

SUBDIVISION NAME	GE APPLIANCE PARK EAST	SECTION	1	PLAT	7455	PARCEL	A-2	ADDRESS CHART	
PLAT NO.	7455	SECTION	1	PLAT	7455	PARCEL	A-2	STREET ADDRESS	9001 SNOWDEN RIVER PARKWAY
WATER CODE	N/A	SEWER CODE	N/A						

APPR: 4/28/88  
 HEALTH OFFICER  
 HOWARD COUNTY OFFICE OF PLANNING & ZONING  
 DATE: 4/26/88  
 DIRECTOR  
 DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT  
 APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DATE: 4/15/88  
 DIRECTOR  
 CHIEF BUREAU OF ENGINEERING  
 DATE: 4/13/88

APPR: 3-7-88  
 DIVISION OF LAND USE PLANNING AND ZONING  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DATE: 3-7-88

# GE APPLIANCE PARK EAST

## CLOSURE PLAN

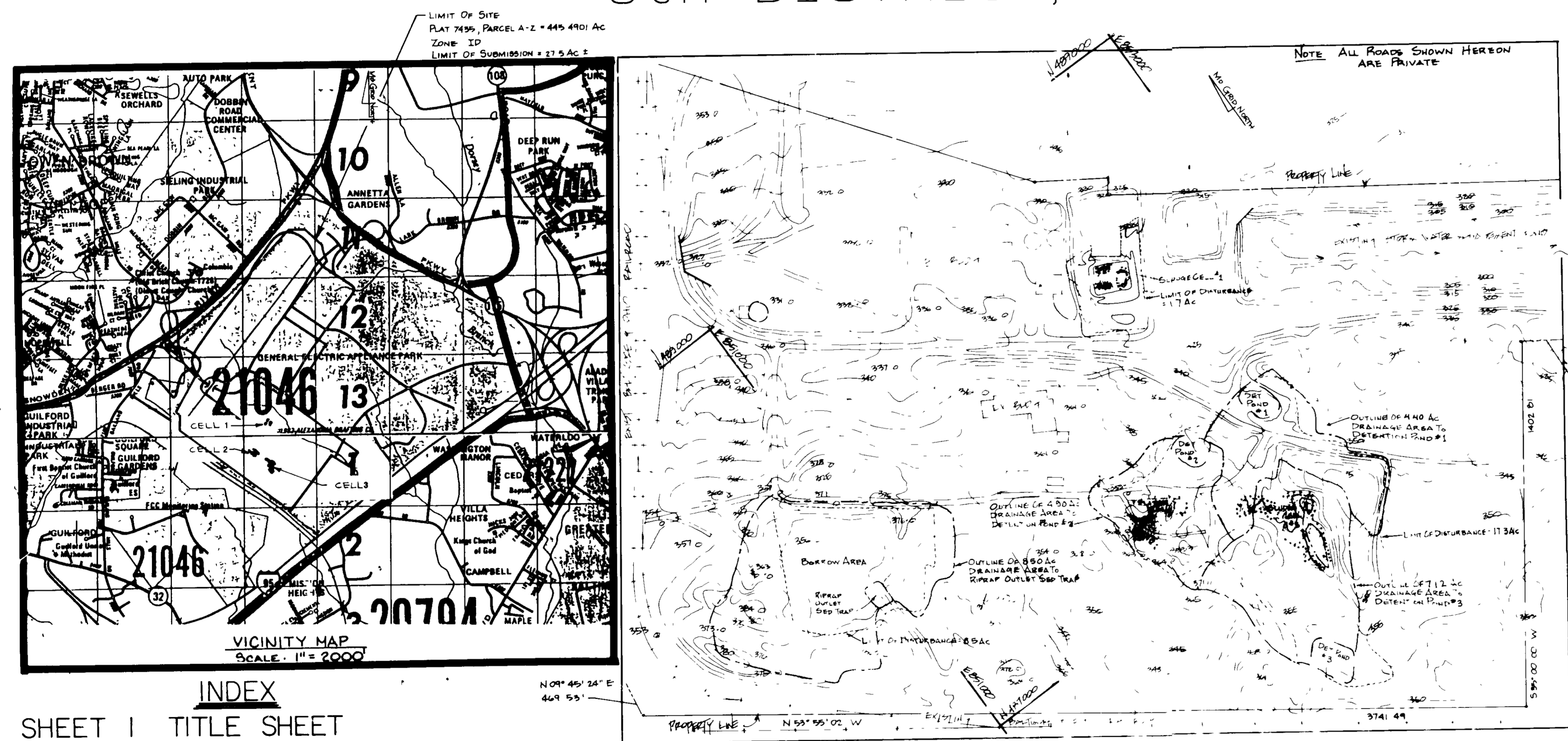
### INDUSTRIAL WASTE SLUDGE SITES

RTE. 175 - SNOWDEN RIVER PARKWAY

6th DISTRICT, HOWARD COUNTY

- SITE ANALYSIS NOTES**
- 1) AREA OF PARCEL A-2 (PLAT 7455 IS 445 4901 AC, 19,405,540 SQ FT LIMIT OF SUBMISSION IS 215 AC)
  - 2) EX ZONING IS IO PER 8/2/05 COMPREHENSIVE ZONING PLAN
  - 3) ALL BUILDINGS ARE EXISTING; NONE PROPOSED
  - 4) ALL EMPLOYEE PARKING SPACES ARE EXISTING; NONE-PROPOSED
  - 5) BUILDING COVERAGE AND OPEN SPACE AREA ARE EXISTING; NO CHANGE PROPOSED
  - 6) ALL ROADS INCLUDED HERE IN ARE PRIVATE
  - 7) NO PERMANENT STORM WATER MANAGEMENT FACILITIES ARE PROPOSED
  - 8) THE PURPOSE OF THIS PLAN IS TO PROVIDE EARTH CAPS OVER EXISTING SLUDGE CELLS AT 3 LOCATIONS ON THE GENERAL ELECTRIC PROPERTY PER PREVIOUSLY APPROVED HAZARDOUS SUBSTANCES FACILITY PERMIT #A-011 DATED 10/9/87 ISSUED BY MD DEPT OF THE ENVIRONMENT

NOTE: CONTRACTOR SHALL CONSTRUCT A TEST FILL OF CLAY TO A 3' THICKNESS AT A SITE TO BE DETERMINED BY THE ENGINEER. THIS FILL SHALL BE 4 TIMES AS WIDE AS THE LARGEST EQUIPMENT USED TO PLACE OR COMPACT IT AND SHALL BE LONG ENOUGH FOR EQUIPMENT TO REACH FULL OPERATING SPEED ON THE TEST FILL AND CORRELATED WITH OBSERVED PLACEMENT AND COMPACTION ACTIVITIES FOR USE IN ESTABLISHING CONSTRUCTION PRACTICES ON THE MAIN SITES. SEE SHEET 4 OF 9.



**TABLE 10**  
SPECIFICATIONS FOR COVER CONSTRUCTION

COVER LAYER	USCS GROUP	PERMEABILITY (cm/sec)	GRAIN SIZE	PLASTICITY INDEX	LIQUID LIMIT	PROPOSED SOURCE	OTHER REQUIREMENTS
On-site fill	SC, CC	NA	50% retained by No. 200 Sieve	NA	NA	On-site borrow	Clear fill, free of organic matter, clayey gravel and sand
Clay for Cap	CL, CH	< 1x10 <sup>-7</sup>	50% passing No. 200 sieve	30	60	Off-site borrow	Requires a highly plastic clay of uniform consistency and moderate shear strength. Clean and free of roots, rocks, sticks, rubbish, off-specification soils, or any foreign material which may compromise its hydraulic conductivity.
Bank Run Gravel	GW, GP, SW, SP	> 1x10 <sup>-3</sup>	50% retained by No. 200 sieve	NA	NA	Off-site borrow or on-site borrow if available	CL in poorly sorted sand and gravel is preferred material.
Top Soil	CL, ML	1x10 <sup>-5</sup>	D <sub>50</sub> = 15mm	NA	NA	On-site borrow if available, off-site if necessary	Material shall be friable and capable of supporting vegetative growth.

**TABLE 11**  
CONSTRUCTION SPECIFICATIONS

COVER LAYER	THICKNESS OF LAYER	MAXIMUM THICKNESS OF LIFT	% COMPACTION	TEST REQUIRED FOR MATERIAL APPROVAL BEFORE COMB	TEST REQUIRED FOR SOILING COMB	NUMBER OF TESTS REQUIRED	SPECIAL REQUIREMENTS
On-site fill	As Required	6"	90%	Gradation Analysis ASTM D421, D422, Soil Description ASTM D2488 Standard Proctor ASTM D098	Field Density ASTM D1556 or D2167 or D2922	3 per lift per site	Material shall be spread in front of equipment to ensure adequate bearing capacity for earth moving equipment over sludge.
Clay for Cap	All Sites - 3'	6"	90%	Soil Description ASTM D098 Falling or Constant Head Permeability Test, ASTM D2488 Atterberg Limits ASTM D423, D424, D427 Standard Proctor ASTM D098	Field Density ASTM D1556 or D2167 or D2922	3 per lift per site	Clay will be compacted on wet side of optimum to ensure plastic condition during installation. Test fill will be placed on site adjacent to sludge cells to determine optimum placement and compaction technique before fill begins on sludge cells.
Bank run gravel	All Sites - 12"	6"	90%	Soil Description, ASTM D2488 Gradation Analysis ASTM D421, D422 Standard Proctor ASTM D098	Field Density ASTM D1556 or D2167 or D2922	3 per lift per site	
Top Soil	All Sites - 2"	6"	Not Compacted	Soil Description, ASTM D2488 Gradation Analysis, D421, D422, D217	None	None	Sample of soil shall be submitted for testing for fertilizer and lime requirements and specifications shall be modified if required to meet requirements indicated by testing.

**TABLE 12**  
FILTER FABRIC SPECIFICATIONS

PROPERTY/JUNT	MINIMUM VALUE	TEST METHOD
Weight, oz/yd <sup>2</sup>	6.0	ASTM D-3776-79
Thickness, mils	300	ASTM D-1177-84
Grab Strength, lbs	300 warp	ASTM D-1682-64
280 fill	15-25 max	ASTM D-1682-64
Grab Elongation %	125 warp	ASTM D-1682-64
110 fill	125 warp	ASTM D-1682-64
105 warp		ASTM D-1117-80
Trapezoid Tear Strength, lbs	110 fill	ASTM D-3786-80
Puncture Strength, lbs	400	ASTM D-3787-80
Permeability Coefficient %/yr	0.01	ASTM D-1682-64
Equivalent Opening Size, μ	40	COE CMO2215-77
Ultraviolet Resistance, %	90	ASTM D-1682-64A
Tear Breaking Strength, lbs	230	ASTM D-1682-64

The construction fabric shall be a woven or nonwoven fabric consisting of long chain polymeric filaments or yarns such as polypropylene, polyethylene, polyester, or polyethylene chloride formed into a stable network such that the filaments or yarns retain their relative position to each other. The fabric shall be inert to commonly encountered chemicals and conform to the following table. Fabric shall be Mirafi 600x or equal.

- INDEX**
- SHEET 1 TITLE SHEET
  - SHEET 2 SITE & GRADING PLAN (CELL 1)
  - SHEET 3 SITE & GRADING PLAN (CELL 2 & 3)
  - SHEET 4 SITE & GRADING PLAN (BORROW AREA)
  - SHEET 5 CELL CROSS SECTIONS (A-G)
  - ▲ SHEET 6 CELL CROSS SECTIONS (H-J) & WALL CONSTRUCTION
  - SHEET 7 SEDIMENT & EROSION CONTROL PLAN (CELL 1) & DETAILS
  - SHEET 8 SEDIMENT & EROSION CONTROL PLAN (CELL 2 & 3)
  - SHEET 9 SEDIMENT & EROSION CONTROL PLAN (BORROW AREA)

Reviewed for HOWARD S.C.D. Name: Howard S.C.D. and meets Technical Requirements U.S. Soil Conservation Service Date: 4-7-88

John A. Jenkins 4/5/88  
 JOHN A. JENKINS DATE

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 notary Soil Conservation District.

Stephen F. Daley 4/4/88  
 STEPHEN F. DALEY DATE

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

Howard S.C.D. 4/6/88

OWNER: GENERAL ELECTRIC CO  
 APPLICANT: GE APPLIANCE PARK EAST  
 ATTORNEY: JOHN A. JENKINS 902-1106  
 SEE RECORD PLAT #7455-7459  
 PARCEL #A-2 445 4901 AC  
 TAX MAP #6,42,43, PARCEL 961  
 PROPERTY ZONED IO  
 6th ELECTION DISTRICT

SEAL: STATE OF MARYLAND  
 PROFESSIONAL SURVEYOR  
 Stephen F. Daley  
 4/4/88

**MCRONE**  
 ENGINEERS ■ PLANNERS ■ SURVEYORS  
 20 RIDGELY AVE  
 ANNAPOLIS, MARYLAND, 21401  
 ATTN: STEVE DALEY, P.E. (CET-862)

SCALE: NONE  
 DRAWN BY: CAD/LMS  
 CHECKED BY: S. DALEY  
 DATE: 4/7/88  
 PER. ME. DEF. 11/6/87 FOR HOWARD CO.  
 GRADING PERMIT

TITLE SHEET  
 PARCEL A-2  
 G E APPLIANCE PARK EAST  
 CLOSURE PLAN  
 INDUSTRIAL WASTE SLUDGE SITES  
 RTE 175 - SNOWDEN RIVER PARKWAY  
 6th DISTRICT, HOWARD COUNTY, MD.

SHEET NO. 1 of 9  
 FILE NO 8-13-157-A



7. The contractor shall be responsible for obtaining and maintaining all necessary permits and approvals from the appropriate authorities. The contractor shall be responsible for obtaining and maintaining all necessary permits and approvals from the appropriate authorities. The contractor shall be responsible for obtaining and maintaining all necessary permits and approvals from the appropriate authorities.

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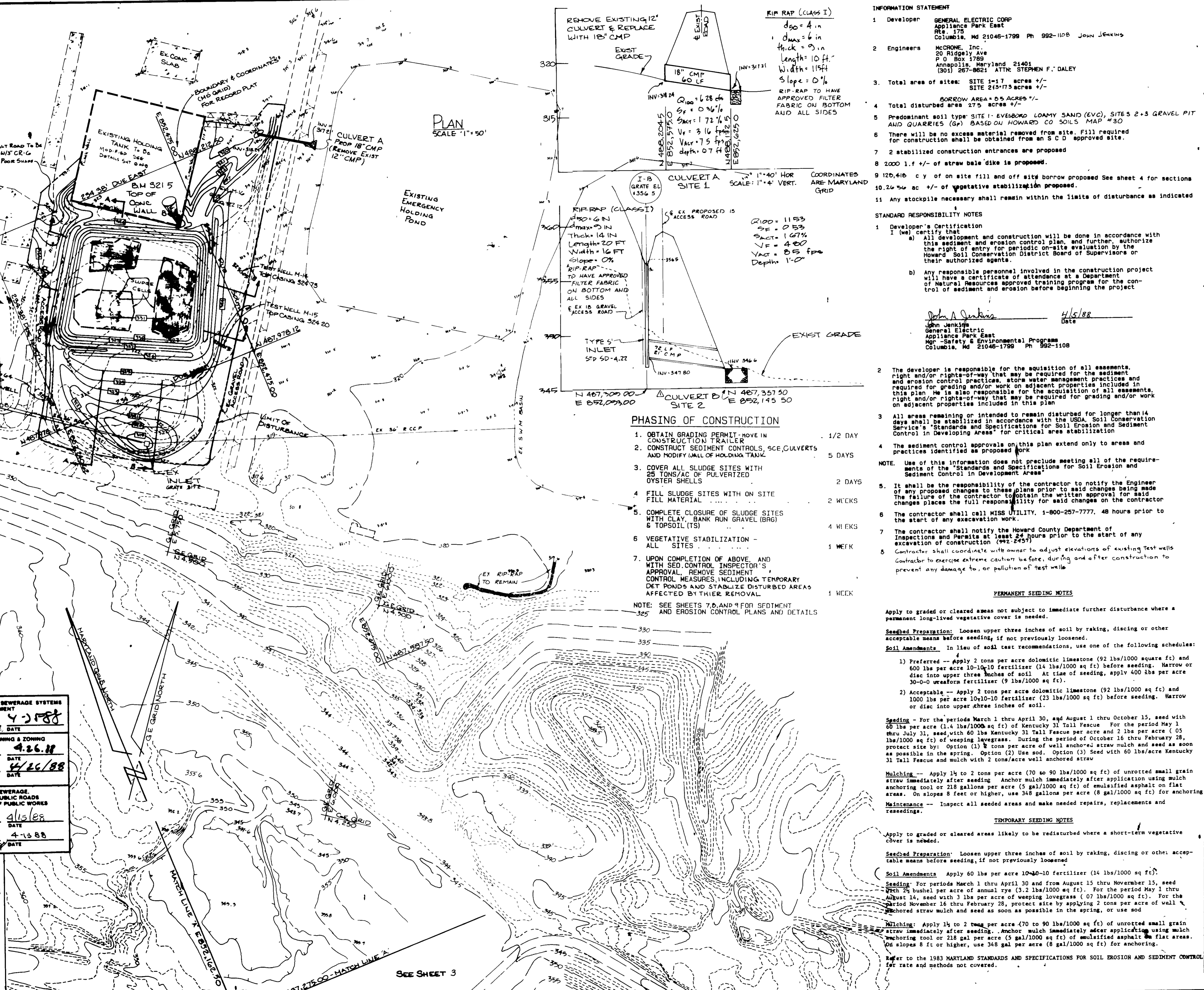
12. The contractor shall be responsible for obtaining and maintaining all necessary permits and approvals from the appropriate authorities. The contractor shall be responsible for obtaining and maintaining all necessary permits and approvals from the appropriate authorities. The contractor shall be responsible for obtaining and maintaining all necessary permits and approvals from the appropriate authorities.

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**INFORMATION STATEMENT**

- Developer: GENERAL ELECTRIC CORP, Appliance Park East, Rte. 175, Columbia, Md 21046-1799 Ph 992-1108 JOHN JENKINS
- Engineers: MCRONE, Inc., 20 Ridgely Ave, P.O. Box 1789, Annapolis, Maryland 21401 (301) 267-8621 ATTN: STEPHEN F. DALEY
- Total area of sites: SITE 1=1.7 acres +/-, SITE 2=3.73 acres +/-
- Total disturbed area 2.75 acres +/-
- Predominant soil type: SITE 1: Evesboro Loamy Sand (EVC), SITE 2: 3 GRAVEL PIT AND QUARRIES (G) BASED ON HOWARD CO SOILS MAP #30
- There will be no excess material removed from site. Fill required for construction shall be obtained from an SCD approved site.
- 2 stabilized construction entrances are proposed
- 2000 l.f +/- of straw bale dike is proposed.
- 120,416 cu y of on site fill and off site borrow proposed See sheet 4 for sections 10.26 to ac +/- of vegetative stabilization proposed.
- Any stockpile necessary shall remain within the limits of disturbance as indicated

**STANDARD RESPONSIBILITY NOTES**

- Developer's Certification (we) certify that
  - All development and construction will be done in accordance with this sediment and erosion control plan, and further, authorize the right of entry for periodic on-site evaluation by the Howard Soil Conservation District Board of Supervisors or their authorized agents.
  - 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.

John A. Jenkins  
 General Electric  
 Appliance Park East  
 Mgr - Safety & Environmental Programs  
 Columbia, Md 21046-1799 Ph 992-1108  
 Date: 4/15/88

**APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS**  
 HOWARD COUNTY HEALTH DEPARTMENT  
 DATE: 4-2-88

**APPROVED FOR ZONING**  
 HOWARD COUNTY OFFICE OF PLANNING & ZONING  
 DATE: 4-26-88

**APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC WORKS**  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DATE: 4-15-88

**APPROVED FOR LAND DEVELOPMENT & ZONING ADMINISTRATION**  
 HOWARD COUNTY, MARYLAND  
 DATE: 4-3-88

CONTRACTOR: GENERAL ELECTRIC CORP, APPLIANCE PARK EAST, COLUMBIA, MD 21046, ATTN: JOHN JENKINS, 992-1108, SEE RECORDED PLAN #7439-1789

PARCELS A-2, 445 4000 AC, TAX MAP #64-145 PARCEL #807, PROPERTY CORNERED 1 D, 6TH ELECTION DISTRICT

OF MARYLAND  
 REGISTERED PROFESSIONAL ENGINEER  
 STATE OF MARYLAND  
 ENGINEERS - PLANNERS - SURVEYORS  
 ANNAPOLIS, MARYLAND 21401  
 ATTN: STEVE DALEY, 267-8621

**MCRONE**

ENGINEERS - PLANNERS - SURVEYORS  
 ANNAPOLIS, MARYLAND 21401  
 ATTN: STEVE DALEY, 267-8621

DATE	SCALE	AS SHOWN	DATE	SCALE	AS SHOWN
OCT 86	1"=40'	AS SHOWN	OCT 86	1"=40'	AS SHOWN
JUN 87	1"=40'	AS SHOWN	JUN 87	1"=40'	AS SHOWN
AUG 87	1"=40'	AS SHOWN	AUG 87	1"=40'	AS SHOWN
NOV 87	1"=40'	AS SHOWN	NOV 87	1"=40'	AS SHOWN

**SITE AND GRADING PLAN (CELL 1)**

**G E APPLIANCE PARK EAST**  
 CLOSURE PLAN - PARCEL A2  
 INDUSTRIAL WASTE SLUDGE SITES

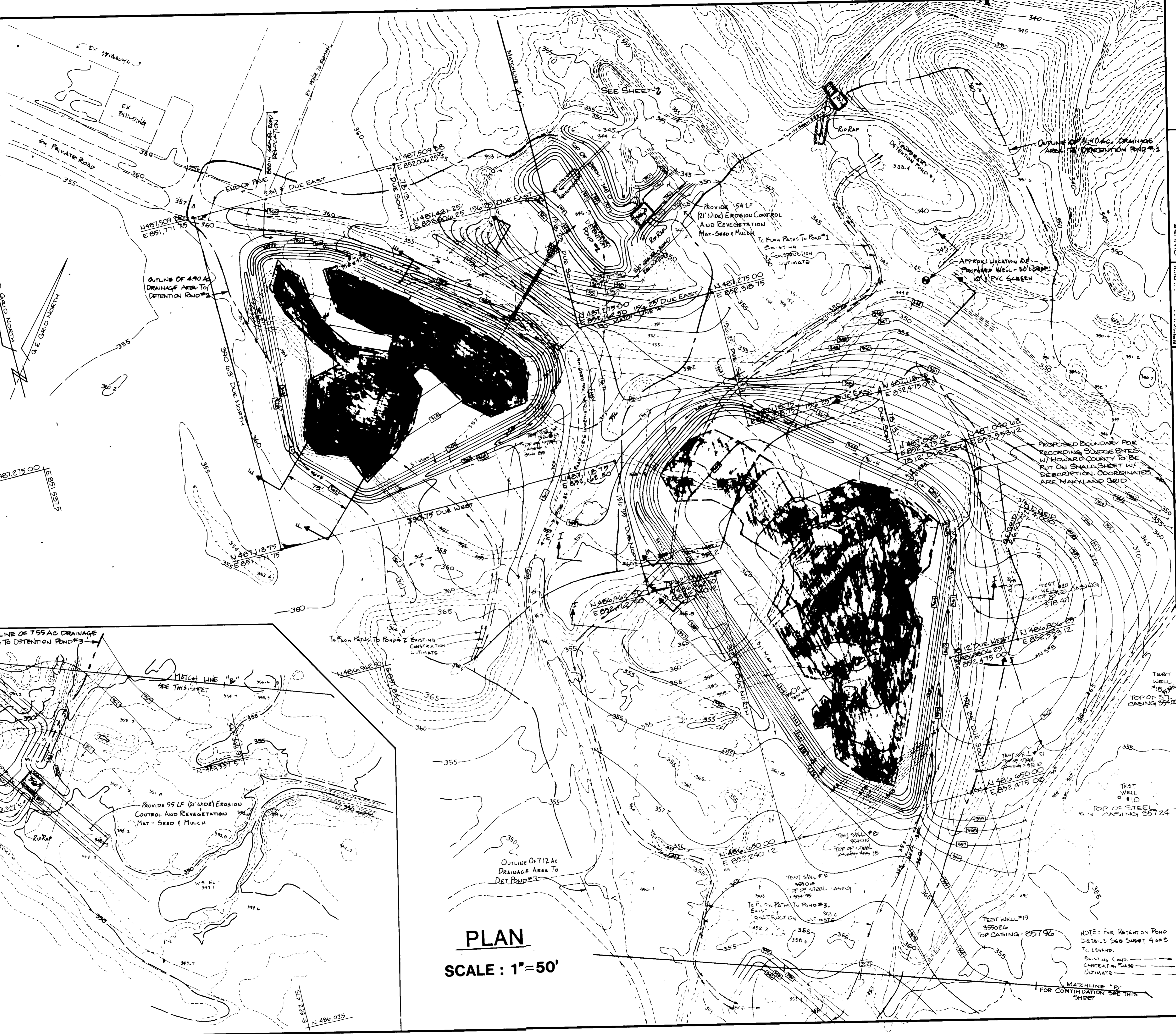
RTE. 175 - SNOWDEN RIVER PARKWAY  
 6TH DISTRICT, HOWARD COUNTY, MD.

**SHEET NO. 2 of 9**  
**FILE NO. B-15-157-B**  
**SDP-88-49**

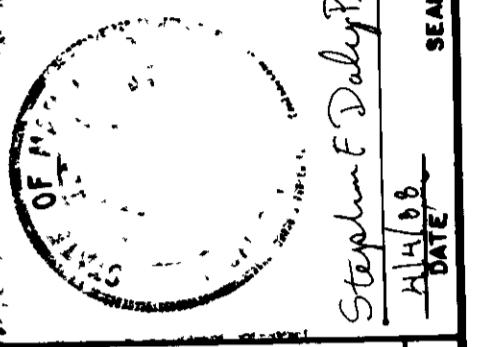


APPR. FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS  
 HOWARD COUNTY HEALTH DEPARTMENT  
 COUNTY HEALTH OFFICER: *[Signature]* DATE: 4-20-88  
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
 DIRECTOR: *[Signature]* DATE: 4-26-88  
 DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT  
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DIRECTOR: *[Signature]* DATE: 4-13-88  
 CHIEF BUREAU OF ENGINEERING: *[Signature]*

APPROVED  
 DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION  
 HOWARD COUNTY MARYLAND  
 DATE 3-7-88



PLAN  
 SCALE: 1"=50'

DATE: _____	
OWNER: GENERAL ELECTRIC CO. APPLIANCE PARK EAST COLUMBIAN BLVD ATTN: JOHN A. JENSEN, 972-1100 SEE RECORD PLAT # 1439-7420	DATE: _____
	
<b>MCRONE</b> ENGINEERS - PLANNERS - SURVEYORS 100 W. WALSH AVENUE ANNAPOLIS, MARYLAND 21401 ATTN: STEVE DALEY, PE 207-8621	
DATE: OCT 86	SCALE: 1"=50'
NO. 11385293	DRAWN BY: CONTRE
DATE: 11/2/87	APPROVED: S. DALEY
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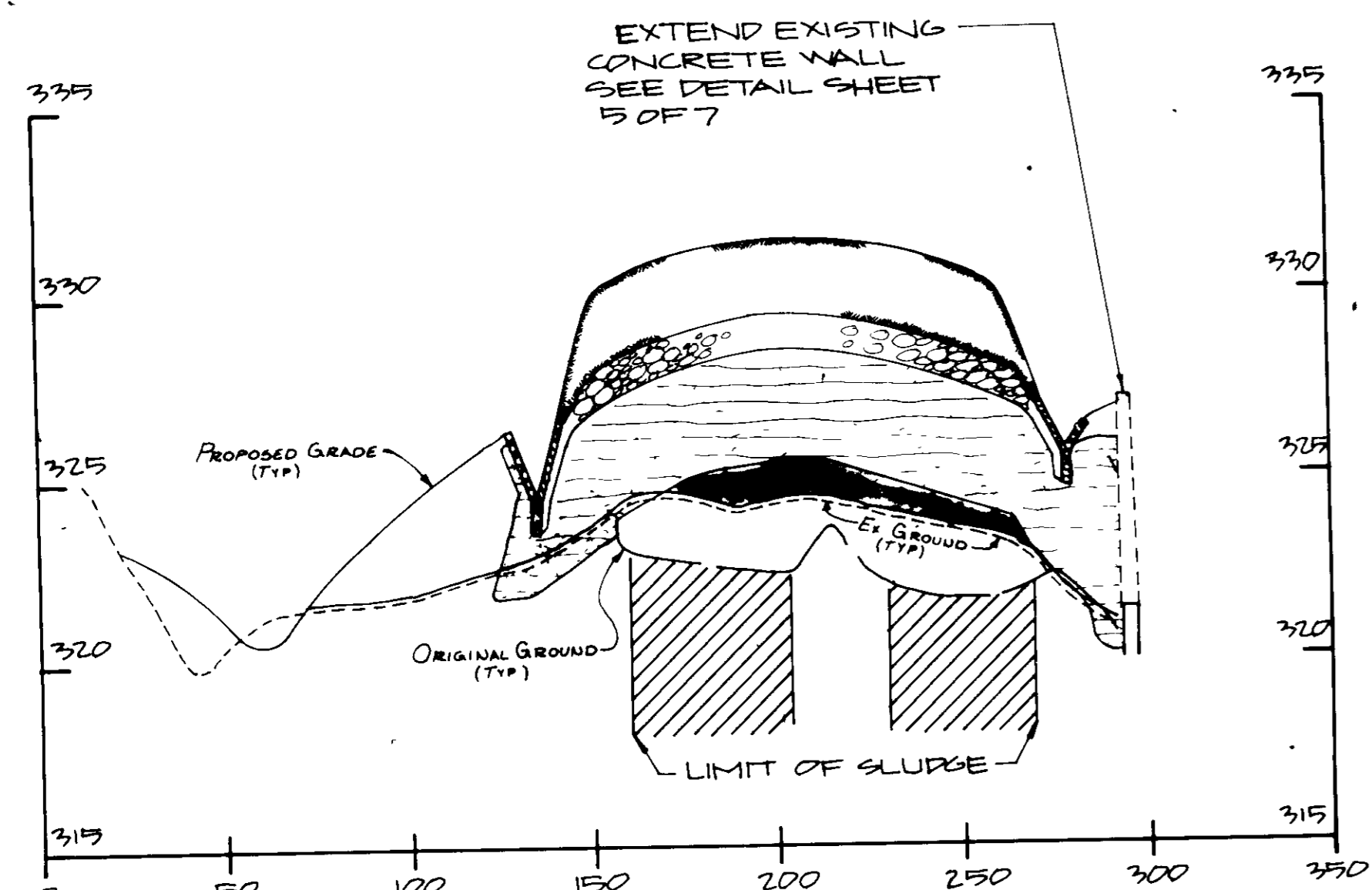
SITE 4 GRADING PLAN (CELL 213)  
 GE APPLIANCE PARK EAST  
 CLOSURE PLAN - PARCEL A2  
 INDUSTRIAL WASTE SLUDGE SITES  
 RTE 175-SNOWDEN RIVER PARKWAY  
 6TH DISTRICT, HOWARD CO., MD.  
 SHEET NO. 3 of 9  
 FILE NO B-13-157-C  
 357-88-44

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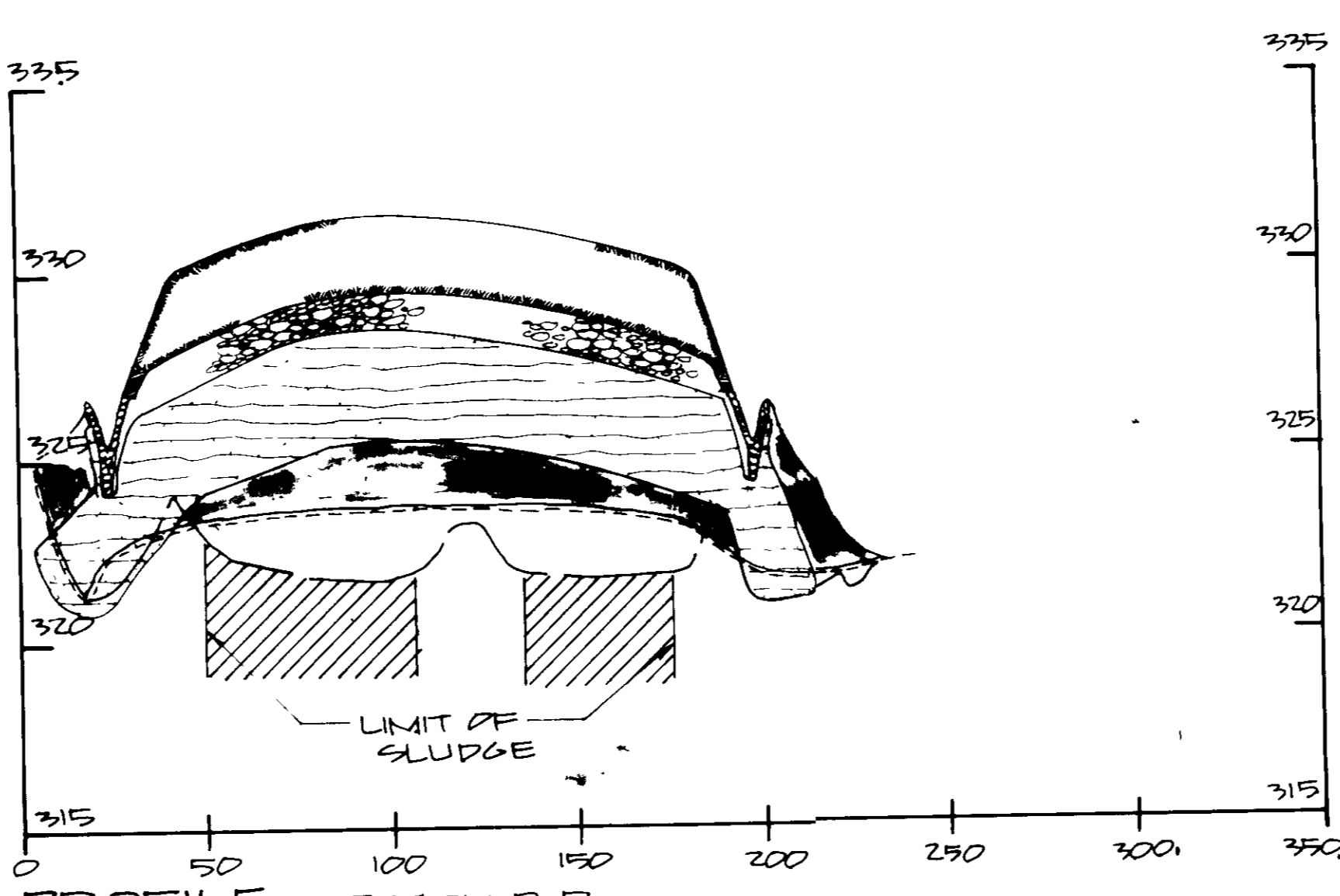




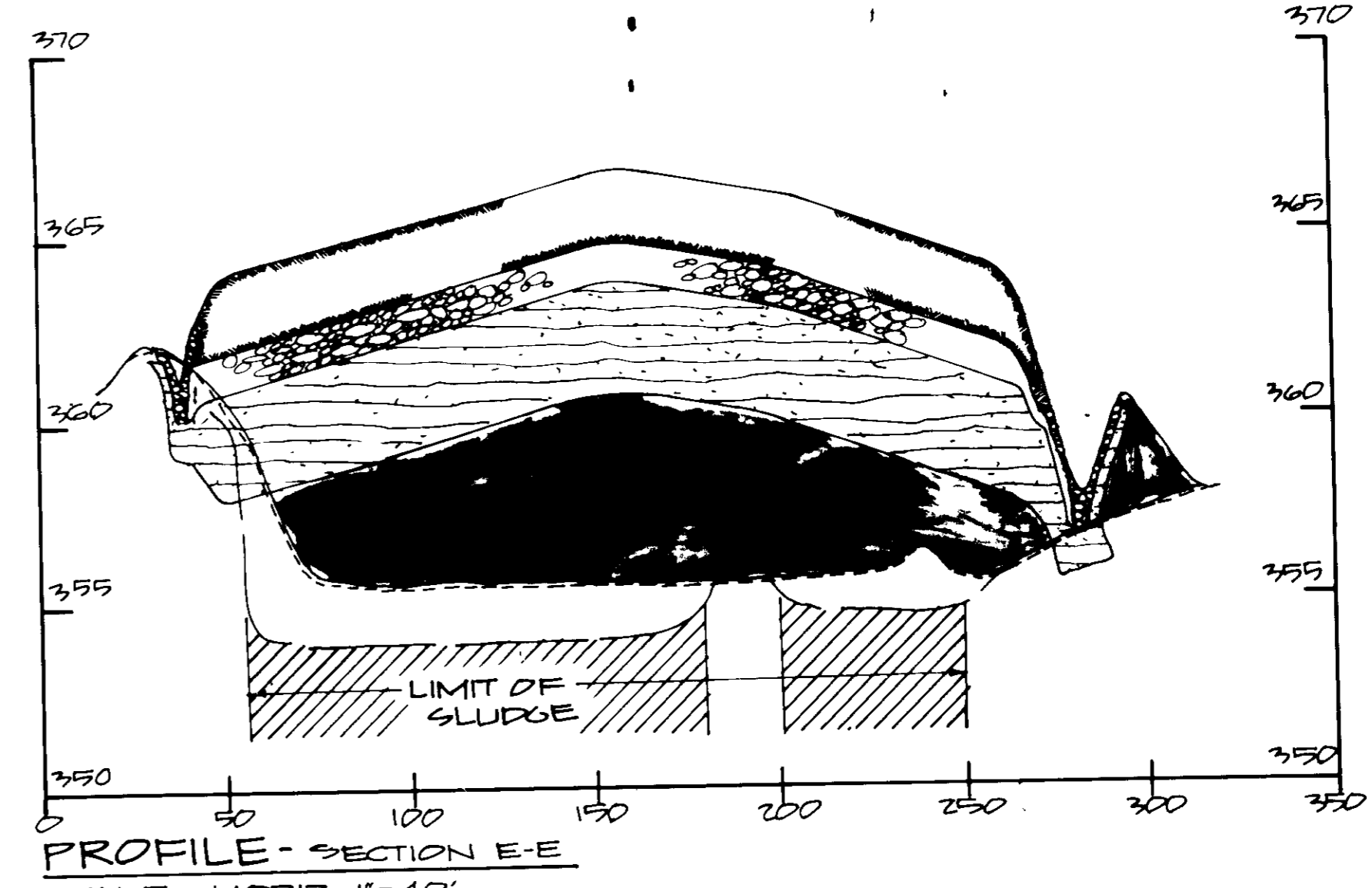




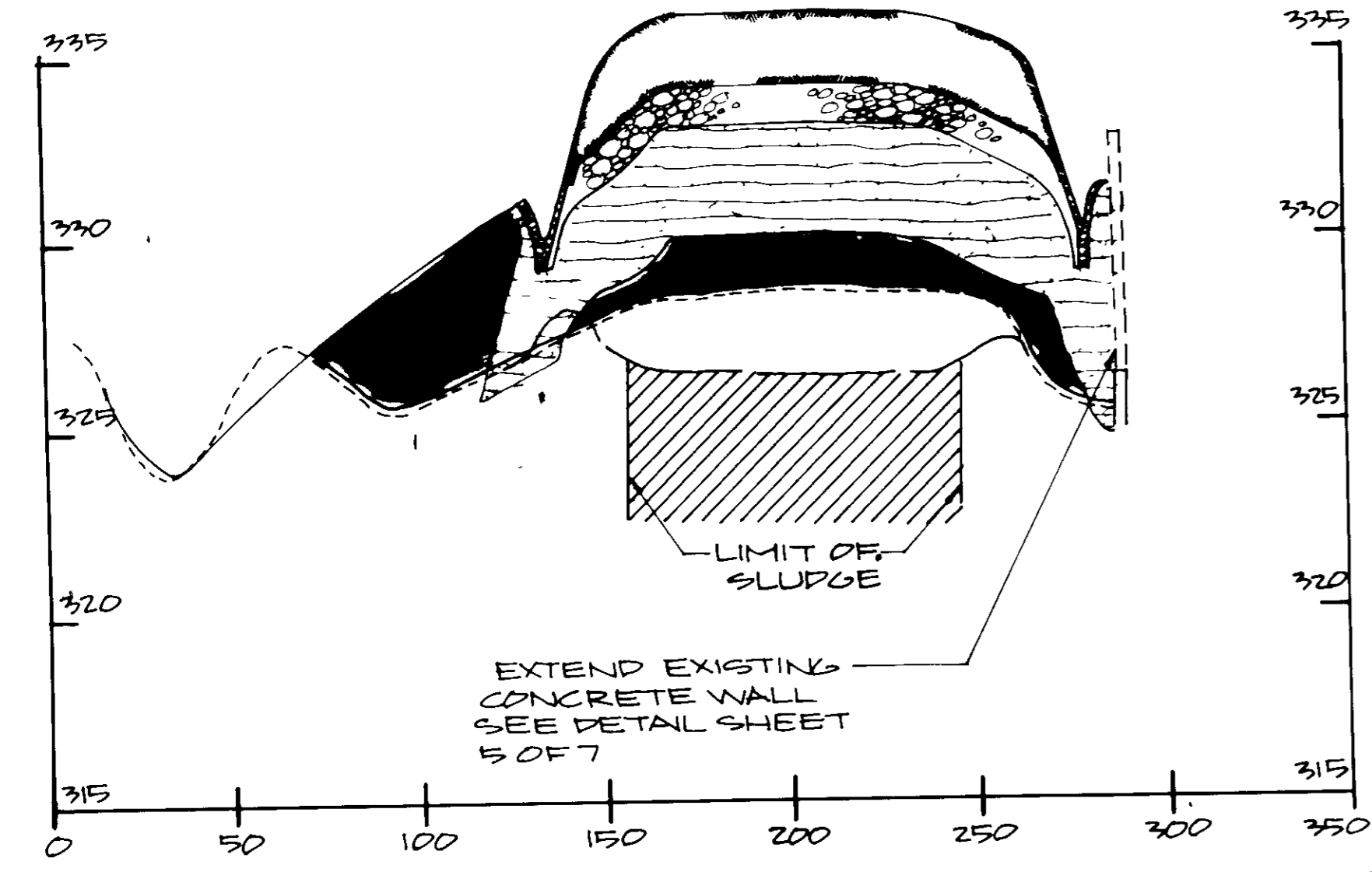
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VERT 1"=4'



PROFILE - SECTION D-D  
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VERT 1"=4'

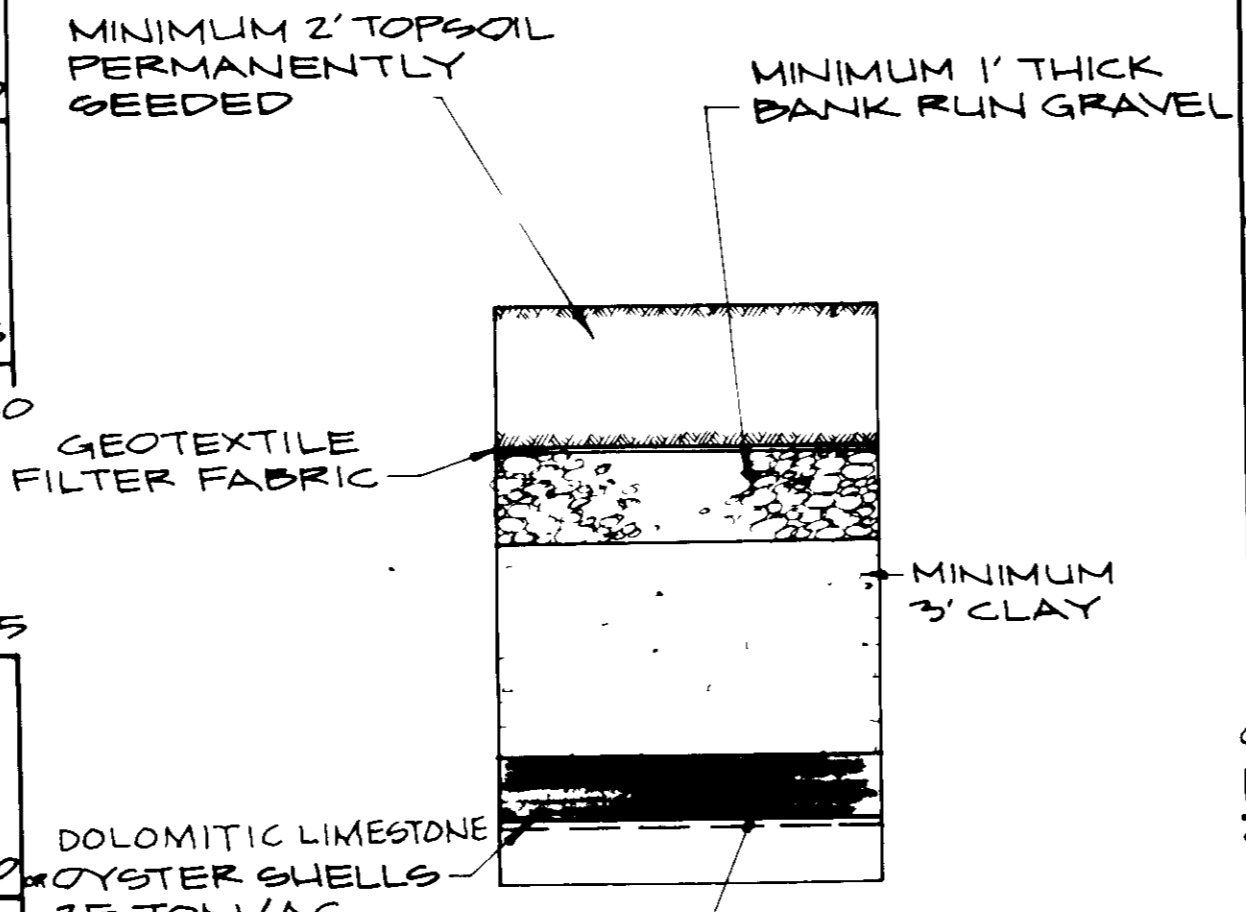


PROFILE - SECTION E-E  
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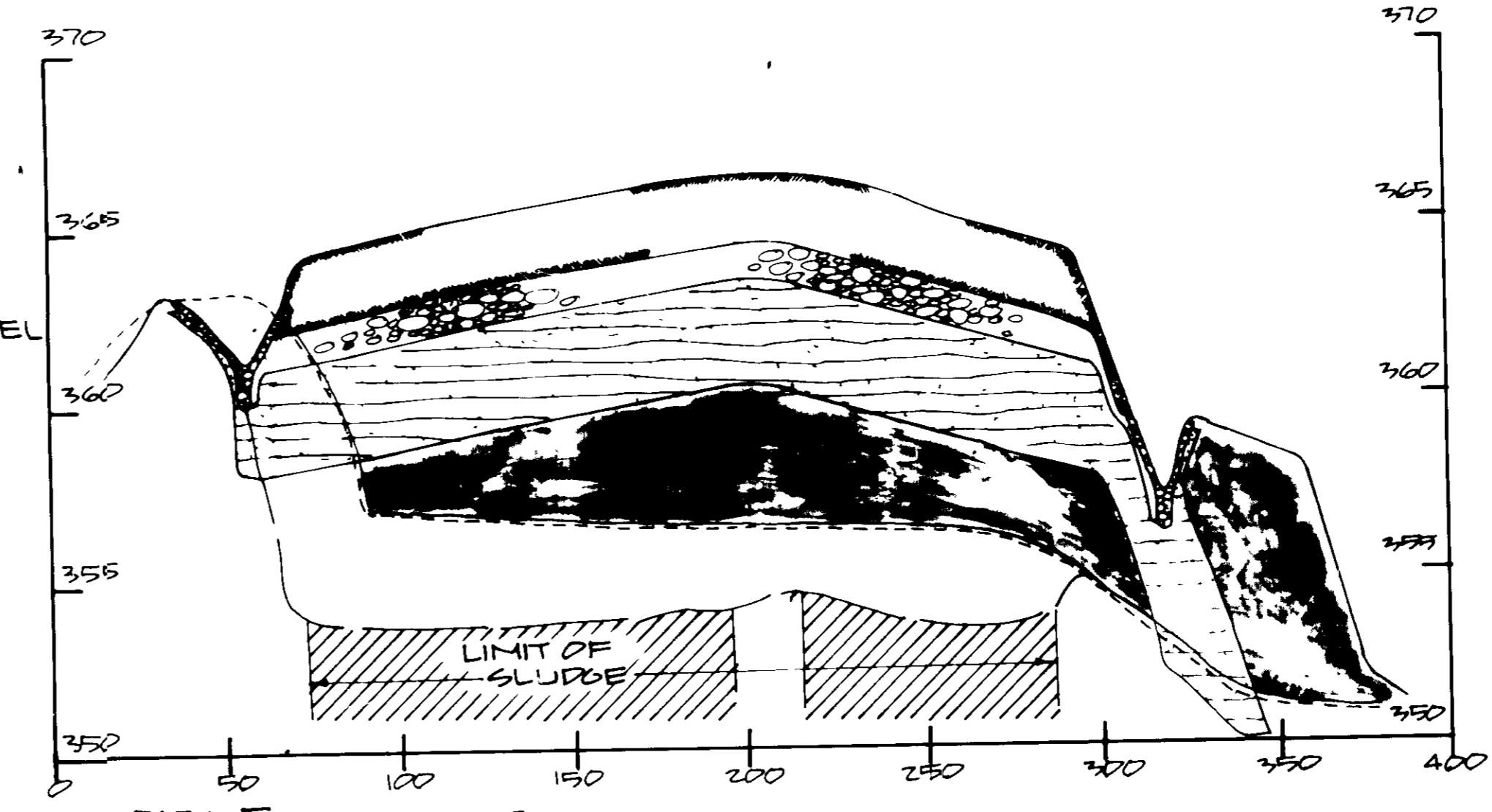
PROFILE - SECTION B-B  
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VERT 1"=4'

NOTE CLAY LINER SHALL BE TIED INTO EXISTING GRADE AT ALL EDGES OF FILL BY A 1" DEEP KEY TYPICAL ALL SITES

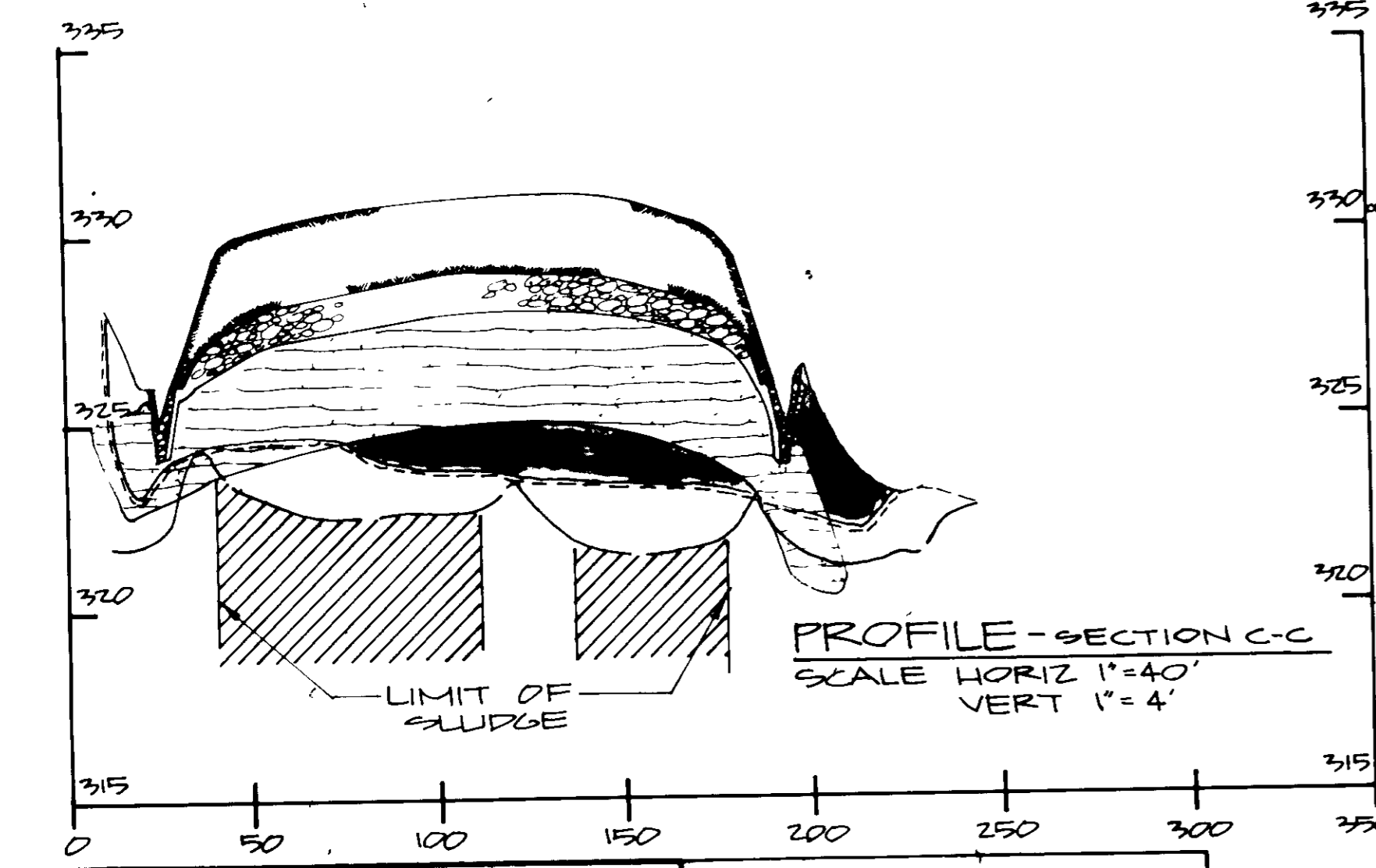


TYPICAL CAP COMPONENTS  
NOT TO SCALE

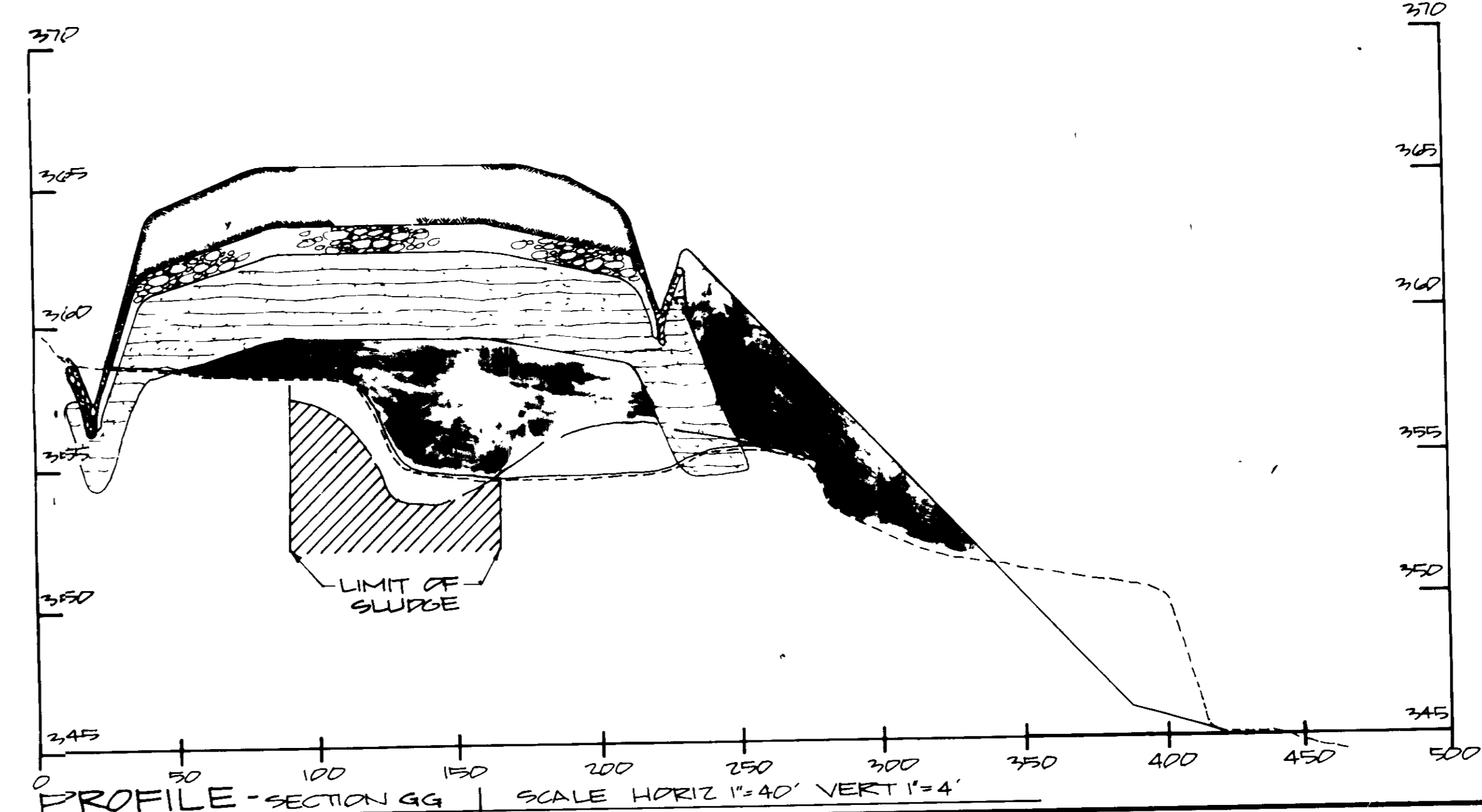
NOTE ON ALL SIDE SLOPES ON CAP GREATER THAN 5:1 INSTALL JUTE MATTING AS PER SPECIFICATION SHEET OF



PROFILE - SECTION F-F  
SCALE HORIZ 1"=40'  
VERT 1"=4'



PROFILE - SECTION C-C  
SCALE HORIZ 1"=40'  
VERT 1"=4'



PROFILE - SECTION G-G  
SCALE HORIZ 1"=40'  
VERT 1"=4'

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS  
HOWARD COUNTY HEALTH DEPARTMENT  
DATE 4-26-88

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
DATE 3/26/88

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE,  
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
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APPROVED  
DIVISION OF LAND DEVELOPMENT &  
ZONING ADMINISTRATION  
HOWARD COUNTY, MARYLAND  
DATE 3-7-88

OWNER: GENERAL ELECTRIC CO  
APPLIANCE PARK EAST  
COLUMBIA, MD 21046  
ATTN: JOHN A. JENKINS 410-311-1100  
SEE RECORD PLAT 74-35-74-90

PARCEL #A-2, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500

TAX MAP #0-44-43, PARCEL #87  
PROPERTY ZONED I D  
6th ELECTION DISTRICT

DATE 4/13/88

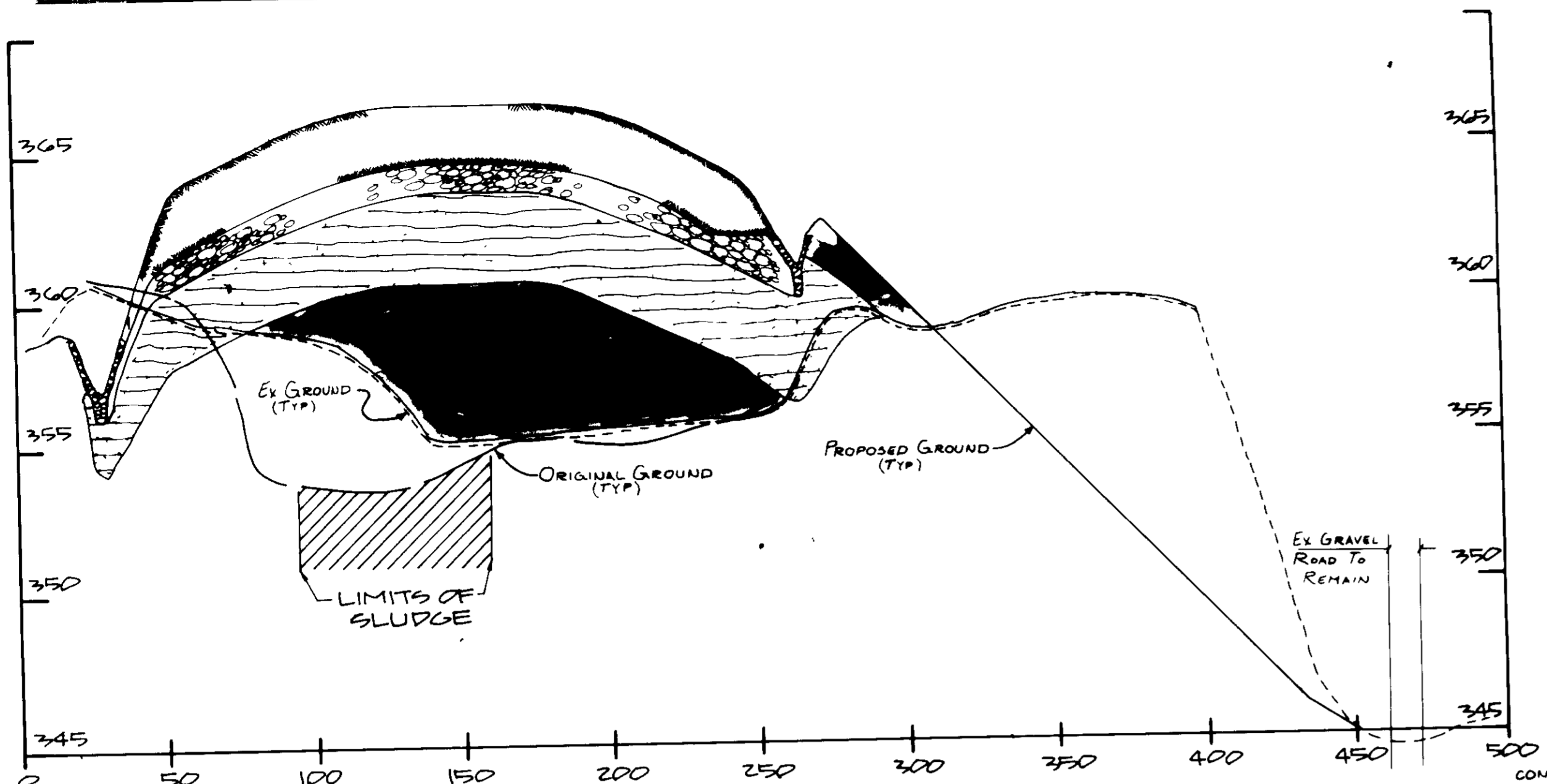
**MCRONE**  
ENGINEERS • PLANNERS • SURVEYORS  
20 RIDGELY AVENUE  
ANNAPOLIS, MARYLAND 21401  
ATTN: OSWALD DALEY, P.E. 267-0621

CENTREVILLE - CHESTERTOWN - ORTON - EASTON - ELKTON - LEONARDTOWN - PRINCE FREDRICK

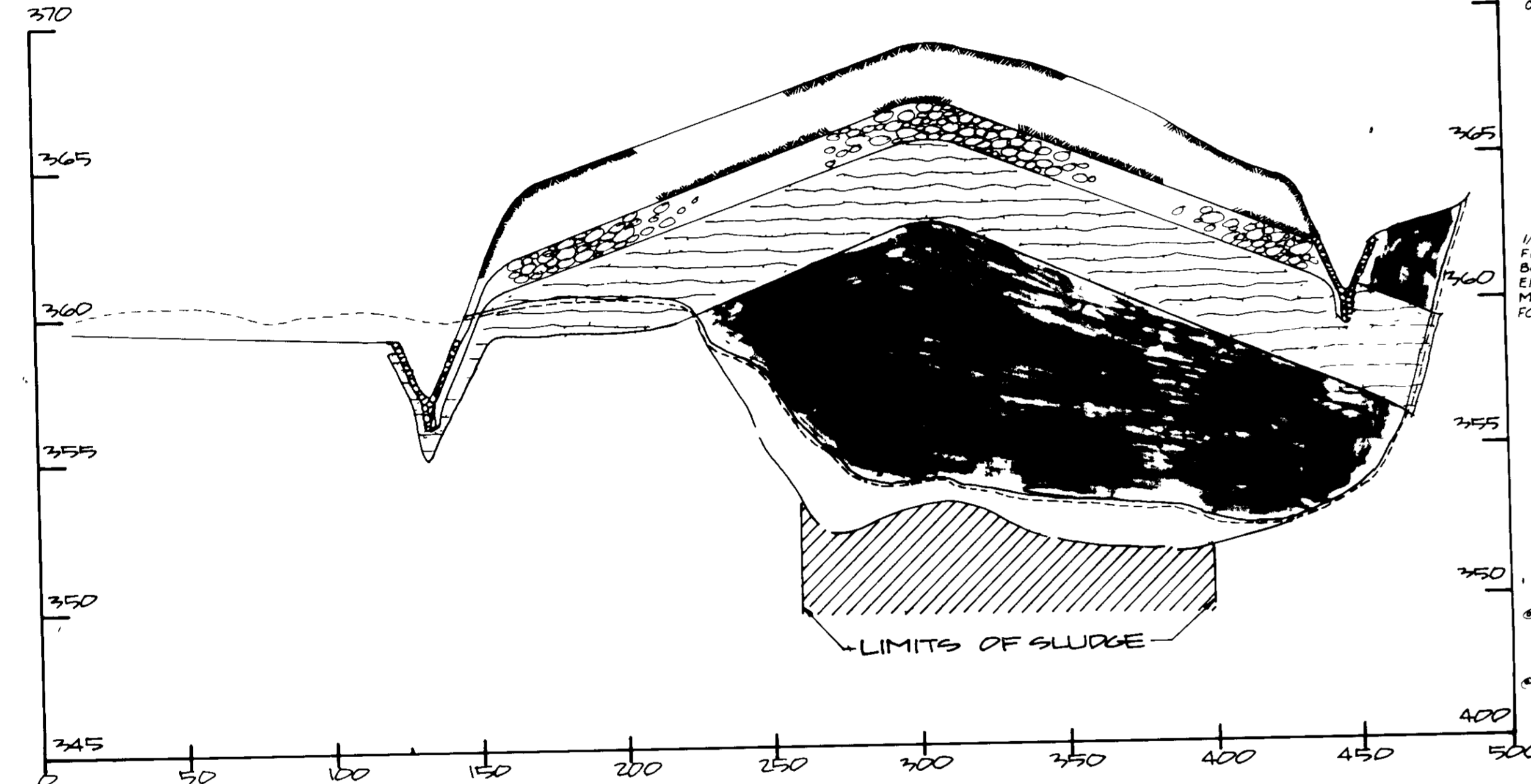
DATE	4/24/87	SCALE	As Shown
JOB NO.	18982-059	DRAWN BY	PAD
FOR USE BY	HOWARD COUNTY	APPROVED	S. DALEY
DATE	4/24/87	REVISION	
DATE	4/24/87	PER	VP DEPT
DATE	4/24/87	FOR	HOWARD CO -
DATE	4/24/87	GRADING	PERMIT

CELL CROSS SECTIONS (A-G)  
GE APPLIANCE PARK EAST  
CLOSURE PLAN - PARCEL A2  
INDUSTRIAL WASTE SLUDGE SITES  
RTE 175 - SNOWDEN RIVER PARKWAY  
6th DISTRICT, HOWARD COUNTY, MD

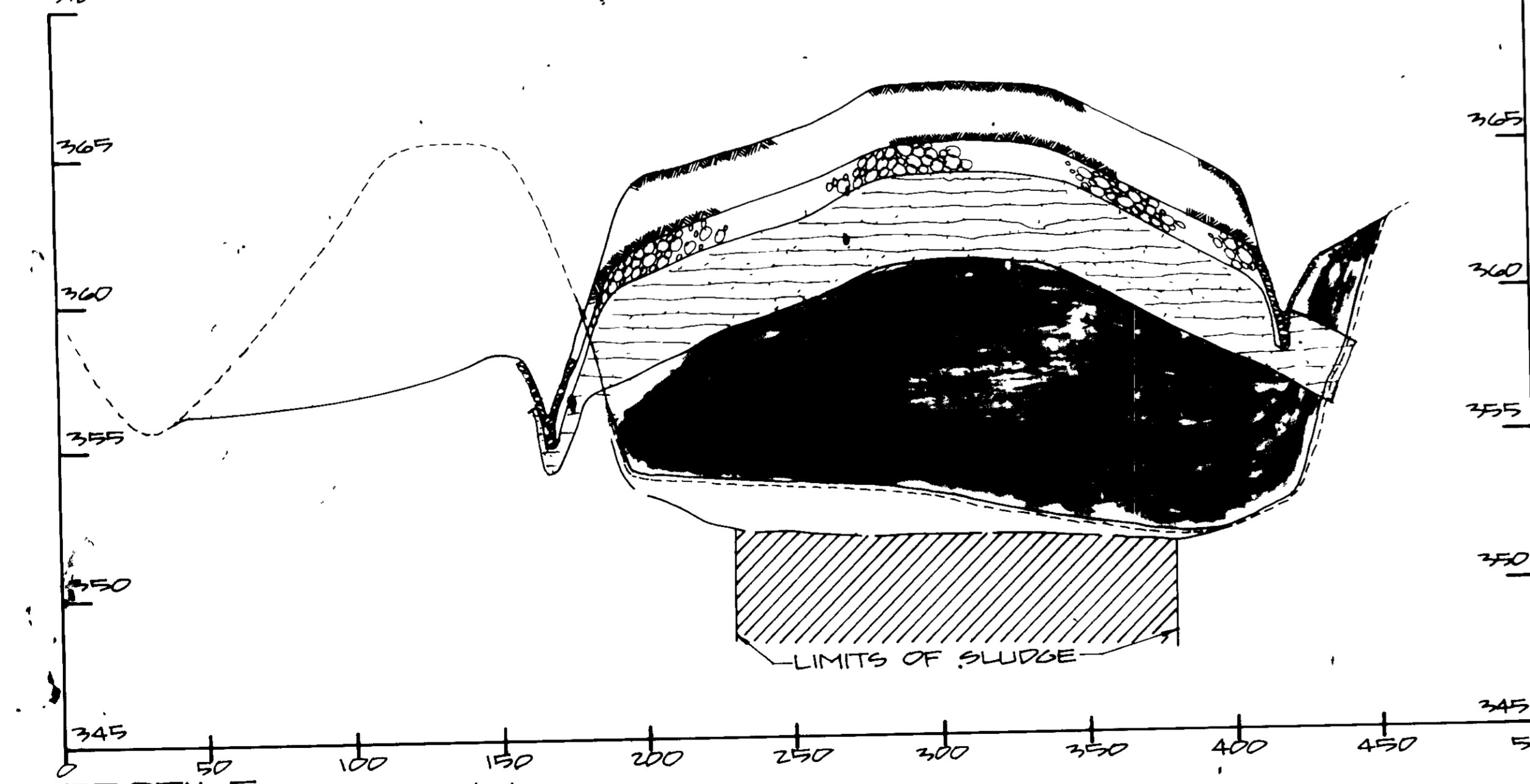
SHEET NO. 5 of 9  
FILE NO B-13-157-E  
SDP-88-44



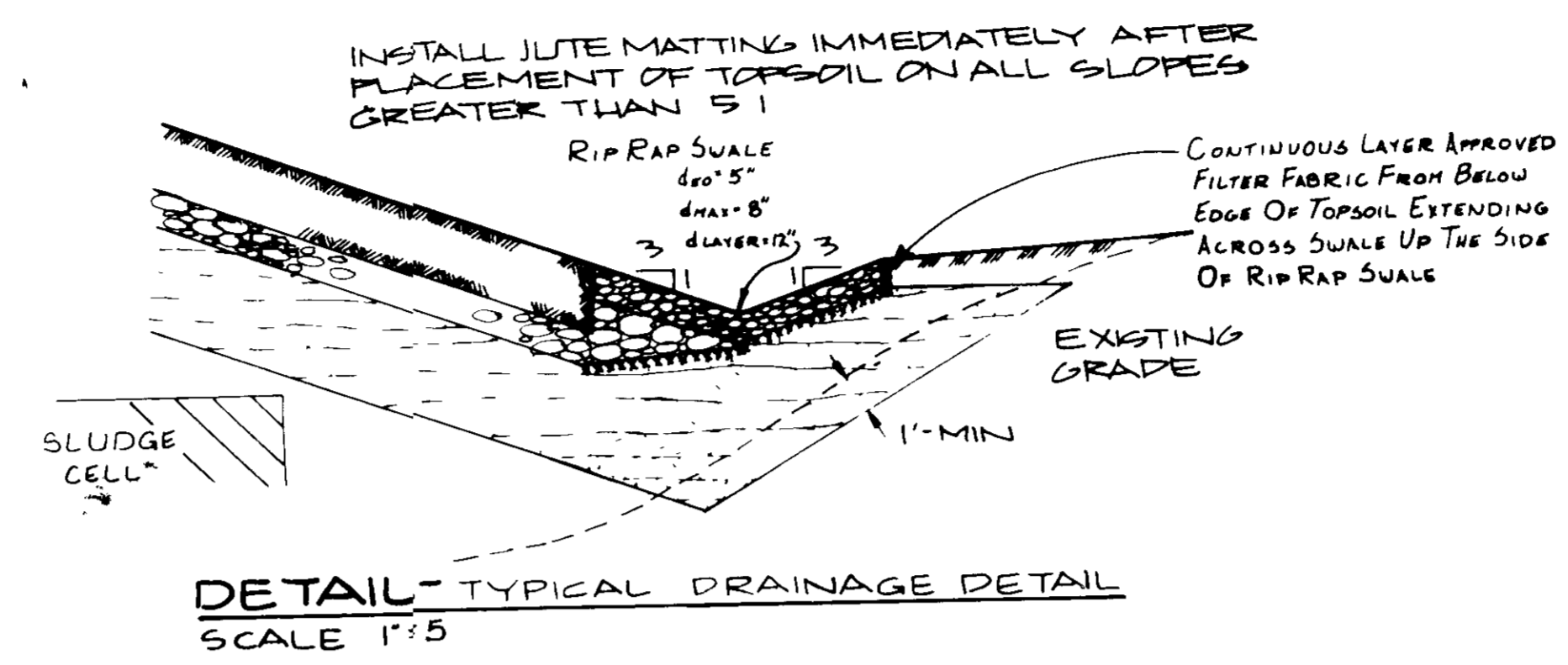
PROFILE - SECTION H-H  
SCALE HORIZ 1"=40'  
VERT 1"=4'



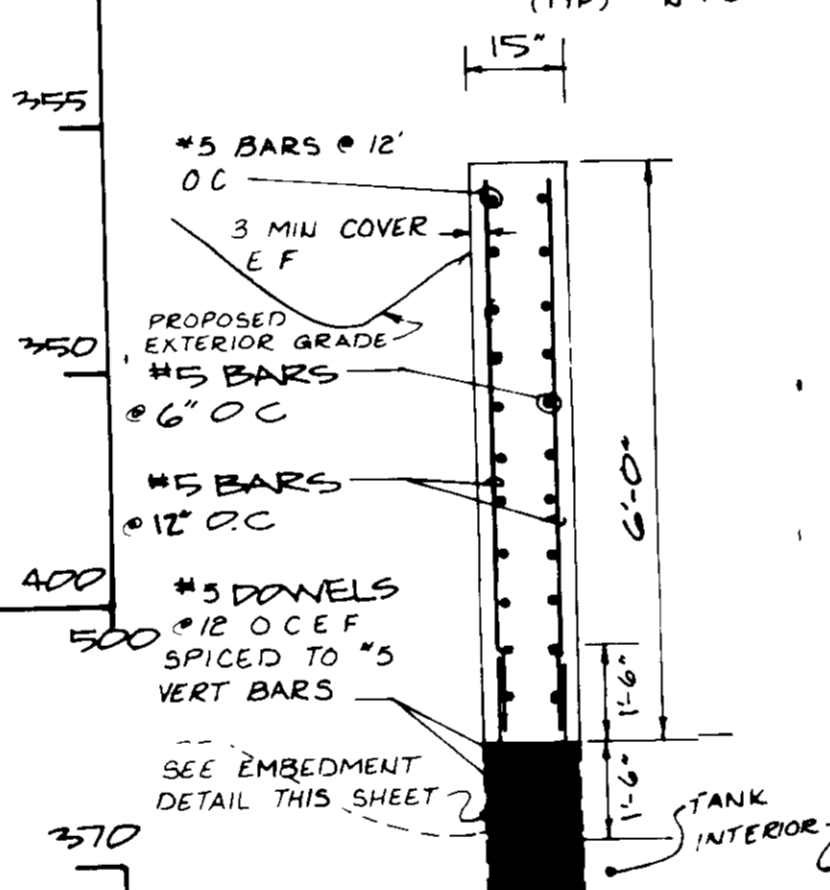
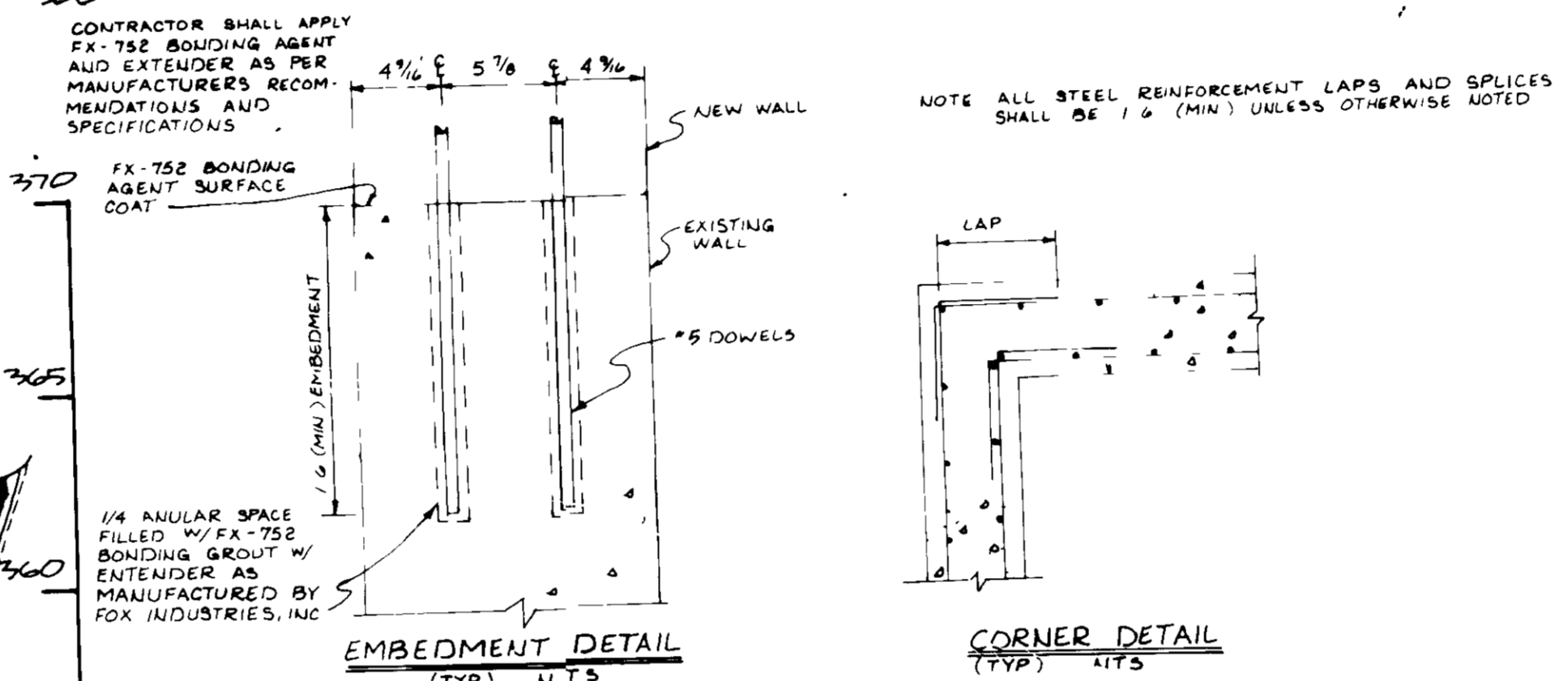
PROFILE - SECTION I-I  
SCALE HORIZ 1"=40'  
VERT 1"=4'



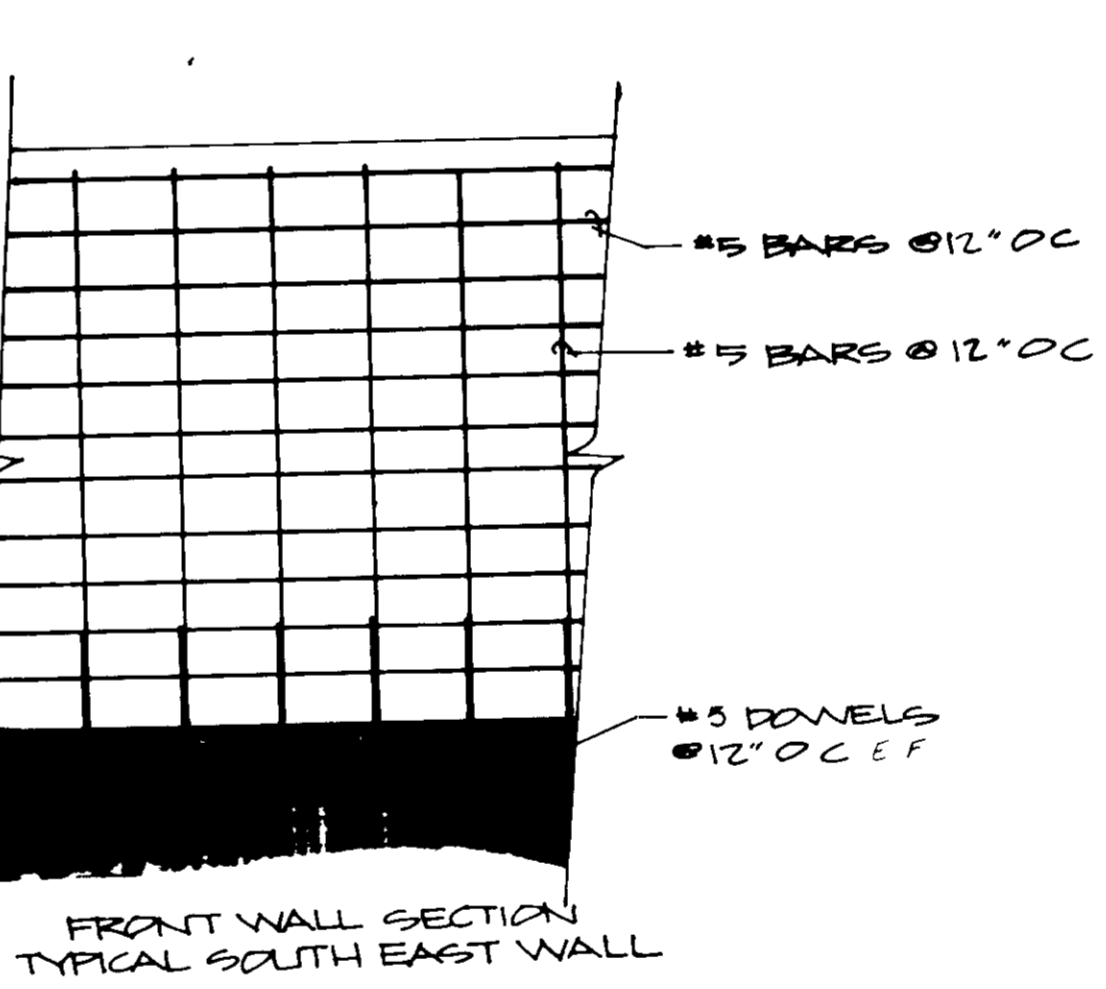
PROFILE - SECTION J-J  
SCALE HORIZ 1"=40'  
VERT 1"=4'



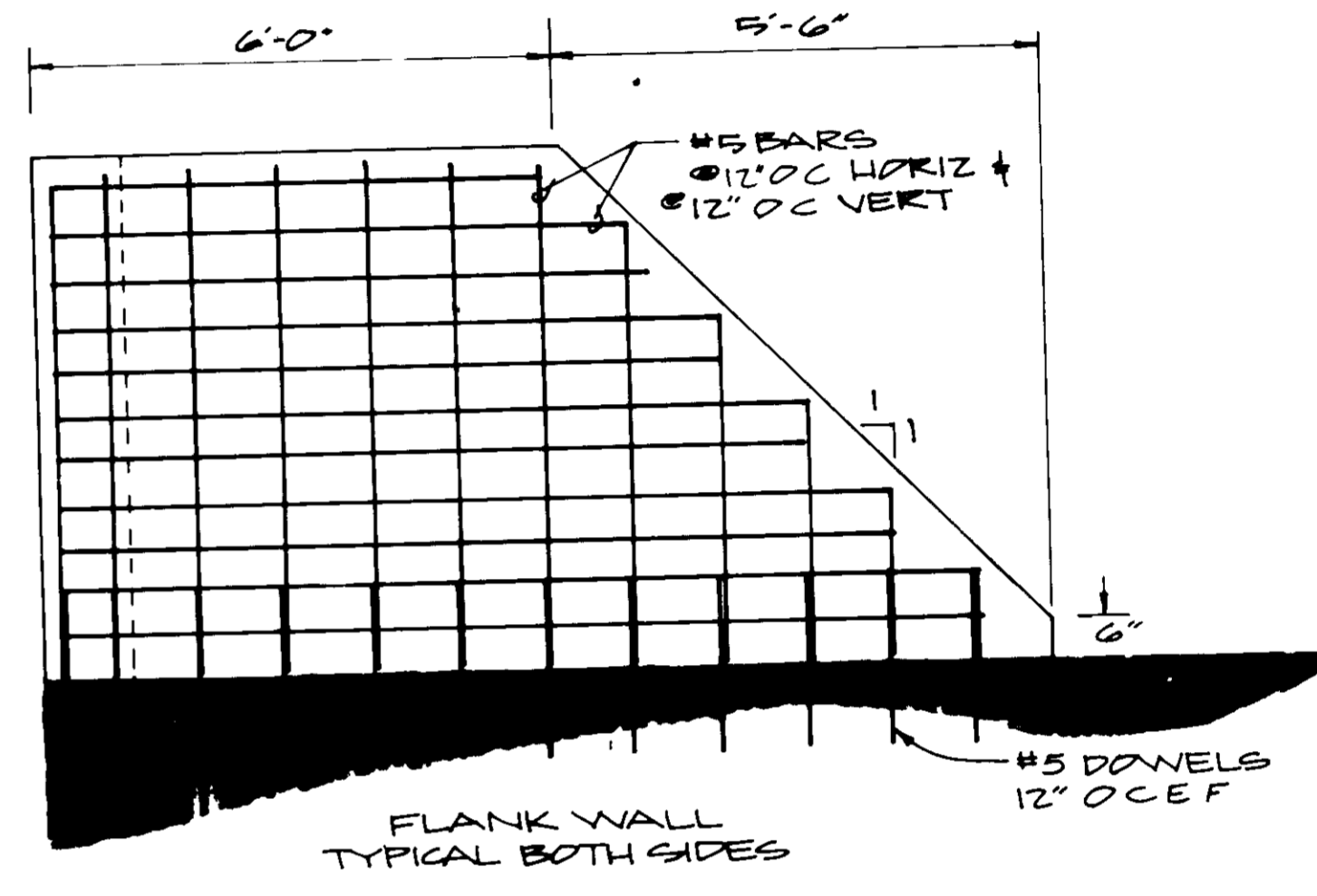
DETAIL - TYPICAL DRAINAGE DETAIL  
SCALE 1"=5'



WALL SECTION TYPICAL ALL SIDES



FRONT WALL SECTION TYPICAL SOUTH EAST WALL



FLANK WALL TYPICAL BOTH SIDES

**CONCRETE BASIN WALL EXTENSION DETAILS**  
NTS

STANDARD AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION OF CHANNELS AND STEEP SLOPES

**INSTALLATION REQUIREMENTS**

**Site Preparation:** After site has been shaped and graded to approved design, prepare a friable seedbed relatively free from clods and rocks more than 1/4 inch in diameter, and any foreign material that will prevent contact of the protective mat with the soil surface.

**Planting:** Seed, fertilizer, and mulch to be applied in accordance with seeding or other type of planting plan, except when using jute matting or a seeded straw mat. The protective matting should be laid over the seedbed immediately after the seed has been planted. The matting should be laid over the seedbed immediately after the seed has been planted. The matting should be laid over the seedbed immediately after the seed has been planted.

**Staples:** Staples shall be spaced at 12 inches on center along the length of the matting. The staples shall be driven into the soil surface at an angle of 45 degrees to the matting. The staples shall be driven into the soil surface at an angle of 45 degrees to the matting.

**Final Check:** Make sure matting is uniformly in contact with the soil. All lap joints are secure. All staples are flush with the ground. All disturbed areas seeded.

**DETAIL FOR STABILIZING MATERIALS WITH JOINTS ON EXCAVATION HUTTINGS**

1. Bury the top end of the matting strips in a trench 6 inches or more in depth.

2. Tuck the trench end of each matting strip under the wood slatting, 6 inches before the trench.

3. Overlap the top end of lower strip in 12" and 12" overlap and of top strip 6 inches and staple.

4. Excavate slope - Field at matting buried in slit trench and overlap, double row of staples.

5. Staple outside edge on 12" centers.

APPROVED, FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS,  
HOWARD COUNTY HEALTH DEPARTMENT  
DATE 4-25-88  
APPROVED, HOWARD COUNTY OFFICE OF PLANNING & ZONING  
DATE 4-26-88  
APPROVED, FOR PUBLIC WATER AND PUBLIC SEWERAGE,  
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
DATE 4-15-88

APPROVED  
DIVISION OF LAND DEVELOPMENT &  
ZONING ADMINISTRATION  
HOWARD COUNTY, MARYLAND  
DATE 3-7-88

OWNER: GENERAL ELECTRIC CO.  
APPLIANCE PARK EAST  
COLUMBIA, MD 21046  
ATTN: JOHN A. JENNINGS, P.E., 1108  
SHEPHERD BLVD., #1000  
PARKVILLE, MD 21122  
PROPERTY IDENTIFIED BY  
GSA ELECTIONS DISTRICT

SEAL: STATE OF MARYLAND  
REGISTERED PROFESSIONAL ENGINEER  
STEPHEN F. DALBY, P.E.  
DATE: 4/14/88

**MCRONE**  
ENGINEERS - PLANNERS - SURVEYORS  
20 RIDGELY AVENUE  
ANNAPOLIS, MARYLAND 21401  
ATTN: GREVILLE DALBY, P.E. 2021-8061

DATE: 4/24/87  
JOB NO: 1199695257  
DRAWN BY: P.A.D.  
CHECKED BY: S. DALBY  
APPROVED BY: S. DALBY  
DATE: 4/24/87  
REVISION: 1  
BY: P.A.D.  
FOR HOWARD CO. -  
SHEPHERD BLVD.

CELL CROSS SECTIONS (H-H, I-I, J-J) WALL CONSTRUCTION  
G.E. APPLIANCE PARK EAST  
CLOSURE PLAN - PARCEL A2  
INDUSTRIAL WASTE SLUDGE SITES  
RTE 175 - SNOWDEN RIVER PARKWAY  
6th DISTRICT, HOWARD COUNTY, MD.

SHEET NO. 6 of 9  
FILE NO B-13-157-7  
567-88-99







APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS  
 HOWARD COUNTY HEALTH DEPARTMENT  
 COUNTY HEALTH OFFICE  
 APPROVED FOR HOWARD COUNTY OFFICE OF PLANNING & ZONING  
 DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT  
 APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE  
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DIRECTOR DATE 4-26-88  
 CHIEF BUREAU OF ENGINEERING DATE 4-13-88

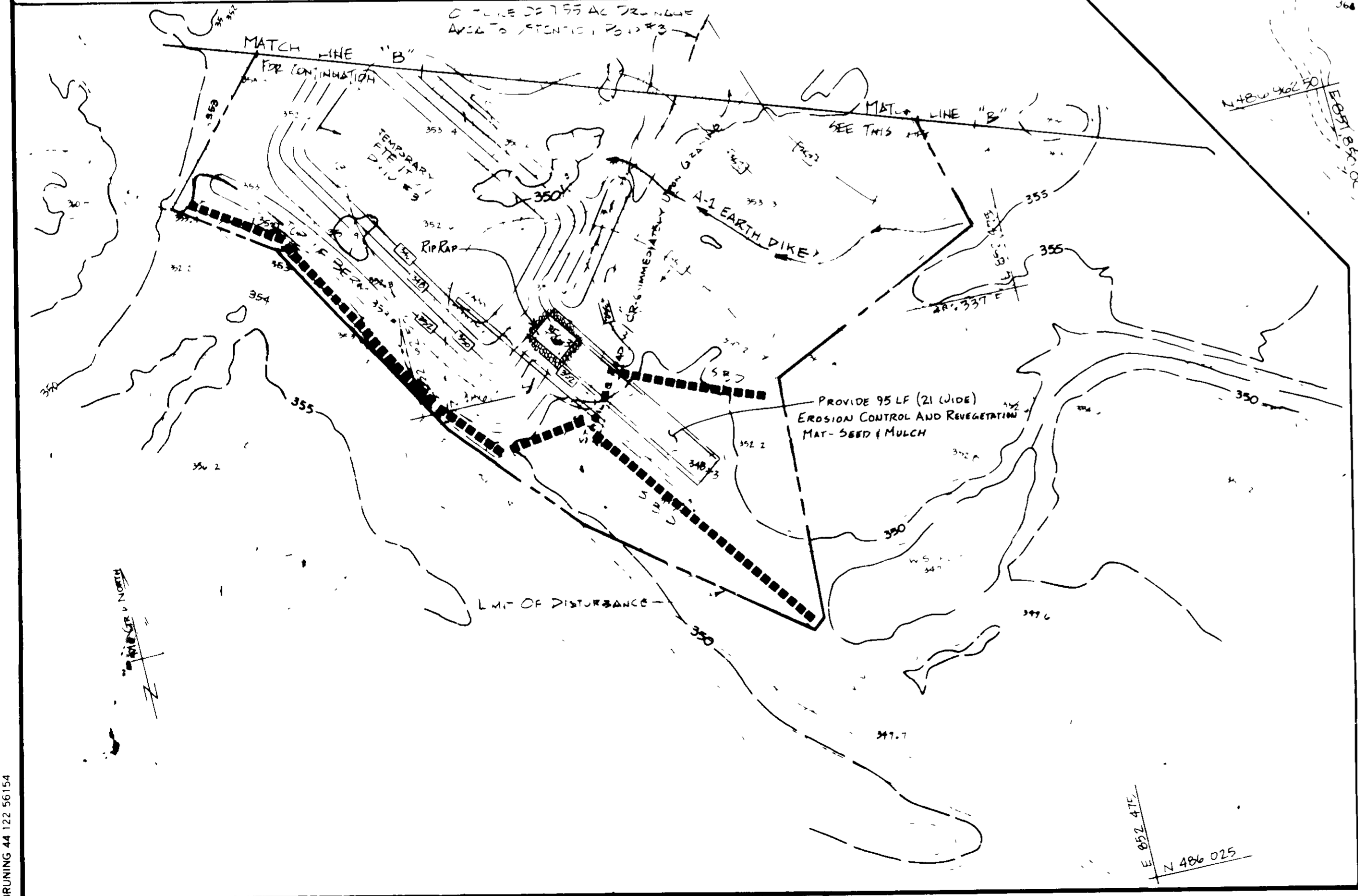
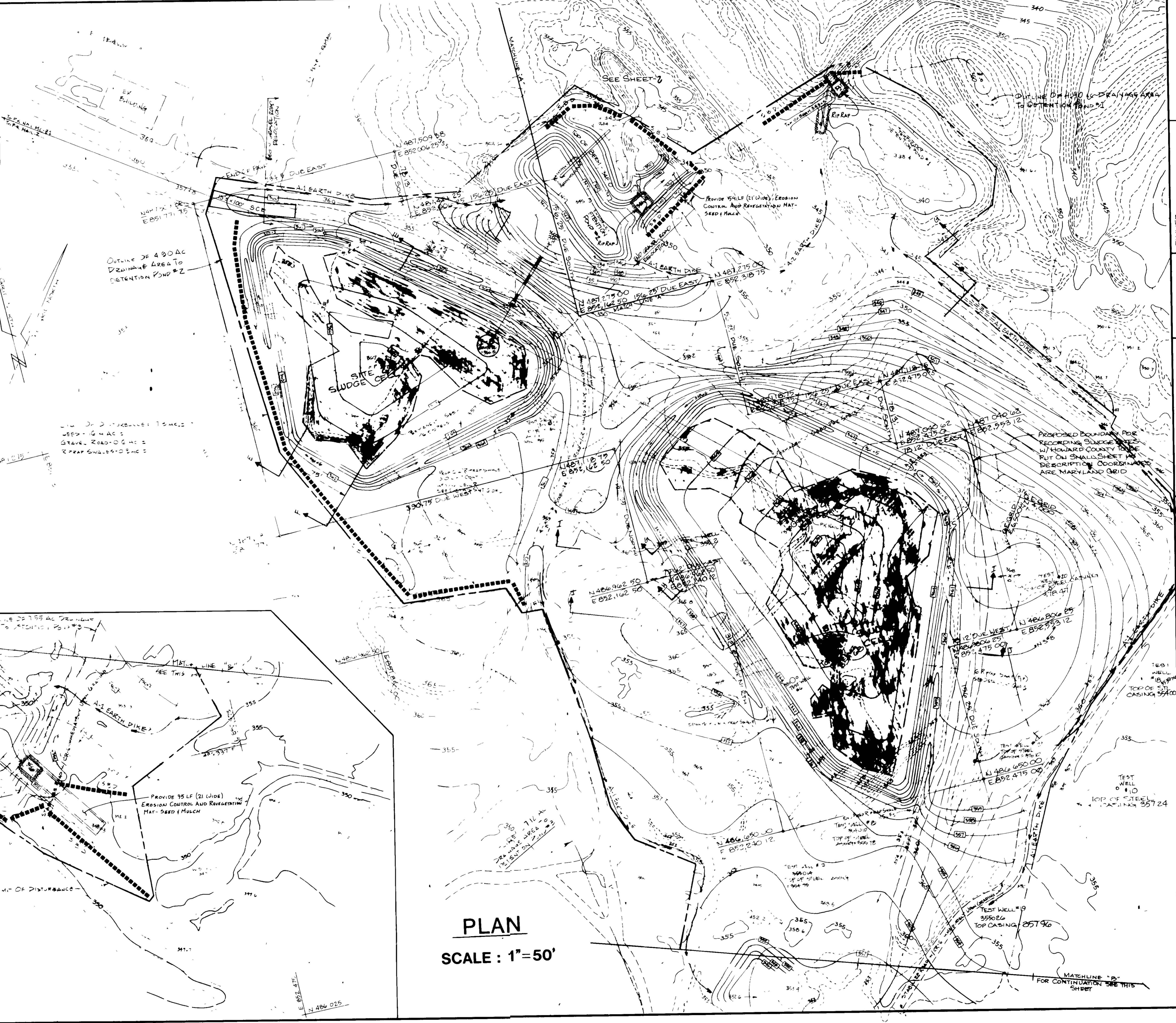
APPROVED  
 DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION  
 HOWARD COUNTY, MARYLAND  
 DATE 3-7-88

Revised for HOWARD S.C.D.  
 Name  
 and Specs Technical Requirements  
 Date 4-7-88  
 Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT  
 Date 4/6/88  
 Discal

"I do 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."  
 Date 4/5/88  
 JOHN A. JENKINS

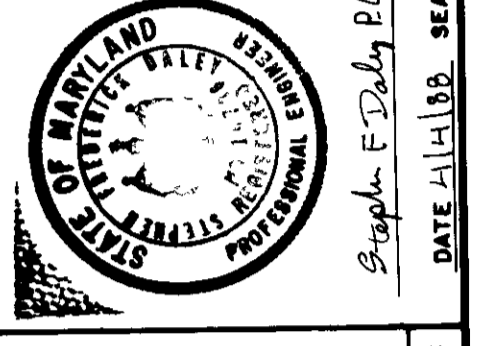
I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."  
 Date 4/4/88  
 STEPHEN F. DALEY



PLAN  
 SCALE: 1"=50'

OWNER: GENERAL ELECTRIC CO  
 APPLICANCE PARTICIPANT: COLUMBIA-MP BUILDING, 972-1100  
 ATTN: JOHN W. BISHOP, 972-1100  
 SEE RECORD PLAN 8-1089-1400  
 DATE

PARCEL # 2: 445 AC, AC  
 PARCEL # 1: 42.84 AC, PARCEL 907  
 TAX MAP # 30, 42.84 AC, PARCEL 907  
 PROPERTY ZONED I D  
 CITY ELECTION DISTRICT  
 DATE 4/11/88



**MCRONE**  
 ENGINEERS & PLANNERS - SURVEYORS  
 ANNAPOLIS, MARYLAND 21401  
 ATTN: STEVE DALEY, PE LGT-BGEI  
 CENTREVILLE, WESTERHURST, SEATON, EASTON, EDWARDSVILLE, PRINCEFREDRICK

DATE	OCT 86	SCALE	1"=50'
DESIGNED BY	CONTE	DRAWN BY	CONTE
CHECKED BY	DALEY	APPROVED BY	DALEY
DATE	10/86	PROJECT NO.	113365233
CLIENT	GENERAL ELECTRIC CO	PROJECT NAME	EROSION CONTROL PLAN
PROJECT LOCATION	HOWARD COUNTY	PROJECT ADDRESS	INDUSTRIAL WASTE SLUDGE SITES
PROJECT DESCRIPTION	EROSION CONTROL	PROJECT SHEET NO.	8 OF 9

SEDIMENT & EROSION CONTROL PLAN (WELL 243)  
 G E APPLIANCE PARK EAST  
 CLOSURE PLAN - PARCEL A2  
 INDUSTRIAL WASTE SLUDGE SITES  
 RTE 175-SNOWDEN RIVER PARKWAY  
 6TH DISTRICT, HOWARD CO, MD  
 SHEET NO. 8 OF 9  
 FILE NO B-13-157-H  
 SDP-88-99



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 is prepared in accordance with the requirements of the Howard Soil Conservation District.

Stephen F. Daley P.E. 4/4/88  
**STEPHEN F. DALEY** Date

The territory 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.

John A. Jenkins 4/15/88  
**JOHN A. JENKINS** Date

Reviewed for HOWARD S.C.D. and meets Technical Requirements.  
 4/15/88  
**JOHN A. JENKINS** Date

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT  
 4/15/88  
**JOHN A. JENKINS** Date

NOTE: HAVE ROADS DAMAGED DURING CONSTRUCTION TO BE REPAIRED 1/2" CR & PAVED ROADS TO BE REPAIRED w/ PAVING SECTION TO MATCH EXISTING.

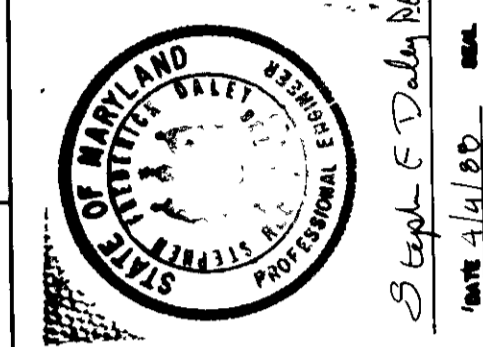
APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS,  
 HOWARD COUNTY HEALTH DEPARTMENT  
 COUNTY HEALTH OFFICER **Joseph P. Ball** DATE **4-22-88**

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE,  
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DIRECTOR **James E. Ball** DATE **4/22/88**

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE,  
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DIRECTOR **James E. Ball** DATE **4/22/88**

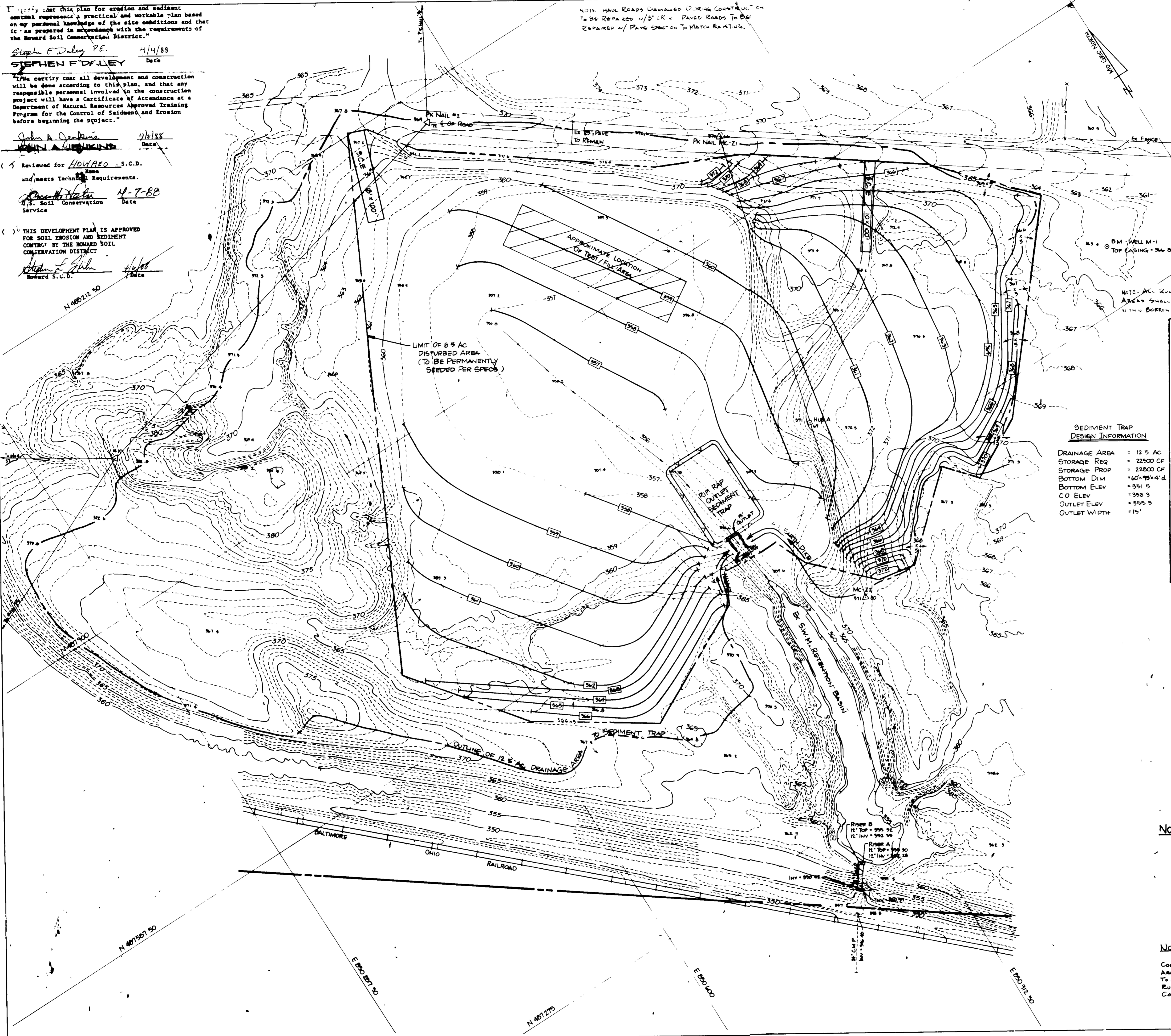
APPROVED DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION  
 HOWARD COUNTY, MARYLAND  
 DATE **3-7-88**

OWNER:  
 GENERAL ELECTRIC CO.  
 APPLIANCE PARK EAST  
 COLUMBIA, MD 21046  
 ATTY JOHN A. JENKINS  
 SEE RECORDED PLAT # 445-1100  
 PARCEL # A-2 445 4101 AC  
 TAX MAP # 34 42 144 PARCEL 907  
 PROPERTY ZONE I D  
 6TH ELECTION DISTRICT



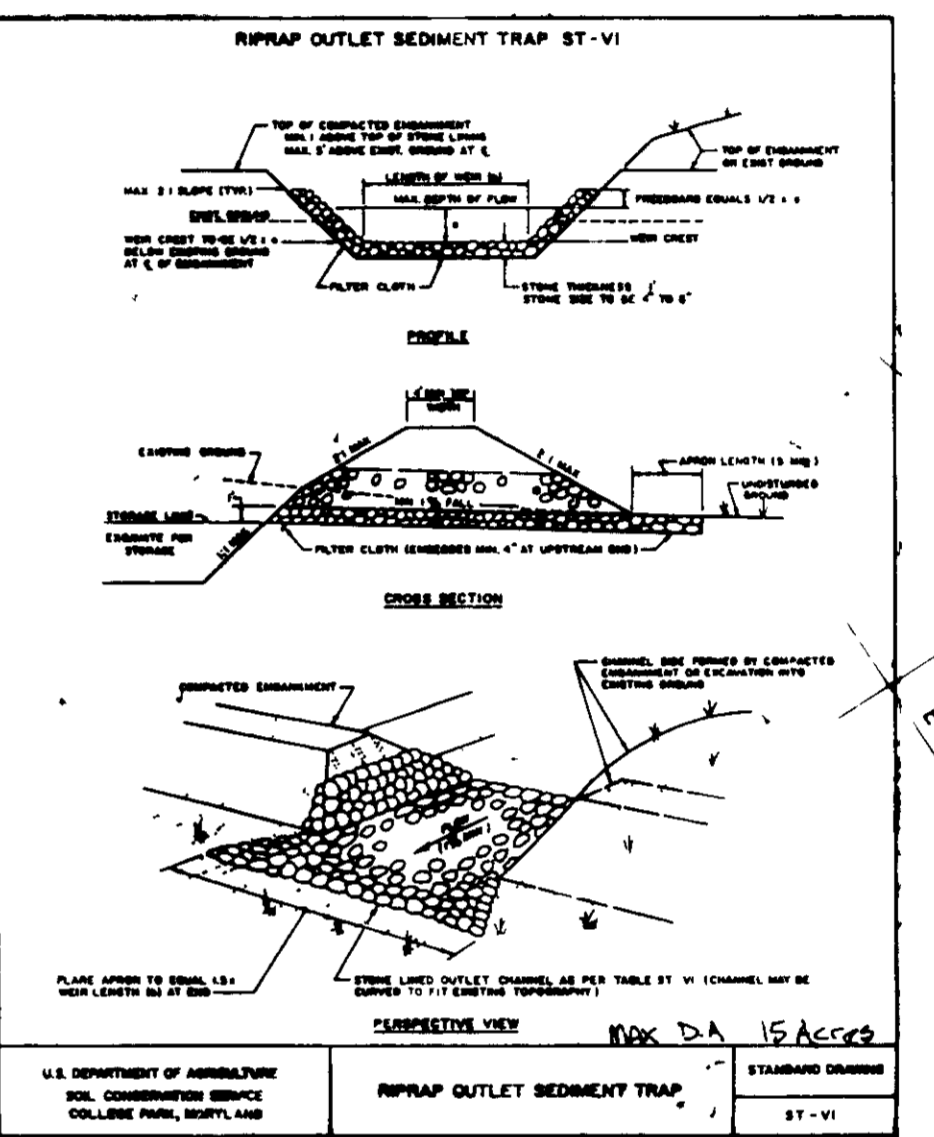
Reviewed for HOWARD S.C.D. and meets Technical Requirements.  
 4/15/88  
**JOHN A. JENKINS** Date

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT  
 4/15/88  
**JOHN A. JENKINS** Date



**SEDIMENT TRAP DESIGN INFORMATION**

DRAINAGE AREA = 12.5 AC  
 STORAGE REQ = 22500 CF  
 STORAGE PROP = 22500 CF  
 BOTTOM DIM = 160' x 95' x 4' d  
 C.O. ELEV = 358.3  
 OUTLET ELEV = 355.5  
 OUTLET WIDTH = 15'



- CONTINUATION SPECIFICATIONS FOR ST-VI
- The area under embankment shall be cleared, graded and seeded with grass and trees. The soil area shall be graded.
  - The fill material for the embankment shall be free of rocks or other woody vegetation as well as over-sized stones, roots, plastic material or other objectionable material. The embankment shall be constructed by traversing with equipment while it is being constructed. Maximum height of embankment shall be five (5) feet, measured at construction.
  - All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.
  - Elevation of the top of any dike directing water into trap must equal or exceed the height of embankment.
  - Storage area provided shall be figured by computing the volume available behind the outlet channel up to an elevation of one (1) foot below the level of crest.
  - Filter cloth shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Sections of fabric must overlap at least one (1) foot with section nearest the outlet channel. The fabric shall be secured at least six (6) inches into existing ground at entrance of outlet channel.
  - Stone used in the outlet channel shall be four (4) to eight (8) inches in size. To provide a filtering effect, a layer of filter cloth shall be installed one (1) foot below the upstream face of the outlet stone or a one (1) inch thick layer of two (2) inch or larger aggregate shall be placed on the upstream face of the outlet.
  - Sediment shall be removed and trap restored to its original dimensions when sediment has accumulated to 1/2 the design depth of the trap. Removal and restoration shall be completed in a suitable area and in such a manner that it will not erode.
  - The structure shall be inspected after each rain and repaired as needed and water pollution are eliminated.
  - The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.
  - Decharge area for this structure is limited to 15 acres or less.

**NOTE:** PREDOMINATE SOIL TYPES FOR LAND INCLUDED IN THE 12.5 AC DRAINAGE AREA TO THE PROPOSED SEDIMENT TRAP INCLUDES:

- 1) CLCS - CHILLUM GRAVELLY LOAM, 5-10%, SEVERELY ERODED.
- 2) CLDZ - CHILLUM GRAVELLY LOAM, 10-15%, MODERATELY ERODED.
- 3) CMBS - CHILLUM SILT LOAM, 1-3%, MODERATELY ERODED.

**NOTE:** TEMPORARY STORMWATER MANAGEMENT DURING CONSTRUCTION WILL NOT BE PROVIDED FOR THE BORROW AREA. THE EXISTING CONDITION OF THE AREA IS EQUIVALENT TO AN UNDISTURBED ALREADY GRADED AREA AND THE RUNOFF DURING CONSTRUCTION WILL NOT INCREASE COMPARED TO RUNOFF UNDER THE EXISTING CONDITION.

**McCRONE**  
 ENGINEERS PLANNERS SURVEYORS  
 20 ROADWAY AVENUE  
 ANNAPOLIS, MARYLAND 21401  
 ATTY. JOHN A. JENKINS P.E. 445-1100

DATE	BY	REVISION
NOV. 87	ST-1	ISSUED FOR PERMITS
		BY: JOHN A. JENKINS
		DATE: 4/15/88

SEDIMENT EROSION CONTROL PLAN (BORROW AREA)  
**GE APPLIANCE PARK EAST**  
 CLOSURE PLAN - PARCEL A2  
 INDUSTRIAL WASTE SLUDGE SITES  
 RTE. 175-SNOWDEN RIVER PARKWAY  
 6TH DISTRICT, HOWARD CO., MD.