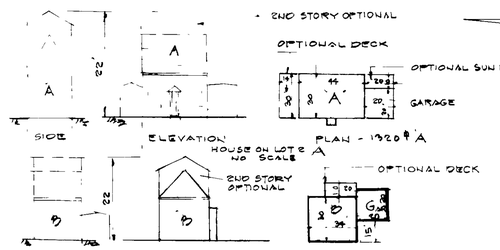
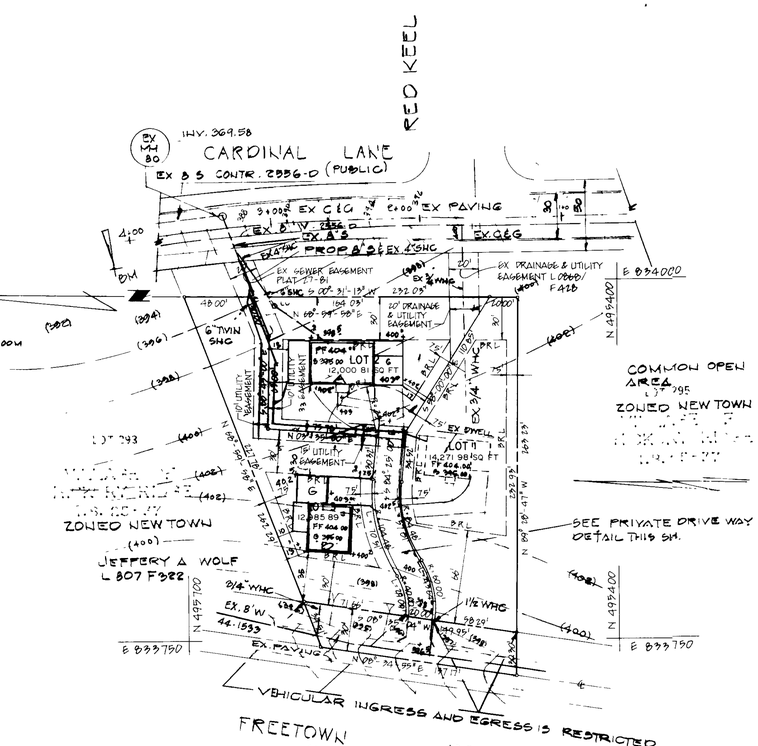
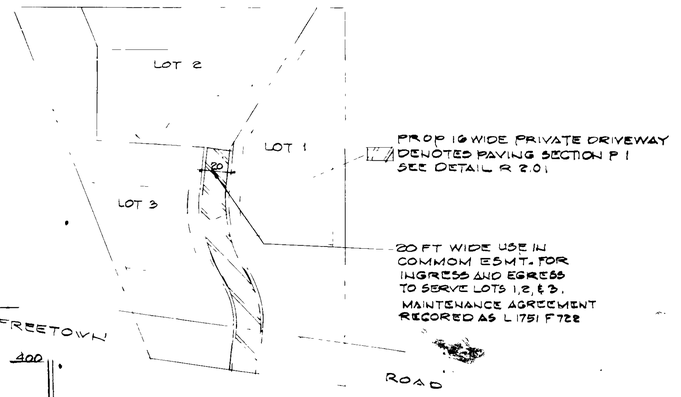
VICINITY MAP
SCALE 1" = 2000

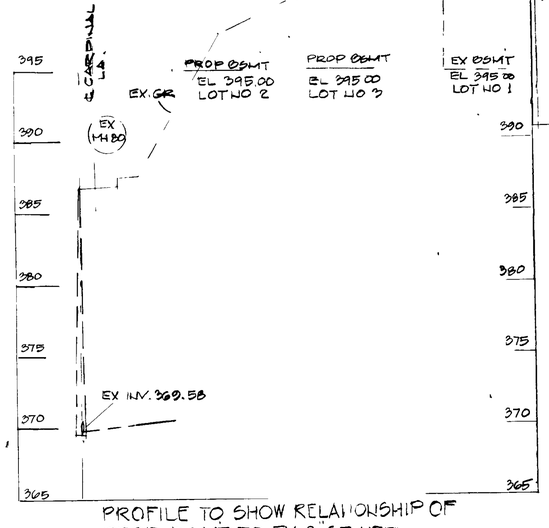
BENCH MARK. EL. 383.75
DESCRIPTION 3/4" PIPE 20' ± LEFT OF STAT. 4+15 ℄ CARDINAL LANE.





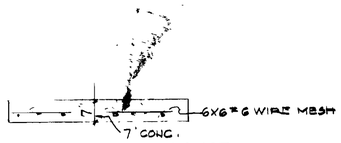
PLAN
SCALE 1" = 50





PROFILE TO SHOW RELATIONSHIP OF PROP BSMT TO EX 8" SEWER.
SCALE HOR 1" = 50
VERT 1" = 5

PLAN
NO SCALE
RESIDENTIAL DRIVEWAY



EX. DRIVEWAY SECT
NO SCALE

GENERAL NOTES.
1. AREA OF SITE= 1.06 AC.±
2 AREA OF SUBMISSION= 1.06 AC.±
3. PARCEL OR PLAT REF.: 7848
4. OWNER/DEVELOPER: ETHAN GROSSMAN.
5 ZONING CLASSIFICATION R-12
6. TAX MAP= 35 ZONING MAP= 35
7. SITE USE PROPOSED. SINGLE FAMILY RESIDENTIAL
8 PUBLIC WATER AND PUBLIC SEWER AVAILABLE
9. DENSITY CALCULATIONS : LOT NO. SQ FT. AC.
LOT NO. SQ. FT. AC.
1 16,271.98 ± 0.374 ±
2 16,001.81 ± 0.3675 ±
3 16,988.89 ± 0.3901 ±
10. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES AS TO LOCATION AND DEPTH.
11. DEVELOPER SHALL REPAIR ANY DAMAGE TO COUNTY R/W'S OR PAVING CAUSED BY WORK ON THIS PROJECT COST OF REPAIR SHALL BE AT THE DEVELOPERS EXPENSE.
12 NOTIFY HOWARD COUNTY DEPARTMENT OF PERMITS AND INSPECTIONS PRIOR TO BEGINNING WORK..
13 SEE V.P. 88-31 - WAIVER APPROVED FROM SECT. 16.119 F.7, 116 115 C.4 OF THE HO.CO SUB.& LAND DEVELOPMENT REG. TO ALLOW DIRECT DRIVEWAY ACCESS ONTO FREETOWN RD.
14 THIS SITE IS WAIVED FROM STORM WATER MANAGEMENT. SEE LETTER FROM HO CO. DIRECTOR OF PUBLIC WORKS DATED FEB. 29, 1988.

SUBDIVISION NAME	SECTION/AREA	LOT NO. OR PARCEL NO.
~~FREETOWN ROAD SUBDIVISION~~	—	LOT 1-3

PLAT NO.	BLOCK NO.	ZONE	TAX/ZONE MAP	ELECT. DIST	CENSUS TR.
~~90 169~~ 7848	18	R-12	MAP35	5	6065.02

WATER CODE . E-30 SEWER CODE 5324500

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
1	6487 FREETOWN ROAD
2	6483 FREETOWN ROAD
3	6479 FREETOWN ROAD

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
Joyce M. Boyd M.D. per GSW — 8/2/88
COUNTY HEALTH OFFICER — DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
DIRECTOR — DATE 8-12-88
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 8-11-88 LKS

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR — DATE 8/11/88
CHIEF BUREAU OF ENGINEERING — DATE 8-9-88

6-23-88
LKS

SITE DEVELOPMENT PLAN
LOTS 1,2, AND 3.
FREETOWN ROAD SUBDIVISION
PLAT REF: 7848 PARCEL NO.
TAX MAP 35
5 TH. ELECTION DISTRICT HOWARD COUNTY, MD.
SCALE: 1 " = 50 FT. DATE: MAY 23, 1988

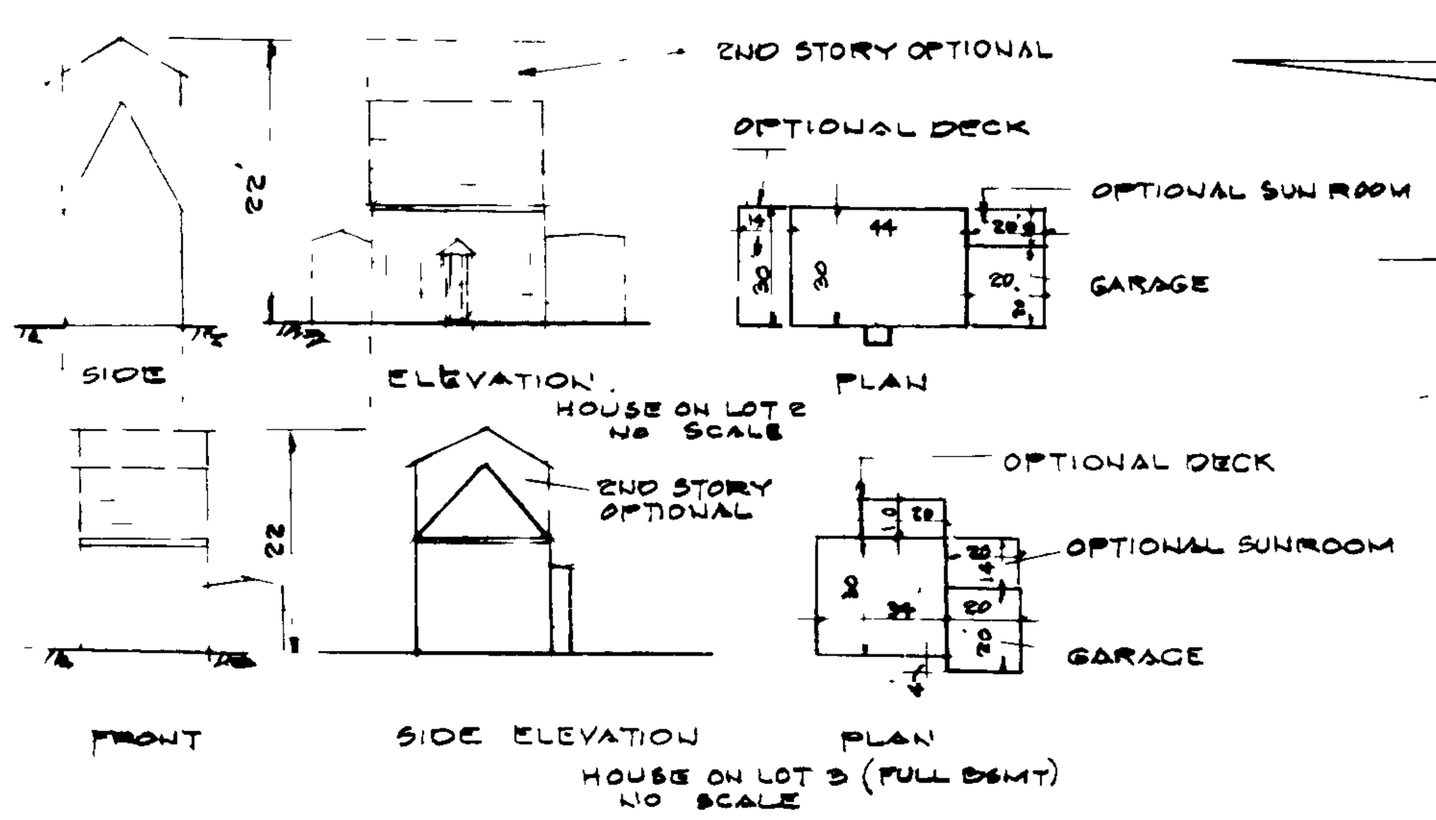
OWNER: ETHAN GROSSMAN
10750 HICKORY RIDGE ROAD, SUITE 109
COLUMBIA, MD. 21044
301-730-2494.

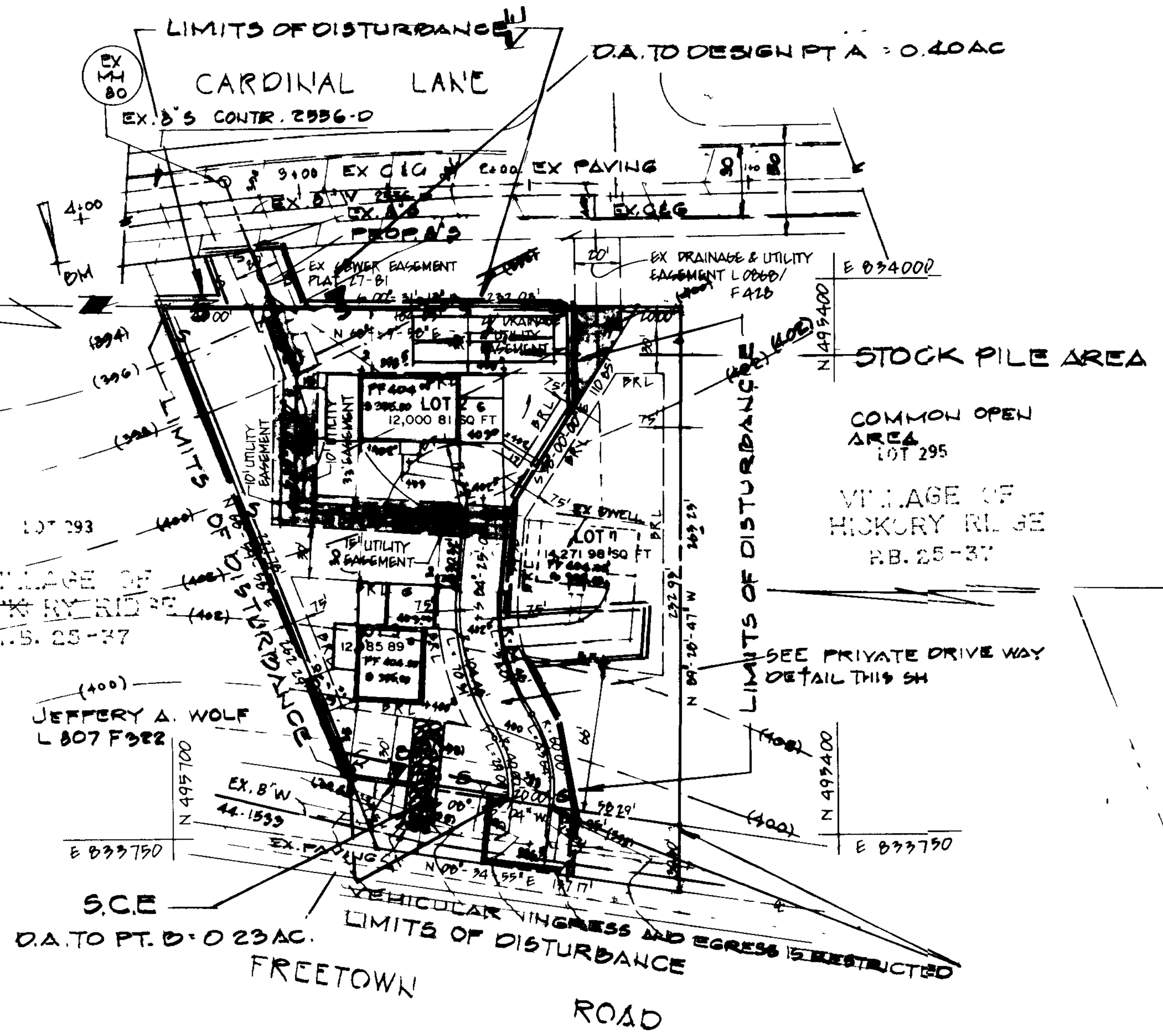
ENGINEERS: LAND DEVELOPMENT CONSULTANTS
37 MOUNTAIN GREEN CIRCLE
BALTIMORE, MD 21207
301-265-6543.

STATE OF MARYLAND — No. 7317 — PROFESSIONAL ENGINEER

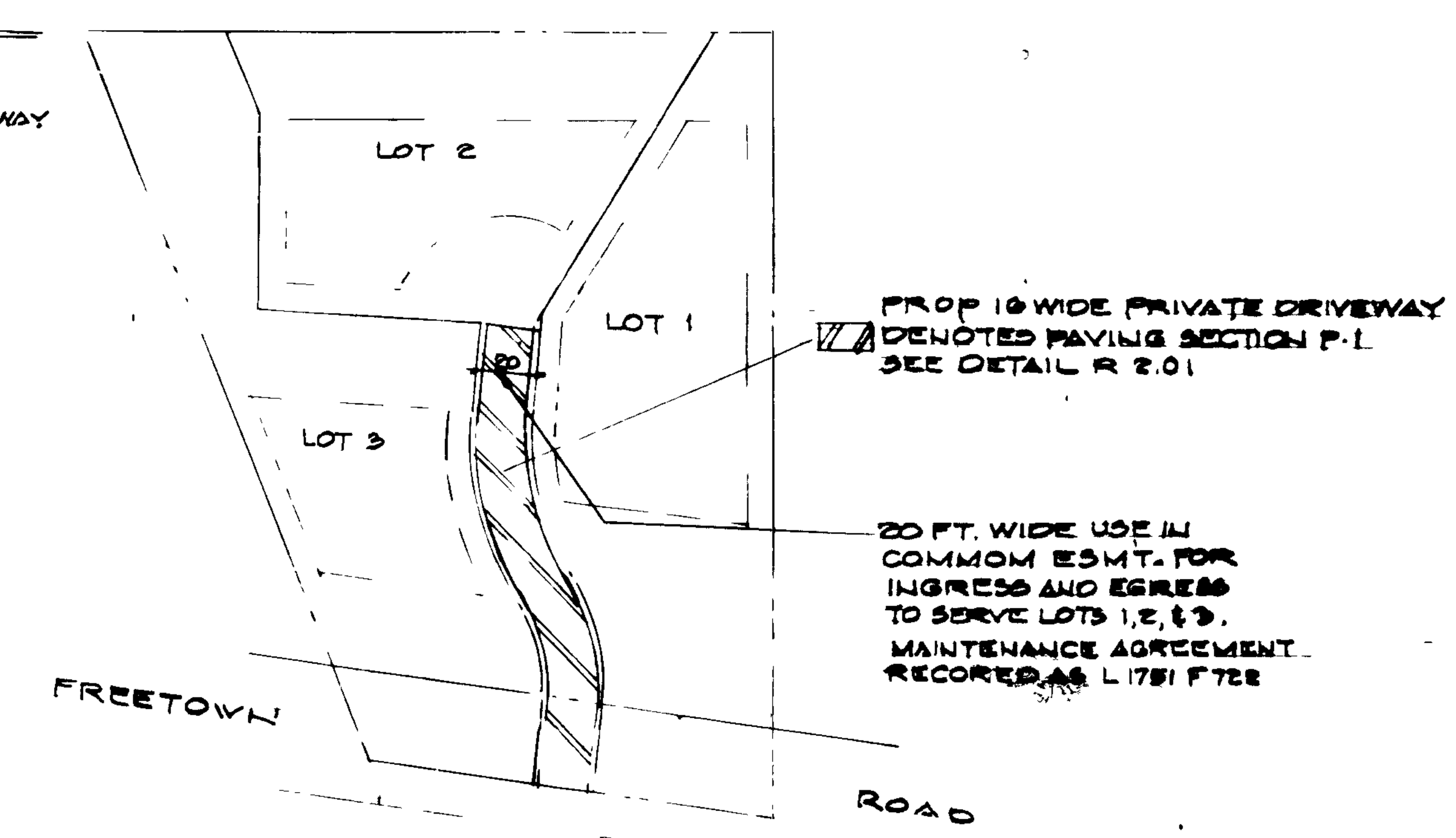
SH. 1 OF 3

SDP 88-ECD





PLAN
SCALE 1":50'



PLAN
NO SCALE
RESIDENTIAL DRIVEWAY

VICINITY MAP

BENCH MARK: EL. [illegible]
DESCRIPTION 3/4" PIPE [illegible] LEFT OF STAT. [illegible] CARDINAL LANE.

GENERAL NOTES:
1. AREA OF [illegible]
2. AREA OF [illegible]
[illegible]

13. SEE [illegible] DEVELOPMENT REG. TO ALLOW [illegible] DRIVEWAY ACCESS ONTO FREETOWN RD.
14. THIS SITE IS WAIVED FROM STORM WATER MANAGEMENT. SEE LETTER FROM HO. CO. DIRECTOR OF PUBLIC WORKS, DATED FEB. 23, 1988

LOT NUMBER	ADDRESS
1	[illegible] FREETOWN ROAD
2	[illegible] FREETOWN ROAD
3	[illegible] FREETOWN ROAD

By the Developer:
"I [illegible] certify that all [illegible] and construction will be done according to [illegible] and that any responsible personnel involved in the construction project will have a Certificate of Attendance [illegible] Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I ALSO AUTHORIZE PERIODIC ON SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
Signature of Developer — 7/14/88

By the Engineer:
"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."
Signature of Engineer — Date

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
Howard S.C.D. — 7/18/88 — Date

Reviewed for HOWARD S.C.D. and meets Technical Requirements
U.S. Soil Conservation Service — 7-19-88 — Date

6-23-88
LKS

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — 8/12/88 — DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
DIRECTOR — 8-18-88 — DATE
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — 8-17-88 — DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR — DATE
CHIEF BUREAU OF ENGINEERING — 8-2-88 — DATE

SEDIMENT CONTROL PLAN

LOTS 1, 2, AND 3
[illegible]
5 TH. ELECTION DISTRICT
SCALE: 1" = 50 FT.
OWNER: [illegible]
COLUMBIA, MD. 21044
ENGINEERS: [illegible]

SH 2 OF 3
SDP 88-[illegible]

PERMANENT SEEDING NOTES

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

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding. IF NOT PREVIOUSLY LOOSENED.

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

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

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

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

Mulching - Apply 1½ to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

Matinenance - Inspect all seeded areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

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

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

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

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2½ bushel per acre of annual rye (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1½ to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring

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

SEDIMENT CONTROL NOTES

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

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

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

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

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

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

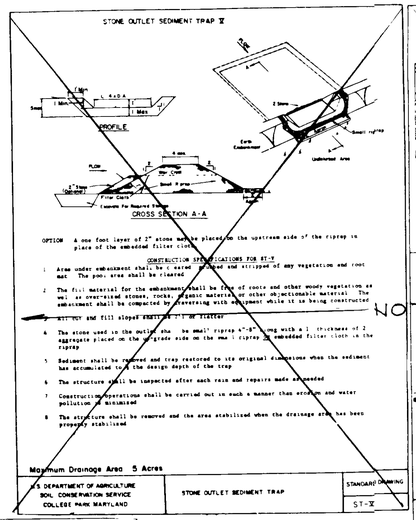
7) Site Analysis:

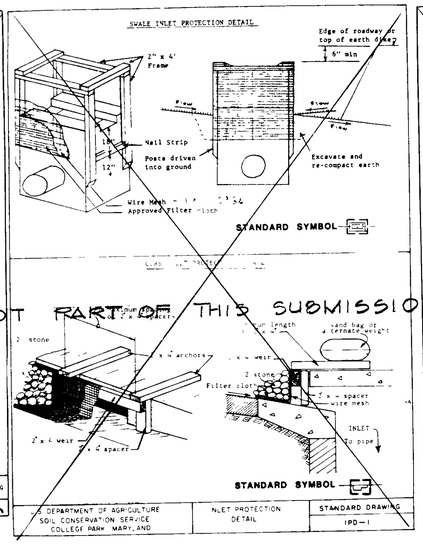
Total Area of Site	1.06	Acres
Area Disturbed	0.55	Acres
Area to be roofed or paved	0.18	Acres
Area to be vegetatively stabilized	.37	Acres
Total Cut	586	Cu. yds
Total Fill	586	Cu yds
Offsite waste/borrow area location	N.A	

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

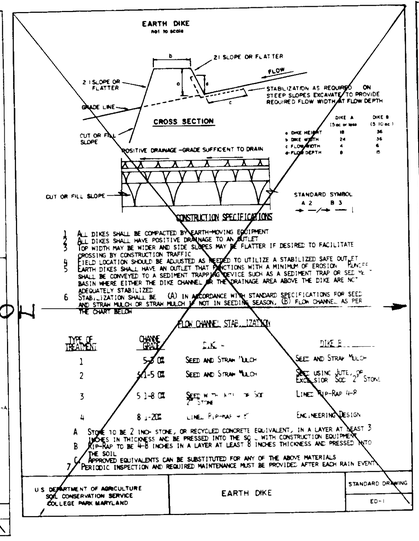
9) Additional sediment controls must be provided, if deemed necessary by the Howard County DPW sediment control inspector

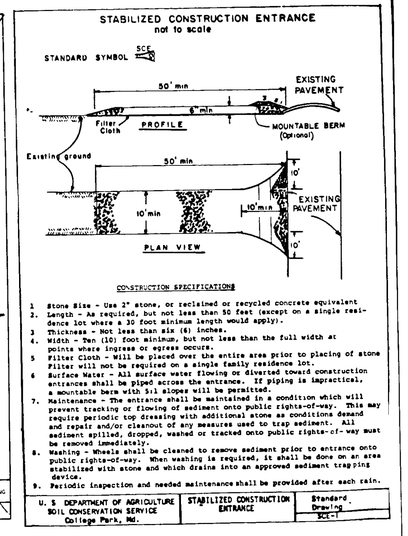
10) On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals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

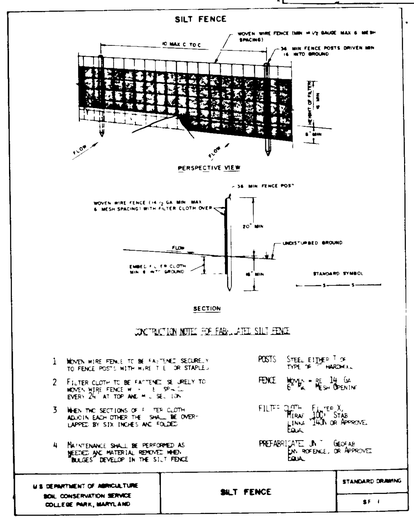




NOT PART OF THIS SUBMISSION







STANDARD AND SPECIFICATIONS
FOR
SILT FENCE

Definition

A temporary barrier of geotextile fabric (filter cloth) used to intercept sediment laden runoff from small drainage areas of disturbed soil

Purpose

The purpose of a silt fence is to reduce runoff velocity and effect deposition of transported sediment load Limits imposed by ultraviolet stability of the fabric will dictate the maximum period the silt fence may be used.

Conditions Where Practice Applies

A silt fence may be used subject to the following conditions

1. Maximum allowable slope lengths contributing runoff to a silt fence are listed in the table below

Slope Steepness	Maximum Slope Length (Ft)
2:1	50
3:1	75
4:1	125
5 1	175
Flatter than 5 1	200

2 Maximum drainage area for overland flow to a silt fence shall not exceed ¼ acre per 100 feet of fence, and

3. Erosion would occur in the form of sheet erosion, and

4. There is no concentration of water flowing to the barrier

Design Criteria

Design computations are not required. All silt fences shall be placed as close to the contour as possible, and the area below the fence must be undisturbed or stabilized

A detail of the silt fence shall be shown on the plan, and contain the following minimum requirements

1 The type, size, and spacing of fence posts

12 01

Maryland SCS/WRA April 1983

2 The size of woven wire support fences
3 The type of filter cloth used
4 The method of anchoring the filter cloth
5 The method of fastening the filter cloth to the fencing support

Where ends of filter cloth come together, they shall be overlapped, folded and stapled to prevent sediment bypass

See Standard Drawing SF-1 for details

Criteria for Silt Fence Materials

1 Silt Fence Fabric The fabric shall meet the following specifications unless otherwise approved by the appropriate erosion and sediment control plan approval authority Such approval shall not constitute statewide acceptance Statewide acceptability shall depend on in-field and/or laboratory observations and evaluations

Fabric Properties	Minimum Acceptable Value	Test Method
Grab Tensile Strength (lbs)	90	ASTM D1682
Elongation at Failure (%)	50	ASTM D1682
Mullen Burst Strength (PSI)	190	ASTM D3786
Puncture Strength (lbs)	40	ASTM D751 (modified)
Slurry Flow Rate (gal/min/sf)	0 3	Virginia DOT VTM-51
Equivalent Opening Size	40-80	US Std Sieve CW-02215
Ultraviolet Radiation Stability %	90	ASTM-G-26

2 Fence Posts (for fabricated units) The length shall be a minimum of 36 inches long Wood posts will be of sound quality hardwood with a minimum cross sectional area of 3.0 square inches Steel posts will be standard T and U section weighing not less than 1 00 pound per linear foot.

3 Wire Fence (for fabricated units) Wire fencing shall be a minimum 14½ gage with a maximum 6" mesh opening, or as approved

4. Prefabricated Units Envirofence or approved equal may be used in lieu of the above method providing the unit is installed per manufacturer's instructions

12 02

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT. 2 WEEKS.
2. CLEAR AND GRUBB FOR THE INSTALLATION OF PERIMETER CONTROLS. 1 WK
3. INSTALL SEDIMENT CONTROL MEASURES 1 WK.
4. CLEAR AND GRUBB REMAINER OF SITE 1 WK.
5. ROUGH GRADE SITE. STABILIZE AS REQUIRED 2 WKS
6. INSTALL UTILITIES 2 WKS
7. CONSTRUCT BUILDING 3 MONTHS
8. INSTALL SUB BASE PAVEMENT 1 WK.
9. INSTALL PAVEMENT SURFACE COURSE
10. FINE GRADE SITE AND STABILIZE AS REQUIRED

11. AFTER FINAL INSPECTION, STABILIZE SITE AS REQUIRED. REMOVE SEDIMENT CONTROL MEASURES AFTER PERMISSION FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

SEDIMENT CONTROL LEGEND

EXISTING GRADE ---------- (250) ----------
FINISHED GRADE (OR PROPOSED GRADE) ---------- 250 ----------
LIMITS OF DISTURBANCE ----------
STABILIZED CONSTRUCTION ENTRANCE : SCE
SILT FENCE (WHERE APPLICABLE) ---------- S ---------- S ----------

SEDIMENT CONTROL

( ) Provide the following certification blocks on sediment control plans

( ) 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 Natural Resources Approved training program for the Control of Sediment and Erosion before beginning the project I also authorize periodic on-site inspection by the Howard Soil Conservation District."

Signature of Developer — Date 6/2/88
Print name below signature

6.23.88 LKS

( ) By the Engineer

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature of Engineer — Date 5/24/88
Print name below signature

( ) Reviewed for HOWARD S C D and meets technical Requirements

U S Soil Conservation Service — Date 7-19-88

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

Howard S.C.D — Date 7-19-88

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS. HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER — DATE 8/10/88

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

DIRECTOR — DATE 8-16-88

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT. — DATE 8-17-88 LKS

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 8/10/88

CHIEF BUREAU OF ENGINEERING — DATE 8.9.88

SEDIMENT CONTROL DETAILS FREETOWN ROAD SUBDIVISION

LOTS 1, 2, & 3
PLAT NO. 7848 TAX MAP 35 PAR.
5TH. DISTR. HO. CO. MD.

OWNER: ETHAN GROSSMAN
10750 HICKORY RIDGE RD SUITE 109
COLUMBIA, MD. 21044

ENGINEERS LAND DEVELOPMENT CONSULTANTS
37 MT GREENLIR.
BALTO. MD 21207
301-265-6843

SH 3 OF 3

SDP 88-229