**GENERAL NOTES** 

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. IV "STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION" PLUS MSHA STANDARDS AND SPECIFICATIONS,
- 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.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AY 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. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS, (JANUARY 1998). A MINIMUM SPACING OF 20' SHALL BE MAINTAINÉD BETWEEN ANY STREET LIGHT AND ANY TREE.
- 6. THE EXISTING TOPOGRAPHY IS TAKEN FROM AERIAL SURVEY MAPS WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY AIR SURVEY CORP. FLOWN IN APRIL 1998.
- 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. 47 E4 ALONG WITH 2 TRAVERSE POINTS WERE USED FOR THIS PROJECT.
- 8. WATER IS PUBLIC, CONTRACT NO. 34-3971-D
- 9. SEWER IS PUBLIC. SEWER DRAINAGE AREA: PATUXENT CONTRACT NO. 34-3971-D
- 10. STORMWATER MANAGEMENT FOR THIS DEVELOPMENT IS PROVIDED IN ACCORDANCE WITH THE 2000 MDE STORMWATER MANAGEMENT MANUAL UNDER F-01-140. PORTIONS OF OPEN SPACE LOTS 35, 36 & 39 ARE BEING USED AS NATURAL AREA CONSERVATION CREDIT AREAS, A CENTRAL PRIVATELY MAINTAINED STORMWATER WET POND IS BEING USED TO PROVIDE THE WATER QUALITY AND CHANNEL PROTECTION VOLUMES FOR THIS DEVELOPMENT.
- 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. THE WETLANDS DELINEATION STUDY FOR THIS PROJECT WAS PREPARED BY DAFT McCUNE & WALKER, INC.
- 13. THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY WELLS & ASSOCIATES
- DATED FEBRUARY 2000, AND WAS APPROVED UNDER F-01-140. 14. THE NOISE STUDY FOR THIS PROJECT WAS PREPARED BY CENTURY ENGINEERING DATED
- DATED MARCH 1999, AND WAS APPROVED UNDER F-01-140.
- 15. THE BOUNDARY SURVEY FOR THIS PROJECT WAS PREPARED BY DAFT, McCUNE & WALKER, INC.
- SUBJECT PROPERTY ZONED R-ED PER 10-18-93 COMPREHENSIVE ZONING PLAN. DATED JUNE 1999.
- 17. ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929. 18. SEE DEPARTMENT OF PLANNING AND ZONING FILE NO'S.: S-00-12, WP-00-87, WP-01-39, WP-01-99,
- P-01-21, F-01-140, WP-02-15.
- 19. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- 20. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- 21. 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.
- 22. NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- 23. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- 24. ALL PIPE ELEVATIONS SHOWN ARE INVERT \_\_\_\_\_ ELEVATIONS.
- 25. STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, i.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
- 26. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN
- 27. DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL VOL. III.
- ALL ROAD RIGHT OF WAYS ARE 40' WIDE AND 25 M.P.H. 28. ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A
- MINIMUM OF 95% COMPACTION OF AASHTO T180.
- 29. ALL STREET CURB RETURNS SHALL HAVE 25' RADII UNLESS OTHERWISE NOTED.
- 30. ALL STREET LIGHTS SHALL BE LOCATED BETWEEN 2'-0" AND 4'-0" BEHIND FACE OF CURB. 31. STREET TREES (35) LOCATION, TYPE AND NUMBER OF TREES SHOWN ON THIS PLAN ARE TENTATIVE AND ARE USED FOR BOND PURPOSES ONLY. THE FINAL LOCATION AND VARIETY OF LOCATION AND VARIETY OF TREES MAY VARY TO ACCOMODATE FIELD CONDITIONS INCLUDING 20' CLEARANCE OF ANY STREET LIGHT AND SHALL BE IN ACCORDANCE WITH THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL. BOND RELEASE IS CONTINGENT UPON SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION REGULATIONS, AS APPROVED BY THE DEPARTMENT
- OF PLANNING AND ZONING. 32. WP-00-87 - A WAIVER OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, SECTION 16.116(a)(2)(ii), WHICH PROHIBITED GRADING, REMOVAL OF VEGETATION WITHIN 75 FEET OF A STREAM, DATED JULY 21,2000. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS: 1. THE GRADING AND CLEARING ASSOCIATED WITH IMPACT AREA #1, FOR SUNBEAM
  - PLACE TO CROSS THE STREAM, SHALL BE MINIMIZED AND COMPLY WITH THE FINAL ROAD PLANS, WHICH WILL BE REVIEWED AND APPROVED BY THE SRC. AS PROPOSED BY THE DEVELOPER WITH THIS WAIVER PETITION, THE UTILITY CROSSING OF THE STREAM MUST BE COINCIDENTAL WITH THE ROAD CROSSING. AS POSSIBLE, THE DEVELOPER SHALL COMPLY WITH COMMENT #1 OF THE JUNE 1,2000, REVIEW COMMENTS FROM THE SOIL CONSERVATION DISTRICT (SCD) REGARDING ROAD DESIGN AND LOCATION, AND SHALL CONFIGURE THE ROAD SO THAT ANY REQUIRED CALMING FEATURE ALIGNS WITH THE STREAM CROSSING. AND THEREBY LESSENS THE ASSOCIATED GRADING/CLEARING.
- 2. AS INDICATED IN THE COMMENTS FROM THE SCD, THE OUTFALL ASSOCIATED WITH IMPACT AREA #2 IS TO OUTFALL AT GRADE ELEVATION 308, UNLESS THE PRESENCE OF ROCK IS FOUND DURING FIELD INVESTIGATION, IN WHICH CASE THE OUTFALL MAY BE SHIFTED TO OUTFALL AT GRADE ELEVATION 314.
- 3. THE L.O.D. FOR IMPACT AREAS #3 AND #4 SHALL BE IN ACCORDANCE WITH THEIR WAIVER EXHIBIT DATED MARCH 17,2000. "NEITHER" THE WATER NOR THE SEWER LINES MAY BE EXTENDED BEHIND PROPOSED LOTS 34-40 (AS SHOWN IN THE EXHIBIT DATED MAY 8,2000), DUE TO ADDITIONAL IMPACT TO THE STREAM BUFFER. FOR IMPACT AREAS #3 AND #4, LIMIT TREE CLEARING AS MUCH AS POSSIBLE, ESPECIALLY SPECIMEN TREES. TO FURTHER DECREASE GRADING OR CLEARING, THE UTILITIES MUST BE CONSOLIDATED INTO A SINGLE EASEMENT, AS PROPOSED ON THE WAIVER EXHIBIT. (REVISED BY WP-01-99.)

TO THE FOLLOWING CONDITIONS:

PEDESTRIAN PATHWAY ONLY.

DISTRICT (SCD), DATED 8/29/01.

- 33. WP-01-39 A WAIVER OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, SECTION 16.146, WHICH REQUIRES THE SUBMISSION OF A PRELIMINARY PLAN
- AFTER A SKETCH PLAN HAD BEEN SIGNED. THE WAIVER WAS DENIED, NOVEMBER 17, 2000. THERE ARE 55 TENTATIVE HOUSING UNIT ALLOCATIONS RESERVED FOR THE SFA UNITS ON BULK PARCEL A, AS SHOWN ON S-00-12, AND IN ACCORDANCE WITH SECTION 16.1106.5.2.(ii) OF
- THE SUBDIVISION REGULATIONS. 35. THERE ARE NO EXISTING PERMANENT STRUCTURES ON-SITE.
- 36. WP-01-99 A WAIVER OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, SECTION 16.115.c.(2) TO ALLOW GRADING AND CLEARING IN A FLOODPLAIN AREA, AND SECTION 16.116.a.2.(ii) TO ALLOW GRADING AND CLEARING IN A STREAM BUFFER. FOR WORK ASSOCIATED WITH THE INSTALLATION OF THE WATER AND SEWER EXTENSIONS FROM THE
- 37. INTERNAL LANDSCAPING REQUIREMENTS TO BE ADDRESSED UNDER THE SITE DEVELOPMENT PLAN,

# ROADS, STORM DRAINS PLANS

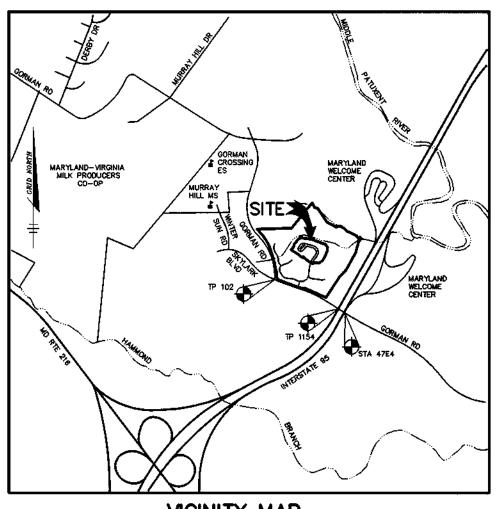
SECTION ONE AREA TWO LOTS 40-96 A RESUBDIVISION OF PARCEL A 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

#### <u>BENCHMARKS</u>

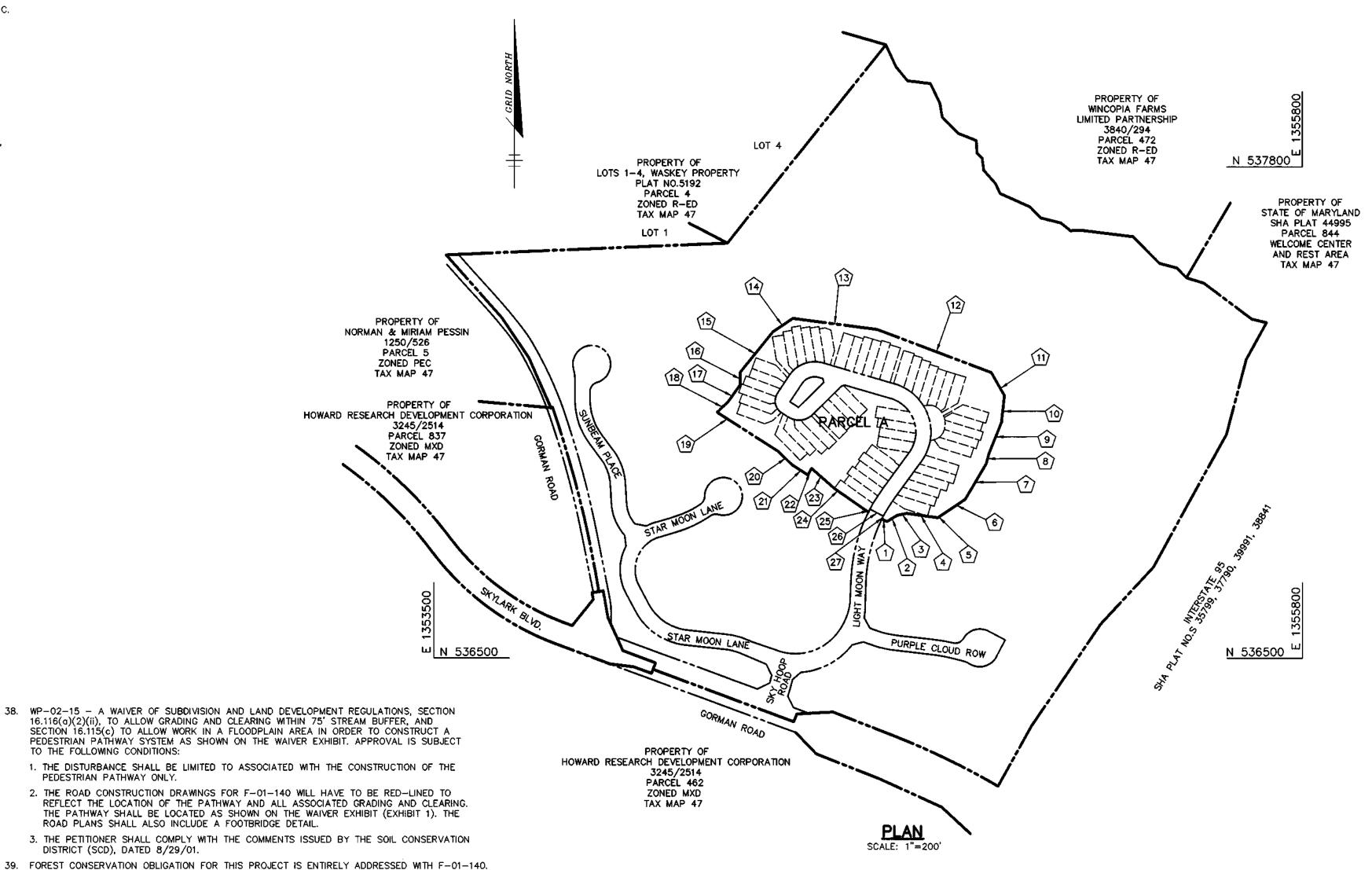
TRAVERSE POINT 102 ELEVATION 346.19 N 536,499.165 E 1,353,974.017 LOCATED NEAR THE INTERSECTION OF GORMAN ROAD AND SKYLARK BLVD.

TRAVERSE POINT 1154 ELEVATION 347.45 N 536,018.069 E 1,355,129.333 LOCATED NEAR THE I-95 BRIDGE ALONG GORMAN ROAD

CONTROL STATION 47E4 ELEVATION 339.00 N 535,846.16 E 1,355,431.23 LOCATED NEAR THE I-95 BRIDGE ALONG GORMAN ROAD



VICINITY MAP

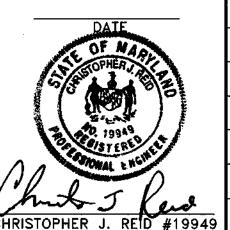


3(	<b>0U</b>	N	ID	Α	R	Y	CHAF
	1	S	63*	21'	59"	Ε	15.00'
	2	N			03"	. M	31.52'
	3	Ν			42"		26.08'
	4	S			32"		82.59'
	5	S			58"		7.70'
	6	S			20"		80.32'
	7	S	301	33'	56"	W	109.08'
	8	S	151	52'	32"	W	31.83'
	9	S			05"		86.22'
	10	S	06,	13'	11"	W	71.33'
	11	S	29*	37'	55"	Ε	70.32
	12	S	69	19"	10"	Ε	323.06'
	13	S	82	35'	36"	E	225.01
	14	S	55*	55'	54"	W	63.53'
	15	S	391	04'	11"	W	137.70'
	16	S	00,			W	33.36'
	17	Ν	35	<b>'41</b> '	13"	W	54.97'
	18	S	45	43'	53"	W	40.45'
	19		57			Ε	193.04'
	20				39"		50.00'
	21	S	57			E	50.14
	22	S	29	'42'	51"	W	20.03'
	23	S			15"		80.00
	24		54	<b>'</b> 56'	15"	Ε	110.16
	25	R			0.00	), F	= 9.00'
	26	S			14"	Ε	40.00'
	27	R	=	400	0.00	), F	= 8.00'

· · · · · · · · · · · · · · · · · · ·			DATE
APPRO	VED	: HOWARD COUNTY DEPARTMENT OF WORKS.	PUBLIC
<u>Au</u>	-IIEF	au M. Souele 11-	15-01 DATE
APPRO	VED	: HOWARD COUNTY DEPARTMENT OF AND ZONING.	PLANNING
_6	CHI	EF DIVISION OF LAND JA  DEVELOPMENT	/20/0/ ,DATE
		HIEF, DEVELOPMENT	JAJON DATE A
	El	IGINEERING DIVISION	
DATE	NO.	REVISION	
OWNEI THE I		ARD RESEARCH AND DEVELOPMENT C THE ROUSE BUILDING 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044 410-992-6000	
DEVEL	OPE	R TROUTMAN COMPANY 9030 RED BRANCH ROAD SUITE 100 COLUMBIA, MARYLAND 21045 410-730-7065	
PROJE	CT	EMERSON SECTION ONE AREA TWO LOTS 40-96 A RESUBDIVISION OF PARCEL	Α
AREA		TAX MAP 47 BLOCK 3,8 & 9	
		ZONED: R-ED PARCEL: P/O 83 6th ELECTION DISTRICT HOWARD COUNTY, I	
TITLE		TITLE SHEET	

AS BUILT CERTIFICATE

Patton Harris Rust & Associates, pc ENGINEERS ● SURVEYORS ● PLANNERS LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS 8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282



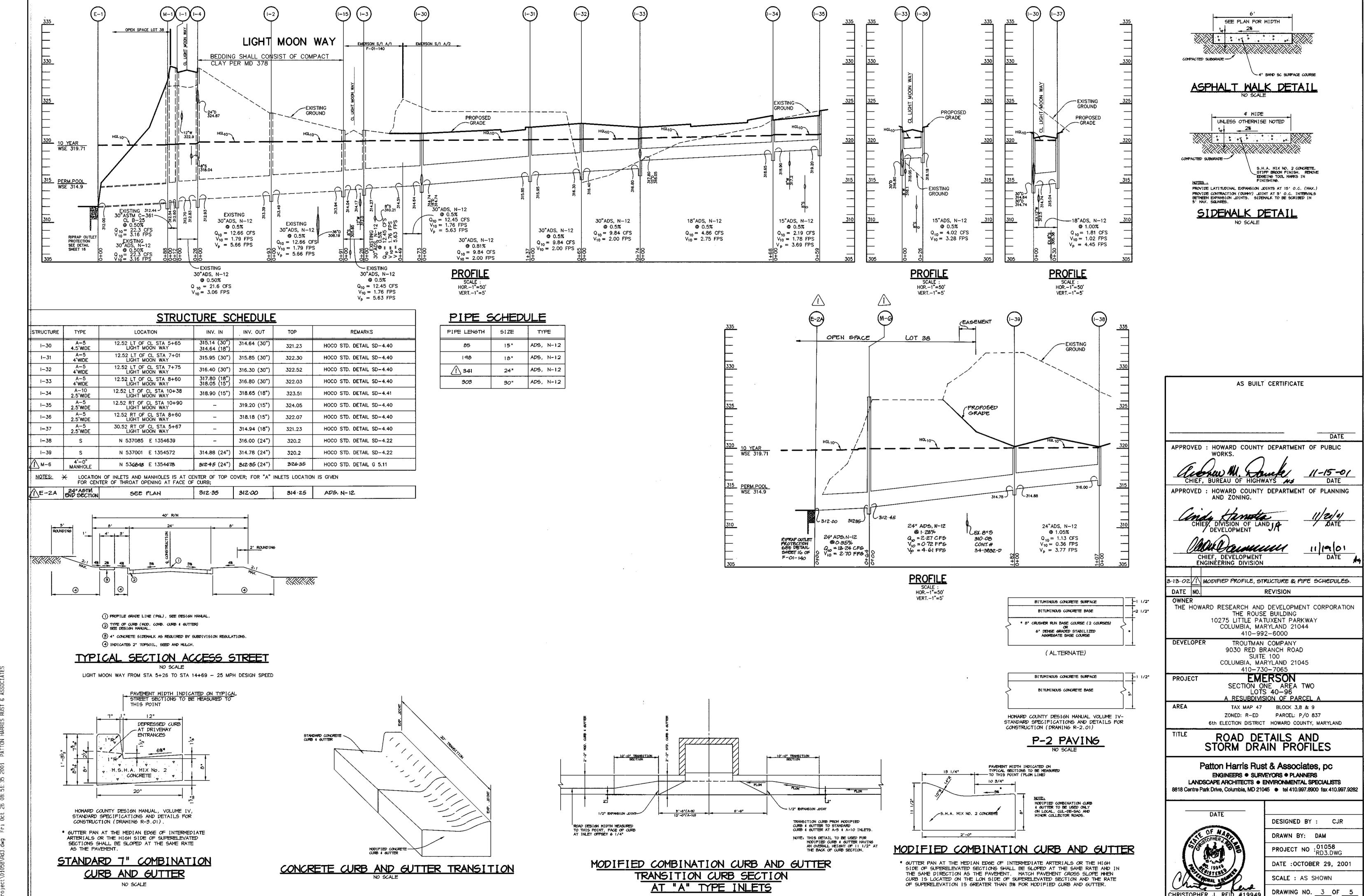
DESIGNED BY : CJR DRAWN BY: DAM PROJECT NO :01058 RD1.DWG DATE :OCTOBER 29, 2001

DRAWING NO. \_ 1 \_ OF \_ 5

SCALE : AS SHOWN

P:\ncniect\01058\Bd2 dwn Fri Ort 26 08:50:21 2001 PATION HARRIS BUST & ASSC

F-02-15



F-02-15

GRAVELLY SANDY LOAM, 5% - 10% SLOPES, MODERATELY ERODED GRAVELLY SANDY LOAM, 10% - 15% SLOPES, MODERATELY ERODED

Park Darie Villagia (Cara Darie)

DRAINAGE AREA LINES

LEGEND DESCRIPTION

SOIL LINES

SASSAFRAS SIC2 SASSAFRAS B LOAM, 5% - 10% SLOPES, MODERATELY ERODED

MANOR

SASSAFRAS

SASSAFRAS

MgC3

MIC2

MID2

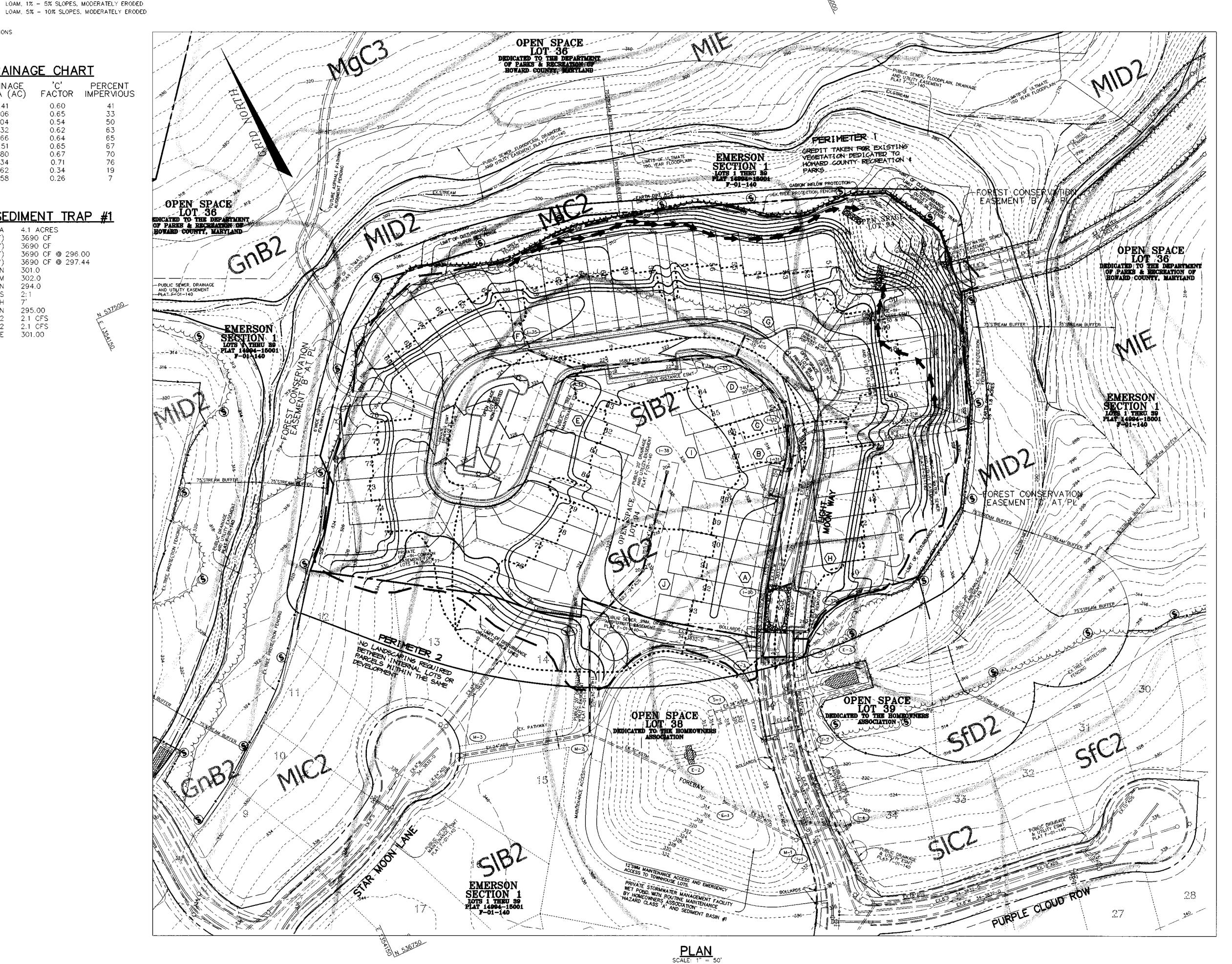
\* HYDRIC SOILS \*\* MAY CONTAIN HYDRIC INCLISIONS

DRAINAGE CHART

INLET NO.	INLET DESIGNATION	DRAINAGE AREA (AC)	'C' FACTOR	PERCEN IMPERVIO
1-30	Α	0.41	0.60	<b>4</b> 1
1 - 31	В	0.06	0.65	33
1 - 32	С	0.04	0.54	50
1-33	D	0.32	0.62	63
1-34	E	0.66	0.64	65
1-35	F	0.51	0.65	67
1-36	G	0.80	0.67	70
I <del></del> 37	Н	0.34	0.71	76
I-38		0.62	0.34	19
1-39	J	0.58	0.26	7

#### STONE OUTLET SEDIMENT TRAP #1

DRAINAGE AREA 4.1 ACRES STORAGE REQUIRED (WET) 3690 CF STORAGE REQUIRED (DRY) 3690 CF STORAGE PROVIDED (WET) 3690 CF © 296.00 STORAGE PROVIDED (DRY) 3690 CF © 297.44 RISER CREST ELEVATION 301.0 TOP OF DAM 302.0 BOTTOM ELEVATION 294.0 SIDE SLOPES 2:1 DEPTH 7' CLEANOUT ELEVATION 295.00 EX Q2 2.1 CFS PR Q2 2.1 CFS	STORAGE REQUIRED (WET) 3690 CF STORAGE REQUIRED (DRY) 3690 CF STORAGE PROVIDED (WET) 3690 CF © 296.00 STORAGE PROVIDED (DRY) 3690 CF © 297.44 RISER CREST ELEVATION 301.0 TOP OF DAM 302.0 BOTTOM ELEVATION 294.0 SIDE SLOPES 2:1 DEPTH 7' CLEANOUT ELEVATION 295.00 EX Q2 2.1 CFS	<del></del>	
2 YEAR WSF 301.00	Z 1LAN WSE 501.00	STORAGE REQUIRED (WET) STORAGE REQUIRED (DRY) STORAGE PROVIDED (WET) STORAGE PROVIDED (DRY) RISER CREST ELEVATION TOP OF DAM BOTTOM ELEVATION SIDE SLOPES DEPTH CLEANOUT ELEVATION EX Q2 PR Q2	3690 CF 3690 CF 3690 CF @ 296.00 3690 CF @ 297.44 301.0 302.0 294.0 2:1 7' 295.00 2.1 CFS 2.1 CFS



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.

10.26.01

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.

10.26.01 ENGINEER

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

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

AS BUILT CERTIFICATE

DATE APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC

CHIEF, BUREAU OF HIGHWAYS AS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE NO. REVISION

OWNER THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
THE ROUSE BUILDING
10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044

410-992-6000 TROUTMAN COMPANY

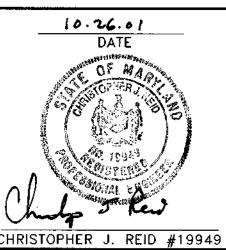
9030 RED BRANCH ROAD SUITE 100 COLUMBIA, MARYLAND 21045 410-730-7065

EMERSON SECTION ONE AREA TWO LOTS 40-96 PROJECT A RESUBDIVISION OF PARCEL A

TAX MAP 47 BLOCK 3,8 & 9 ZONED: R-ED PARCEL: P/O 837 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DRAINAGE AREA MAP, GRADING PLAN AND SOILS MAP

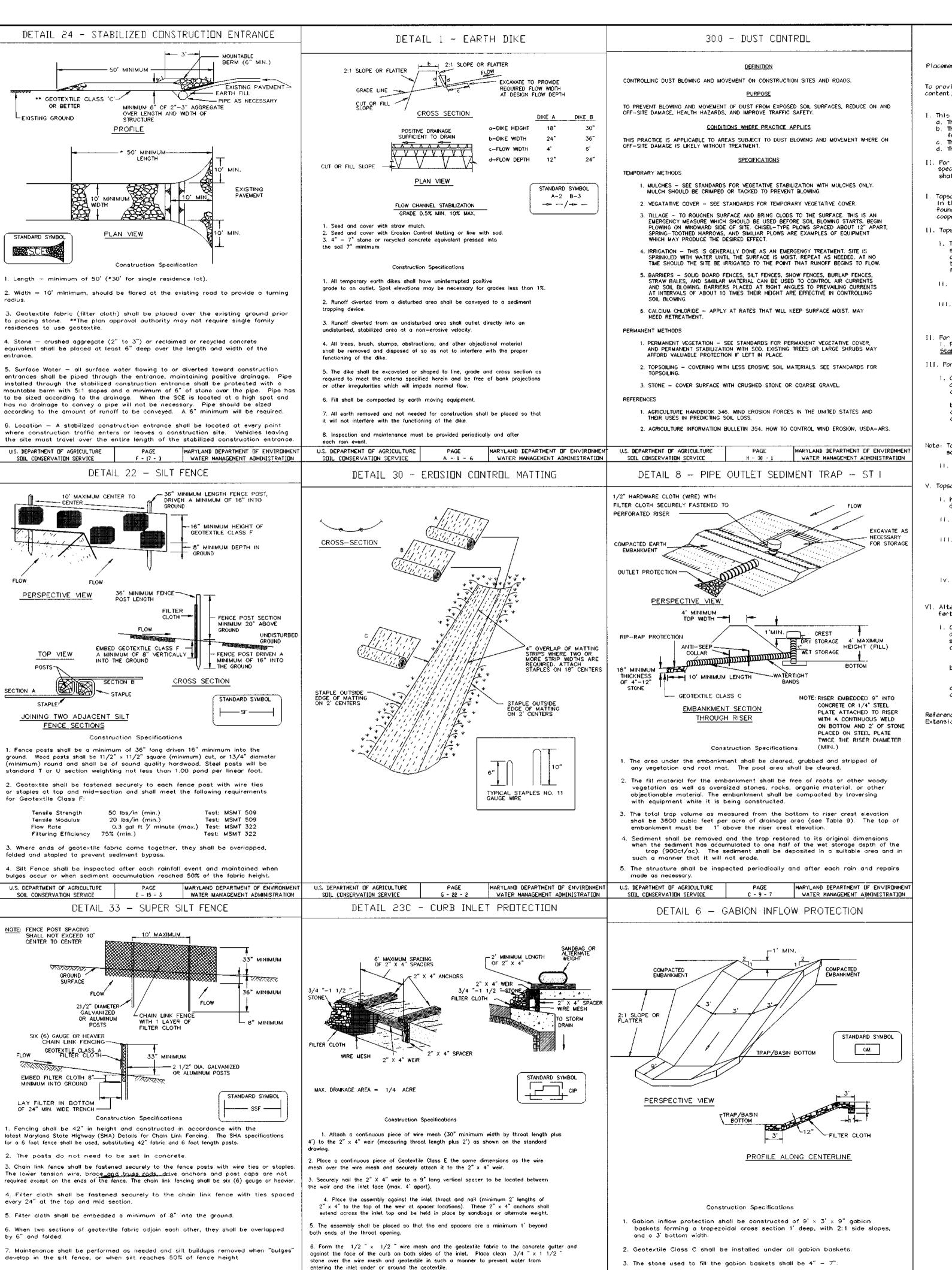
Patton Harris Rust & Associates, pc ENGINEERS ● SURVEYORS ● PLANNERS LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS 8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282



DESIGNED BY : CJR DRAWN BY: DAM PROJECT NO :01058 RD4.DWG DATE :OCTOBER 29, 2001 SCALE : AS SHOWN

DRAWING NO. 4 OF 5

F-02-15



7. This type of protection must be inspected frequently and the filter cloth

8. Assure that storm flow does not bypass the inlet by installing a temporary

and stone replaced when clogged with sediment.

MARYLAND DEPARTMENT OF ENVIRONMENT | U.S. DEPARTMENT OF AGRICULTURE

WATER MANAGEMENT ADMINISTRATION | SOIL CONSERVATION SERVICE

earth or asphalt dike to direct the flow to the inlet.

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL <u>Pefinition</u>

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

To provide a suitable soil medium for yeaptative growth. Solls of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation. Conditions Where Practice Applies

- This practice is limited to areas having 2:1 or flatter slopes where: a. The texture of the exposed subsoli/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 the appropriate stabilization shown on the plans.
- Construction and Material Specifications 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.
- 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
- solls may be used if recommended by an agronomist or soll sclentist and approved by the appropriáte approval authority. Régardiéss, topsoll shall not be a mixture of confrasting textured subsolls and shall contain less than 5% by volume of cinders, stones, slaq, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 15" in diameter.
- 11. Topsoll must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivu, thistle, or others as specified
- Itii. 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.
- II. For sites having disturbed areas under 5 acres: 1. Place topsoil (If required) and apply soil amendments as specified in <u>20.0 Vegetative</u> <u>Stabilization</u> - Section! - Vegetative Stabilization Methods and Materials.
- III. For sites having disturbed areas over 5 acres: 1. 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. Topsoil having soluble sait 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 meed control until sufficient time has elapsed (14 days min.) to permit
- dissipation of phyto-toxic materials. Note: Topsoll 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.
- Place topsoil (if required) and apply soil amendments as specified in <u>20.0 Vegetative</u> <u>Stabilization</u> Section [ Vegetative Stabilization Methods and Materials.
- 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.  $\pm i$  i. 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 tiliage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or mater pockets
- IV. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoll is excessively met or in a condition that may othermise 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 Studge 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. 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. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet. Composted studge 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, Soll Preparation and Sodding. MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

## SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.

4. Gabions shall be installed in accordance with manufacturers recommendations.

MARYLAND DEPARTMENT OF ENVIRONMEN

5. Gabion Inflow Protection shall be used where concentrated flow is present

MARYLAND DEPARTMENT OF ENVIRONMENT U.S. DEPARTMENT OF AGRICULTURE

WATER MANAGEMENT ADMINISTRATION

- 2. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, SUPER SILT FENCE.
- 3. INSTALL PIPE OUTLET SEDIMENT TRAP #1, AND EARTH DIKES. (5 DAYS) 4. ROUGH GRADE SITE EXCEPT FOR LOTS 46-50 AND REAR OF LOTS 51-63. (2 WEEKS)
- FINAL GRADING FOR LOTS 46-50 AND 51-63 WILL TAKE PLACE ONCE SEDIMENT TRAP AND EARTH DIKE ARE REMOVED. (4 WEEKS) 5. AS SUBGRADE ELEVATIONS ARE ESTABLISHED, INSTALL STORM DRAINS, WATER AND SEWER.
- 6. INSTALL CURB AND GUTTER AND PAVE ROADWAYS. (2 WEEKS)
- 7. REMOVE EARTH DIKE AND SEDIMENT TRAP AND GRADE LOTS 46-50 AND 51-63.
- 8. APPLY TOPSOIL AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (1 WEEK)
- 9. PERFORM FINE GRADING, LANDSCAPING, LIGHTING AND SIDEWALKS. (3 WEEKS)

SCALE : HOR.-1"=50'

VERT.-1"=5"

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

STANDARD SEDIMENT CONTROL NOTES

- I. 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
- 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
- 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:
- 6.1 ACRES TOTAL AREA OF SITE (PARCEL A) AREA DISTURBED 6.2 ACRES AREA TO BE ROOFED OR PAVED 0.9 ACRES AREA TO BE VEGETATIVELY STABILIZED 5.3 ACRES TOTAL CUT
- OFFSITE WASTE AREA LOCATION TO HAVE ACTIVE GRADING PERMIT. O. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY

TOTAL FILL

- 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.

#### TEMPORARY SEEDING NOTES

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

### <u>Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.</u>

<u>501) Amendments : Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq. ft.)</u> Seeding: For periods March (thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual rye (3.2 lbs. per 1000 sq. ft.). For the period May I thru August 14, seed with 3 lbs. per acre of meeping lovegrass (0.07 lbs. per 1000 sq.ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the sorin

Mulching; Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq. ft.) of unrotted of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq. ft.) for anchoring. Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL

## PERMANENT SEEDING NOTES

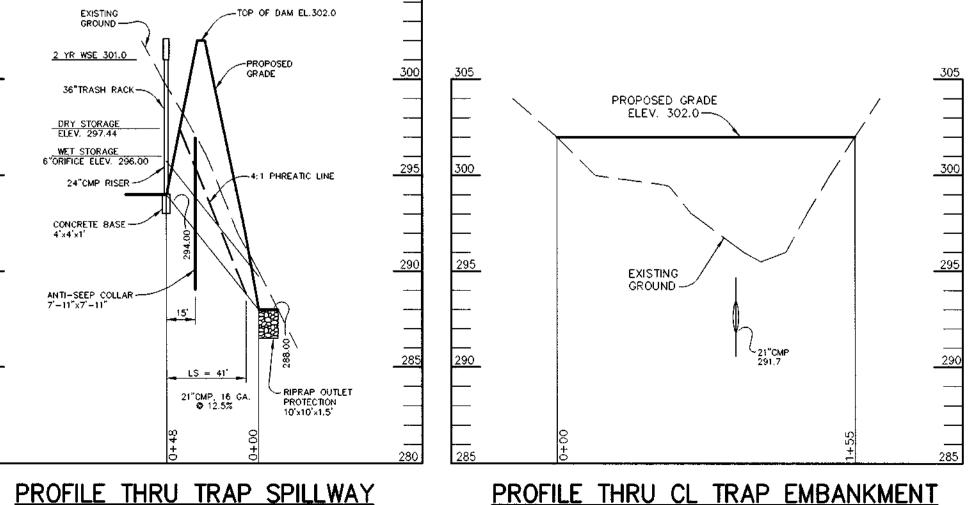
Apply to graded or cleared areas not subject to immediate further disturbance where a Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

- Soil Amendments: In lieu of soil test recommendations, use one of the following 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq. ft.)
- and 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq. ft.) before seeding. Harrow or disc intoupper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 ureafoam fertilizer (9 lbs. per 1000 sq. ft.). 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq. ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs. per 1000 sq. ft.) before seeding. Harrow or disc into upper three inches of soil.

Seeding: For the period March 1 thru April 30 and from August 1 thru october 15, seed with 60 lbs. per acre (1.4 lbs. per 1000 sq.ft.) of Kentucky 31 Tail Fescue. For the period May I thru July 31, seed with 60 lbs. Kentucky 31 Tail Fescue per acre and 2 lbs. per acre (0.05 lbs. per 1000 sq. ft.) of weeping lovegrass. During the period October 16 thru February 20, protect site by one of the following options:

- 1) 2 tons per acre of well-anchored mulch straw and seed as soon as possible in the
- Use sod 3) Seed with 60 lbs. per acre Kentucky 31 Tail Fescue and mulch with 2 tons per acre
- Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 ibs. per 1000 sq. ft. of unrotted small grain stram immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq. ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq. ft.)

<u>Maintenance : inspect all seeded areas and make needed repairs, replacements and </u>



PROFILE THRU CL TRAP EMBANKMENT SCALE : HOR.-1"=50"

VERT.-1"=5"

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. BY THE ENGINEER CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN 23800 CU. YARDS 25800 CU. YARDS 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. FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF 10.26.41 THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL. DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRIC' AS BUILT CERTIFICATE APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC \_works. APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. DEVELOPMENT CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE NO.

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

TROUTMAN COMPANY 9030 RED BRANCH ROAD SUITE 100 COLUMBIA, MARYLAND 21045 410-730-7065

SECTION ONE AREA TWO LOTS 40-96 A RESUBDIVISION OF PARCEL

TAX MAP 47 BLOCK 3,8 & 9 ZONED: R-ED PARCEL: P/O 837

SEDIMENT CONTROL NOTES AND DETAILS

Patton Harris Rust & Associates, pc ENGINEERS ● SURVEYORS ● PLANNERS LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS

10.26.61 DESIGNED BY : CJR DRAWN BY: DAM

CHRISTOPHER J. REID #19949

PROJECT NO :01058 DATE :OCTOBER 29, 2001 SCALE : AS SHOWN

F - 02 - 15

DRAWING NO. 5 OF 5

DATE

10:26:01

11-15-01

REVISION

THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION THE ROUSE BUILDING 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044

410-992-6000

OWNER

AREA

**EMERSON** 

6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

