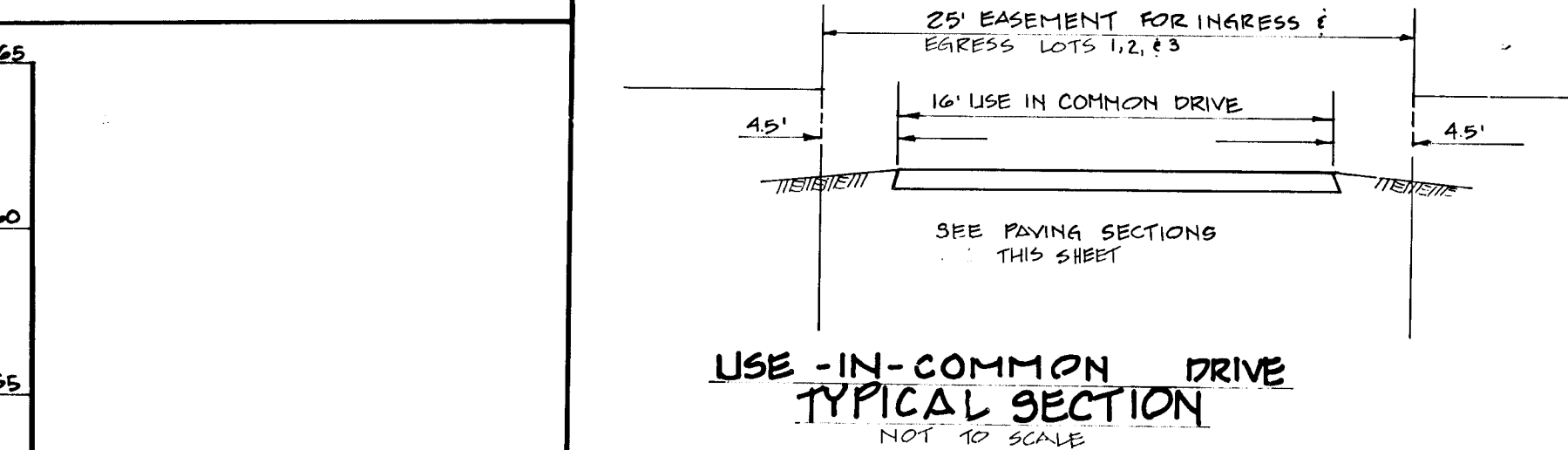
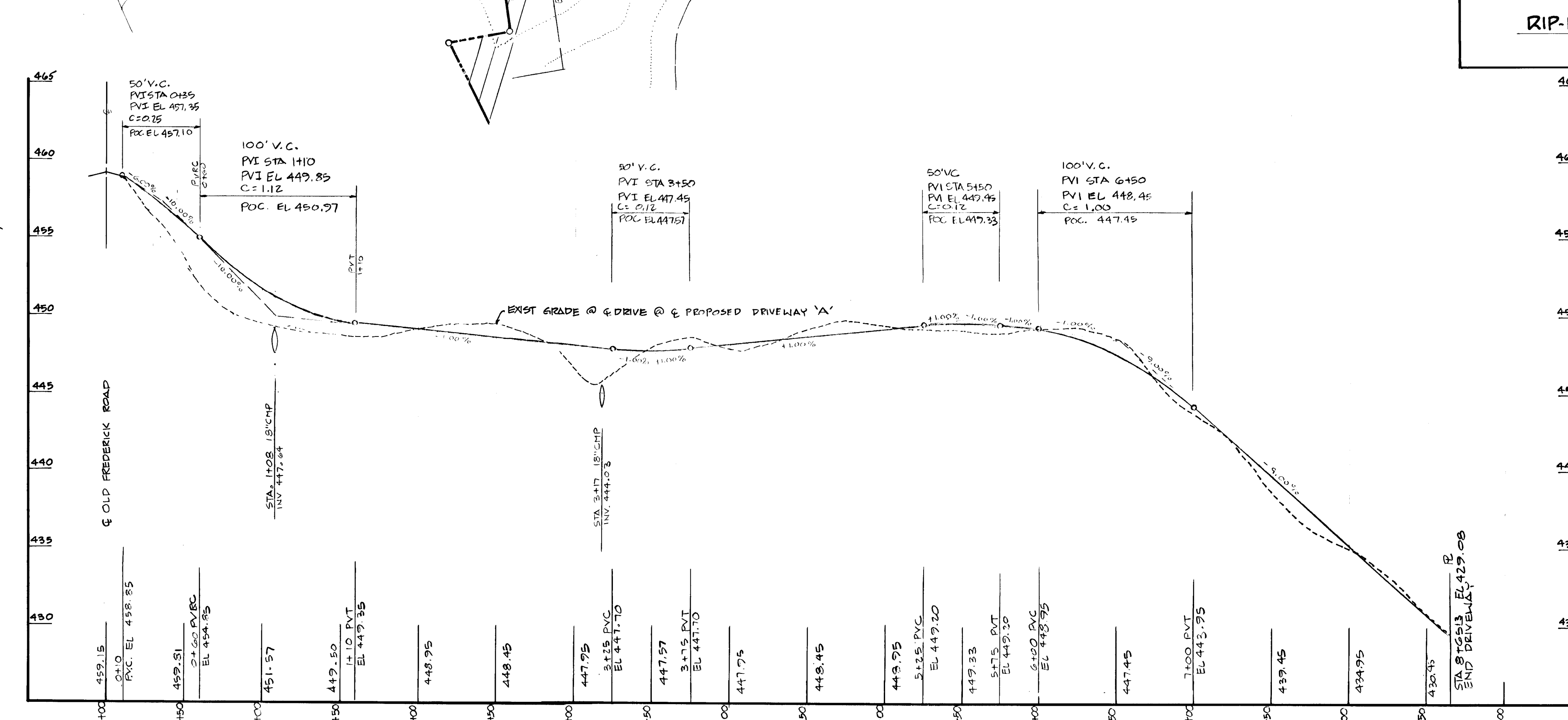
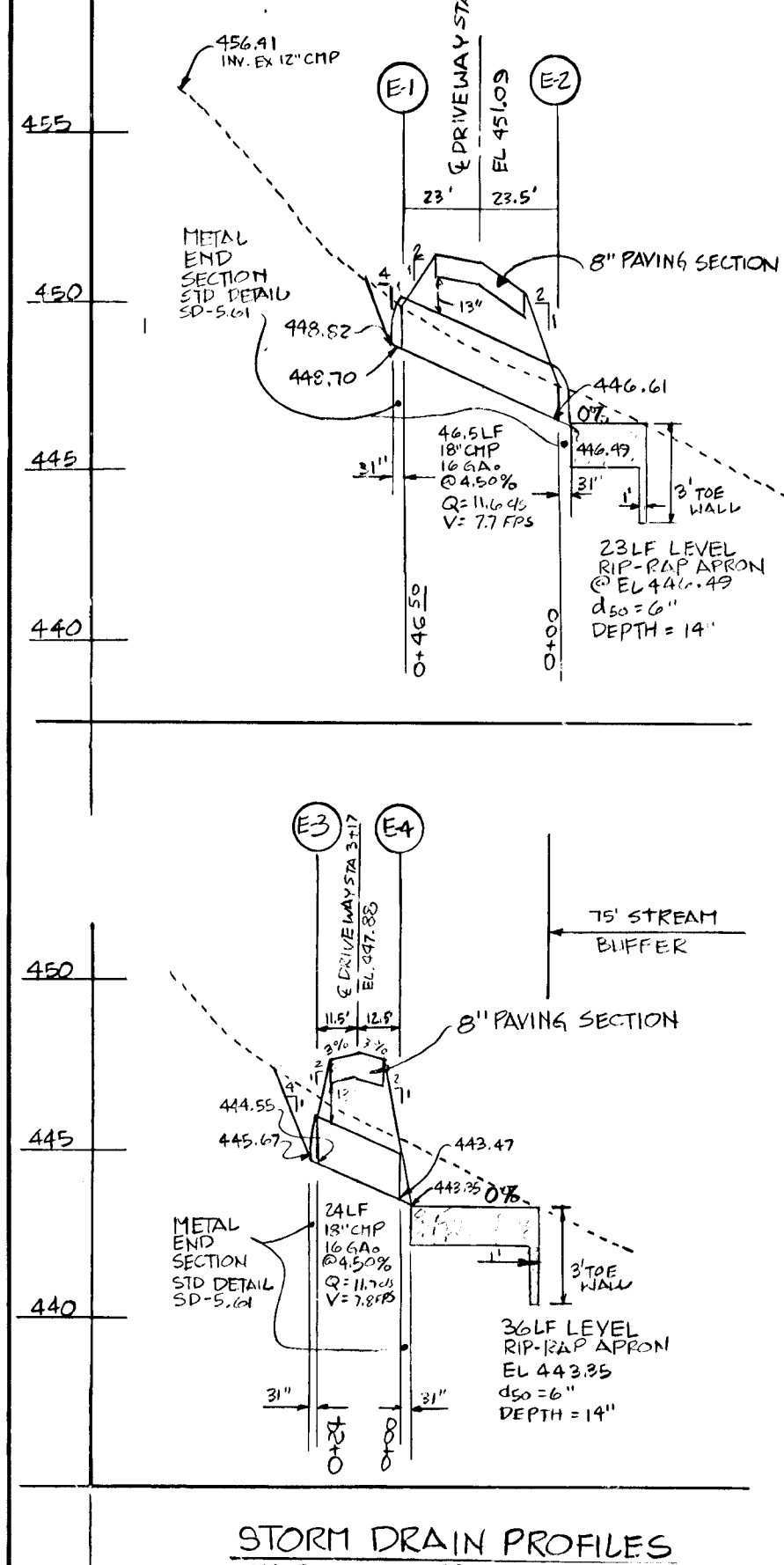
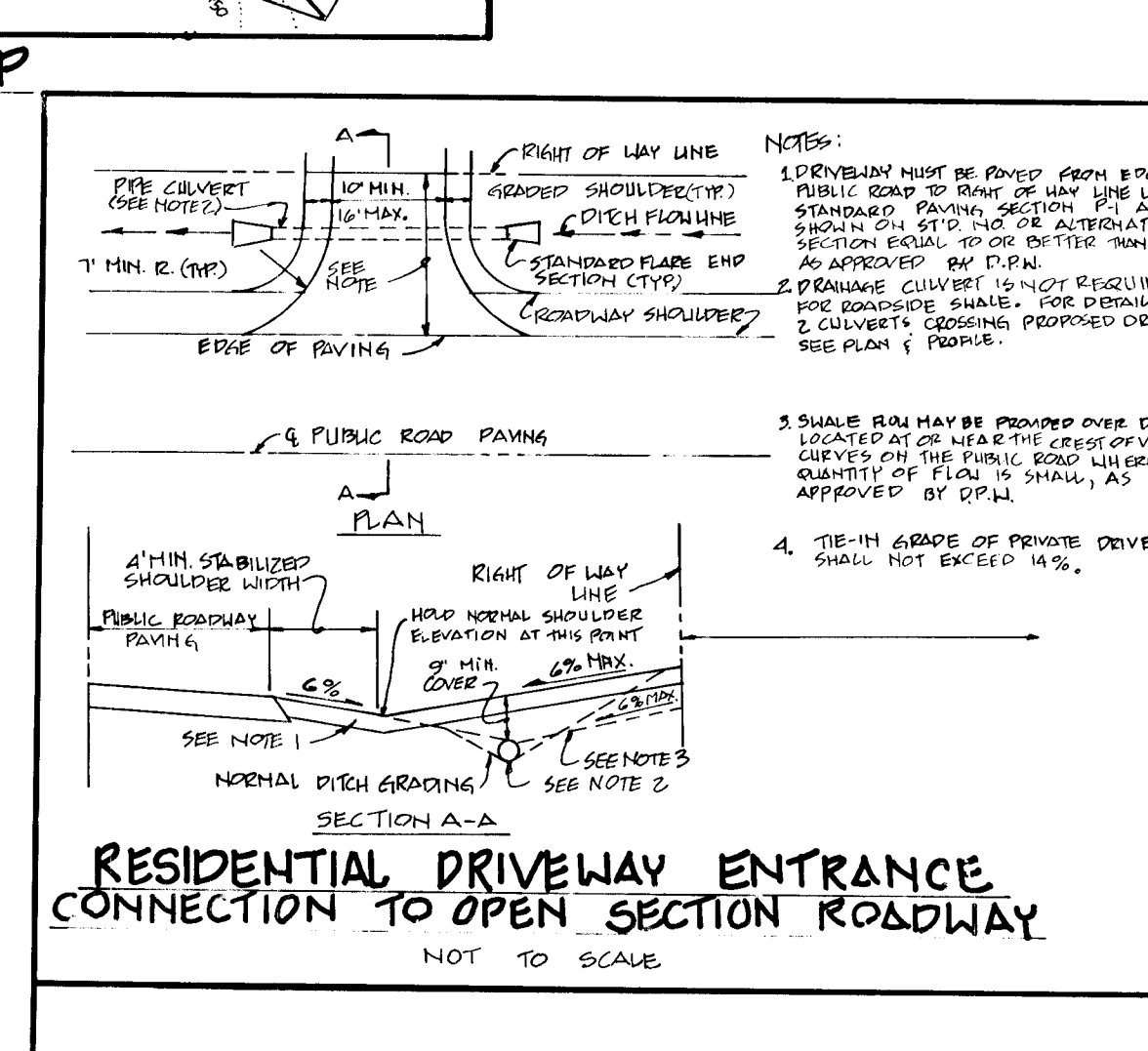
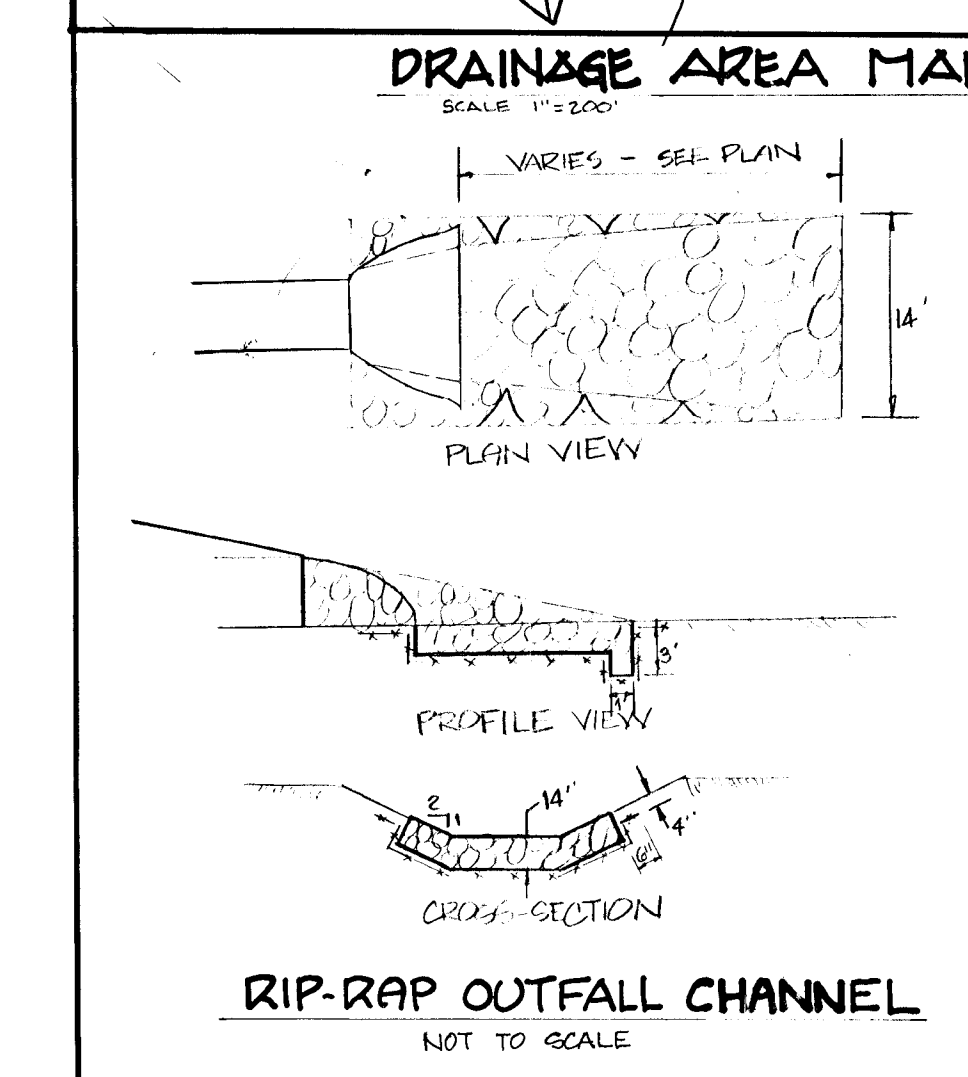
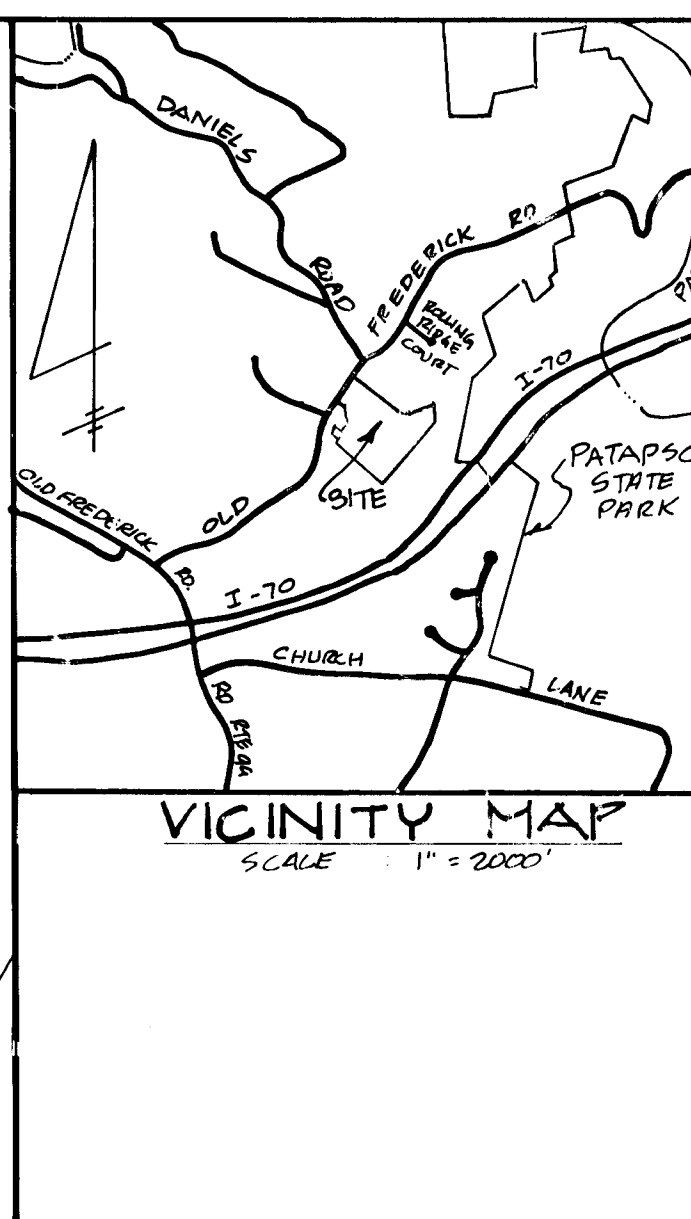
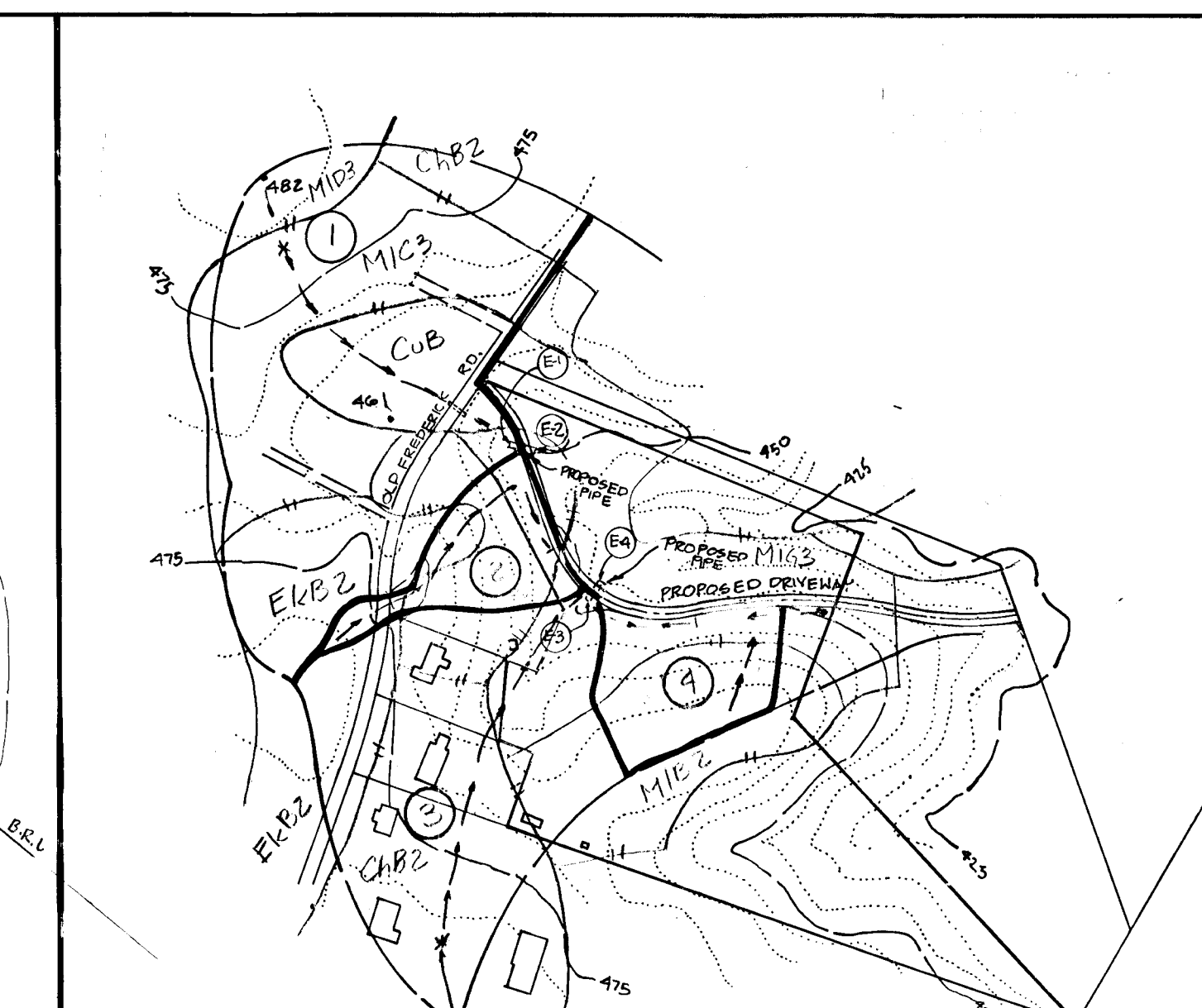
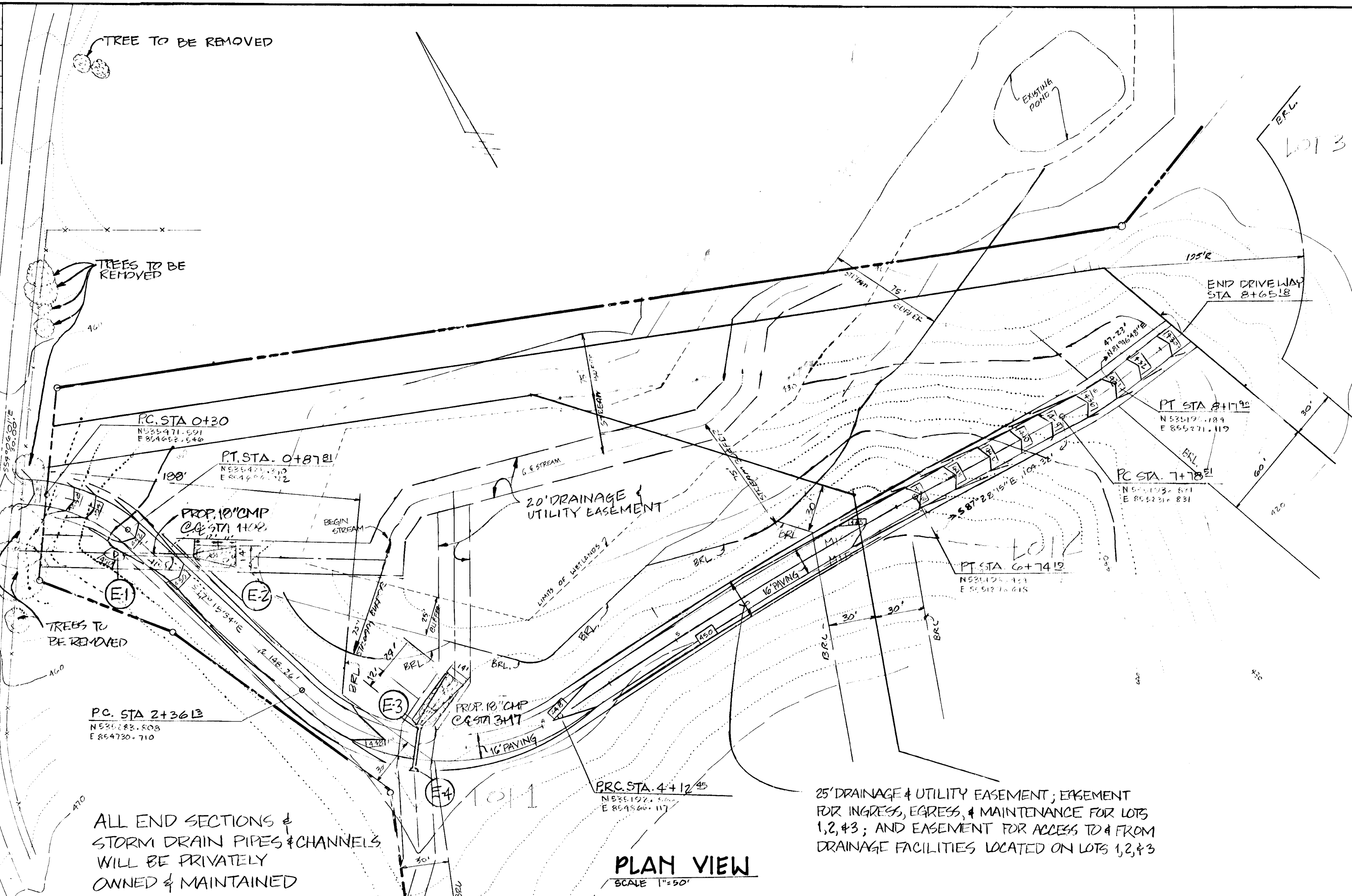


FROM	TO	RADIUS	DELTA	LENGTH	TANGENT	CHORD
0+30	0+87.2	90'	77° 42' 35"	57.87'	29.25'	132.4152 L 1.56, R 1.56
2+36.13	4+112.35	130'	77° 42' 35"	176.32'	104.73'	366.7020 L 1.62, R 1.62
4+112.35	6+112.35	2000'	7° 29' 55"	211.75'	13.106'	417.479 E 204.5 L
7+175.4	8+172	210'	10° 44' 54"	39.39'	19.76'	86.7207 W 1.56, R 1.56



PAVEMENT MATERIALS	SECTION NUMBER	ROAD AND STREET CLASSIFICATION	PAVEMENT MATERIALS
<ul style="list-style-type: none"> <li>1/2\"/&gt; </li></ul>	P-1	PARKING AREAS AND TRAVELWAYS, APARTMENTS AND COMMERCIAL-INDUSTRIAL ZONES WITH NO HEAVY TRUCKS	<ul style="list-style-type: none"> <li>STABILIZED BASE ALTERNATE</li> <li>1\"/&gt; </li></ul>
<ul style="list-style-type: none"> <li>ALTERNATE 6\"/&gt; </li></ul>		TYPICAL PAVING SECTION FOR USE-IN-COMMON DRIVE	<ul style="list-style-type: none"> <li>1\"/&gt; </li></ul>

**DEVELOPER'S CERTIFICATE**

I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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 PERIODS ON SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

NAME: *Mary L. Kefauver* DATE: *June 1, 1977*

**APPROVED:** HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING.

*David V. A. Conley* 2/10/77  
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

**APPROVED:** DEPARTMENT OF PUBLIC WORKS.

*William R. ...* 2-6-91  
CHIEF, BUREAU OF ENGINEERING

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

*James M. ...* 1/25/91  
HOWARD SOIL CONSERVATION DISTRICT

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*John K. ...* 1/25/91  
HOWARD SOIL CONSERVATION DISTRICT

**SHANABERGER & LANE**  
8726 TOWN & COUNTRY BLVD.  
SUITE 106-107  
ELLICOTT CITY, MARYLAND 21043  
(301) 461-9563

DESIGNED: GSS  
DRAWN: ECF  
CHECKED: SAA  
DATE: \_\_\_\_\_

OWNER:  
MARY L. KEFAUVER  
8807 OLD FREDERICK RD.  
ELLICOTT CITY, MARYLAND 21043

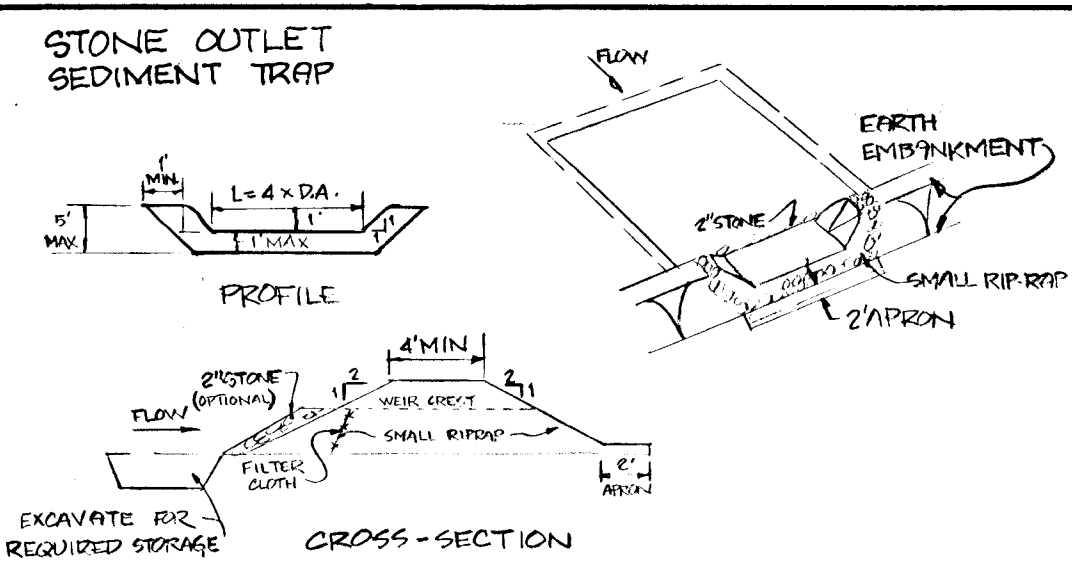
DEVELOPER:  
EMERSON & RUTH KEFAUVER  
1841 WOODSTACK ROAD  
WOODSTOCK, MARYLAND 21163

DRIVEWAY CONSTRUCTION PLAN  
**KEFAUVER PROPERTY**  
2ND ELECTION DISTRICT  
HOWARD COUNTY, MD.  
TAX MAP 18, PARCEL 19  
ZONING MAP '18

SCALE: NOTED  
SHEET 1 OF 2

1614

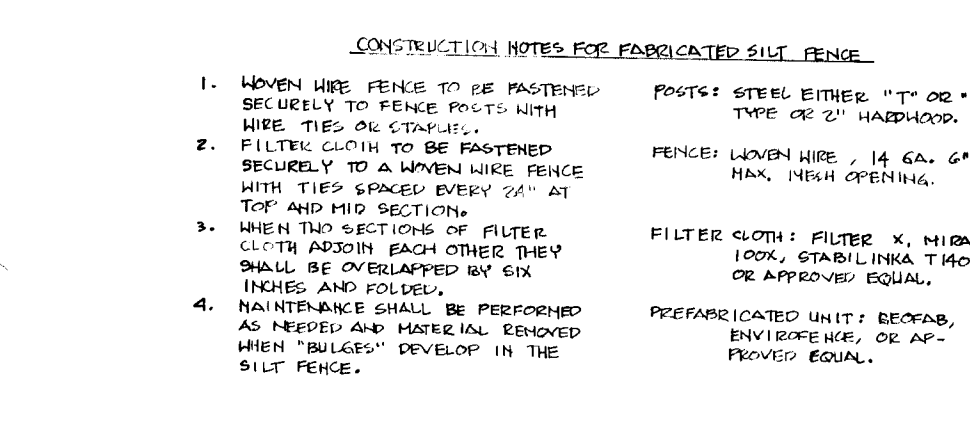
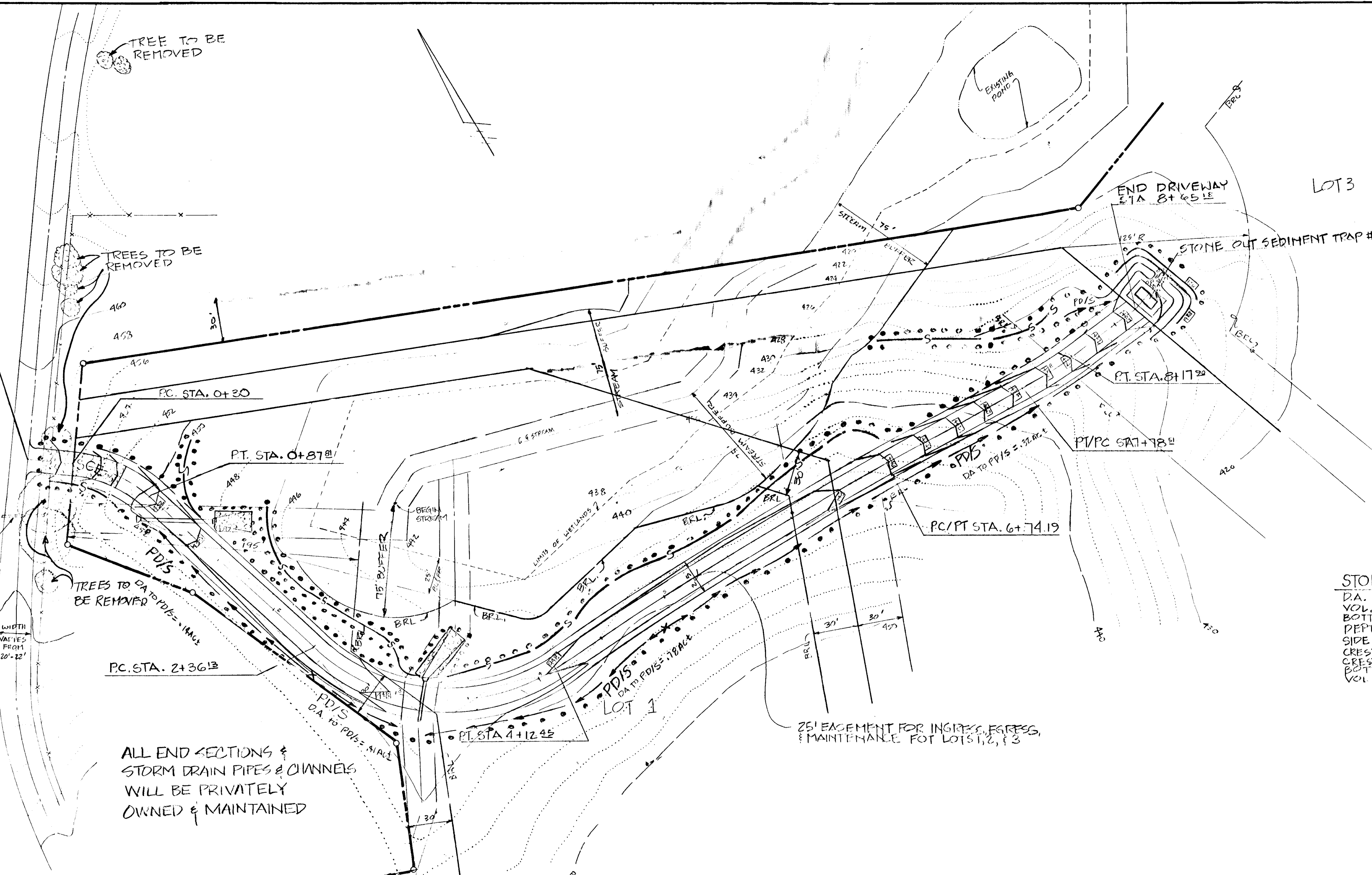




**OPTIONAL:** A 1" LAYER OF 2" STONE MAY BE PLACED ON THE DOWNSTREAM SIDE OF THE RIP-RAP IN PLACE OF THE EMBEDDED FILTER CLOTH.

**CONSTRUCTION SPEC'S FOR STONE OUTLET SEDIMENT TRAP**

1. OPEN UNDER EMBANKMENT SHALL BE CLOSURE, OR BARRIERS, & STRIPPED OF ANY VEGETATION 4 FEET WIDE. THE FILL AREA SHALL BE CLOSURE.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS & OTHER WOODS VEGETATION, AS WELL AS OVERSIZE STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBSTRUCTIVE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY THE CONTRACTOR WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
3. ALL CUT & FILL SLOPES SHALL BE 2:1 OR FLATTER.
4. STONE USED IN THE TRAP SHALL BE SMALL RIP-RAP AT 2" SIZES WITH A 1" THICKNESS OF 2" AGGREGATE PLACED ON THE DOWNSTREAM SIDE ON THE SMALL RIP-RAP OR EMBEDDED FILTER CLOTH IN THE RIP-RAP.
5. SEDIMENT SHALL BE REMOVED & TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO THE TRAP DESIGN DEPTH.
6. THE STRUCTURE SHALL BE INSPECTED ONCE EACH YEAR & REPAIRS MADE AS NEEDED.
7. CONSTRUCTION OPERATIONS SHALL BE DESIGNED TO BE CONDUCTED IN A MANNER THAT SEDIMENT & WATER POLLUTION IS MINIMIZED.
8. THE STRUCTURE SHALL BE REMOVED & THE AREA STABILIZED WHEN THE DOWNSTREAM AREA HAS BEEN PROPERLY STABILIZED.



**CONSTRUCTION NOTES FOR PERIMETER SILT FENCE**

1. DOWNHILL SLOPE TO BE PROTECTED BY SILT FENCE TO BE INSTALLED WITH WIRE TIES OR CHAINS.
2. FILTER CLOTH TO BE FASTENED SECURELY TO A WOODEN SILT FENCE WITH TIES SPACED EVERY 2' AT TOP AND MID SECTION.
3. WHEN TOP SECTION OF FILTER CLOTHS ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND BOLTED OR NAILING.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND NEEDED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

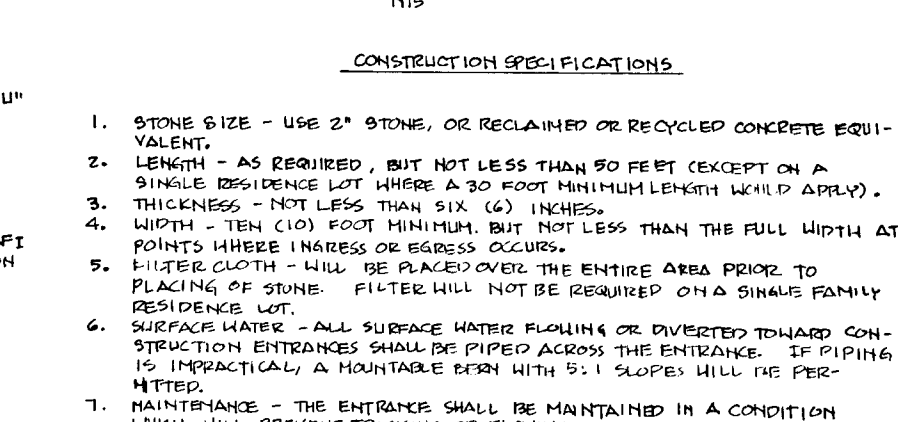
**PERIMETER SILT FENCE**

PROTECT OTHER EITHER "1" OR "2" WIRE TIES OR CHAINS.

FENCE LAYON WIRE, 14 GA. 4" MAX. HIGH GREENING.

FILTER CLOTH: FILTER, 1/2" MESH 100% STABILIZED STRAW OR APPROVED EQUAL.

PERFORATED UNIT: BEYOND, 1/2" DIA. HOLES, 2" APART APPROVED EQUAL.



**CONSTRUCTION SPECIFICATIONS**

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 90 FEET (EXCEPT ON A SINGLE ENTRANCE NOT MORE THAN 30 FEET MINIMUM LENGTH WITH 10' APPROX.).
3. THICKNESS - NOT LESS THAN 18" (4" INCHES).
4. WIDTH - TEN (10) FEET MINIMUM BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTERS WILL NOT BE OVERLAP ON A SINGLE ENTRANCE.
6. SURFACE FINISH - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICABLE, A MAINTAINABLE SOFT WITH 5:1 SLOPE WILL BE PROVIDED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR PLACING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH APPROVED LIME OR TRAP SEDIMENT. ALL SEDIMENT SPILLED, CARRIED AWAY, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY.
8. WORKING - AREAS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN MAINTENANCE IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STRAW MULCH WITH DRAINS "UP" AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTIONS AND NEEDED MAINTENANCE SHALL BE PERFORMED AFTER EACH RAIN.

**STONE OUTLET SEDIMENT TRAP #1**

D.A. = 0.24 AC.

VOL. REQUIRED = 432 FT<sup>3</sup>

BOTTOM DIMENSIONS: 7' X 6'

DEPTH: 2'

SIDE: 2:1

CREST WIDTH: 4'

CREST ELEV. 422.0

BOTTOM ELEV. 420.0

VERTICAL CURVE: 420.0

VOL. PROVIDED 450. FT<sup>3</sup>

ALL END SECTIONS & STORM DRAIN PIPES & CHANNELS WILL BE PRIVATELY OWNED & MAINTAINED

25' EASEMENT FOR UTILITIES, EGRESS, & MAINTENANCE FOR LOTS 1, 2, & 3

**PERMANENT SEEDING NOTES**

**SEEDBED PREPARATION:** LOOSEN UPPER 3 INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

**SOIL AMENDMENTS:** USE ONE OF THE FOLLOWING SCHEDULES:

- 1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ. 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 (91 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 FESUVE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESUVE PER ACRE AND 2 LBS. PER ACRE (0.5 LBS./1000 SQ. FT.) OF WEEPING LOVE GRASS. 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 SOO. OPTION (3) SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESUVE AND MULCH WITH 2 TON 5/ACRE WELL ANCHORED STRAW.

**MULCHING:** APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL 210 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 (8.6 GAL./1000 SQ. FT.) FOR ANCHORING.

**MAINTENANCE:** INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS DISCING OR OTHER RESEEDINGS.

**TEMPORARY SEEDING NOTES**

**SEEDBED PREPARATION:** LOOSEN UPPER 3 INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

**SOIL AMENDMENTS:** APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (1.4 LBS./1000 SQ. FT.)

**SEEDING:** FOR PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 LBS. 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 LOVE GRASS (0.7 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 SOO.

**MULCHING:** APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL 210 GALLONS PER ACRE (5 GAL./1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FT. OR HIGHER, USE 348 GAL. PER ACRE (8.6 GAL./1000 SQ. FT.) FOR ANCHORING.

**PERMANENT SEEDING**

ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:

**SEEDBED PREPARATION:** LOOSEN UPPER 3 INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

**SOIL AMENDMENTS:** APPLY 2 TONS/ACRE DOLOMITIC LIMESTONE AND 600 LBS./ACRE 10-20-0 FERTILIZER. HARROW OR DISC LINE AND FERTILIZER INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS./ACRE OF 30-0-0 UREAFORM FERTILIZER AND 500 LBS./ACRE OF 10-20-20 FERTILIZER.

**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 EROSION AND SEDIMENT CONTROL.
- 3) FOLLOWING INITIAL SOIL DISTURBANCE OR RESTURBANCE 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, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- 5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. 91) SOO (SEC. 64), 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:	13.01265 ACRES
AREA DISTURBED:	0.97681 ACRES
AREA TO BE ROOFED OR PAVED:	0.31717 ACRES
AREA TO BE VEGETATIVELY STABILIZED:	0.68904 ACRES
TOTAL CUT:	360 CU. YDS.
TOTAL FILL:	360 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.

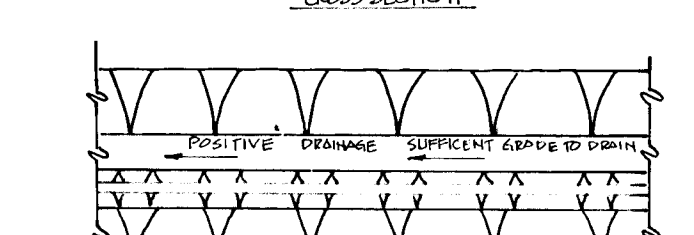
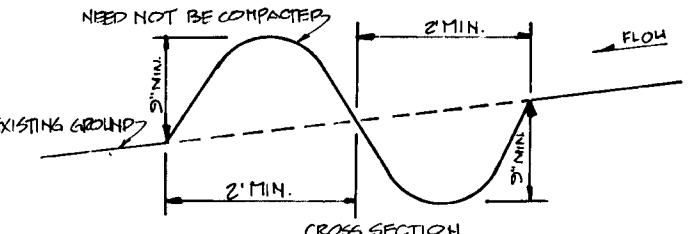
9) ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DPW SEDIMENT CONTROL INSPECTOR.

10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROL. 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) DURING CONSTRUCTION OF FUTURE DWELLINGS ON LOTS 1, 2, & 3, SINGLE-LOT SEDIMENT CONTROL MEASURES WILL BE USED.

12) ALL PIPES TO BE BLOCKED AT THE END OF EACH DAY

13) THE TOTAL AMOUNT OF STRAW BALES/SILT FENCE EQUALS 710 L.F.



**PERIMETER DIKE/SWALE**

MAX. DRAINAGE AREA LIMIT: 2 ACRES

- LEGEND**
- STABILIZED CONSTRUCTION ENTRANCE
  - 6-5-5 SILT FENCE
  - EXISTING CONTOUR
  - PROPOSED CONTOUR
  - B.R.L. BUILDING RESTRICTION LINE
  - UNIT OF DISTURBANCE
  - PD/S PERIMETER DIKE/SWALE

**CONSULTANT'S CERTIFICATION**

I CERTIFY THAT THIS PLAN OF EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS, AND THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

Sayed A. Saadat 4/30/90  
 SAAYED A. SAADAT, P.E. 16493 DATE

**DEVELOPER'S CERTIFICATION**

I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, 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.

NAME: [Signature] DATE: [Signature]

**APPROVED:** HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING. DATE: 2/25/91

**APPROVED:** DEPARTMENT OF PUBLIC WORKS. DATE: 2/25/91

**SHANABERGER & LANE**  
 8726 TOWN & COUNTRY BLVD.  
 SUITE 106-107  
 ELLICOTT CITY, MARYLAND 21043  
 (301) 461-9563

DESIGNED	EGS				
DRAWN	EGS				
CHECKED	SAS				
DATE					
BY	NO.	REVISION			

**OWNER:**  
 MARY L. KEFAUVER  
 1841 WOODSTOCK ROAD  
 ELLICOTT CITY, MARYLAND 21043

**DEVELOPER:**  
 EMERSON & RUTH KEFAUVER  
 1841 WOODSTOCK ROAD  
 WOODSTOCK, MARYLAND 21163

**EROSION & SEDIMENT CONTROL PLAN**  
**KEFAUVER PROPERTY**  
 2ND ELECTION DISTRICT  
 HOWARD COUNTY, MD.  
 TAX MAP 18, PARCEL 19  
 ZONING MAP 18

SCALE: 1" = 50'  
 SHEET 2 OF 2

1614

F-90-192