

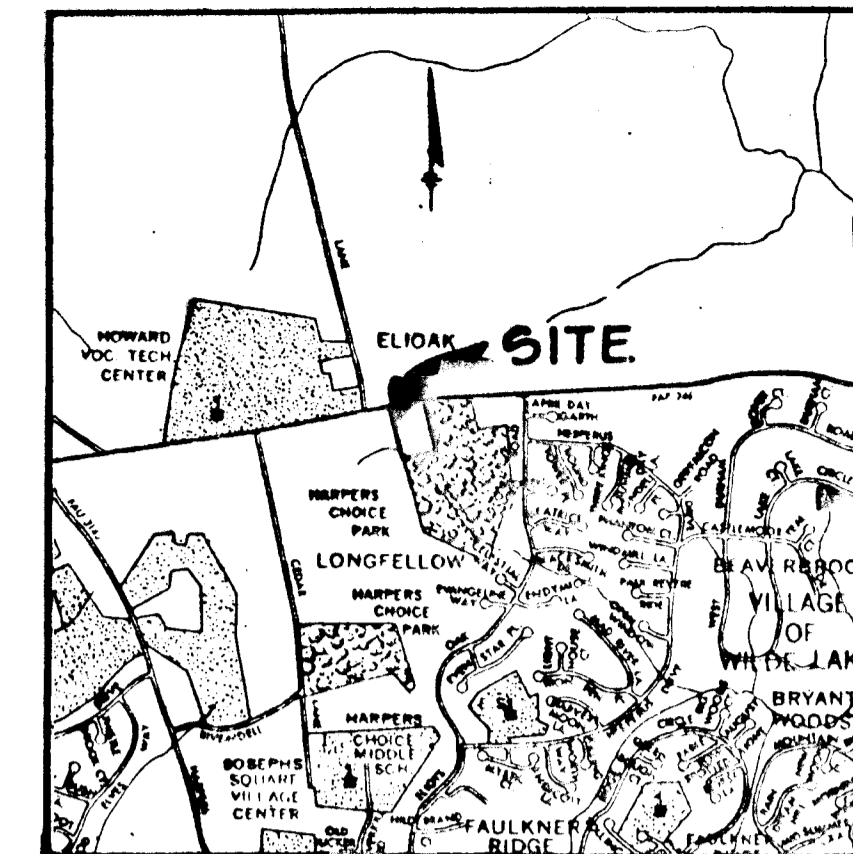
SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET AND PLAN AND PROFILE OF MD. RTE. 108
2	PLAN AND PROFILE OF COTTONWOOD WAY
3	DRAINAGE AREA, GRADING AND SEDIMENT CONTROL AND SOILS MAP
4	DETAILS AND PROFILES
5	SEDIMENT NOTES AND DETAILS AND POND SPECS.

ROADWAYS, STORM DRAINS & STORM WATER MANAGEMENT

CEDAR MANOR

5TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 2,000'

BENCH MARKS

- BM NO. 1 ELEV. = 434.04'
RAILROAD SPIKE SET IN C&P POLE # 203
- BM NO. 2 ELEV. = 444.61'
RAILROAD SPIKE SET IN C&P POLE # 200

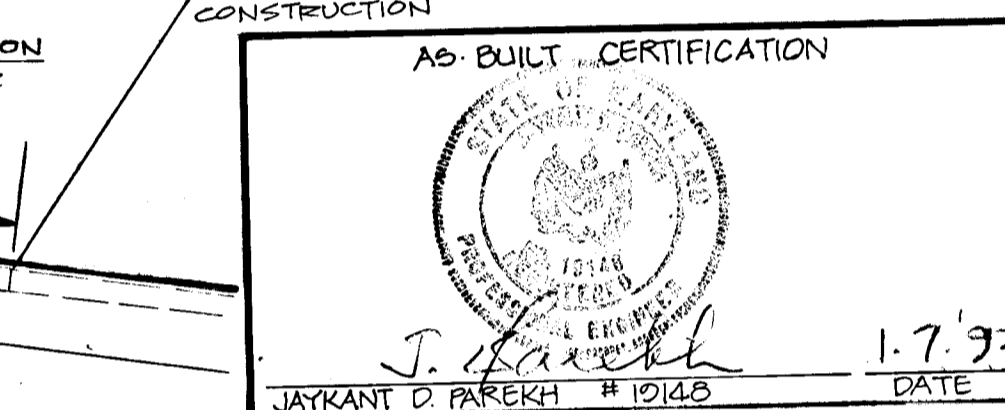
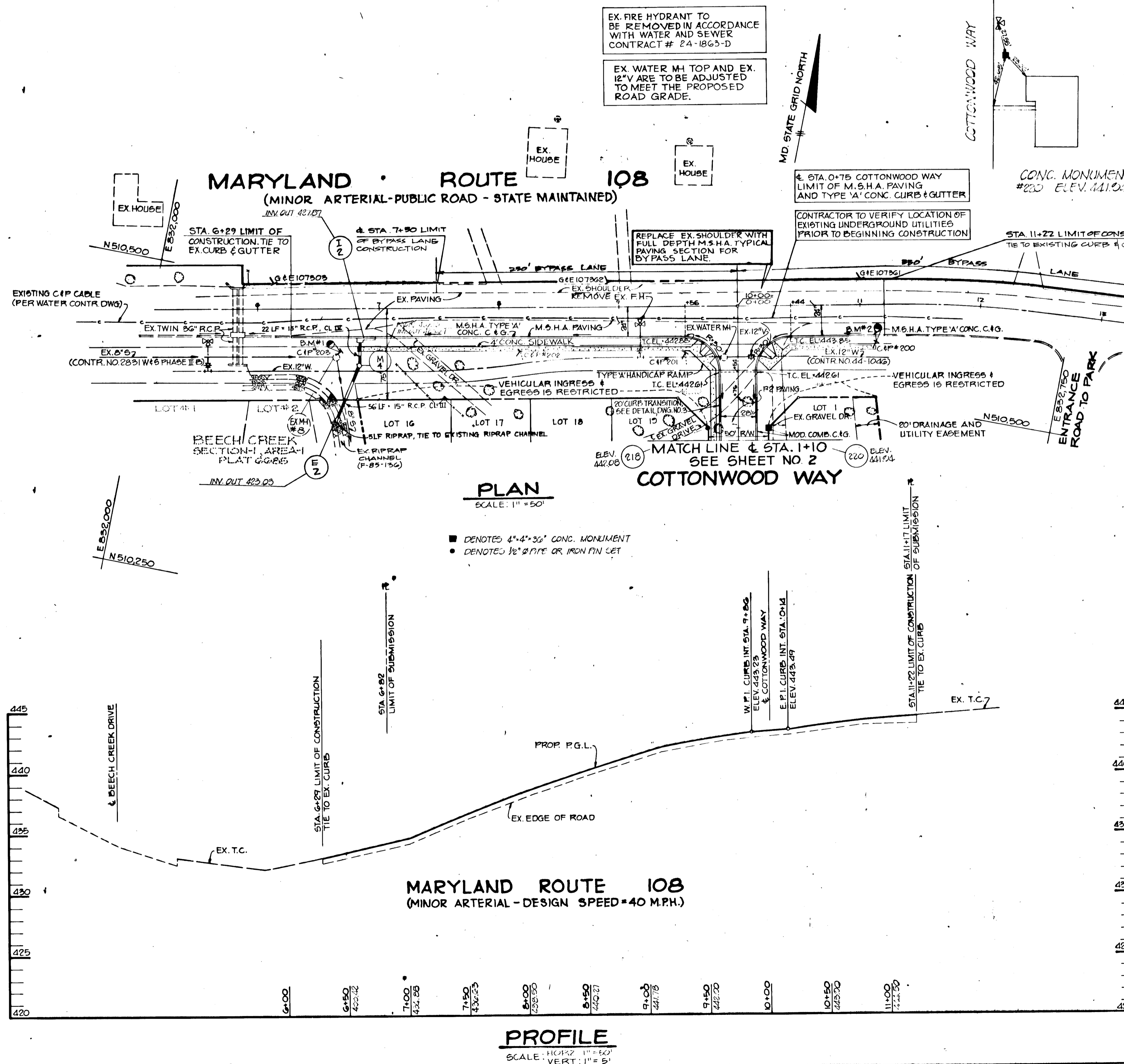
HORIZONTAL & VERTICAL CONTROLS
USED FOR AS-BUILT SURVEY

GENERAL NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. IV, I.E., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- 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.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK ON THESE DRAWINGS:

MISS UTILITY	1-800-257-7777
BELL TELEPHONE SYSTEM	393-3649
LONG DISTANCE CABLE DIVISION	393-3553 or 355
BALTIMORE GAS AND ELECTRIC COMPANY	539-8000, ext. 691
HOWARD COUNTY BUREAU OF UTILITIES	992-2366
HOWARD COUNTY CONSTRUCTION/INSPECTION SURVEY DIVISION (24 HOURS NOTICE PRIOR TO COMMENCEMENT OF WORK)	792-7272
COLONIAL PIPELINE	795-1390
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL STREET CURB RETURNS SHALL HAVE 35.0' RADII UNLESS OTHERWISE NOTED.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT-OF-WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.E., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING, AND SIGNING SHALL BE IN ACCORDANCE WITH THE "MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION".
- 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.
- DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS:

ALL 50' RIGHT-OF-WAYS	25 M.P.H.
-----------------------	-----------
- ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS
- SUBJECT PROPERTY ZONED R-6C PER 8-2-85 COMPREHENSIVE ZONING PLAN.
- TOPO TAKEN FROM FIELD SURVEY DONE IN AUGUST, 1987
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS 'C' AS SHOWN IN FIG. 11.4, VOLUME 1 OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
- SEE OFFICE OF PLANNING AND ZONING FILE Nos. S-86-84, AA-86-11, P-88-28, P-88-85, F-89-102



APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 J. J. B. 1.7.93
 JATKANT D. BAREKH # 10148 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 8/15/89
 Chief, Land Development Division

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 8/15/89
 Chief, Bureau of Highways

DATE	NO.	REVISION

OWNER/DEVELOPER
 SWEET AIR PROPERTIES INC.
 115 SADBROOK LANE
 SUITE 202
 BALTIMORE MARYLAND 21208

PROJECT: CEDAR MANOR
 S-86-84, AA-86-11, P-88-28, P-88-85, F-89-102
 AREA TAX MAP 84 ZONED R-6C PARCEL 85
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE: TITLE SHEET AND PLAN AND PROFILE OF MD. RTE. 108

THE RIEMER GROUP, INC.
 The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm
 3105 North Ridge Road, Ellicott City, Maryland 21043 (301) 461-2690

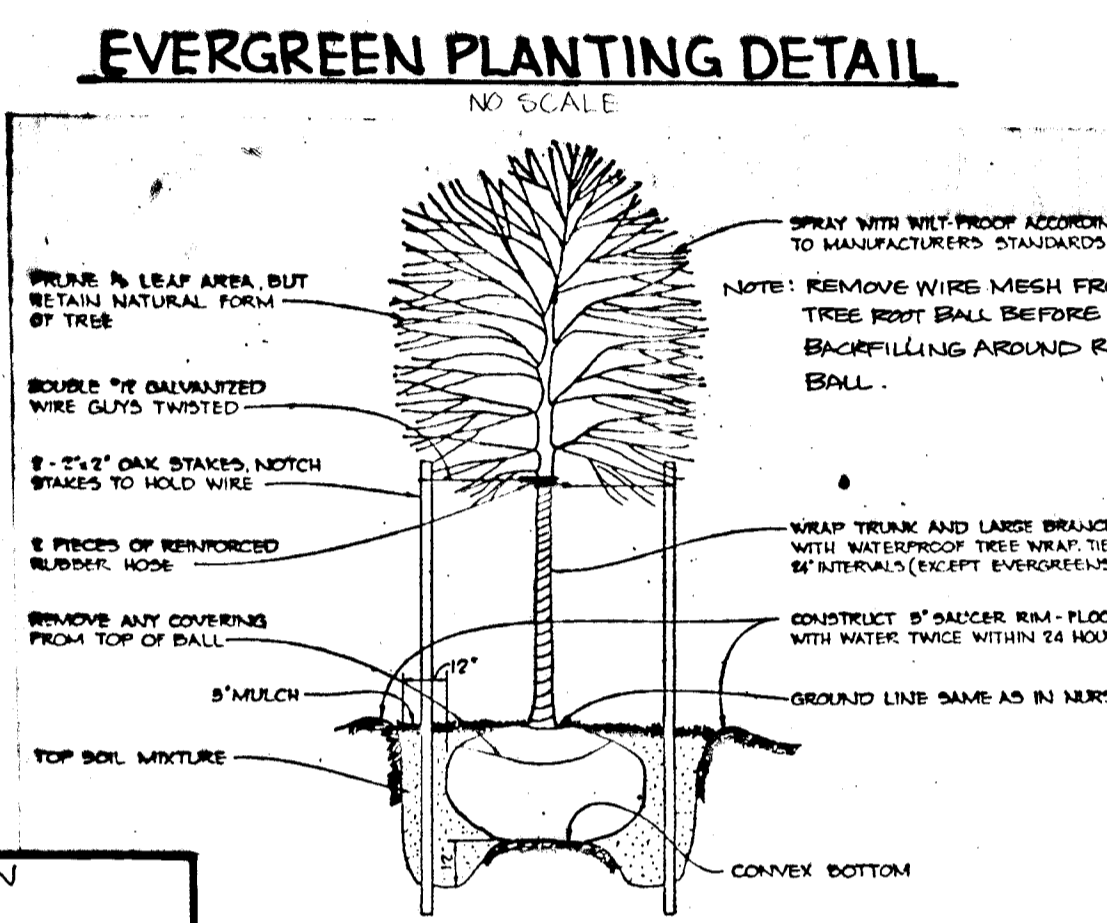
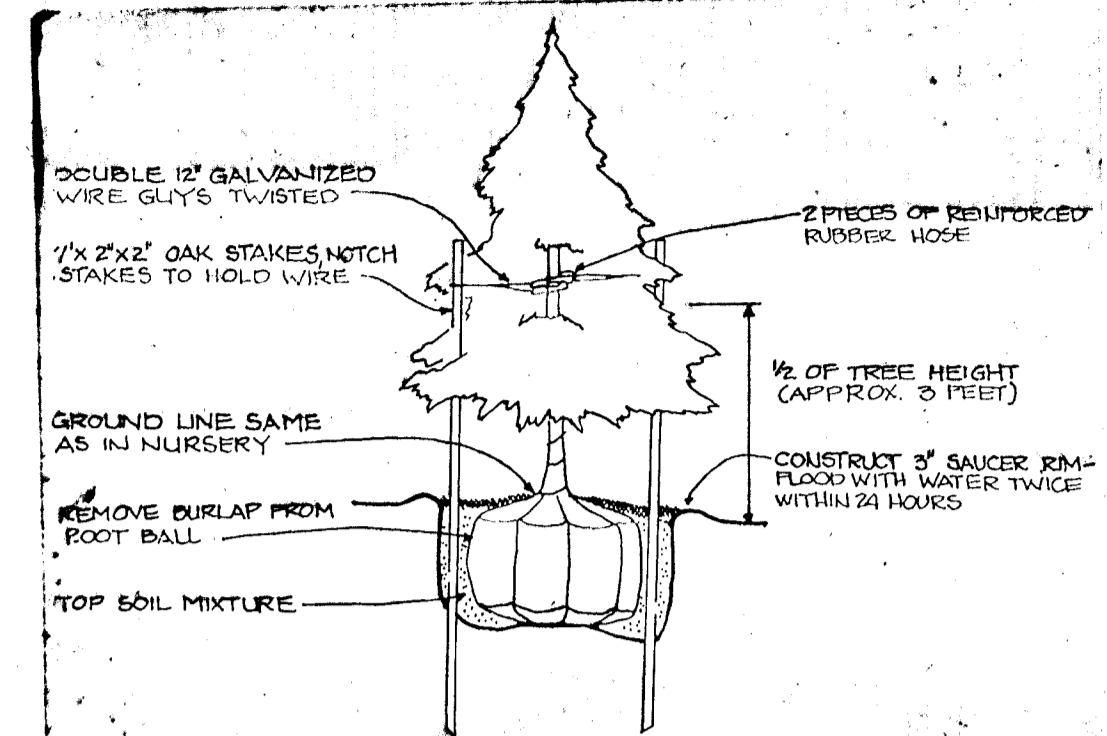
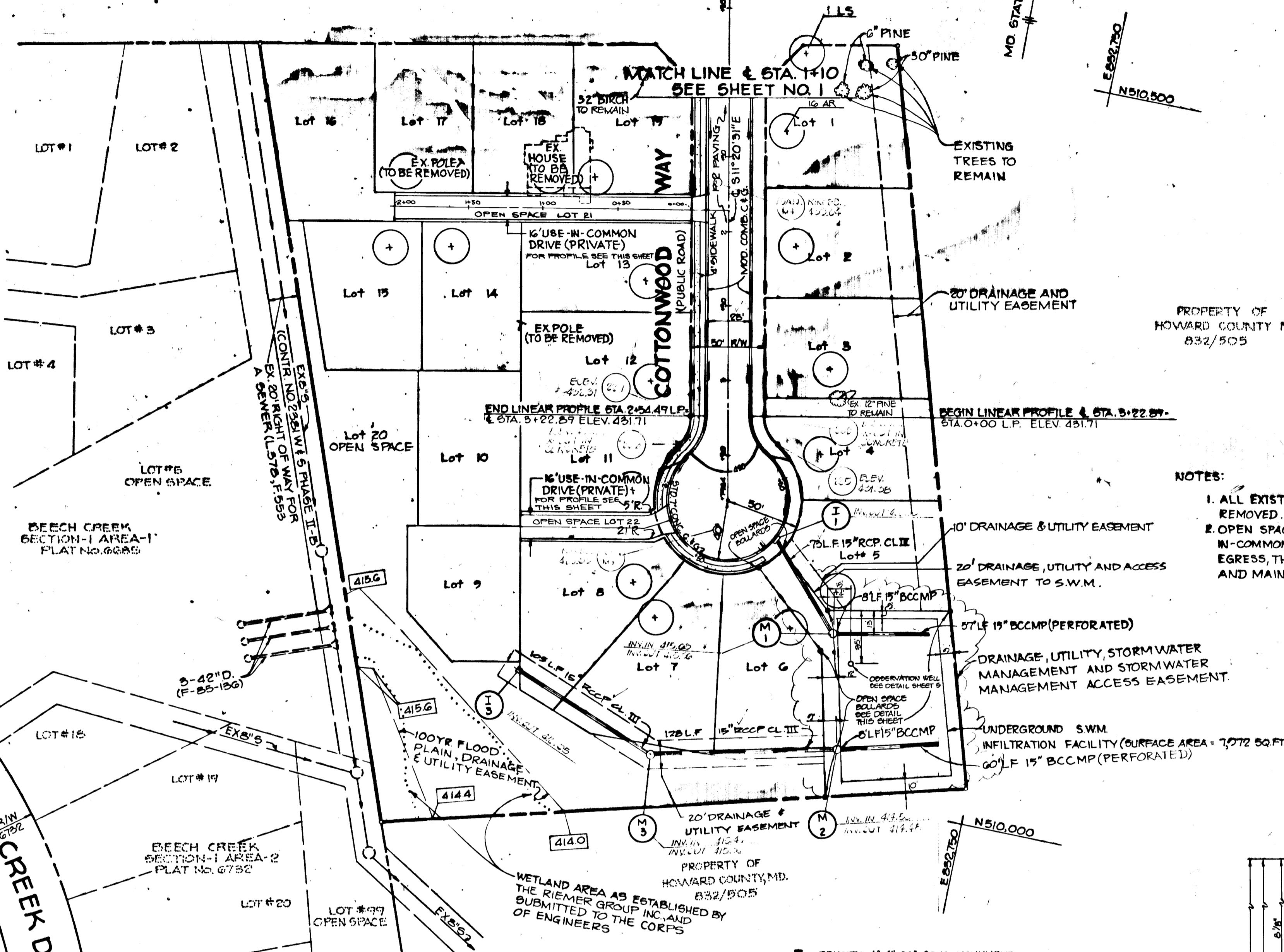
DESIGNED BY: J. J. B.
 DRAWN BY: J. C. R.
 PROJECT NO: 22100
 DATE: NOVEMBER 22, 1988
 SCALE: AS SHOWN
 DRAWING NO. 1 OF 5

1458

F-89-102 AS-BUILT

MARYLAND ROUTE 108

QTY	SYMBOL	NAME	SIZE	REMARKS
1	LS	LIQUIDAMBAR STYRACIFLUA - SWEET GUM	2 1/2" - 3" CAL. 19-15' HT.	8 F B FULL HEAD
10	AR	ACER RUBRUM - RED MAPLE	2 - 2 1/2" CAL. 10-12' HT.	D 1 D FULL CROWN



- NOTES:
- ALL EXISTING STRUCTURES ARE TO BE REMOVED.
 - OPEN SPACE LOTS 20 AND 21 ARE USE-IN-COMMON DRIVES FOR INGRESS AND EGRESS, THEY ARE PRIVATELY OWNED AND MAINTAINED.

AS-BUILT CERTIFICATION

STATE OF MARYLAND

JAYKANT D. PAREKH #10148

1-7-93

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

Chief, Division of COMMUNITY PLANNING AND LAND DEVELOPMENT

6/15/89

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Engineering

8-10-89

OWNER/DEVELOPER

SWEET AIR PROPERTIES INC.
115 SUDBROOK LANE
SUITE 202
BALTIMORE MARYLAND 21208

PROJECT

CEDAR MANOR

5-86-84, AA-86-11, P-88-28, P-88-89, P-89-02

AREA TAX MAP 29 ZONED PARCEL 85
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE

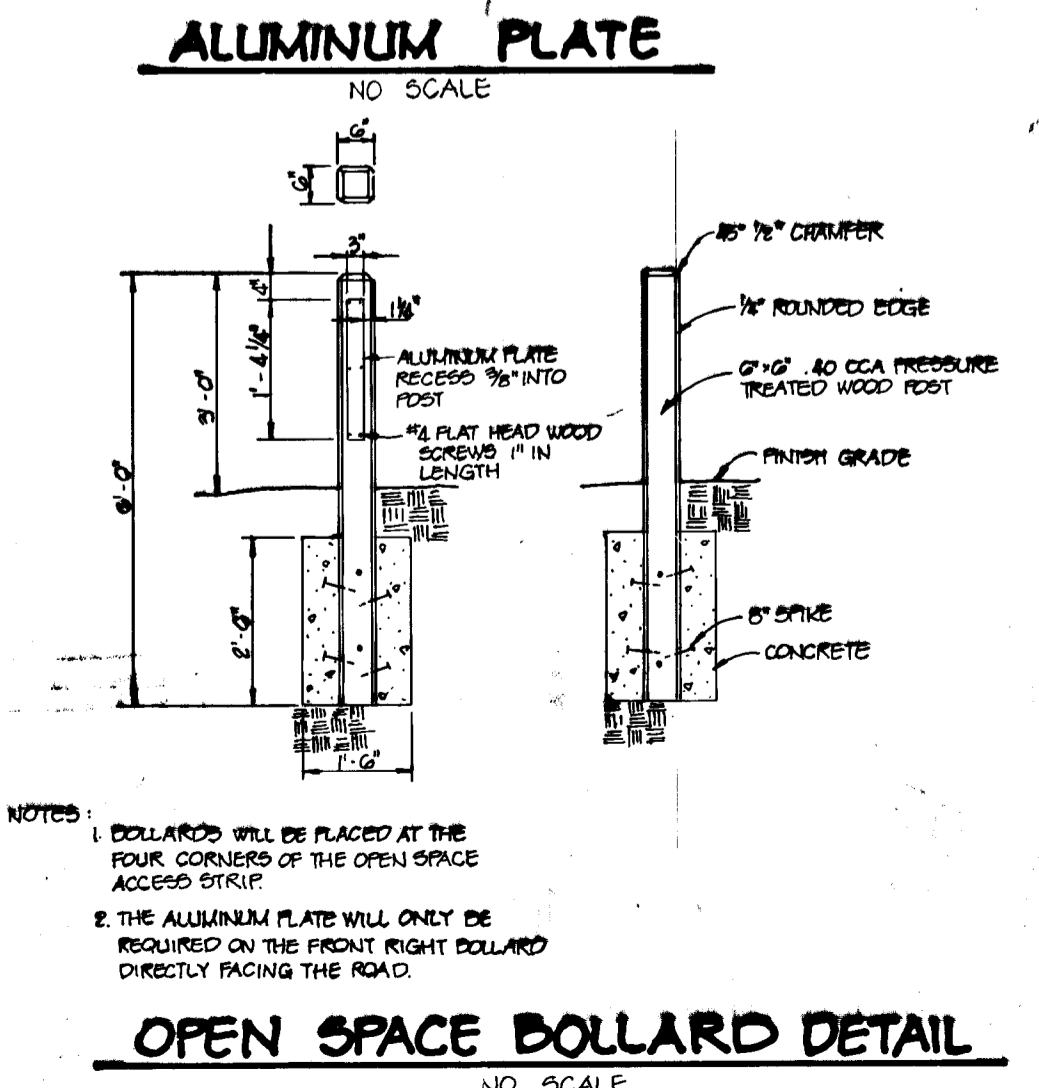
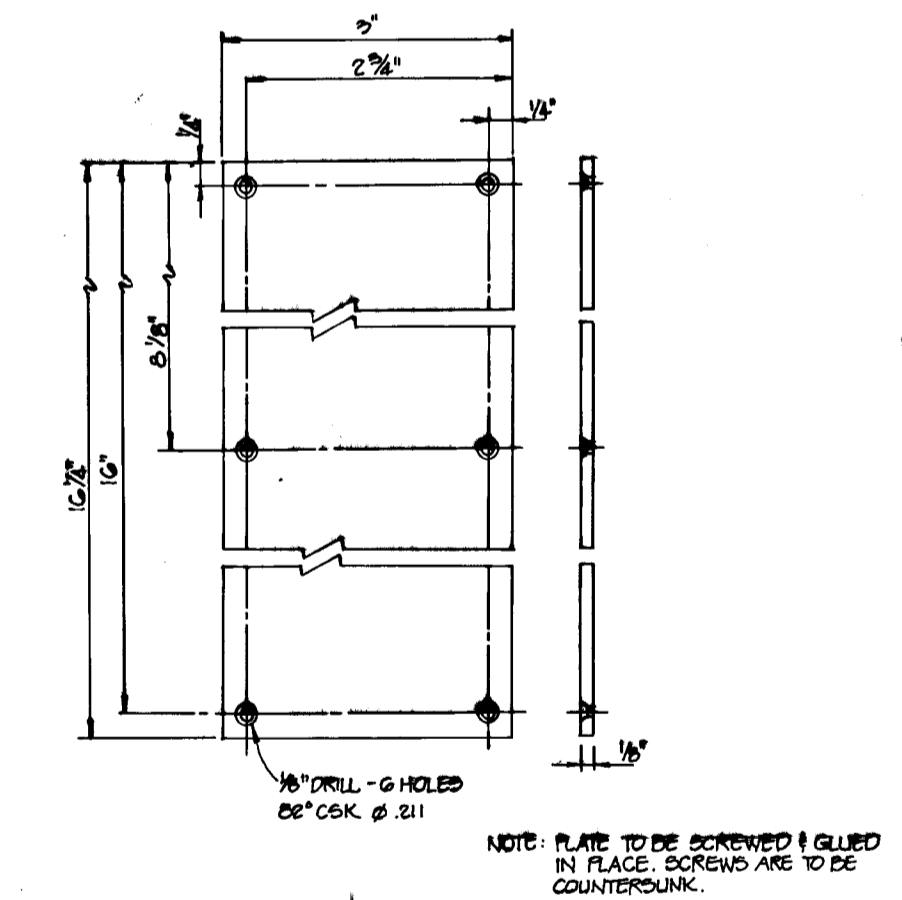
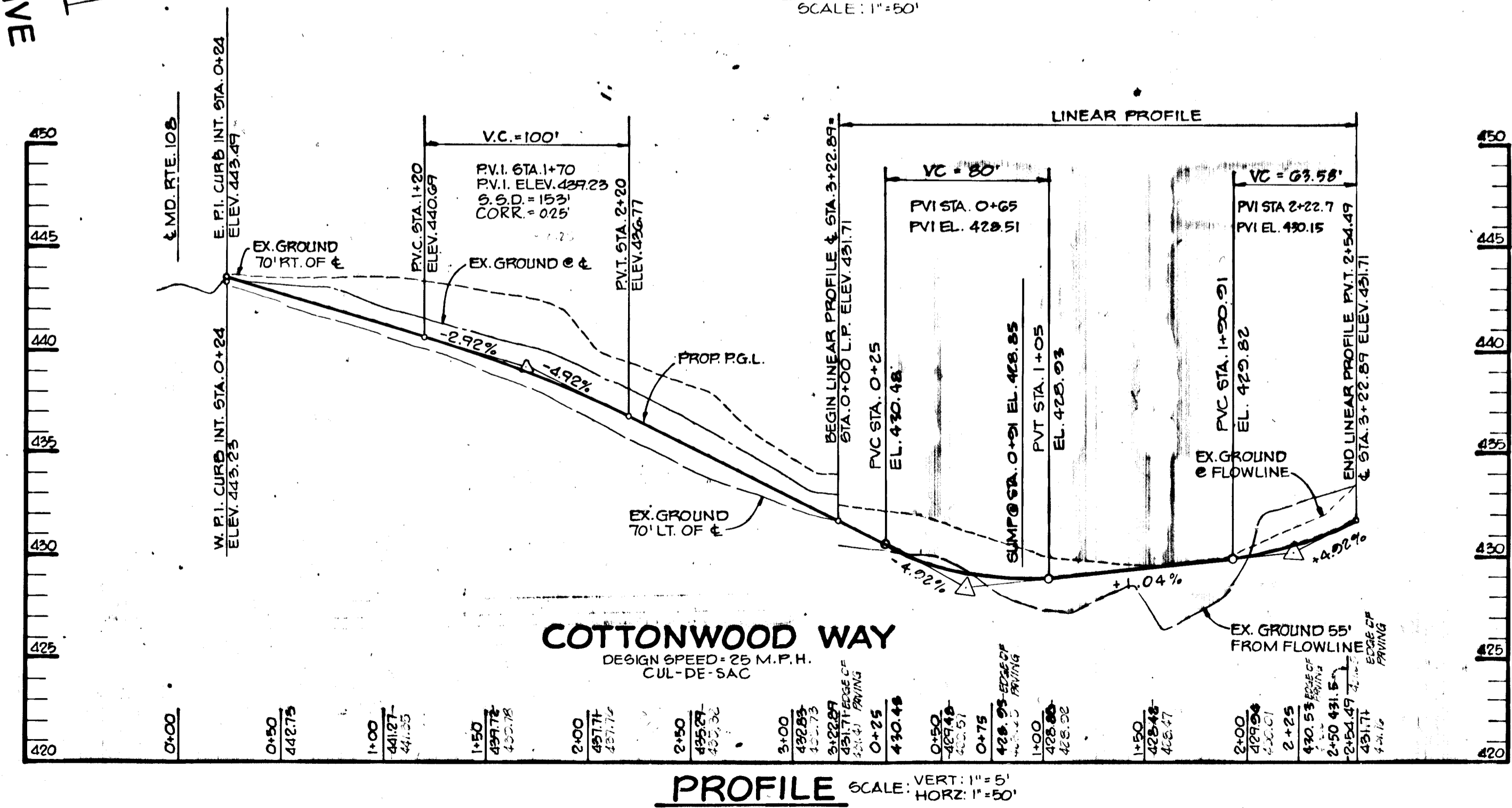
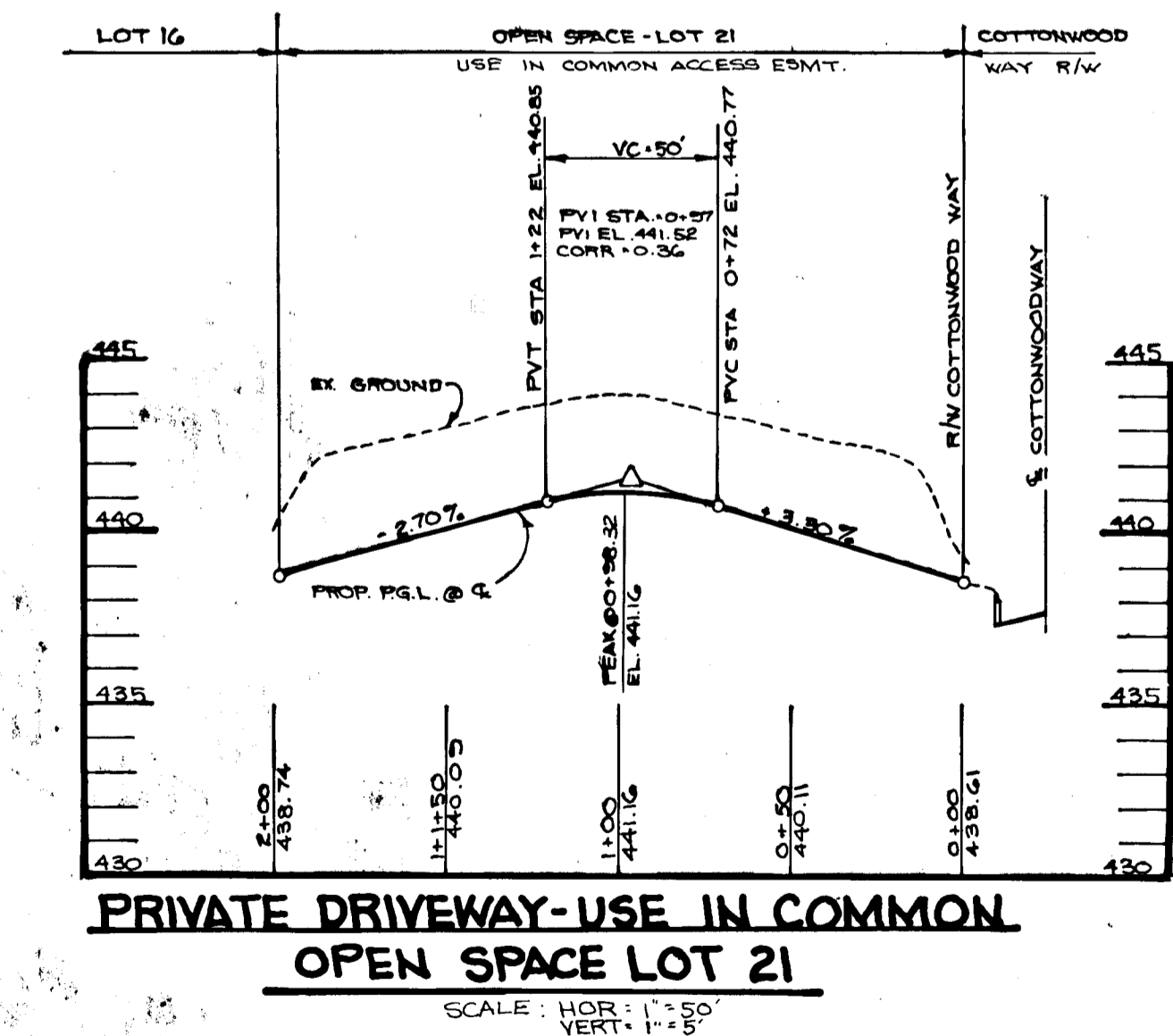
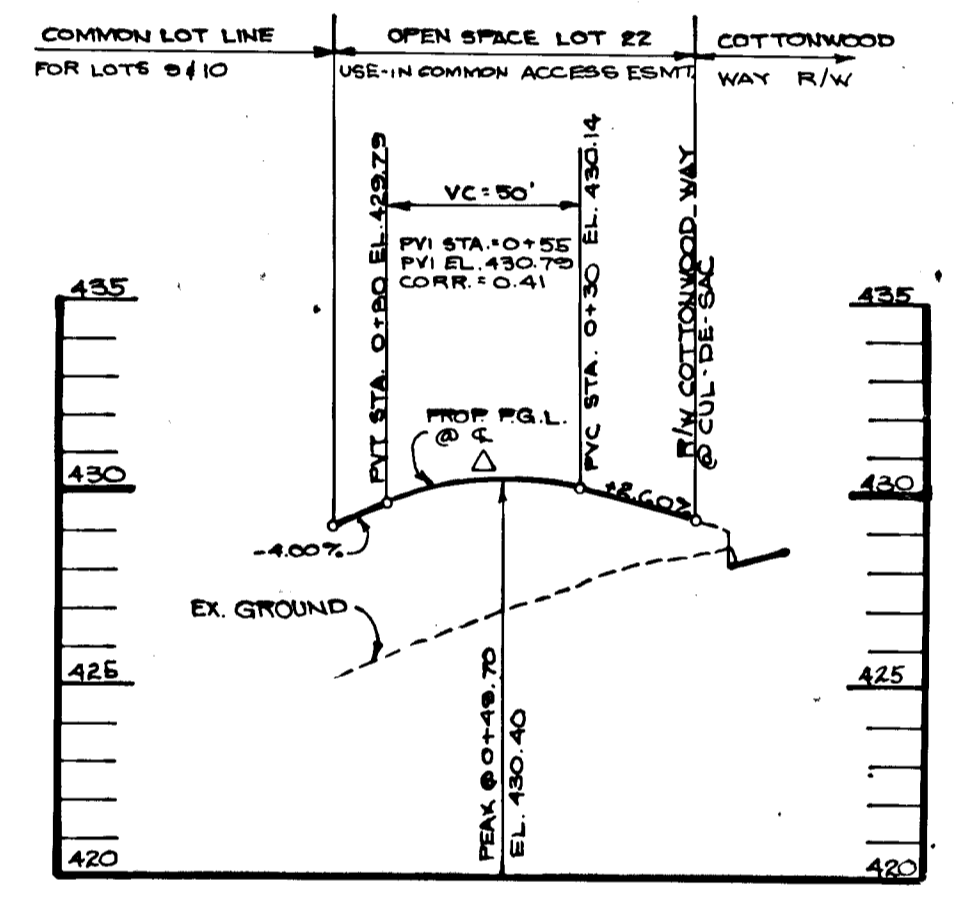
PLAN AND PROFILE OF COTTONWOOD WAY

THE RIEMER GROUP, INC.

The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm
3105 North Ridge Road, Ellicott City, Maryland 21043 (301) 461-2690

DATE

DESIGNED BY: J.J.B.
DRAWN BY: J.C.R.
PROJECT NO: 22100
DATE: NOVEMBER 27, 1988
SCALE: AS SHOWN
DRAWING NO. 2 OF 5



1458

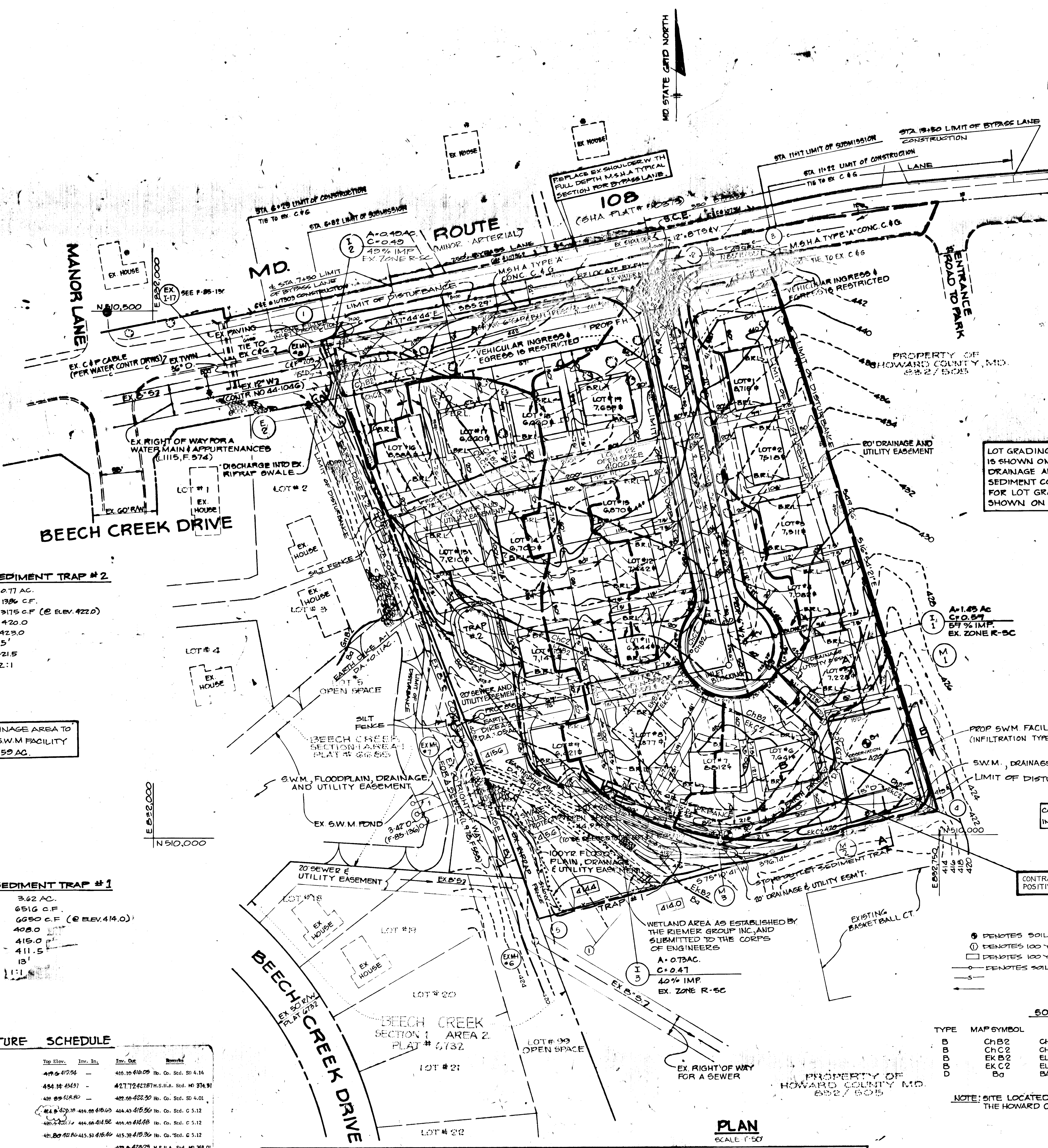
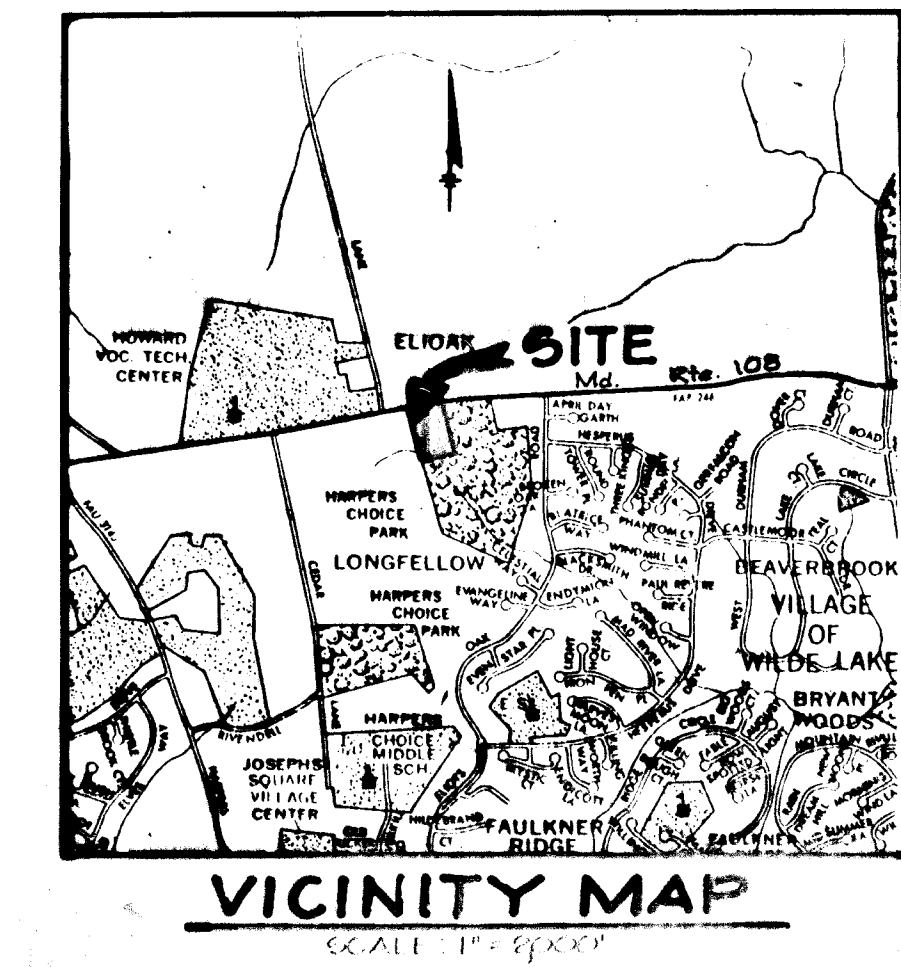
COORDINATES		
NO.	NORTH	EAST
1	510470.54	882162.82
2	510545.75	882340.20
3	510549.86	882590.01
4	510024.07	882749.81
5	509922.75	882866.85

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."
Sum Hahn DEVELOPER 10 AM '87 DATE

BY THE ENGINEER:
 "I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
Robert C. Muegg ENGINEER 6-21-87 DATE

REVIEWED FOR HOWARD S.C.D.
 AND MEETS TECHNICAL REQUIREMENTS
John M. Helm 5-25-87 DATE
 S.C. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
John F. Redburn 5/25/87 DATE
 HOWARD S.C.D.



STONE OUTLET SEDIMENT TRAP #2

DRAINAGE AREA = 0.71 AC.
 STORAGE RESD. = 1386 C.F.
 STORAGE PROVID. = 3115 C.F. @ ELEV. 422.0
 BOTTOM ELEV. = 420.0
 CREST ELEV. = 423.0
 CREST WIDTH = 5'
 CLEANOUT ELEV. = 421.5
 SLOPE = 2:1

DRAINAGE AREA TO EX. SW.M. FACILITY IS 0.59 AC.

STONE OUTLET SEDIMENT TRAP #1

DRAINAGE AREA = 3.62 AC.
 STORAGE RESD. = 6516 C.F.
 STORAGE PROVID. = 6050 C.F. @ ELEV. 414.0
 BOTTOM ELEV. = 408.0
 CREST ELEV. = 418.0
 CLEANOUT ELEV. = 411.5
 CREST WIDTH = 13'

STRUCTURE SCHEDULE

No.	Type	Location	Top Elev.	Inv. In.	Inv. Out.	Remarks
1-3	Yard Inlet	See Plan	419.0 @ 412.5	-	416.10 @ 410.05	1b. Co. Std. S1 4.14
1-2	STI COB-15 INLET	C/L Sta. 0+94	434.14 @ 433.7	-	427.72 @ 427.87	M.S.H.A. Std. No. 374.91
1-4	'A-5' Depressed	L.P. Sta. 0+99.44	430.00 @ 418.80	-	422.00 @ 422.30	1b. Co. Std. S1 4.01
M-1	STD M-1	See Plan	424.0 @ 423.75	414.00 @ 415.00	414.00 @ 415.50	1b. Co. Std. C 5.12
M-2	STD M-1	See Plan	420.0 @ 420.0	414.00 @ 415.00	414.00 @ 415.50	1b. Co. Std. C 5.12
M-3	STD M-1	See Plan	420.0 @ 420.0	414.00 @ 415.00	414.00 @ 415.50	1b. Co. Std. C 5.12
M-4	Concrete End Section	See Plan	423.0 @ 423.0	-	423.0 @ 423.0	M.S.H.A. Std. No. 368.01
M-4	STD MSHA LM	Sta. 5+24, 48' RIGHT	434.0 @ 434.7	425.00 @ 426.10	425.00 @ 426.20	M.S.H.A. STD. NO. 368.01

DENSITY TABULATION ** DOES NOT INCLUDE COMMON DRIVEWAY OPEN SPACE, LOTS

OS* REQUIRED	OS** PROVIDED	GROSS AREA	FLOODPLAIN'S STEEP SLOPES	NET AREA	NO OF DWELLING UNITS ALLOWED	FLOODPLAIN LOT ADJUSTMENT	TOTAL NO. OF DU ALLOWED	TOTAL NO. OF DU PROPOSED	DENSITY PER ACRE
0.07 AC	1.02 AC	5.40 AC	0.19 AC	5.21 AC	20.8	N/A	20.8	19	3.6

LOT GRADING SHOWN HEREON IS SHOWN ONLY TO ESTABLISH DRAINAGE AREAS. SEDIMENT CONTROL MEASURES FOR LOT GRADING WILL BE SHOWN ON SDP.

TOTAL DRAINAGE AREA TO SW.M. IS 3.52 AC.

CONTRACTOR IS NOT TO USE HEAVY EQUIPMENT IN AREA OF UNDERGROUND SW.M. FACILITY.

CONTRACTOR TO MAINTAIN POSITIVE DRAINAGE

- DENOTES SOIL BORING LOCATIONS
- DENOTES 100 YR. FLOODPLAIN CROSS SECTION
- DENOTES 100 YR. FLOODPLAIN ELEVATIONS
- DENOTES SOIL TYPE LIMITS

SOILS CLASSIFICATION

TYPE	MAP SYMBOL	DESCRIPTION
B	ChB2	CHESTER SILT LOAM, 5 TO 8 PERCENT SLOPES, MODERATELY ERODED.
B	ChC2	CHESTER SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED.
B	EkB2	ELIOAK SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED.
B	EkC2	ELIOAK SILT LOAM, 5 TO 15 PERCENT SLOPES, MODERATELY ERODED.
B	Ba	BAILE SILT LOAM.

NOTE: SITE LOCATED ON MAP NO. 17 OF THE HOWARD COUNTY SOIL SURVEY

AS-BUILT CERTIFICATION

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 J. J. B. 1.7.93 DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Mark J. Taylor 8/22/89 DATE
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Paul J. Ryan 8/15/89 DATE
 CHIEF, LAND DEVELOPMENT DIVISION

Lawrence W. Williams 8/15/89 DATE
 CHIEF, BUREAU OF HIGHWAYS

William S. Ray 8-11-89 DATE
 CHIEF, BUREAU OF ENGINEERING

12-21-82 2 REMOVED 4' PATH
 6-19-81 1 REVISED SWM FACILITY, GRADING & STRUCTURE SCHEDULE
 DATE NO REVISION

OWNER/DEVELOPER
 SWEET AIR PROPERTIES INC.
 115 SUDBROOK LANE
 SUITE 202
 BALTIMORE MARYLAND 21208

PROJECT **CEDAR MANOR**
 586-84, AA 86-11, P-88-26, P-88-25, F-89-102
 ARE A: TAX MAP 29 ZONED R-5C PARCEL 85
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

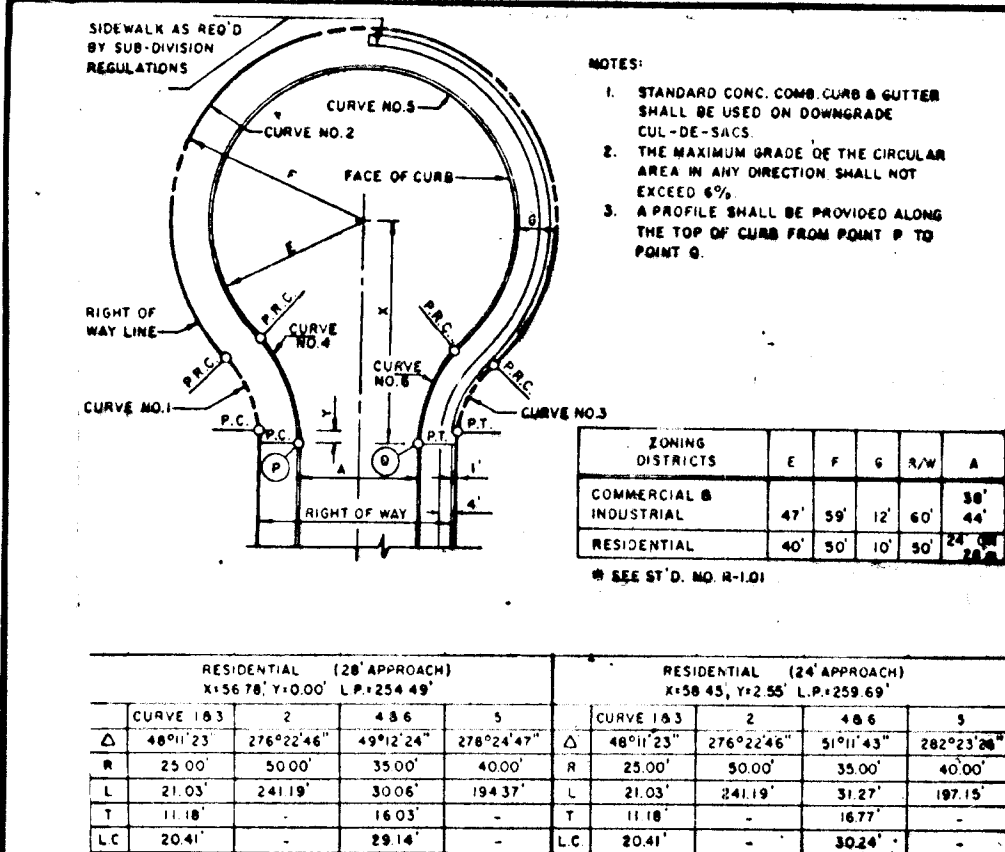
TITLE **DRAINAGE AREA & SOILS MAP & GRADING PLAN**

THE RIEMER GROUP, INC.
 The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm
 3105 North Ridge Road, Ellicott City, Maryland 21043 (301) 461-2690

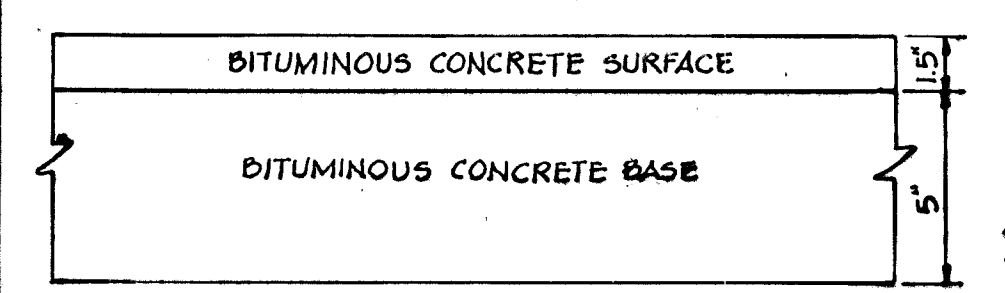
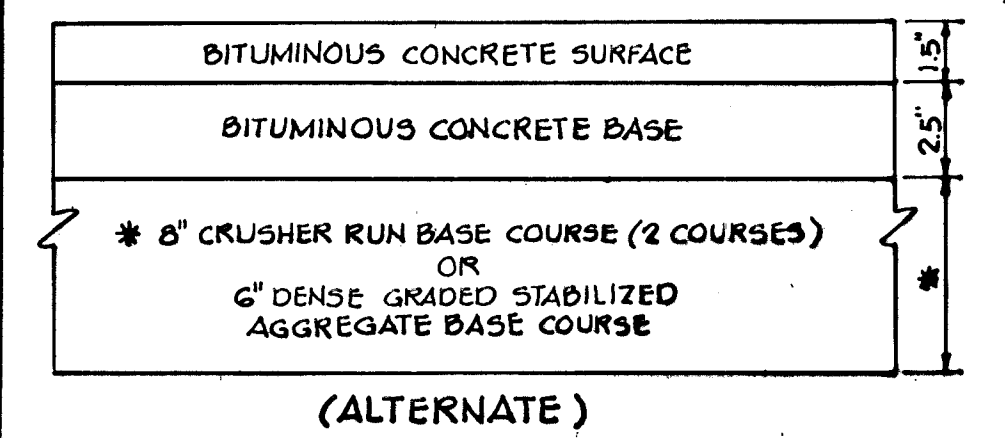
4-21-89 DATE
 STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 ARTHUR E. MILLER 4/27/87

DESIGNED BY JJB
 DRAWN BY JCR
 PROJECT NO 22102
 DATE NOVEMBER 22 1988
 SCALE AS SHOWN
 DRAWING NO 3 OF 5

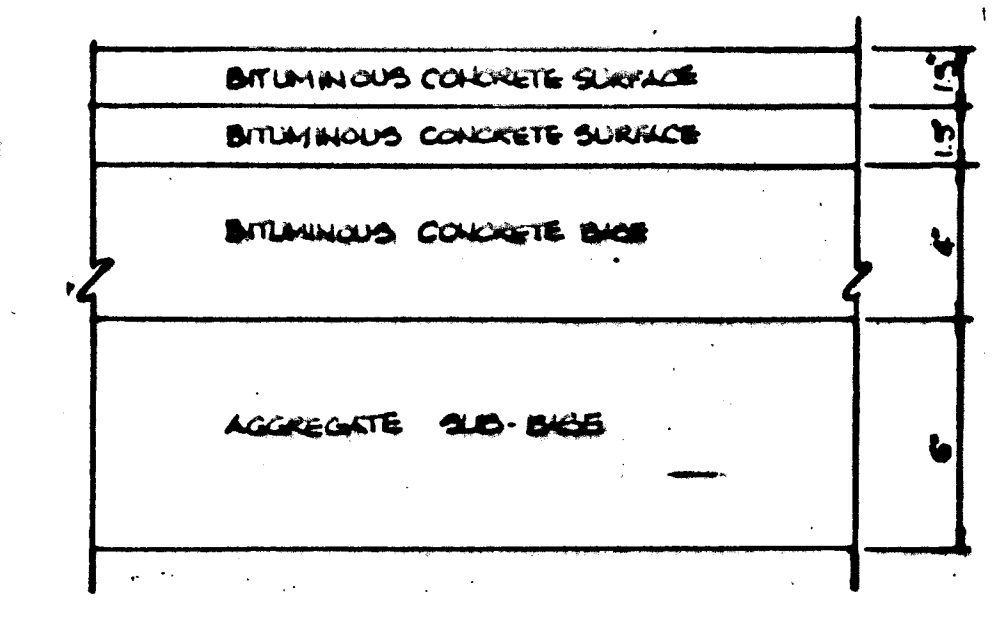
1458



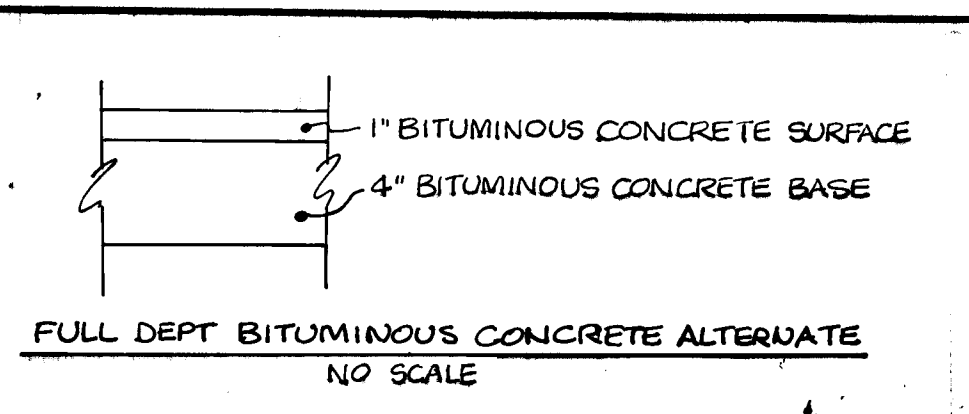
TYPICAL CUL-DE-SAC DETAIL
NO SCALE



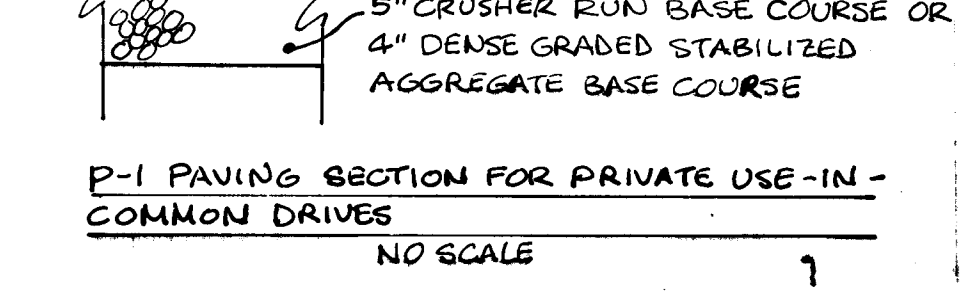
M.S.H.A. PAVING SECTION
NO SCALE



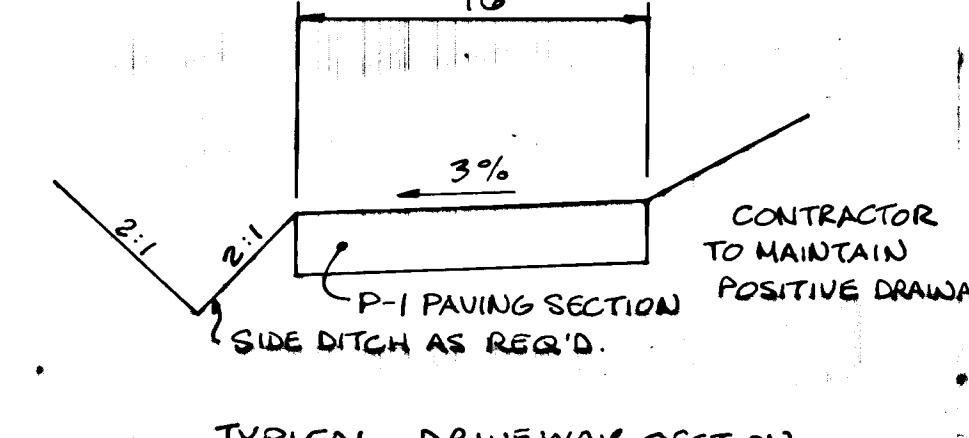
TYPICAL HANDICAP RAMP
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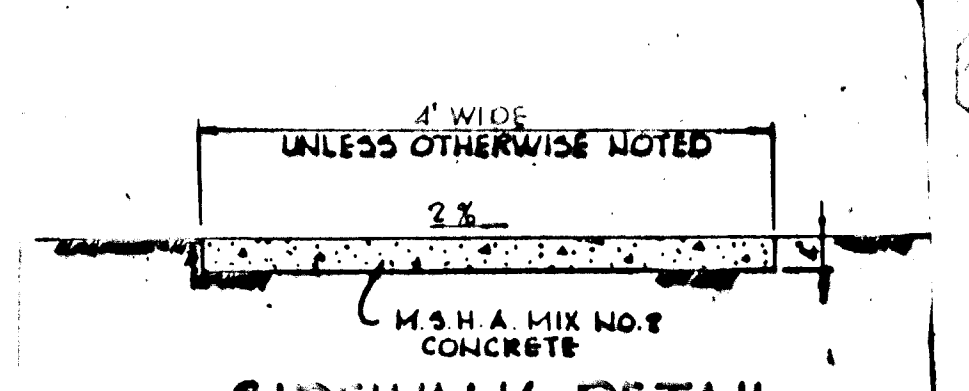
FULL DEPT BITUMINOUS CONCRETE ALTERNATE
NO SCALE



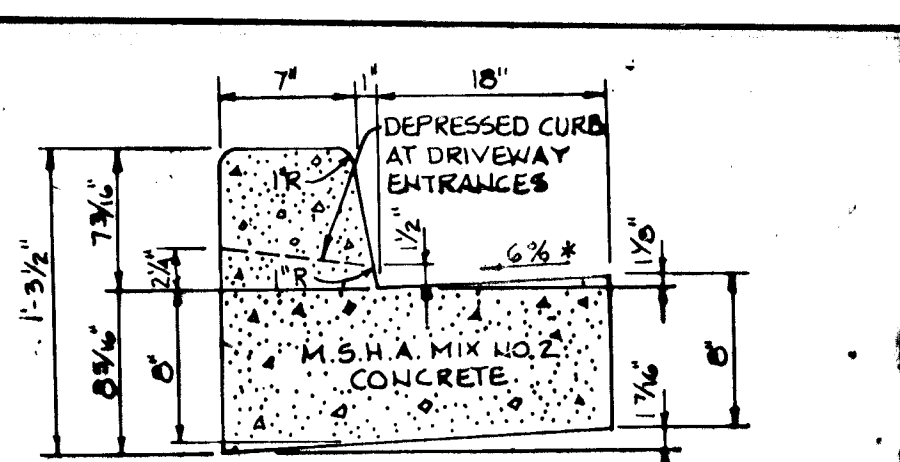
P-1 PAVING SECTION FOR PRIVATE USE IN COMMON DRIVES
NO SCALE



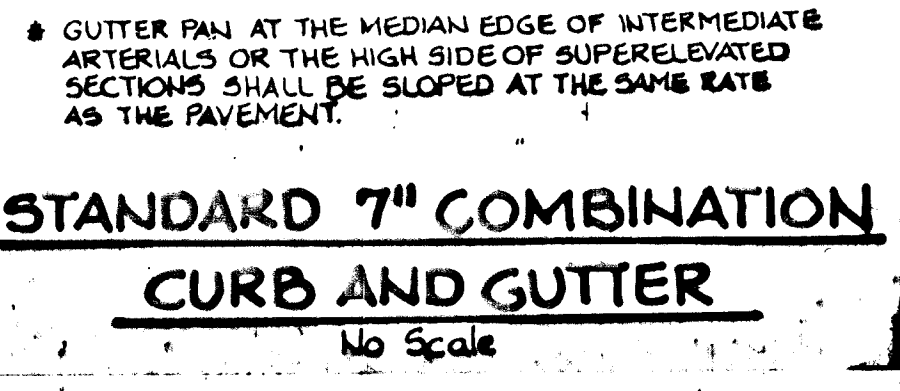
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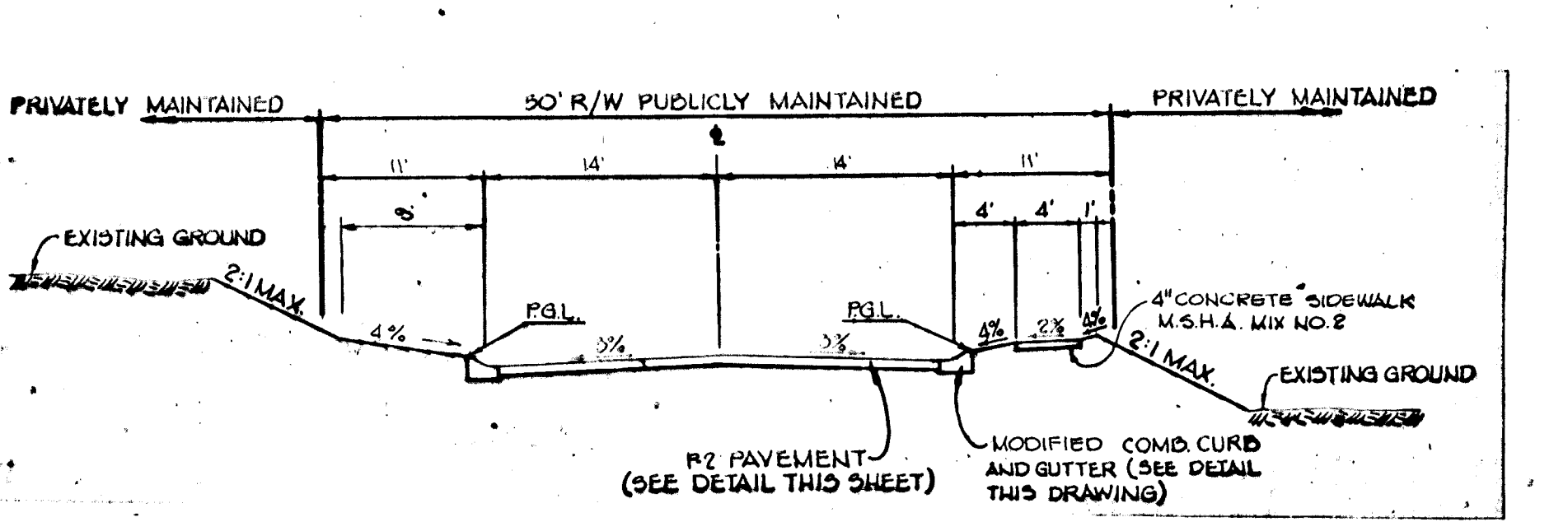
SIDEWALK DETAIL
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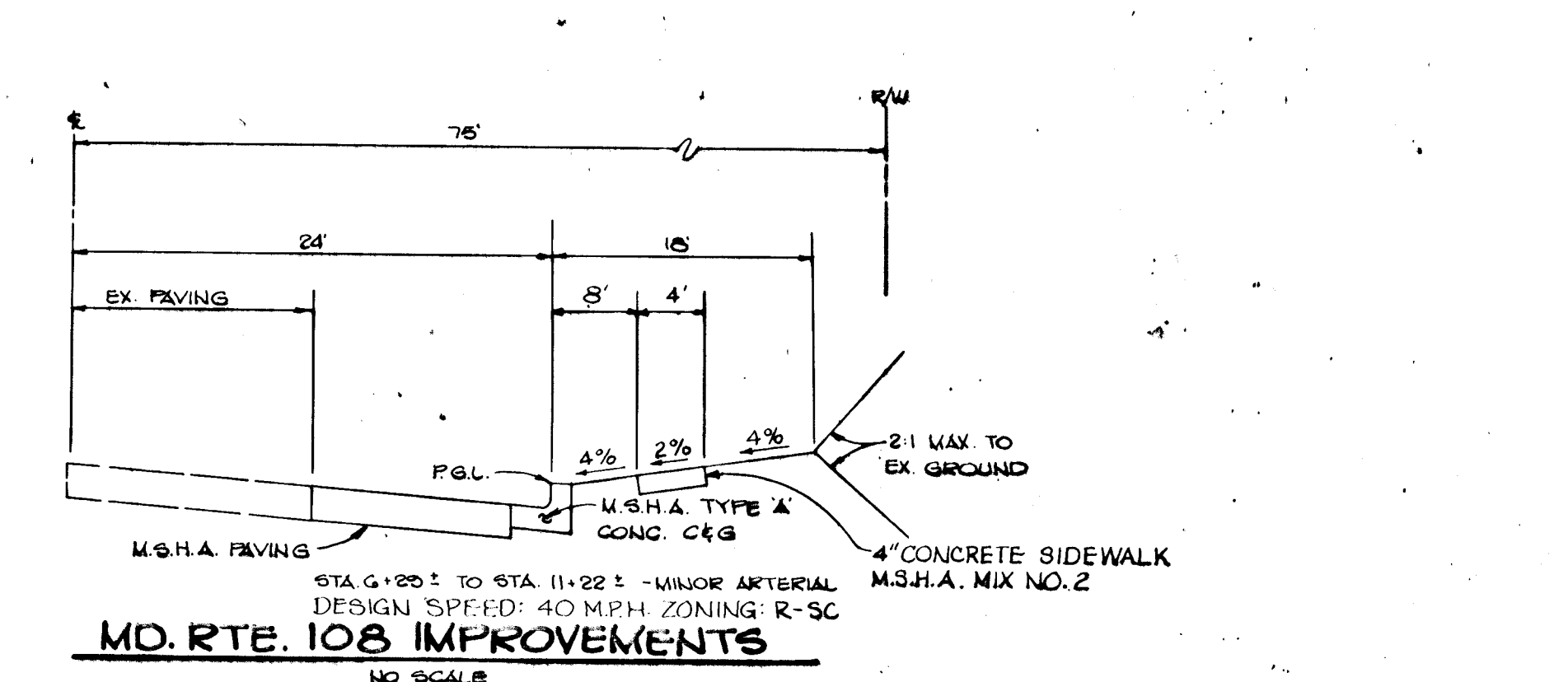
STANDARD 7" COMBINATION CURB AND GUTTER
NO SCALE



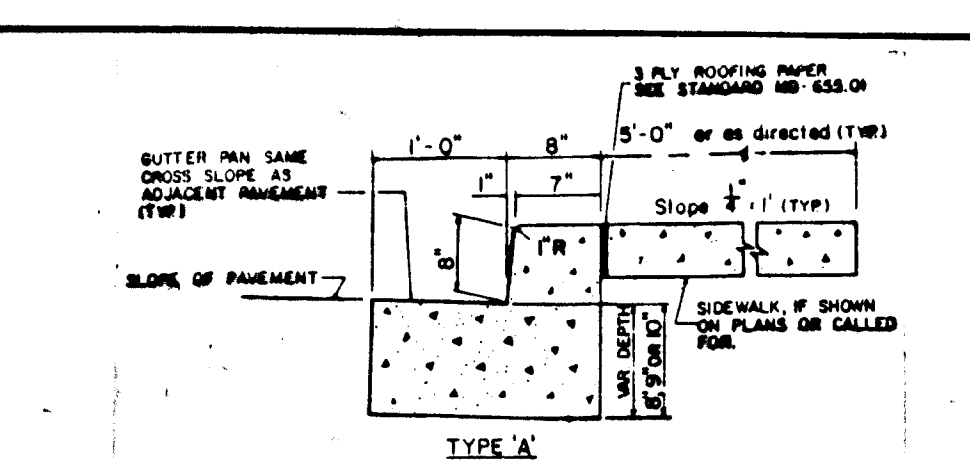
MODIFIED COMBINATION CURB AND GUTTER
NO SCALE



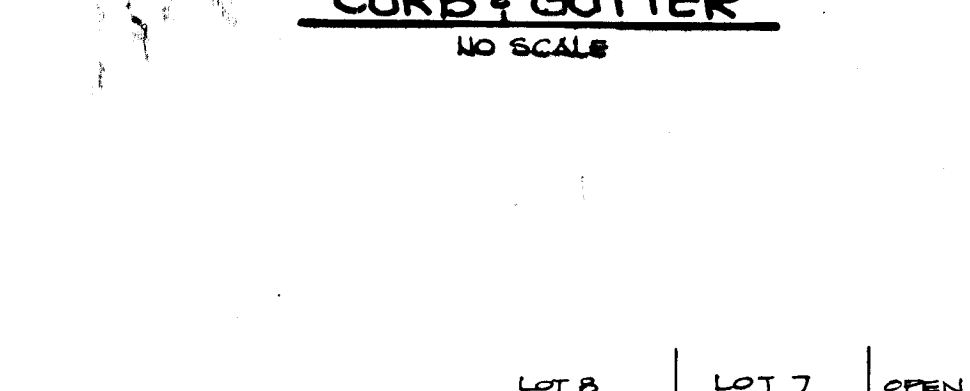
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NO SCALE



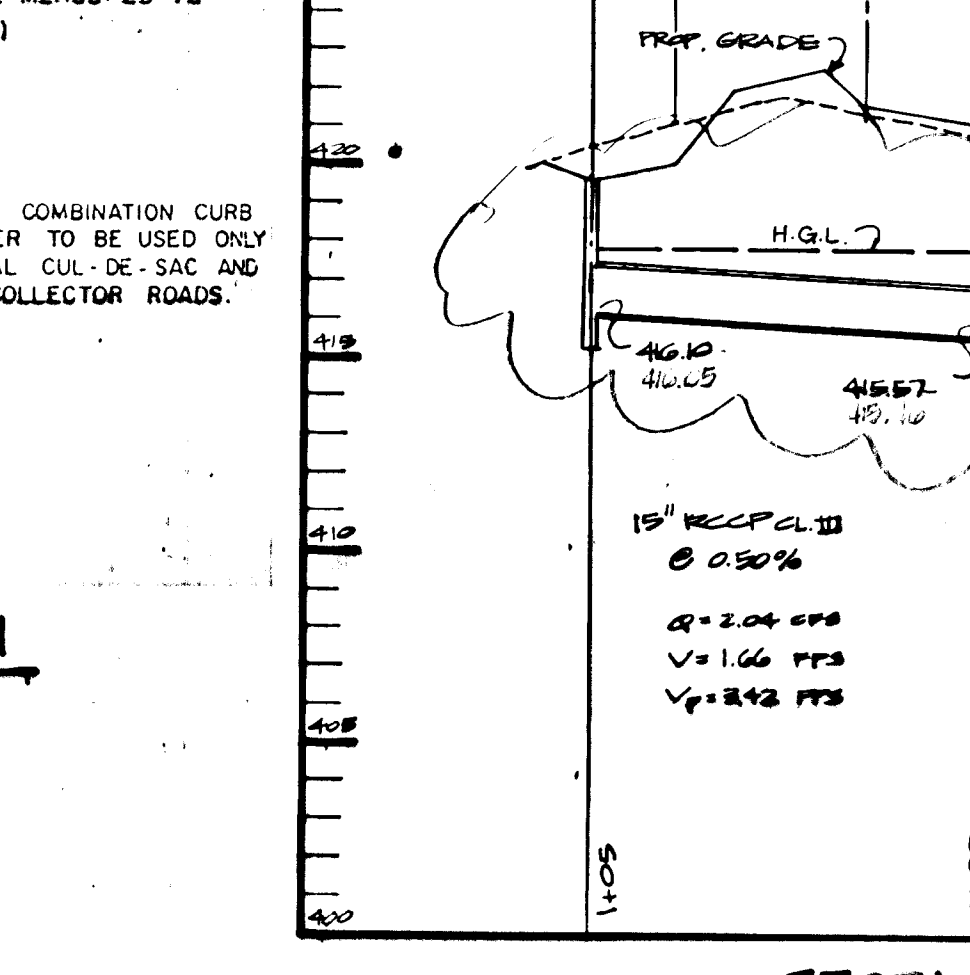
MD. RTE. 108 IMPROVEMENTS
NO SCALE



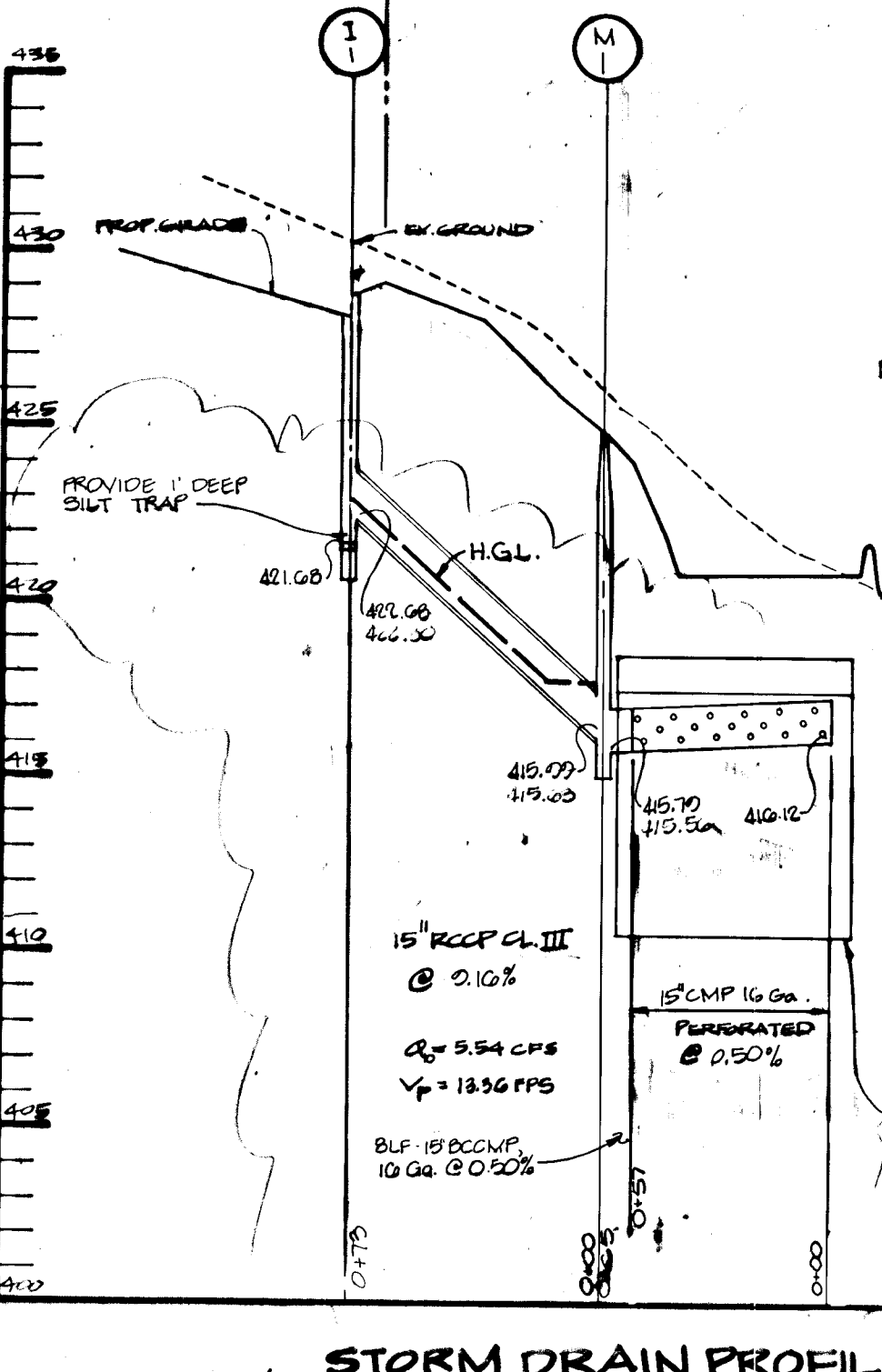
M.S.H.A. TYPE 'A' CONCRETE CURB & GUTTER
NO SCALE



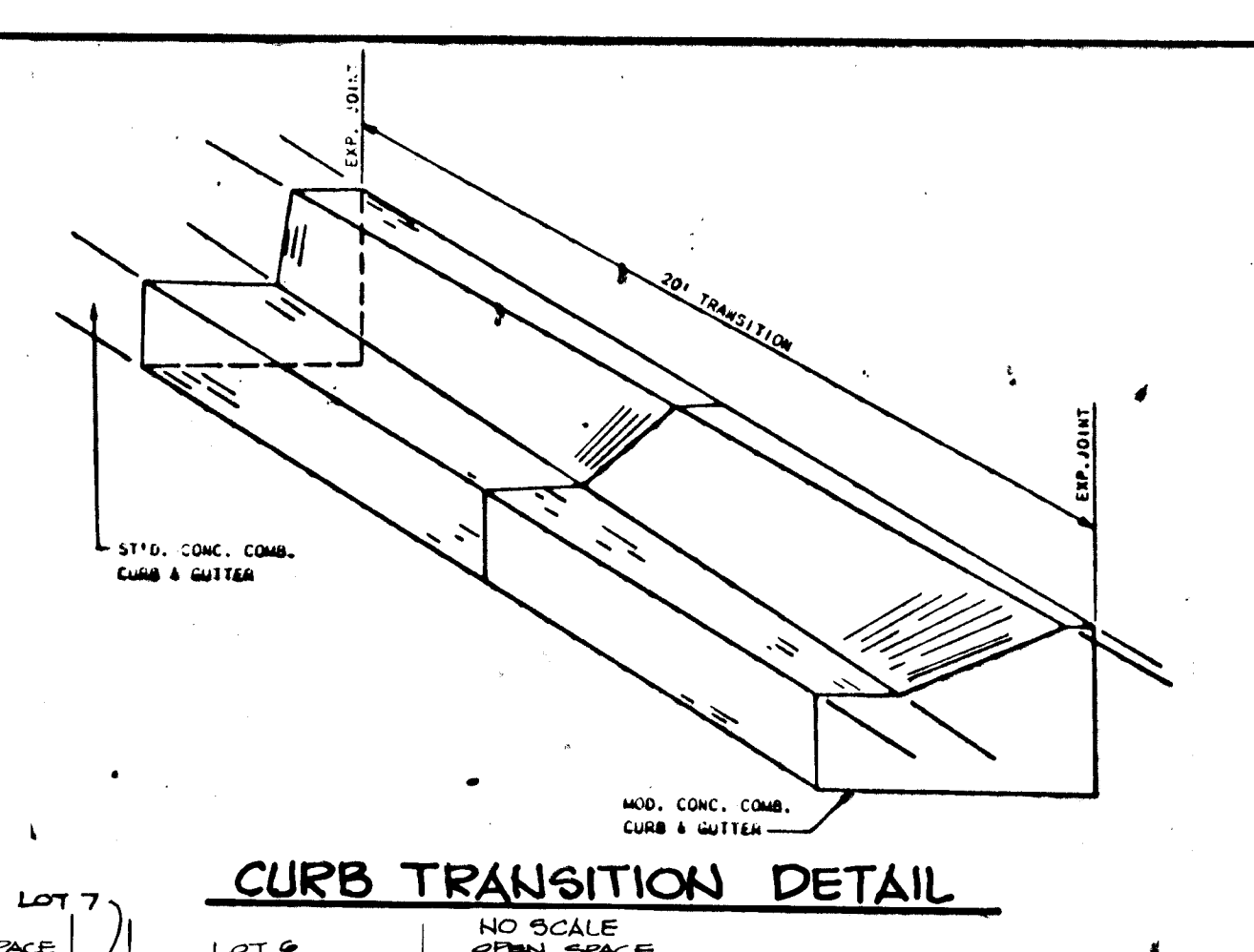
CURB TRANSITION DETAIL
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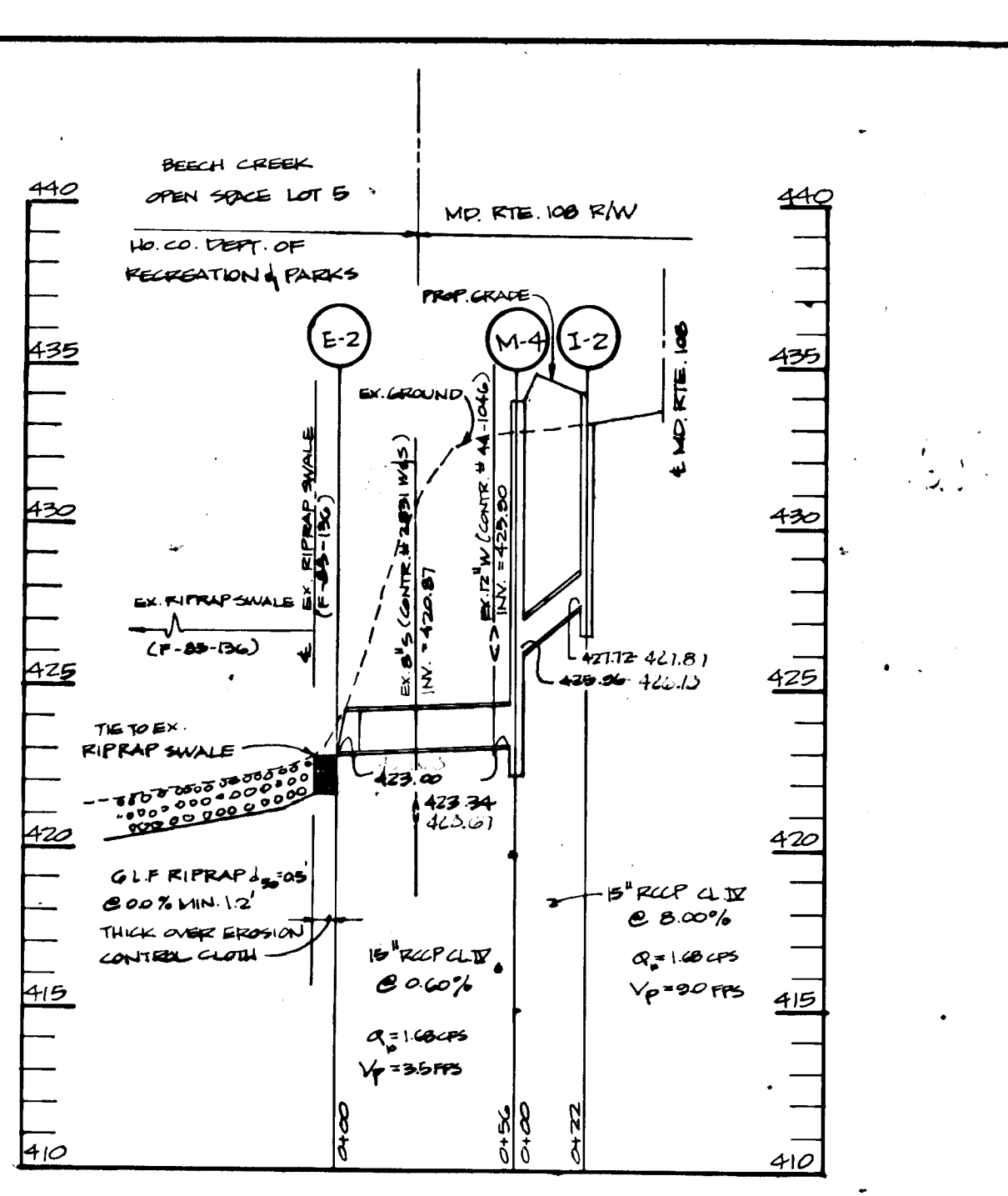
STORM DRAIN PROFILE
SCALE: HORIZ. 1"=50' VERT. 1"=5'



STORM DRAIN PROFILE
SCALE: HORIZ. 1"=50' VERT. 1"=5'



STORM DRAIN PROFILE
SCALE: HORIZ. 1"=50' VERT. 1"=5'



STORM DRAIN PROFILE
SCALE: HORIZ. 1"=50' VERT. 1"=5'

CERTIFICATION

STATE OF MARYLAND
PROFESSIONAL ENGINEER

JAYKANT D. PAREKH #10148 1-7-93 DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Mark A. Taylor 8/2/89 DATE
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT LKS

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Paul J. Sauer 8/16/89 DATE
Supt. Land Development Division

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William W. Woodard 8/16/89 DATE
Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William W. Woodard 8-11-89 DATE
Chief, Bureau of Engineering

G. 10. 01 1 REVISED SWM FACILITY IN STORM DRAIN PROFILES

DATE NO REVISION

OWNER/DEVELOPER
SWEET AIR PROPERTIES INC.
115 SADBROOK LANE
SUITE 202
BALTIMORE MARYLAND 21208

PROJECT: CEDAR MANOR
3-86-84, AA-86-11, P88-28, P88-25, F-89-102
AREA TAX MAP 25 ZONED R-SC PARCEL 85
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE:
DETAILS AND PROFILES

THE RIEMER GROUP, INC.
The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm
3105 North Ridge Road, Ellicott City, Maryland 21043 (301) 461-2690

4-21-89 DATE
DESIGNED BY: J.L.B.
DRAWN BY: J.L.B.
PROJECT NO: 22100
DATE: NOVEMBER 22, 1988
SCALE: AS SHOWN
DRAWING NO. 4 OF 5

1458

SOURCE OF CONSTRUCTION

1. Obtain grading permit.
2. Install stabilized construction entrance, silt fence, earth dike, and stone outlet sediment trap. **INSTALL SNOW FENCE AROUND PERIMETER OF WETLANDS. (3 DAYS)**
3. Clear and grub areas within the limits of disturbance.
4. Grade roads to subgrade and swale along east property line; stabilize in accordance with temporary seeding notes. (3 days)
5. Install utilities and storm drain system I-2 to E-2 and I-1. Provide inlet blocking at I-1 and inlet protection at I-2. Stabilize all disturbed areas in accordance with temporary seeding notes. (4 weeks)
6. Install curb, gutter, and sidewalks. (1 week)
7. Apply base course to roads. Fine grade road right-of-way and supporting slopes and stabilize in accordance with permanent seeding notes. (1 week)
8. Install silt fence below proposed infiltration facility. (1 day)
9. Install S.W.M. facility and storm drain system from I-1 to S.W.M. and I-3 to S.W.M. Place inlet protection at I-3. Repair earth dike after storm drain has been installed. (1 week)
10. Fine grade and stabilize in accordance with permanent seeding notes. (2 days)
11. Apply final surface course to roads. (2 days)
12. With approval of sediment inspector, remove silt fence, inlet blocking, and stone filter inlet protection, and clean out trap. **DO NOT** remove trap and earth dike, for they are to be used for lot grading on SDP-89-162. (3 days)

PERMANENT SEEDING NOTES

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

Seeding 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 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. Nitrogen or Phosphorus - 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. Nitrogen or Phosphorus - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) before seeding.
- 2) acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) before seeding. Nitrogen or Phosphorus - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) before seeding.
- 3) Not Recommended - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) before seeding. Nitrogen or Phosphorus - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) before seeding.

Mulching: Apply 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 1/2" x 1/2" x 1/2" anchors at 200 gal per acre (5 gal/1000 sq ft) of unrotted straw on 10' x 10' areas. On slopes 8 feet or higher, use 3/4" gal per acre (8 gal/1000 sq ft) for anchoring.

Inspection: Inspect all seeded areas and make needed repairs, replantations and reseedings.

TEMPORARY SEEDING NOTES

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

Seeding Preparation: Loosen upper three 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 (14 lbs/1000 sq ft).

Seeding: For periods March 1 thru April 30 and from August 1 thru October 15, seed with 60 lbs per acre (1.5 lbs/1000 sq ft) of Kentucky 31 Tall Fescue per acre and 2 lbs per acre (0.5 lbs/1000 sq ft) of creeping bromegrass. During the period October 16 thru February 28, proper site by: Option (1) 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) 10' x 10' areas of well anchored straw mulch and seed as soon as possible in the spring. Option (3) 10' x 10' areas of well anchored straw mulch and seed as soon as possible in the spring, or use seed.

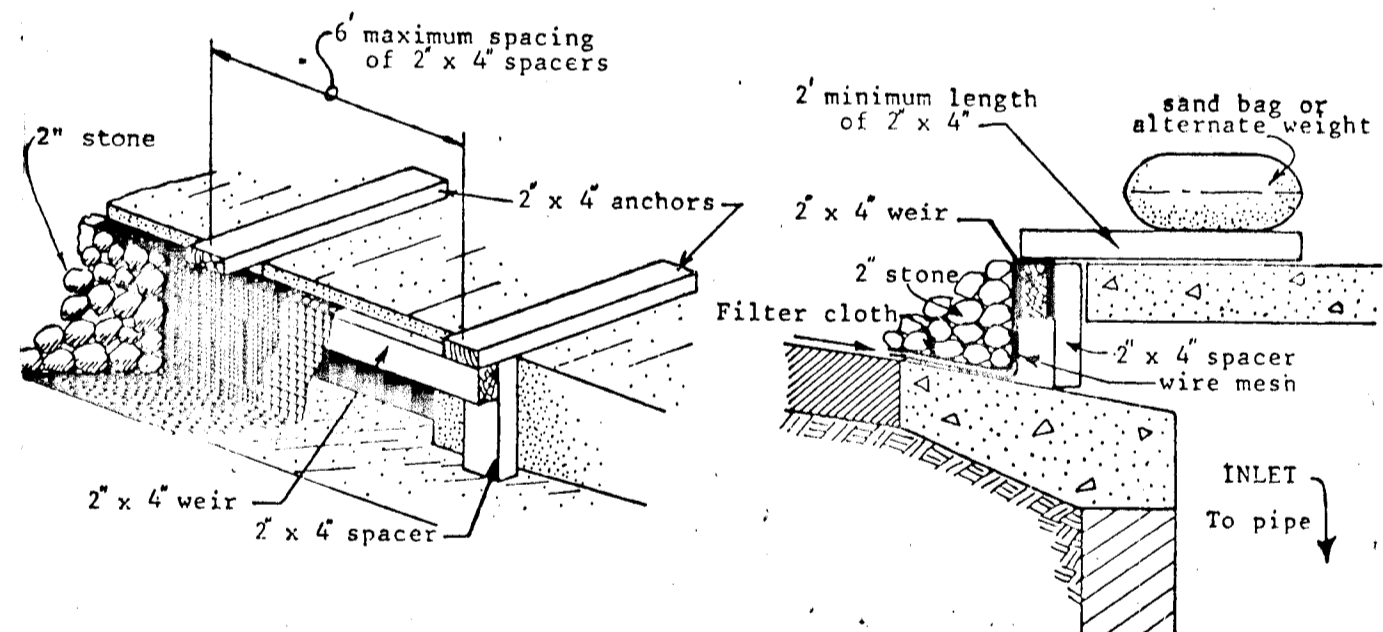
Mulching: Apply 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using 1/2" x 1/2" x 1/2" anchors at 200 gal per acre (5 gal/1000 sq ft) of unrotted straw on 10' x 10' areas. On slopes 8 feet or higher, use 3/4" gal per acre (8 gal/1000 sq ft) for anchoring.

Inspection: Inspect all seeded areas and make needed repairs, replantations and reseedings.

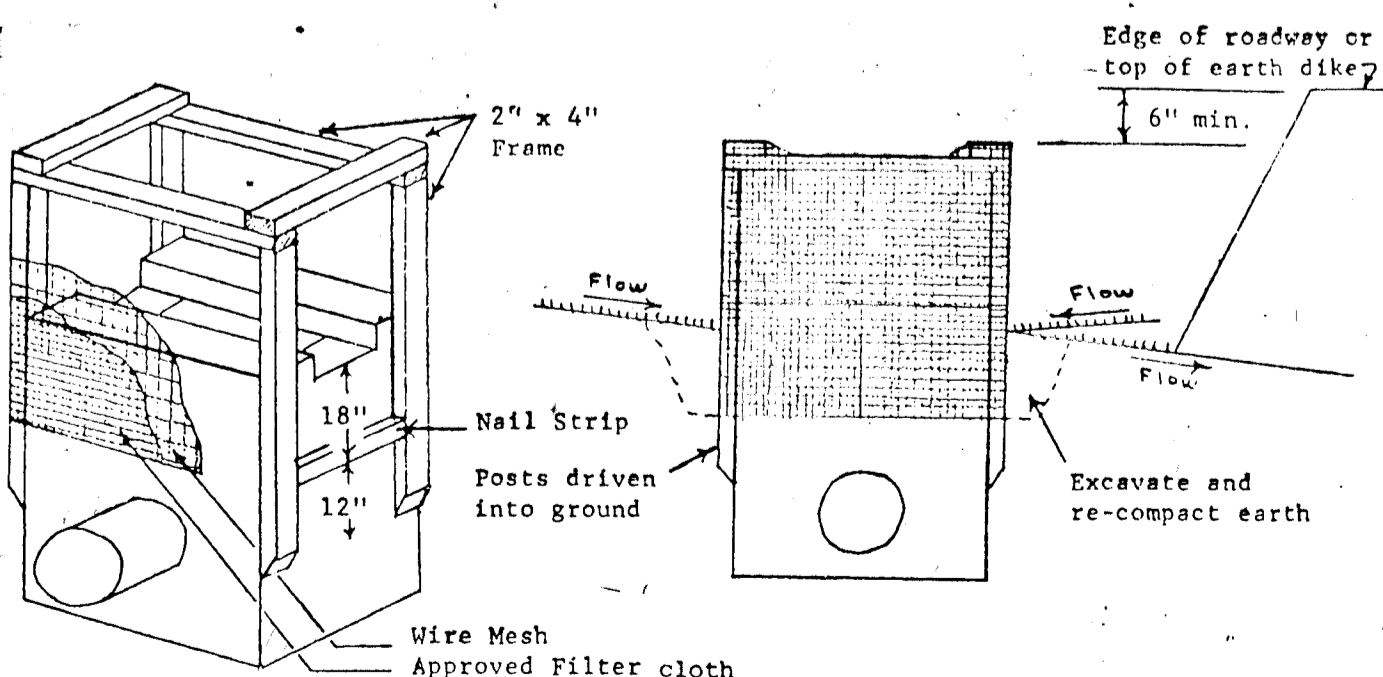
Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ARE AND METHODS NOT COVERED.

SEDIMENT CONTROL NOTES

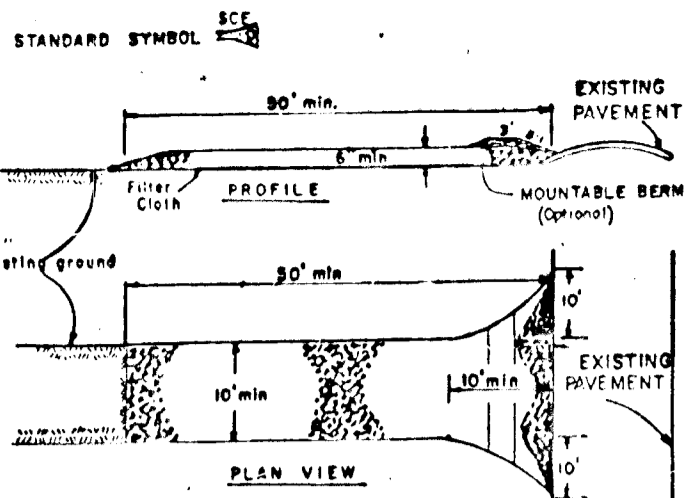
1. A minimum of 24 hours notice must be given to the Howard County Office of Inspections and Permits prior to the start of any construction (902-7433).
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
3. Following initial soil disturbance or redistribution, 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 Section 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. 52) and (Sec. 54), temporary seedings (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: 540 acres
Area to be seeded or paved: 216 acres
Area to be vegetatively stabilized: 107 acres
Total Cut: 423,000 cu. yds.
Total Fill: 222,000 cu. yds.
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. Site grading will begin only after all perimeter sediment control measures have been installed and are in a functioning condition.
11. Sediment will be removed from traps when its depth reaches the clean out elevation shown on the plans.



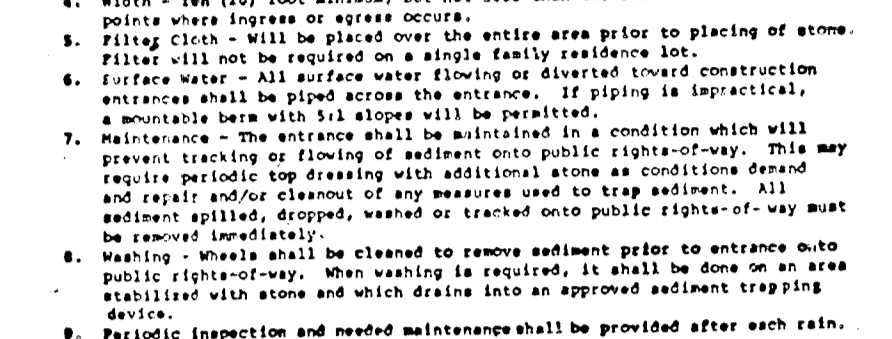
CURB INLET PROTECTION DETAIL @ I-2
NO SCALE



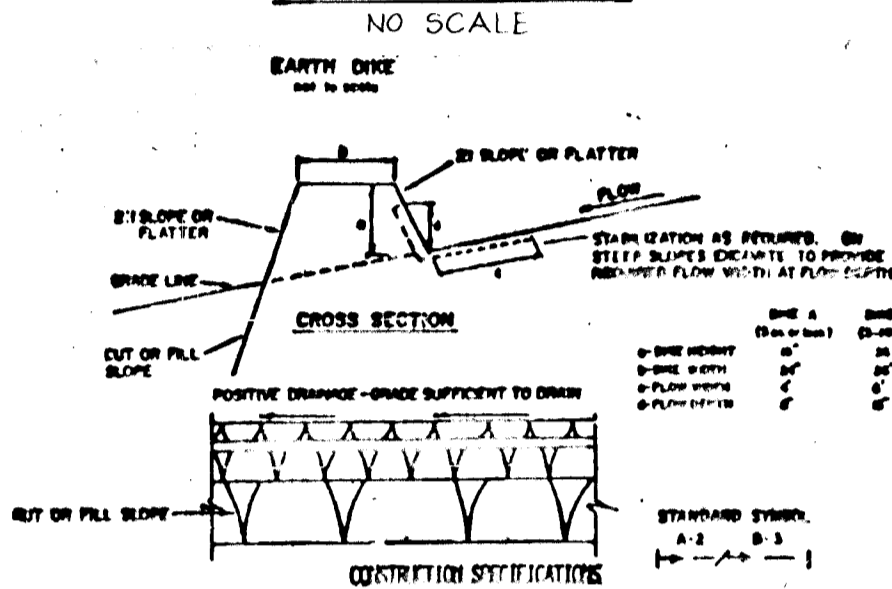
SWALE INLET PROTECTION DETAIL @ I-3
NO SCALE



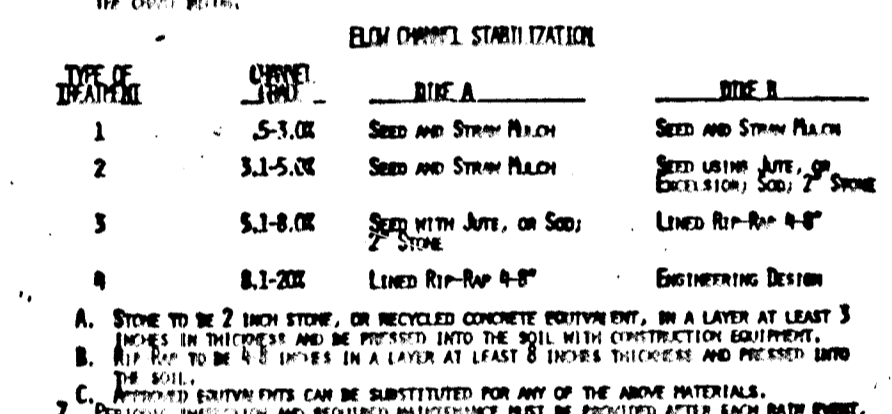
STABILIZED CONSTRUCTION ENTRANCE
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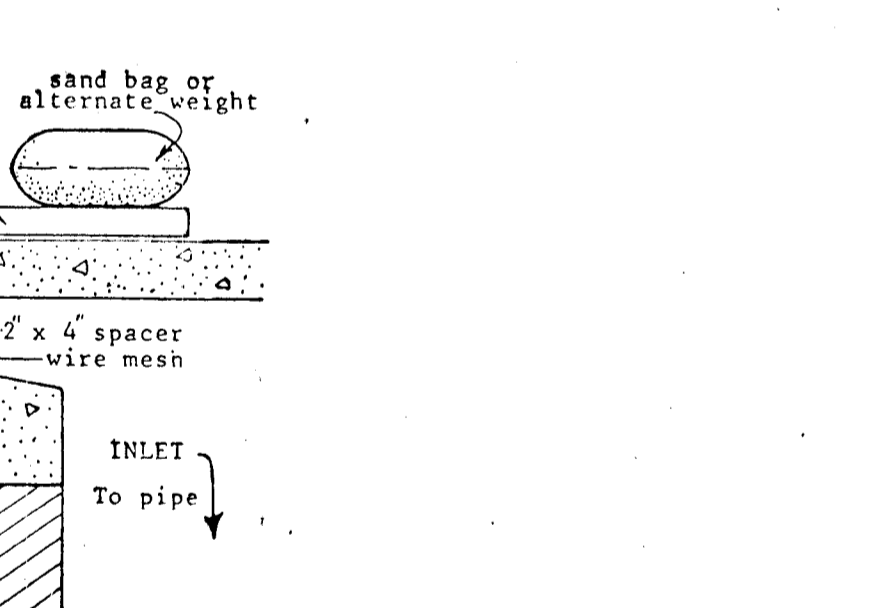
EARTH DIKE
NO SCALE



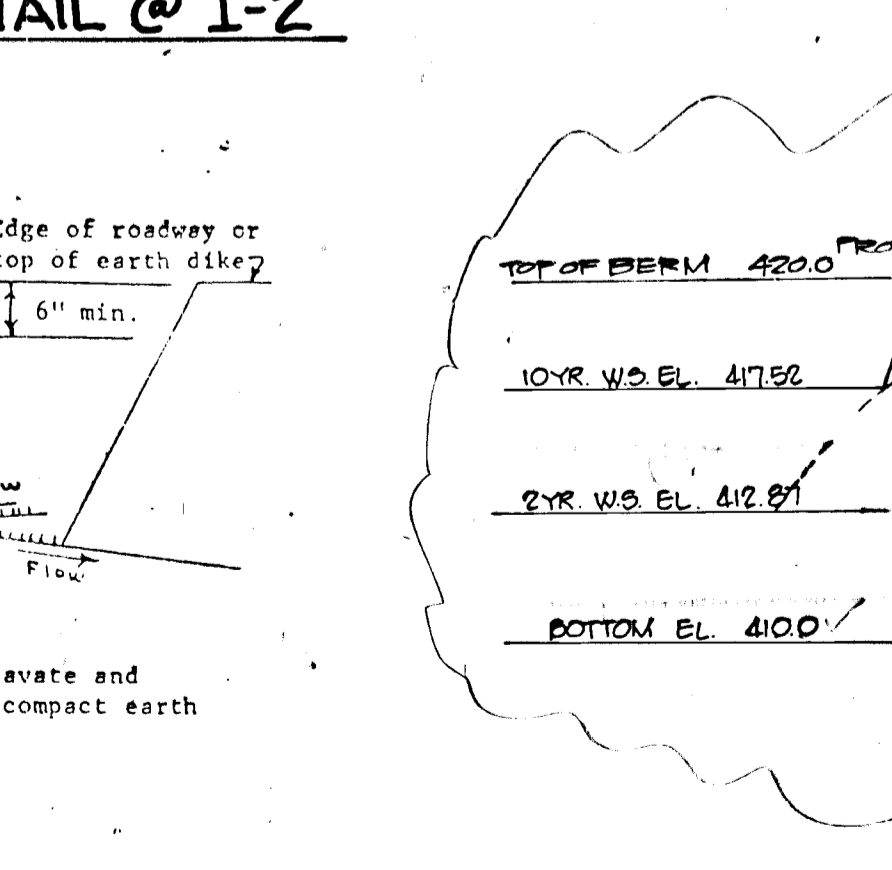
STONE OUTLET SEDIMENT TRAP
NO SCALE



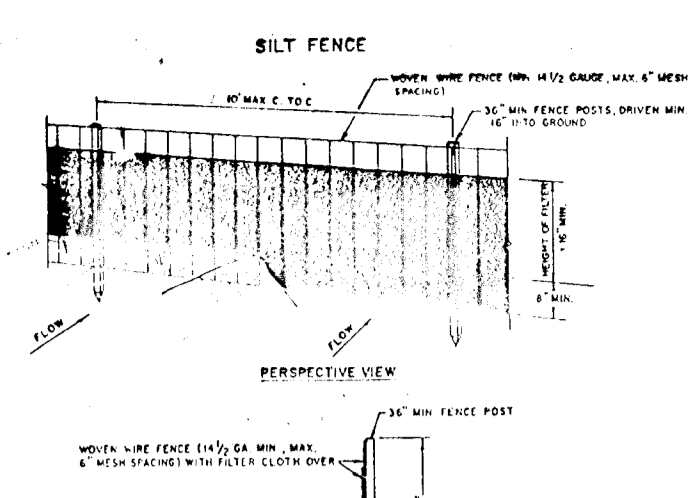
INLET BLOCKING DETAIL @ I-1
NO SCALE



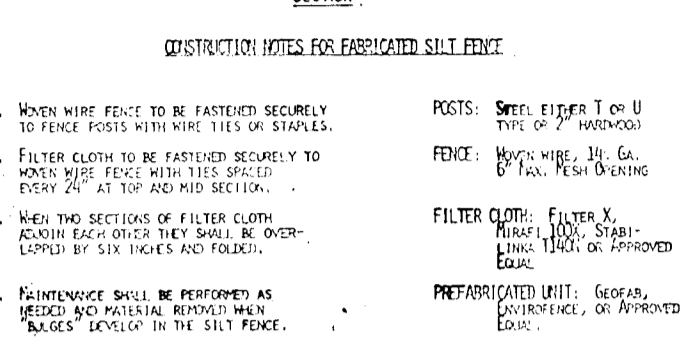
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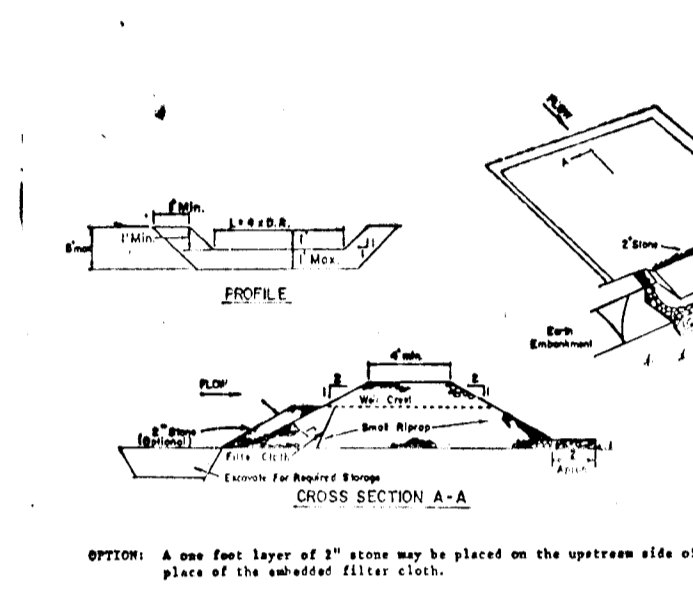
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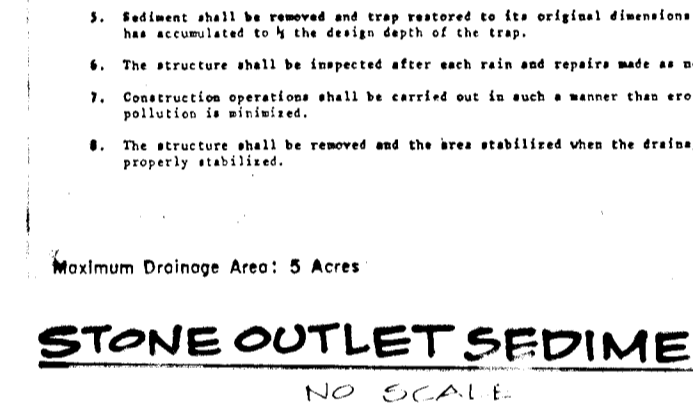
SILT FENCE
NO SCALE



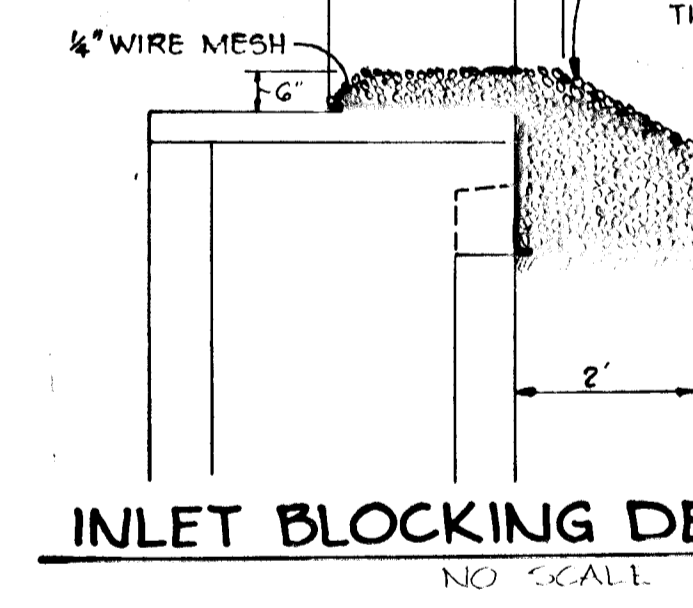
OBSERVATION WELL
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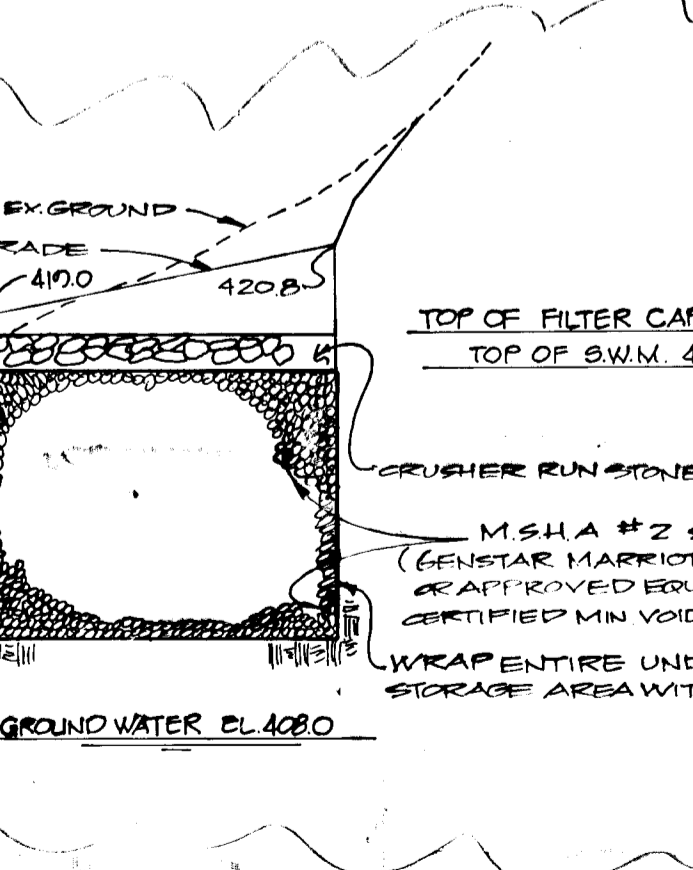
STABILIZED CONSTRUCTION ENTRANCE
NO SCALE



EARTH DIKE
NO SCALE



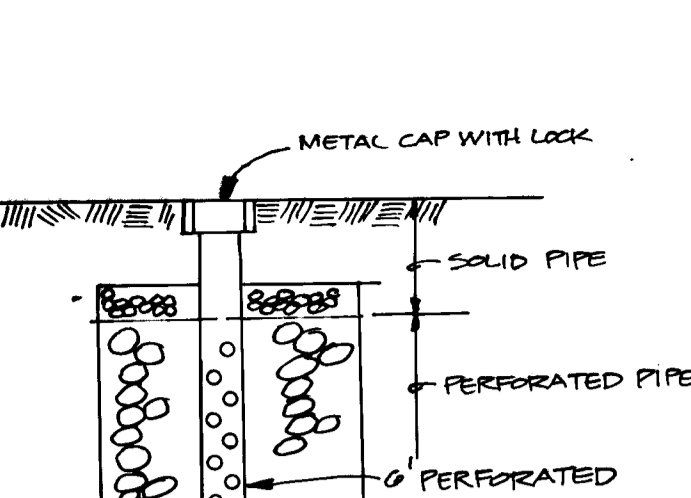
STONE OUTLET SEDIMENT TRAP
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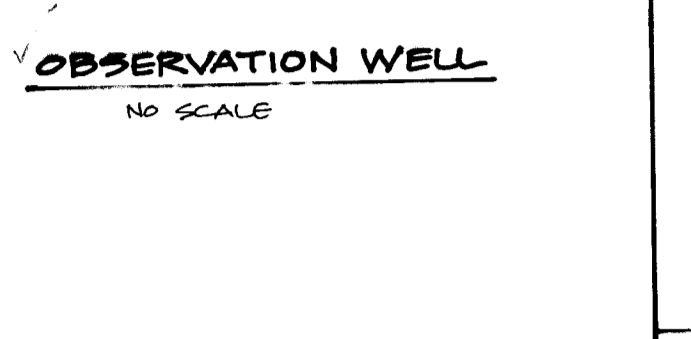
INLET BLOCKING DETAIL @ I-1
NO SCALE

CURB INLET PROTECTION DETAIL @ I-2
NO SCALE

SWALE INLET PROTECTION DETAIL @ I-3
NO SCALE



SILT FENCE
NO SCALE



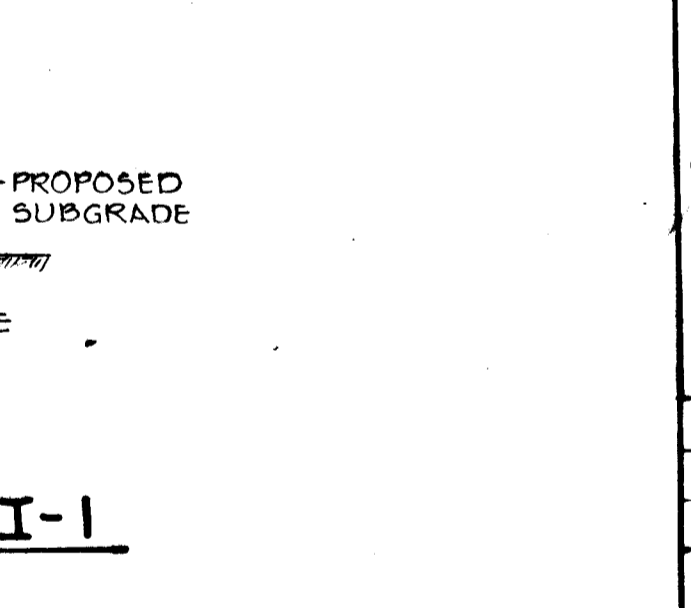
OBSERVATION WELL
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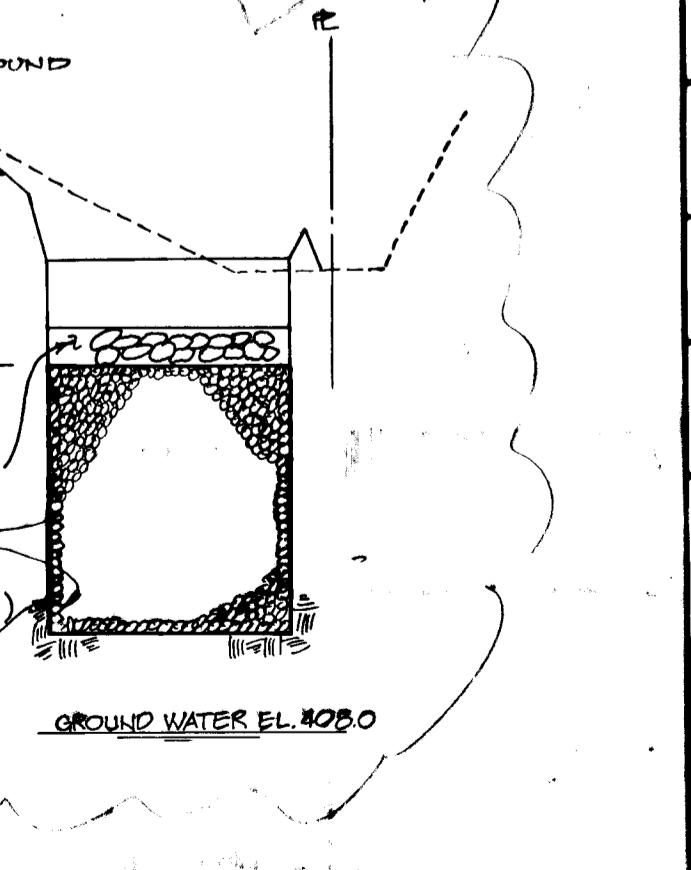
STABILIZED CONSTRUCTION ENTRANCE
NO SCALE



EARTH DIKE
NO SCALE



STONE OUTLET SEDIMENT TRAP
NO SCALE



INLET BLOCKING DETAIL @ I-1
NO SCALE

CURB INLET PROTECTION DETAIL @ I-2
NO SCALE

SWALE INLET PROTECTION DETAIL @ I-3
NO SCALE

AG-001117 CERTIFICATION

STATE OF MARYLAND
JAYKANT D. PAREKH # 10148
DATE: 1.7.93

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."
3/1/89 DEVELOPER DATE

BY THE ENGINEER:
"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT."
4/2/89 ENGINEER DATE

REVIEWED FOR: HOWARD COUNTY S.C.D.
AND METS TECHNICAL REQUIREMENTS
5/25/89 DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT.
5/25/89 DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DATE

REVISION: 0.10.91
DATE: NO. REVISION

OWNER/DEVELOPER: SWEET AIR PROPERTIES INC.
115 SUDBROOK LANE
SUITE 202
BALTIMORE MARYLAND 21208

PROJECT: CEDAR MANOR
5-86-84, AA-86-11, P-88-28, P-88-25, F-89-102
AREA TAX MAP 29 ZONED R-30 PARCEL 85
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: SEDIMENT CONTROL NOTES AND DETAILS AND POND SPECS.
THE RIEMER GROUP, INC.
The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm
3105 North Ridge Road, Ellicott City, Maryland 21043 (301) 461-2690

DESIGNED BY: J.J.B.
DRAWN BY: M.G.Y.
PROJECT NO: 22102
DATE: NOVEMBER 22, 1988
SCALE: AS SHOWN
DRAWING NO. 5 OF 5

1458

MARYLAND BLUEPRINT CO., INC. N0002

F-89-102