSE PAVING.

Sediment Trap #4085
INLET Sediment Trap

Drainage Area.
0.72 Ac. (Pre-Developed)
0.89 Ac. (Post-Developed)

Storage Required = 0.80 (1800) = 1602 cu. ft.
Storage Depth = 2 feet
Cleanout Elev. = 338.31
Outlet Elev. = 330.31
Bottom Elev. = 337.31
Side Slope 2:1
Surface Area @ Elev.: 330.31 (* L.o.s.) = 1452 ±
Surface Area @ Elev.: 337.31 (Bottom) = 812 ±

Volume Provided = $\frac{812 + 1452}{2} \times 2 = 2264$ cu. ft.

* L.o.s. = Limit of Storage

LIMITS OF SUBMISSION BLDG. 20 SEE SDP 93-42

LIMITS OF SUBMISSION

EXISTING BUILDING #2

F.F.E. = 343.08

NOTE: DUE TO THE COMPLEXITY OF DEPICTING IMPROVEMENTS FOR PEPSI BEVERAGE COMPANY ON THIS SHEET, ALL EXISTING AND PROPOSED CONDITIONS FOR THE PROPOSED IMPROVEMENTS HAVE BEEN SHOWN ON SHEETS 8 & 9.

DRAINAGE AREA TABULATION

DRAINAGE AREA	AREA	AREA PERVIOUS	AREA IMPERVIOUS	C
4085	0.89	0.30	0.59	0.65
4088	0.06	0.04	0.02	0.45
4078	1.10	0.82	0.37	0.44
4080	0.30	0.17	0.13	0.51
100	0.30	0.07	0.23	0.71

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPT.
COUNTY HEALTH OFFICER — DATE 8-11-93

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
DIRECTOR — DATE 8/16/93
CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE 8/16/93

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS & PUBLIC ROADS HOWARD COUNTY DEPT. OF PUBLIC WORKS
DIRECTOR — DATE 8/10/93
CHIEF, BUREAU OF ENGINEERING M.K. Cashby — DATE 8/2/93

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements.
U.S. Soil Conservation Service — 7/9/93 Date

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
Howard S.C.D. — 7/9/93 Date — John R. Robertson 7/25/13

FOR REVISION DATED 06/04/13 ONLY:
STATE OF MARYLAND — JAMES M. THOMAS — No. 16199 — PROFESSIONAL ENGINEER — 8/6/13

STATE OF MARYLAND — CHARLES K. GUTSCHICK — No. 12978 — REGISTERED PROFESSIONAL ENGINEER

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and/or construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland 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 HSCD."

Signature of Developer/Builder — Date 2-3-93

ENGINEER'S CERTIFICATE

"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 2/3/93

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866
TELEPHONE: (301)421-4024 · NO.VA. (301)989-2524 · BALTO. (301)880-1820 · FAX (301)421-4186

DATE	REVISION	BY	APP'R.
06/04/13	MODIFY TRAILER DOCK AREA TO INCLUDE A BUILDING ADDITION AND EXISTING PARKING	RHV	
2/16/10	ADD TRUCK COURT AND TRAILER PARKING, EXPAND EX. TRUCK COURT	RHV	
4-28-95	sheet numbering	KLP	
11-8-95	L.O.D for phase II, label inlet protection & prop. inlet	e.n.b.	

PREPARED FOR:
THE HOWARD RESEARCH & DEVELOPMENT CORP.
THE ROUSE BUILDING
10275 LITTLE PATUXENT PKWY.
COLUMBIA, MD. 21044
(301) 992-6027

SEDIMENT CONTROL & DRAINAGE AREA PLAN

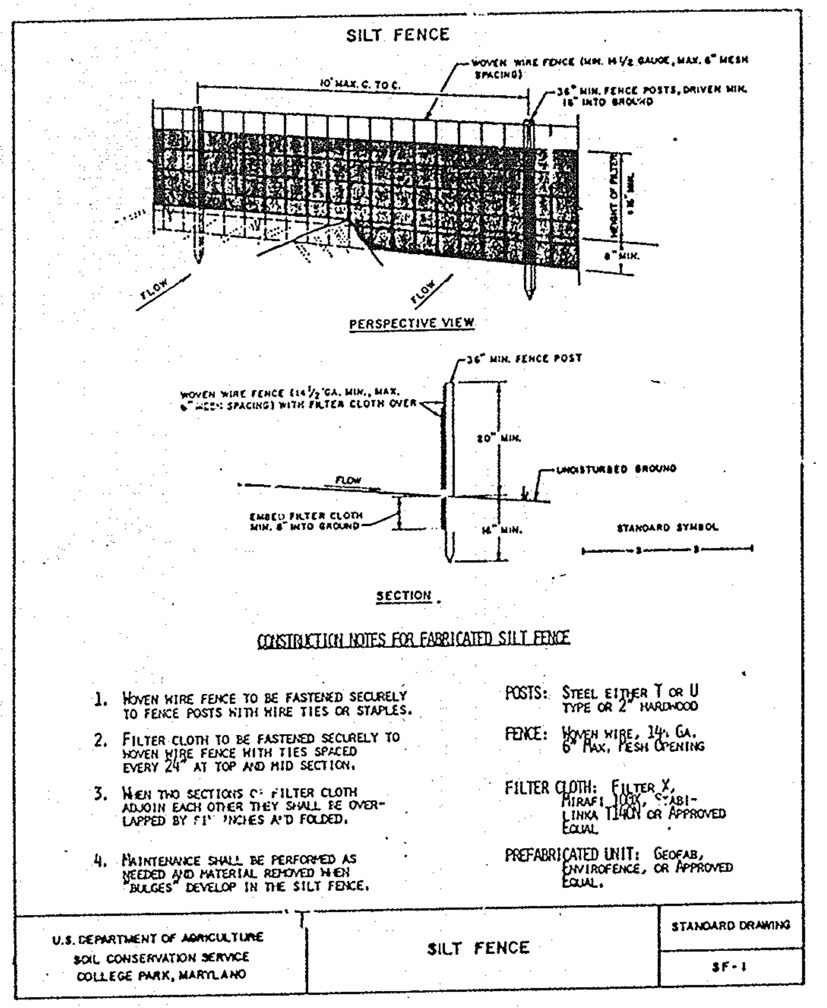
GATEWAY COMMERCE CENTER
BUILDING #2

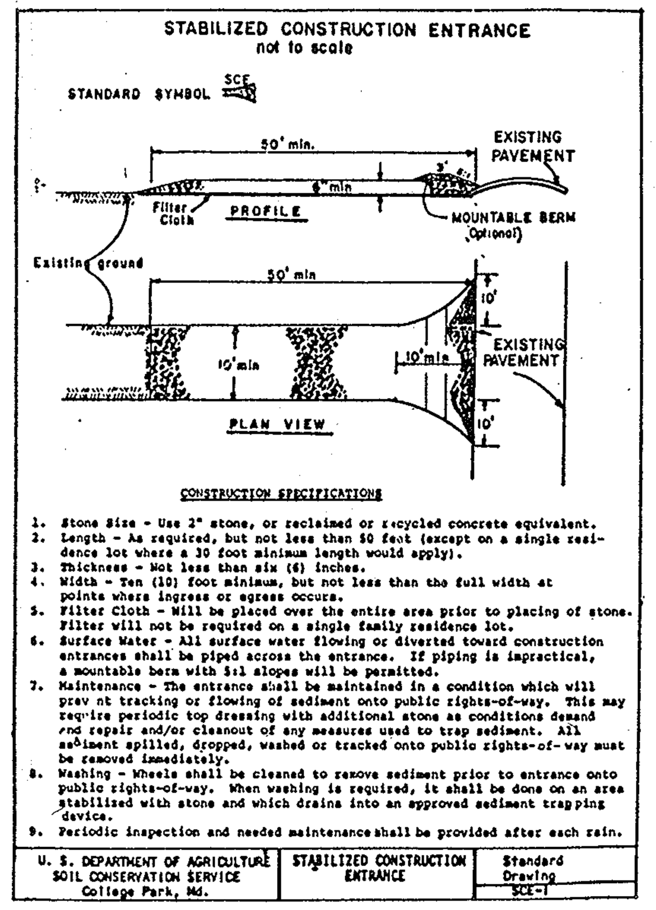
PARCEL 513 LOT/PARCEL A-3A

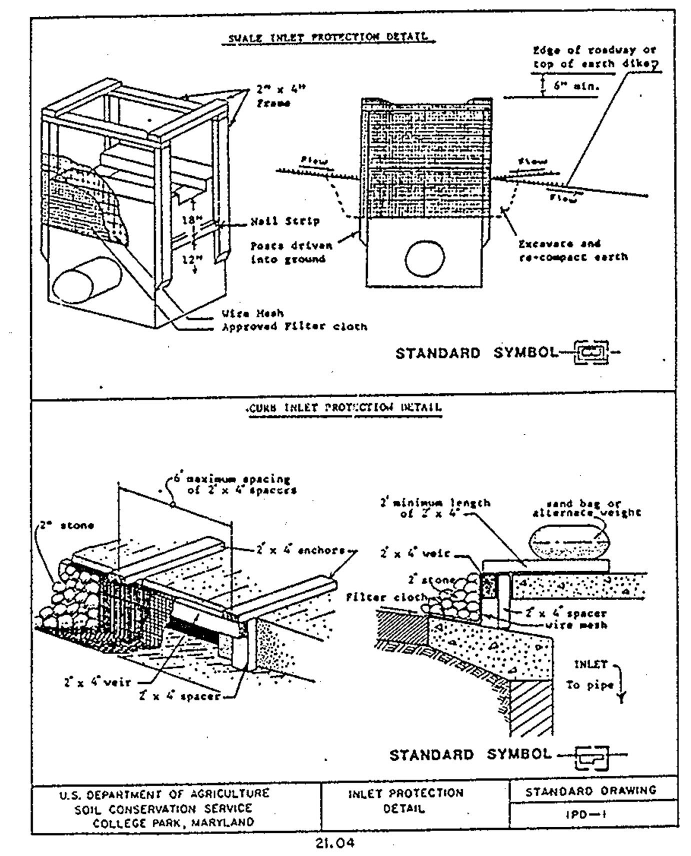
HOWARD COUNTY, MARYLAND — 6TH ELECTION DISTRICT

DES.: MJT	SCALE 1"=50'	ZONING M-1	G.L.W. FILE No. 91-056
DRN.: HK	DATE DEC. 1992	TAX MAP No. 42	SHEET 3 OF 13
CHK.: CKG		BLOCK No.: 6	

SDP-93-86







SEDIMENT CONTROL LEGEND

- SILT FENCE
- S.C.E. — STABILIZED CONSTRUCTION ENTRANCE
- EX. DRAINAGE DIVIDE
- PROP. DRAINAGE DIVIDE
- I.P. — INLET PROTECTION
- LIMIT OF DISTURBANCE
- DRAINAGE AREA DESIGNATION

Table B.1: Temporary Seeding for Site Stabilization

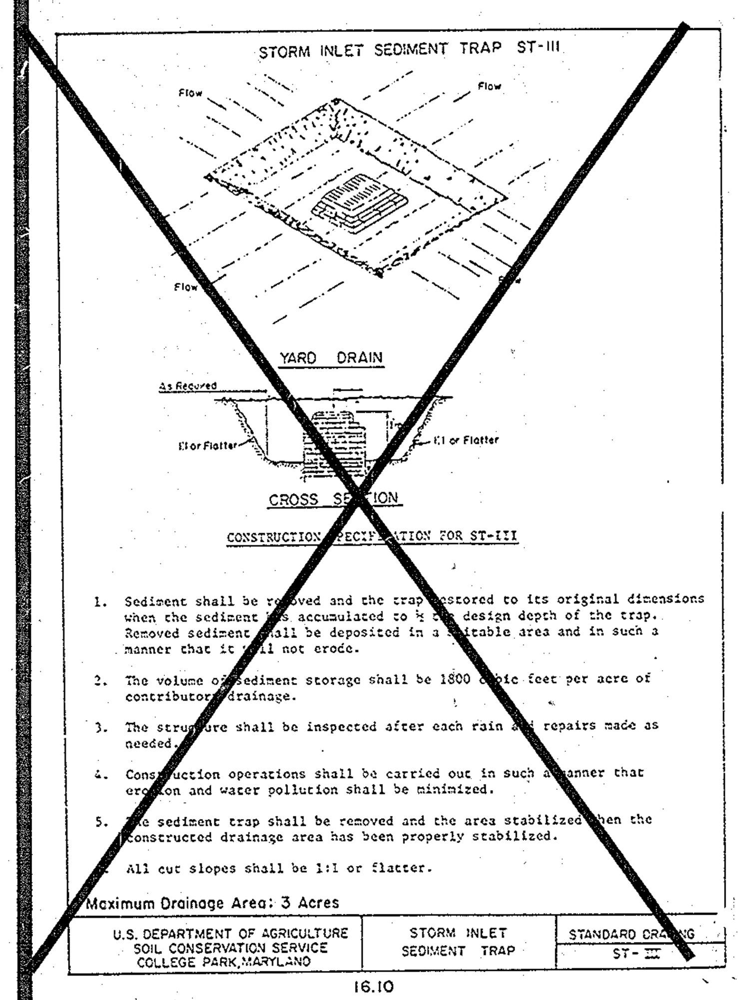
Plant Species	Seeding Rate 1/ lb/ac	Seeding Rate 1/ lb/1000 ft²	Seeding Depth 2/ (inches)	Recommended Seeding Dates by Plant Hardiness Zone 3/ 5b and 6a	6b	7a and 7b
Cool-Season Grasses						
Annual Ryegrass (*Lolium perenne ssp. multiflorum*)	40	1.0	0.5	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30
Barley (*Hordeum vulgare*)	96	2.2	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30
Oats (*Avena sativa*)	72	1.7	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30
Wheat (*Triticum aestivum*)	120	2.8	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30
Cereal Rye (*Secale cereale*)	112	2.8	1.0	Mar 15 to May 31; Aug 1 to Oct 31	Mar 1 to May 15; Aug 1 to Nov 15	Feb 15 to Apr 30; Aug 15 to Dec 15
Warm-Season Grasses						
Foxtail Millet (*Setaria italica*)	30	0.7	0.5	Jun 1 to Jul 31	May 16 to Jul 31	May 1 to Aug 14
Pearl Millet (*Pennisetum glaucum*)	20	0.5	0.5	Jun 1 to Jul 31	May 16 to Jul 31	May 1 to Aug 14

NOTES:
1/ Seeding rates for the warm-season grasses are in pounds of Pure Live Seed (PLS). Actual planting rates shall be adjusted to reflect percent seed germination and purity, as tested. Adjustments are usually not needed for the cool-season grasses.

Seeding rates listed above are for temporary seedings, when planted alone. When planted as a nurse crop with permanent seed mixes, use 1/3 of the seeding rate listed above for barley, oats, and wheat. For smaller-seeded grasses (annual ryegrass, pearl millet, foxtail millet), do not exceed more than 5% (by weight) of the overall permanent seeding mix. Cereal rye generally should not be used as a nurse crop, unless planting will occur in very late fall beyond the seeding dates for other temporary seedings. Cereal rye has allelopathic properties that inhibit the germination and growth of other plants. If it must be used as a nurse crop, seed at 1/3 of the rate listed above.

Oats are the recommended nurse crop for warm-season grasses.

2/ For sandy soils, plant seeds at twice the depth listed above.
3/ The planting dates listed are averages for each Zone and may require adjustment to reflect local conditions, especially near the boundaries of the zone.



SEQUENCE OF CONSTRUCTION (PEPSI)

1. OBTAIN HOWARD COUNTY GRADING PERMIT. (WEEK 1)
2. NOTIFY HOWARD COUNTY AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION.
3. CONDUCT A PRE-CONSTRUCTION MEETING WITH THE SEDIMENT CONTROL INSPECTOR PRIOR TO ANY LAND DISTURBANCE.
4. INSTALL STABILIZED CONSTRUCTION ENTRANCES WITH MOUNTABLE BERMS. (1 DAY)
5. INSTALL PERIMETER CONTROLS, AS INDICATED ON PLANS. (1 WEEK)
6. WITH APPROVAL OF SEDIMENT CONTROL INSPECTOR, CLEAR AND GRUB SITE. (2 WEEKS)
7. BEGIN SITE GRADING AND UTILITY CONSTRUCTION INCLUDING MICRO BIORETENTION AREAS. PROVIDE INLET PROTECTION AS AS SHOWN ON THESE PLANS (WRAP INLETS I-1, I-5, I-6, I-7, T-1, AND T-2 IN SSF AS INDICATED). (4 WEEKS)
8. BEGIN BUILDING ADDITION CONSTRUCTION. (3 WEEKS)
9. WITH INSPECTOR'S APPROVAL, INSTALL ON-SITE PAVING BASE COURSE. (1 WEEK)
10. BEGIN INSTALLATION OF ON-SITE CURB AND GUTTER. (1 WEEK)
11. COMPLETE ALL CURB & GUTTER AND PAVEMENT CONSTRUCTION. (3 WEEKS)
12. COMPLETE MICRO BIORETENTION CONSTRUCTION. (2 WEEKS)
13. INSTALL ALL PAVING SURFACE COURSE. (1 WEEK)
14. FINE GRADE AND STABILIZE ALL AREAS OF PARCEL INCLUDING ANY EXPOSED EARTH AREAS OUTSIDE THE LOD. REMOVE ALL TRASH JUNK AND DEBRIS FROM ENTIRE PARCEL. (1 WEEK)
15. INSTALL SITE LANDSCAPING. (1 WEEK)
16. REMOVE ALL SEDIMENT CONTROL MEASURES AFTER RECEIVING APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR. (1 WEE5)

NOTES:
1. DURING GRADING AND AFTER EACH RAINFALL, CONTRACTOR WILL INSPECT AND PROVIDE NECESSARY MAINTENANCE TO THE SEDIMENT CONTROL MEASURES ON THIS PLAN.
2. FOLLOWING INITIAL SOIL DISTURBANCES OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
   A. THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
   B. SEVEN (7) CALENDAR DAYS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

SITE ANALYSIS (PEPSI):

TOTAL AREA	115.56 ACRES
AREA DISTURBED (PROJECT)	7.06 ACRES
AREA DISTURBED (SWM)	6.01 ACRES
AREA TO BE ROOFED OR PAVED	5.27 ACRES
AREA TO BE VEGETATIVELY STABILIZED	1.79 ACRES
TOTAL CUT	15,168 CY
TOTAL FILL	1,388 CY
WASTE/BORROW LOCATION	TO BE DETERMINED

IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES:

WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 5b, 6a)
CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 6b)
SOUTHERN MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 7a, 7b)

SEDIMENT CONTROL NOTES

1. A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)

2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

3. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes and perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.

4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.

5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSIONS AND SEDIMENT CONTROL for permanent seedings (Sec. 51), sod (Sec. 54), temporary seedings (Sec. 50) and mulching (Sec. 52). Temporary stabilization, with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.

6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.

7. Site Analysis:
   Total Area of Site: 3.2 Acres
   Area Disturbed: 1.2 Acres
   Area to be roofed or paved: 1.0 Acres
   Area to be vegetatively stabilized: 0.2 Acres
   Total Cut 1920 Cu. Yds.
   Total Fill 60 Cu. Yds.
   Off-Site waste/borrow area location PARCEL A-33 SDP 93-42

8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

9. Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.

10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.

PERMANENT SEEDING NOTES

Apply to graded or cleared area not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules

1) Preferred – Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square feet) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 unreaform fertilizer (9 lbs/1000 sq ft).

2) Acceptable – Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).

Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs./1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPT.
[signature] 8-11-93
COUNTY HEALTH OFFICER — DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
[signature] 8/16/93
DIRECTOR — DATE
[signature] 8/16/93
CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS & PUBLIC ROADS HOWARD COUNTY DEPT. OF PUBLIC WORKS
[signature] 8/10/93
DIRECTOR — DATE
[signature] 8/9/93
CHIEF, BUREAU OF ENGINEERING M.K. — DATE

FOR REVISION, DATED 06/04/13 ONLY:
STATE OF MARYLAND — PROFESSIONAL ENGINEER — No. 16193 — 8/6/13

STATE OF MARYLAND — CARLTON K. GUTSCHICK — No. 12975 REGISTERED — PROFESSIONAL ENGINEER

ENGINEER'S CERTIFICATE

"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."

[signature] 2/3/93
Date

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a MARYLAND DEPT. OF THE ENVIROMENT Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the HSCD."

[signature] 2-3-93
Signature of Developer/Builder — Date

Reviewed for HOWARD S.C.D.
Name
and meets Technical Requirements.
[signature] 7/19/93
U.S. Soil Conservation Service — Date

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
[signature] 7/19/93
Howard S.C.D. — Date
[signature] 7/25/13

GLW GUTSCHICK LITTLE & WEBER, P.A.
ENGINEERS, PLANNERS, SURVEYORS
3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866
TELEPHONE: (301) 421-4024
DES. MJT. DRN. HK CHK.

DATE	REVISION	BY	APP'R.
6/04/13	MODIFY TRAILER DOCK AREA TO INCLUDE A BUILDING ADDITION AND EXISTING PARKING LOT	RHV	
4/23/06	SHEET NUMBERING	KLF	

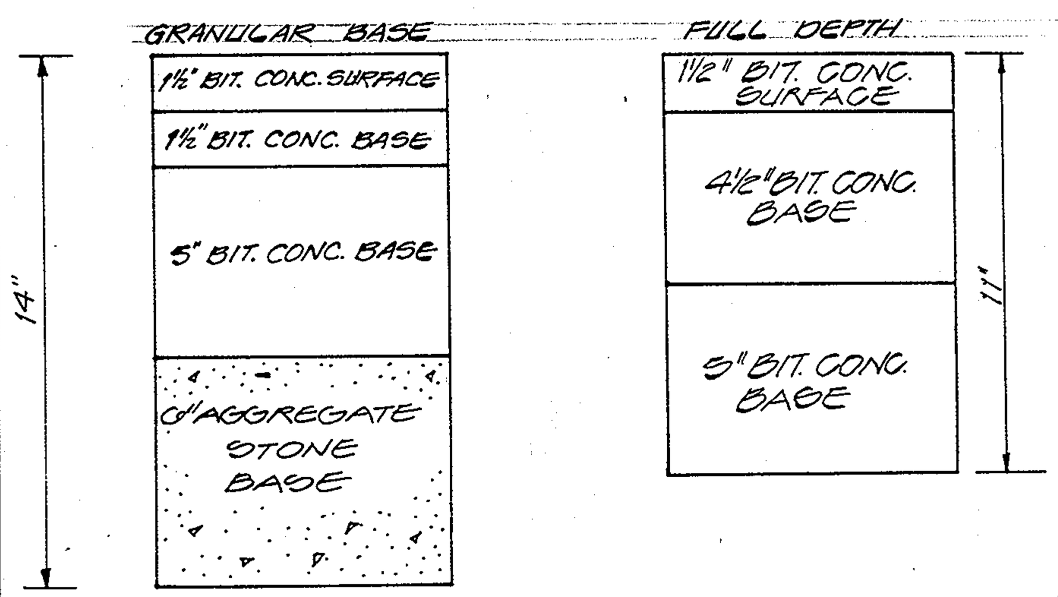
PREPARED FOR:
THE HOWARD RESEARCH & DEVELOPMENT CORP.
THE ROUSE BUILDING
10275 LITTLE PATUXENT PKWY
COLUMBIA, MD. 21044
(301) 992-6027

SEDIMENT CONTROL NOTES & DETAILS
GATEWAY COMMERCE CENTER
BUILDING #2
PARCEL 513 - LOT/PARCEL A-14
HOWARD COUNTY, MARYLAND — 6TH ELECTION DISTRICT

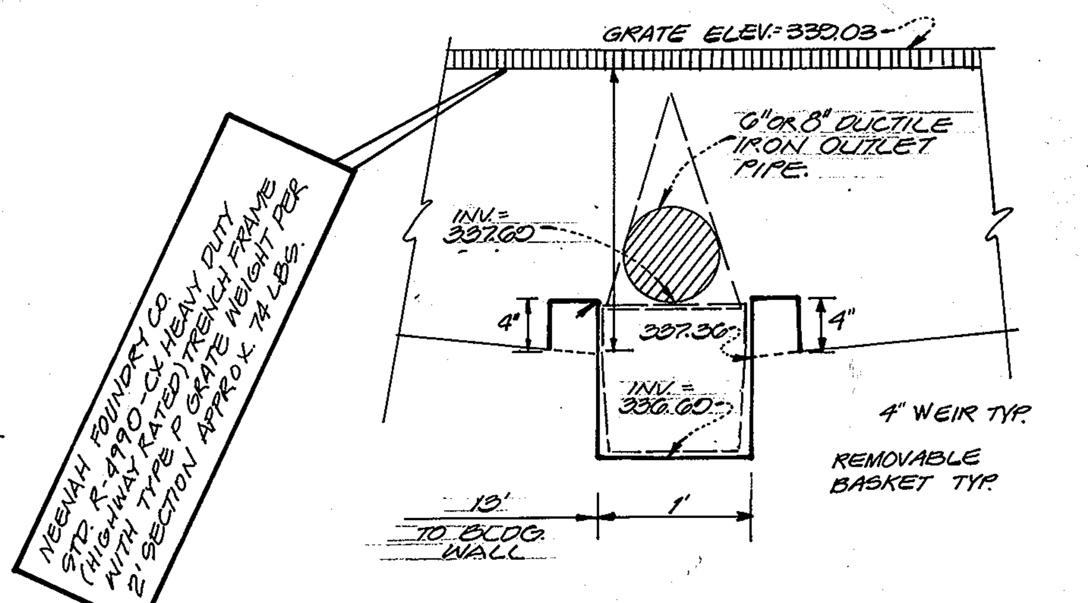
SCALE	ZONING	G.L.W. FILE No.
——	M-1	91-056
DATE	**TAX MAP No.**	**SHEET**
DEC. 1992	42 BLOCK/GRID: 6	4 OF 13

SDP-93-86

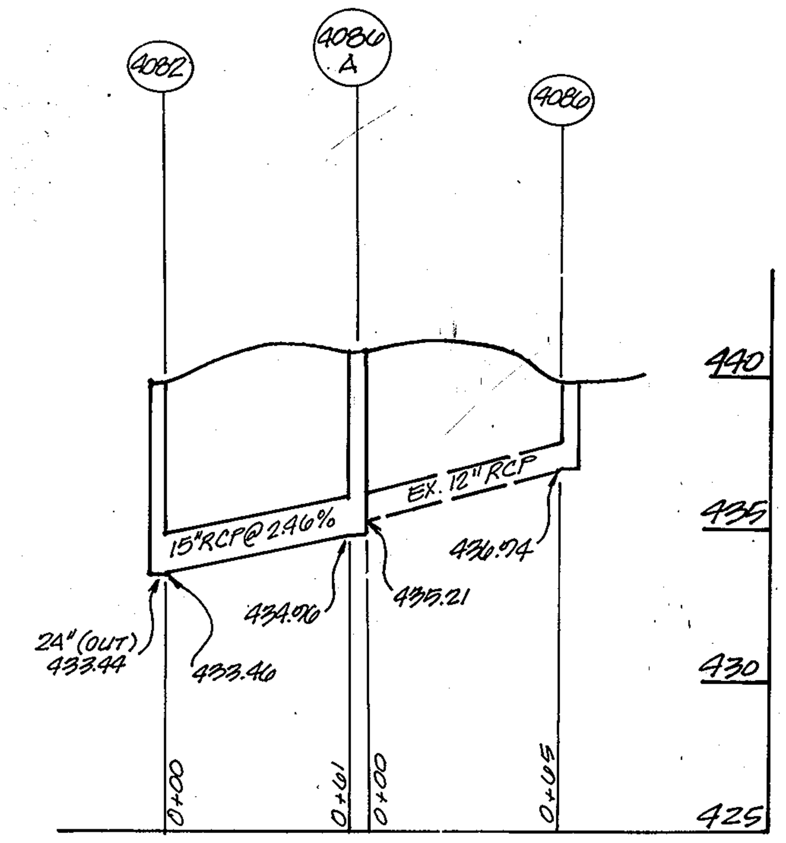
150927



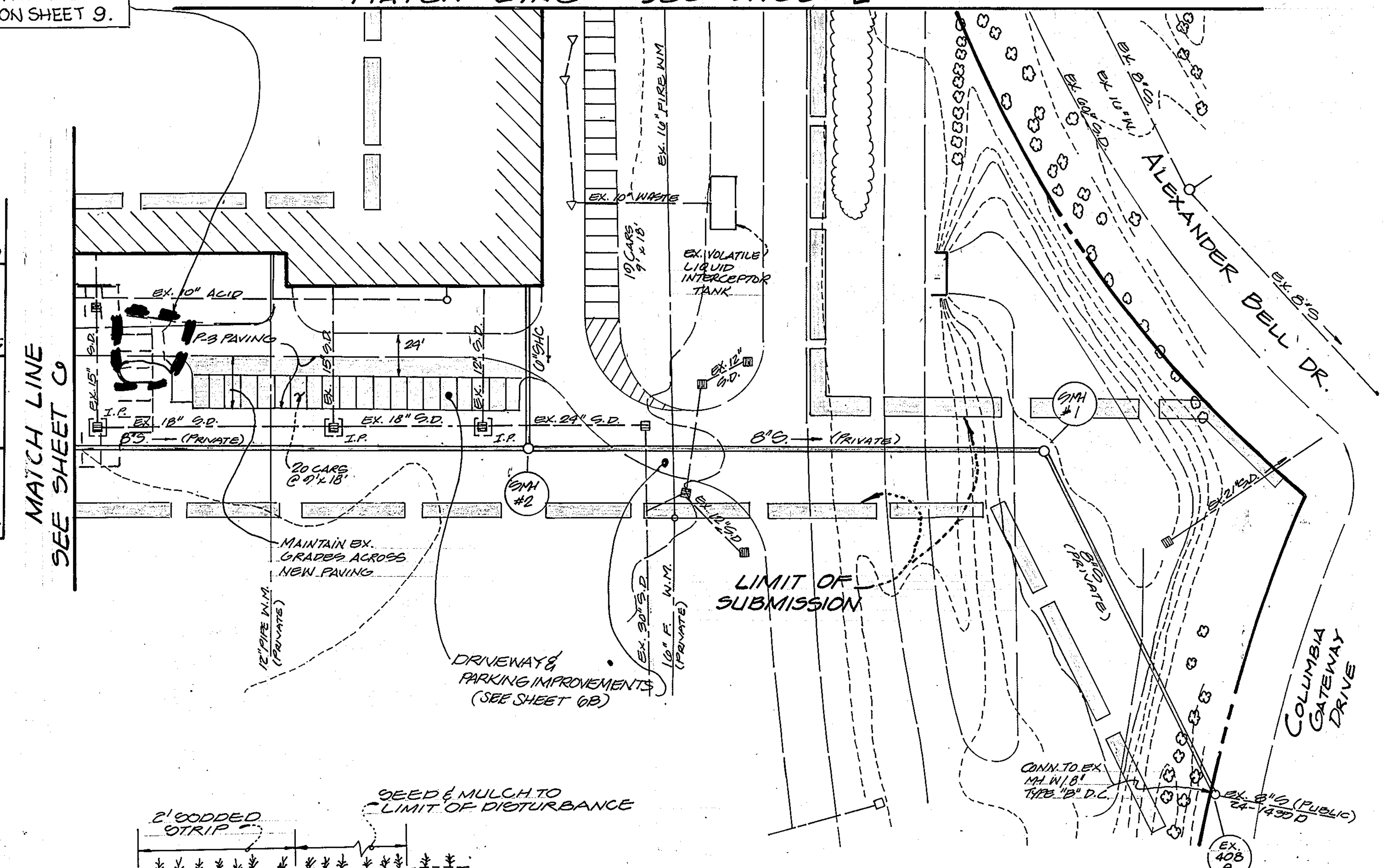
P-5 PAVING SECTIONS
N.T.S.

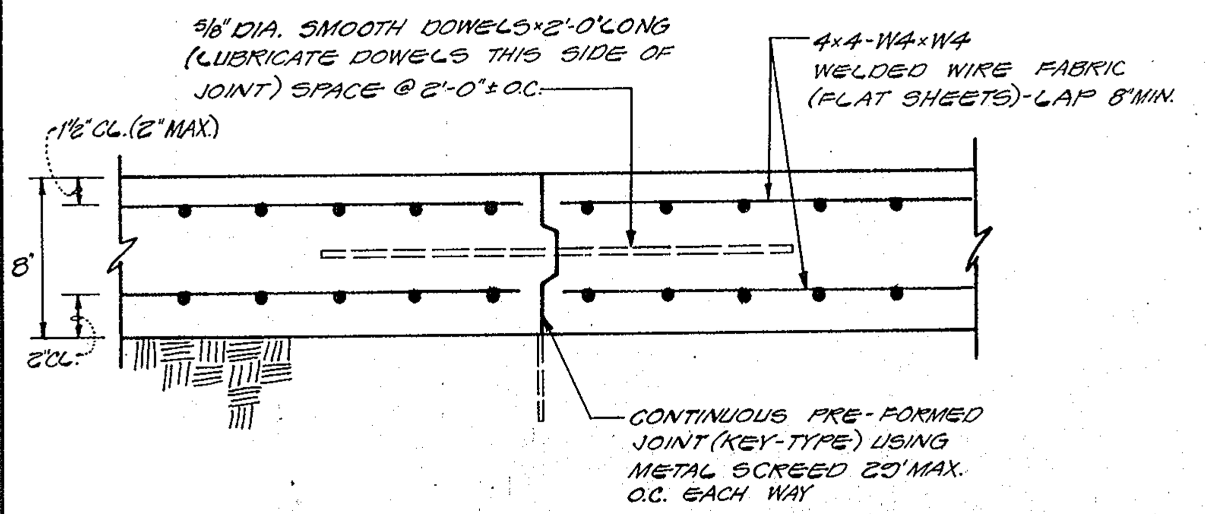


TYPICAL OUTLET DETAIL
N.T.S.



NOTE: MORE DETAIL FOR PARKING LOT IMPROVEMENTS SHOWN ON SHEET 9.

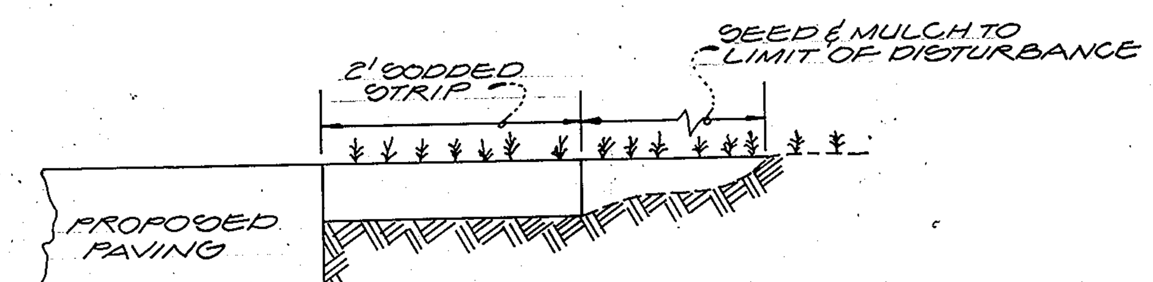




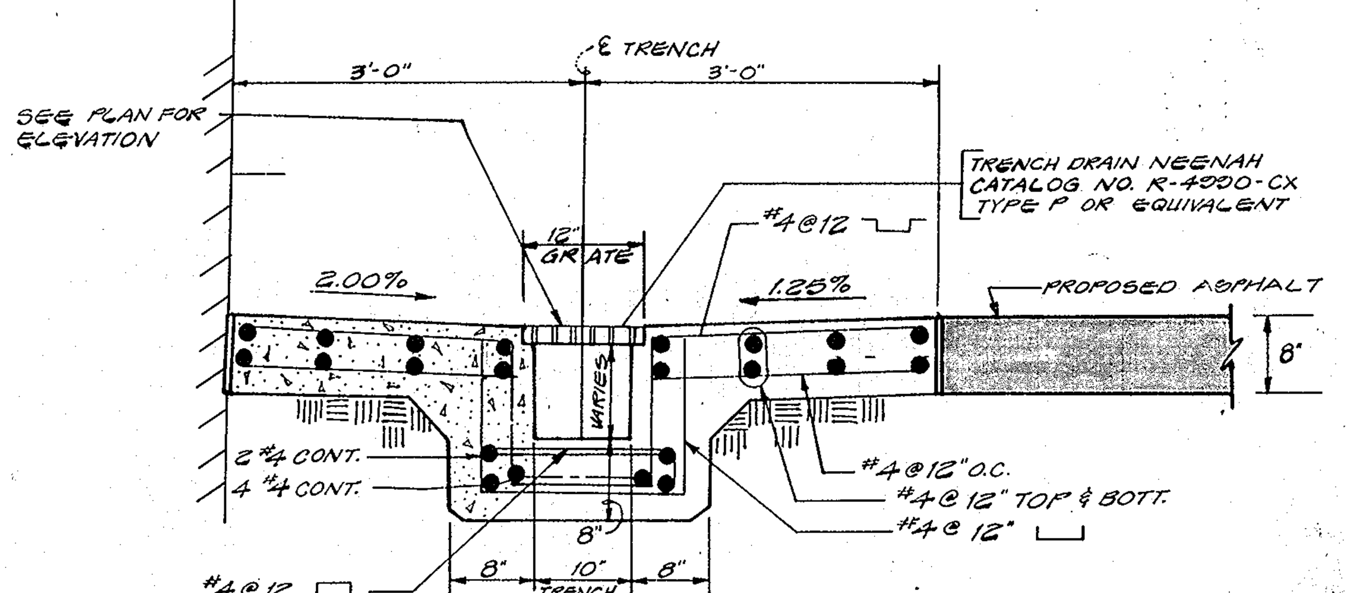
TYPICAL KEYED CONSTRUCTION JOINT
CONCRETE PAVEMENT
N.T.S.

STRUCTURE MODIFICATION SCHEDULE			
STRUCTURE NO.	EXIST. ELEV.	PROP. ELEV.	REMARKS
4089	340.38	339.45	REPLACE EXIST. FRAME & GRATE WITH MANHOLE FRAME & COVER
4088	338.98	340.10	
4085, 4084, 4083, 4082, 4086, 4090	—	SEE PLAN	REPLACE EX. FRAME & GRATE W/ TRAFFIC RATED "S" TYPE FRAME & GRATE

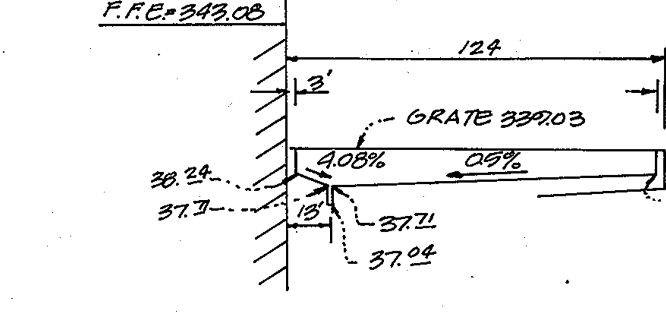
STRUCTURE SCHEDULE				
NO.	TYPE	WIDTH	TOP ELEV.	REMARKS
100	TRENCH DRAIN	12"	339.03	SEE DETAIL THIS SHEET
4086 A	TYPE "S" INLET	STD.	340.67	—



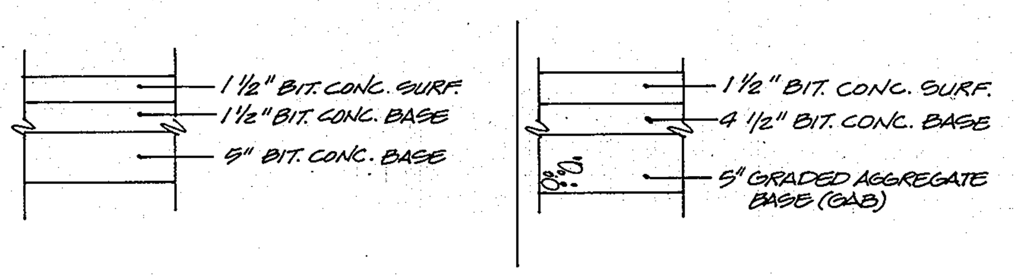
DETAIL FOR STABILIZATION ALONG PROP. PAVING
N.T.S.



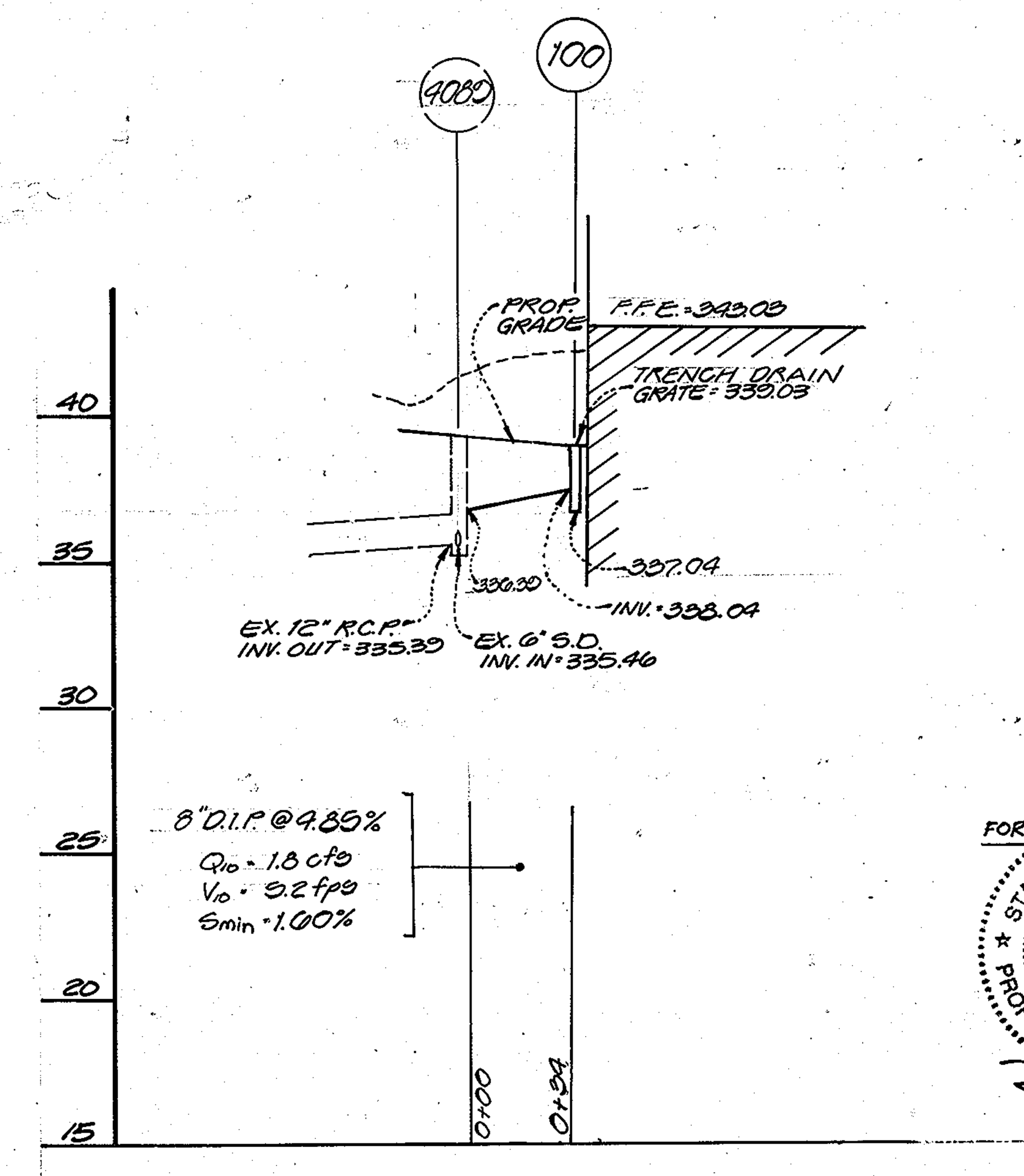
TYPICAL TRENCH DRAIN DETAIL
N.T.S.



STRUCTURE 100 DETAIL
⚠

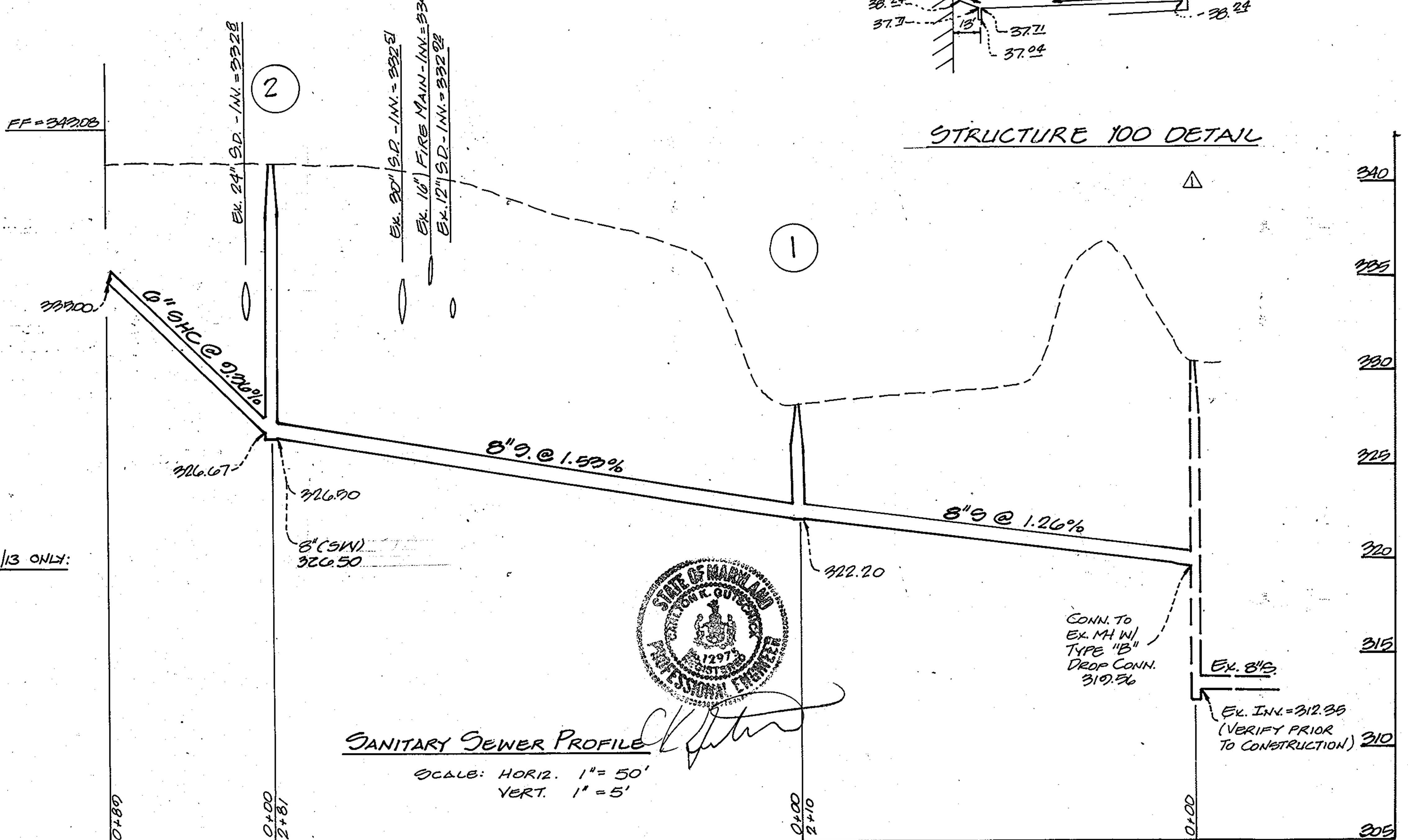


P-3 PAVING SECTIONS
⚠ N.T.S.



PROFILE SCALE
HORZ.: 1"=50'
VERT.: 1"=5'

FOR REVISION DATED 06/04/13 ONLY:
STATE OF MARYLAND · ROBERT HARRISON · No. 16193 · PROFESSIONAL ENGINEER · 8/6/13



SANITARY SEWER PROFILE
SCALE: HORIZ. 1"=50'
VERT. 1"=5'

STATE OF MARYLAND · CARLTON K. GUTSCHICK · No. 12973 · REGISTERED PROFESSIONAL ENGINEER

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPT.
COUNTY HEALTH OFFICER — DATE 8-11-93

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
DIRECTOR — DATE 8/16/93
CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE 8/16/93

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS & PUBLIC ROADS HOWARD COUNTY DEPT. OF PUBLIC WORKS
DIRECTOR — DATE 8/10/93
CHIEF, BUREAU OF ENGINEERING M.K.C. — DATE 8/9/93

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866
TELEPHONE: (301)421-4024 NO.VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.
06/04/13	MODIFY TRAILER DOCK AREA TO INCLUDE A BUILDING ADDITION AND EXISTING PARKING LOT	RHV	
2/10/10	ADD TRUCK COURT AND TRAILER PARKING; EXPAND EX. TRUCK COURT	RHV	
4-23-96	Additional sewer; sheet numbering	KLP	
11-8-95	Add profiles, paving section & additional plan view ⚠	enb	

PREPARED FOR:
THE HOWARD RESEARCH & DEVELOPMENT CORP.
THE ROUSE BUILDING
10275 LITTLE PATUXENT PKWY.
COLUMBIA, MD. 21044
(301) 992-6027

TYPICAL DETAILS & PROFILES
GATEWAY COMMERCE CENTER
BUILDING #2
PARCEL 513 LOT/PARCEL A-74
HOWARD COUNTY, MARYLAND — 6TH ELECTION DISTRICT

DES.: MJT	SCALE: —	ZONING: M-1	G.L.W. FILE No.: 91-056
DRN.: HK	DATE: DEC. 1992	TAX MAP No.: 42 BLOCK/GRID: 6	SHEET: 5 OF 13
CHK.:			

SDP-93-86

SEDIMENT CONTROL NOTES

1. DUE TO EXTREMELY FLAT TOPOGRAPHY, SILT FENCE IS NOT REQUIRED ALONG SEWER TRENCH.
2. INLET PROTECTION SHOWN IS BASED ON PROXIMITY TO SEWER CONSTRUCTION. IF OVERLAND FLOW COULD NOT POSSIBLY CONVEY ANY SEDIMENT TO A PARTICULAR INLET, THAT I.P. CAN BE OMITTED.
3. SEWER MUST BE BACKFILLED IMMEDIATELY UPON PIPE INSTALLATION. CONSTRUCTION SHALL PROGRESS IN SECTIONS; CONTRACTOR IS NOT PERMITTED TO EXPOSE ENTIRE TRENCH AT ONE TIME.

E. 805,250 N. 491,000

E. 805,000 N. 491,200

N. 492,000 E. 804,000

EXISTING BLDG. 2

LIMIT OF SUBMISSION

MATCH LINE SEE SHEET 5

RECONNECT EX. 8"ID. TO PROPOSED MH. W/TYPE 'B' DROP CONN. SEE STD. DTL. 9/1.32. BRICK SHUT EX. 8" OUTLET.

RECONNECT EX. 8"ID. TO PROPOSED MH. W/TYPE 'B' DROP CONN. SEE STD. DTL. 9/1.32. BRICK SHUT EX. 8" OUTLET.

BUILD MH OVER AND CONN. TO EX. 10"CI. BRICK SHUT 10"OUTLET. RECHANNEL AS NECCESSARY TO NEW 8"CI.

PARKING IMPROVEMENTS (SEE SHEET 6&8)

EX. 8" FIRE

EX. 8"SAN. (TO BE ABANDONED)

EX. 8"SAN. (TO BE ABANDONED)

NOTE: DUE TO THE COMPLEXITY OF DEPICTING IMPROVEMENTS FOR PEPSI BEVERAGE COMPANY ON THIS SHEET, ALL EXISTING AND PROPOSED CONDITIONS FOR THE PROPOSED IMPROVEMENTS HAVE BEEN SHOWN ON SHEETS 8 & 9.

GATEWAY COMMERCE CENTER PARCEL A-35

ENGINEER'S CERTIFICATE

"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."

3-25-96
Date

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and/or construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland 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 HSCD."

Signature of Developer/Builder 3/25/96
Date

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements.

J. A. Warfield 4/30/96
Natural Resources Conservation Service Date

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

John R. Robertson 4/30/96
Howard S.C.D. Date

FOR REVISION DATED 06/04/13 ONLY:

STATE OF MARYLAND — CHARLES K. KARKOSKA — No. 16193 — PROFESSIONAL ENGINEER — 7/2/13

John K. Robertson 7/2/13

Approved: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Director (Acting) 5/1/96 Date

Chief, Div. of Land Development & Research 5/9/96 Date

Chief, Development Engineering Div. MK 5/8/96 Date

GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866
TELEPHONE: (301)421-4024 NO.VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.
06/04/13	MODIFY TRAILER DOCK AREA TO INCLUDE A BUILDING ADDITION AND EXISTING PARKING LOT	RHV	
2/10/10	ADD TRUCK COURT AND TRAILER PARKING & EXPAND EX. TRUCK COURT	RHV	
9-20-00	ADDITIONAL SHEET	KLP	

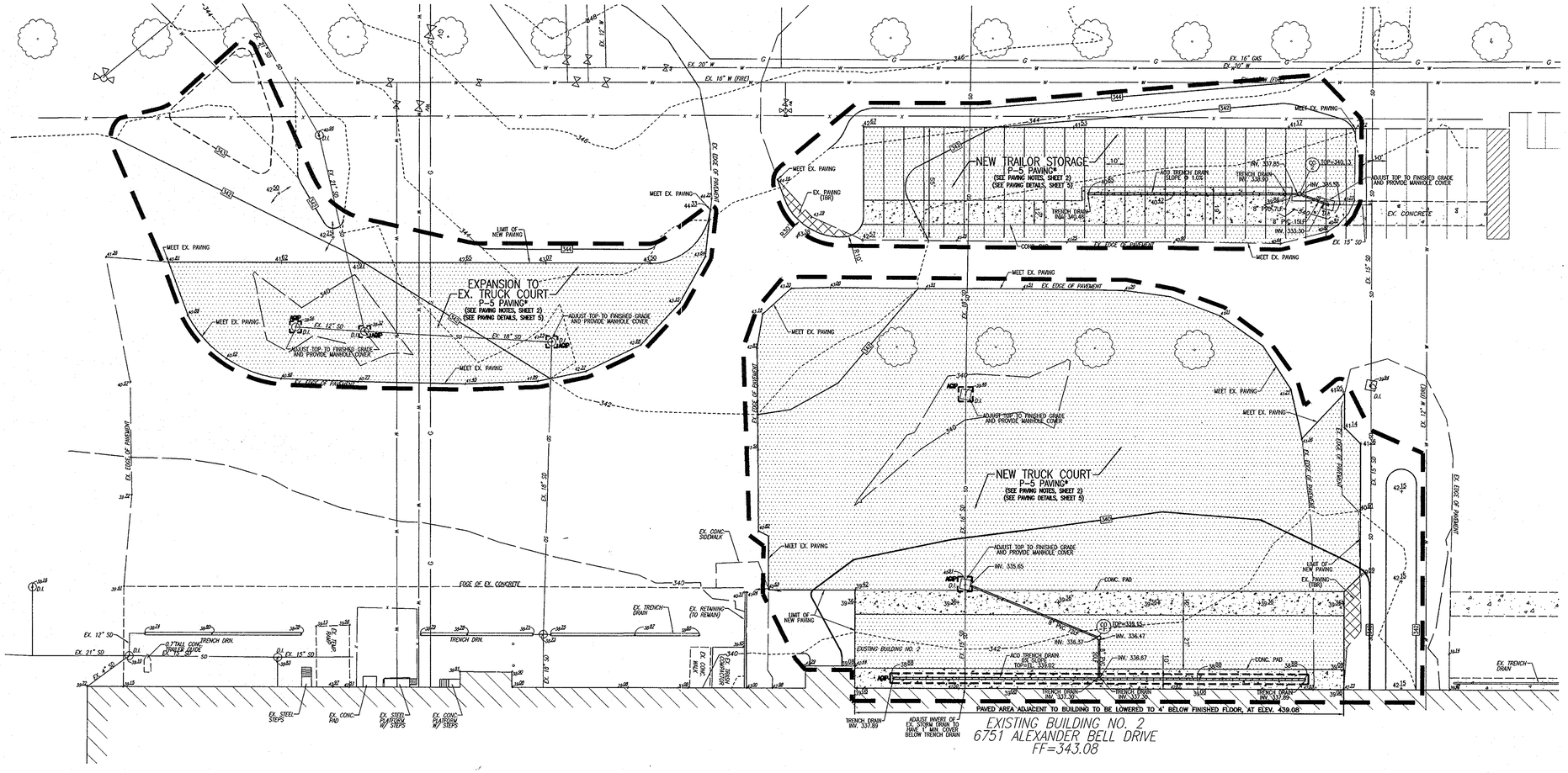
PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORP.
THE ROUSE BUILDING
10275 LITTLE PATUXENT PKWY.
COLUMBIA, MD. 21044
(301) 992-6027

SEWER PLAN

GATEWAY COMMERCE CENTER
BUILDING #E
PARCEL '513' - LOT/PARCEL 'A-74'
HOWARD COUNTY, MARYLAND 6TH ELECTION DISTRICT

DES.:	SCALE	ZONING	G.L.W. FILE No.
R.S.P.	1"=50'	M-1	91-050
DRN.:	DATE	TAX MAP No.	SHEET
E.O	MARCH 1990	42	6 OF 13
CHK.:		BLOCK/GRID: 6	
C.K.S.			

SDP 93-86



LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- 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 TREES (FIELD LOCATED)
- EXISTING TREELINE (FIELD LOCATED)
- EXISTING FENCE
- PROPOSED SIDEWALK
- SILT FENCE
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- AGIP AT GRADE INLET PROTECTION

⚠ STORMWATER MANAGEMENT REQUIREMENTS FOR THE PROPOSED ADDITIONAL PAVING WILL BE ACCOMODATED BY THE EXISTING FACILITY LOCATED ON LOT 15 AS SHOWN ON PLAT #4340 PER THE 2000 STORMWATER MANAGEMENT REGULATIONS.

OWNER/DEVELOPER
GATEWAY A-74 & A-76, LLC
C/O DELOITTE TAX LLP
P.O. BOX 11338
MCLEAN, VA. 22102
410-560-0300

NO.	REVISION	DATE
1	ADDING SHEET 6A TO PLAN SET TO SHOW NEW TRUCK COURT & TRAILER PARKING & EXPANSION OF EXISTING TRUCK COURT	7/1/10

REVISED SITE DEVELOPMENT PLAN

NEW TRUCK COURT AND TRAILER PARKING, AND EXPANSION TO EXISTING TRUCK COURT

GATEWAY COMMERCE CENTER

6751 ALEXANDER BELL DRIVE
BUILDING #2
PARCEL A-74

TAX MAP 42 BLOCK 6
6TH ELECTION DISTRICT

PARCEL A-74, BUILDING #2
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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 7/20/10

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 7/26/10

DIRECTOR — DATE 7/26/10

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPEMENT 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."

SIGNATURE OF DEVELOPER — DATE 3/30/10

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."

SIGNATURE OF ENGINEER — DATE 4/5/10

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

N.A. — HOWARD S.C.D. — DATE

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

ROBERT H. VOGEL, PE No.16193

DESIGN BY:	DZ
DRAWN BY:	DZ
CHECKED BY:	RHV
DATE:	MARCH, 2010
SCALE:	1"=30'
W.O. NO.:	09-29

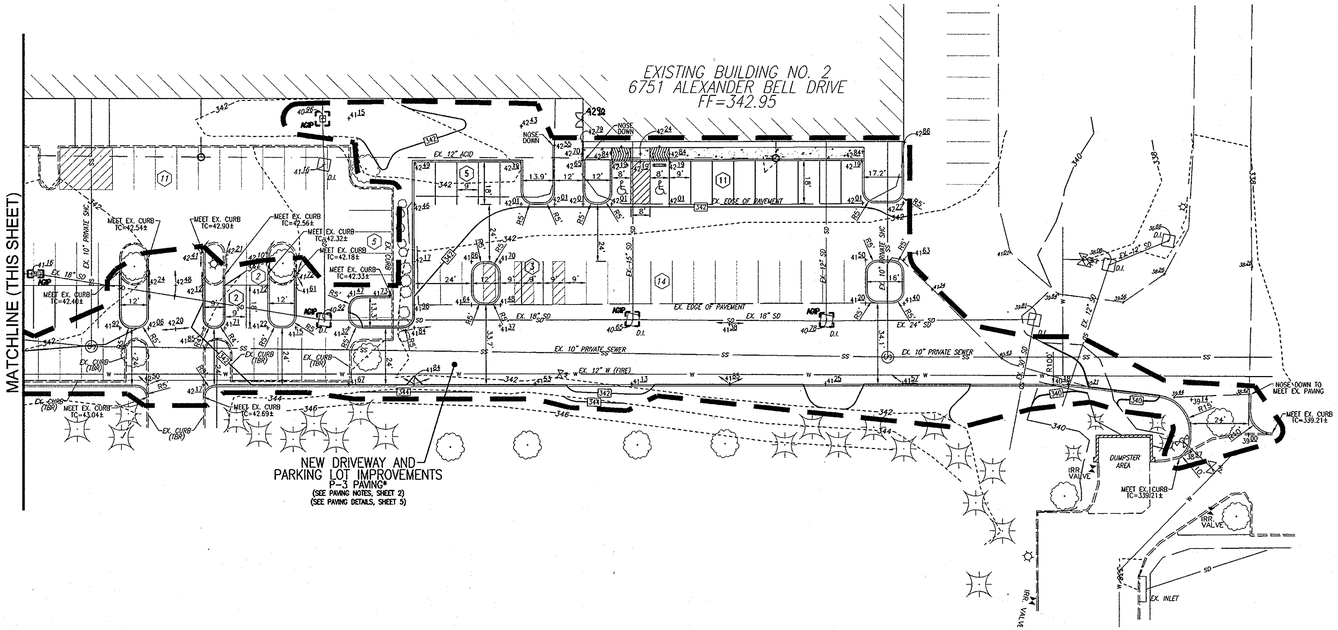
PROFESSIONAL CERTIFICATE

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: 09-27-2010

6A SHEET 7 OF

SDP-93-86

K:\Projects\09-29\ENGR\dwg\REDLINES\BUILDING 2\SDP-93-86_SHEET6A&B.dwg, 3/10/2010 1:51:52 PM



LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- 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 TREES (FIELD LOCATED)
- EXISTING TREELINE (FIELD LOCATED)
- EXISTING FENCE
- PROPOSED SIDEWALK
- SILT FENCE
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- AGIP AT GRADE INLET PROTECTION

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 7/20/10

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 7/26/10

DIRECTOR — DATE 7/26/10

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPEMENT 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."

SIGNATURE OF DEVELOPER — DATE 3/30/10

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."

SIGNATURE OF ENGINEER — DATE 4/6/10

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

N.A. — HOWARD S.C.D. — DATE

OWNER/DEVELOPER
GATEWAY A-74 & A-76, LLC
C/O DELOITTE TAX LLP
P.O. BOX 11338
MCLEAN, VA. 22102
410-560-0300

NO.	REVISION	DATE
1	ADDING SHEET 6B TO PLANSET TO SHOW NEW DRIVEWAY & PARKING LOT IMPROVEMENTS	7/1/10

REVISED SITE DEVELOPMENT PLAN

NEW DRIVEWAY AND PARKING LOT IMPROVEMENTS

GATEWAY COMMERCE CENTER

6751 ALEXANDER BELL DRIVE
BUILDING #2
PARCEL A-74

TAX MAP 42 BLOCK 6
6TH ELECTION DISTRICT

PARCEL A-74, BUILDING #2
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 — 4/1/10

ROBERT H. VOGEL, PE No.16193

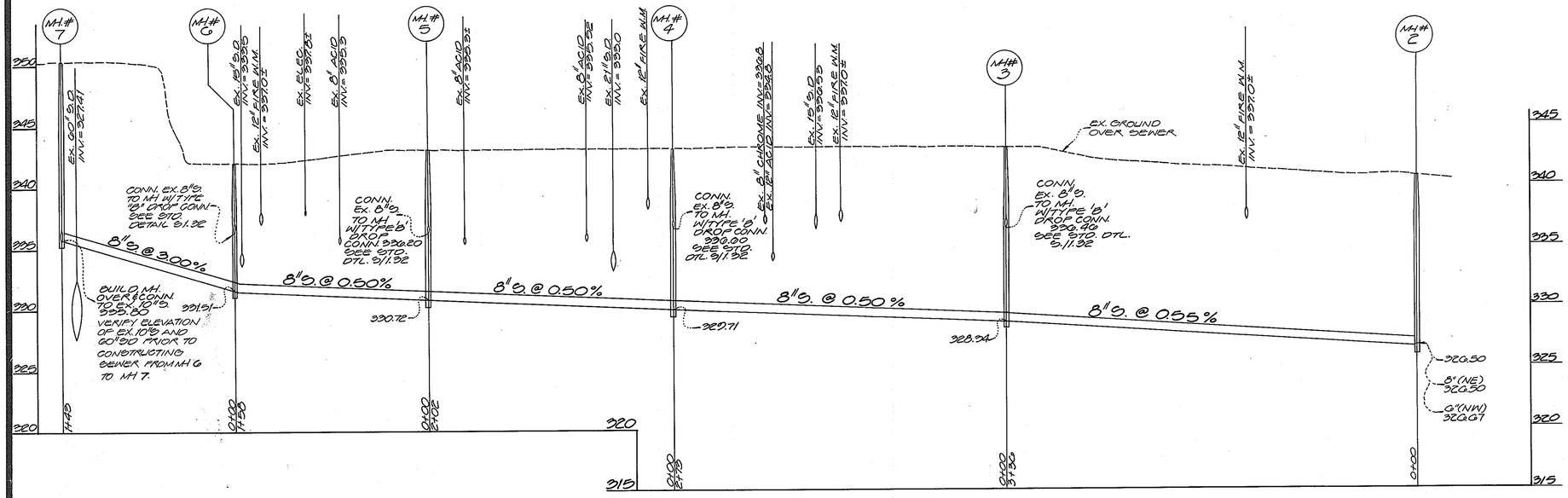
PROFESSIONAL CERTIFICATE

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: 09-27-2010

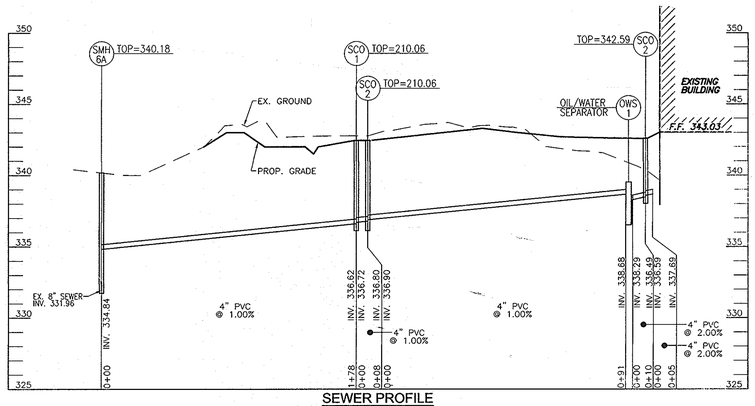
DESIGN BY:	DZ
DRAWN BY:	DZ
CHECKED BY:	RHV
DATE:	MARCH, 2010
SCALE:	1"=30'
W.O. NO.:	09-29

6B SHEET OF 7

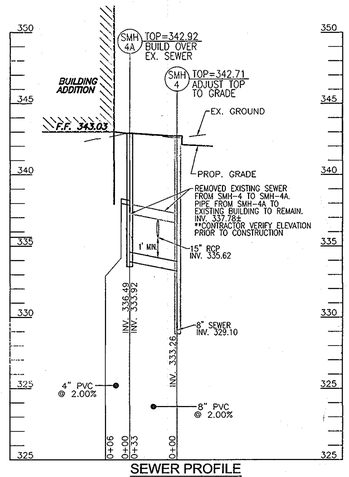
SDP-93-86



SCALES
HORIZ. : 1"=50'
VERT. : 1"=5'



SEWER PROFILE
SCALE : HORIZONTAL – 1"=50'
VERTICAL – 1"=5'



SEWER PROFILE
SCALE : HORIZONTAL – 1"=50'
VERTICAL – 1"=5'

Approved: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Director — Date 5/10/96

Chief, Div. of Land Development & Research — Date 5/9/96

Chief, Development Engineering Div. MK — Date 5/8/96

CONTRACTOR TO TEST PIT ALL EXISTING UTILITY CROSSINGS AND TIE-INS PRIOR TO CONSTRUCTION

FOR REVISION DATED 6/20/13

STATE OF MARYLAND — ROBERT HARRIS HOBELL — No. 16195 — PROFESSIONAL ENGINEER — 6/14/13

GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866
TELEPHONE: (301)421-4024 NO.VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.
09/09/13	MODIFY TRAILER DOCK AREA TO INCLUDE A BUILDING ADDITION AND BOSTINK PARKING LOT	RHV	
3-20-96	ADDITIONAL SHEET	KLP	

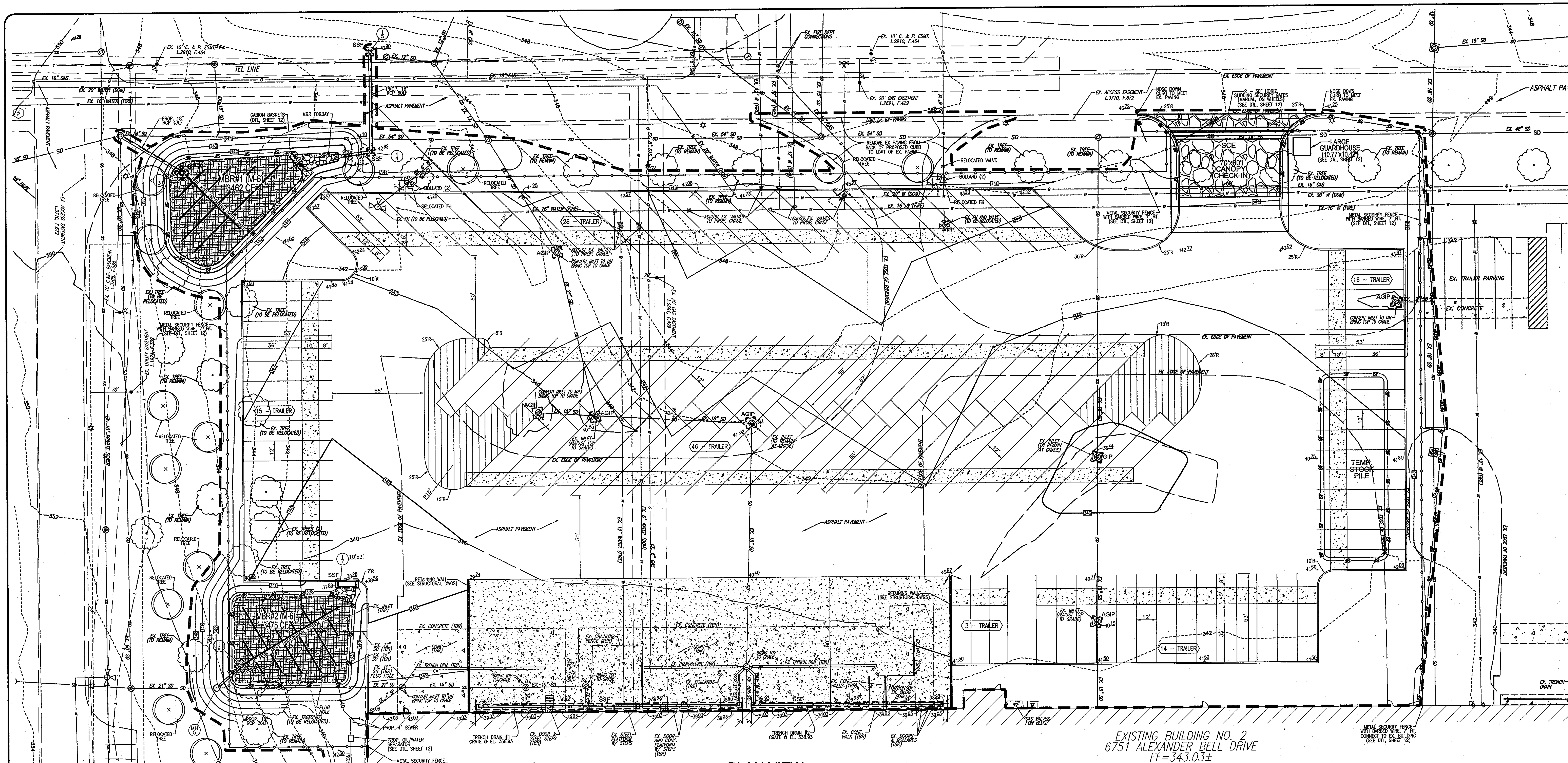
PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORP.
THE ROUSE BUILDING
10275 LITTLE PATUXENT PKWY.
COLUMBIA, MD. 21044
(301) 992-6027

SEWER PROFILES

GATEWAY COMMERCE CENTER
BUILDING #2
PARCEL 513 LOT/PARCEL A-74
HOWARD COUNTY, MARYLAND — 6TH ELECTION DISTRICT

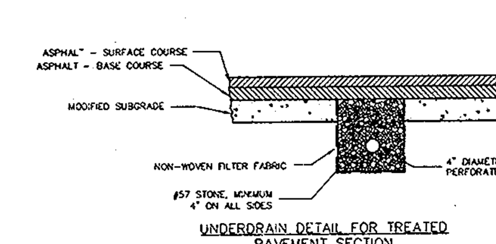
DES.: R.S.F.	SCALE AS SHOWN	ZONING M-1	G.L.W. FILE No. 91-050
DRN.: E.D.	DATE MARCH 1996	TAX MAP No. 42	SHEET 7 OF 13
CHK.: C.K.G.		BLOCK 16 PARCEL 6	

SDP 93-86



PLAN VIEW
SCALE: 1"=30'

STOCKPILE NOTE:
SHOULD THE STOCKPILE AREA EXCEED 15 FT IN HEIGHT, IT MUST BE BENCHED.



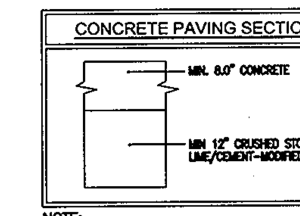
NOTE:
PERFORATED PIPE SHOULD BE CONNECTED TO THE SITE STORM DRAINAGE SYSTEM TO ALLOW GRAVITY FLOW OF COLLECTED WATER.

PAVEMENT DRAIN DETAIL
NOT TO SCALE

FLEXIBLE (BITUMINOUS) PAVEMENTS

Layer	Thickness (inches) Light Duty	Heavy Duty
Bituminous Surface Course	1.5	2.0
Bituminous Base Course	3	4.0
Chemically Treated Subgrade	12	12

CONCRETE PAVING SECTION



NOTE:
PAVING SECTIONS ARE TO BE VERIFIED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION.

CONTRACTOR TO TEST PIT ALL EXISTING UTILITY CROSSINGS AND TIE-INS PRIOR TO CONSTRUCTION

LEGEND:

Symbol	Description	Symbol	Description
---398---	EXISTING CONTOUR		PROPOSED STORM DRAIN
406	PROPOSED CONTOUR		PROPOSED STORM DRAIN INLET
+02.68	PROPOSED SPOT ELEVATION		PROPERTY LINE
+02.68	EXISTING SPOT ELEVATION		RIGHT-OF-WAY LINE
	EXISTING CURB AND GUTTER	M1B2 / M1D3	SOILS BOUNDARY
	PROPOSED CURB AND GUTTER		PROPOSED SIDEWALK
	EXISTING UTILITY POLE	SF	SILT FENCE
	EXISTING LIGHT POLE	LOD	LIMIT OF DISTURBANCE FOR CONSTRUCTION/IMPROVEMENTS
M	EXISTING MAILBOX	AGIP	AT GRADE INLET PROTECTION
	EXISTING SIGN		
S	EXISTING SANITARY MANHOLE		
S	EXISTING SANITARY LINE		
CO	EXISTING CLEANOUT		
FH	EXISTING FIRE HYDRANT		
W	EXISTING WATER LINE		

MATCHLINE - SHEET 9

OWNER/DEVELOPER
GATEWAY A-74 & A-76, LLC
C/O DELOITTE TAX LLP
P.O. BOX 11338
MCLEAN, VA. 22102
410-560-0300

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 7/26/13
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 7/31/13
DIRECTOR — DATE 7/31/13

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPEMENT 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."

SIGNATURE OF DEVELOPER — DATE 6/27/13

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."

SIGNATURE OF ENGINEER — DATE 7/16/13

SCALE 1"=50'
25' 0' 50'

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD S.C.D. — DATE 7/23/13

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP
UfA	URBAN LAND–FALLSINGTON COMPLEX, 0 TO 2 PERCENT SLOPES	D
UtD	URBAN LAND–UDORTHENTS COMPLEX, 0 TO 15 PERCENT SLOPES	D

NOTE: BASED ON HOWARD SOIL SURVEY

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. 21438 EXPIRATION DATE: 12-16-2014
7/16/13
JOHN T. DIGATE PE NO. 21438

DATE	REVISION	BY
06-04-13	MODIFY AND TRAILER DOCK AREA INCLUDING TO A BUILDING ADDITION AND EXISTING PARKING LOT IMPROVEMENTS	RHV

Drawing Copyright © 2013
CHA
270 Peachtree St. NW, Suite 1500 · Atlanta, GA 30303-1283
Main: (678) 954-5000 · www.chacompanies.com

PBC

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

Designed: DZ | Drawn: DZ/JER | Checked: RHV | Date: JUNE 25, 2013 | Project No.: 13-06 | Scale: AS SHOWN

SITE DEVELOPMENT PLAN
PEPSI BEVERAGE COMPANY
GATEWAY COMMERCE CENTER
6751 ALEXANDER BELL DRIVE
BUILDING #2
PARCEL 513
PARCEL/LOT A-74
TAX MAP 42 BLOCK 6 PARCEL 513, PARCEL/LOT A-74
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TRUCK COURT AND TRAILER PARKING EXPANSION

8 SHEET OF 13

SDP-93-086

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

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 DUMPED WITHIN THE MICRO-BIORETENTION PRACTICE THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMUDA GRASS, QUACKGRASS, 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 TEXTURAL CLASSIFICATION).
* ORGANIC CONTEN – 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, IRON 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 TEXTURE 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 BIORETENTION PRACTICES AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF PRACTICES ARE EXCAVATED USING LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, 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 ALLEVIATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACTURE 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 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENION FACILITY BEFORE BACKFILLING THE OPTIONAL SAND LAYER. PUMP ANY PONDED 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 BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" TO 18". DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.

4. PLANT MATERIAL
RECOMMENDED PLANT MATERIAL FOR MICRO-BIORETENTION 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 SURROUNDING TO A UNIFORM THICKNESS OF 2" TO 3". SHREDDED OR CHIPPED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. PINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDED 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 DRILLED 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.
THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFEATS, OR AT A MINIMUM, IMPEDES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.

6. UNDERDRAINS
UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:
* PIPE – SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTMF 758, TYPE PS 28, OR AASHTO-M-278) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED, 4" RIGID PIPE (E.G., PVC OF HDPE).
* PERFORATIONS – IF PERFORATED PIPE IS USED, PERFORATIONS SHOULD BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/4" (NO. 4 OR 4x4) GALVANIZED 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 1,0000 SQUARE FEET) TO PROVIDE A CLEAN-OUT PORT AND MONITOR PERFORMANCE OF THE FILTER.
* A 4" LAYER OF PEA GRAVEL (1/8" 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.

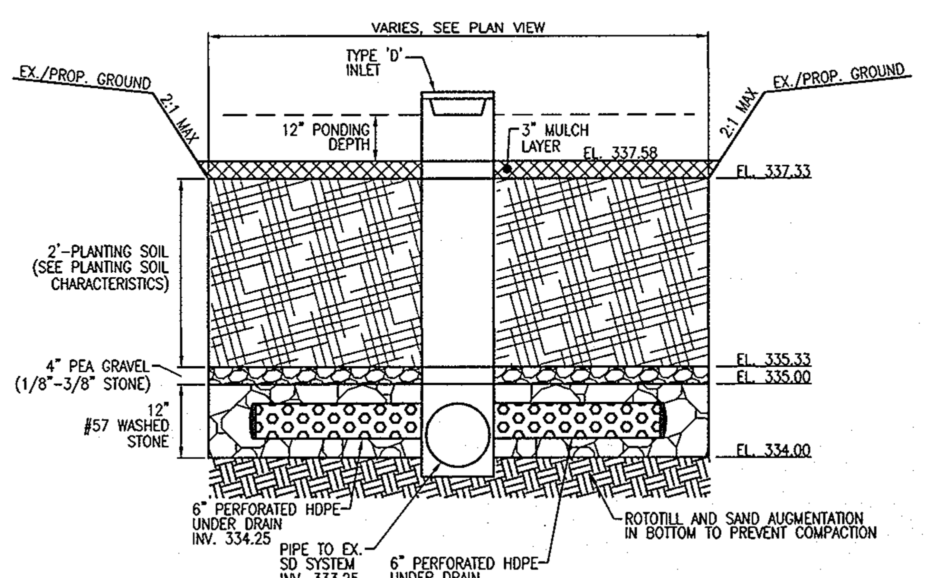
OPERATION AND MAINTENANCE SCHEDULE FOR LANSCAPE INFILTRATION (M-3), MICRO-BIORETENTION (M-6), RAIN GARDENS (M-7), BIORETENTION SWALE (M-8), AND ENHANCED FILTERS (M-9)

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.

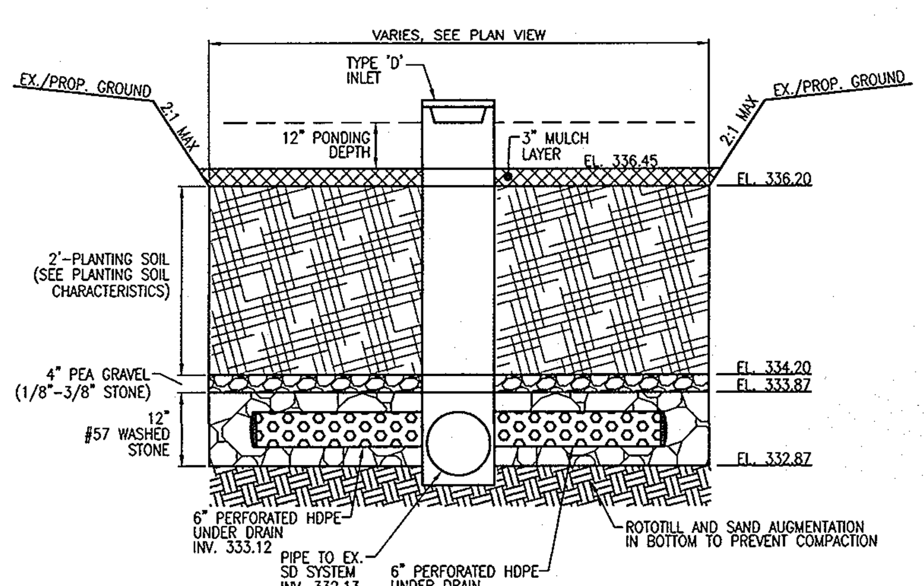
2. THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL 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.



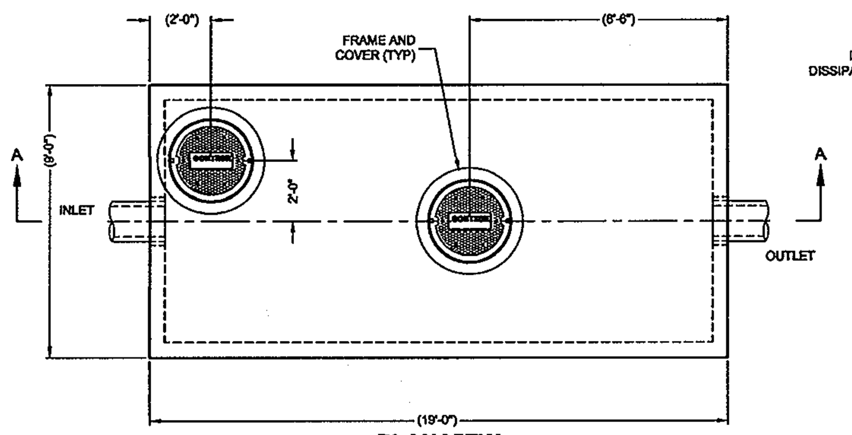
MICRO-BIORETENTION #1
NOT TO SCALE



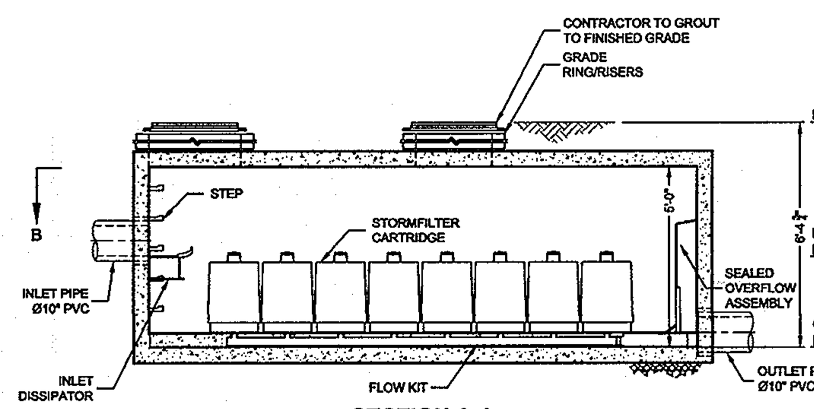
MICRO-BIORETENTION #2
NOT TO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

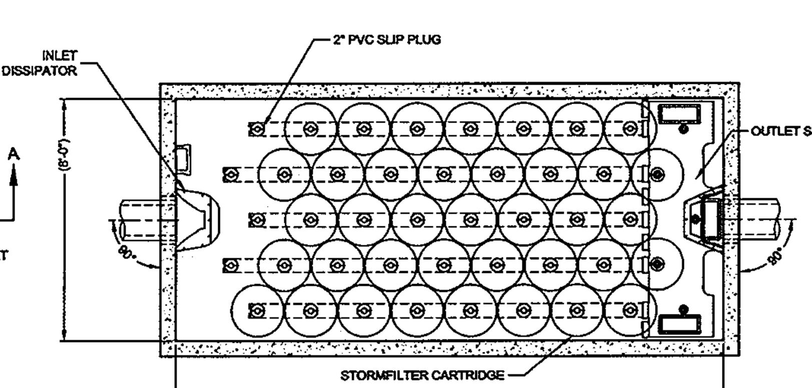
CHIEF, DEVELOPMENT ENGINEERING DIVISION	7/26/13 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	7/31/13 DATE
DIRECTOR	7/31/13 DATE



PLAN VIEW



SECTION A-A



SECTION B-B
VAULT STYLE: 13A OUTLET SUMP (NIB)

MATERIAL LIST - PROVIDED BY CONTECH

COUNT	DESCRIPTION	INSTALLED BY
38	27", 22.5 GPM, CSF CARTRIDGE (GLD)	CONTECH
7	2" PVC SLIP PLUG	CONTECH
1	FLOW KIT	CONTECH
1	INLET DISSIPATOR	CONTECH
1	SEALED OVERFLOW ASSEMBLY	CONTECH
1	JOINT SEALANT (BY PRECASTER)	CONTRACTOR
2 PLCS	GRADE RINGS/RISERS	CONTRACTOR
2	Ø30" x 4" FRAME AND COVER	CONTRACTOR

SITE DESIGN DATA

WATER QUALITY FLOW RATE	1.90 CFS
PEAK FLOW RATE	TBD CFS
RETURN PERIOD OF PEAK FLOW	10 YRS
FILTER MEDIA TYPE	CSF

PERFORMANCE SPECIFICATION
FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. **RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 37 SECONDS.**
SPECIFIC FLOW RATE SHALL BE **2 GPM/SF (MAXIMUM)**. SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA VOLUMETRIC FLOW RATE SHALL BE **6 GPM/CF OF MEDIA (MAXIMUM)**.

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. www.contechES.com
4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.

INSTALLATION NOTES
1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE (LIFTING CLUTCHES PROVIDED).
3. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL SECTIONS AND ASSEMBLE STRUCTURE.
4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH OUTLET PIPE INVERT WITH OUTLET BAY FLOOR.
5. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

STRUCTURE WEIGHT
APPROXIMATE HEAVIEST PICK = T.B.D. LBS.

8' x 18' STORMFILTER - 482096-010
GATEWAY PEPSI
COLUMBIA, MD
SITE DESIGNATION: SF-1

Pepsi - Gateway Commerce Center
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

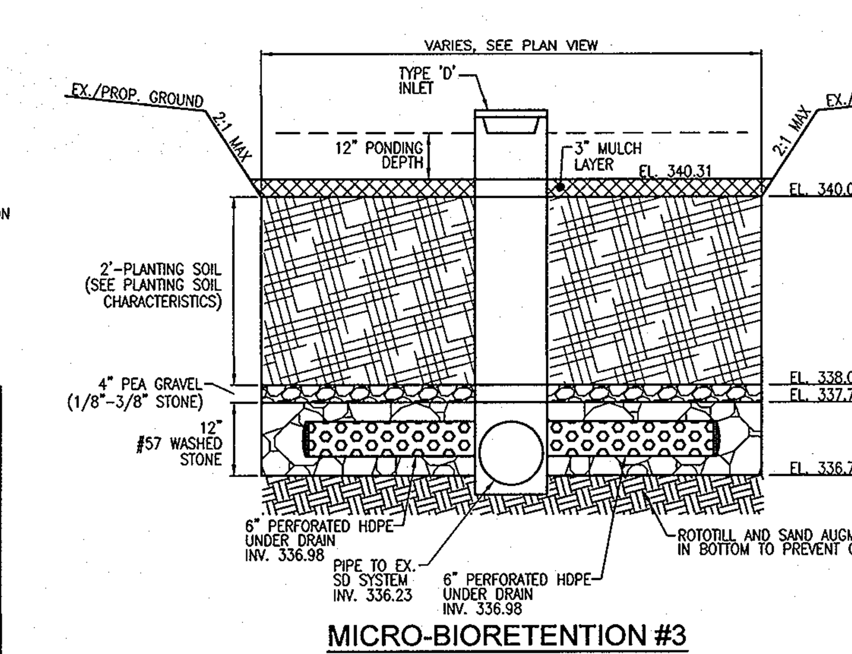
DA	% IMPERV	Rv	DA	ESDv REQ	MINIMUM VOLUME	MAXIMUM VOLUME	VOLUME PROVIDED *	EQUIVALENT ESDv	IMPERV AREA	GREEN AREA
1	35	0.37	2.39	6356	3178	8262	3462	4616	0.84	1.55
2	46	0.46	2.06	6928	3464	9007	3475	4633	0.95	1.11
3	86	0.82	0.66	STORM FILTER				4643		
4	86	0.82	0.53	STORM FILTER				4643		
5	51	0.51	0.18	662	331	860	859	1145	0.09	0.09
6	86	0.82	0.25	STORM FILTER				1667		
	TOTAL ESDv BY SUBAREA			13946			7796	21347	1.88	2.75

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

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.



MICRO-BIORETENTION #3
NOT TO SCALE

SITE DATA (PEPSI)

LOCATION: COLUMBIA, MD.; TAX MAP 42, GRID/BLOCK 6, PARCEL 513, LOT/PARCEL A-74
6TH ELECTION DISTRICT
PRESENT ZONING: M-1
SUBDIVISION : GATEWAY COMMERCE CENTER
TOTAL PARCEL AREA : 115.56 AC.
DPZ REFERENCES: L.8878/F.214, PLAT 13139, SDP-93-86
USE OF STRUCTURE: WAREHOUSE
AREA OF WETLANDS AND BUFFERS: 0.00 AC.
AREA OF STREAMS AND BUFFERS ON SITE: 0.00 AC.
AREA OF 100 YEAR FLOODPLAIN ON SITE: 0.00 AC.
AREA OF FOREST ON SITE: 0.00 AC.
AREA OF STEEP SLOPES ON SITE: 0.00 AC
AREA OF ERODIBLE SOILS ON SITE: 0.00 AC.
PROJECT AREA/LIMIT OF DISTURBED AREA: 5.97 AC
AREA MANAGED BY ESDV (*THIS PLAN): 5.97 AC.
*IMPERVIOUS AREA : 1.94 AC.
*GREEN AREA: 4.03 AC.

ENVIRONMENTAL SITE DESIGN NARRATIVE

IN ACCORDANCE WITH CHECKLIST ITEM III.K

1. THE PROPERTY DOES NOT CONTAIN ANY NATURAL RESOURSE AREAS INCLUDING SPECIMEN TREES, WETLANDS, STREAMS, STEEP SLOPES OR 100 YEAR FLOODPLAIN THAT WOULD REQUIRE PROTECTION.

2. NO DISTURBANCE TO THE NATURAL DRAINAGE PATTERNS ARE PROPOSED. ALL AREAS SHALL DRAIN AS IN THE EXISTING CONDITIONS.

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 AREA TREATED DOES NOT NECESSARILY CORRESPOND TO THE ACTUAL DISTURBED AREA BUT DOES UTILIZE THE OTHER EXISTING IMPERVIOUS AREAS TO EQUATE TO THE SAME AREA. THE ESD CONCEPT PROPOSES THE USE OF MICRO-BIORETENTION FACILITIES AND STORM FILTERS. THE FACILITIES WILL DISCHARGE TO THE EXISTING STORM DRAIN SYSTEM. THE PROPOSED ESD PRACTICE 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 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 AND STORM FILTERS.

6. NO WAIVERS ARE ANTICIPATED TO FULFULL THIS CONCEPT.

CONTECH StormFilter

StormFilter Maintenance Guidelines
Maintenance requirements and frequency are dependent on the pollutant load characteristics of each site, and may be required in the event of a chemical spill or due to excessive sediment loading.

Maintenance Procedures
Although there are other effective maintenance options, CONTECH recommends the following two step procedure:
1. Inspection: Determine the need for maintenance.
2. Maintenance: Cartridge replacement and sediment removal.

Inspection and Maintenance Activity Timing
At least one scheduled inspection activity should take place per year with maintenance following as warranted.
First, inspection should be done before the winter season. During which, the need for maintenance should be determined and, if disposal during maintenance will be required, samples of the accumulated sediments and media should be obtained.
Second, if warranted, maintenance should be performed during periods of dry weather.
In addition, you should check the condition of the StormFilter unit after major storms for potential damage caused by high flows and for high sediment accumulation. It may be necessary to adjust the inspection/maintenance activity schedule depending on the actual operating conditions encountered by the system.
Generally, inspection activities can be conducted at any time, and maintenance should occur when flows into the system are unlikely.

Maintenance Activity Frequency
Maintenance is performed on an as needed basis, based on inspection. Average maintenance lifecycle is 1-3 years. The primary factor controlling timing of maintenance of the StormFilter is sediment loading. Until appropriate timeline is determined, use the following:
Inspection:
One time per year
After major storms
Maintenance:
As needed
Per regulatory requirement
In the event of a chemical spill

Inspection Procedures
It is desirable to inspect during a storm to observe the relative flow through the filter cartridges. If the submerged cartridges are severely plugged, then typically large amounts of sediments will be present and very little flow will be discharged from the drainage pipes. If this is the case, then maintenance is warranted and the cartridges need to be replaced.
Warning: In the case of a spill, the worker should abort inspection activities until the proper guidance is obtained. Notify the local hazard control agency and CONTECH immediately.
To conduct an inspection:

Important: Inspection should be performed by a person who is familiar with the StormFilter treatment unit.

1. If applicable, set up safety equipment to protect and notify surrounding vehicle and pedestrian traffic.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the access portals to the vault and allow the system vent.
4. Without entering the vault, visually inspect the inside of the unit, and note accumulations of liquids and solids.
5. Be sure to record the level of sediment build-up on the floor of the vault, in the forebay, and on top of the cartridges. If flow is occurring, note the flow of water per drainage pipe. Record all observations. Digital pictures are valuable for historical documentation.
6. Close and fasten the access portals.
7. Remove safety equipment.
8. If appropriate, make notes about the local drainage area relative to ongoing construction, erosion problems, or high loading of other materials to the system.
9. Discuss conditions that suggest maintenance and make decision as to weather or not maintenance is needed.

Maintenance Decision Tree
The need for maintenance is typically based on results of the inspection. Use the following as a general guide. (Other factors, such as regulatory requirements, may need to be considered)
1. Sediment loading on the vault floor. If >4" of accumulated sediment, then go to maintenance.
2. Sediment loading on top of the cartridge. If >1/4" of accumulation, then go to maintenance.
3. Submerged cartridges. If >4" of static water in the cartridge bay for more that 24 hrs after end of rain event, then go to maintenance.
4. Plugged media. If pore space between media granules is absent, then go to maintenance.
5. Bypass condition. If inspection is conducted during an average rain fall event and StormFilter remains in bypass condition (water over the internal outlet baffle wall or submerged cartridges), then go to maintenance.
6. Hazardous material release. If hazardous material release (automotive fluids or other) is reported, then go to maintenance.
7. Pronounced scum line. If pronounced scum line (say ≥ 1/4" thick) is present above top cap, then go to maintenance.
8. Calendar Lifecycle. If system has not been maintained for 3 years, then go to maintenance.

Assumptions
No rainfall for 24 hours or more.
No upstream detention (at least not draining into StormFilter).
Structure is online. Outlet pipe is clear of obstruction. Construction bypass is plugged.

Maintenance
Depending on the configuration of the particular system, workers will be required to enter the vault to perform the maintenance.

Important: If vault entry is required, OSHA rules for confined space entry must be followed.
Filter cartridge replacement should occur during dry weather. It may be necessary to plug the filter inlet pipe if base flow is occurring.
Replacement cartridges can be delivered to the site or customers facility. Contact CONTECH for more information.
Warning: In the case of a spill, the worker should abort maintenance activities until the proper guidance is obtained. Notify the local hazard control agency and CONTECH immediately.
To conduct cartridge replacement and sediment removal:
1. If applicable, set up safety equipment to protect workers and pedestrians from site hazards.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the doors (access portals) to the vault and allow the system to vent.
4. Without entering the vault, give the inside of the unit, including components, a general condition inspection.
5. Make notes about the external and internal condition of the vault. Give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
6. Using appropriate equipment offload the replacement cartridges (up to 150 lbs. each) and set aside.
7. Remove used cartridges from the vault using one of the following methods:

Method 1:
A. This activity will require that workers enter the vault to remove the cartridges from the under drain manifold and place them under the vault opening for lifting (removal). Unscrew (counterclockwise rotations) each filter cartridge from the underdrain connector. Roll the loose cartridge, on edge, to a convenient spot beneath the vault access.
Using appropriate hoisting equipment, attach a cable from the boom, crane, or tripod to the loose cartridge. Contact CONTECH for suggested attachment devices.

Important: Cartridges containing leaf media (CSF) do not require unscrewing from their connectors. Do not damage the manifold connectors. They should remain installed in the manifold and can be capped during the maintenance activity to prevent sediments from entering the under drain manifold.

B. Remove the used cartridges (up to 250 lbs.) from the vault.

Important: Avoid damaging the cartridges during removal and installation.

C. Set the used cartridge aside or load onto the hauling truck.
D. Continue steps A through C until all cartridges have been removed.

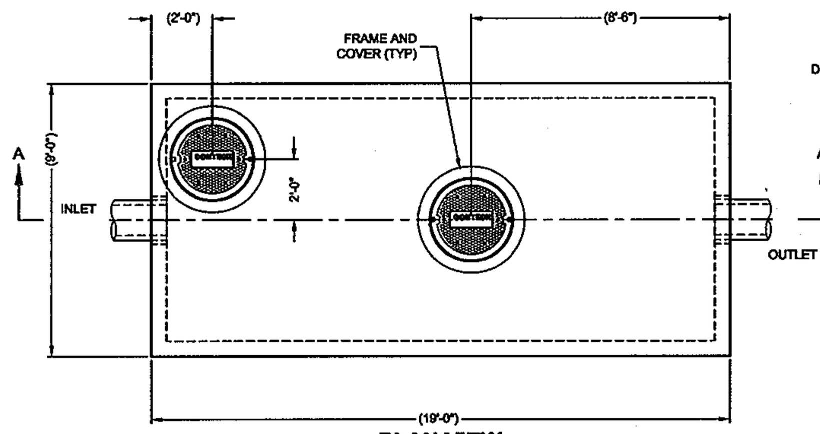
Method 2:
A. Enter the vault using appropriate confined space protocols.
B. Unscrew the cartridge cap.
C. Remove the cartridge hood screws (3) hood and float.
D. At location under structure access, tip the cartridge on its side.

Important: Note that cartridges containing media other than the leaf media require unscrewing from their threaded connectors. Take care not to damage the manifold connectors. This connector should remain installed in the manifold and capped if necessary.

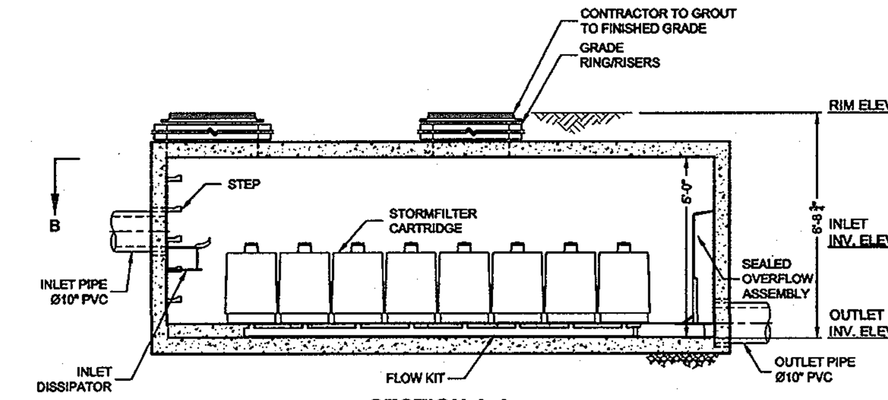
E. Empty the cartridge onto the vault floor. Reassemble the empty cartridge.
F. Set the empty, used cartridge aside or load onto the hauling truck.
G. Continue steps a through E until all cartridges have been removed.

8. Remove accumulated sediment from the floor of the vault and from the forebay. Use vacuum truck for highest effectiveness.
9. Once the sediments are removed, assess the condition of the vault and the connectors. The connectors are short sections of 2-inch schedule 40 PVC, or threaded schedule 80 PVC that should protrude about 1" above the floor of the vault. Lightly wash down the vault interior.
a. Replace any damaged connectors.
10. Using the vacuum truck boom, crane, or tripod, lower and install the new cartridges. Take care not to damage connections.
11. Close and fasten the door.
12. Remove safety equipment.
13. Finally, dispose of the accumulated materials in accordance with applicable regulations. Make arrangements to return the used empty cartridges to CONTECH.

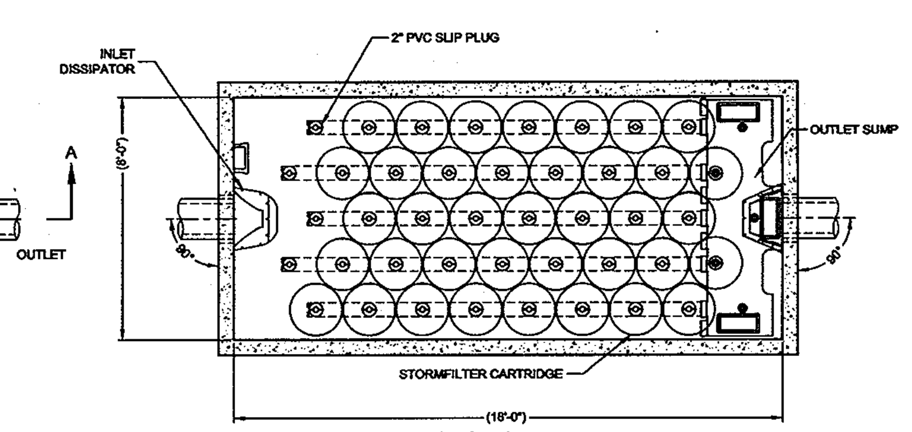
Material Disposal
The accumulated sediment must be handled and disposed of in accordance with regulatory protocols. It is possible for sediments to contain measurable concentrations of heavy metals and organic chemicals. Areas with the greatest potential for high pollutant loading include industrial areas and heavily traveled roads.
Sediments and water must be disposed of in accordance with applicable waste disposal regulations. Coordinate disposal of solids and liquids as part of your maintenance procedure. Contact the local public works department to inquire how they disposes of their street waste residuals.



PLAN VIEW



SECTION A-A



SECTION B-B
VAULT STYLE: 13A OUTLET SUMP (NIB)

MATERIAL LIST - PROVIDED BY CONTECH

COUNT	DESCRIPTION	INSTALLED BY
38	27", 22.5 GPM, CSF CARTRIDGE (GLD)	CONTECH
7	2" PVC SLIP PLUG	CONTECH
1	FLOW KIT	CONTECH
1	INLET DISSIPATOR	CONTECH
1	SEALED OVERFLOW ASSEMBLY	CONTECH
1	JOINT SEALANT (BY PRECASTER)	CONTRACTOR
2 PLCS	GRADE RINGS/RISERS	CONTRACTOR
2	Ø30" x 4" FRAME AND COVER	CONTRACTOR

SITE DESIGN DATA

WATER QUALITY FLOW RATE	1.90 CFS
PEAK FLOW RATE	TBD CFS
RETURN PERIOD OF PEAK FLOW	10 YRS
FILTER MEDIA TYPE	CSF

PERFORMANCE SPECIFICATION
FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 37 SECONDS.
SPECIFIC FLOW RATE SHALL BE 2 GPM/SF (MAXIMUM). SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA VOLUMETRIC FLOW RATE SHALL BE 6 GPM/CF OF MEDIA (MAXIMUM).

GENERAL NOTES
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4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.

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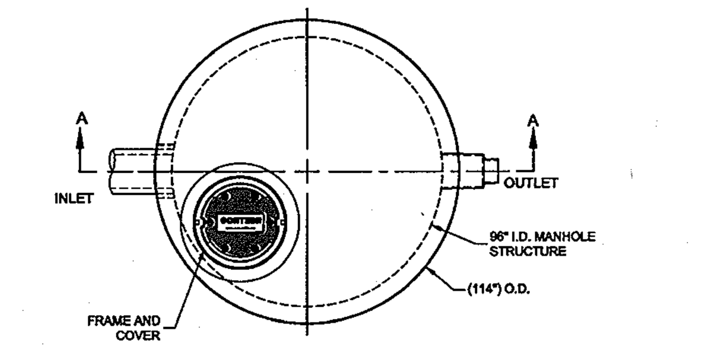
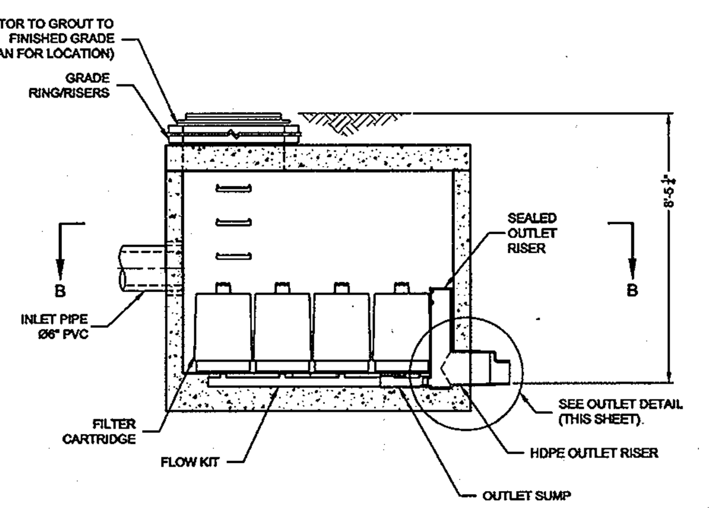
5. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

STRUCTURE WEIGHT
APPROXIMATE HEAVIEST PICK = T.B.D. LBS.

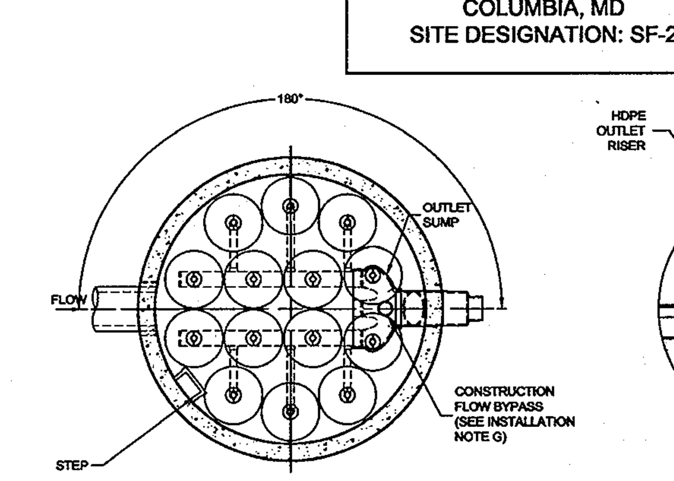
8' x 18' STORMFILTER - 482096-020
GATEWAY PEPSI
COLUMBIA, MD
SITE DESIGNATION: SF-2



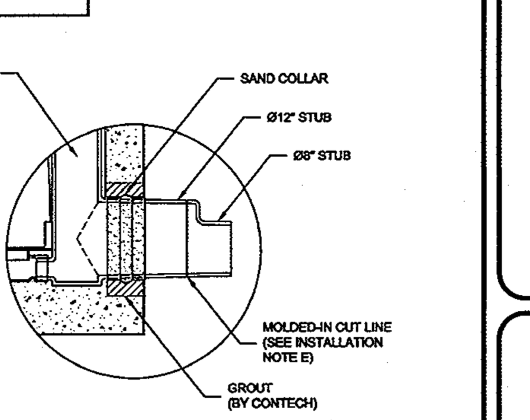
PLAN VIEW



SECTION A-A



SECTION B-B



OUTLET DETAIL

SEALED OUTLET RISER
FLOWKIT: 43A
MATERIAL LIST - PROVIDED BY CONTECH

COUNT	DESCRIPTION	INSTALLED BY
14	27", 22.5 GPM, CSF CARTRIDGE (GLD)	PRECASTER
0	2" PVC SLIP PLUG	PRECASTER
1	SEALED OUTLET RISER	PRECASTER
1	FLOW KIT	PRECASTER
1	JOINT SEALANT (BY PRECASTER)	CONTRACTOR
1 PLC	GRADE RINGS/RISERS	CONTRACTOR
1	Ø30" x 4" FRAME AND COVER	CONTRACTOR

SITE DESIGN DATA

WATER QUALITY FLOW RATE	0.69 CFS
PEAK FLOW RATE	0.69 CFS
RETURN PERIOD OF PEAK FLOW	10 YRS
FILTER MEDIA TYPE	CSF

PERFORMANCE SPECIFICATION
FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. **RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 37 SECONDS.**
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C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET PIPE(S).
E. CONTRACTOR TO PROVIDE AND INSTALL CONNECTOR TO THE OUTLET RISER STUB. STORMFILTER EQUIPPED WITH A DUAL DIAMETER HDPE OUTLET STUB AND SAND COLLAR. IF OUTLET PIPE IS LARGER THAN 8 INCHES, CONTRACTOR TO REMOVE THE 8 INCH OUTLET STUB AT MOLDED IN CUT LINE. COUPLING BY FERNCO OR EQUAL AND PROVIDED BY CONTRACTOR.
F. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
G. CONTRACTOR TO INSTALL SUPPLIED PLUG IN CONSTRUCTION FLOW BYPASS WHEN SYSTEM IS BROUGHT ON LINE (PRESSURE FIT ONLY, DO NOT GLUE).

STRUCTURE WEIGHT
APPROXIMATE HEAVIEST PICK = T.B.D. LBS.

Ø96" MANHOLE STORMFILTER - 482096-030
GATEWAY PEPSI
COLUMBIA, MD
SITE DESIGNATION: SF-3

OWNER/DEVELOPER
GATEWAY A-74 & A-76, LLC
C/O DELOITTE TAX LLP
P.O. BOX 11338
MCLEAN, VA. 22102
410-560-0300

STATE OF MARYLAND · JOHN THOMAS DIGATE · No. 21438 · PROFESSIONAL ENGINEER

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. 21438 EXPIRATION DATE: 12-16-2014
7/16/13
JOHN T. DIGATE PE No. 21438

DATE	REVISION	BY
06-04-13	MODIFY AND TRAILER DOCK AREA INCLUDING TO A BUILDING ADDITION AND EXISTING PARKING LOT IMPROVEMENTS	RHV

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CHA
270 Peachtree St. NW, Suite 1500 · Atlanta, GA 30303-1283
Main: (678) 954-5000 · www.chacompanies.com

PBC

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

Designed: DZ | Drawn: DZ/JER | Checked: RHV | Date: JUNE 25, 2013 | Project No.: 13-06 | Scale: AS SHOWN

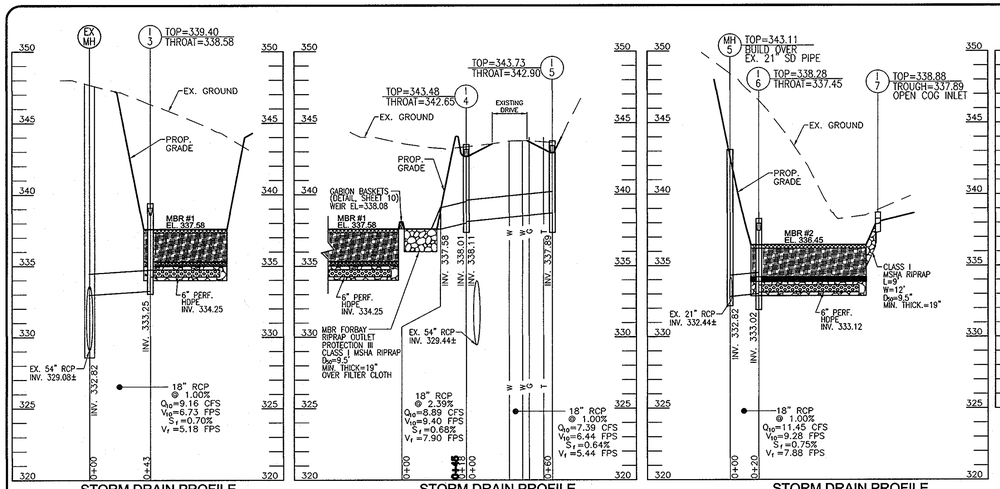
SITE DEVELOPMENT PLAN
PEPSI BEVERAGE COMPANY
GATEWAY COMMERCE CENTER
6751 ALEXANDER BELL DRIVE
BUILDING #2
PARCEL 513
PARCEL/LOT A-74
TAX MAP 42 BLOCK 6 · PARCEL 513, PARCEL/LOT A-74
6TH ELECTION DISTRICT · HOWARD COUNTY, MARYLAND

SWM DETAILS

13 SHEET OF 13

SDP-93-086

K:\Projects\13-06\ENGR\dwg\SDP\PEPSI-REDLINE\PEPSI-REDLINENEW_13-SWMDETAILS.dwg, 6/25/2013 11:17:25 AM



STORM DRAIN PROFILE
SCALE : HORIZONTAL – 1"=50'
VERTICAL – 1"=5'

STORM DRAIN PROFILE
SCALE : HORIZONTAL – 1"=50'
VERTICAL – 1"=5'

STORM DRAIN PROFILE
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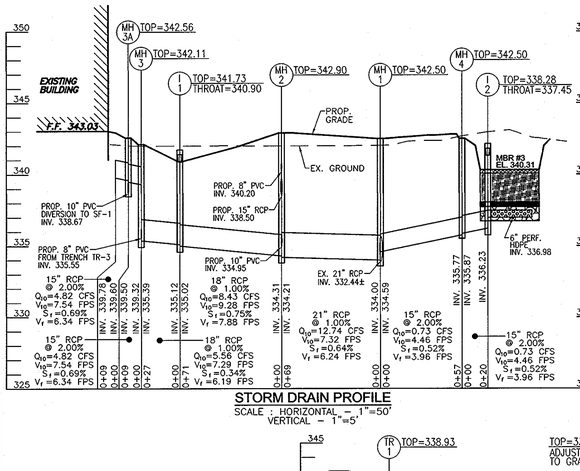
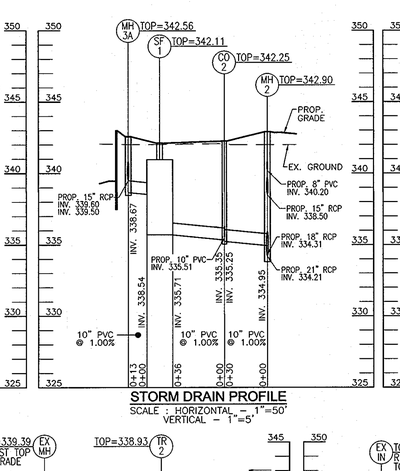
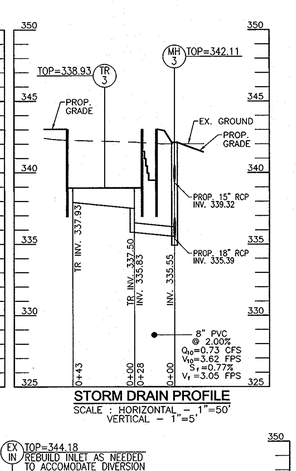


STORM DRAIN PROFILE
SCALE : HORIZONTAL – 1"=50'
VERTICAL – 1"=5'



STORM DRAIN PROFILE
SCALE : HORIZONTAL – 1"=50'
VERTICAL – 1"=5'



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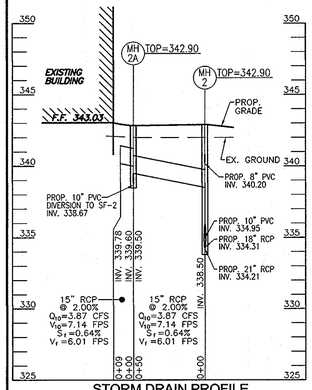
SCALE : HORIZONTAL – 1"=50'
VERTICAL – 1"=5'



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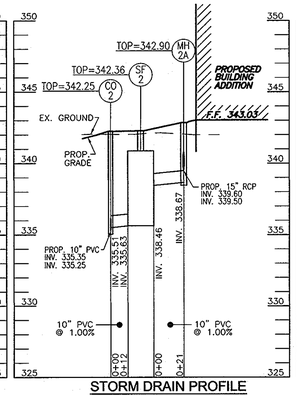
VERTICAL – 1"=5'



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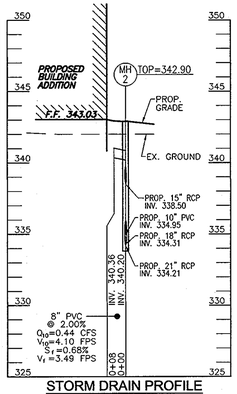
VERTICAL – 1"=5'



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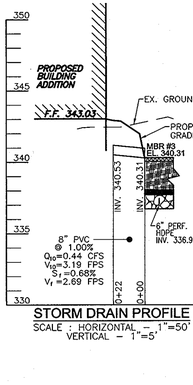
SCALE : HORIZONTAL – 1"=50'
VERTICAL – 1"=5'



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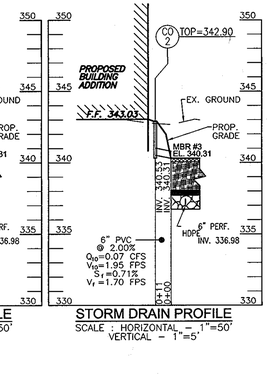
VERTICAL – 1"=5'



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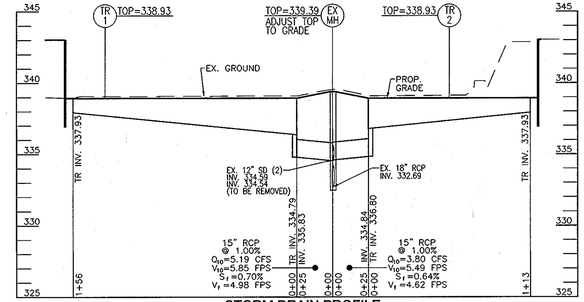
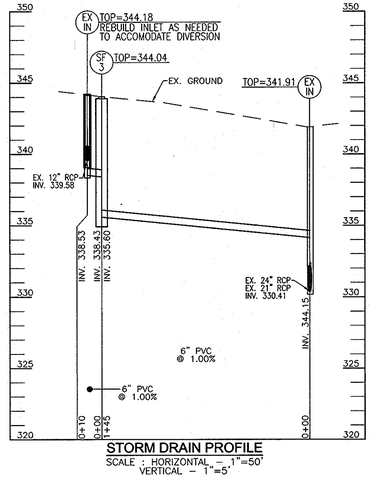
SCALE : HORIZONTAL – 1"=50'
VERTICAL – 1"=5'



STORM DRAIN PROFILE
SCALE : HORIZONTAL – 1"=50'
VERTICAL – 1"=5'



STORM DRAIN PROFILE
SCALE : HORIZONTAL – 1"=50'
VERTICAL – 1"=5'

CONTRACTOR TO TEST PIT ALL EXISTING UTILITY CROSSINGS AND TIE-INS PRIOR TO CONSTRUCTION

SECURITY FENCE DETAIL
NOT TO SCALE

TRAILER PARKING AREA
COMBINATION CURB AND GUTTER
NOT TO SCALE

GABION BASKET WEIR DETAIL
MBR #1
NOT TO SCALE

NOTES:
1. ALL WIRE USED IN GABION CONSTRUCTION SHALL BE GALVANIZED AND PLASTIC COATED.
2. FILTER CLOTH SHALL BE PLACED WHEREVER GABIONS COME INTO CONTACT WITH SOIL.
3. STONE FILL SHALL CONSIST OF HARD, DURABLE, CLEAN STONE 4"–8" IN DIAMETER.
4. CONSTRUCTION MATERIALS AND METHODS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
5. RIP–RAP TO BE PLACED BELOW GABION WEIR TO BOTTOM OF FOREBAY, AND TO PERM. POOL ELEVATION.

CANTIEVER GATE DETAIL
NOT TO SCALE

GATE POST SETTING WITH WIRE
NOT TO SCALE

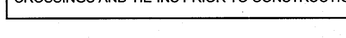
EXTERIOR TURNSTILE/GATE OPERATION

SMALL GUARDHOUSE
NOT TO SCALE

PORTA-KING BUILDING SYSTEMS
4133 SHORELINE DRIVE EARTH CITY, MISSOURI 63045
1-800-458-5464 FAX 314-291-2857 www.portaking.com
TITLE: DURALUMINUM MODEL 7648SL

PORTA-KING BUILDING SYSTEMS
4133 SHORELINE DRIVE EARTH CITY, MISSOURI 63045
1-800-458-5464 FAX 314-291-2857 www.portaking.com
TITLE: DURALUMINUM MODEL 12096SL

LARGE GUARDHOUSE
NOT TO SCALE



NOTE: MODIFIED COMBINATION CURB AND GUTTER

1. A MINIMUM OF TWO (2) FEET OF COMPACTED STABILIZED EARTH, OR EQUIVALENT, SHALL SUPPORT THE ENTIRE BACK OF CURB.
2. POSITIVE DRAINAGE SHALL BE PROVIDED BOTH BEHIND THE CURB AND ALONG THE GUTTER AND FLOW LINE.

Howard County, Maryland Department of Public Works	CURB AND GUTTER 7' & Modified	Detail R-3.01
Director		
Chief, Bureau of Engineering		

PIPE SCHEDULE		
SIZE	TYPE	LENGTH
4"	SEWER	402 LF
4"	PVC	176 LF
6"	PVC	176 LF
6"	HDPE (PERF)	606 LF
8"	SEWER	34 LF
8"	PVC	58 LF
10"	PVC	122 LF
15"	RCP	207 LF
18"	RCP	266 LF
21"	RCP	69 LF

STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	THROAT	TOP EL.	INV.IN	INV.OUT	COMMENTS
I–1	TYPE 'D' INLET	N 491250.53E 853578.16	340.90	341.73	335.12	335.02	HO. CO. STD D–4.10
I–2	TYPE 'D' INLET	N 491419.92E 853702.77	337.45	338.28	336.98	336.23	HO. CO. STD D–4.10
I–3	TYPE 'D' INLET	N 491404.70E 852895.66	338.58	339.04	334.25	333.25	HO. CO. STD D–4.10
I–4	TYPE 'D' INLET	N 491504.02E 852951.27	342.85	343.48	338.11	338.01	HO. CO. STD D–4.10
I–5	TYPE 'D' INLET	N 491538.19E 852901.89	342.90	343.73	–	337.89	HO. CO. STD D–4.10
I–6	TYPE 'D' INLET	N 491262.39E 853158.05	337.48	338.28	–	333.02	HO. CO. STD D–4.10
I–7	10' X 3' OPEN COG INLET	N 491343.35E 853152.50	337.89	338.88	–	–	MD 374.66
MH–1	4'–0" STANDARD PRECAST MANHOLE	N 491355.60E 853688.95		342.50	334.59	334.09	HO. CO. STD G–5.11
MH–2	4'–0" STANDARD PRECAST MANHOLE	N 491289.21E 853629.44		342.90	334.31	334.21	HO. CO. STD G–5.11
MH–2A	4'–0" STANDARD PRECAST MANHOLE	N 491327.69E 853588.79		342.90	–	338.67	HO. CO. STD G–5.11
MH–3	4'–0" STANDARD PRECAST MANHOLE	N 491262.87E 853554.38		342.11	339.32	335.39	HO. CO. STD G–5.11
MH–3A	4'–0" STANDARD PRECAST MANHOLE	N 491267.06E 853546.31		342.56	339.60	339.50	HO. CO. STD G–5.11
MH–4	4'–0" STANDARD PRECAST MANHOLE	N 491401.97E 853701.39		342.50	335.87	335.77	HO. CO. STD G–5.11
MH–5	4'–0" STANDARD PRECAST MANHOLE	N 491243.82E 853163.33		343.11	332.82	332.44	HO. CO. STD G–5.11
CO–1	CLEAN OUT	N 491426.55E 853668.75		342.90	–	340.53	HO. CO. STD S–2.22
CO–2	CLEAN OUT	N 491290.57E 853600.86		342.25	339.91 / 339.78	339.78	HO. CO. STD S–2.22
SF–1	CONTECH 8' X 18' STORMFILTER	N 491271.96E 853561.51		342.11	338.11	335.71	SEE SHEET 11
SF–2	CONTECH 8' X 18' STORMFILTER	N 491305.47E 853588.82		342.36	338.46	335.63	SEE SHEET 11
SF–3	CONTECH STORMFILTER – SFMH96	N 491138.31E 853742.56		344.04	338.43	335.60	SEE SHEET 11

NOTE: 1. TOP ELEVATIONS ARE AT TOP OF CURB FOR ALL TYPE 'A' INLETS. INLETS AT CENTER TOP OF GRATE FOR DOUBLE TYPE 'S' INLETS AND TOP OF MANHOLE COVER FOR PRECAST MANHOLES.
2. FOR TOP SLAB SLOPES SEE GRADING PLAN.

PEDESTAL CARD READER
(TRUCK HIEGHT)
NOT TO SCALE

Rockford Sanitary Systems, Inc.	MODEL NO.	QS-5636
1900 SOUTH 23rd STREET ROCKFORD, IL 61104-0000 (815) 226-3077 or (800) 451-5081 FAX (815) 226-3166 WEB SITE- www.rockfordsanitarysystems.com E MAIL- rsssales@rockfordsanitarysystems.com	OIL/WATER SEPARATOR	

OWNER/DEVELOPER
GATEWAY A–74 & A–76, LLC
C/O DELOITTE TAX LLP
P.O. BOX 11338
MCLEAN, VA. 22102
410–560–0300

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. 21438, EXPIRATION DATE: 12-16-2014

7/16/13

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 7/16/13
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 7/31/13
DIRECTOR	DATE 7/31/13

BY	DATE	REVISION
RHV	06-04-13	MODIFY AND REVISE MISC. NOTES TO A BUILDING ADDITION AND EXISTING PARKING LOT IMPROVEMENTS

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8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

Designed: DZ Drawn: DZ/ERH Checked: RHV Dates: JUNE 25, 2013 Project No.: 13-06 Scale: AS SHOWN
Contract No.: 13-06

SITE DEVELOPMENT PLAN
PEPSI BEVERAGE COMPANY
GATEWAY COMMERCE CENTER
6751 ALEXANDER BELL DRIVE
BUILDING #2
PARCEL 511, PARCEL A-74
TAX MAP 42 BLOCK 6 PARCEL/LOT A-74
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

UTILITY PROFILES AND SITE DETAILS

12 SHEET OF 13

SDP-93-086

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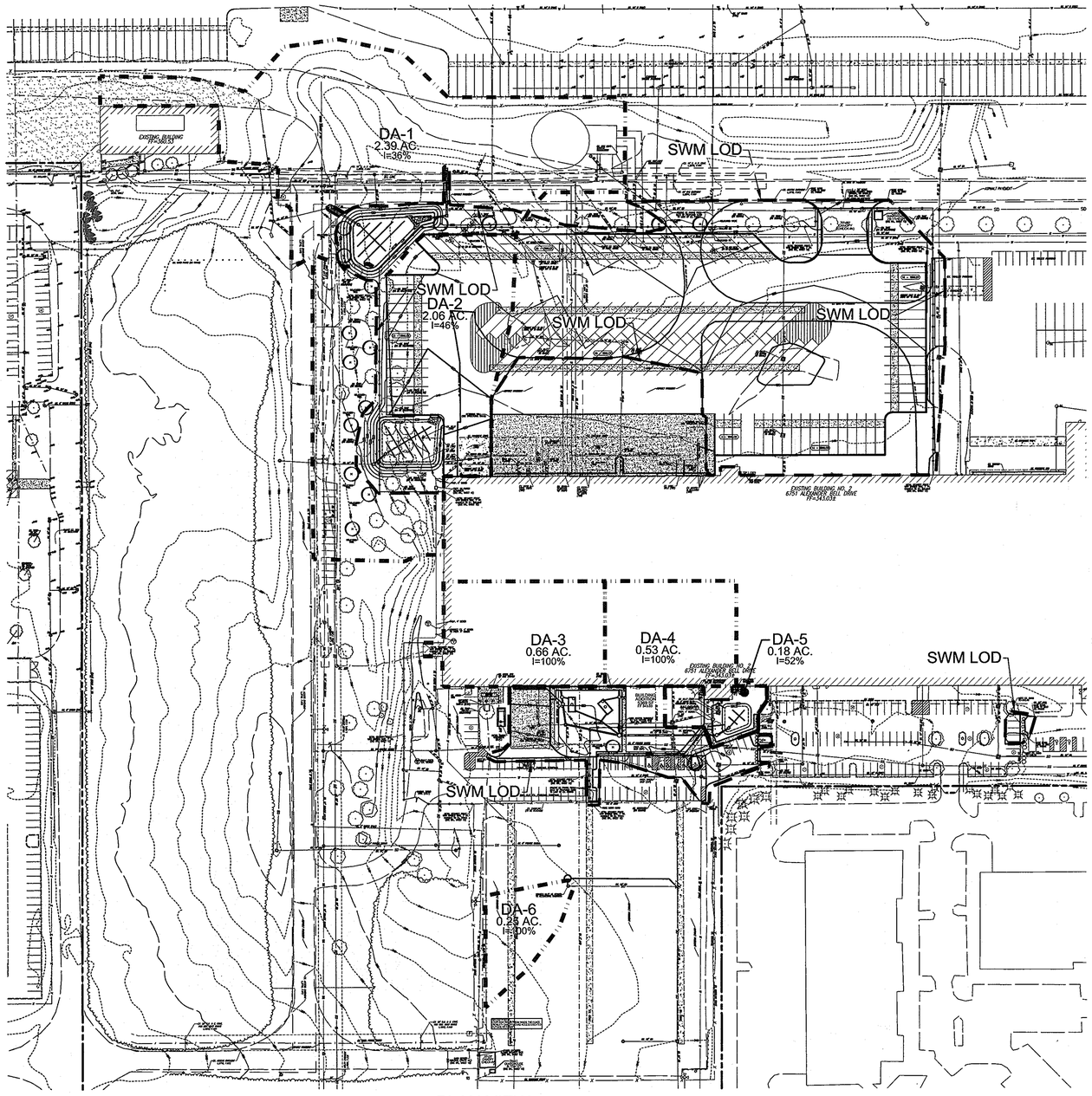
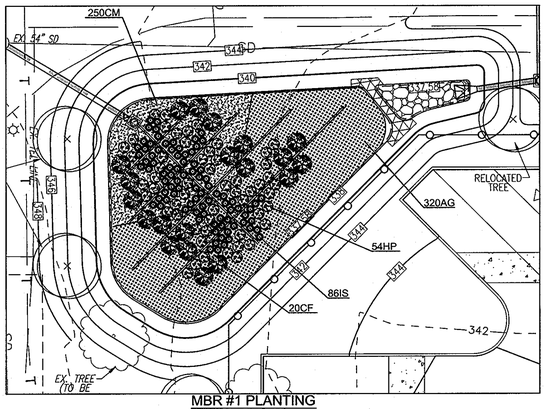
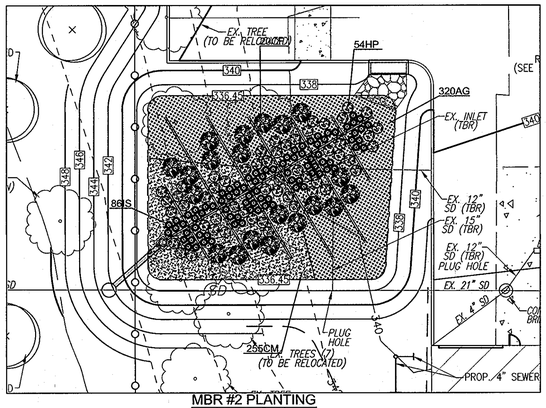


PLAN VIEW
SCALE: 1"=80'



MBR #1 PLANTING
SCALE: 1"=20'



MBR #2 PLANTING
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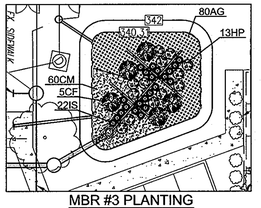
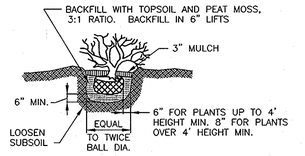
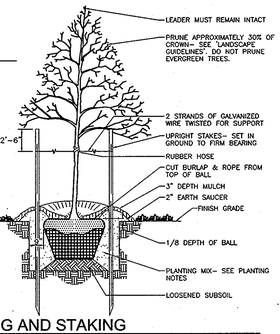


MBR #3 PLANTING
SCALE: 1"=20'



SHRUB PLANTING DETAIL
NOT TO SCALE

NOTES
1. SEE "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS" FOR ALL MATERIAL, PRODUCT, AND PROCEDURE SPECIFICATIONS.
2. SEE "LANDSCAPE GUIDELINES" FOR SUPPORTING TREES LARGER THAN 2-1/2" CALIPER.
3. PLACE UPRIGHT STAKES PARALLEL TO WALKS & BUILDINGS.
4. KEEP MULCH 1" FROM TRUNK
5. SEE ARCHITECTURAL PLANS FOR ADDITIONAL PLANTINGS WHICH EXCEED HOWARD COUNTY MINIMUM REQUIREMENTS.
6. TREES ARE NOT TO BE PLANTED OVER PRIVATE SEWAGE EASEMENT.



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

LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- +02.68 PROPOSED SPOT ELEVATION
- +02.68 EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- S EXISTING SANITARY LINE
- CO EXISTING CLEANOUT
- FH EXISTING FIRE HYDRANT
- W EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- M1B2 / M1D3 SOILS BOUNDARY
- PROPOSED SIDEWALK
- SWM DRAINAGE AREA

SOILS LEGEND		
SYMBOL	NAME / DESCRIPTION	GROUP
UfA	URBAN LAND-FALLSINGTON COMPLEX, 0 TO 2 PERCENT SLOPES	D
UfD	URBAN LAND-UDORTHENTS COMPLEX, 0 TO 15 PERCENT SLOPES	D

NOTE: BASED ON HOWARD SOIL SURVEY

SCALE 1"=80'
40' 0' 80'

SCHEDULE D : STORMWATER MANAGEMENT AREA LANDSCAPING	
LINEAR FEET OF PERIMETER	576 LF (TOTAL ALL MICRO-BIORETENTIONS)
CREDIT FOR EXISTING VEGETATION (NO, YES AND LINEAR FEET)	NO
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	YES, 100%*
NUMBER OF TREES REQUIRED SHADE TREES EVERGREEN TREES	(0 BUFFER) 0 SHADE TREES 0 EVERGREEN TREES
NUMBER OF TREES PROVIDED SHADE TREES EVERGREEN TREES	SEE BIORETENTION PLANT LIST*

*SURETY FOR BIORETENTION PROVIDED IN THE DED COST ESTIMATE

BIORETENTION PLANTING REQUIREMENTS			
MBR	AREA	STEMS REQUIRED	STEMS PROVIDED
1	3462 SF	79	160
2	3475 SF	80	160
5	859 SF	20	40

BIORETENTION AREAS ARE TO BE PLANTED BASED ON A MINIMUM DENSITY OF 1000 STEMS PER PLANTED ACRE (.0229 STEMS PER SQUARE FOOT).

BIORETENTION PLANTING SCHEDULE				
KEY	QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
RS	194	RIS SIBERICA 'BIGHEROP BLUE' / BIGHEROP BLUE SIBERIAN	1 GALLON	18" O.C.
PVP	121	HEMEROCALLIS X 'PRAIRIE BLUE EYES' / PRAIRIE BLUE EYES DAYLILY	1 GALLON	30" O.C.
CF	45	CORNUS SERICEA 'FLAVIRAMEA' / YELLOW TWIGGED DOGWOOD	4' HT	SPECIMEN QUALITY STRAIGHT LEADER
CM	585	CALAMAGROSTIS ARUNDINACEA / LAVENDER MIST GRASS	1 GT.	12" O.C.
AV	700	ACORUS CALAMUS 'OGON' / GOLDEN VARIEGATED SWEET FLAG	1 GT.	12" O.C.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 7/26/13
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 7/31/13
DIRECTOR — DATE 7/31/13

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.

SIGNATURE OF DEVELOPER — DATE 6/27/13

OWNER/DEVELOPER
GATEWAY A-74 & A-76, LLC
C/O DELOITTE TAX LLP
P.O. BOX 11338
MCLEAN, VA. 22102
410-560-0300

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. 21438 EXPIRATION DATE: 12-10-2014

STATE OF MARYLAND — JOHN THOMAS DIGATE — NO. 21438 — PROFESSIONAL ENGINEER

7/16/13
JOHN T. DIGATE Reg. No. 21438

REVISION	DATE	BY
REVISED F.S.D. TO REFLECT BUILDING ADDITION AND EXISTING PARKING LOT IMPROVEMENTS	06-04-15	RMV

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Designed: DZ | Drawn: DZ/JER | Checked: RMV | Date: JUNE 25, 2013 | Project No.: 13-08 | Scale: AS SHOWN

SITE DEVELOPMENT PLAN
PEPSI BEVERAGE COMPANY
GATEWAY COMMERCE CENTER
6751 ALEXANDER BELL DRIVE
BUILDING #2
LOT 2
PARCEL/LOT A-74
TAX MAP 42 BLOCK 6
6TH. ELECTION DISTRICT
PARCEL 513, PARCEL/LOT A-74
HOWARD COUNTY, MARYLAND

SWM DRAINAGE AREA MAP,
MICRO-BIORETENTION PLANTING

11 SHEET OF 13

SDP-93-086

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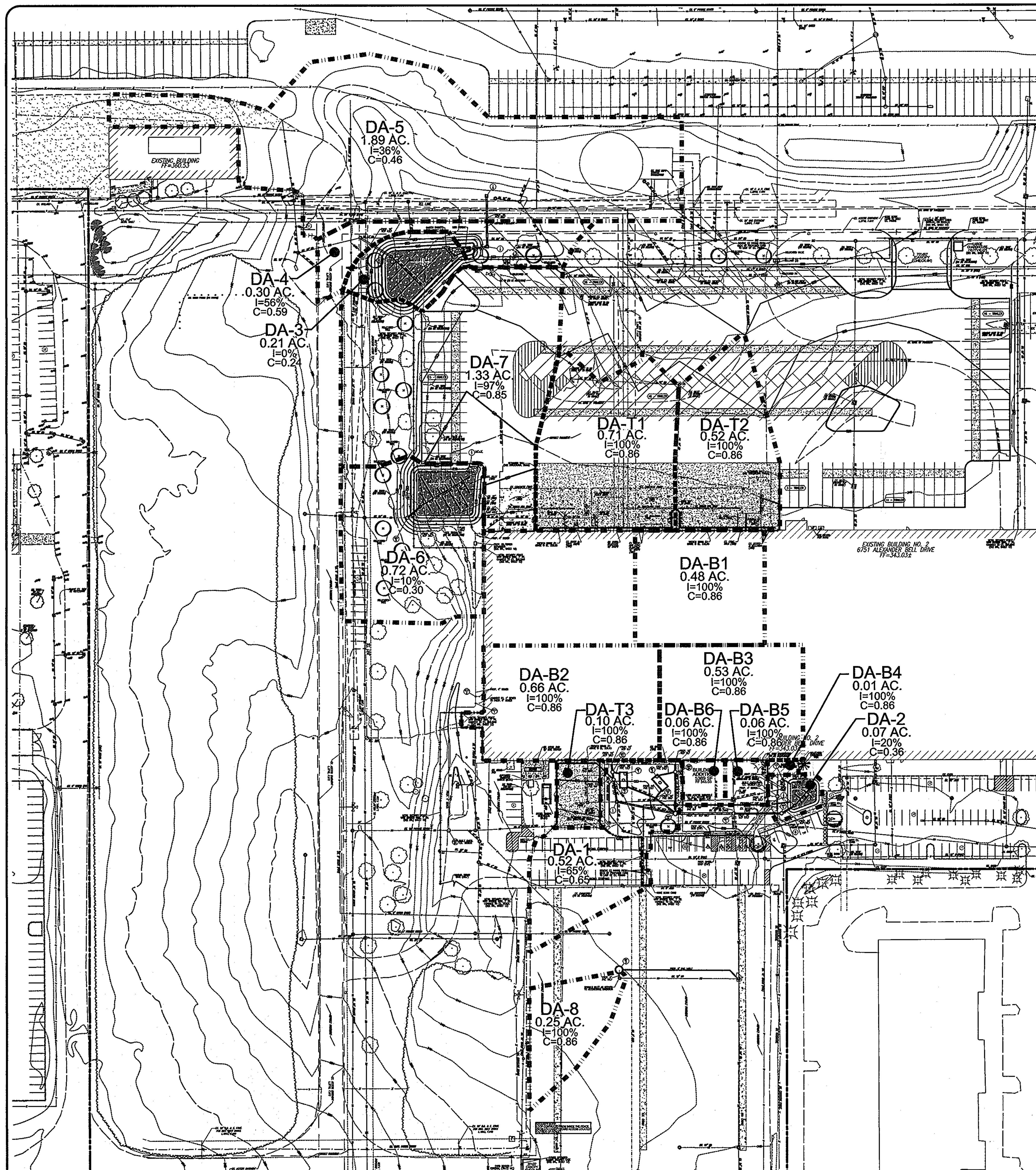


PLAN VIEW
SCALE: 1"=60'

LEGEND:

398	EXISTING CONTOUR	S	EXISTING SANITARY LINE
406	PROPOSED CONTOUR	CO	EXISTING CLEANOUT
+02.68	PROPOSED SPOT ELEVATION	FH	EXISTING FIRE HYDRANT
+02.68	EXISTING SPOT ELEVATION	W	EXISTING WATER LINE
	EXISTING CURB AND GUTTER		PROPOSED STORM DRAIN
	PROPOSED CURB AND GUTTER		PROPOSED STORM DRAIN INLET
	EXISTING UTILITY POLE		PROPERTY LINE
	EXISTING LIGHT POLE		RIGHT-OF-WAY LINE
	EXISTING MAILBOX	M1B2 / M1D3	SOILS BOUNDARY
	EXISTING SIGN		PROPOSED SIDEWALK
S	EXISTING SANITARY MANHOLE		SWM DRAINAGE AREA

TEMPORARY SEEDING SUMMARY

HARDINESS ZONE (FROM FIGURE B.3): ZONE 6b
SEED MIXTURE (FROM TABLE B.1):

NO	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	FELIZER RATE (10-20-20)	LIME RATE
1	COOL SEASON ANNUAL RYEGRASS OR EQUAL	40 LB / AC	MAR 1 TO MAY 15; AUG 1 TO OCT 15	0.5 IN.	436 LB/AC (10 LB PER 1000 SF)	2 TONS/AC (90 LB PER 1000 SF)
2	WARM SEASON FOXTAIL MILLET OR EQUAL	30 LB / AC	MAY 16 TO JUL 31	0.5 IN.		

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[signature] 7/26/13
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[signature] 7/31/13
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

for [signature] 7/31/13
DIRECTOR DATE

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPEMENT 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."

[signature] 6/27/13
SIGNATURE OF DEVELOPER DATE

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."

[signature] 7/16/13
SIGNATURE OF ENGINEER DATE

SCALE 1"=60'
30' 0' 60'

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

[signature] 7/23/13
HOWARD S.C.D. DATE

B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS

DEFINITION
THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

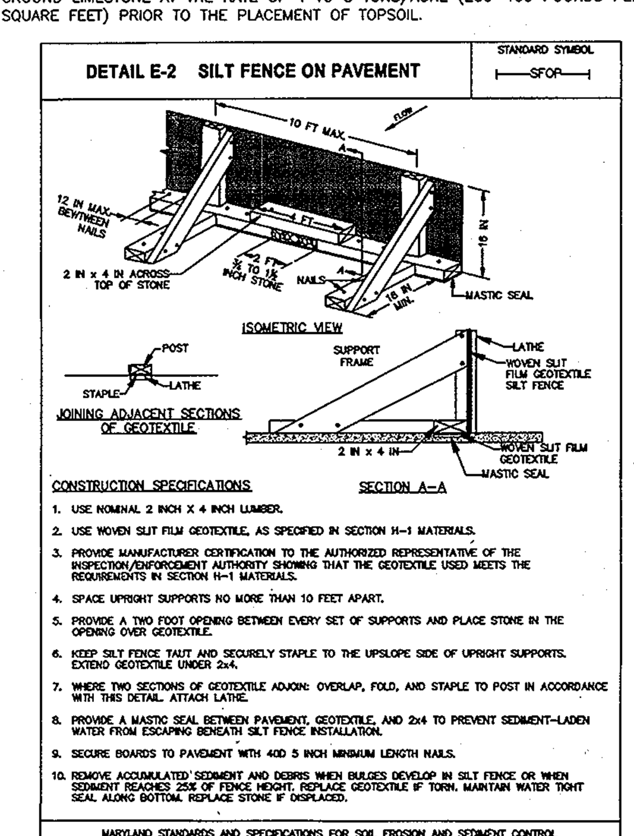
PURPOSE
TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

CONDITIONS WHERE PRACTICE APPLIES
WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

CRITERIA
A. SOIL PREPARATION
1. TEMPORARY STABILIZATION
A. SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISCHARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
B. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
C. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
2. PERMANENT STABILIZATION
A. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
I. SOIL PH BETWEEN 6.0 AND 7.0.
II. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).
III. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.
IV. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
V. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
B. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.
C. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.
D. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.
E. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAWN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION. TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRIABLE. SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.

B. TOPSOILING
1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCEM HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.
2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.
3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
B. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
C. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.
5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:
A. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1½ INCHES IN DIAMETER.
B. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
C. TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
6. TOPSOIL APPLICATION
A. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.
B. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
C. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.
2. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.
3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE. 4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
5. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.



B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

DEFINITION
TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS.

PURPOSE
TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.

CRITERIA
1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE 8.1 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE 8.1 PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN.
2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.
3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.A.1.B AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

DEFINITION
TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

PURPOSE
TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

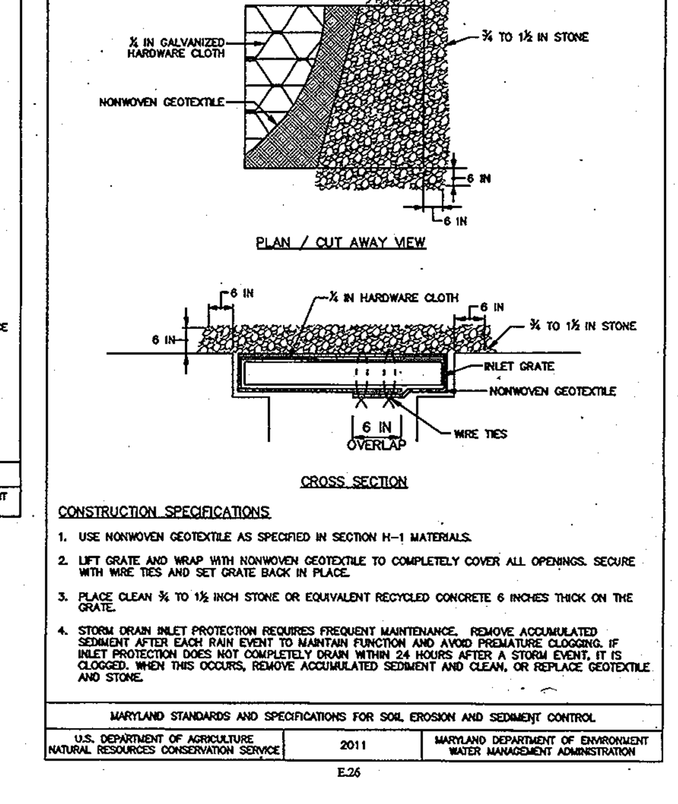
CRITERIA
A. SEED MIXTURES
1. GENERAL USE
A. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE 8.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE 8.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE 8.2. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
B. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DUNES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD OFFICE GUIDE, SECTION 342 - CRITICAL AREA PLANTING.
C. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY.
D. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3-1/2 POUNDS PER 1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.
2. TURFGRASS MIXTURES
A. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.
B. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
I. KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
II. KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. CERTIFIED PERENNIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
III. TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN DROUGHT PRONE AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES; CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT. SEEDING RATE: 5 TO 8 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.
IV. KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES; CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND 60 TO 70 PERCENT. SEEDING RATE: 1½ TO 3 POUNDS PER 1000 SQUARE FEET.
NOTES:
SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND".
CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE.
C. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES
WESTEM MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 5B, 6A)
CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 6B)
SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 7A, 7B)
D. TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONES AND DEBRIS OVER 1¼ INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY.
E. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (1/2 TO 1 INCH EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASONS, OR ON ADVERSE SITES.

PERMANENT SEEDING SUMMARY

HARDINESS ZONE (FROM FIGURE B.3): ZONE 6b
SEED MIXTURE (FROM TABLE B.3): 9

NO	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	FELIZER RATE (10-20-20) N	P_2O_5	K_2O	LIME RATE
1	COOL SEASON TALL FESCUE & KENTUCKY BLUEGRASS OR EQUAL	T.F. 60 LB / AC; K.B. 40 LB / AC	MAR 1 TO MAY 15; AUG 15 TO OCT 15	1/4-1/2 IN.	45 LB/AC (1 LB PER 1000 SF)	90 LB/AC (2 LB PER 1000 SF)	90 LB/AC (2 LB PER 1000 SF)	2 TONS/AC (90 LB PER 1000 SF)

B. SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).
1. GENERAL SPECIFICATIONS
A. CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD LABELS MUST BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR.
B. SOD MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4 INCH, PLUS OR MINUS ¼ INCH, AT THE TIME OF CUTTING. MEASUREMENT FOR THICKNESS MUST EXCLUDE TOP GROWTH AND THATCH. BROKEN PADS AND TOM OR UNEVEN ENDS WILL NOT BE ACCEPTABLE.
C. STANDARD SIZE SECTIONS OF SOD MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.
D. SOD MUST NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL.
E. SOD MUST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPLANTED WITHIN THIS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.
2. SOD INSTALLATION
A. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE THE SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
B. LAY THE FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO IT AND TIGHTLY WEDGED AGAINST EACH OTHER. STAGGER LATERAL JOINTS TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS.
C. WHEREVER POSSIBLE, LAY SOD WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERING JOINTS. ROLL AND TAMP, PEG OR OTHERWISE SECURE THE SOD TO PREVENT SLIPPAGE ON SLOPES. ENSURE SOLID CONTACT EXISTS BETWEEN SOD ROOTS AND THE UNDERLYING SOIL SURFACE.
D. WATER THE SOD IMMEDIATELY FOLLOWING ROLLING AND TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD WITHIN EIGHT HOURS.
3. SOD MAINTENANCE
A. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATER SOD DURING THE HEAT OF THE DAY TO PREVENT WILTING.
B. AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT.
C. DO NOT MOW UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LEAF MUST BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLESS OTHERWISE SPECIFIED.



B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

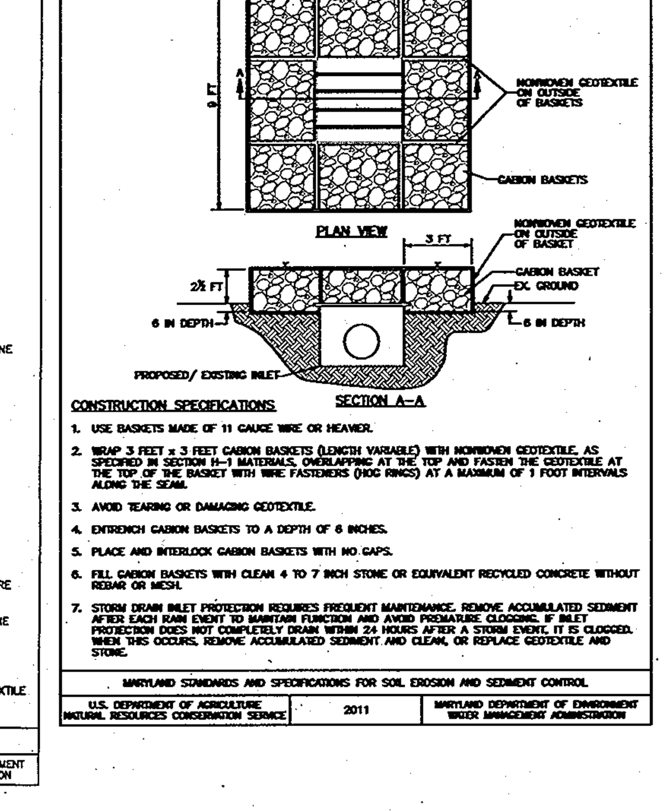
DEFINITION
THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

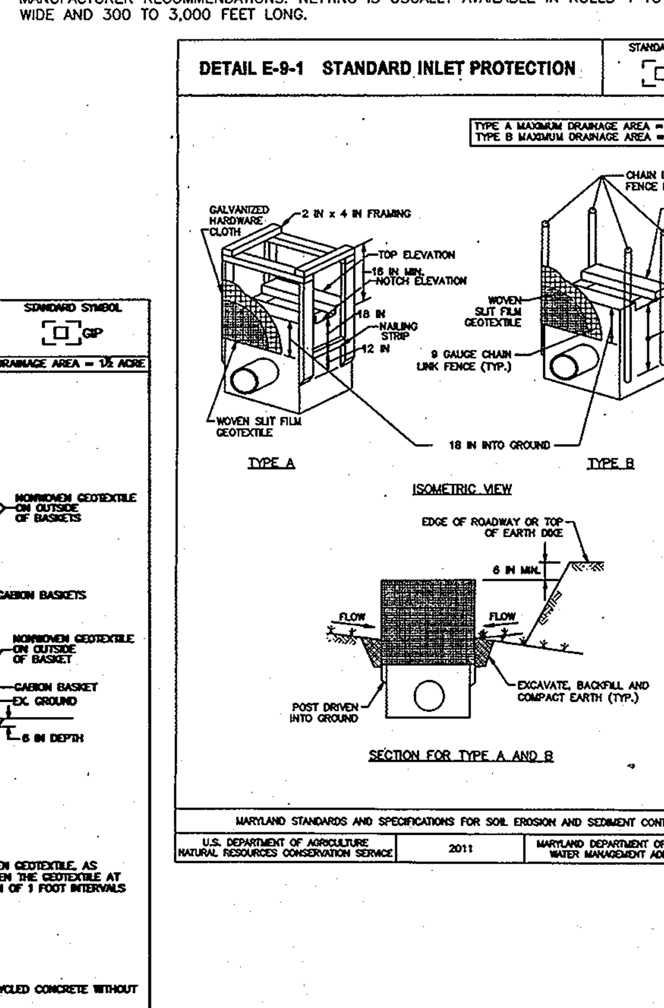
PURPOSE
TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.

CONDITIONS WHERE PRACTICE APPLIES
TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

CRITERIA
A. SEEDING
1. SPECIFICATIONS
A. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.
B. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS.
C. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.
D. SOD OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
2. APPLICATION
A. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
I. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE 8.1, PERMANENT SEEDING TABLE 8.3, OR SITE-SPECIFIC SEEDING SUMMARIES.
II. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.
B. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
I. CULTIPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING.
II. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
C. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).
I. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P205 (PHOSPHOROUS), 200 POUNDS PER ACRE; K20 (POTASSIUM), 200 POUNDS PER ACRE.
II. LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.
III. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.
IV. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

B. MULCHING
1. MULCH MATERIALS (IN ORDER OF PREFERENCE)
A. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, LYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY.
NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.
B. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
I. WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.
II. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
III. WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.
IV. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
V. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.
2. APPLICATION
A. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.
B. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.
C. WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
3. ANCHORING
A. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD:
I. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.
II. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
III. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70, PETROSET, TERRA TAX II, TERRA TACK AR OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.
IV. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.





SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP	HIGHLY ERODIBLE SOIL
UfA	URBAN LAND-FALLSINGTON COMPLEX, 0 TO 2 PERCENT SLOPES	D	NO
UtD	URBAN LAND-UDORTHENTS COMPLEX, 0 TO 15 PERCENT SLOPES	D	NO

NOTE: BASED ON HOWARD SOIL SURVEY

OWNER/DEVELOPER
GATEWAY A-74 & A-76, LLC
C/O DELOITTE TAX LLP
P.O. BOX 11338
MCLEAN, VA. 22102
410-560-0300

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. 21438 EXPIRATION DATE: 12-16-2014

STATE OF MARYLAND · JOHN THOMAS DIGATE · PROFESSIONAL ENGINEER · No. 21438

[signature] 7/16/13
JOHN T. DIGATE, PE No. 21438

DATE	REVISION	BY
06-04-13	MODIFY AND TRAILER DOCK AREA INCLUDING TO A BUILDING ADDITION AND EXISTING PARKING LOT IMPROVEMENTS	RHV

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PBC

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ENGINEERS · SURVEYORS · PLANNERS
8407 MAIN STREET
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TEL: 410.461.7666
FAX: 410.461.8961

Designed: DZ | Drawn: DZ/JER | Checked: RHV | Date: JUNE 25, 2013 | Project No.: 13-06 | Scale: AS SHOWN

SITE DEVELOPMENT PLAN
PEPSI BEVERAGE COMPANY
GATEWAY COMMERCE CENTER
6751 ALEXANDER BELL DRIVE
BUILDING #2
PARCEL 513
PARCEL/LOT A-74
TAX MAP 42 BLOCK 6 PARCEL 513, PARCEL/LOT A-74
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STORM DRAIN DRAINAGE AREA MAP

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MATCHLINE - SHEET 8

CONTRACTOR TO TEST PIT ALL EXISTING UTILITY CROSSINGS AND TIE-INS PRIOR TO CONSTRUCTION

EXISTING BUILDING NO. 2
6751 ALEXANDER BELL DRIVE
FF=343.03±

BUILDING ADDITION
5369 SF
FF 343.03

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING	
NUMBER OF PROPOSED PARKING SPACES	20
NUMBER OF TREES REQUIRED	1
NUMBER OF TREES PROVIDED	
SHADE TREES	2
OTHER TREES (2:1 SUBSTITUTION)	—

LANDSCAPE SCHEDULE				
KEY	QUAN.	BOTANICAL NAME	SIZE	CAT
QP	2	QUERCUS PALUSTRIS PIN OAK	2.5" CAL	B & B

LANDSCAPE NOTES:

1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
2. AT THE TIME OF PLANT INSTALLATION, ALL TREES SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL.
3. THE OWNER, TENANTS AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
4. THERE WILL BE A 1-YEAR SURVIVAL GUARANTEE FOR NEWLY INSTALLED LANDSCAPING.
5. ANY EXISTING TREES SCHEDULED TO BE RELOCATED OR TO REMAIN IN PLACE DURING CONSTRUCTION THAT BECOME DAMAGED OR ARE REMOVED, WILL BE REPLACED BY A SPECIMEN OF THE SAME SPECIES AND SIZE, AT THE CONTRACTOR'S EXPENSE.
6. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
7. FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS

SECURITY NOTE:
CARD CONTROLLED FROM INSIDE THE FENCE (BENEATH CANOPY). CARD ACCESS LOCATED OUTSIDE OF FENCE

PLAN VIEW
SCALE: 1"=30'

PRECAST CONCRETE WHEEL STOP DETAILS
NOT TO SCALE

HANDICAP PARKING SIGNS
(NOT TO SCALE)

PARKING RESTRICTION SIGN FOR HANDICAPPED PARKING
NOT TO SCALE

PARKING RESTRICTION SIGN FOR VAN HANDICAPPED PARKING
NOT TO SCALE

MOUNTING DETAIL FOR PARKING RESTRICTION SIGN
NOT TO SCALE

LEGEND:

EXISTING CONTOUR
PROPOSED CONTOUR
PROPOSED SPOT ELEVATION
EXISTING SPOT ELEVATION
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
PROPOSED STORM DRAIN
PROPOSED STORM DRAIN INLET
PROPERTY LINE
RIGHT-OF-WAY LINE
SOILS BOUNDARY
PROPOSED SIDEWALK
SILT FENCE
LIMIT OF DISTURBANCE FOR CONSTRUCTION/IMPROVEMENTS
AT GRADE INLET PROTECTION

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 7/26/13
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 7/31/13
DIRECTOR — DATE 7/31/13

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPEMENT 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."

SIGNATURE OF DEVELOPER — DATE 6/27/13

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."

SIGNATURE OF ENGINEER — DATE 7/16/13

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD S.C.D. — DATE 7/23/13

OWNER/DEVELOPER
GATEWAY A-74 & A-76, LLC
C/O DELOITTE TAX LLP
P.O. BOX 11338
MCLEAN, VA. 22102
410-560-0300

PROFESSIONAL CERTIFICATE
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. 21438, EXPIRATION DATE 12-16-2014

JOHN T. REGATE PE. No. 21438 — 7/16/13

BY	DATE	REVISION
RHV	04-04-13	ADDED PLAN VIEW AND LANDSCAPING TO A BUILDING ADDITION AND SOME MINOR CHANGES

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PBC

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Designed: DZ	Drawn: DZ/ER	Checked: RHV	Date: JUNE 25, 2013	Project No.: 13-06	Scale: AS SHOWN

SITE DEVELOPMENT PLAN
PEPSI BEVERAGE COMPANY
GATEWAY COMMERCE CENTER
6751 ALEXANDER BELL DRIVE
BUILDING #2
ELECTION DISTRICT 6TH
TAX MAP 42 BLOCK 6 PARCEL 613, PARCEL LOT A-74
PARCEL/LOT A-74
COLUMBIA HOWARD COUNTY MARYLAND

BUILDING ADDITION AND PARKING LOT IMPROVEMENTS

SHEET 9 OF 13

SDP-93-086

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