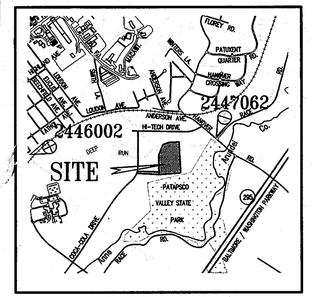
SITE DEVELOPMENT PLAN
PARKSIDE
WAREHOUSE CONDOMINIUMS
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

DATE	NO	REVISION
07-28-04	3	REVISED ARCHITECTURE FOR BUILDING NO.1. REVISED SQUARE FOOTAGE CALCULATIONS ON THE MEZZANINE'S CHART. REVISED PARKING REQUIREMENT IN AREA TABULATION CHART. CORRECTED SCRIBNER'S ERROR IN TOTAL PARKING REQUIRED



VICINITY MAP
SCALE: 1"=2000

DATE	NO.	REVISION
3/21/07	7	REVISE UNIT 214 MEZZANINE CHART & PARKING
10/27/09	8	REVISE CHARTS & TABS FOR UNITS 106-108, 214
8/8/12	9	REVISE CHARTS & TABULATIONS, ADD NOTES 37-39

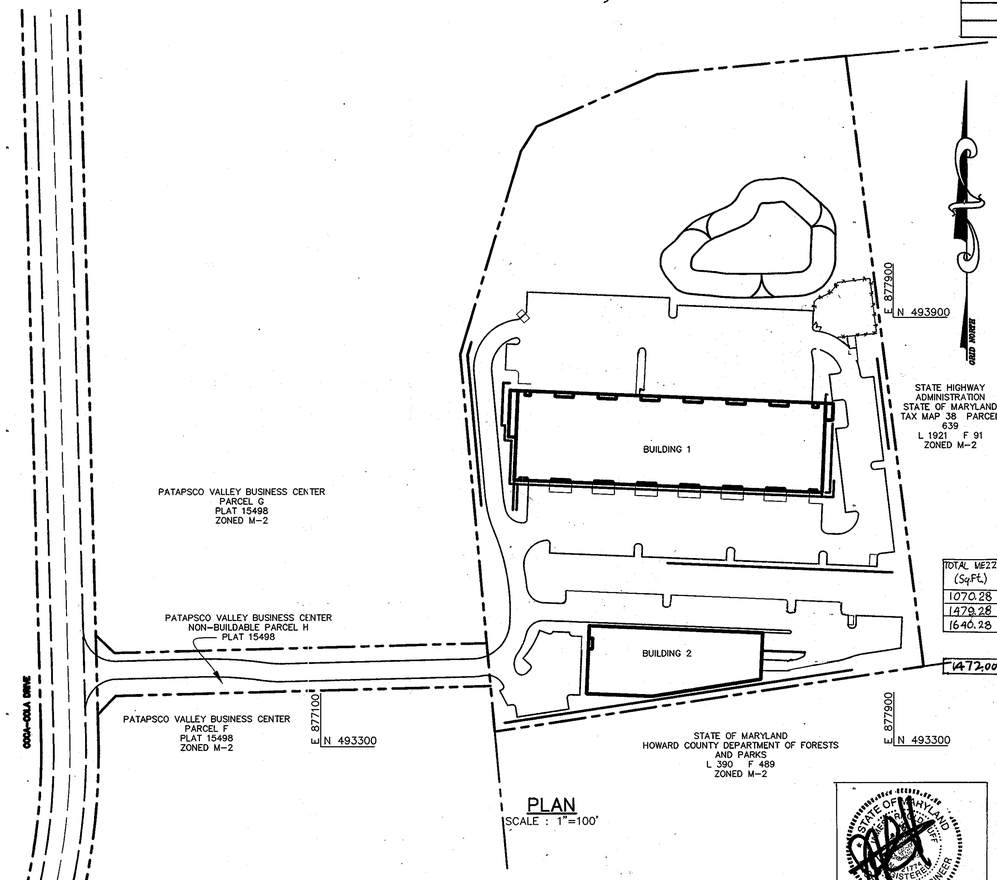
DATE	NO.	REVISION
1/22/07	6	REVISED UNIT 114 MEZZ CHART & REQ'D PARKING.
10/17/06	5	REVISED UNITS 109,110,111 MEZZANINE CHART. BUILDING 1 AREA & SPACES.
9/11/06	4	REVISED UNITS 205 & 206 MEZZANINE CHART

SHEET INDEX

NO	DESCRIPTION
1	TITLE SHEET
2	SITE DEVELOPMENT PLAN
3	GRADING AND SEDIMENT CONTROL PLAN AND DRAINAGE AREA MAP
4	SEDIMENT CONTROL DETAILS
5	DETAILS
6	PROFILES
7	PROFILES
8	LANDSCAPE PLAN
9	LANDSCAPE NOTES AND DETAILS
10	RETAINING WALL CONSTRUCTION DETAILS
11	RETAINING WALL CONSTRUCTION DETAILS
12	MAINTENANCE OF TRAFFIC PLAN
~~13~~	~~BUILDING #1 RETAINING WALL LOCATION PLAN~~
14	BUILDING #1 RETAINING WALL 'A' ELEVATION
15	BUILDING #1 RETAINING WALL DETAILS
16	BUILDING #1 RETAINING WALL 'B' & 'C' ELEVATIONS

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 ENGINEERING/ CONSTRUCTION INSPECTION DIVISION 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 BEING DONE.
4. 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.
5. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
6. THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS AS THE MASS GRADES FROM SDP-04-023 BY FREDERICK WARD AND ASSOCIATES, INC.
7. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 38D5 AND 38D6 WERE USED FOR THIS PROJECT.
8. WATER IS PUBLIC. CONTRACT NO. 14-4277-D
9. SEWER IS PUBLIC. CONTRACT NO. 14-4277-D
10. THE STORMWATER MANAGEMENT WQV AND CPV IS PROVIDED FOR THE DEVELOPMENT BY PRIVATELY OWNED AND MAINTAINED POCKET POND UNDER SDP-04-023. Rev IS MET THRU ON-SITE GRASS CHANNEL CREDIT.
11. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
12. A 100- YEAR FLOODPLAIN STUDY FOR THIS PROJECT IS BASED ON DEERPUN FLOODPLAIN STUDY AND WAS SHOWN UNDER SDP-04-023. FLOODPLAIN LIMITS SHOWN INDICATE THAT ALL BUILDINGS ARE A MINIMUM OF 15 FEET ABOVE WSEL.
13. WETLAND LOCATIONS FOR THIS PROJECT WERE TAKEN FROM SDP-04-023 AS DELINEATED BY ECO-SCIENCE PROFESSIONALS, DATED JULY 29, 2003.
14. A TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP DATED JAN. 2005.
15. A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
16. THE BOUNDARY SURVEY FOR THIS PROJECT IS BASED ON FREDERICK WARD ASSOCIATES, INC. PLANS.
17. SUBJECT PROPERTY ZONED M-2 PER 02-02-04 COMPREHENSIVE ZONING PLAN.
18. ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
19. SEE DEPARTMENT OF PLANNING AND ZONING FILE NO'S. F-94-24, F-02-164, SDP-04-023. F-05-167
20. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
21. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
22. PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
23. NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE
24. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
25. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
26. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
27. ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T180.
28. THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION REGULATIONS AND THE AMENDED ZONING REGULATIONS.
29. ALL OUTDOOR LIGHTING SHALL COMPLY WITH THE REQUIREMENTS OF ZONING SECTION 134.
30. THE FOREST CONSERVATION OBLIGATION OF 4.73 AC. FOR THIS PLAN HAS BEEN SATISFIED UNDER SDP-04-023 THROUGH A FEE-IN-LIEU PAYMENT OF $103,019.50.
31. NO REMOVAL OF VEGETATIVE COVER, GRADING, DISTURBANCE OR CONSTRUCTION IS PERMITTED WITHIN THE WETLANDS, WETLANDS BUFFERS, STREAM BUFFERS, FLOODPLAINS WITHOUT A PERMIT and Ho.Co. DPZ approval.
32. THE MINIMUM SPACING BETWEEN TREES AND STREET LIGHTS IS 20'.
33. SIGN POSTS: ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GA.) INSERTED INTO A 2 1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GA.) - 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
34. A DESIGN MANUAL WAIVER TO THE INTERSECTION SIGHT DISTANCE REQUIREMENTS OF DESIGN MANUAL VOLUME III WAS APPROVED BY DEVELOPMENT ENGINEERING DIVISION MAY 5, 2004, BECAUSE ADEQUATE STOPPING SIGHT DISTANCE WAS AVAILABLE.
35. WP-05-61 IS A WAIVER TO SECTION 16.156(k) TO REACTIVATE SDP-04-123 AND GRANT A 180 DAY EXTENSION TO COMPLETE DEVELOPER'S AGREEMENT AND SUBMIT THE PLAN FOR SIGNATURE BY 6/3/05. THE WAIVER WAS APPROVED ON 1/6/05.
36. A WAIVER TO ALLOW RETAINING WALL # 2 TO BE BETWEEN 2.5' TO 10' FROM THE PUBLIC WATER EASEMENT WAS GRANTED BY THE HOWARD COUNTY DPW ON MARCH 24, 2005, "NO IMPROVEMENTS SHALL BE CONSTRUCTED OR PLACED WITHIN THE PUBLIC WATER AND UTILITY EASEMENTS WHICH WILL IMPEDE OR HINDER ACCESS TO THE PUBLIC MAINS. IMPROVEMENTS SUCH AS AIR-CONDITIONING UNITS, FIREPLACE CHIMNEYS, DECKS, FENCING, FOUNDATIONS, FOUNDATION PLANTINGS AND TREES SHALL NOT BE PLACED WITHIN THE EASEMENT."



PLAN
SCALE : 1"=100'

BENCH MARK

HOWARD COUNTY CONTROL
STATION 38D5
N 422,613
E 1,386,524
ELEV. 193.73

HOWARD COUNTY CONTROL
STATION 38D6
N 422,147
E 1,384,992
ELEV. 175.23

** SEE NOTES 37-39.

SQUARE FOOTAGE SHOWN FOR OFFICE SPACE ARE MAXIMUM ALLOWABLE. BUILDING PERMIT PLANS REFLECTING LESS THAN THE MAXIMUM OFFICE SPACE MAY SHOW A CORRESPONDING INCREASE IN WAREHOUSE SPACE.

MEZZANINE CHART *

BLDG. #1 - MEZZANINE & OFFICE ALLOWANCE
LOWER LEVEL

UNIT	GROSS Sq.Ft.	LOWER OFFICE	MEZZ. OFFICE	TOTAL OFFICE	TOTAL WAREHOUSE
101	4486	717.76	717.76	1435.52	3768.24
102	3883	621.28	621.28	1242.56	3261.72
103	3883	621.28	621.28	1242.56	3261.72
104	3883	621.28	621.28	1242.56	3261.72
105	3883	621.28	621.28	1242.56	3261.72
106	3883	0	0	0	2810.33
107	3883	0	0	0	2499.33
108	3883	0	0	0	2810.33
109	3883	0	0	0	0
110	3883	0	0	0	0
111	3883	0	0	0	0
112	3883	621.28	621.28	1242.56	3261.72
113	3883	621.28	621.28	1242.56	3261.72
114	4486	0	1472.00	1472.00	4486.00
	55568	4445.44	5917.44	10362.88	36494.55

UPPER LEVEL

UNIT	GROSS Sq.Ft.	LOWER OFFICE	MEZZ. OFFICE	TOTAL OFFICE	TOTAL WAREHOUSE
201	4280	500.00	1200.00	1700.00	3790.00
202	3732	597.12	597.12	1194.24	3134.88
203	3732	597.12	597.12	1194.24	3134.88
204	3732	597.12	597.12	1194.24	3134.88
205	3732	240.00	0.00	240.0	3492.0
206	3732	411.00	1881.0	2292.0	3321.0
207	3732	0.00	1310.00	1310.00	3732.00
208	3732	745.00	745.00	1490.00	2987.00
209	3732	745.00	745.00	1490.00	2987.00
210	3732	597.12	597.12	1194.24	3134.88
211	3732	745.00	745.00	1490.00	2987.00
212	3732	650.50	661.00	1311.50	3081.50
213	3732	650.50	661.00	1311.50	3081.50
214	4290	0	0	0	5140
	53364	7675.48	10336.48	17,361.96	47,138.52
=	108932	11,520.92	16,253.92	27,724.84	96,292.67
Total	108932 Sq.Ft.	11,520.92 Sq.Ft.	16,253.92 Sq.Ft.	27,724.84 Sq.Ft.	96,292.67 Sq.Ft.

BLDG #2 - MEZZANINE & OFFICE ALLOWANCE

	GROSS Sq.Ft.	LOWER OFFICE	MEZZ. OFFICE	TOTAL OFFICE	TOTAL WAREHOUSE
Total	20,740	9,375	9,375	18,750	11,365

TOTAL MEZZ. (Sq.Ft.)
1070.28
1479.28
1640.28
1472.00

AREA TABULATION CHART

AREA OF PARCEL H	0.768 ACRES
AREA OF PARCEL 287	11.15 ACRES
TOTAL	11.918 ACRES
LIMIT OF DISTURBED AREA	8.0 ACRES
PRESENT ZONING	M-2
PROPOSED USE	2 OFFICE/WAREHOUSE BUILDINGS PERSONAL SERVICE - 1,732 SF SPECIALTY CAR USE - 15,812 SF
BUILDING 1 (w/o MEZZ OFFICE)	OFFICE - 11,709 SF** WAREHOUSE - 83,503 SF** TOTAL - 115,816 SF**
BUILDING 2 (w/o MEZZ OFFICE)	OFFICE - 9,375 SF * WAREHOUSE - 11,365 SF * TOTAL - 20740 SF
BUILDING COVERAGE	75,430 SF (14.5% OF SITE)
**REQUIRED PARKING	SPECIALTY CAR USE - 16 SP PERSONAL SERVICE - 3.3 SP/1,000 = 16
BUILDING 1	OFFICE - 3.3 SPACES/1000 SF = 39 SP. WAREHOUSE - 0.5 SPACES/1000 SF = 42 SP
BUILDING 2	*MAX MEZZANINE - 17,552.61 @ 3.3/1000 = 58 SP. OFFICE - 3.3 SPACES/1000 SF = 30.9SP. WAREHOUSE - 0.5 SPACES/1000 SF = 5.7 SP. *MAX MEZZANINE - 9,375 @ 3.3/1000 = 31 SP.:
	TOTAL 236 SP
PROVIDED PARKING	205 SPACES (INCL. 14 HC SPACES) BUILDING 1: 170 (INCL. 14 HC SPACES) BUILDING 2: 67 (INCL. 3 HC SPACES)
	TOTAL 237 SPACES

* SEE MEZZANINE CHART

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 7/12/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 7/6/05
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 7/12/05

DATE	NO.	REVISION (SEE MORE ABOVE)
02/09/06	2	ADDED PARKING TABULATIONS.
10/12/05	1	ELIMINATE SHEET 13 IN SET.

OWNER
BLUE RUN I ENTERPRISES, LLC.
c/o BILL KNOTT
57 W. TIMONIUM ROAD, SUITE 106
TIMONIUM, MARYLAND 21093
443-271-5646

DEVELOPER
PATAPSCO VALLEY, LLC
c/o SAM LANCELOTTA
6339 TEN OAKS ROAD
CLARKSVILLE, MARYLAND 21209
443-535-0001

PROJECT
PARKSIDE WAREHOUSE CONDOMINIUMS
TWO OFFICE WAREHOUSE BUILDINGS
PATAPSCO VALLEY BUSINESS CENTER, PARCEL H & PARCEL 287
AREA TAX MAP 38 PARCEL 287 ZONED M-2
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
REVISED **TITLE SHEET**

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

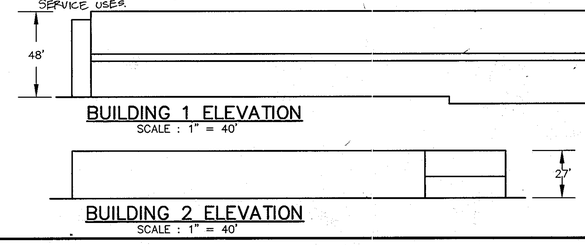
6-20-05 DATE
STATE OF MARYLAND — AIMEE C. REMINGTON — No. 29923 — PROFESSIONAL ENGINEER
AIMEE C. REMINGTON #29923

DESIGNED BY :	C.J.R.
DRAWN BY:	DAM
PROJECT NO	13282/1-0/PLANS/C000COV
DATE :	JUNE 20, 2005
SCALE :	AS SHOWN
DRAWING NO.	1 OF 16

ADDRESS CHART

BUILDING	STREET ADDRESS
1	7410 COCA COLA DRIVE
2	7400 COCA COLA DRIVE

SUBDIVISION NAME		SECT./AREA		PARCEL
PATAPSCO VALLEY BUSINESS CENTER		-		287 AND H
PLAT NO. 15498 - 99 L.1921, F.96 & 17546-47	BLOCK # 20	ZONING M-2	TAX MAP NO. 38	ELECT. DIST. 1	CENSUS TRACT 6012.02
WATER CODE A-04			SEWER CODE 2150501		



BUILDING 1 ELEVATION
SCALE : 1" = 40'

BUILDING 2 ELEVATION
SCALE : 1" = 40'

⚠9 37. UNITS 109-111 ARE USED FOR SPECIALTY CAR REPAIR AND USED SPECIALTY CAR SALES. A TOTAL OF 16 SPACES ARE THE MINIMUM REQUIRED FOR THIS USE, BASED ON A SUBMITTED PARKING NEEDS ANALYSIS APPROVED BY THE DEPT. OF PLANNING AND ZONING, WHICH INCLUDES 5 SPACES FOR STAFF, 1 SPACE FOR CUSTOMERS, AND 10 SPACES FOR SERVICED CARS. THE PARKING PROVIDED FOR THESE UNITS SHALL NOT EXCEED 17 SPACES.

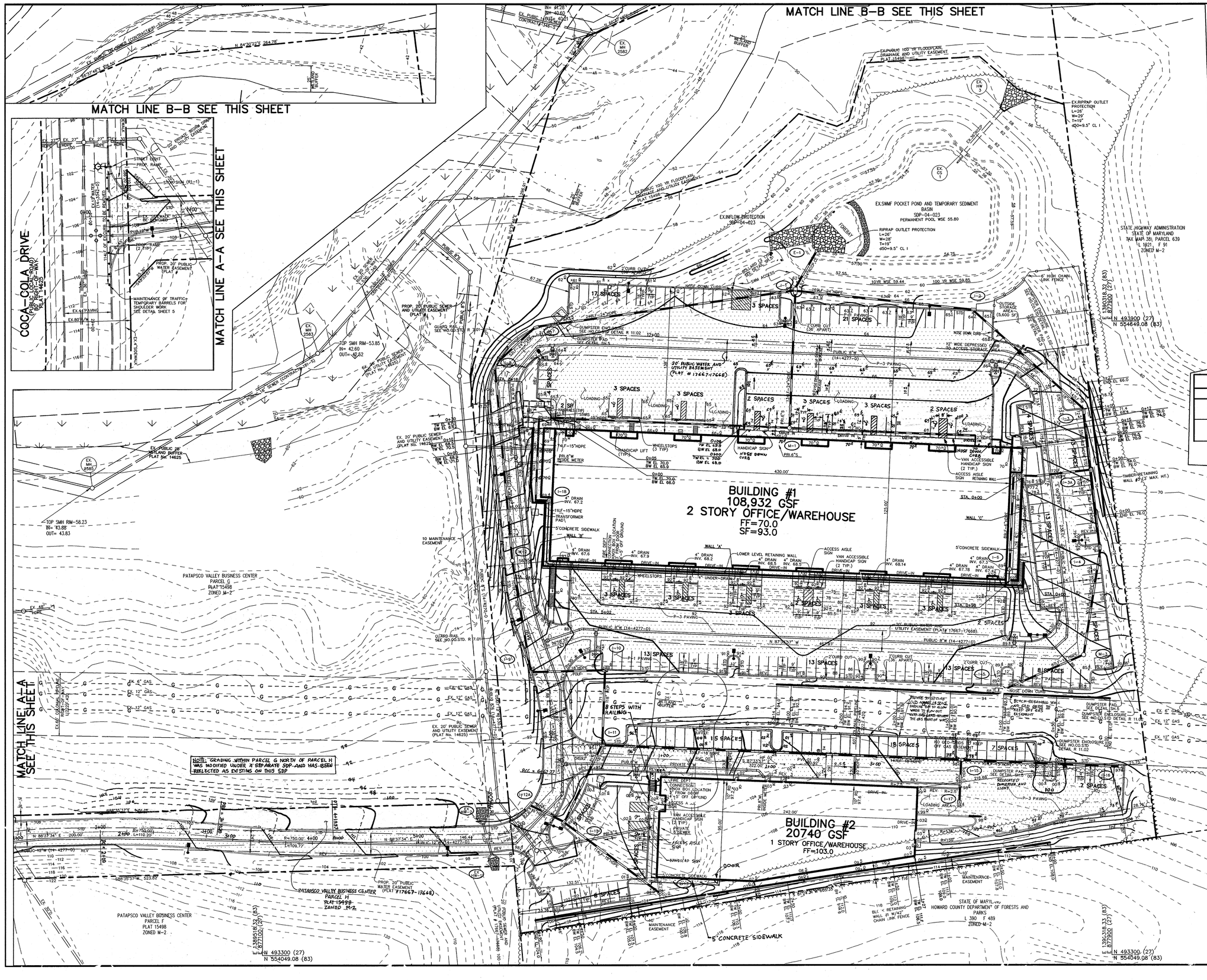
38. 12,709 SF OF WAREHOUSE SPACE, 1,266 SF OF OFFICE SPACE, AND 1,837 SF OF MEZZANINE OFFICE SPACE WERE CONVEYED TO THE SPECIALTY CAR USE.

39. 2,296 SF OF OFFICE SPACE AND 2,496 SF OF MEZZANINE OFFICE SPACE WERE CONVEYED TO PERSONAL SERVICE USES. 823 SF OF MEZZANINE OFFICE SPACE WERE CONVEYED TO WAREHOUSE SPACE ASSOCIATED WITH THE PERSONAL SERVICE USES.

THIS SEAL FOR REVISIONS DATED 8-8-12 ONLY.

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. 21774, EXPIRATION DATE: 11-10-2013

SDP-05-083



NOTES:

1. ALL RADII ARE 5' UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDING UNLESS OTHERWISE NOTED.
3. ALL ON-SITE ROADS ARE PRIVATE.
4. STD/REV/BARR.CURB * - DENOTES TRANSITION BETWEEN STANDARD, REVERSE & BARRIER CURB
5. LANDSCAPING SHALL NOT PLACED WITHIN 7.5' OF EACH SIDE OF THE FIRE DEPARTMENT CONNECTION. A CLEAR UNOBSTRUCTED ACCESS PATH TO THE FDC MUST BE MAINTAINED.
6. BUILDING #1 SHALL BE PROTECTED WITH AN ESFR (EARLY SUPPRESSION FAST RESPONSE) SPRINKLER SYSTEM. THIS MAY REQUIRE THE INSTALLATION OF A FIRE PUMP IN THE BUILDING.

LEGEND

- 450 — EXISTING 10' CONTOURS
- 448 — EXISTING 2' CONTOURS
- 450 — PROPOSED 10' CONTOURS
- 448 — PROPOSED 2' CONTOURS
- PROPOSED CURB & GUTTER
- PROPOSED STORM DRAIN
- EXISTING TREELINE
- PROPOSED TREELINE
- P-1 PAVING (HO.CO. DETAIL R-2.01)
- P-3 PAVING (HO.CO. DETAIL R-2.01)
- CONCRETE SIDEWALK (HO.CO. DETAIL R-3.05)
- EASEMENTS
- H HANDICAP LIFT

STREET LIGHT CHART

NO.	LOCATION	DESCRIPTION
	25' LT. CL STA. 30+50 COCA COLA DRIVE	250 WATT HPS (SAG) MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING A 12' ARM.
	SEE PLAN	400 WATT CLEAR BT-37 METAL HALIDE. MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE.

DATE	NO.	REVISION
07/28/06	3	SIDEWALKS ADDED FOR BUILDING NO.2
02/09/06	2	ADDED 40 PARKING SPACES, REVISED LOADING AREA (BUILDING 1, OMIT GUARDRAIL
01/06/06	1	ENTRANCE DRIVE, GRADING, SIDEWALKS, WATER, SEWER, STORM DRAIN, RAMPS, SIDEWALKS, WALLS, AND LOADING AREAS. ADDED WALLS AND RAMPS.

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 2/6/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 1/30/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1/31/06

OWNER

BLUE RUN I ENTERPRISES, LLC.
c/o BILL KNOTT
57 W. TIMONIUM ROAD, SUITE 106
TIMONIUM, MARYLAND 21093
443-271-5646

DEVELOPER

PATAPSCO VALLEY, LLC
c/o SAM LANCELOTTA
6339 TEN OAKS ROAD
CLARKSVILLE, MARYLAND 21209
443-535-0001

PROJECT

PARKSIDE WAREHOUSE CONDOMINIUMS
TWO OFFICE WAREHOUSE BUILDINGS
PATAPSCO VALLEY BUSINESS CENTER, PARCEL H & PARCEL 287

AREA TAX MAP 38 PARCEL [illegible] ZONED M-2
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE

REVISED SITE DEVELOPMENT PLAN

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8300
F 410.997.9282

1/9/2006 DATE

JOHN W. CLAIRMONT #16956

DESIGNED BY : C.J.R.
DRAWN BY: DAM
PROJECT NO : 13282/1-C/ PLANS/COMPOSIT
DATE : JANUARY 6, 2006
SCALE : 1"=40'
DRAWING NO. 2 OF 16

SDP-05-083

DRAINAGE AREA CHART			
INLET NO.	AREA (AC.)	C	% IMP
I-1	0.34	0.86	100
I-2	0.30	0.79	90
I-3	0.12	0.75	83
I-3A	0.12	0.75	83
I-4	0.39	0.55	54
I-5	0.66	0.59	59
I-6	0.03	0.86	100
I-7	0.03	0.86	100
I-8	0.32	0.76	85
I-9	0.26	0.63	65
I-10	0.70	0.59	60
I-11	0.09	0.86	100

INLET NO.	AREA (AC.)	C	% IMP
I-12	0.23	0.80	91
I-13	0.11	0.19	0
I-14	0.11	0.74	82
I-15	0.14	0.67	71
I-16	0.13	0.76	85
I-17	0.21	0.73	81
I-18	0.03	0.86	100
BLDG 1	1.25	0.86	100
BLDG 2	0.46	0.86	100
I-12A	0.28	0.86	100

EX. SEDIMENT BASIN

EX. DRAINAGE AREA	9.20 ACRES
PR. DRAINAGE AREA	9.50 ACRES
STOR. REQ'D (WET STOR.)	17,104 CF
STOR. REQ'D (DRY STOR.)	17,104 CF
STOR. PROV. (WET STOR.)	17,104 @ 56.10
STOR. PROV. (DRY STOR.)	17,104 CF @ 58.60
RISER CREST ELEVATION	58.60
BASIN CLEANOUT ELEVATION	55.40
TOP OF DAM	62.00
BOTTOM EL.	54.75
SIDE SLOPES	3:1
Q_1 EX	0.68 CFS
Q_1 PR	00.67 CFS

LEGEND

- PROPOSED CURB & GUTTER
- PROPOSED STORM DRAIN
- EXISTING TREELINE
- PROPOSED TREELINE
- SSF — EXISTING SUPER SILT FENCE
- SSF — PROPOSED SUPER SILT FENCE
- NON-ROOFTOP RUNOFF DISCONNECT SWM CREDIT – PERCENT AREA METHOD FOR RECHARGE ONLY
- SOIL LINES
- DRAINAGE AREA LINES
- LIMIT OF DISTURBANCE
- SSF — SUPER SILT FENCE
- SF — SILT FENCE
- BLAZE ORANGE FENCING

BY THE DEVELOPER :

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 DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER — DATE: Sam Lancelotta 1/9/06

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.

ENGINEER — DATE: 1/9/2006

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

NATURAL RESOURCES CONSERVATION SERVICE — DATE: 1/19/06

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

HOWARD SOIL CONSERVATION DISTRICT — DATE: 1/19/06

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE: 2/4/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE: 1/30/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE: 1/31/06

DATE	NO.	REVISION
07/28/06	3	SIDEWALKS ADDED FOR BUILDING NO. 2
02/09/06	2	REVISED LOD AND GRADING CONSISTENT WITH SDP
01/06/06	1	SILT FENCE ALONG SEWER OUTFALL

OWNER

BLUE RUN I ENTERPRISES, LLC.
c/o BILL KNOTT
57 W. TIMONIUM ROAD, SUITE 106
TIMONIUM, MARYLAND 21093
443-271-5646

DEVELOPER

PATAPSCO VALLEY, LLC
c/o SAM LANCELOTTA
6339 TEN OAKS ROAD
CLARKSVILLE, MARYLAND 21209
443-535-0001

PROJECT
PARKSIDE WAREHOUSE CONDOMINIUMS
TWO OFFICE WAREHOUSE BUILDINGS
PATAPSCO VALLEY BUSINESS CENTER, PARCEL H & PARCEL 287
AREA TAX MAP 38 PARCEL 287 ZONED M-2
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
REVISED GRADING AND SEDIMENT CONTROL PLAN AND DRAINAGE AREA MAP

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

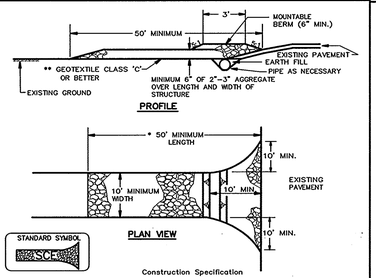
1/9/2006 DATE

JOHN W. CLAPSADDLE #16956 — BOARD FOR PROFESSIONAL ENGINEERS — STATE OF MARYLAND

DESIGNED BY :	C.J.R.
DRAWN BY:	DAM
PROJECT NO	13282/1-0/ PLANS/C200ESC
DATE	JANUARY 6, 2006
SCALE :	1"=40'
DRAWING NO.	3 OF 16

SDP-05-083

DETAIL 24 – STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

1. Length – minimum of 50' (*30' for single residence lot).

2. Width – 10' minimum, should be flared at the existing road to provide a turning radius.

3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.

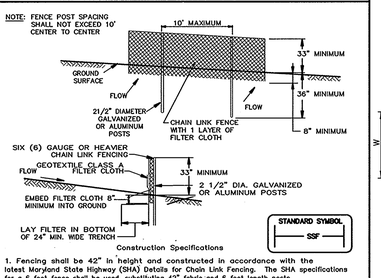
4. Stone – crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.

5. Surface Water – all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.

6. Location – A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F – 17 – 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 33 – SUPER SILT FENCE



Construction Specifications

1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway (SHA) Details for Chain Link Fencing. The SHA specifications for a 6 foot fence shall be used, substituting 42" fabric and 6 foot length posts.

2. The posts do not need to be set in concrete.

3. Chain link fence shall be fastened securely to the fence posts with wire ties or staples. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence. The chain link fencing shall be six (6) gauge or heavier.

4. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.

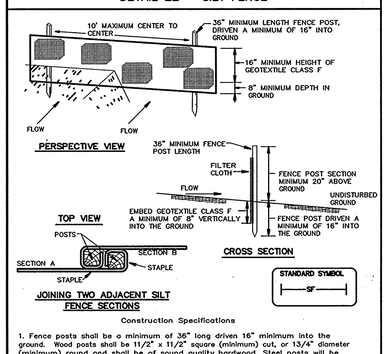
5. Filter cloth shall be embedded a minimum of 8" into the ground.

6. When two sections of geotextile fabric adjoin each other, they shall be overlapped by 6" and folded.

7. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H – 26 – 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 22 – SILT FENCE



Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.

2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid–section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft / minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E – 15 – 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

30.0 – DUST CONTROL

DEFINITION

CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS.

PURPOSE

TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON AND OFF–SITE DAMAGE, HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.

CONDITIONS WHERE PRACTICE APPLIES

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON OFF–SITE DAMAGE IS LIKELY WITHOUT TREATMENT.

SPECIFICATIONS

TEMPORARY METHODS

1. MULCHES – SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED OR TACKED TO PREVENT BLOWING.

2. VEGATATIVE COVER – SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.

3. TILLAGE – TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL–TYPE PLOWS SPACED ABOUT 12" APART, SPRING–TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

4. IRRIGATION – THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT RUNOFF BEGINS TO FLOW.

5. BARRIERS – SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING SOIL BLOWING.

6. CALCIUM CHLORIDE – APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

PERMANENT METHODS

1. PERMANENT VEGETATION – SEE STANDARDS FOR PERMANENT VEGETATIVE COVER, AND PERMANENT STABILIZATION WITH SOD. EXISTING TREES OR LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.

2. TOPSOILING – COVERING WITH LESS EROSIVE SOIL MATERIALS. SEE STANDARDS FOR TOPSOILING.

3. STONE – COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

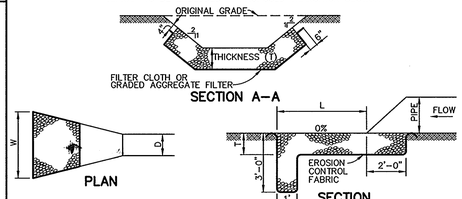
REFERENCES

1. AGRICULTURE HANDBOOK 346. WIND EROSION FORCES IN THE UNITED STATES AND THEIR USES IN PREDICTING SOIL LOSS.

2. AGRICULTURE INFORMATION BULLETIN 354. HOW TO CONTROL WIND EROSION, USDA–ARS.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H – 30 – 1	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

RIPRAP TO BE EMBEDDED IN PROPOSED TRANSITION SECTION



NOTE: Q_{10}, V & DEPTH CALCULATED AT END OF RIPRAP OUTLET CHANNEL.

STRUCTURE	MEDIAN STONE DIA.	LENGTH (L')	WIDTH (W)	THICKNESS (T)	Q_{10}	V	DEPTH
E–1	9.5" (CL I)	26'	28'	19"	28.2	8.97	–

NOTE: USE CLASS I RIPRAP

RIPRAP OUTLET PROTECTION DETAIL

NO SCALE

CONSTRUCTION SPECIFICATIONS

1. THE SUBGRADE FOR THE FILTER, RIP–RAP, OR GABION SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES. ANY FILL REQUIRED IN THE SUBGRADE SHALL BE COMPACTED TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.

2. THE ROCK OR GRAVEL SHALL CONFORM TO THE SPECIFIED GRADING LIMITS WHEN INSTALLED RESPECTIVELY IN THE RIP–RAP OR FILTER.

3. GEOTEXTILE CLASS C OR BETTER SHALL BE PROTECTED FROM PUNCHING, CUTTING, OR TEARING. ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE SHALL BE REPAIRED BY PLACING ANOTHER PIECE OF GEOTEXTILE FABRIC OVER THE DAMAGED WHETHER FOR REPAIRS OR FOR JOINING TWO PIECES OF GEOTEXTILE FABRIC SHALL BE A MINIMUM OF ONE FOOT.

4. STONE FOR THE RIP–RAP OR GABION OUTLETS MAY BE PLACED BY EQUIPMENT. THEY SHALL BE CONSTRUCTED TO THE FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. THE STONE FOR RIP–RAP OR GABION OUTLETS SHALL BE DELIVERED AND PLACED IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES.
   – RIP–RAP SHALL BE PLACED IN A MANNER TO PREVENT DAMANGE TO THE FILTER BLANKET OR GEOTEXTILE FABRIC.HAND PLACEMENT WILL BE REQUIRED TO THE EXTENT NECESSARY TO PREVENT DAMAGE TO THE PERMANENT WORKS.

5. THE STONE SHALL BE PLACED SO THAT IT BLENDS IN WITH THE EXISTING GROUND.IF THE STONE IS PLACED TOO HIGH THEN THE FLOW WILL BE FORCED OUT OF THE CHANNEL AND SCOUR ADJACENT TO THE STONE WILL OCCUR.

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.

2. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, SUPER SILT FENCE AND MAINTAIN ANY EXISTING CONTROLS PREVIOUSLY INSTALLED UNDER SDP–04–023. (1 WEEK)

3. BEGIN SITE GRADING AND BUILDING CONSTRUCTION USING SDP–04–023 SEDIMENT CONTROLS. DRAINAGE SYSTEM TO DRAIN TO SEDIMENT BASIN.

4. INSTALL STORM DRAIN SYSTEM UPON COMPLETION OF MASS GRADING PER SDP–04–023. (6 WEEKS)

5. PROCEED WITH SITE GRADING AND WALL CONSTRUCTION.

6. INSTALL CURB AND GUTTER THEN PROCEED WITH CONCRETE POUR FOR TRUCK SETDOWN PAD AND ASPHALT PAVING. (6 WEEKS)

7. APPLY TOPSOIL AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (2 DAYS)

8. PERFORM FINE GRADING, LANDSCAPING, LIGHTING, SIDEWALK, AND COMPLETE BUILDING CONSTRUCTION. (6 MONTHS)

9. UPON PERMISSION OF COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (2 DAY)

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

DEFINITION
PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

PURPOSE
TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES
I. THIS PRACTICE 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.

II. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE SPECIAL APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS
I. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT 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–SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTATION STATION.

II. TOPSOIL SPECIFICATIONS – SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
––i. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1–1/2" IN DIAMETER.
––ii. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
––iii. WHERE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4–8 TONS/ACRE (200–400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

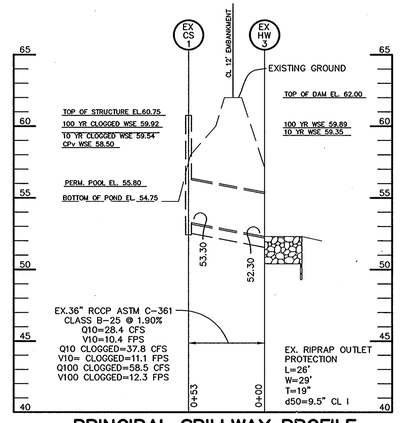
III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
––i. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION – SECTION I – VEGETATIVE STABILIZATION METHODS AND MATERIALS.

IIII. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
––i. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
––––a. PH FOR TOPSOIL SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE PH TO 6.5 OR HIGHER.
––––b. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
––––c. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
––––d. NO SOD OR SEED SHALL 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.

NOTE: TOPSOIL SUBSTITUTES TO 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.
––ii. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION – SECTION I – VEGETATIVE STABILIZATION METHODS AND MATERIALS.

V. TOPSOIL APPLICATION
––i. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
––ii. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4" – 8" HIGHER IN ELEVATION.
––iii. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" – 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL 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 SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
––iv. TOPSOIL SHALL NOT BE PLACED WHILE 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.

VI. ALTERNATIVE FOR PERMANENT SEEDING – INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:
––i. COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITE HAVING DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
––––a. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS THAT ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
––––b. COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
––––c. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
––––d. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE. REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING. MD–VA, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES. REVISED 1973.



PRINCIPAL SPILLWAY PROFILE

SCALE :
HOR.–1"=50'
VERT.–1"=5'

STANDARD SEDIMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313–1855).

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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.

3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE–DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A)7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES STEEPER 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 THE PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, 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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SEC. G.). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHED 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	11.15 ACRES
AREA DISTURBED	8.0 ACRES
AREA TO BE ROOFED OR PAVED	5.5 ACRES
AREA TO BE VEGETATIVELY STABILIZED	2.5 ACRES
TOTAL CUT	28,500 CU. YARDS
TOTAL FILL	28,500 CU. YARDS
OFFSITE WASTE AREA LOCATION TO HAVE ACTIVE GRADING PERMIT	

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 CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY 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.

11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK–FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

12. SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.

13. SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT ELEVATION SHOWN ON THE PLANS.

14. CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT REPRESENT BID QUANTITIES. THESE QUANTITIES DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL OR EMBANKMENT MATERIAL, NOR DO THEY REFLECT CONSIDERATION OF UNDERCUTTING OR REMOVAL OF UNSUITABLE MATERIAL. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH SITE CONDITIONS WHICH MAY AFFECT THE WORK.

BY THE DEVELOPER :

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 DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON–SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER — 6.20.05 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.

ENGINEER — 6.20.05 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

NATURAL RESOURCES CONSERVATION SERVICE — 6/28/05 DATE

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

HOWARD SOIL CONSERVATION DISTRICT — 6/28/05 DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DIRECTOR — 7/12/05 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 7/6/05 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 7/12/05 DATE

DATE	NO.	REVISION

OWNER
BLUE RUN I ENTERPRISES, LLC.
c/o BILL KNOTT
57 W. TIMONIUM ROAD, SUITE 106
TIMONIUM, MARYLAND 21093
443–271–5646

DEVELOPER
PATAPSCO VALLEY, LLC
c/o SAM LANCELOTTA
6339 TEN OAKS ROAD
CLARKSVILLE, MARYLAND 21209
443–535–0001

PROJECT
PARKSIDE WAREHOUSE CONDOMINIUMS
TWO OFFICE WAREHOUSE BUILDINGS
PATAPSCO VALLEY BUSINESS CENTER, PARCEL H & PARCEL 287

AREA TAX MAP 38 PARCEL 287 ZONED M–2
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
SEDIMENT CONTROL DETAILS

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
PHR+A
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

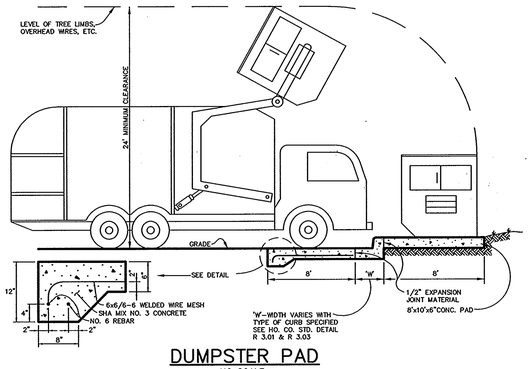
6.20.05 DATE

STATE OF MARYLAND AIMEE C. REMINGTON No. 29923 PROFESSIONAL ENGINEER

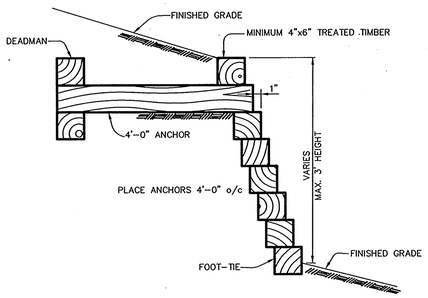
AIMEE C. REMINGTON #29923

DESIGNED BY :	C.J.R.
DRAWN BY:	DAM
PROJECT NO :	13282/1–0/ C901DET
DATE :	JUNE 20, 2005
SCALE :	AS SHOWN
DRAWING NO.	4 OF 16

SDP–05–083

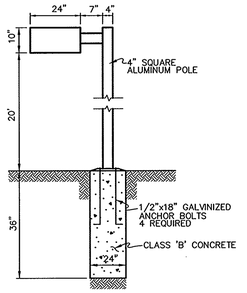


DUMPSTER PAD
NO SCALE

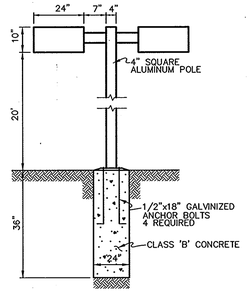


RETAINING WALL DETAIL
NO SCALE

1. ALL LIGHT FIXTURES TO BE SINGLE LUMINARE 400 WATT MERCURY TYPE WITH METAL POLES AND DIRECTED DOWN-WARD
2. LOCATIONS OF LIGHT FIXTURES ARE ON THE PLAN AND ARE SHOWN THUS:
3. LIGHTS TO BE CLEAR BT-37 TYPE AS MANUFACTURED OR APPROVED EQUAL.
4. POLE AND FIXTURE TO HAVE BRONZE POLYESTER ENAMEL FINISH.
5. POLE TO BE LOCATED 3' BACK FROM BACK OF CURB.

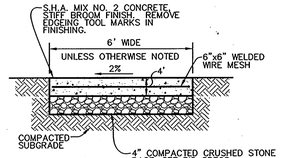


LIGHT POLE DETAIL
NO SCALE



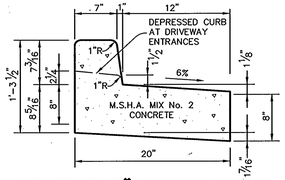
DUAL LIGHT POLE DETAIL
NO SCALE

SITE LIGHTING

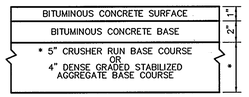


NOTES :
PROVIDE LATITUDINAL EXPANSION JOINTS AT 15' O.C. (MAX.) PROVIDE CONTRACTION (DUMMY) JOINT AT 5' O.C. INTERVALS BETWEEN EXPANSION JOINTS. SIDEWALK TO BE SCRIBED IN 5' MAX. SQUARES.

SIDEWALK w/ REINFORCING
NO SCALE



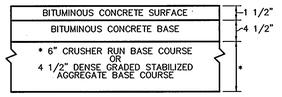
REVERSE 7" COMBINATION CURB AND GUTTER
NO SCALE



(ALTERNATE)

HOWARD COUNTY DESIGN MANUAL VOLUME IV- STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

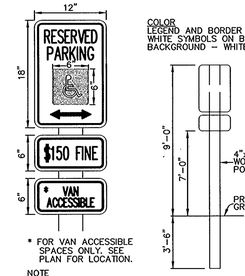
P-1 PAVING
NO SCALE



(ALTERNATE)

HOWARD COUNTY DESIGN MANUAL VOLUME IV- STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

P-3 PAVING
NO SCALE

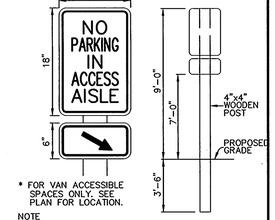


COLOR
LEGEND AND BORDER - GREEN
WHITE SYMBOLS ON BLUE BACKGROUND
BACKGROUND - WHITE

* FOR VAN ACCESSIBLE SPACES ONLY. SEE PLAN FOR LOCATION.

NOTE
DISTANCE FROM GROUND TO BOTTOM OF SIGN TO BE 7'.

HANDICAP SIGN DETAIL
NO SCALE

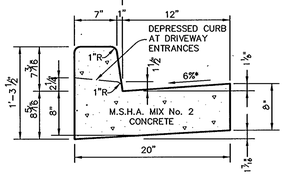


* FOR VAN ACCESSIBLE SPACES ONLY. SEE PLAN FOR LOCATION.

NOTE
DISTANCE FROM GROUND TO BOTTOM OF SIGN TO BE 7'.

ACCESS AISLE SIGN
NO SCALE

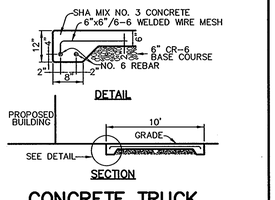
PAVEMENT WIDTH INDICATED ON TYPICAL STREET SECTIONS TO BE MEASURED TO THIS POINT



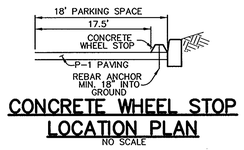
HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-3.01).

* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AS THE PAVEMENT.

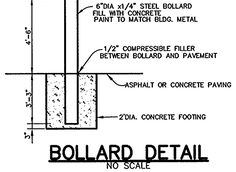
STANDARD 7" COMBINATION CURB AND GUTTER
NO SCALE



CONCRETE TRUCK COURT PAVING
NO SCALE



CONCRETE WHEEL STOP LOCATION PLAN
NO SCALE



BOLLARD DETAIL
NO SCALE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 7/12/05

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 7/6/05

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 7/12/05

DATE	NO.	REVISION

OWNER
BLUE RUN I ENTERPRISES, LLC.
c/o BILL KNOTT
57 W. TIMONIUM ROAD, SUITE 106
TIMONIUM, MARYLAND 21093
443-271-5646

DEVELOPER
PATAPSCO VALLEY, LLC
c/o SAM LANCELOTTA
6339 TEN OAKS ROAD
CLARKSVILLE, MARYLAND 21209
443-535-0001

PROJECT
PARKSIDE WAREHOUSE CONDOMINIUMS
TWO OFFICE WAREHOUSE BUILDINGS
PATAPSCO VALLEY BUSINESS CENTER, PARCEL H & PARCEL 287

AREA TAX MAP 38 PARCEL 287 ZONED M-2
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
DETAILS

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

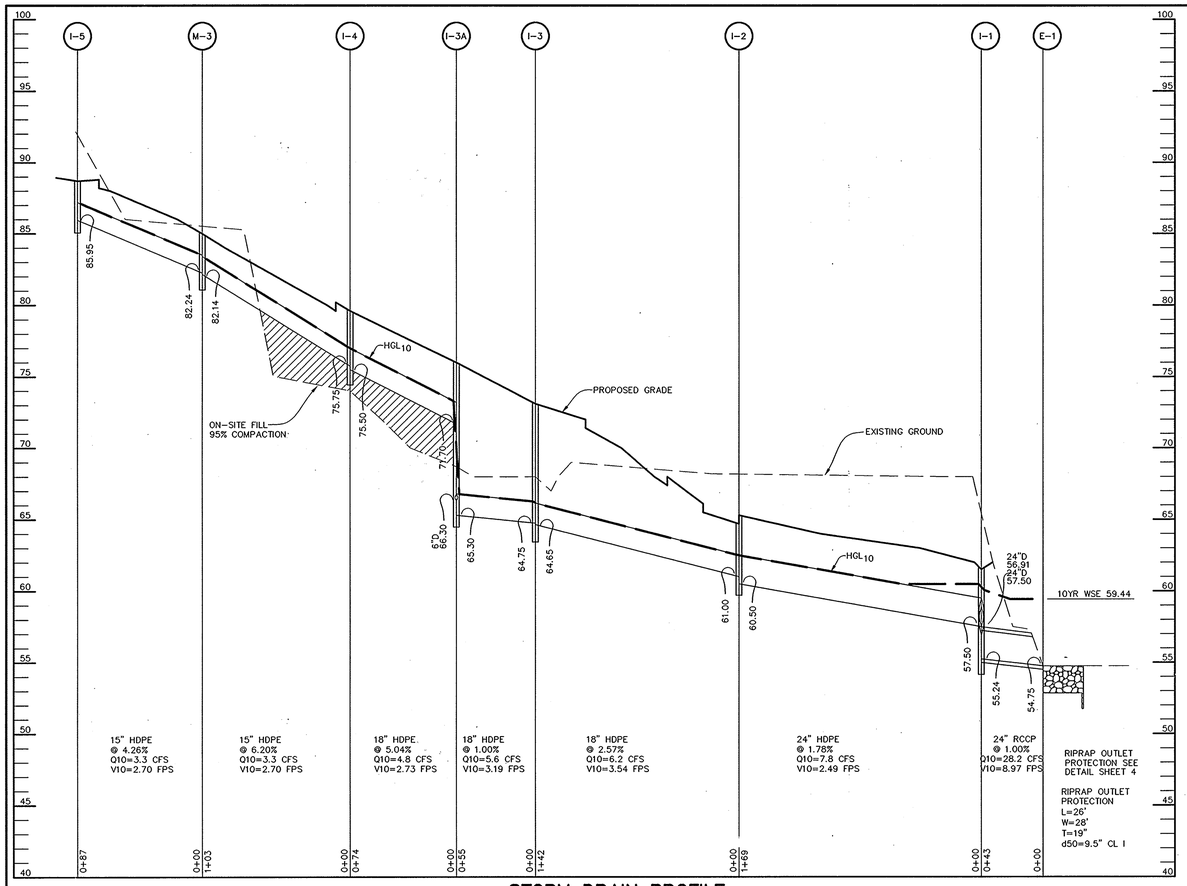
6.20.05
DATE

STATE OF MARYLAND · AIMEE C. REMINGTON · No. 29923 · PROFESSIONAL ENGINEER

AIMEE C. REMINGTON #29923

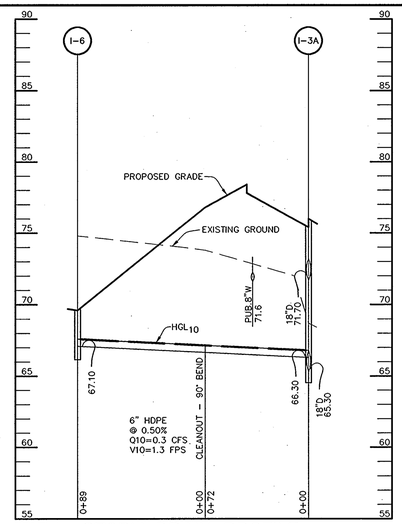
DESIGNED BY :	C.J.R.
DRAWN BY:	DAM
PROJECT NO :	13282/1-0/CDETAILS
DATE :	JUNE 20, 2005
SCALE :	AS SHOWN
DRAWING NO.	5 OF 16

SDP-05-083



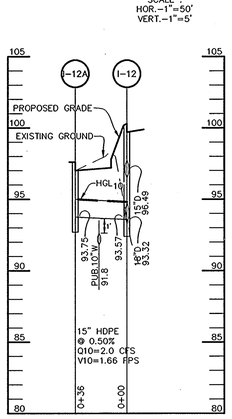
STORM DRAIN PROFILE

SCALE :
HOR.-1"=50'
VERT.-1"=5'



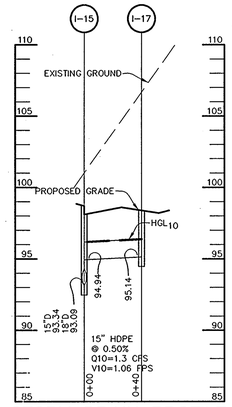
STORM DRAIN PROFILE

SCALE :
HOR.-1"=50'
VERT.-1"=5'



STORM DRAIN PROFILE

SCALE :
HOR.-1"=50'
VERT.-1"=5'



STORM DRAIN PROFILE

SCALE :
HOR.-1"=50'
VERT.-1"=5'

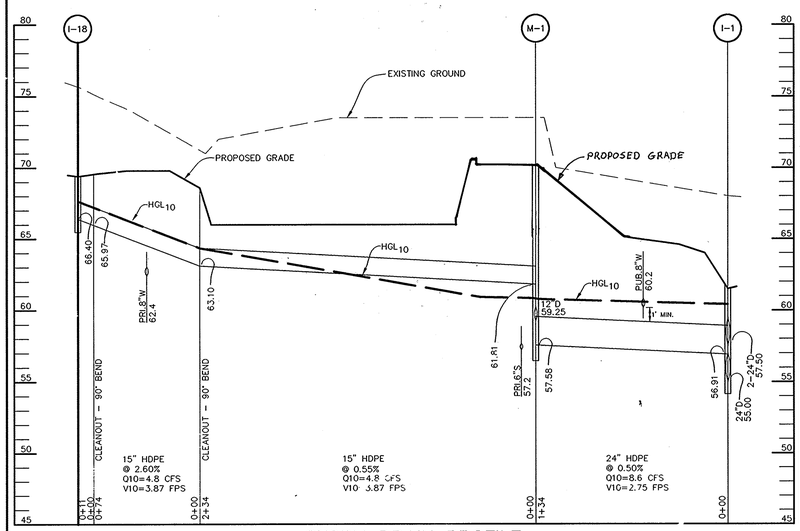
STRUCTURE SCHEDULE

STRUCTURE	TYPE	LOCATION	INV. IN	INV. OUT	TOP	REMARKS
I-1	DOUBLE TYPE 'S'	N 493922 E 877602	2-57.50 (24") 56.91 (24")	55.24 (24")	61.5	HOCO STD. DETAIL SD-4.23
I-2	A-5	N 493898 E 877785	61.00 (18")	60.50 (24")	65.3	HOCO STD. DETAIL SD-4.40
I-3	A-5	N 493814 E 877872	64.75 (18")	64.65 (18")	73.1	HOCO STD. DETAIL SD-4.40
I-4	A-5	N 493685 E 877887	75.75 (15")	75.50 (18")	79.6	HOCO STD. DETAIL SD-4.40
I-5	DOUBLE TYPE 'S'	N 493550 E 877793	-	85.95 (15")	88.7	HOCO STD. DETAIL SD-4.23
I-6	TYPE 'S'	N 493665 E 877803	-	67.10 (6")	69.6	HOCO STD. DETAIL SD-4.22
I-7	A-5	N 493893 E 877358	60.05 (24")	59.95 (24")	65.2	HOCO STD. DETAIL SD-4.40
I-8	A-10	N 493858 E 877321	60.70 (24")	60.60 (24")	66.6	HOCO STD. DETAIL SD-4.41
I-9	A-5	N 493568 E 877354	82.50 (18")	81.90 (24")	88.7	HOCO STD. DETAIL SD-4.40
I-10	A-5	N 493571 E 877422	85.60 (18")	85.50 (18")	89.2	HOCO STD. DETAIL SD-4.40
I-11	TYPE 'S' COMB.	N 493500 E 877420	91.80 (18") 91.31 (18")	85.96 (18")	95.9	HOCO STD. DETAIL SD-4.32
I-12	A-5	N 493453 E 877403	96.49 (15") 93.57 (15")	93.32 (18")	100.3	HOCO STD. DETAIL SD-4.40
I-13	TYPE 'S'	N 493358 E 877474	-	98.75 (15")	102.0	HOCO STD. DETAIL SD-4.22
~~I-14~~						
I-15	TYPE 'S' COMB.	N 493485 E 877758	94.94 (15") 93.34 (15")	93.09 (18")	98.7	HOCO STD. DETAIL SD-4.32
I-16	TYPE 'S' COMB.	N 493479 E 877908	-	94.10 (15")	98.0	HOCO STD. DETAIL SD-4.32
I-17	TYPE 'S'	N 493432 E 877755	-	95.14 (15")	98.4	HOCO STD. DETAIL SD-4.22
I-18	TYPE 'S'	N 493728 E 877369	-	66.40 (15")	69.4	HOCO STD. DETAIL SD-4.22
I-3A	TYPE 'S' COMB.	N 493759 E 877878	71.70 (18") 66.30 (6")	65.30 (18")	76.0	HOCO STD. DETAIL SD-4.32
I-12A	A-10	N 493451 E 877359	-	93.75 (15")	97.6	HOCO STD. DETAIL SD-4.41
M-1	4' DIA MANHOLE	N 493794 E 877596	61.81 (15") 59.25 (12")	57.58 (24")	69.76	HOCO STD. DETAIL G-5.11
M-2	4' DIA MANHOLE	N 493673 E 877335	73.52 (24")	73.42 (24")	78.89	HOCO STD. DETAIL G-5.12
M-3	4' DIA MANHOLE	N 493584 E 877873	82.24 (15")	82.14 (15")	85.0	HOCO STD. DETAIL G-5.11
E-1	24" END SECTION	N 493967 E 877622	-	54.75 (24")	-	HOCO STD. DETAIL SD-5.51

NOTES:
1. LOCATION OF 'A' INLETS IS AT CENTER OF THROAT OPENING. TOP ELEV. IS AT TOP OF CURB.
2. LOCATION OF 'S' INLETS IS AT CENTER OF GRATE. TOP ELEV. IS AT TOP OF GRATE.
3. LOCATION OF MANHOLES IS AT CENTER OF COVER. TOP ELEV. IS AT TOP OF COVER
4. LOCATION OF END SECTION IS AT CENTER END OF STRUCTURE.

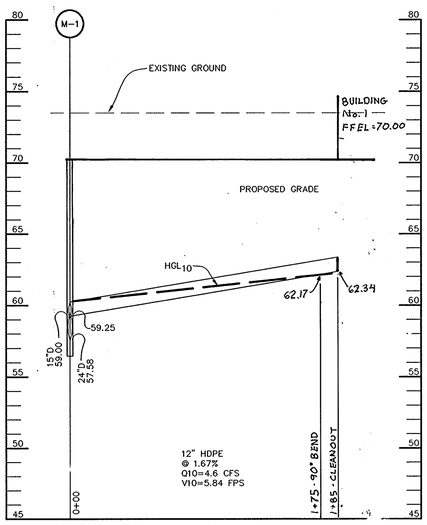
PIPE SCHEDULE

PIPE LENGTH	SIZE	TYPE
161	6"	HDPE
46	10"	HDPE
185	12"	HDPE
850	15"	HDPE
760	18"	HDPE
894	24"	HDPE
82	24"	RCCP
71	18"	RCCP



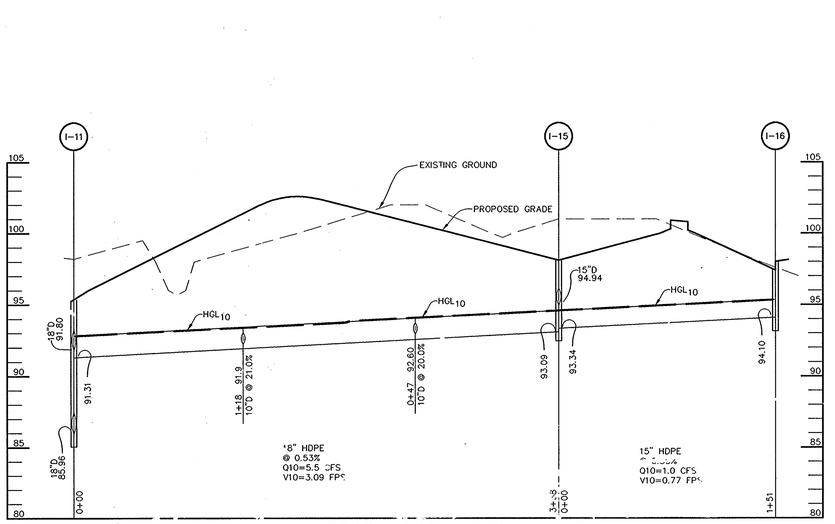
STORM DRAIN PROFILE

SCALE :
HOR.-1"=50'
VERT.-1"=5'



STORM DRAIN PROFILE

SCALE :
HOR.-1"=50'
VERT.-1"=5'



STORM DRAIN PROFILE

SCALE :
HOR.-1"=50'
VERT.-1"=5'

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 2/6/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 1/30/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1/31/06

DATE	NO.	REVISION
02/09/06	2	GROUND OVER M-1 TO I-1, M-1 TO BLDG 1.
01/06/06	1	STORM DRAINS

OWNER
BLUE RUN I ENTERPRISES, LLC.
c/o BILL KNOTT
57 W. TIMONIUM ROAD, SUITE 106
TIMONIUM, MARYLAND 21093
443-271-5646

DEVELOPER
PATAPSCO VALLEY, LLC
c/o SAM LANCELOTTA
6339 TEN OAKS ROAD
CLARKSVILLE, MARYLAND 21209
443-535-0001

PROJECT
PARKSIDE WAREHOUSE CONDOMINIUMS
TWO OFFICE WAREHOUSE BUILDINGS
PATAPSCO VALLEY BUSINESS CENTER, PARCEL H & PARCEL 287

AREA TAX MAP 38 PARCEL 287 ZONED M-2
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

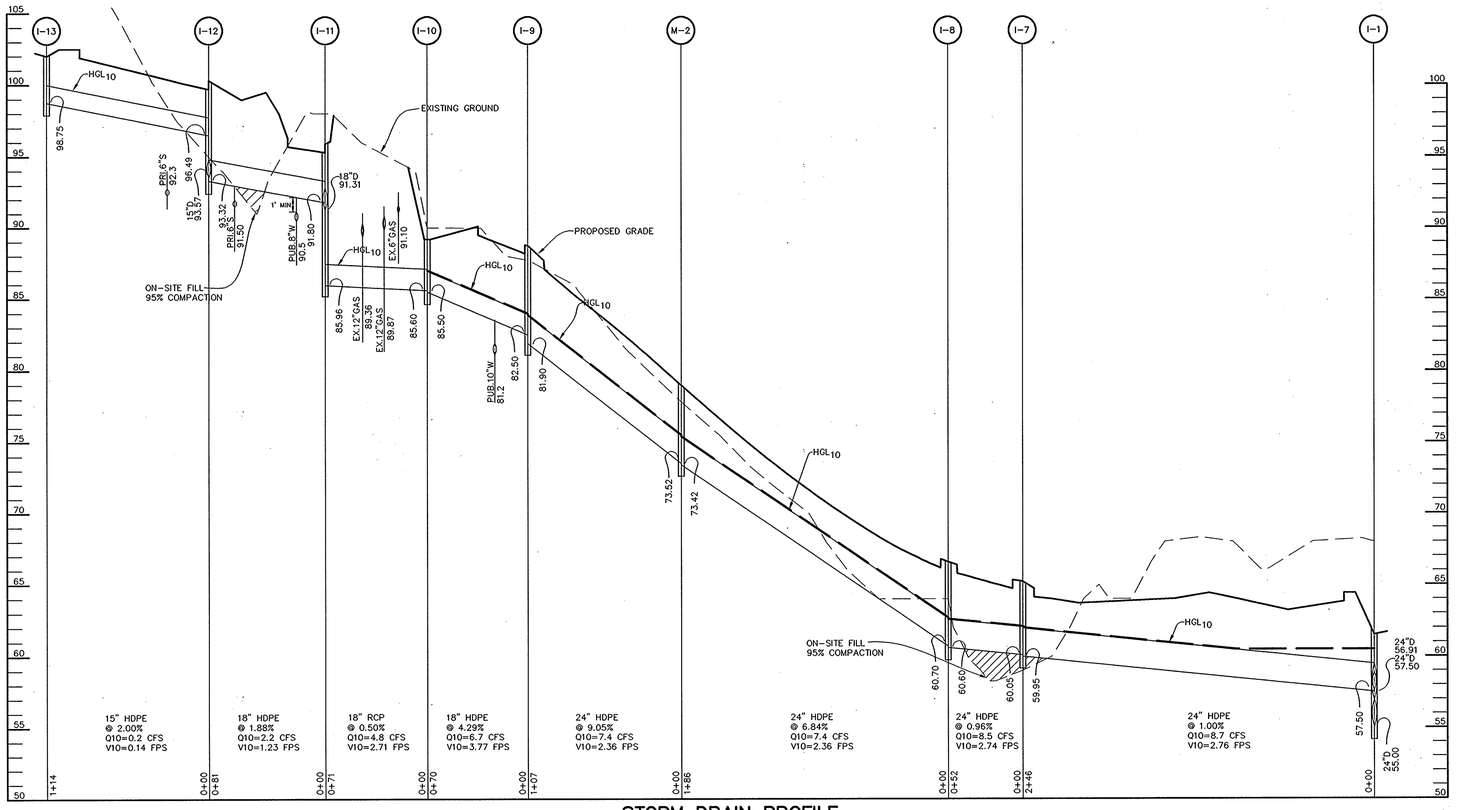
TITLE
REVISED PROFILES

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

1/9/2006
DATE
BOARD FOR PROFESSIONAL ENGINEERS — 16956 — REGISTERED PROFESSIONAL ENGINEER — STATE OF MARYLAND
JOHN W. CLAPSADDLE #16956

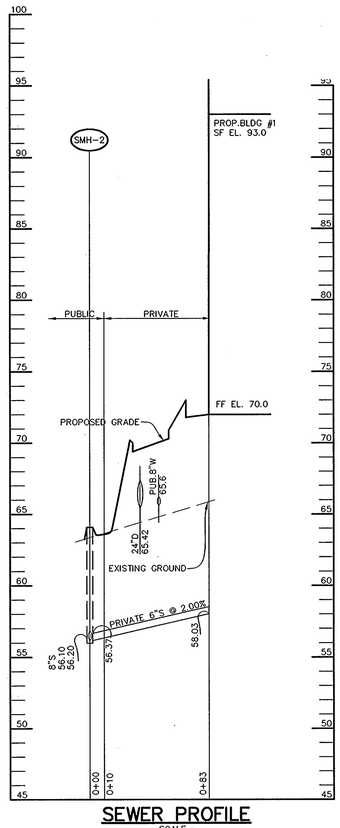
DESIGNED BY : C.J.R.
DRAWN BY: DAM
PROJECT NO : 13282/1-0/C700PROF
DATE : JANUARY 6, 2006
SCALE : AS SHOWN
DRAWING NO. 6 OF 16

SDP-05-083



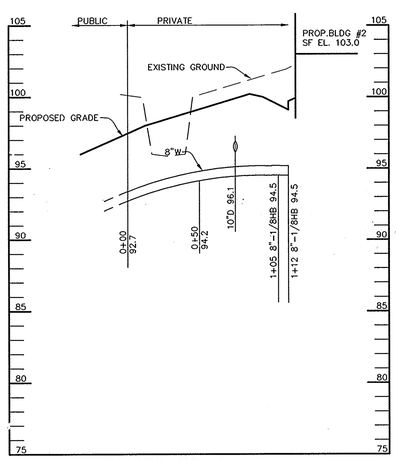
STORM DRAIN PROFILE

SCALE :
HOR.-1"=50'
VERT.-1"=5'



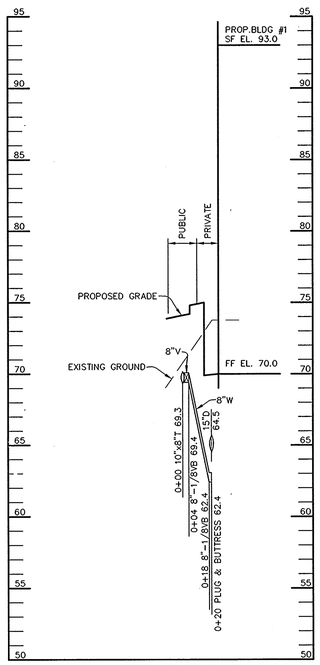
SEWER PROFILE

SCALE :
HOR.-1"=50'
VERT.-1"=5'



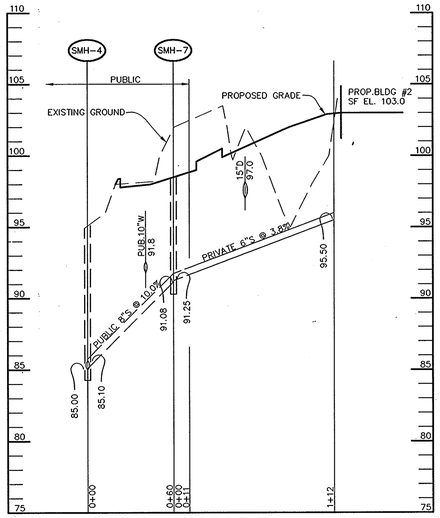
WATER PROFILE

SCALE :
HOR.-1"=5'
VERT.-1"=5'



WATER PROFILE

SCALE :
HOR.-1"=50'
VERT.-1"=5'



SEWER PROFILE

SCALE :
HOR.-1"=50'
VERT.-1"=5'

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 2/6/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 1/30/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1/31/06

DATE	NO.	REVISION
01/05/06	1	STORM DRAINS & SEWERS

OWNER

BLUE RUN I ENTERPRISES, LLC.
c/o BILL KNOTT
57 W. TIMONIUM ROAD, SUITE 106
TIMONIUM, MARYLAND 21093
443-271-5646

DEVELOPER

PATAPSCO VALLEY, LLC
c/o SAM LANCELOTTA
6339 TEN OAKS ROAD
CLARKSVILLE, MARYLAND 21209
443-535-0001

PROJECT
PARKSIDE WAREHOUSE CONDOMINIUMS
TWO OFFICE WAREHOUSE BUILDINGS
PATAPSCO VALLEY BUSINESS CENTER, PARCEL H & PARCEL 287

AREA TAX MAP 38 PARCEL 287 ZONED M-2
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
REVISED PROFILES

Patton Harris Rust & Associates,pc
Engineers. Surveyors. Planners. Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

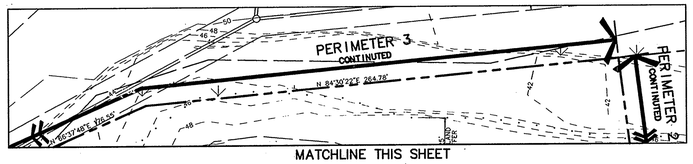
1/9/2006
DATE

JOHN W. CLAPSADDLE #16956

DESIGNED BY : C.J.R.
DRAWN BY: DAM
PROJECT NO : 13282/1-0, C700PROF
DAT. : JANUARY 6, 2006
SCALE : AS SHOWN
DRAWING NO. 7 OF 16

SDP-05-085

MATCHLINE THIS SHEET



MATCHLINE THIS SHEET

LEGEND

- EX. TREELINE
- PROP. TREELINE
- PROPERTY LINE
- CONTOUR LINES
- EX. BUILDING
- PROP. SHADE TREE
- PROP. EVERGREEN TREE
- PERIMETER LANDSCAPE REQUIREMENT (P)
- PARKING LOT LANDSCAPE REQUIREMENT (AR-3)
- PERIMETER LANDSCAPE EDGE LIMITS
- LANDSCAPE PERIMETER CONTINUES
- CREDITED LANDSCAPE ISLAND

MATCHLINE THIS SHEET

EX. PUBLIC 20' SEWER RIGHT-OF-WAY L.580, F.541

N 83°07'48"E

25' BUFFER

EX. PUBLIC 100 YR FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT PLAT 15498

RIPRAP OUTLET PROTECTION L=29' W=19' d50=9.5" CL I

EX. PUBLIC 100 YR FLOODPLAIN DRAINAGE AND UTILITIES EASEMENT PLAT 15498

EX. INFLOW PROTECTION SDP-04-023

EX. SWMF POCKET POND AND TEMPORARY SEDIMENT BASIN SDP-04-023 PERMANENT POOL WSE 55.80

RIPRAP OUTLET PROTECTION L=26' W=28' T=19" d50=9.5" CL I

FOREBAY

57.30

54.75

57.55

57.55

50YR WSE 59.44

100 YR WSE 59.85

STATE HIGHWAY ADMINISTRATION STATE OF MARYLAND TAX MAP 38, PARCEL 639 L. 1921, F. 91 ZONED M-2

E 827800

N 493900

PERIMETER 2 BUFFER TYPE 'A' = 862' CREDIT FOR EXISTING VEGETATION = 150'

PUBLIC 8"W (14-4277-D)

PARKING LOT 1

Z5-2

Z5-1

BUILDING #1
108,932 GSF
2 STORY OFFICE/WAREHOUSE
FF=70.0
SF=93.0

TRANSFORMER PAD

CONCRETE SIDEWALK FROM DOOR TO PARKING

PROP. 20' PUBLIC SEWER AND UTILITY EASEMENT (PLAT No. 14625)

PUBLIC 8"S

EX. 20' PUBLIC SEWER AND UTILITY EASEMENT (PLAT No. 14625)

EX. 20' PUBLIC SEWER AND UTILITY EASEMENT (PLAT No. 14625)

GUARD RAIL SEE HO.CO.STD. R 7.01

EX. 20' PUBLIC SEWER AND UTILITY EASEMENT (PLAT No. 14625)

PERIMETER 3
BUFFER TYPE 'A' = 1,192'
CREDIT FOR EXISTING VEGETATION = 710'

PATAPSCO VALLEY BUSINESS CENTRE PARCEL G PLAT 15498 ZONED M-2

EX. 48" HDPE

SEWER LINE TO BE SURROUNDED BY #57 STONE WITHIN THE COLONIAL PIPELINE EASEMENT. PLACE SANRETE BAGS END TO END OVER GRAVEL FOR ENTIRE LENGTH WITHIN THE COLONIAL PIPELINE EASEMENT

EX. 6" GAS

EX. 12" GAS

EX. COLONIAL PIPELINE R/W VARIES 40'-42'

EX. 20' PUBLIC SEWER AND UTILITY EASEMENT (PLAT No. 14625)

WATER LINE TO BE SURROUNDED BY #57 STONE WITHIN THE COLONIAL PIPELINE EASEMENT. PLACE SANRETE BAGS END TO END OVER GRAVEL FOR ENTIRE LENGTH WITHIN THE COLONIAL PIPELINE EASEMENT

WETLAND BUFFER

WRAP EX. GAS EASEMENT WITH SILAFA ORANGE FENCING

50' WIDE TEMPORARY ACCESS

NOTE: GRADING WITHIN PARCEL G NORTH OF PARCEL H WAS MODIFIED UNDER A SEPARATE SDP AND WAS NOT REFLECTED AS EXISTING ON THIS SDP.

PERIMETER 5
BUFFER TYPE 'A' = 60'
CREDIT FOR DRIVE AISLE = 28'

PATAPSCO VALLEY BUSINESS CENTER PARCEL H PLAT 15498 ZONED M-2

N 88°33'34" E 920.00'

R=750.00' L=110.20'

N 88°33'34" E 200.00'

R=760.00' L=109.77'

N 88°33'34" E 146.44'

S 88°33'34" W 523.02'

PROP. 20' I.E.

E 827100

N 493350

PERIMETER 4
BUFFER TYPE 'A' = 64'

PATAPSCO VALLEY BUSINESS CENTER PARCEL PLAT 15498 ZONED M-2

PARKING LOT 2

8 STEPS WITH RAILING

5' CONCRETE SIDEWALK

BUILDING #2
20740 GSF
1 STORY OFFICE/WAREHOUSE
FF=[illegible]

DOOR

PARKING LOT 3

PERIMETER 1
BUFFER TYPE 'A' = 605'

STATE OF MARYLAND HOWARD COUNTY DEPARTMENT OF PARKS 38C F 489 ZONED M-2

E 827900

N 493350

MATCHLINE THIS SHEET

COCA-COLA DRIVE (PUBLIC ROAD) (80' RIGHT-OF-WAY) PLAT 14625

EX. 27" HDPE

EX. 24" HDPE

EX. 30" HDPE

EX. 18" HDPE

EX. 12" HDPE

EX. 80"W

EX. 8"W

EX. 6"W

EX. 4"W

EX. 8"S

EX. 12"S

EX. 24"S

EX. 27"S

EX. 30"S

EX. 36"S

EX. 48"S

EX. 20' PRIVATE STORM DRAIN AND UTILITY EASEMENT

STREET LIGHT

STRUCTURE (RL-1)

EX. 4" WATER (14-4277-D)

PROP. 20' PUBLIC WATER EASEMENT (PLAT)

MATCHLINE THIS SHEET

DATE	NO.	REVISION
07/28/06	3	SIDEWALKS ADDED FOR BUILDING NO. 2

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR	DATE 4/4/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 1/30/06
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 1/31/06

DATE	NO.	REVISION (SEE NOTE ABOVE)
02/09/06	2	ADDED 40 PARKING SPACES, REVISED LOADING AREA BUILDING 1, OMIT GUARDRAIL
01/06/06	1	ENTRANCE DRIVE, GRADING, SIDEWALKS, WATER, SEWER, STORM DRAIN, RAMPS, SIDEWALKS, WALLS, AND LOADING AREAS. ADDED WALLS AND RAMPS

OWNER
BLUE RUN I ENTERPRISES, LLC.
c/o BILL KNOTT
57 W. TIMONIUM ROAD, SUITE 106
TIMONIUM, MARYLAND 21093
443-271-5646

DEVELOPER
PATAPSCO VALLEY, LLC
c/o SAM LANCELOTTA
6339 TEN OAKS ROAD
CLARKSVILLE, MARYLAND 21209
443-535-0001

PROJECT
PARKSIDE WAREHOUSE CONDOMINIUMS
TWO OFFICE WAREHOUSE BUILDINGS
PATAPSCO VALLEY BUSINESS CENTER, PARCEL H & PARCEL 287

AREA TAX MAP 38 PARCEL 287 ZONED M-2
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
REVISED LANDSCAPE PLAN

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
PHR+A
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

1.10.06
DATE

STATE OF MARYLAND 797 SCOTT R. WOLFORD PROFESSIONAL LANDSCAPE ARCHITECT

SCOTT R. WOLFORD #797

DESIGNED BY : PJS
DRAWN BY: KLM
PROJECT NO 13282/1-0/PLANS/C200LND
DATE : JANUARY 6, 2006
SCALE : 1"=40'
DRAWING NO. 8 OF 16

SDP-05-083

SCHEDULE A - PERIMETER LANDSCAPE EDGE

	ADJACENT TO PERIMETER PROPERTIES				
PERIMETER	1	2	3	4	5
LANDSCAPE TYPE	A	A	A	A	A
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	±605'	±862'	±1,192'	±64	±60
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	YES ±150'	YES ±710'	NO	NO
CREDIT FOR WALL, FENCE, BERM OR DRIVE AISLE (YES/NO/LINEAR FEET)	NO	NO	NO	NO	YES ±26'
LINEAR FEET REMAINING	±605'	±712'	±482'	±64'	±34'
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	10 0 0	12 0 0	8 0 0	1 0 0	1 0 0
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES SMALL FLONERING TREES SHRUBS	7* 6* 0 0	9* 6* 0 0	5* 6* 0 0	1 0 0 0	1 0 0 0

SCHEDULE 'A' NOTES:

REGULATIONS DO NOT REQUIRE LANDSCAPE EDGES, BUFFERING, OR SCREENING BETWEEN INTERNAL LOTS OR PARCELS WITHIN THE SAME DEVELOPMENT. (PAGE 17 OF THE Ho.Co. LANDSCAPE MANUAL)

* SUBSTITUTION NOTES:

PERIMETER 1 - 6 EVERGREEN TREES WERE SUBSTITUTED FOR 3 SHADE TREES.
PERIMETER 2 - 6 EVERGREEN TREES WERE SUBSTITUTED FOR 3 SHADE TREES.
PERIMETER 3 - 6 EVERGREEN TREES WERE SUBSTITUTED FOR 3 SHADE TREES.

SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING

PARKING LOT	1	2	3
NUMBER OF PARKING SPACES	168	21	47
NUMBER OF SHADE TREES REQUIRED (1/20 SPACES)	8	1	2
NUMBER OF TREES PROVIDED SHADE TREES OTHER TREES (2:1 SUBSTITUTION)	8 0	1 0	2 0
NUMBER OF ISLANDS PROVIDED	8	1	2

PARKING LOT AND PERIMETER PLANT LIST

SYMBOL	QTY.	SCIENTIFIC/ COMMON NAME	SIZE	ROOT	REMARKS
CJ	7	CERCIDIPHYLLUM JAPONICUM KATSURA TREE	3" CAL.	B&B	PLANT AS SHOWN
QA	9	FRAXINUS AMERICANA 'SKYLINE' SKYLINE WHITE ASH	3" CAL.	B&B	PLANT AS SHOWN
QP	7	PLATANUS X ACERFOLIA 'BLOODGOOD' BLOODGOOD LONDON PLANETREE	3" CAL.	B&B	PLANT AS SHOWN
ZS	11	ZELKOVA SERRATA 'VILLAGE GREEN' VILLAGE GREEN JAPANESE ZELKOVA	3" CAL.	B&B	PLANT AS SHOWN
CL	18	xCUPRESSOCYPARIS LEYLANDII LEYLAND CYPRESS	6'-8' HT.	B&B	PLANT AS SHOWN

PLANTING SPECIFICATIONS

1. Plants, related material, and operations shall meet the detailed description, as given on the plans and as described herein. Where discrepancies exist between Standards & Guidelines referenced within these specifications and the Howard County Landscape Manual, the latter takes precedence.

2. All plant material, unless otherwise specified, that is not nursery grown, uniformly branched, does not have a vigorous root system, and does not conform to the most recent edition of the American Association of Nurserymen (AAN) Standards will be rejected. Plant material that is not healthy, vigorous, free from defects, decay, disfiguring roots, sunscald injuries, abrasions of the bark, plant disease, insect pest eggs, borers and all forms of insect infestations or objectionable disfigurements will be rejected. Plant material that is weak or which has been cut back from larger grades to meet specified requirements will be rejected. Trees with forked leaders will be rejected. All B & B plants shall be freshly dug; no healed-in plants or plants from cold storage will be accepted.

3. Unless otherwise specified, all general conditions, planting operations, details and planting specifications shall conform to the most recent edition of the "Landscape Specification Guidelines by the Landscape Contractors Association of MD, DC, & VA", (hereinafter "Landscape Guidelines") approved by the Landscape Contractors Association of Metropolitan Washington and the Potomac Chapter of the American Society of Landscape Architects.

4. Contractor shall guarantee all plant material for a period of one year after date of acceptance in accordance with the appropriate section on the Landscape Guidelines. Contractor's attention is directed to the maintenance requirements found within the one year specifications including watering and replacement of specified plant material.

5. Contractor shall be responsible for notifying all relevant and appropriate utility companies, utility contractors, and "Miss Utility" a minimum of 48 hours prior to the beginning of any work. Contractor may make minor adjustments in spacing and location of plant material to avoid conflicts with utilities. Major changes will require the approval of the landscape architect. Damage to existing structure and utilities shall be repaired at the expense of the Contractor.

6. Protection of existing vegetation to remain shall be accomplished via the temporary installation of 4 foot high snow fence at the drip line, see detail.

7. Contractor is responsible for installing all material in the proper planting season for each plant type. All planting is to be completed within growing season of completion of site construction. Do not plant Pinus strobus or XCupressocyparis leylandii between November 15 and March 15. Landscape plants are not to be installed before site is graded to final grade.

8. Contractor to regrade, fine grade, sod, hydroseed and straw mulch all areas disturbed by their work.

9. Bid shall be based on actual site conditions. No extra payment shall be made for work arising from actual site conditions differing from those indicated on drawings and specifications.

10. Plant quantities are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on plan and those shown on the plant list, the quantities on the plan take precedence. Where discrepancies on the plan exist between the symbols and the callout leader, the number of symbols take precedence.

11. All shrubs and groundcover areas shall be planted in continuous planting beds, prepared as specified, unless otherwise indicated on plans. (See Specification 13). Beds to be mulched with minimum 2" and maximum 3" of composted, double-shredded hardwood mulch throughout.

12. Positive drainage shall be maintained on planting beds (minimum 2 percent slope).

13. Bed preparation shall be as follows: Till into a minimum depth of 6" 1 yard of Compro or Leafgro per 200 SF of planting bed, and 1 yard of topsoil per 100 SF of bed. Add 3 lbs of standard 5-10-5 fertilizer per cubic yard of planting mix and till. Ericaceous plants (Azaleas, Rhododendrons, etc.): top dress after planting with iron sulfate or comparable product according to package directions. Taxus baccata 'Repandens' (English weeping yews): Top dress after planting with 1/4 to 1/2 cup lime each.

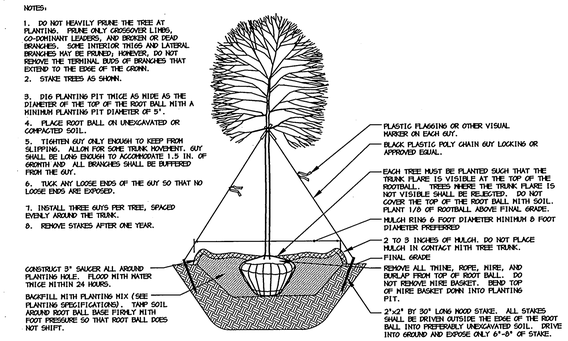
14. Planting mix: For trees not in a prepared bed, mix 50% Compro or Leafgro with 50% soil from tree hole to use as backfill, see tree planting detail.

15. Weed & insect control: Incorporate a pre-emergent herbicide into the planting bed following recommended rates on the label. For tree planting, apply a pre-emergent on top of soil and root ball before mulching. Caution: For areas to be planted with a ground cover, be sure to carefully check the chemical used to assure its adaptability to the specific groundcover to be treated. Maintain the mulch weed-free for the extent of the warranty period. Under no circumstances is a pesticide containing chlorpyrifos to be used as a means of pest control.

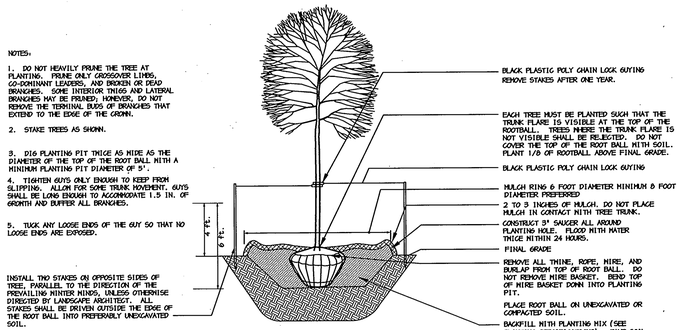
16. Water: All plant material planted shall be watered thoroughly the day of planting. All plant material not yet planted shall be properly protected from drying out until planted. At a minimum, water unplanted plant material daily and as necessary to avoid dessication.

17. Pruning: Do not heavily prune trees and shrubs at planting. Prune only broken, dead, or diseased branches.

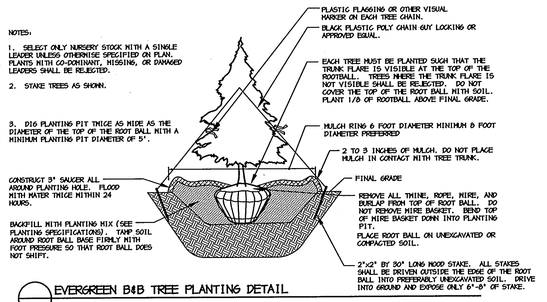
18. All areas within contract limits disturbed during or prior to construction not designated to receive plants and mulch shall be fine graded, grass seed planted, and covered with straw mulch.



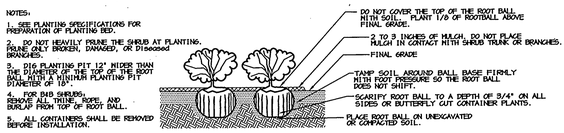
DECIDUOUS B&B TREE PLANTING DETAIL (TREES 3" CAL. OR LARGER)
NOT TO SCALE



DECIDUOUS B&B TREE PLANTING DETAIL (TREES 3" CAL. OR SMALLER)
NOT TO SCALE



EVERGREEN B&B TREE PLANTING DETAIL
NOT TO SCALE



SHRUB BED PLANTING DETAIL - B&B AND CONTAINER SHRUBS
NOT TO SCALE

GENERAL 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. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE GRADING PERMIT IN THE AMOUNT OF $12,900.
43 SHADE TREES @ $300 = $12,900
0 ORNAMENTAL TREES @ $150 = $0
0 EVERGREEN TREES @ $150 = $0
0 SHRUBS @ $30 = $0

3. THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.

4. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.

5. ALL MATERIAL SELECTED SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE "USA STANDARD FOR NURSERY STOCK", LATEST EDITION, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

6. ALL MATERIAL SHALL BE PLANTED IN ACCORDANCE WITH THE MINIMUM STANDARDS CITED IN THE LATEST EDITION OF "LANDSCAPE SPECIFICATION GUIDELINES" PUBLISHED BY THE LANDSCAPE CONTRACTORS ASSOCIATION.

7. AT THE TIME OF INSTALLATION, ALL SHRUBS AND OTHER PLANTINGS SHALL BE OF THE PROPER HEIGHT AND/OR SPREAD REQUIREMENTS IN ACCORDANCE WITH THIS PLAN AND THE HOWARD COUNTY LANDSCAPE MANUAL.

8. NO SUBSTITUTIONS OR RELOCATION OF PLANTS MAY BE MADE WITHOUT PRIOR APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING OF HOWARD COUNTY. ANY DEVIATION FROM THIS LANDSCAPE PLAN MAY RESULT IN A REQUIREMENT FOR SUBMITTAL OF AN OFFICIAL "REDLINE REVISION" TO THE SITE DEVELOPMENT PLAN(S) AND/OR DENIAL IN THE RELEASE OF LANDSCAPE SURETY.

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 YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

SIGNATURE — DATE 6.20.05

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 7/12/05

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 7/6/05

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 7/12/05

DATE	NO.	REVISION
02/09/06	2	ADDED 40 PARKING SPACES; REVISED LOADING AREA BUILDING 1; OMIT GUARDRAIL

OWNER

BLUE RUN I ENTERPRISES, LLC.
c/o BILL KNOTT
57 W. TIMONIUM ROAD, SUITE 106
TIMONIUM, MARYLAND 21093
443-271-5646

DEVELOPER

PATAPSCO VALLEY, LLC
c/o SAM LANCELOTTA
6339 TEN OAKS ROAD
CLARKSVILLE, MARYLAND 21209
443-535-0001

PROJECT
PARKSIDE WAREHOUSE CONDOMINIUMS
TWO OFFICE WAREHOUSE BUILDINGS
PATAPSCO VALLEY BUSINESS CENTER, PARCEL H & PARCEL 287

AREA TAX MAP 38 PARCEL 287 ZONED M-2
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
REVISED LANDSCAPE NOTES AND DETAILS

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

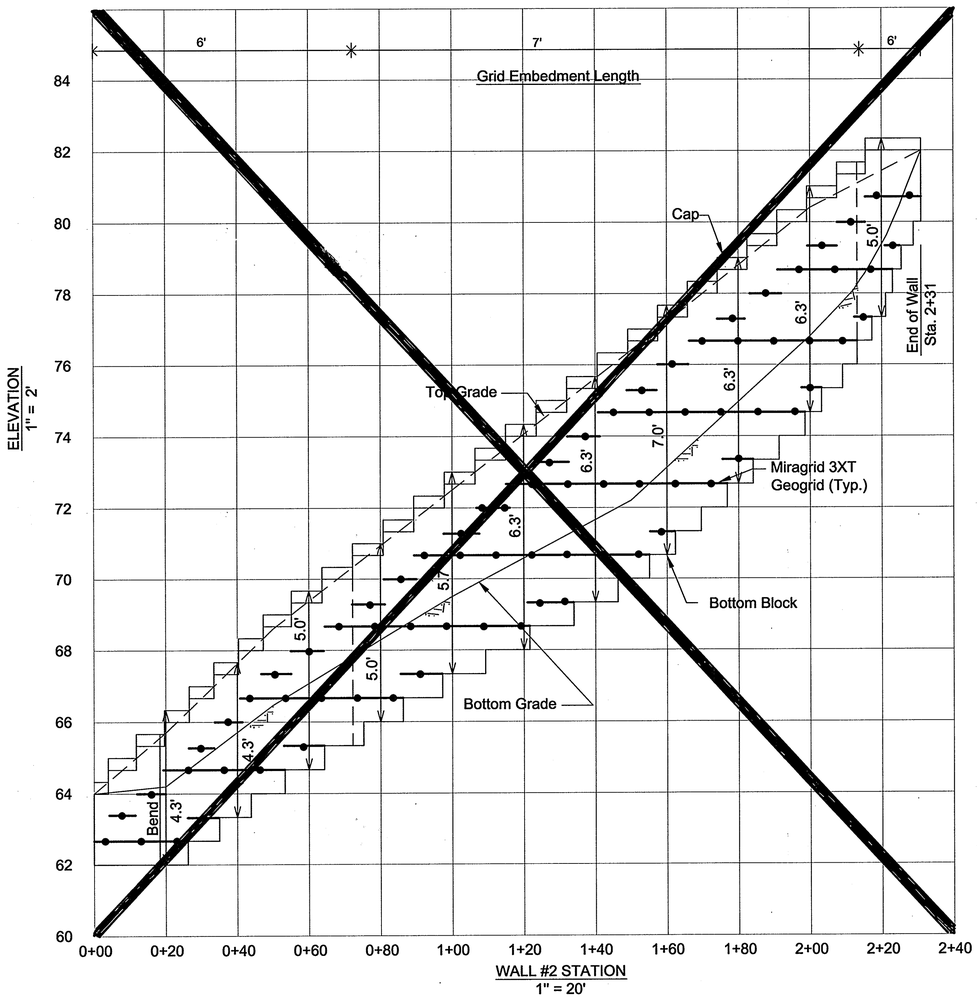
DATE

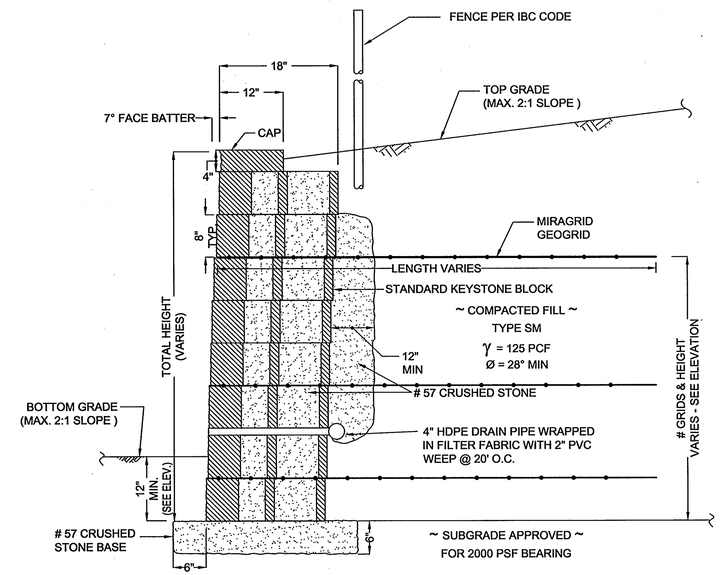
STATE OF MARYLAND 797 SCOTT R. WOLFORD PROFESSIONAL ENGINEER

SCOTT R. WOLFORD #797

DESIGNED BY :	
DRAWN BY:	DAM
PROJECT NO	13282/1-0/ PLANS/C201LND
DATE :	JUNE 20, 2005
SCALE :	AS SHOWN
DRAWING NO.	9 OF 16

SDP-05-083





TYPICAL BLOCK WALL SECTION

N.T.S.

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 7/12/05

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 7/6/05

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 7/12/05

DATE	NO.	REVISION
10/12/05	1	REMOVED RETAINING WALL # 2

OWNER
BLUE RUN I ENTERPRISES, LLC.
c/o BILL KNOTT
6339 TEN OAKS ROAD
CLARKSVILLE, MARYLAND 21209
443-535-0001

DEVELOPER
PATAPSCO VALLEY, LLC
c/o BILL KNOTT
6339 TEN OAKS ROAD
CLARKSVILLE, MARYLAND 21209
443-535-0001

PROJECT
PARKSIDE WAREHOUSE CONDOMINIUMS
TWO OFFICE WAREHOUSE BUILDINGS
PATAPSCO VALLEY BUSINESS CENTER, PARCEL H & PARCEL 287

AREA TAX MAP 38 PARCEL 287 ZONED M-2
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
RETAINING WALL
CONSTRUCTION DETAILS

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
PHR+A
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

HILLIS-CARNES
ENGINEERING ASSOCIATES, INC.
12011 Guilford Road Suite 106
Balto. (410) 880-4788 D.C. (301) 470-4239
Annapolis Junction, Maryland 20701
Fax (410) 880-4098

DESIGNED BY : RWS
DRAWN BY: CX
PROJECT NO : 05020-A
DATE: JUNE 15, 2005
SCALE : AS SHOWN
DRAWING NO. 10 OF 16

SDP-05-083

SPECIFICATIONS

KEYSTONE MODULAR CONCRETE BLOCK RETAINING WALL

PART 1: GENERAL

1.01 Description

A. Work shall consist of furnishing and construction of a KEYSTONE Retaining Wall System in accordance with these specifications and in reasonably close conformity with the lines, grades, design, and dimensions shown on the plans.
B. Work includes preparing foundation soil, furnishing and installing leveling pad, unit drainage fill and backfill to the lines and grades shown on the construction drawings.
C. Work includes furnishing and installing geogrid soil reinforcement of the type, size, location, and lengths designated on the construction drawings.

1.02 Delivery, Storage and Handling

A. Contractor shall check all materials upon delivery to assure that the proper type, grade, color, and certification has been received.
B. Contractor shall protect all materials from damage due to job site conditions and in accordance with manufacturer's recommendations. Damaged materials shall not be incorporated into the work.

PART 2: PRODUCTS

2.01 Modular Concrete Retaining Wall Units

A. Modular concrete units shall conform to the following architectural requirements:
face color - concrete gray - standard manufacturers' color may be specified by the Owner.
face finish - sculptured rock face in angular tri-planer configuration. Other face finishes will not be allowed without written approval of Owner.
bond configuration - running with bonds nominally located at midpoint vertically adjacent units, in both straight and curved alignments.
exposed surfaces of units shall be free of chips, cracks or other imperfections when viewed from a distance of 10 feet under diffused lighting.
B. Modular concrete materials shall conform to the requirements of ASTM C1372 - Standard Specifications for Segmental Retaining Wall Units.
C. Modular concrete units shall conform to the following structural and geometric requirements measured in accordance with appropriate references:
compressive strength = 3000 psi minimum;
absorption = 8 % maximum (6% in northern states) for standard weight aggregates;
dimensional tolerances = ± 1/8" from nominal unit dimensions not including rough split face, ±1/16" unit height - top and bottom planes;
unit size - 8" (H) x 18" (W) x 18" (D) minimum;
unit weight - 100 lbs/unit minimum for standard weight aggregates;
inter-unit shear strength - 1000 plf minimum at 2 psi normal pressure;
geogrid/unit peak connection strength - 1000 plf minimum at 2 psi normal force.
D. Modular concrete units shall conform to the following constructability requirements:
vertical setback = 1/8"± per course (near vertical) or 1"+ per course per the design;
alignment and grid positioning mechanism - fiberglass pins, two per unit minimum;
maximum horizontal gap between erected units shall be - 1/2 inch.

2.02 Shear Connectors

A. Shear connectors shall be 1/2 inch diameter thermoset isophthalic polyester resin-protruded fiberglass reinforcement rods or equivalent to provide connection between vertically and horizontally adjacent units. Strength of shear connectors between vertical adjacent units shall be applicable over a design temperature of 10 degrees F to + 100 degrees F.
B. Shear connectors shall be capable of holding the geogrid in the proper design position during grid pre-tensioning and backfilling.

2.03 Base Leveling Pad Material

A. Material shall consist of a compacted #57 crushed stone base as shown on the construction drawings.

2.04 Unit Drainage Fill

A. Unit drainage fill shall consist of #57crushed stone
B. One cubic foot, minimum, of drainage fill shall be used for each square foot of wall face. Drainage fill shall be placed within cores of, between, and behind units to meet this requirement.

2.05 Reinforced Backfill

A. Reinforced backfill shall type SM, be free of debris and meet the following gradation tested in accordance with ASTM D-422 and meet other properties shown on the plan:

Sieve Size	Percent Passing
2 inch	100-75
3/4 inch	100-75
No. 40	0-80
No. 200	0-60

Plasticity Index (PI) <15 and Liquid Limit <40 per ASTM D-4318.
B. Material can be site excavated soils where the above requirements can be met. Unsuitable soils for backfill (high plastic clays or organic soils) shall not be used in the reinforced soil mass.

2.06 Geogrid Soil Reinforcement

A. Geosynthetic reinforcement shall consist of geogrids manufactured specifically for soil reinforcement applications and shall be manufactured from high tenacity polyester yarn.

2.07 Drainage Pipe

A. The drainage pipe shall be perforated corrugated HDPE pipe manufactured in accordance with ASTM D-1248.

PART 3 EXECUTION

3.01 Excavation

A. Contractor shall excavate to the lines and grades shown on the construction drawings. Owner's representative shall be responsible for inspecting and approving the excavation prior to placement of leveling material or fill soils.

3.02 Base Leveling Pad

A. Leveling pad material shall be placed to the lines and grades shown on the construction drawings, to a minimum thickness of 6 inches and extend laterally a minimum of 6" in front and behind the modular wall unit.
B. Leveling pad shall be prepared to insure full contact to the base surface of the concrete units.

3.03 Modular Unit Installation

A. First course of units shall be placed on the leveling pad at the appropriate line and grade. Alignment and level shall be checked in all directions and insure that all units are in full contact with the base and properly seated.
B. Place the front of units side-by-side. Do not leave gaps between adjacent units. Layout of corners and curves shall be in accordance with manufacturer's recommendations.
C. Install shear/connecting devices per manufacturer's recommendations.
D. Place and compact drainage fill within and behind wall units. Place and compact backfill soil behind drainage fill. Follow wall erection and drainage fill closely with structure backfill.
E. Maximum stacked vertical height of wall units, prior to unit drainage fill and backfill placement and compaction, shall not exceed three courses.

3.04 Structural Geogrid Installation

A. Geogrid shall be oriented with the highest strength axis perpendicular to the wall alignment.
B. Geogrid reinforcement shall be placed at the strengths, lengths, and elevations shown on the construction design drawings or as directed by the Engineer.
C. The geogrid shall be laid horizontally on compacted backfill and attached to the modular wall units. Place the next course of modular concrete units over the geogrid. The geogrid shall be pulled taut, and anchored prior to backfill placement on the geogrid.
D. Geogrid reinforcements shall be continuous throughout their embedment lengths and placed side-by-side to provide 100% coverage at each level. Spliced connections between shorter pieces of geogrid or gaps between adjacent pieces of geogrid are not permitted.

3.05 Reinforced Backfill Placement

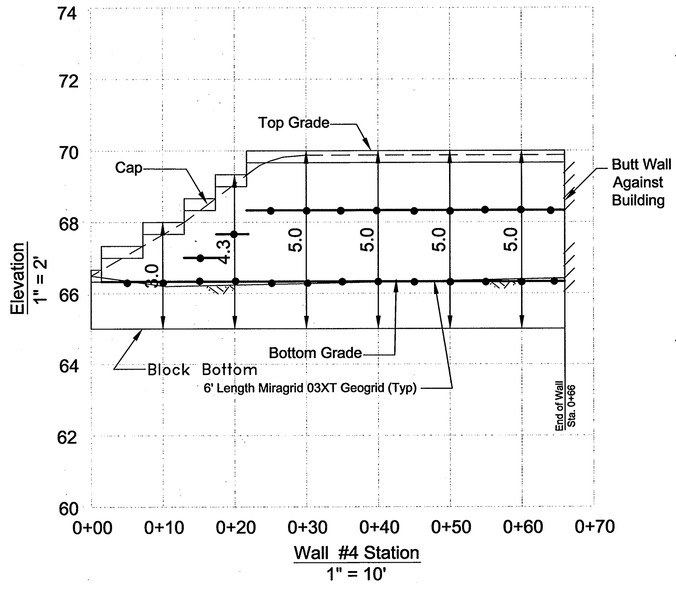
A. Reinforced backfill shall be placed, spread, and compacted in such a manner that minimizes the development of slack in the geogrid and installation damage.
B. Reinforced backfill shall be placed and compacted in lifts not to exceed 6 inches where hand compaction is used, or 8 - 10 inches where heavy compaction equipment is used. Lift thickness shall be decreased to achieve the required density as required.
C. Reinforced backfill shall be compacted to 95% of the maximum density as determined by ASTM D698. The moisture content of the backfill material prior to and during compaction shall be uniformly distributed throughout each layer and shall be + 3% to - 3% of optimum.
D. Only lightweight hand-operated equipment shall be allowed within 3 feet from the tail of the modular concrete unit.
E. Tracked construction equipment shall not be operated directly upon the geogrid reinforcement. A minimum fill thickness of 6 inches is required prior to operation of tracked vehicles over the geogrid. Tracked vehicle turning should be kept to a minimum to prevent tracks from displacing the fill and damaging the geogrid.
F. Rubber tired equipment may pass over geogrid reinforcement at slow speeds, less than 10 MPH. Sudden braking and sharp turning shall be avoided.
G. At the end of each day's operation, the Contractor shall slope the last lift of reinforced backfill away from the wall units to direct runoff away from wall face. The Contractor shall not allow surface runoff from adjacent areas to enter the wall construction site.

3.06 Cap Installation

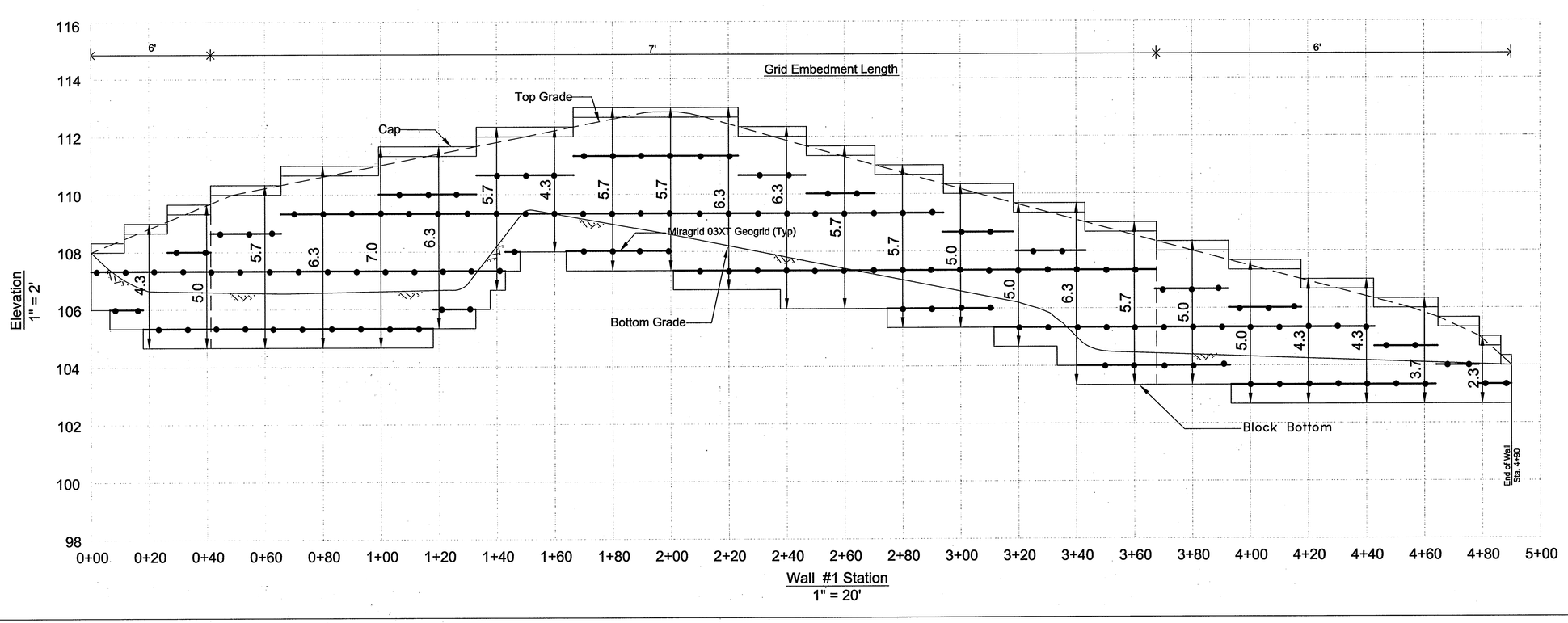
A. Cap units shall be glued to underlying units with an all-weather adhesive recommended by the manufacturer.

3.07 Field Quality Control

A. The Owner shall engage inspection and testing services, including independent laboratories, to provide quality assurance and testing services during construction.
B. As a minimum, quality assurance testing should include foundation soil inspection, soil and backfill testing, verification of design parameters, and observation of construction for general compliance with design drawings and specifications.



NOTES:
1.) No trees shall be planted within 10 feet of the top of the retaining wall.
2.) Retaining walls shall only be constructed under the observation of a registered professional engineer and a (NICET, WACEL, or equiv.) certified soils technician.
3.) The required bearing pressure beneath the wall system shall be verified in the field by a certified soils technician. Testing documentation must be provided to the Howard County Inspector prior to start of construction. The required bearing test shall be the Dynamic Cone Penetrometer test ASTM STP-399.
4.) The suitability of fill material shall be confirmed by the on-site soils technician. Each 8" lift must be compacted to a minimum 95% standard proctor density and the testing report shall be made available to the Howard County Inspector upon completion of construction.



APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 4/6/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 1/30/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1/31/06

DATE	NO.	REVISION
01/06/06	1	REVISED WALL #1 BOTTOM GRADE

OWNER
BLUE RUN I ENTERPRISES, LLC.
c/o BILL KNOTT
6339 TEN OAKS ROAD
CLARKSVILLE, MARYLAND 21209
443-535-0001

DEVELOPER
PATAPSCO VALLEY, LLC
c/o BILL KNOTT
6339 TEN OAKS ROAD
CLARKSVILLE, MARYLAND 21209
443-535-0001

PROJECT
PARKSIDE WAREHOUSE CONDOMINIUMS
TWO OFFICE WAREHOUSE BUILDINGS
PATAPSCO VALLEY BUSINESS CENTER, PARCEL H & PARCEL 287

AREA TAX MAP 38 PARCEL 287 ZONED M-2
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

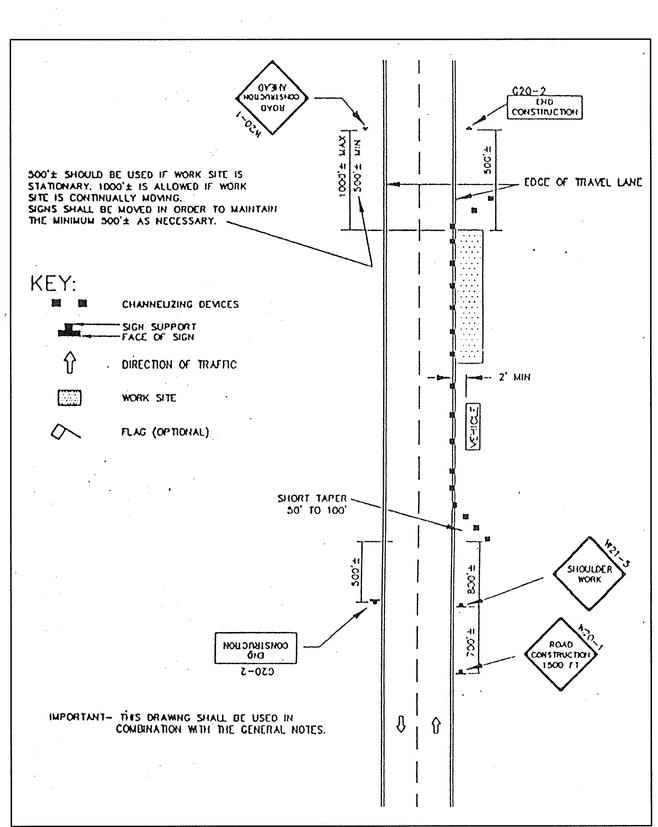
TITLE
REVISED RETAINING WALL CONSTRUCTION DETAILS

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

HILLIS-CARNES
ENGINEERING ASSOCIATES, INC.
12011 Guilford Road Suite 106
Balto. (410) 880-4788 D.C. (301) 470-4239
Annapolis Junction, Maryland 20701
Fax (410) 880-4098

DESIGNED BY : RWS
DRAWN BY: CX
PROJECT NO : 05020-A
DATE: JAN 6, 2006
SCALE : AS SHOWN
DRAWING NO. 11 OF 16

SDP-05-083



MAINTENANCE OF TRAFFIC DETAIL/PLAN

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR	DATE 7/12/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 7/6/05
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 7/12/05

DATE	NO.	REVISION

OWNER

BLUE RUN I ENTERPRISES, LLC.
c/o BILL KNOTT
57 W. TIMONIUM ROAD, SUITE 106
TIMONIUM, MARYLAND 21093
443-271-5646

DEVELOPER

PATAPSCO VALLEY, LLC
c/o SAM LANCELOTTA
6339 TEN OAKS ROAD
CLARKSVILLE, MARYLAND 21209
443-535-0001

PROJECT

PARKSIDE WAREHOUSE CONDOMINIUMS
TWO OFFICE WAREHOUSE BUILDINGS
PATAPSCO VALLEY BUSINESS CENTER, PARCEL H & PARCEL 287

AREA TAX MAP 38 PARCEL 287 ZONED M-2
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE

MAINTENANCE OF TRAFFIC PLAN

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

6.20.05
DATE

STATE OF MARYLAND
AIMEE C. REMINGTON
No. 29923
PROFESSIONAL ENGINEER

AIMEE C. REMINGTON #29923

DESIGNED BY :	C.J.R.
DRAWN BY:	DAM
PROJECT NO :	13282/1-0/CDETAILS2
DATE :	JUNE 20, 2005
SCALE :	AS SHOWN
DRAWING NO.	12 OF 16

SDP-05-083

MATCH LINE A-A SEE THIS SHEET

GRID NORTH

REFER TO SHEET 2
FOR ALL WALL
STATIONING

BUILDING #1
108,932 GSF
2 STORY OFFICE/WAREHOUSE
FF=70.0
SF=93.0

BUILDING #2
20740 GSF
1 STORY OFFICE/WAREHOUSE
FF=103.0

WALL 'A'
LOWER LEVEL RETAINING WALL

WALL 'B'

WALL 'C'

STA. 0+00
STA. 1+00
STA. 1+96
STA. 2+00
STA. 3+00
STA. 4+00
STA. 5+00
STA. 0+96
STA. 1+00
STA. 0+00

RIPRAP OUTLET PROTECTION
L=26'
W=28'
T=19"
d50=9.5" CL I

EX. 20' PUBLIC SEWER AND UTILITY EASEMENT (PLAT NO. 14625)

EX. 36' PUBLIC SEWER AND UTILITY EASEMENT (PLAT No. 14625)

EX. MH 2583

TOP SMH RIM=53.85
IN= 42.60
OUT= 42.52

PUBLIC 8"S (14-4277-D)

PUBLIC 8"W (14-4277-D)

PUBLIC 12"W (14-4277-D)

20' PUBLIC SEWER AND UTILITY EASEMENT

20' PUBLIC WATER AND UTILITY EASEMENT PLAT #

GUARD RAIL SEE HO.CO.STD. R 7.01

DUMPSTER ENCLOSURE SEE HO.CO.STD DETAIL R 11.02

DUMPSTER PAD SEE DETAIL SH.5

SET-DOWN PADS (4 TYP)

WHEELSTOPS (3 TYP)

HANDICAP SIGN

VAN ACCESSIBLE HANDICAP SIGN (2 TYP.)

ACCESS AISLE SIGN

NOSE DOWN CURB

2'CURB CUT (36' APART)

12' WIDE DEPRESSED CURB TO ACCESS STORAGE AREA

OUTSIDE STORAGE I-2 AREA

6' HIGH CHAIN LINK FENCE

BLOCK RETAINING WALL #2 WITH 42" CHAIN LINK FENCE

BLOCK RETAINING WALL NO GEO-GRIDS TO KEEP OFF GAS EASEMENT

BLOCK RETAINING WALL #1 W/42" CHAIN LINK FENCE

10 MAINTENANCE EASEMENT

WETLAND BUFFER

FIRE DEPT. CONNECTION KNOX BOX LOCATION 4'-5' FROM DOOR 4'-5' OFF GROUND

ACCESS AISLE

VAN ACCESSIBLE HANDICAP SIGN (2 TYP.)

PRIVATE SEWER

PRIVATE 8"W

PRIVATE 6"W INSIDE METER

TRANSFORMER PAD

5'CONCRETE SIDEWALK

PATAPSCO VALLEY BUSINESS CENTER
PARCEL H
PLAT-15498
ZONED M-2

PATAPSCO VALLEY BUSINESS CENTER
PARCEL G
PLAT-15498
ZONED M-2

STATE OF MARYLAND
HOWARD COUNTY DEPARTMENT OF FORESTS AND

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 7/12/05

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 7/6/05

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 7/12/05

DATE	NO.	REVISION
10/12/05	1	ELIMINATED SHEET. ADDED STA TO SHEET 2.

OWNER

BLUE RUN I ENTERPRISES, LLC.
c/o BILL KNOTT
57 W. TIMONIUM ROAD, SUITE 106
TIMONIUM, MARYLAND 21093

DEVELOPER

PATAPSCO VALLEY, LLC
c/o SAM LANCELOTTA
6339 TEN OAKS ROAD
CLARKSVILLE, MARYLAND 21209
443-535-0001

PROJECT
PARKSIDE WAREHOUSE CONDOMINIUMS
TWO OFFICE WAREHOUSE BUILDINGS
PATAPSCO VALLEY BUSINESS CENTER, PARCEL H & PARCEL 287

AREA TAX MAP 38 PARCEL 287 ZONED M-2
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
BUILDING #1 RETAINING WALL LOCATION PLAN

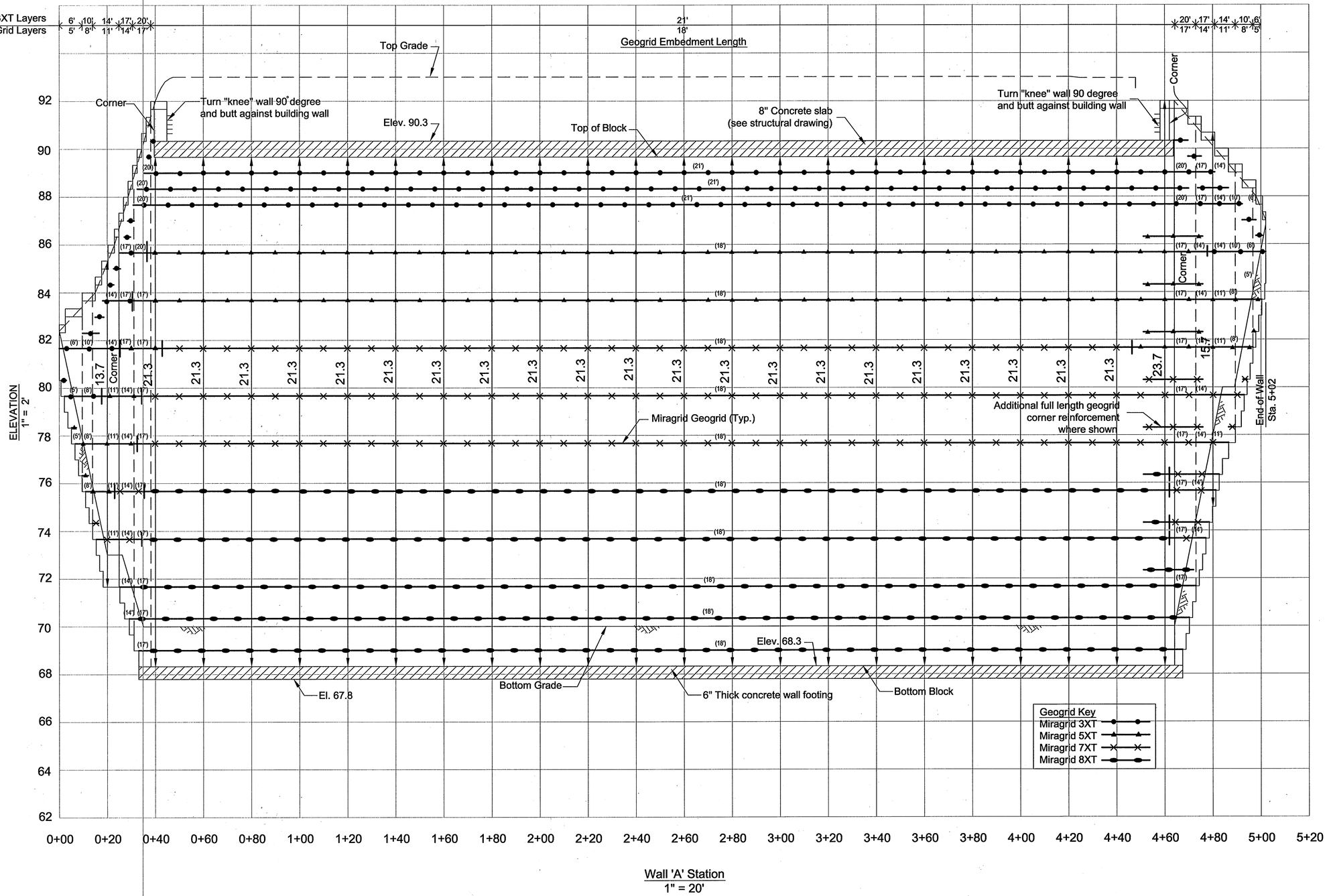
HILLIS-CARNES
ENGINEERING ASSOCIATES, INC.
12011 Guilford Road Suite 106, Annapolis Junction, Maryland 20701
Baltimore (410) 880-4788 D.C. (301) 470-4239 Fax (410) 880-4098

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

STATE OF MARYLAND — ROBERT W. SCHAMP — PROFESSIONAL ENGINEER

DESIGNED BY:	R.W.S.
DRAWN BY:	A.M.
PROJECT NO:	05020-B
DATE:	MARCH 17, 2005
SCALE:	1" = 30'
DRAWING NO.	13 OF 16

SDP-05-83



APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 2/6/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 1/30/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1/31/06

DATE	NO.	REVISION
01/06/06	1	REVISED WALL GRADE AND LENGTH

OWNER

BLUE RUN I ENTERPRISES, LLC.
c/o BILL KNOTT
57 W. TIMONIUM ROAD, SUITE 106
TIMONIUM, MARYLAND 21093

DEVELOPER

PATAPSCO VALLEY, LLC
c/o SAM LANCELOTTA
6339 TEN OAKS ROAD
CLARKSVILLE, MARYLAND 21209
443-535-0001

PROJECT
PARKSIDE WAREHOUSE CONDOMINIUMS
TWO OFFICE WAREHOUSE BUILDINGS
PATAPSCO VALLEY BUSINESS CENTER, PARCEL H & PARCEL 287

AREA TAX MAP 38 PARCEL 287 ZONED M-2
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
REVISED
BUILDING #1 RETAINING WALL 'A' ELEVATION

HILLIS-CARNES
ENGINEERING ASSOCIATES, INC.
12011 Guilford Road Suite 106, Annapolis Junction, Maryland 20701
Balto. (410) 880-4788 D.C. (301) 470-4239 Fax (410) 880-4098

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

DESIGNED BY:	R.W.S.
DRAWN BY:	A.M.
PROJECT NO:	05020-B
DATE:	JAN 6, 2006
SCALE:	AS SHOWN
DRAWING NO.	14 OF 16

SDP-05-083

SUGGESTED PARAPET WALL DETAIL

N.T.S.

NOTES:

1.) No trees shall be planted within 10 feet of the top of the retaining wall.
2.) Retaining walls shall only be constructed under the observation of a registered professional engineer and a (NICET, WACEL, or equiv.) certified soils technician.
3.) The required bearing pressure beneath the wall system shall be verified in the field by a certified soils technician. Testing documentation must be provided to the Howard County Inspector prior to start of construction. The required bearing test shall be the Dynamic Cone Penetrometer test ASTM STP-399.
4.) The suitability of fill material shall be confirmed by the on-site soils technician. Each 8" lift must be compacted to a minimum 95% standard proctor density and the testing report shall be made available to the Howard County Inspector upon completion of construction.

SPECIFICATIONS

KEYSTONE MODULAR CONCRETE BLOCK RETAINING WALL

PART 1: GENERAL

1.01 Description

A. Work shall consist of furnishing and construction of a KEYSTONE Retaining Wall System in accordance with these specifications and in reasonably close conformity with the lines, grades, design, and dimensions shown on the plans.
B. Work includes preparing foundation soil, furnishing and installing leveling pad, unit drainage fill and backfill to the lines and grades shown on the construction drawings.
C. Work includes furnishing and installing geogrid soil reinforcement of the type, size, location, and lengths designated on the construction drawings.

1.02 Delivery, Storage and Handling

A. Contractor shall check all materials upon delivery to assure that the proper type, grade, color, and certification has been received.
B. Contractor shall protect all materials from damage due to job site conditions and in accordance with manufacturer's recommendations. Damaged materials shall not be incorporated into the work.

PART 2: PRODUCTS

2.01 Modular Concrete Retaining Wall Units

A. Modular concrete units shall conform to the following architectural requirements:
face color - concrete gray - standard manufacturers' color may be specified by the Owner.
face finish - sculptured rock face in angular tri-planer configuration. Other face finishes will not be allowed without written approval of Owner.
bond configuration - running with bonds nominally located at midpoint vertically adjacent units, in both straight and curved alignments.
exposed surfaces of units shall be free of chips, cracks or other imperfections when viewed from a distance of 10 feet under diffused lighting.
B. Modular concrete materials shall conform to the requirements of ASTM C1372 - Standard Specifications for Segmental Retaining Wall Units.
C. Modular concrete units shall conform to the following structural and geometric requirements measured in accordance with appropriate references:
compressive strength = 3000 psi minimum;
absorption = 8 % maximum (6% in northern states) for standard weight aggregates;
dimensional tolerances = ± 1/8" from nominal unit dimensions not including rough split face, ±1/16" unit height - top and bottom planes;
unit size - 8" (H) x 18" (W) x 22" (D) minimum;
unit weight - 100 lbs/unit minimum for standard weight aggregates;
inter-unit shear strength - 1000 plf minimum at 2 psi normal pressure;
geogrid/unit peak connection strength - 1000 plf minimum at 2 psi normal force.
D. Modular concrete units shall conform to the following constructability requirements:
vertical setback = 1/8"± per course (near vertical) or 1"+ per course per the design;
alignment and grid positioning mechanism - fiberglass pins, two per unit minimum;
maximum horizontal gap between erected units shall be - 1/2 inch.

2.02 Shear Connectors

A. Shear connectors shall be 1/2 inch diameter thermoset isopthalic polyester resin-protruded fiberglass reinforcement rods or equivalent to provide connection between vertically and horizontally adjacent units. Strength of shear connectors between vertical adjacent units shall be applicable over a design temperature of 10 degrees F to + 100 degrees F.
B. Shear connectors shall be capable of holding the geogrid in the proper design position during grid pre-tensioning and backfilling.

2.03 Base Leveling Pad Material

A. Material shall consist of a compacted #57 crushed stone base as shown on the construction drawings.

2.04 Unit Drainage Fill

A. Unit drainage fill shall consist of #57crushed stone
B. One cubic foot, minimum, of drainage fill shall be used for each square foot of wall face. Drainage fill shall be placed within cores of, between, and behind units to meet this requirement.

2.05 Reinforced Backfill

A. Reinforced backfill shall type SM, be free of debris and meet the following gradation tested in accordance with ASTM D-422 and meet other properties shown on the plan:

Sieve Size	Percent Passing
2 inch	100-75
3/4 inch	100-75
No. 40	0-60
No. 200	0-35

Plasticity Index (PI) <15 and Liquid Limit <40 per ASTM D-4318.
B. Material can be site excavated soils where the above requirements can be met. Unsuitable soils for backfill (high plastic clays or organic soils) shall not be used in the reinforced soil mass.

2.06 Geogrid Soil Reinforcement

A. Geosynthetic reinforcement shall consist of geogrids manufactured specifically for soil reinforcement applications and shall be manufactured from high tenacity polyester yarn.

2.07 Drainage Pipe

A. The drainage pipe shall be perforated corrugated HDPE pipe manufactured in accordance with ASTM D-1248.

PART 3 EXECUTION

3.01 Excavation

A. Contractor shall excavate to the lines and grades shown on the construction drawings. Owner's representative shall be responsible for inspecting and approving the excavation prior to placement of leveling material or fill soils.

3.02 Base Leveling Pad

A. Leveling pad material shall be placed to the lines and grades shown on the construction drawings, to a minimum thickness of 6 inches and extend laterally a minimum of 6" in front and behind the modular wall unit.
B. Leveling pad shall be prepared to insure full contact to the base surface of the concrete units.

3.03 Modular Unit Installation

A. First course of units shall be placed on the leveling pad at the appropriate line and grade. Alignment and level shall be checked in all directions and insure that all units are in full contact with the base and properly seated.
B. Place the front of units side-by-side. Do not leave gaps between adjacent units. Layout of corners and curves shall be in accordance with manufacturer's recommendations.
C. Install shear/connecting devices per manufacturer's recommendations.
D. Place and compact drainage fill within and behind wall units. Place and compact backfill soil behind drainage fill. Follow wall erection and drainage fill closely with structure backfill.
E. Maximum stacked vertical height of wall units, prior to unit drainage fill and backfill placement and compaction, shall not exceed three courses.

3.04 Structural Geogrid Installation

A. Geogrid shall be oriented with the highest strength axis perpendicular to the wall alignment.
B. Geogrid reinforcement shall be placed at the strengths, lengths, and elevations shown on the construction design drawings or as directed by the Engineer.
C. The geogrid shall be laid horizontally on compacted backfill and attached to the modular wall units. Place the next course of modular concrete units over the geogrid. The geogrid shall be pulled taut, and anchored prior to backfill placement on the geogrid.
D. Geogrid reinforcements shall be continuous throughout their embedment lengths and placed side-by-side to provide 100% coverage at each level. Spliced connections between shorter pieces of geogrid or gaps between adjacent pieces of geogrid are not permitted.

3.05 Reinforced Backfill Placement

A. Reinforced backfill shall be placed, spread, and compacted in such a manner that minimizes the development of slack in the geogrid and installation damage.
B. Reinforced backfill shall be placed and compacted in lifts not to exceed 6 inches where hand compaction is used, or 8 - 10 inches where heavy compaction equipment is used. Lift thickness shall be decreased to achieve the required density as required.
C. Reinforced backfill shall be compacted to 95% of the maximum density as determined by ASTM D698. The moisture content of the backfill material prior to and during compaction shall be uniformly distributed throughout each layer and shall be + 3% to - 3% of optimum.
D. Only lightweight hand-operated equipment shall be allowed within 3 feet from the tail of the modular concrete unit.
E. Tracked construction equipment shall not be operated directly upon the geogrid reinforcement. A minimum fill thickness of 6 inches is required prior to operation of tracked vehicles over the geogrid. Tracked vehicle turning should be kept to a minimum to prevent tracks from displacing the fill and damaging the geogrid.
F. Rubber tired equipment may pass over geogrid reinforcement at slow speeds, less than 10 MPH. Sudden braking and sharp turning shall be avoided.
G. At the end of each day's operation, the Contractor shall slope the last lift of reinforced backfill away from the wall units to direct runoff away from wall face. The Contractor shall not allow surface runoff from adjacent areas to enter the wall construction site.

3.06 Cap Installation

A. Cap units shall be glued to underlying units with an all-weather adhesive recommended by the manufacturer.

3.07 Field Quality Control

A. The Owner shall engage inspection and testing services, including independent laboratories, to provide quality assurance and testing services during construction.
B. As a minimum, quality assurance testing should include foundation soil inspection, soil and backfill testing, verification of design parameters, and observation of construction for general compliance with design drawings and specifications.

WALL 'A' STA. 3+00 (FROM CARROLL ENGINEERING STRUCTURAL DRAWINGS)

N.T.S.

TYPICAL WALL SECTION

N.T.S.

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 7/12/05

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 7/6/05

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 7/12/05

DATE	NO.	REVISION

OWNER
BLUE RUN I ENTERPRISES, LLC.
c/o BILL KNOTT
57 W. TIMONIUM ROAD, SUITE 106
TIMONIUM, MARYLAND 21093

DEVELOPER
PATAPSCO VALLEY, LLC
c/o SAM LANCELOTTA
6339 TEN OAKS ROAD
CLARKSVILLE, MARYLAND 21209
443-535-0001

PROJECT
PARKSIDE WAREHOUSE CONDOMINIUMS
TWO OFFICE WAREHOUSE BUILDINGS
PATAPSCO VALLEY BUSINESS CENTER, PARCEL H & PARCEL 287

AREA
TAX MAP 38 PARCEL 287 ZONED M-2
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

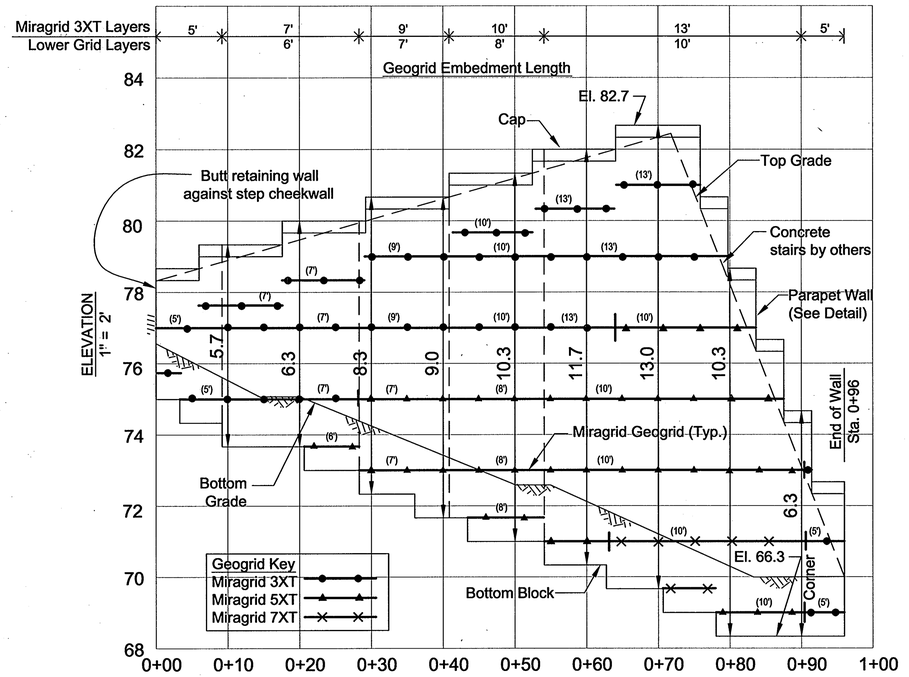
TITLE
BUILDING #1 RETAINING WALL DETAILS

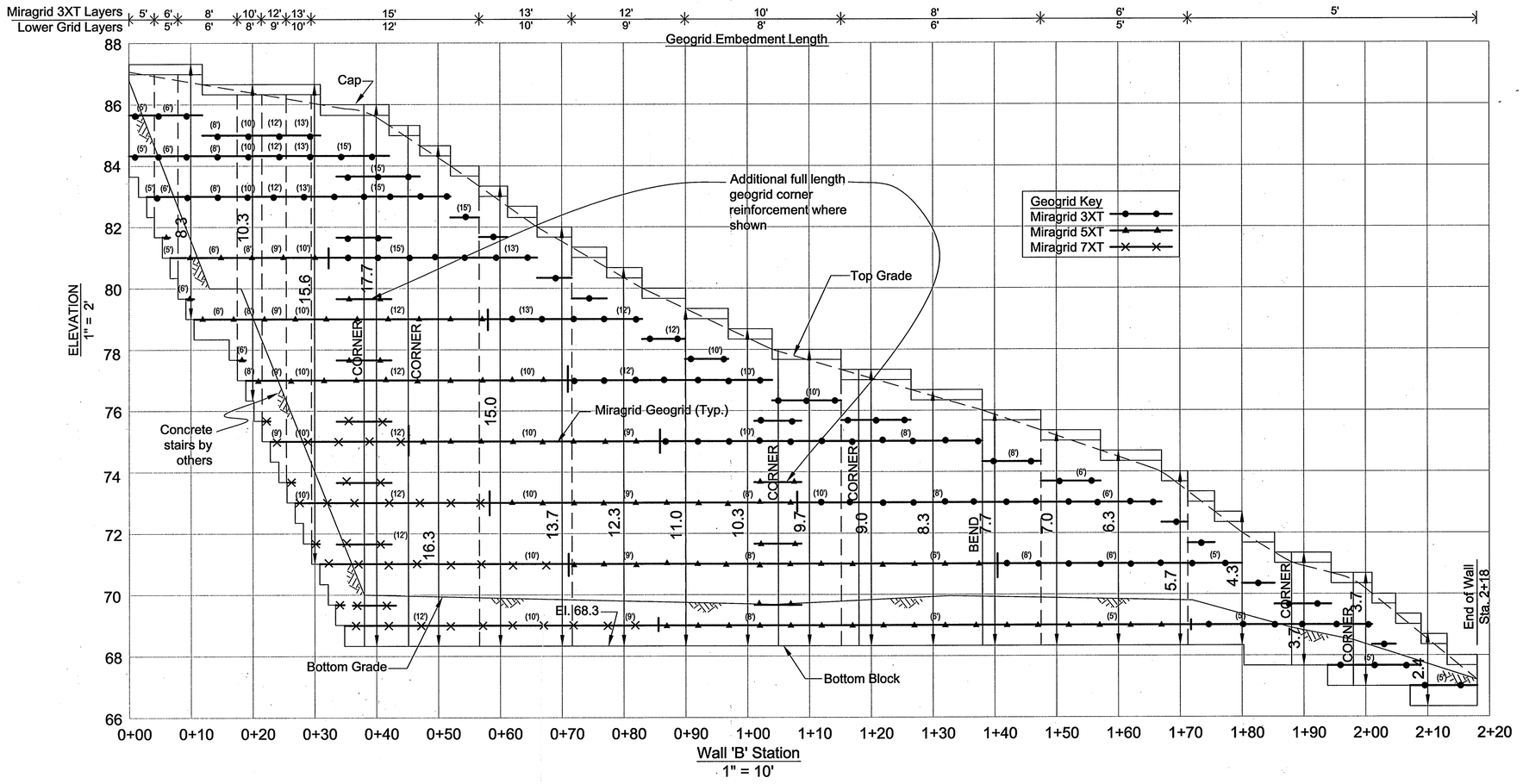
HILLIS-CARNES
ENGINEERING ASSOCIATES, INC.
12011 Guilford Road Suite 106
Balto. (410) 880-4788 D.C. (301) 470-4239
Annapolis Junction, Maryland 20701
Fax (410) 880-4098

Patton Harris Rust & Associates,pc
Engineers. Surveyors. Planners. Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

DESIGNED BY: R.W.S.
DRAWN BY: A.M.
PROJECT NO: 05020-B
DATE: MARCH 17, 2005
SCALE: AS SHOWN
DRAWING NO. 15 OF 16

SDP-05-83





APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR — DATE 2/6/06

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 1/30/06

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1/31/06

DATE	NO.	REVISION
01/06/06	1	REVISED WALL GRADE AND LENGTH

OWNER

BLUE RUN I ENTERPRISES, LLC.
c/o BILL KNOTT
57 W. TIMONIUM ROAD, SUITE 106
TIMONIUM, MARYLAND 21093

DEVELOPER

PATAPSCO VALLEY, LLC
c/o SAM LANCELOTTA
6339 TEN OAKS ROAD
CLARKSVILLE, MARYLAND 21209
443-535-0001

PROJECT
PARKSIDE WAREHOUSE CONDOMINIUMS
TWO OFFICE WAREHOUSE BUILDINGS
PATAPSCO VALLEY BUSINESS CENTER, PARCEL H & PARCEL 287

AREA TAX MAP 38 PARCEL 287 ZONED M-2
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
BUILDING #1 REVISED RETAINING WALL 'B' & 'C' ELEVATIONS

HILLIS-CARNES
ENGINEERING ASSOCIATES, INC.
12011 Guilford Road Suite 106, Annapolis Junction, Maryland 20701
Balto. (410) 880-4788 D.C. (301) 470-4239 Fax (410) 880-4098

Patton Harris Rust & Associates, pc
Engineers. Surveyors. Planners. Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

STATE OF MARYLAND — RICHARD WARREN STANLEY — No. 21397 — PROFESSIONAL ENGINEER

DESIGNED BY:	R.W.S.
DRAWN BY:	A.M.
PROJECT NO:	05020-B
DATE:	JAN 6, 2006
SCALE:	AS SHOWN
DRAWING NO.	16 OF 16

SDP-05-083