

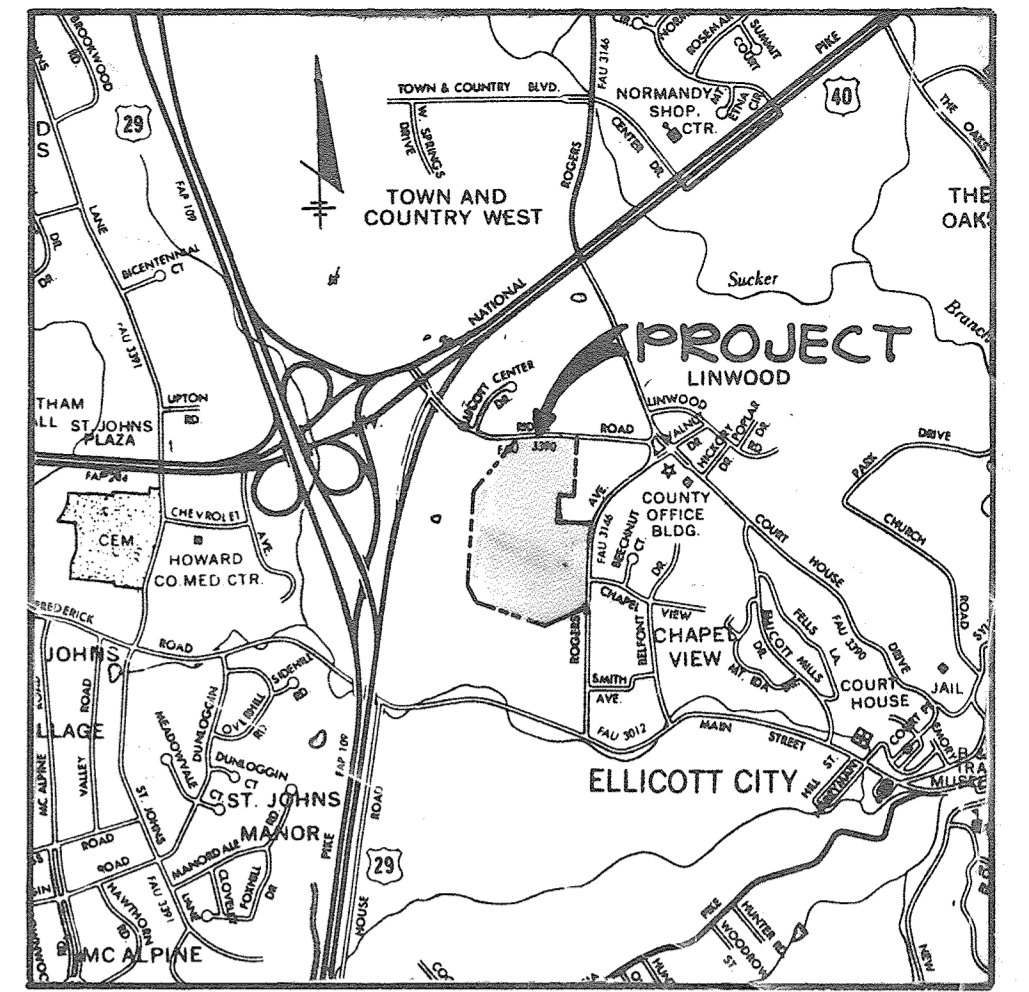
SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	PLAN AND PROFILE OF ROGERS AVENUE
3	PLAN AND PROFILE OF PATAPSCO RIVER ROAD STA. 0+00 TO STA. 12+75
4	PLAN AND PROFILE OF PATAPSCO RIVER ROAD STA. 12+76 TO STA. 21+202.4
5	PLAN AND PROFILE OF RIDGE ROAD
6	PLAN AND PROFILE OF OLD MALICE COURT, QUAKER MILL COURT, HOLLOW FIELDS COURT, AND MILL LAWN COURT
7	PLAN AND PROFILE OF LOWER MILL COURT, UPPER MILL COURT, AND BUCKS COUNTY COURT
8	PLAN AND PROFILE OF ORANGE GROVE COURT
9	DETAILS
10	PROFILES AND STORM DRAIN PROFILES AND DETAILS
11	STORM DRAIN PROFILES
12	STORM DRAIN PROFILES
13	DRAINAGE AREA MAP
14	GRADING, SEDIMENT CONTROL AND SW/M. PLAN
15	GRADING, SEDIMENT CONTROL AND SW/M. PLAN
16	GRADING, SEDIMENT CONTROL AND SW/M. PLAN
17	STORM WATER MANAGEMENT & SEDIMENT CONTROL PROFILES AND DETAILS
18	STORM WATER MANAGEMENT & SEDIMENT CONTROL PROFILES, DETAILS, AND STORM DRAIN PROFILES
19	STORM WATER MANAGEMENT & SEDIMENT CONTROL NOTES AND DETAILS

ROADWAY, STORM DRAINS & STORM WATER MANAGEMENT

RIVER MILLS

2ND ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 200'

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:

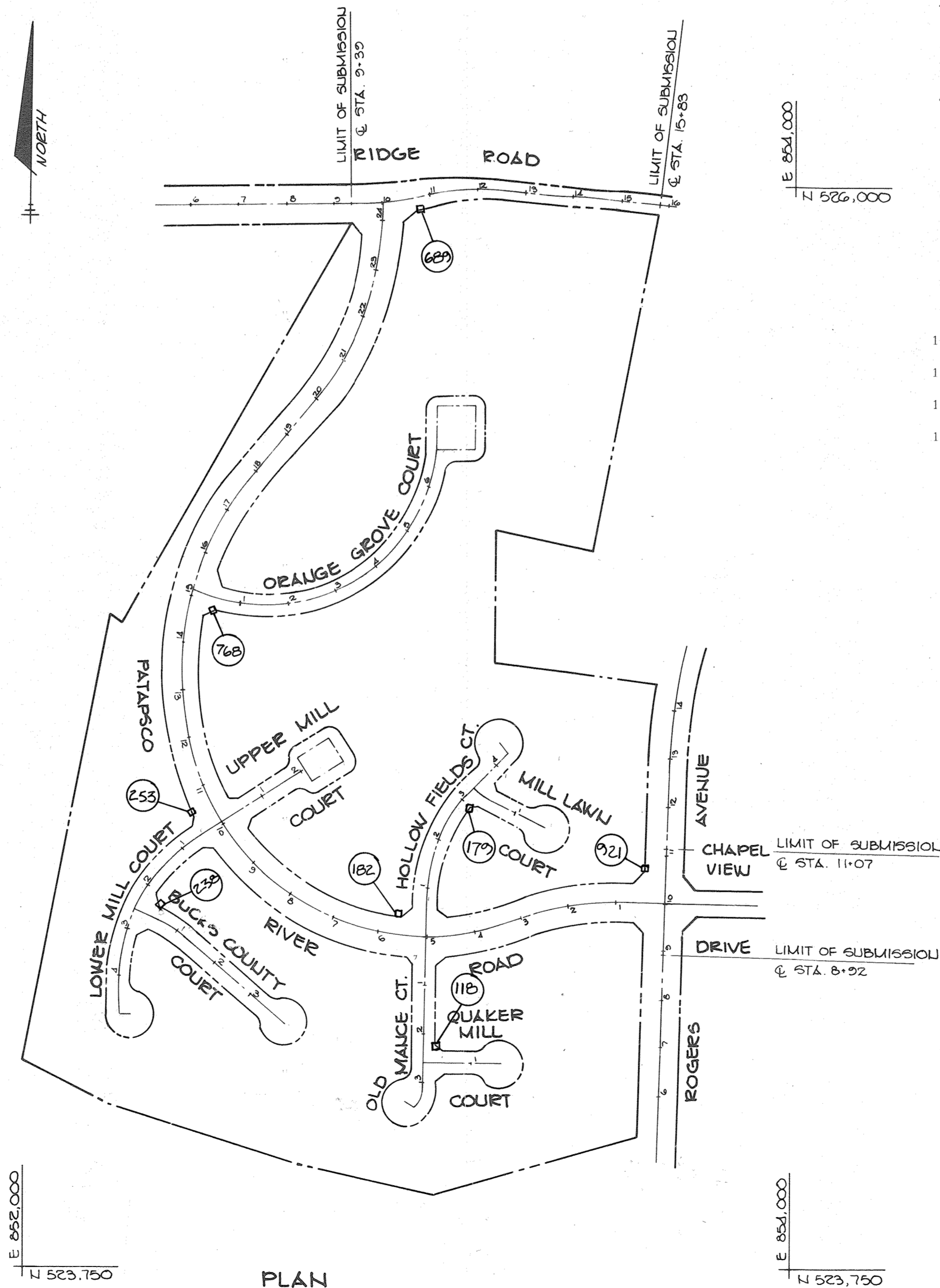
MISS UTILITY	559-0100
BELL TELEPHONE SYSTEM	393-3649
LONG DISTANCE CABLE DIVISION	393-3553 or 3554
BALTIMORE GAS AND ELECTRIC COMPANY	539-8000, ext. 691
HOWARD COUNTY BUREAU OF UTILITIES	992-2366
HOWARD COUNTY CONSTRUCTION/INSPECTION SURVEY DIVISION (24 HOURS NOTICE PRIOR TO COMMENCEMENT OF WORK)	792-7272
 - 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 OF UNIFORM TRAFFIC CONTROL DEVICES 1971 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 80' RIGHT-OF-WAYS	40 M.P.H.
ALL 50' RIGHT-OF-WAYS	30 M.P.H.
 - ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
 - ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT OR ELEVATIONS.
 - PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
 - SUBJECT PROPERTY ZONED R-SC PER 10-03-77 COMPREHENSIVE ZONING PLAN.
 - TOPO TAKEN FROM FIELD RUN SURVEY DATED DECEMBER, 1984 BY THE RIEMER GROUP INC.
 - 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 I OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
 - ALL CORRUGATED METAL PIPE IS SHOWN AS BITUMINOUS COATED. ALUMINIZED CORRUGATED METAL PIPE MAY BE SUBSTITUTED.
- GENERAL NOTE 20. CAPITAL PROJECT 0-1160 (EP-18-14) ESTABLISHES A RETROFITTED FLOOD ATTENUATION FACILITY WHICH COMBINES THE EXISTING SWM POND AND ADJACENT STREAM. FLOOD ATTENUATION FACILITY IS DESIGNED TO CAPTURE AND ATTENUATE FLOWS FROM LARGE STORMS. EXISTING STORM DRAINS WERE MODIFIED/EXTENDED AND STREAM WAS REALIGNED WITHIN THE NEW FACILITY. EMBANKMENT RELOCATED AND NEW WEIR CONTROL STRUCTURE INSTALLED. W9-21-029 APPROVED 7/14/21.

BENCH MARKS

- HO CO MONUMENT # 3243011 ELEV. 397.272
HOWARD COUNTY CONCRETE MONUMENT WITH BRONZE DISK LOCATED AT THE INTERSECTION OF ROGERS AVENUE AND RIDGE ROAD.
- HO CO MONUMENT # 3243010 ELEV. 408.675
HOWARD COUNTY CONCRETE MONUMENT WITH BRONZE DISK LOCATED ON SOUTHWEST CORNER OF BRIGHTWELL DRIVE AND COURT HOUSE DRIVE.

HORIZONTAL AND VERTICAL CONTROLS USED FOR AS-BUILT SURVEY



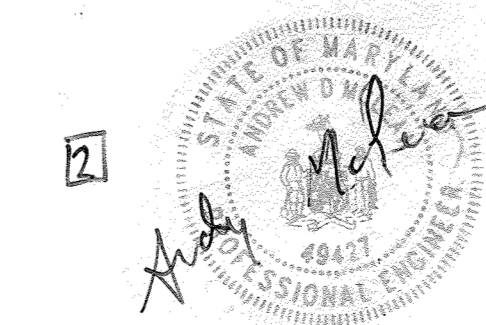
PLAN
SCALE: 1" = 200'

NOTE:
FOR CONCRETE MONUMENT RECOVERY SKETCHES SEE APPROPRIATE ROAD PLAN & PROFILE SHEETS

SITE TABULATION

ZONING	R-SC
1. Gross Area	44.81 AC
2. Floodplain/Steep Slopes/	0.80 AC
3. Net Area	44.01 AC
4. No. of Dwelling Units Allowed @ 4 D.U. Per Net Area	176. D.U.
5. Total No. of Dwelling Units Proposed	176. D.U.
6. Density Per Acre	4. DU/AC
7. Single Family Detached	72. D.U.
8. Single Family Attached Lots	104. D.U.
9. Parking Spaces Required @ 2 Spaces/Attached D.U.	208.
10. Parking Spaces Provided	216.
11. Open Space Required (20%)	8.998 AC
12. Open Space Provided	15.883 AC
13. Road R.O.W.	9.3185 AC

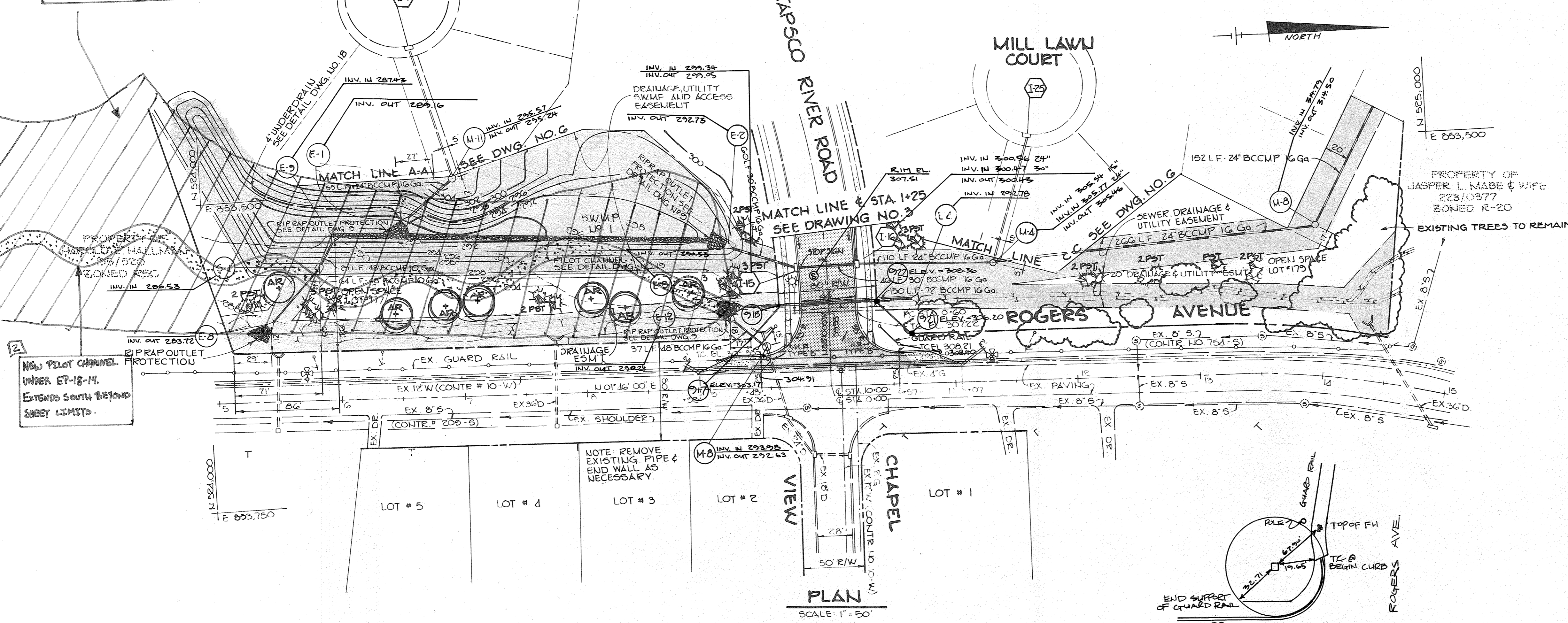
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING <i>John M. ...</i> 8-15-85 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION	
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS <i>William E. ...</i> 8-23-85 CHIEF, BUREAU OF ENGINEERING	
11/3/21	2 REVISED SWM FOR EXPANDED FACILITY (EP-18-14)
5/14/22	1 REVISED GENERAL NOTES, PER COUNTY COMMENTS
DATE	NO REVISION
OWNER/DEVELOPER WEISSBERG CORPORATION 1911 FORT MYER DRIVE ROSSLYN, VIRGINIA 22209	
PROJECT RIVER MILLS	
AREA ELECTION DISTRICT #2 HOWARD COUNTY, MARYLAND TAX MAP #24 PARCEL 847 ZONED RSC	
TITLE TITLE SHEET	
THE RIEMER GROUP, INC. A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM 3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690	
8-15-85 DATE	5-20-16, P-24-34, 5-25-06
DESIGNED BY L.J.D.	
DRAWN BY DAM	
PROJECT NO 007700	
DATE: APRIL 21, 1985	
SCALE: AS SHOWN	
DRAWING NO. 1 OF 19	



ANDREW MCLEAN
PE # 49423
ENGINEER CERTIFIED REVISIONS SHOWN BY REVISION 2.

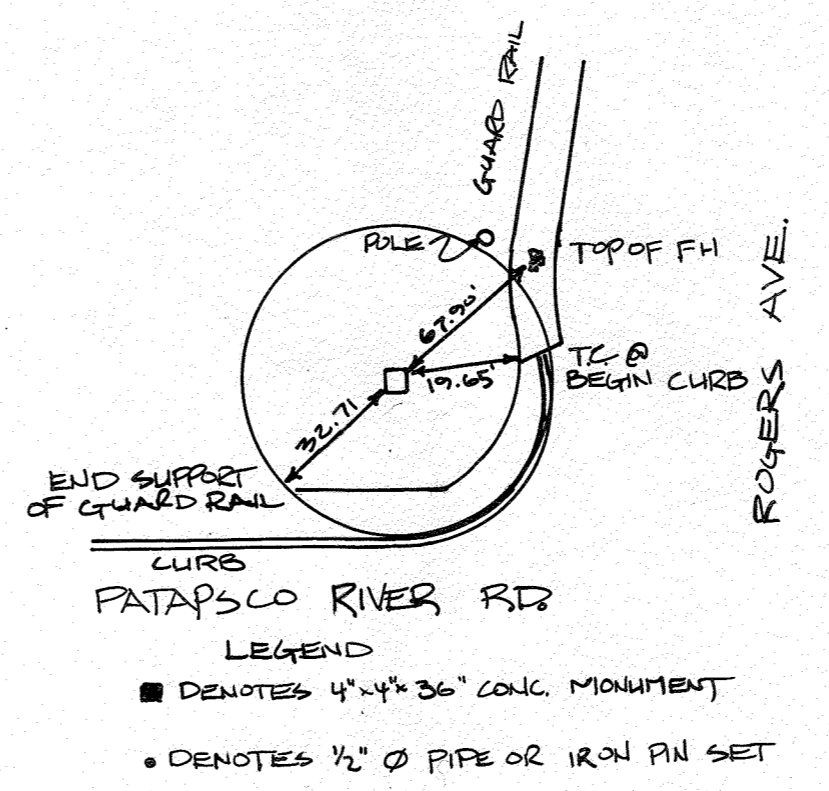
- NOTES: 1) * DENOTES STREET LIGHTING
 2) REMOVE EXISTING GUARD RAILS FROM STA 2+07 TO 4+54.10+85 AND REPLACE AS SHOWN ON PLAN.

2
 NEW FACILITY FOOTPRINT UNDER E.P. 18-14. EXTENDS SOUTH BEYOND SHEET LIMITS.



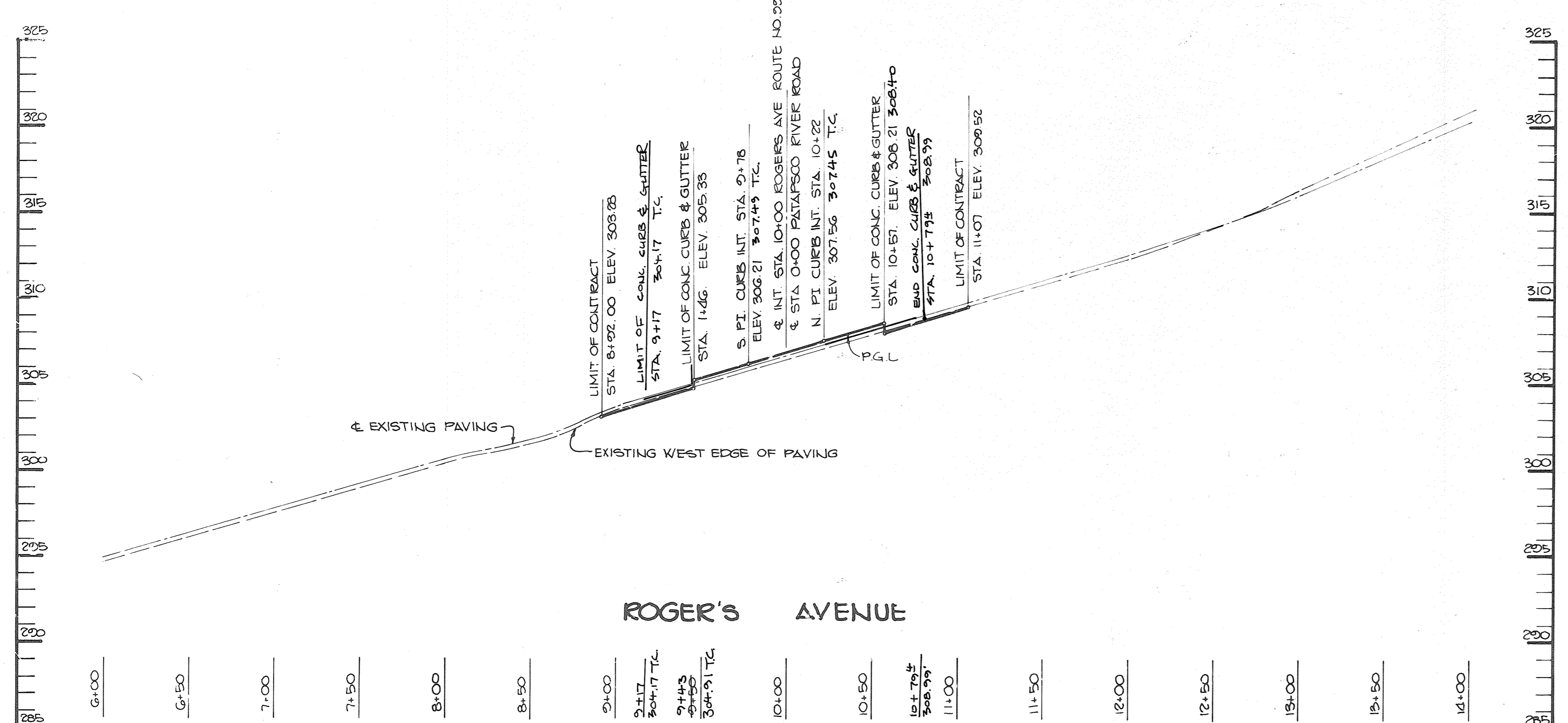
2
 NEW PILOT CHANNEL UNDER E.P. 18-14. EXTENDS SOUTH BEYOND SHEET LIMITS.

PLAN
 SCALE 1" = 50'



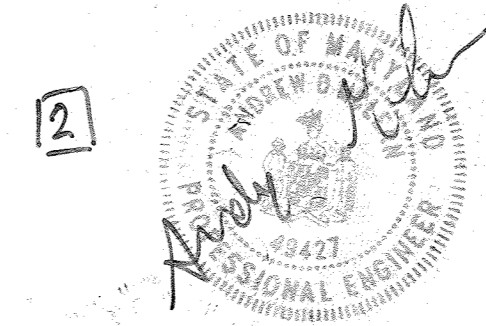
2

REDLINE LEGEND	
	SWIM FACILITY FOOTPRINT
	PILOT CHANNEL



PROFILE
 SCALE HOR 1" = 50'
 VERT 1" = 5'

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING <i>John M. ...</i> 8-15-85 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION	
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS <i>...</i> 8-23-85 CHIEF, BUREAU OF ENGINEERING	
11/2/81 2) REVISOR SIGN FOR EXPANDED FACILITY (E.P. 18-14) DATE NO REVISION	
OWNER/DEVELOPER WEISSBERG CORPORATION 1911 FORT MYER DRIVE ROSSLYN, VIRGINIA 22209	
PROJECT RIVER MILLS	
AREA ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND TAX MAP NO. 24 PARCEL 837 ZONED RSC	
TITLE PLAN AND PROFILE OF ROGER'S AVENUE	
THE RIEMER GROUP, INC. A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM 3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690	
8-15-85 DATE	8-23-85, 8-25-85
DESIGNED BY: LJD	
DRAWN BY: J.C.J.	
PROJECT NO: 007700	
DATE: APRIL 22, 1985	
SCALE: AS SHOWN	
DRAWING NO. 2 OF 19	



ANDREW MUEGAN * ENGINEER
 PE #: 44427
 CERTIFICATES REVISED BY REVISION 2)



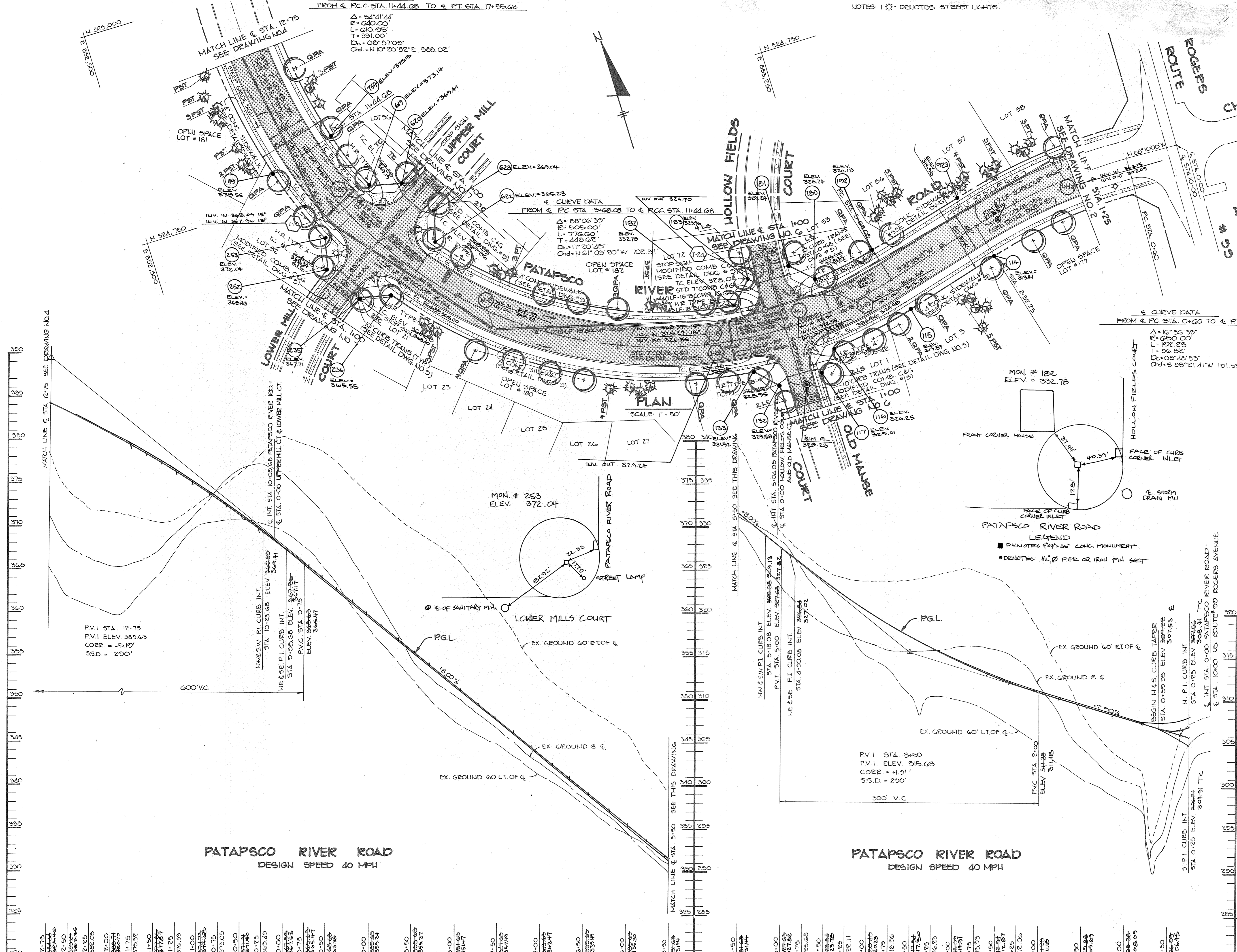
ARTHUR E. MUEGGE 65101

NOTES: 1. X - DENOTES STREET LIGHTS.

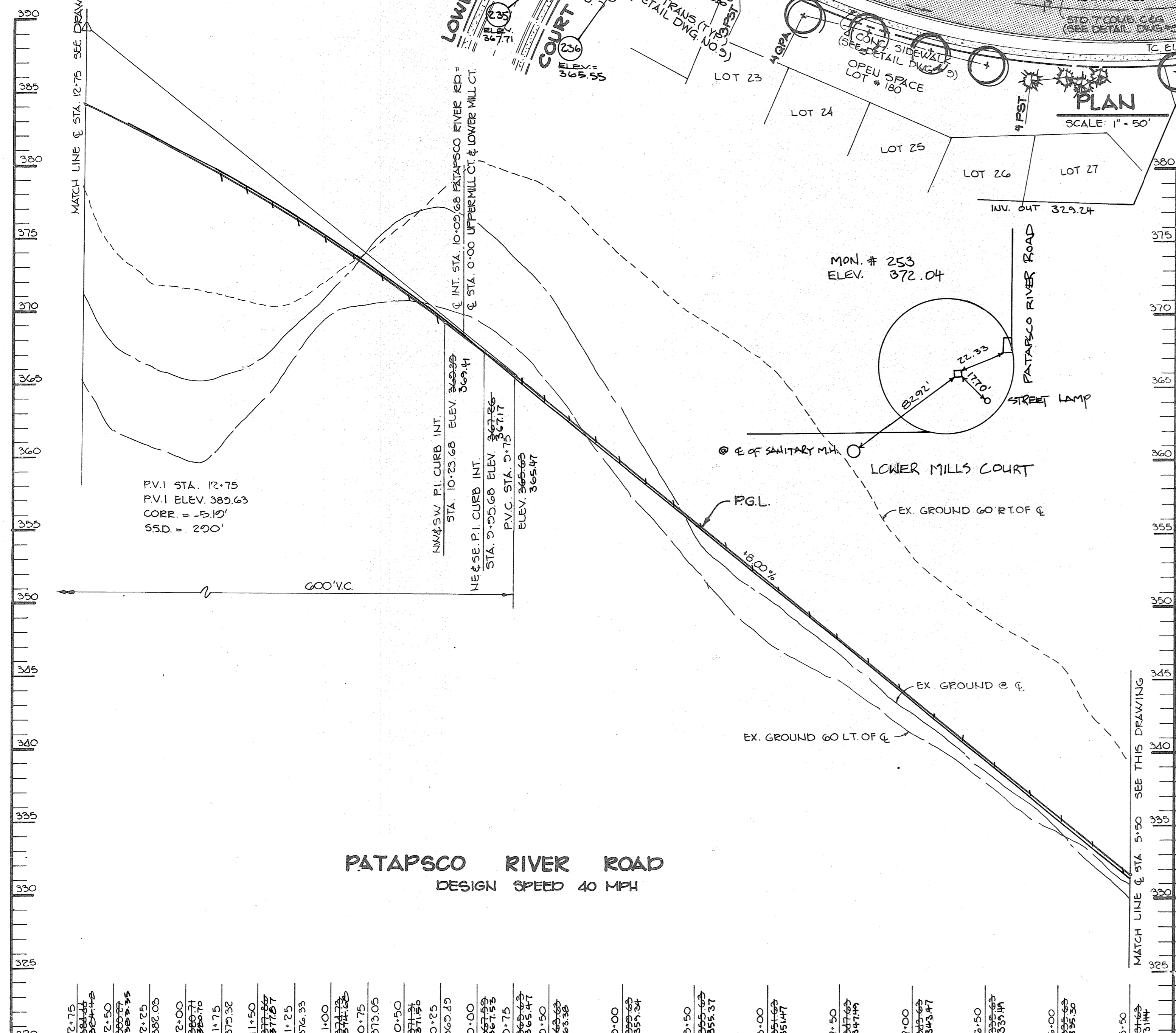
☉ CURVE DATA
FROM & P.C. STA. 11+44.68 TO & P.T. STA. 17+55.63
Δ = 54°11'44"
R = 640.00'
L = 610.25'
T = 351.00'
Dc = 0°07'03"
Chd. = N 10°20'52" E, 588.02'

☉ CURVE DATA
FROM & P.C. STA. 3+68.08 TO & P.C.C. STA. 11+44.68
Δ = 68°06'30"
R = 505.00'
L = 776.60'
T = 448.62'
Dc = 11°20'45"
Chd. = N 61°05'20" W, 702.31'

☉ CURVE DATA
FROM & P.C. STA. 0+00 TO & P.T. STA. 2+52.23
Δ = 16°56'39"
R = 680.00'
L = 102.23'
T = 56.82'
Dc = 0°09'48" S, 5+9.90'
Chd. = S 12°12'48" E, 5+9.90'



PLAN
SCALE: 1" = 50'



PROFILE SCALE: HORIZ. 1" = 50' VERT. 1" = 10'

PATAPSCO RIVER ROAD
LEGEND
■ DENOTES 4"x4"x26" CONC. MONUMENT
● DENOTES 1/2" Ø PIPE OR IRON PIN SET

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
John W. Muehman 8-15-85
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William B. Ryan 8-23-85
CHIEF, BUREAU OF ENGINEERING DATE

DATE NO REVISION

OWNER/DEVELOPER
WEISSBERG CORPORATION
1011 FORT MYER DRIVE
BOSSLYN, VIRGINIA 22209

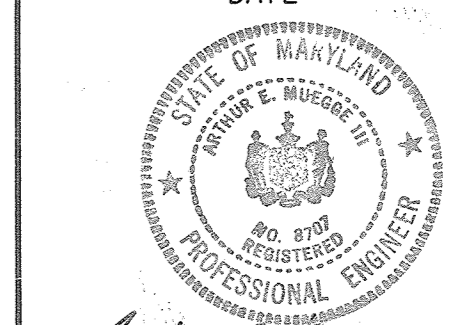
PROJECT
RIVER MILLS

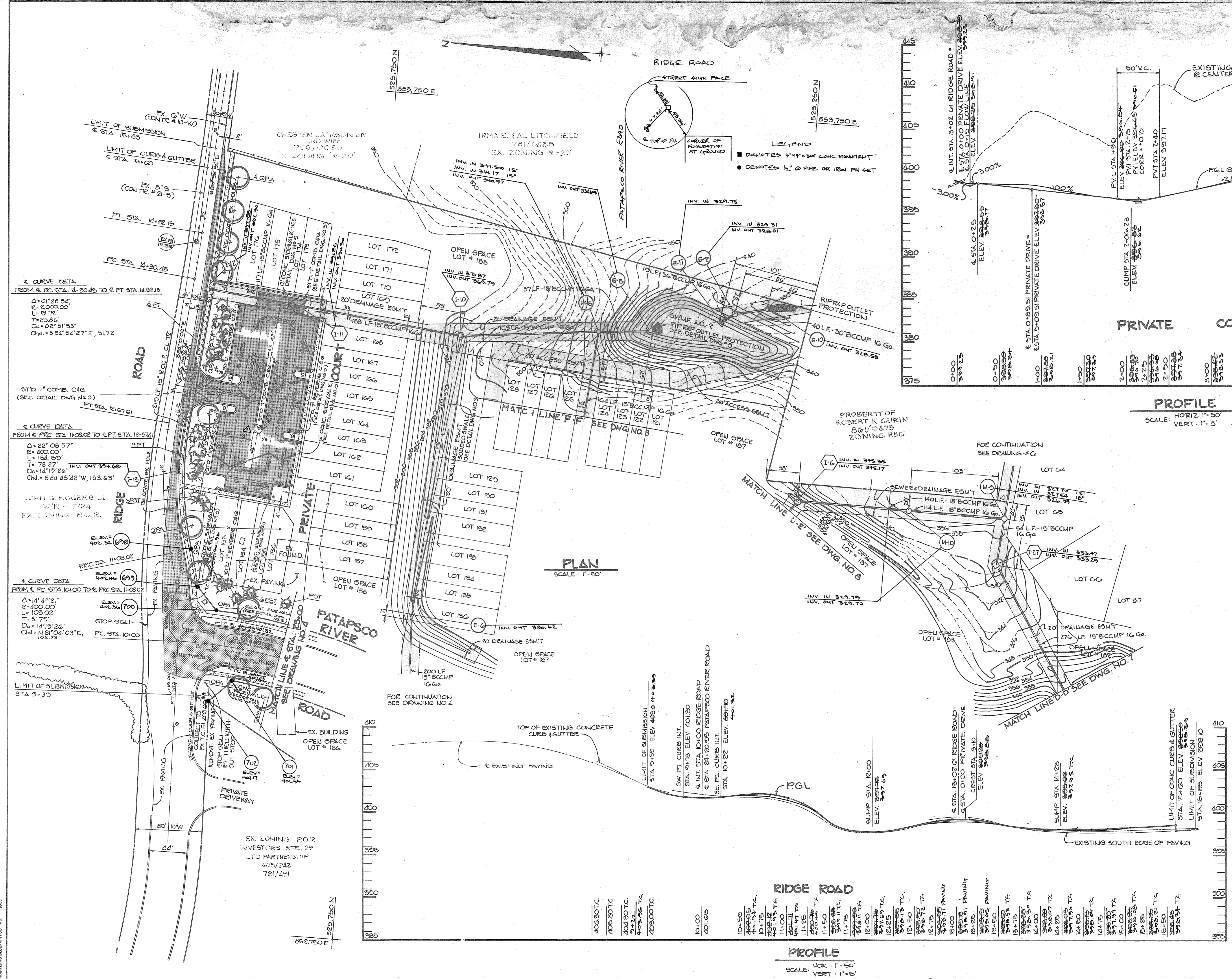
AREA
ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND
TAX MAP NO. 24 PARCEL 847 ZONED R5C

TITLE
PLAN AND PROFILE OF
PATAPSCO RIVER ROAD

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELICOTT CITY, MD. 21043 301 461-2690

P.S. 85
DATE
DESIGNED BY: L.J.D.
DRAWN BY: DAM
PROJECT NO: 007700
DATE: APRIL 22, 1985
SCALE: AS SHOWN
DRAWING NO. 3 OF 12





APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
John M. ... 8-15-85
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William S. ... 8-23-85
 CHIEF, BUREAU OF ENGINEERING

7-2-86 **REVIS** 10 FOOT ISLAND IN PRIVATE COURT
 DATE NO. REVISION

OWNER/DEVELOPER
 WEISSBERG CORPORATION
 1011 FORT MYER DRIVE
 ROSSLYN, VIRGINIA 22200

PROJECT:
RIVER MILLS

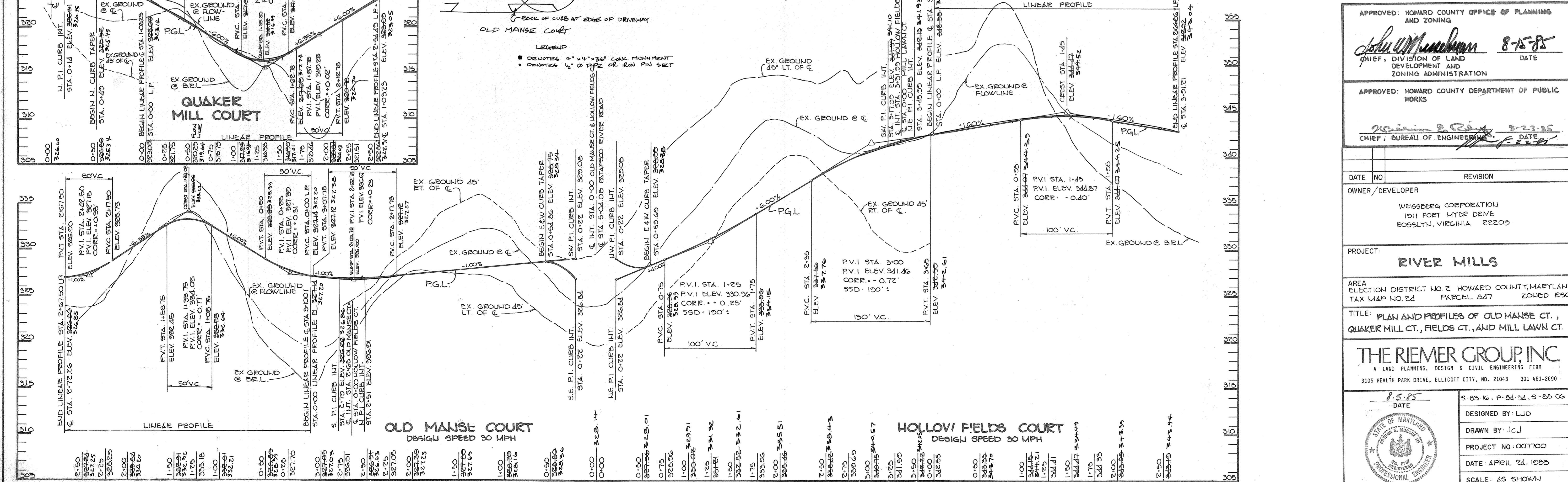
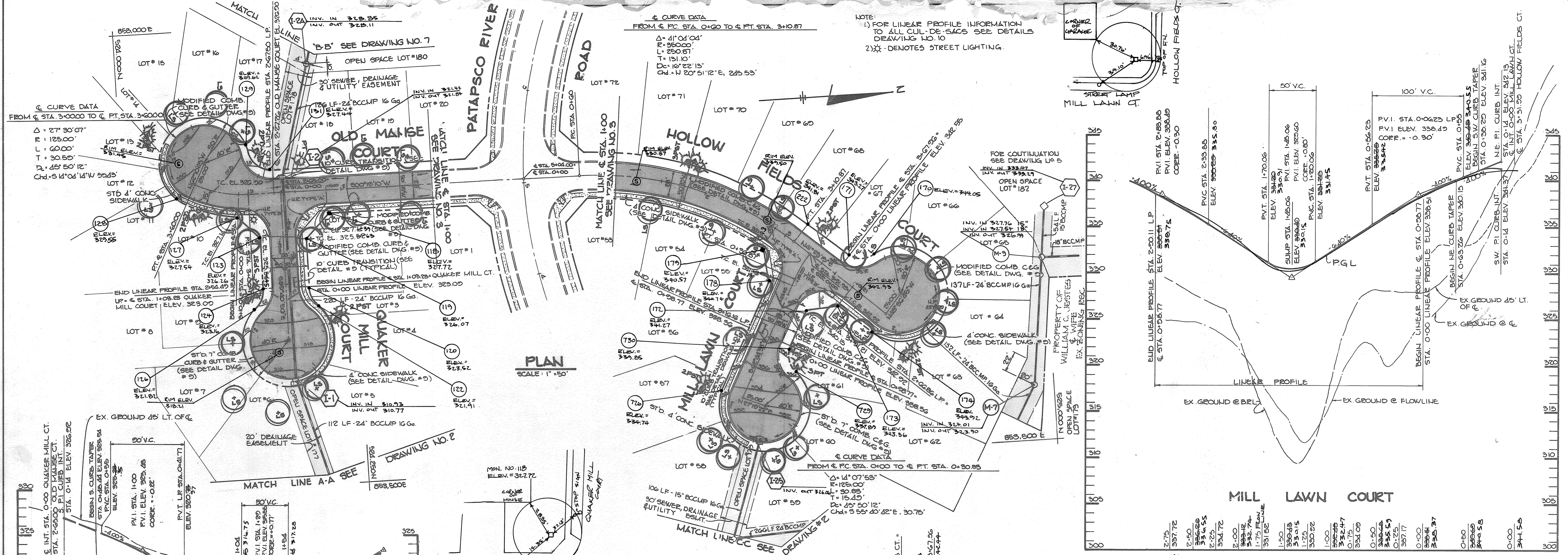
AREA
 ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND
 TAX MAP NO. 24 PARCEL 8d7 ZONED-R2C

TITLE:
 PLAN AND PROFILE OF
RIDGE ROAD

THE RIEMER GROUP, INC.
 A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
 1105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

DATE: 8-15-85
 DESIGNED BY: LJD
 DRAWN BY: J.M.G.
 PROJECT NO: 007700
 DATE: APRIL 24, 1985
 SCALE: AS SHOWN
 DRAWING NO. 5 OF 19

F1155



APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
John W. Murchison 8-15-85
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION
 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William E. Peltz 8-23-85
 CHIEF, BUREAU OF ENGINEERING
 DATE

DATE	NO.	REVISION

OWNER/DEVELOPER
 WEISSBERG CORPORATION
 1011 FORT MYER DRIVE
 ROSSLYN, VIRGINIA 22209

PROJECT: **RIVER MILLS**

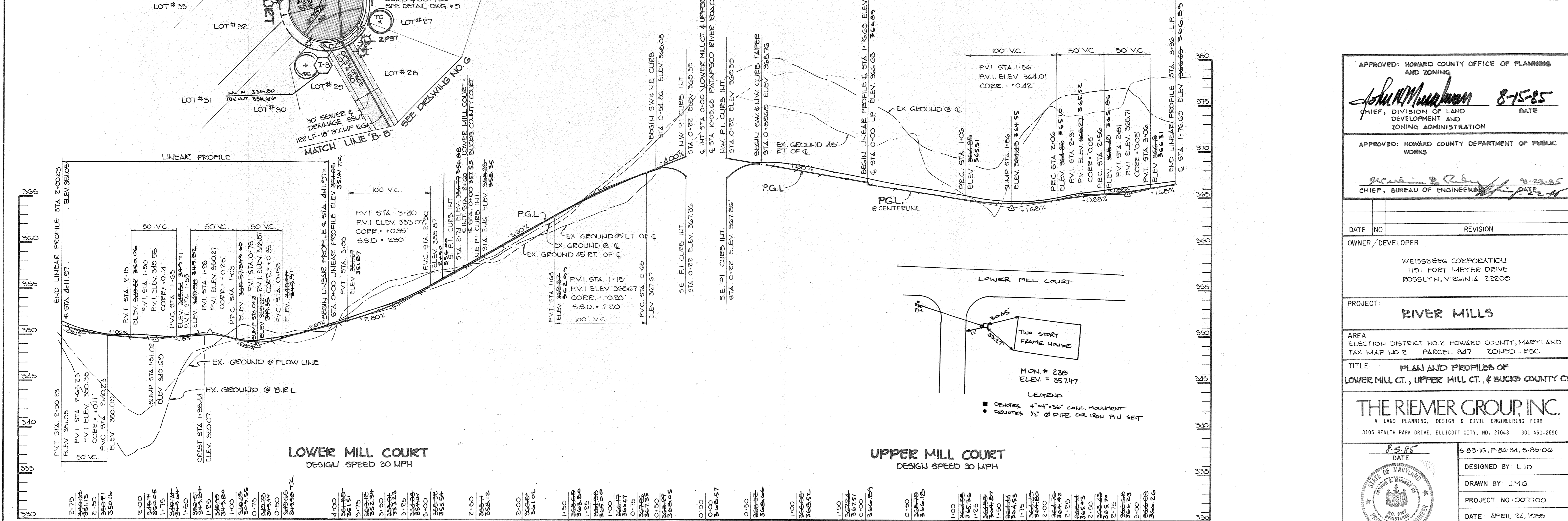
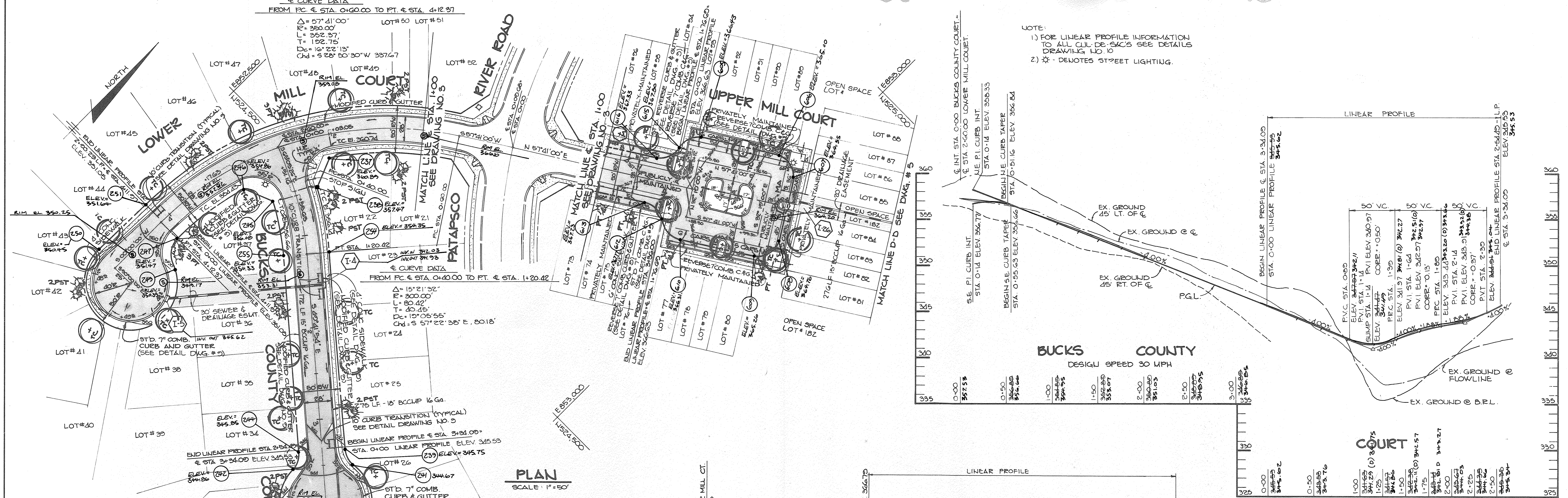
AREA: ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND
 TAX MAP NO. 24 PARCEL 247 ZONED R5C

TITLE: **PLAN AND PROFILES OF OLD MANSE CT., QUAKER MILL CT., FIELDS CT., AND MILL LAWN CT.**

THE RIEMER GROUP, INC.
 A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
 3105 HEALTH PARK DRIVE, ELICOTT CITY, MD. 21043 301 461-2690

DATE: 8-5-85
 DESIGNED BY: LJD
 DRAWN BY: J.C.J.
 PROJECT NO: 007700
 DATE: APRIL 22, 1985
 SCALE: AS SHOWN
 DRAWING NO. 6 OF 19

MARYLAND BLUEPRINT CO. INC. 102089



NOTE:
 1) FOR LINEAR PROFILE INFORMATION TO ALL CUL. DE-SACS SEE DETAILS DRAWING LD-10
 2) * - DEVOTES STREET LIGHTING.

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

John M. ... 8-15-85
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

William S. ... 8-23-85
 CHIEF, BUREAU OF ENGINEERING

DATE	NO.	REVISION

OWNER/DEVELOPER
 WEISSBERG CORPORATION
 1101 FORT MEYER DRIVE
 ROSSLYN, VIRGINIA 22200

PROJECT
RIVER MILLS

AREA
 ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND
 TAX MAP NO. 2 PARCEL 847 ZONED - PSC

TITLE
PLAN AND PROFILES OF LOWER MILL CT., UPPER MILL CT., & BUCKS COUNTY CT.

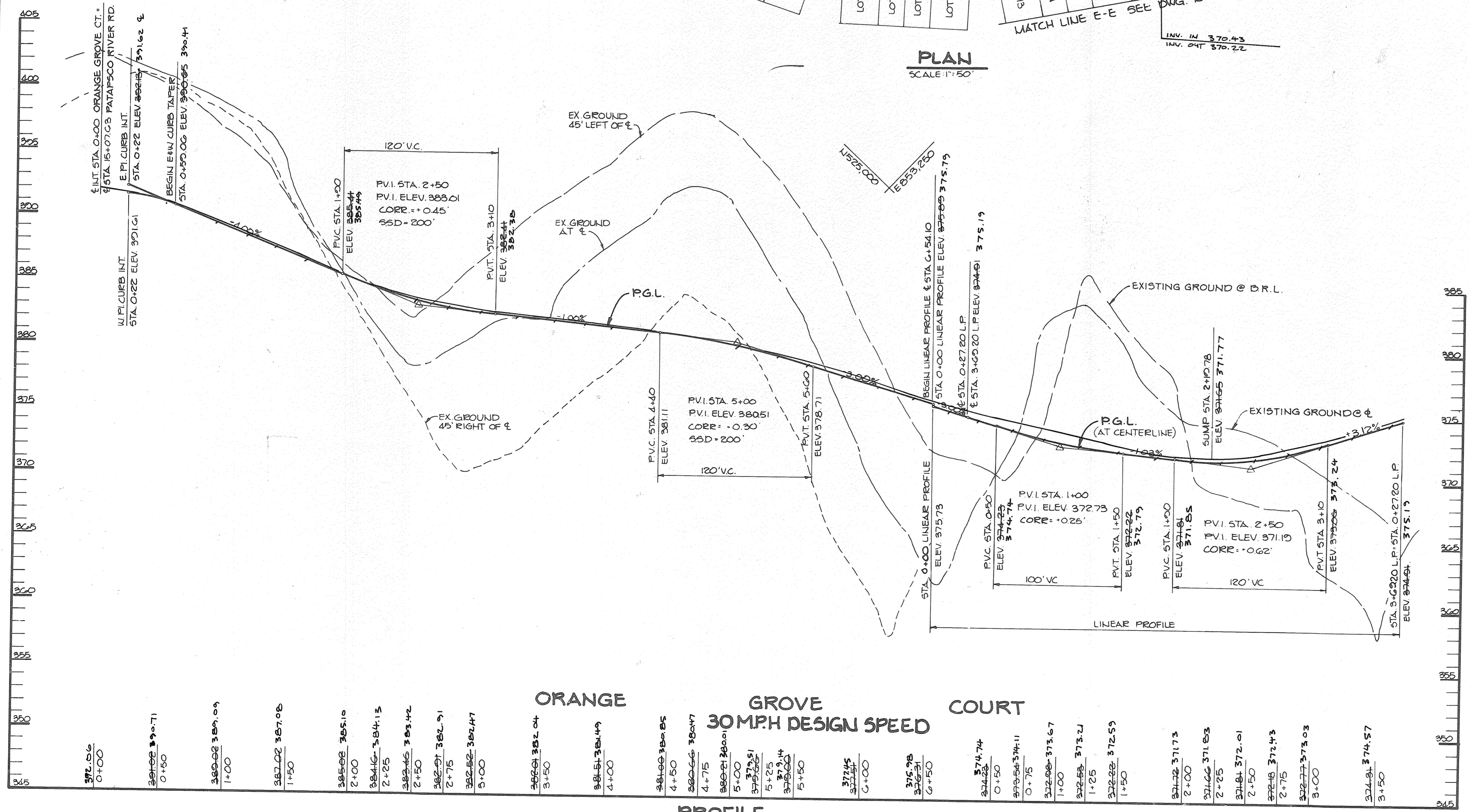
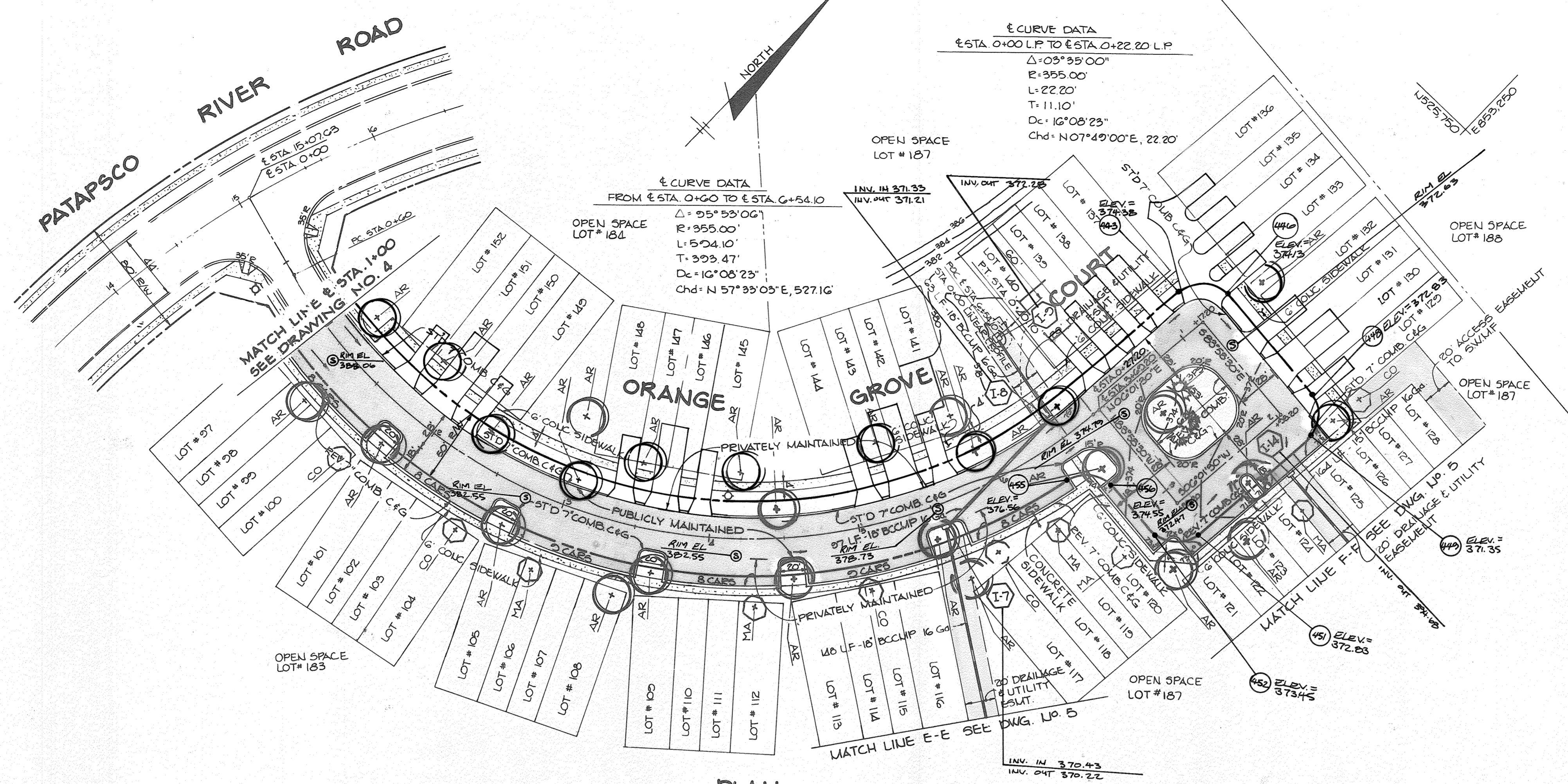
THE RIEMER GROUP, INC.
 A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
 3105 HEALTH PARK DRIVE, ELICOTT CITY, MD. 21043 301 461-2690

DATE: 8-5-85
 6-23-10, P. 84-34, 5-23-06

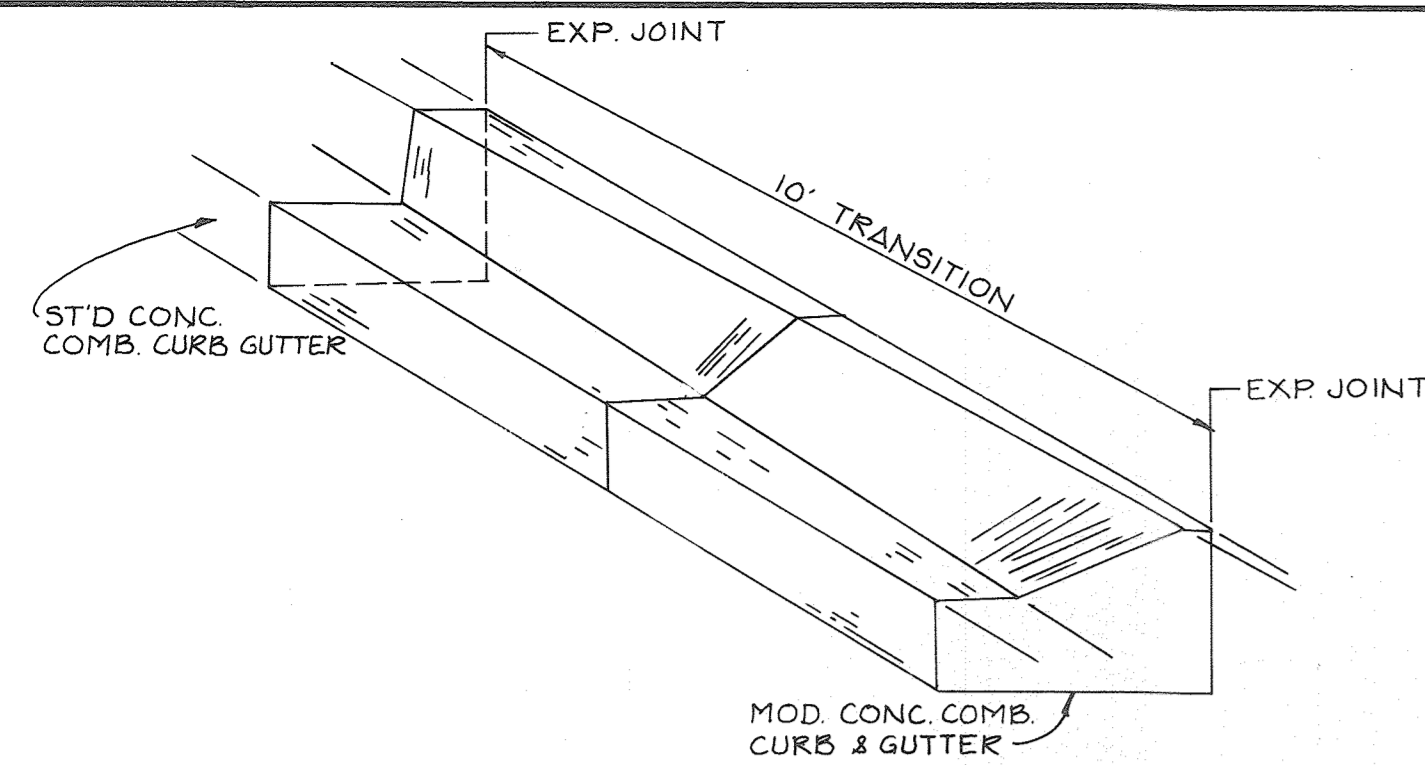
DESIGNED BY: LJD
 DRAWN BY: J.M.G.
 PROJECT NO: 007700
 DATE: APRIL 24, 1988
 SCALE: AS SHOWN
 DRAWING NO. 7 OF 12

ARTHUR E. MUEGGER, P.E.
 PROFESSIONAL ENGINEER

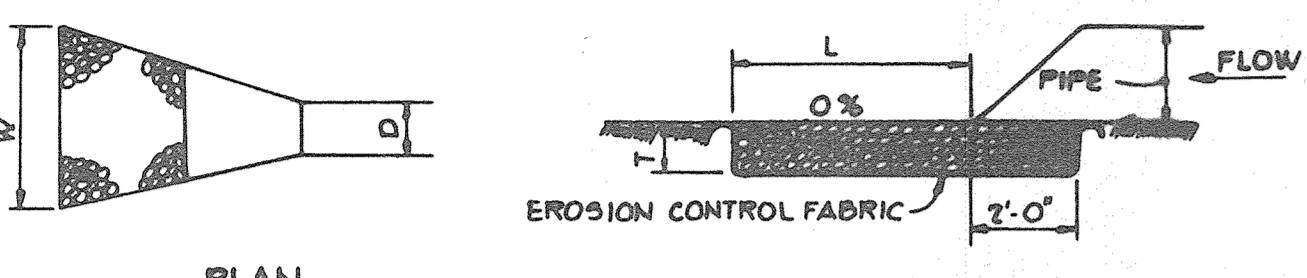
MARYLAND BLUEPRINT CO., INC. NO. 0002



APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING <i>John W. ...</i> 8-15-85 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION	
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS <i>William R. ...</i> 8-23-85 CHIEF, BUREAU OF ENGINEERING	
5-5-87 Δ ADDED DRIVEWAYS TO LOTS 129 TO 152	
DATE NO.	REVISION
OWNER/DEVELOPER WEISSBERG CORPORATION 1011 FORT MYER DRIVE ROSSLYN, VIRGINIA 22203	
PROJECT RIVER MILLS	
AREA ELECTORAL DISTRICT #2 HOWARD COUNTY, MARYLAND TAX MAP #24 PARCEL 847 ZONED R5C	
TITLE PLAN AND PROFILE OF ORANGE GROVE COURT	
THE RIEMER GROUP, INC. A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM 8105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690 <i>Arthur E. Muegge</i> ARTHUR E. MUEGGE 85107	
DATE 8-5-85	DESIGNED BY: L.J.D.
	DRAWN BY: DAM
	PROJECT NO: 007700
	DATE: APRIL 24, 1985
	SCALE: AS SHOWN
	DRAWING NO. 8 OF 19



CURB TRANSITION DETAIL
NO SCALE

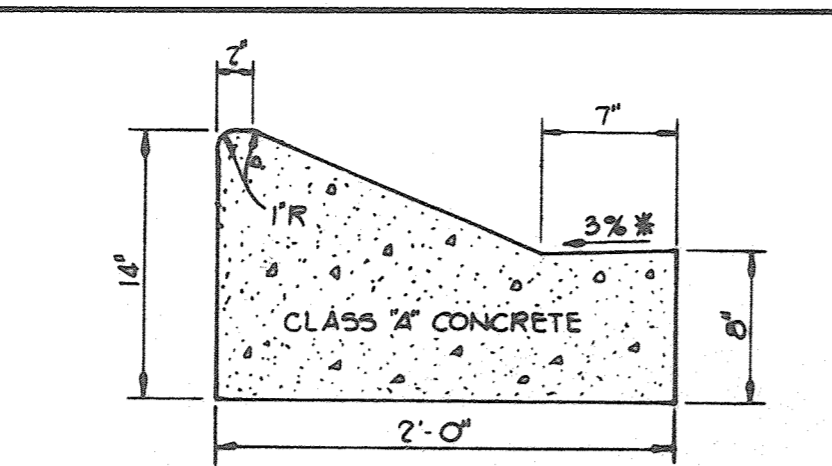


PLAN SECTION

STRUCTURE	MEDIUM STONE DIA.	LENGTH (L)	WIDTH (W)	THICKNESS (T)
E-1	.42'	14'	10'	1.0'
E-2	.50	13	15.5	1.17'
E-5	.67	18	19.5	1.50'
E-6	.33'	8'	2.5'	.75'
E-8	.67	20'	12'	1.50'
E-9	1.0'	30'	18'	2.25'
E-12	1.0'	30'	18'	2.25'
E-10	.50'	20'	12'	1.17'

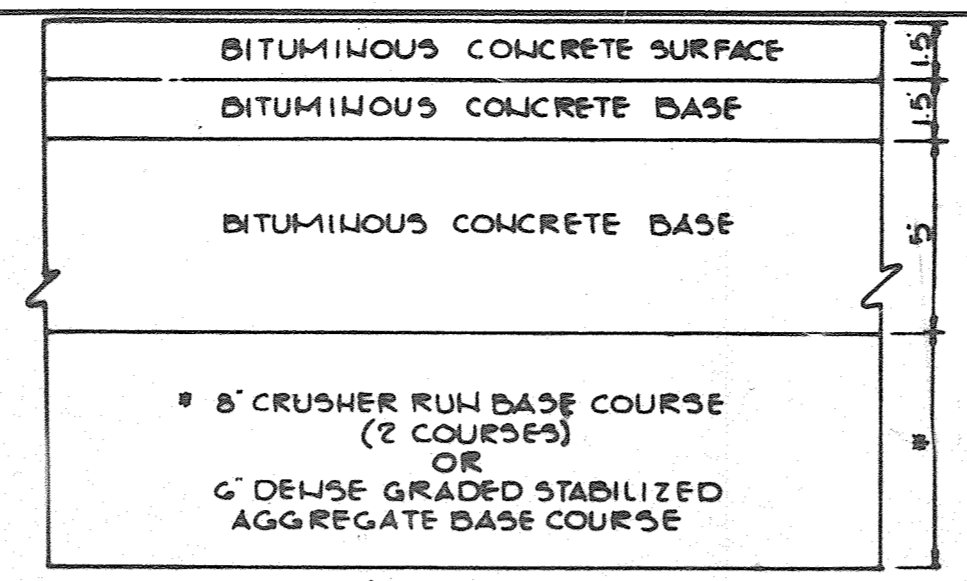
NOTE: OUTLET PROTECTION TO BE PLACED IN SUCH A MANNER THAT PROVIDES TRANSITION TO THE SHAPE OF THE DOWNSTREAM CHANNEL AT E-6, E-8, E-9 & E-12 ALSO AT E-5 THE RIPRAP SHALL BE PLACED A MINIMUM OF 4' UP THE OPPOSITE SIDE SLOPE OF THE OUTLET CHANNEL.

OUTLET PROTECTION DETAIL
NO SCALE

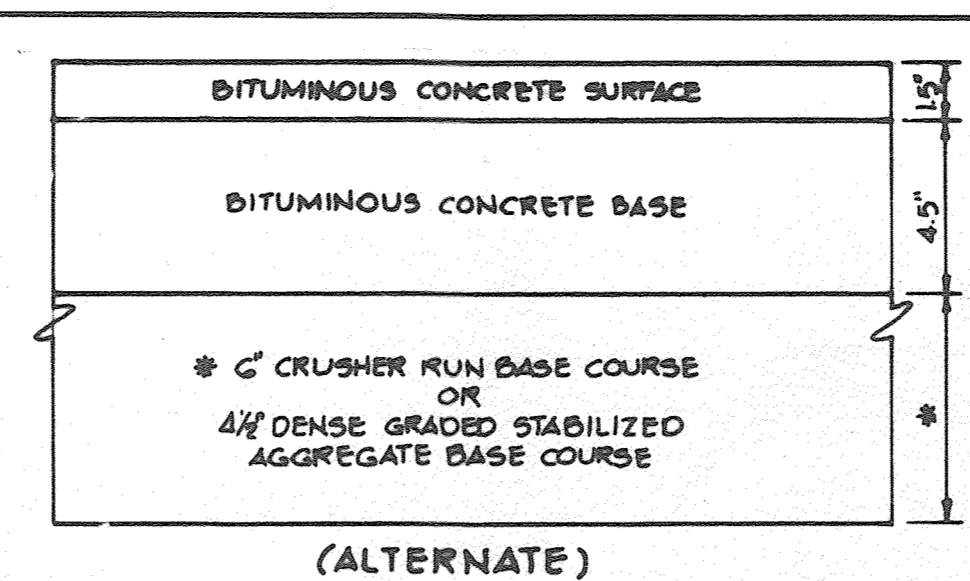


HOWARD COUNTY DESIGN MANUAL VOLUME III - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)
* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AS THE PAVEMENT.

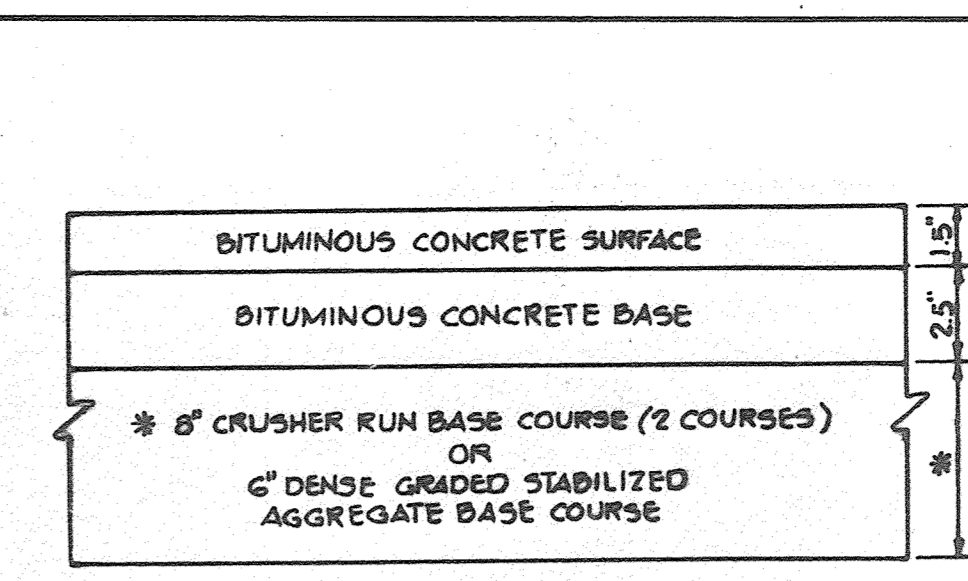
MODIFIED COMBINATION CURB AND GUTTER
NO SCALE



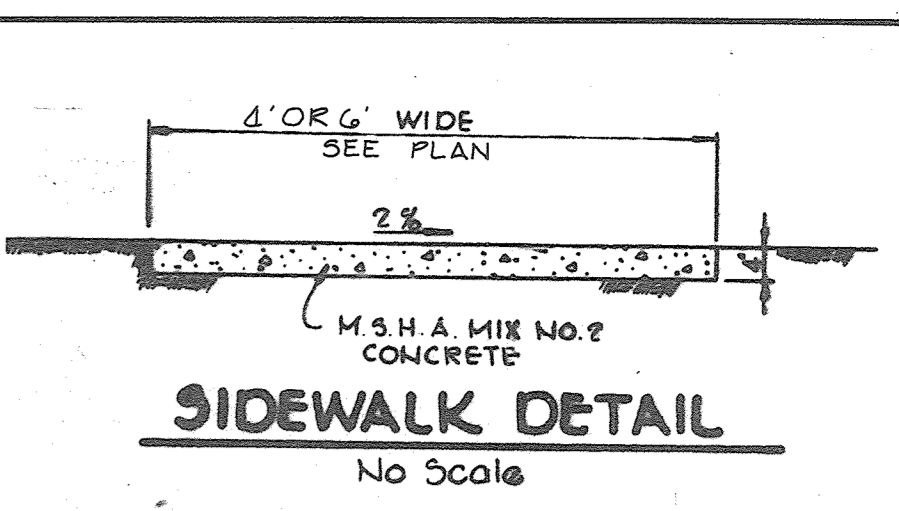
HOWARD COUNTY DESIGN MANUAL VOLUME III - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.02)
(11' PAVING, P-5)
ROGERS AVE. ROAD WIDENING



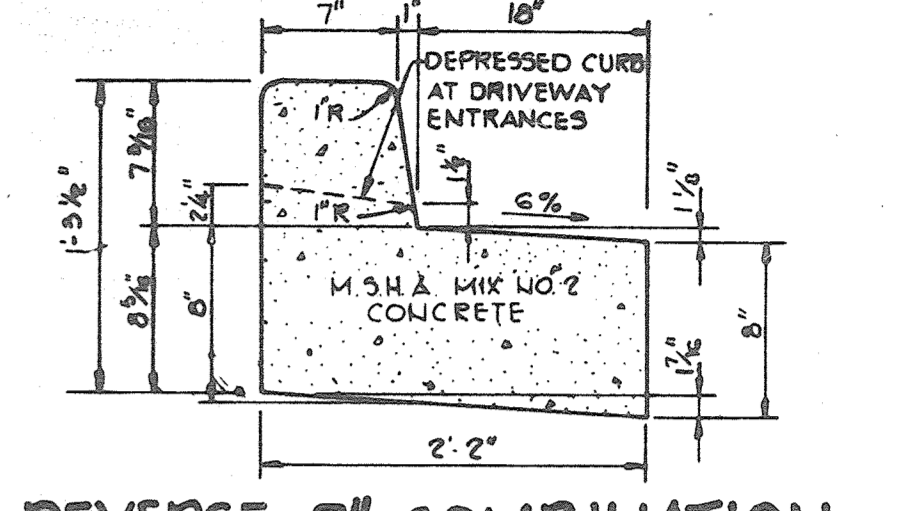
HOWARD COUNTY DESIGN MANUAL VOLUME III - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)
(8' PAVING, P-3)
PATAPSCO RIVER ROAD



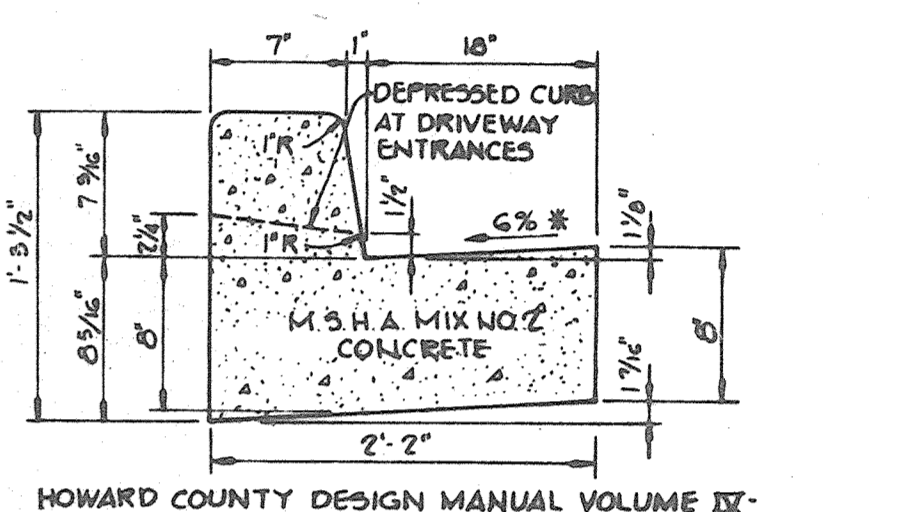
HOWARD COUNTY DESIGN MANUAL VOLUME III - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)
(6' PAVING, P-2)



SIDEWALK DETAIL
NO SCALE

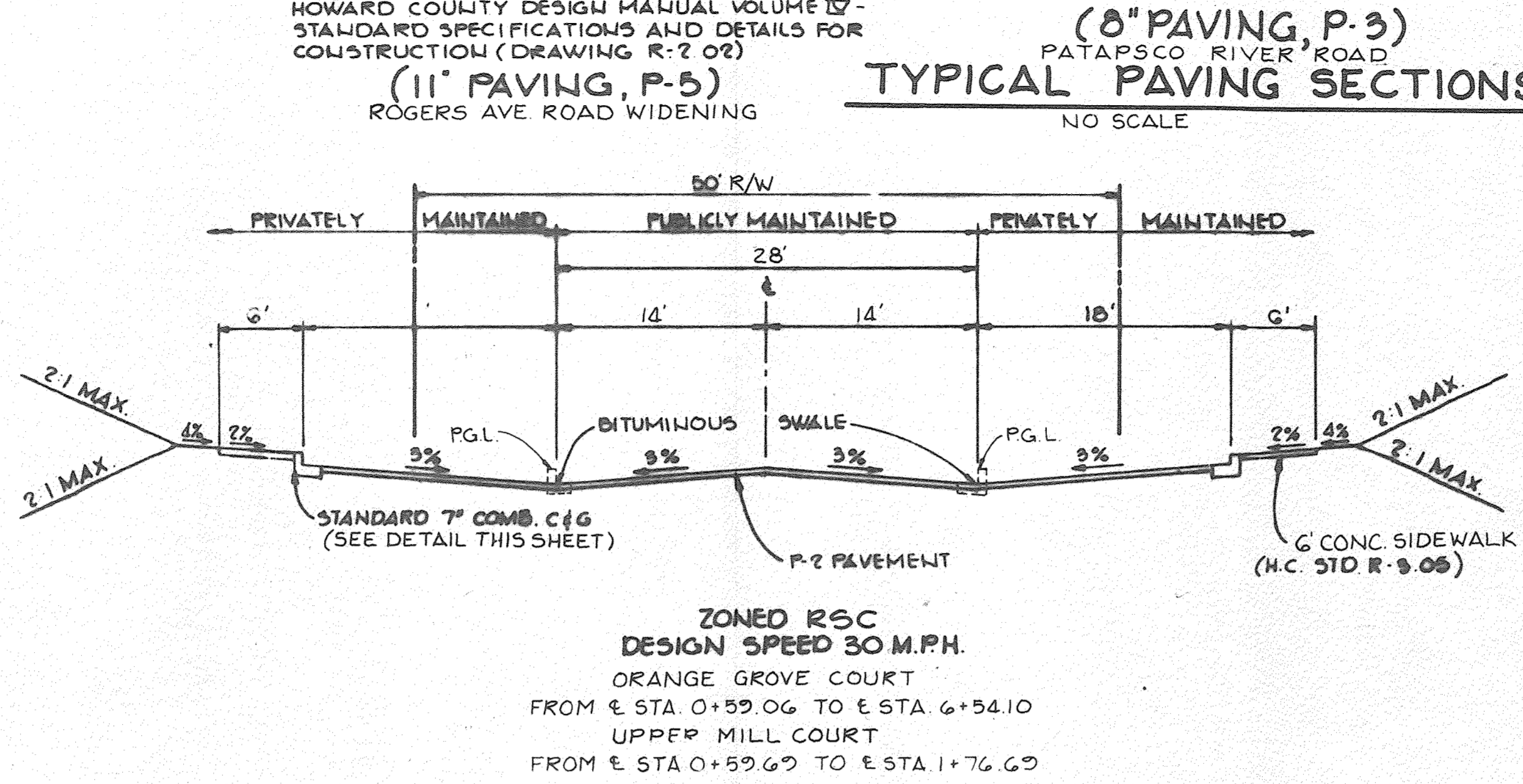


REVERSE 7' COMBINATION CURB AND GUTTER



HOWARD COUNTY DESIGN MANUAL VOLUME III - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)
* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AS THE PAVEMENT.

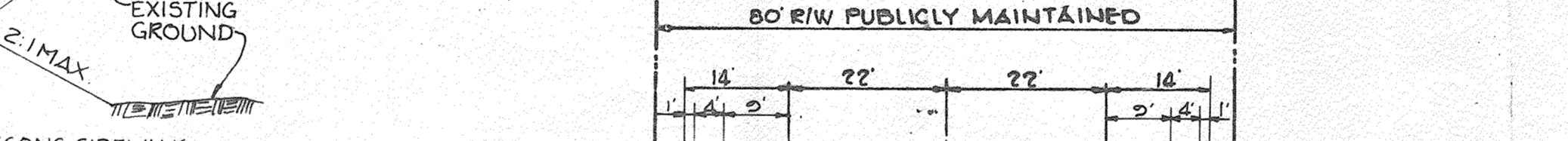
STANDARD 7' COMBINATION CURB AND GUTTER
NO SCALE



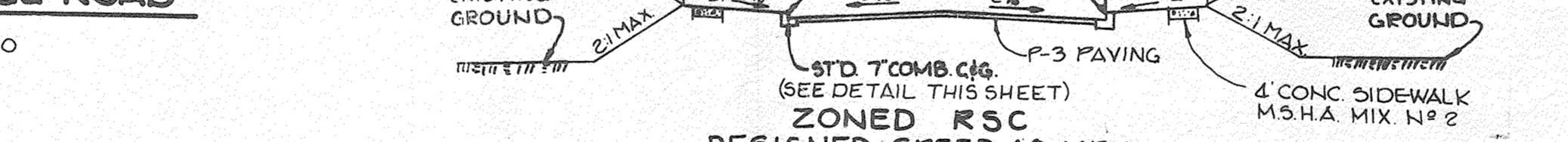
TYPICAL HALF SECTION ROGERS AVE.
NO SCALE



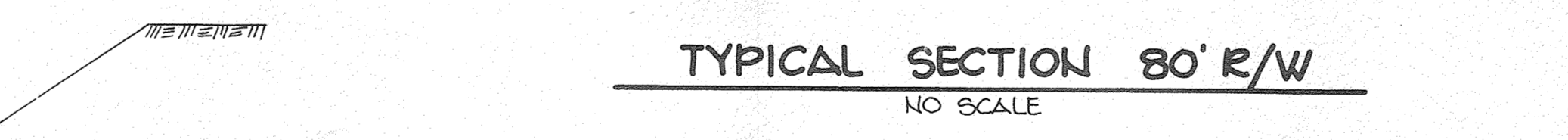
TYPICAL SECTION 50' R/W WITH PARKING
NO SCALE



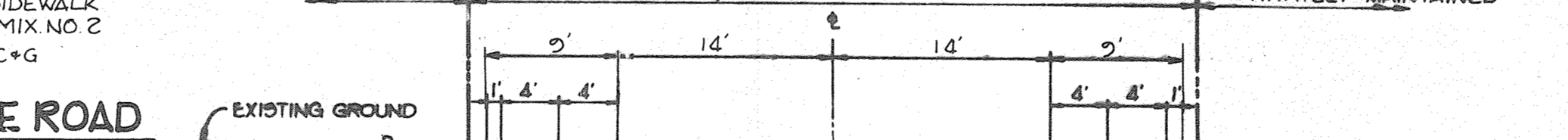
TYPICAL HALF SECTION-RIDGE ROAD
NO SCALE



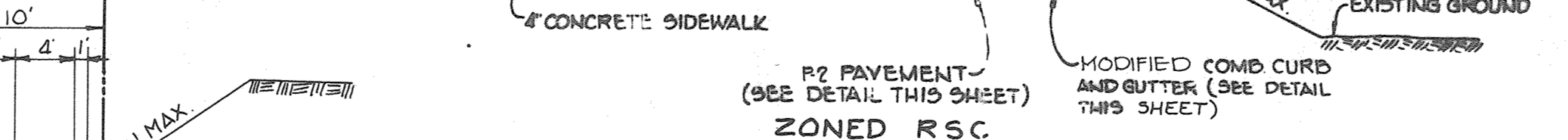
TYPICAL SECTION 80' R/W
NO SCALE



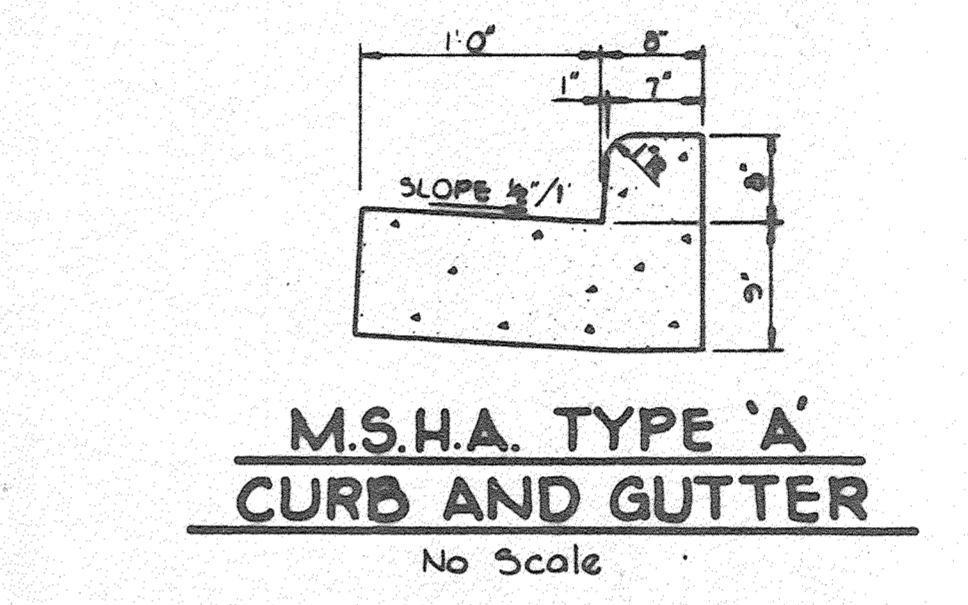
TYPICAL HALF SECTION RIDGE ROAD
NO SCALE



TYPICAL HALF SECTION RIDGE ROAD
NO SCALE



TYPICAL SECTION 50' R/W
NO SCALE



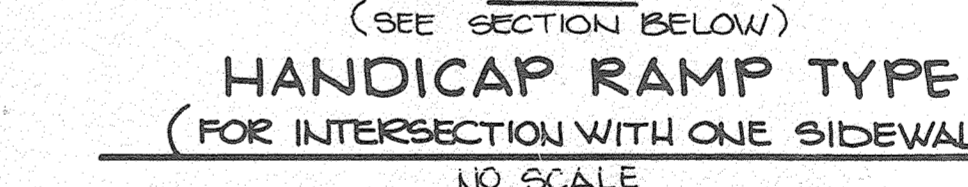
HANDICAP RAMP TYPE 'B'
(FOR INTERSECTION WITH ONE SIDEWALK)
NO SCALE



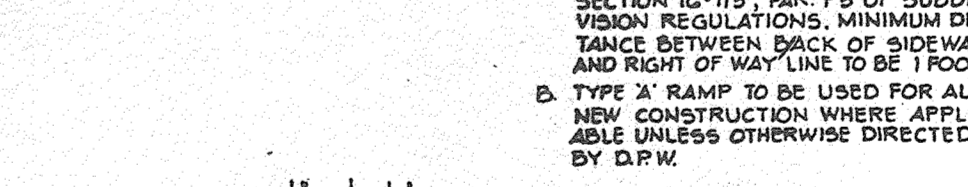
HANDICAP RAMP TYPE 'A'
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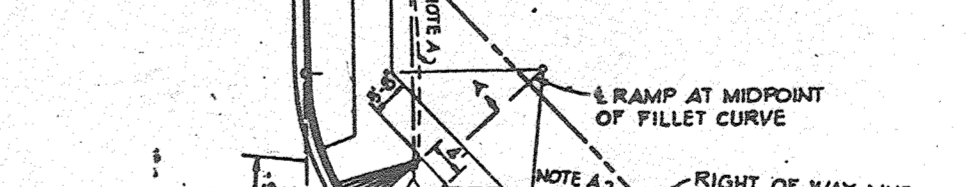
HANDICAP RAMP TYPE 'B'
(FOR INTERSECTION WITH ONE SIDEWALK)
NO SCALE



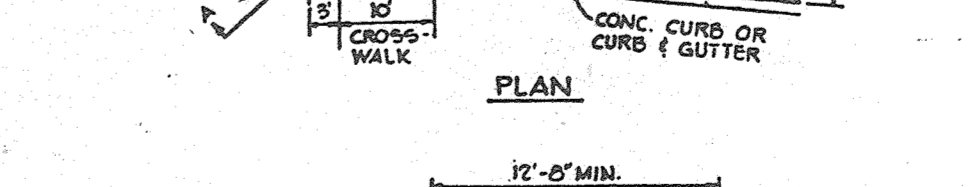
HANDICAP RAMP TYPE 'A'
NO SCALE



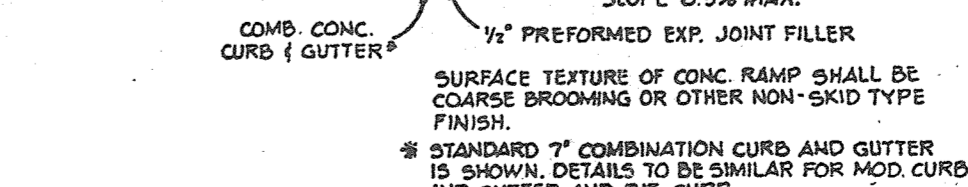
HANDICAP RAMP TYPE 'B'
(FOR INTERSECTION WITH ONE SIDEWALK)
NO SCALE



HANDICAP RAMP TYPE 'A'
NO SCALE



HANDICAP RAMP TYPE 'B'
(FOR INTERSECTION WITH ONE SIDEWALK)
NO SCALE



HANDICAP RAMP TYPE 'A'
NO SCALE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
John M. ... 8-15-85
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
... 8-23-85
CHIEF, BUREAU OF ENGINEERING
DATE

11/2/81 21 Revised SWM FOR EXHIBIT FACILITY (SP-18-7)
DATE NO REVISION

OWNER/DEVELOPER
WEISSBERG CORPORATION
1151 FORT MYER DRIVE
ROSSLYN, VIRGINIA 22209

PROJECT: RIVER MILLS

AREA: ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND
TAX MAP NO. 2 PARCEL 647 ZONED RSC

TITLE: DETAILS

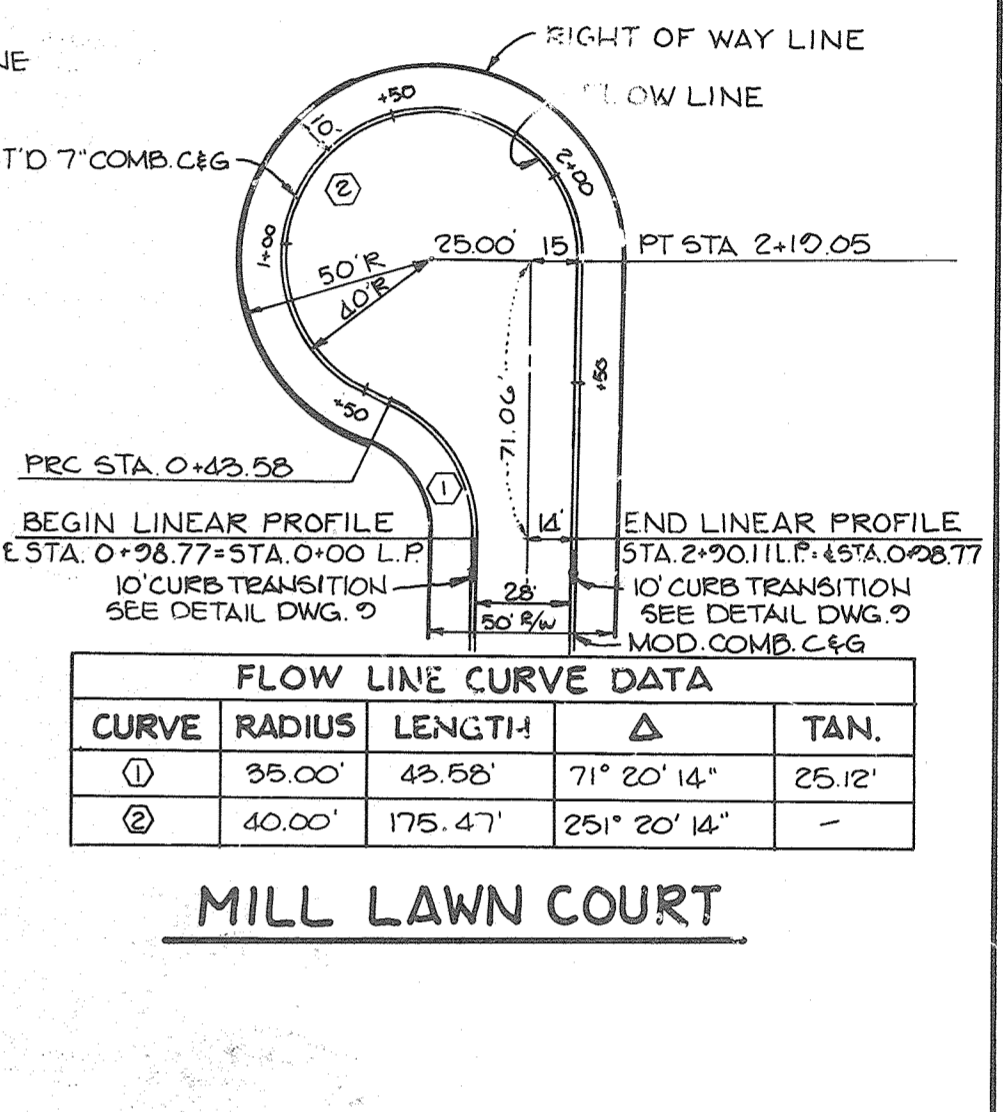
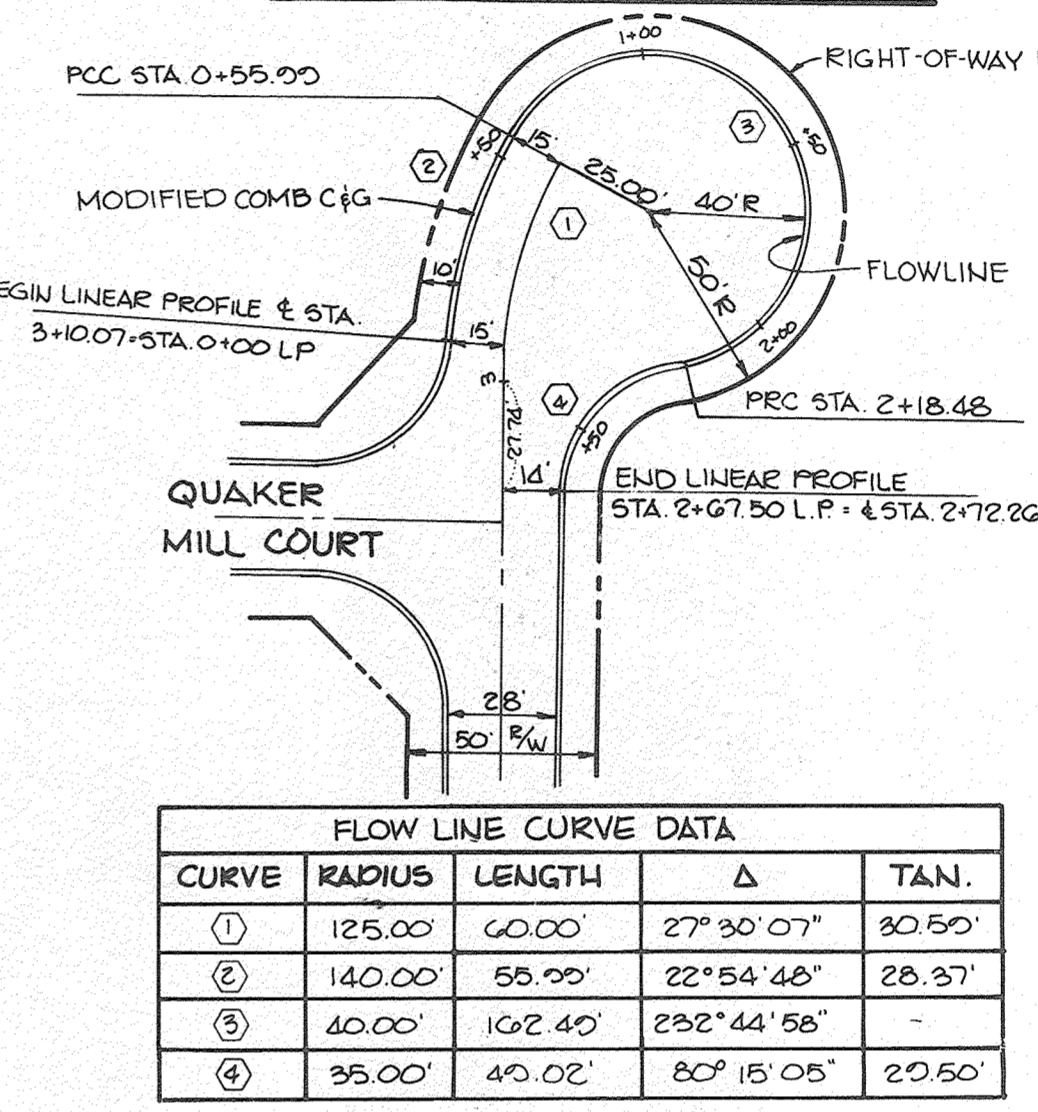
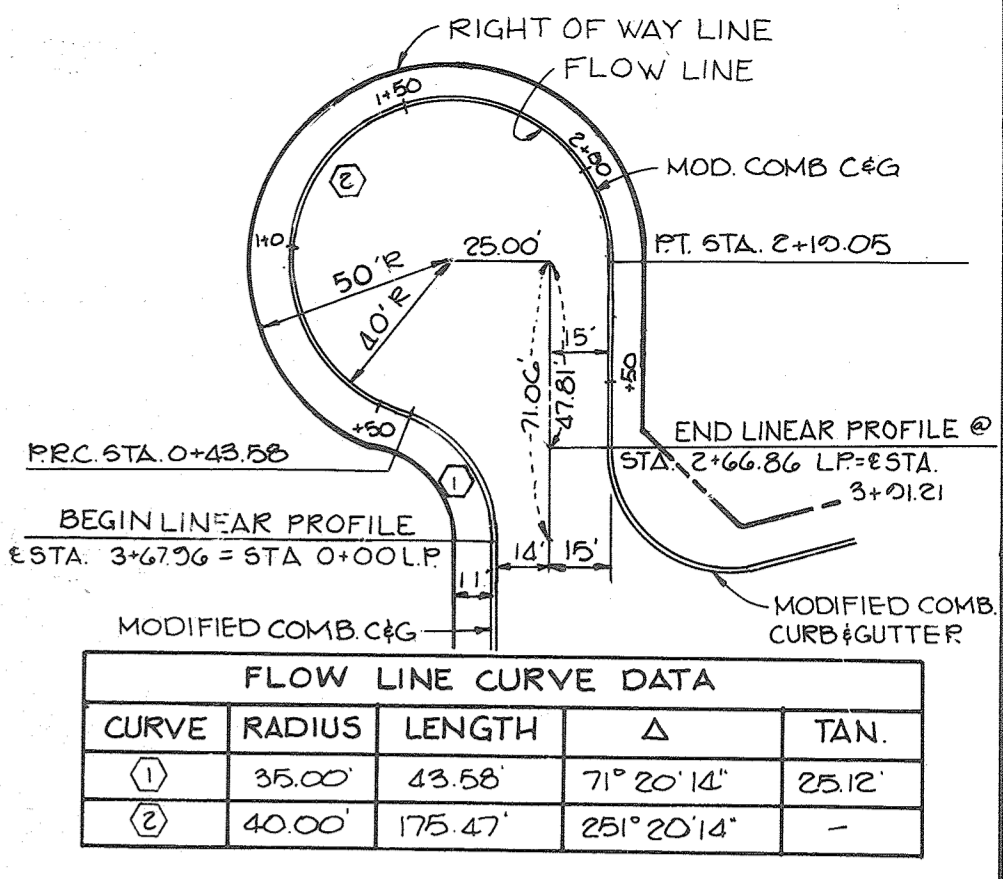
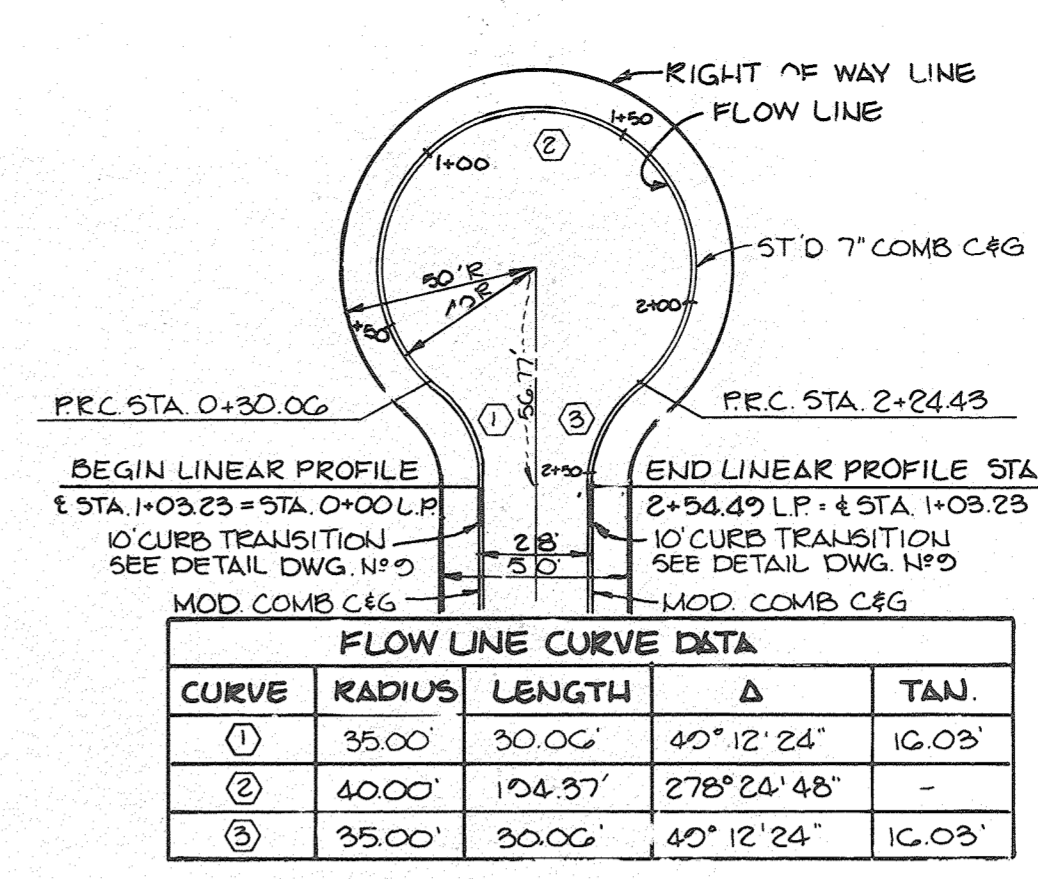
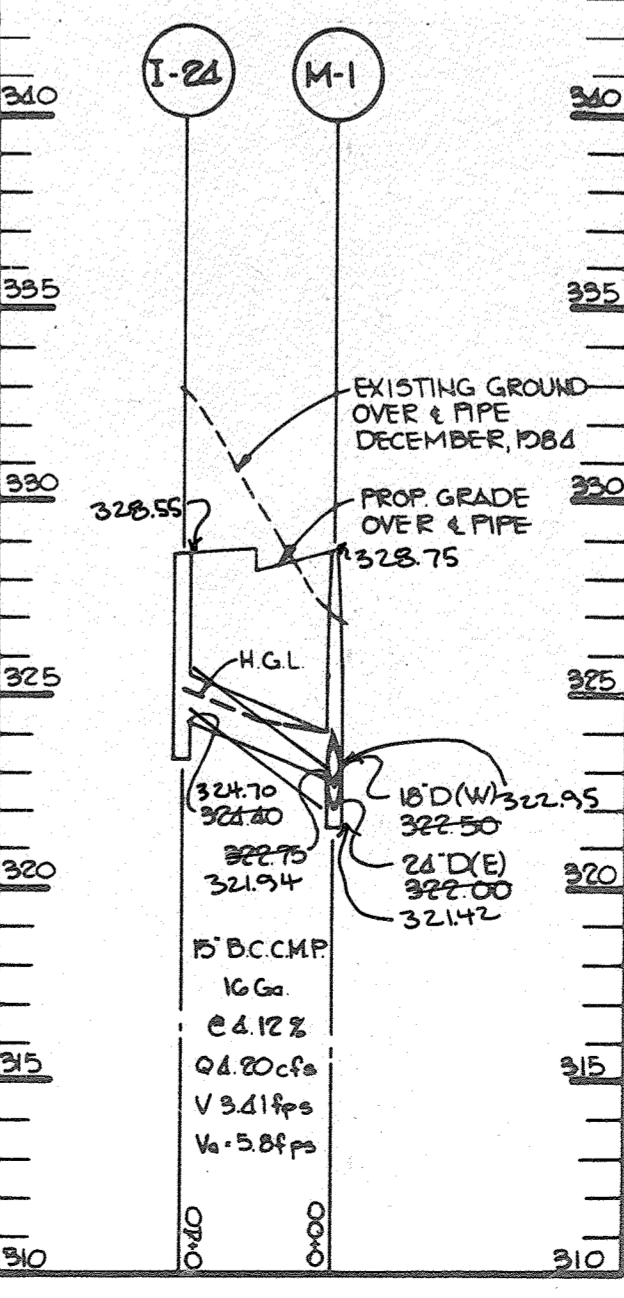
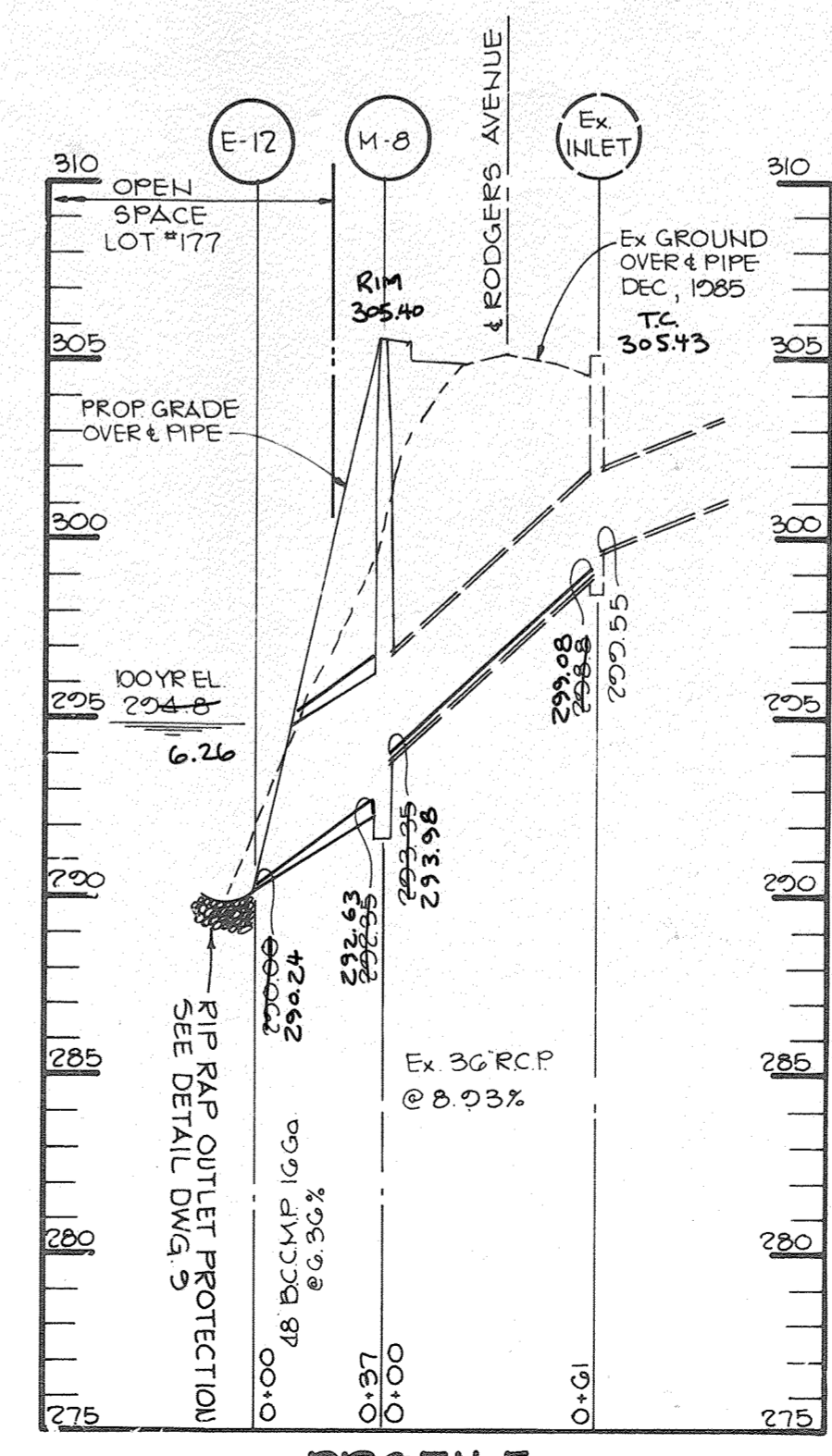
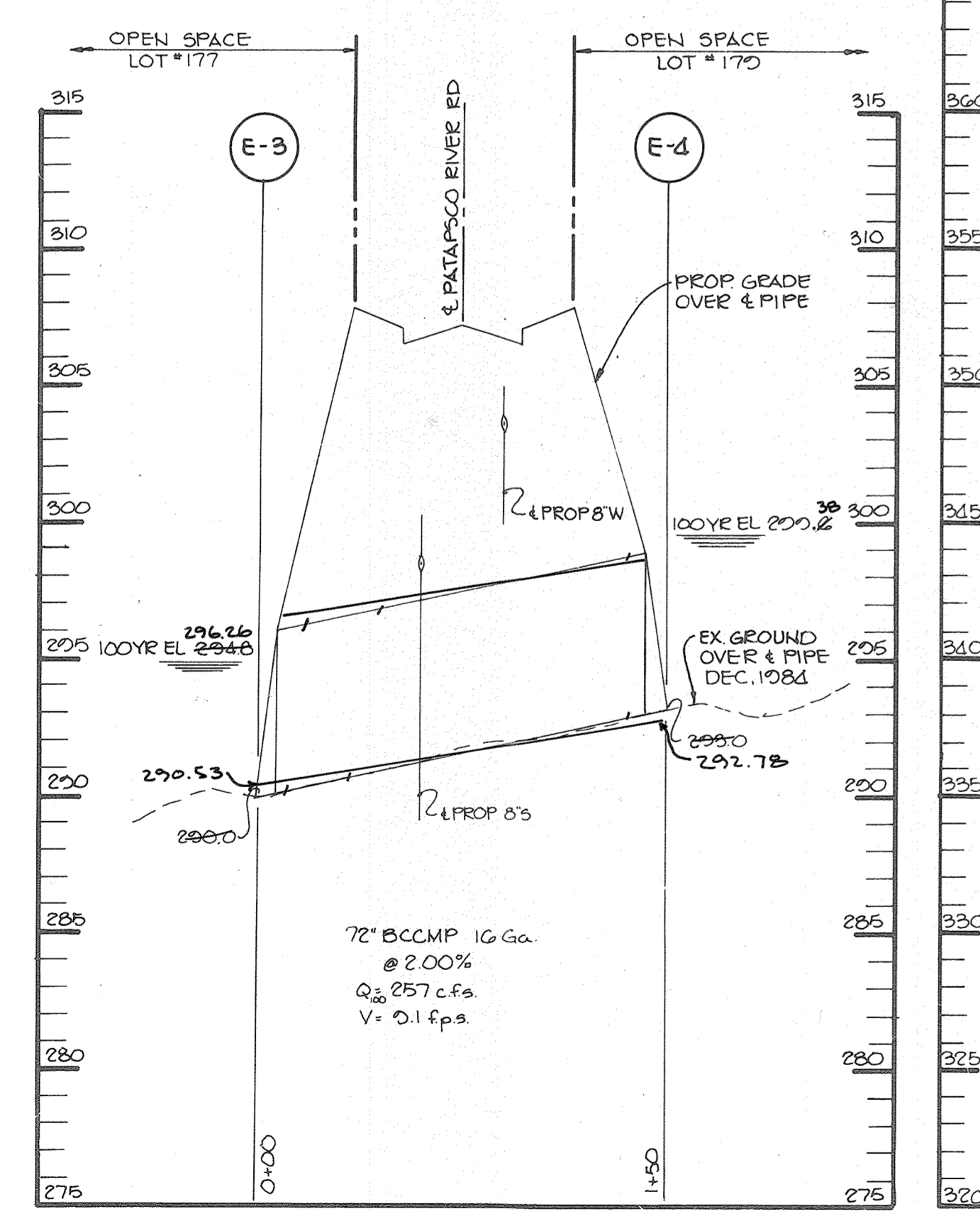
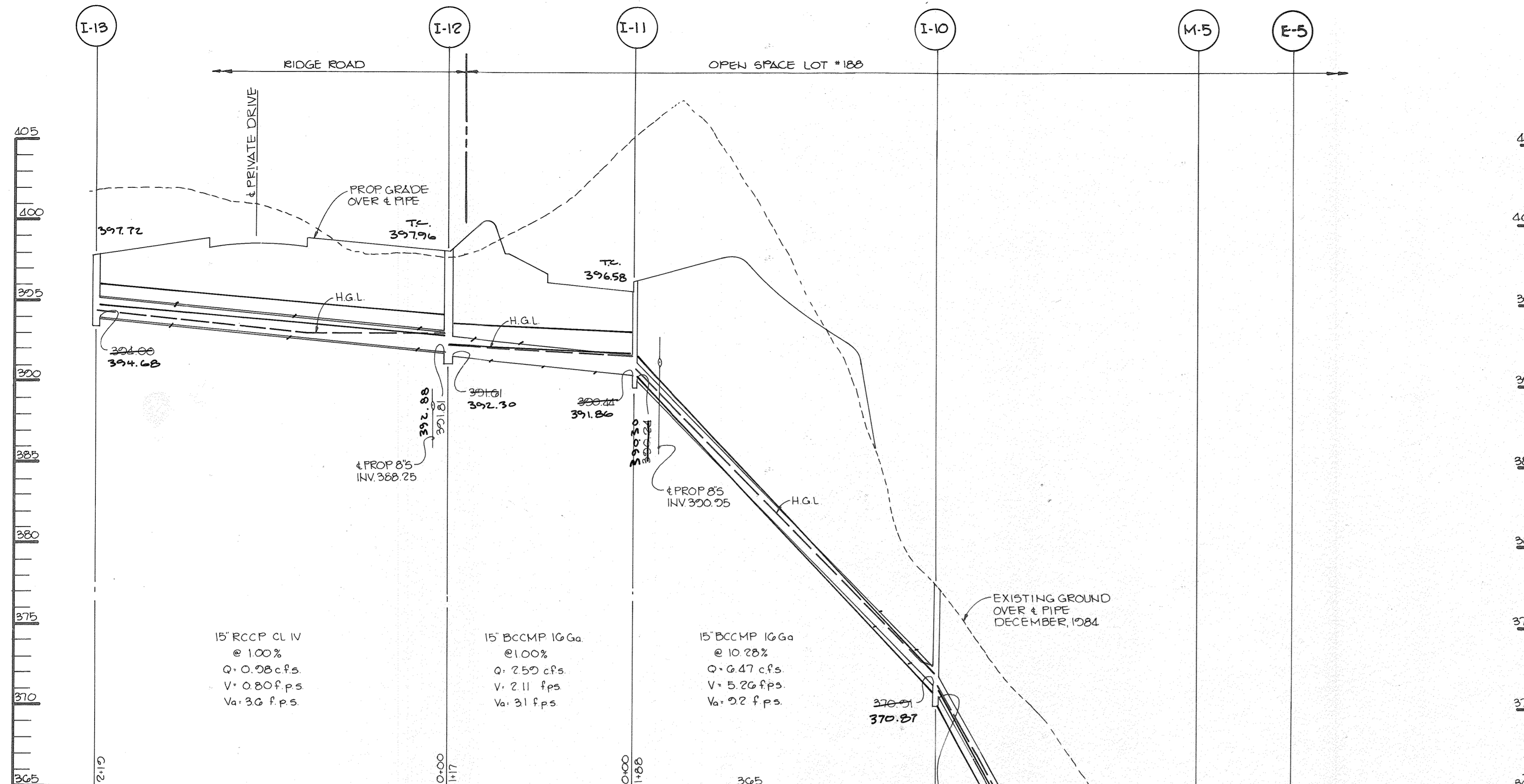
THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

DATE: 8-5-85
DESIGNED BY: LJD
DRAWN BY: JMG
PROJECT NO: 007700
DATE: APRIL 22, 1985
SCALE: AS SHOWN
DRAWING NO. 2 OF 19



ANDREW NELSON * ENGINEER CERTIFIED
PE# 14427
REVISIONS AS SHOWN
BY REVISION 21.

NOTE: CAPITAL PROJECT D-1160 (SP-18-14) ESTABLISHES A RETROFITTED FLOOD ATTENUATION FACILITY WHICH COMBINES THE EXISTING SWAMP POND AND ADJACENT STREAM. FLOOD ATTENUATION FACILITY IS DESIGNED TO CAPTURE AND ATTENUATE FLOOD FROM LARGE STORMS. EXISTING STORM DRAINS WERE MODIFIED/EXTENDED AND STREAM WAS REALIGNED WITHIN THE NEW FACILITY. EMBANKMENT RELOADED AND NEW WEIR CONTROL STRUCTURE INSTALLED. W-21-02A APPROVE 7/14/81.



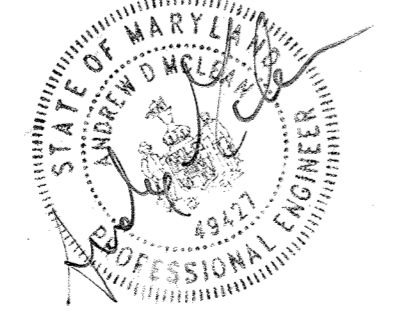
**OLD MANSE COURT
CUL-DE-SAC DETAILS**
NO SCALE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
John M. ... 8-15-85
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION
 APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Arthur E. Muehle... 4-23-85
 CHIEF, BUREAU OF ENGINEERING

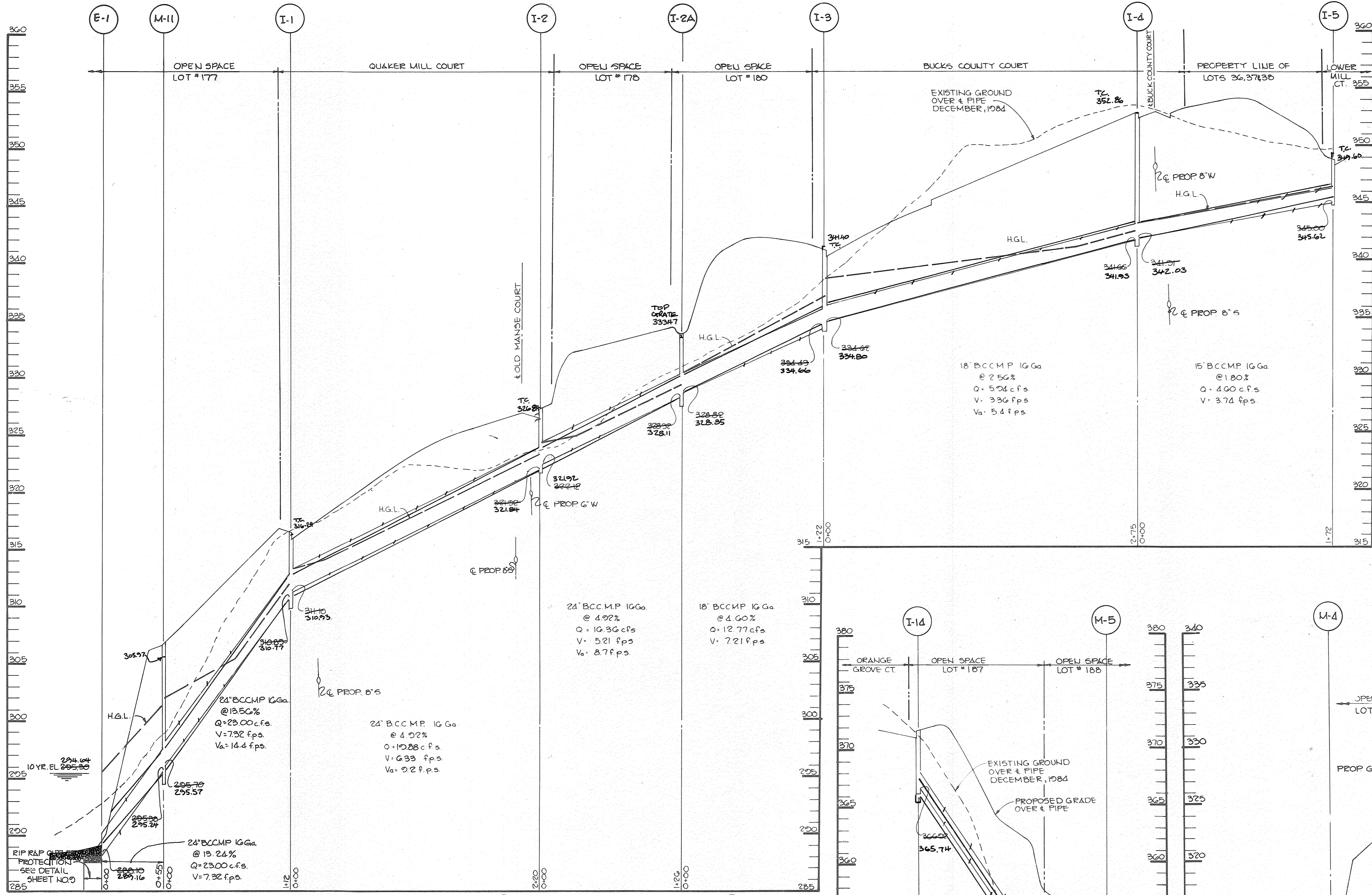
DATE: 11/2/91
 REVISION: ② REVISED SUM FOR FLOODING FACILITY (RIP-RAP)
 OWNER/DEVELOPER: WEISSBERG CORPORATION
 PROJECT: RIVER MILLS
 AREA: ELECTION DISTRICT #2 HOWARD COUNTY MARYLAND
 TAX MAP #2 PARCEL 847 ZONED R5C
 TITLE: DETAILS & STORM DRAIN PROFILES

THE RIEMER GROUP, INC.
 A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
 3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 463-2690
 DATE: 8-5-85
 DESIGNED BY: L.J.D.
 DRAWN BY: D.A.M.
 PROJECT NO: 007700
 DATE: APRIL 24, 1985
 SCALE: AS SHOWN
 DRAWING NO. 10 OF 19

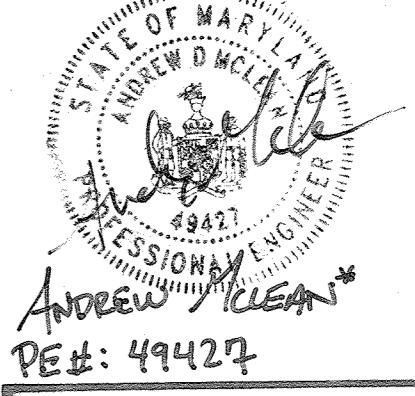
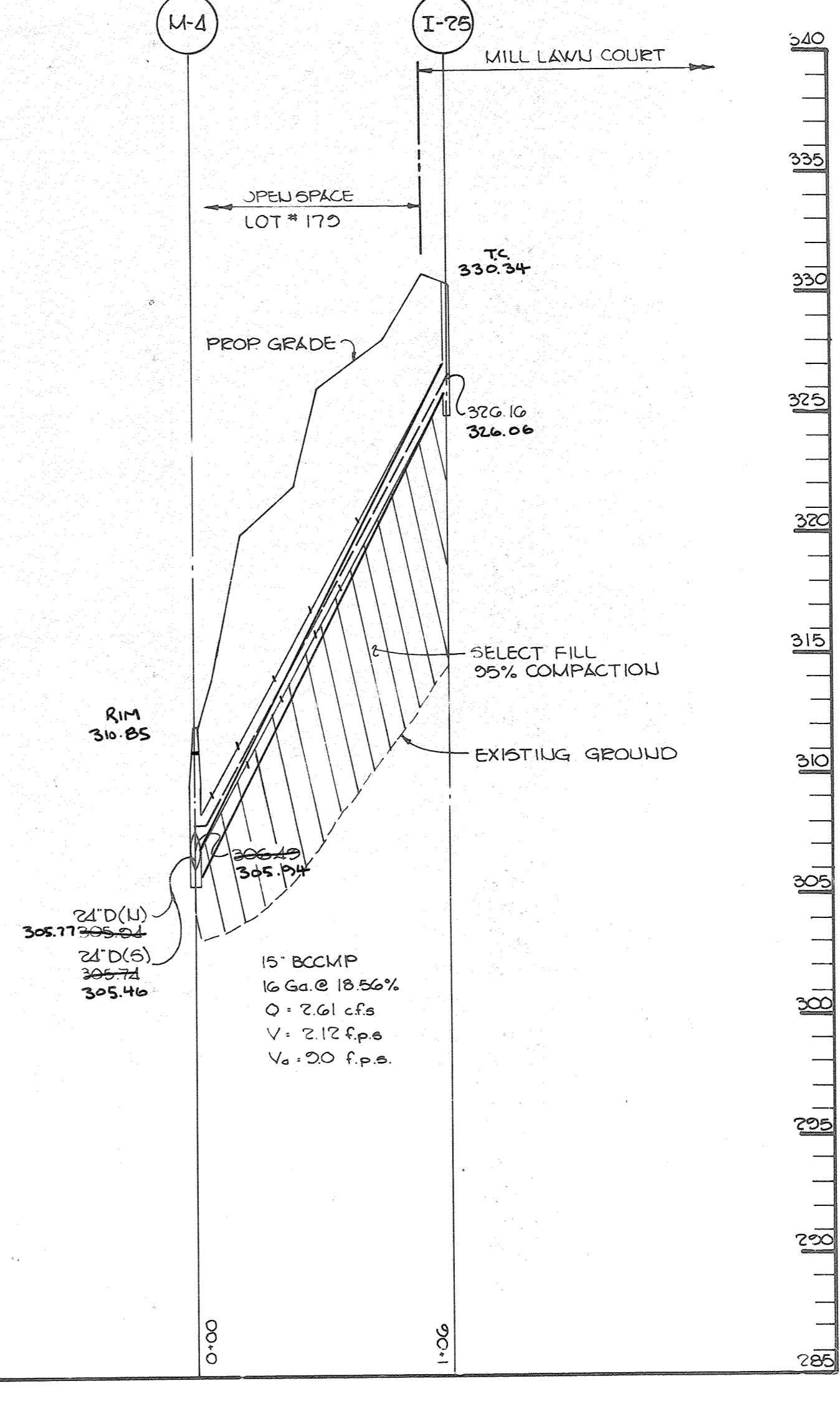
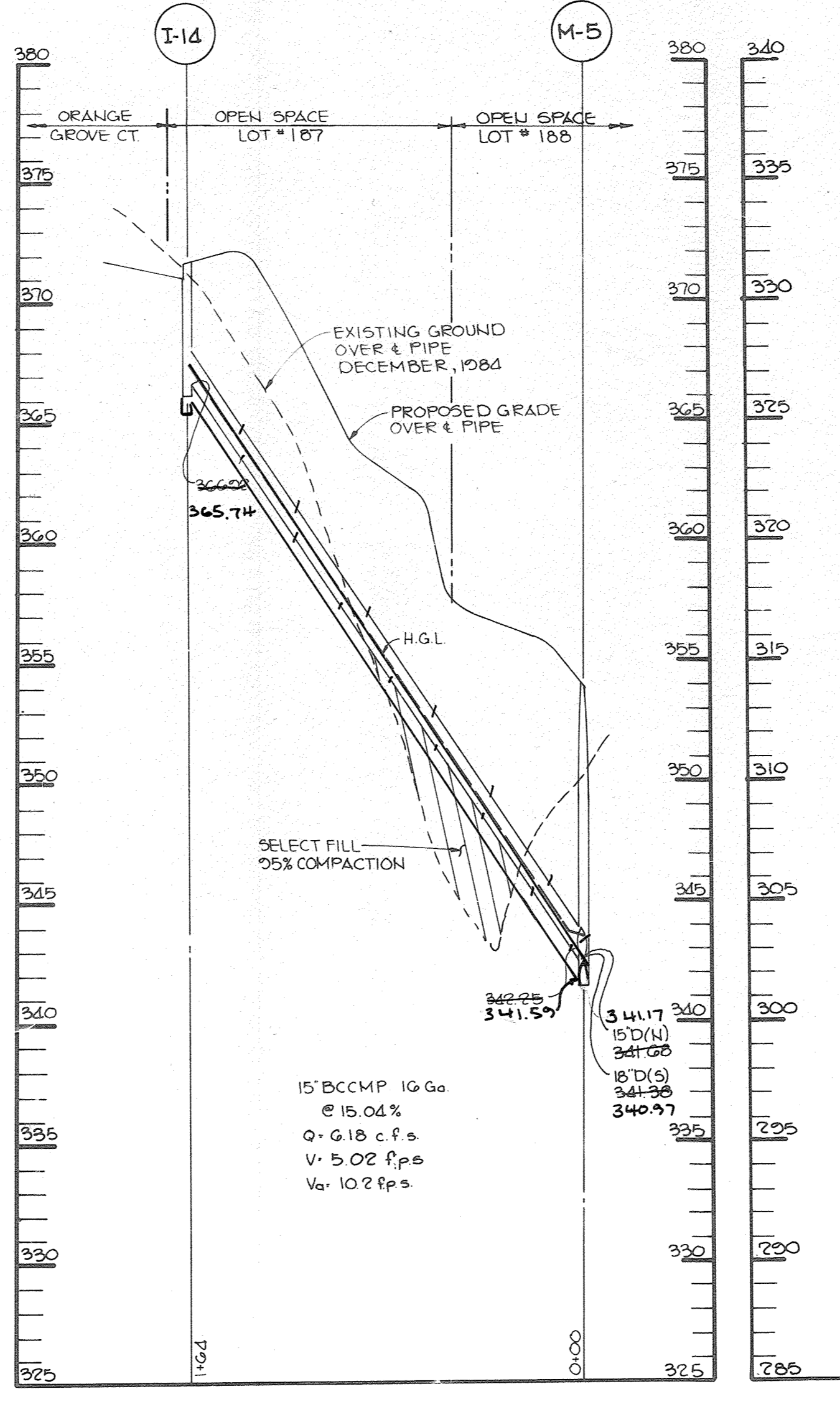
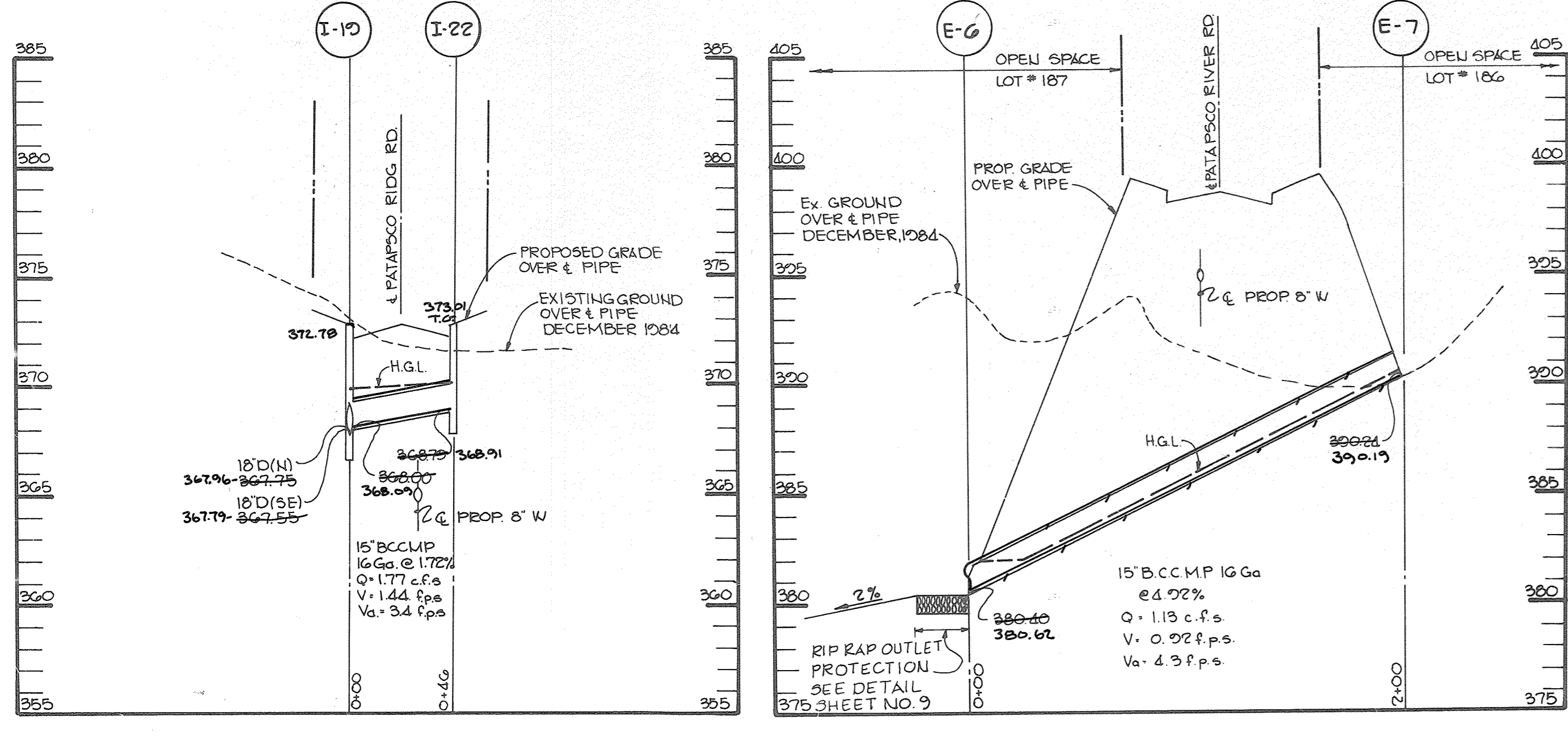
NOTE: CAPITAL PROJECT D-1160 (EP-18-14) ESTABLISHES A RETROFITTED FLOOD ATTENUATION FACILITY WHICH COMBINES THE EXISTING SWIM POND AND ADJACENT STREAM. FLOOD ATTENUATION FACILITY IS DESIGNED TO CAPTURE AND ATTENUATE FLOODS FROM LARGE STORMS. EXISTING STORMDRAINS WERE MODIFIED/EXTENDED AND STREAM WAS REALIGNED WITHIN THE NEW FACILITY. EMBANKMENT RELOCATED AND NEW WEIR CONTROL STRUCTURE INSTALLED. WP-21-029 APPROVED 1/14/21.



ANDREW McLEAN *
 P.E. #44472
 * ENGINEER CERTIFIES
 REVISIONS SHOWN BY
 REVISION #1



NOTE: CAPITAL PROJECT D-160 (EP-18-14) ESTABLISHED A RETROFITTED FLOOD ATTENUATION FACILITY WHICH COMBINES THE EXISTING SWM POND AND ADJACENT STREAM. FLOOD ATTENUATION FACILITY IS DESIGNED TO CAPTURE AND ATTENUATE FLOWS FROM LARGE STORMS. EXISTING STORM DRAINS WERE MODIFIED/EXTENDED AND STREAM WAS REALIGNED WITHIN THE NEW FACILITY. EMBANKMENT RELOCATED AND NEW WEIR CONTROL STRUCTURE INSTALLED. WP-21-029 APPROVED 7/14/21.



APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
John M. ... 8-15-85
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION
 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
... 8-23-85
 CHIEF, BUREAU OF ENGINEERING
 DATE

11/3/21 121 Revised SWM for Expanded Facility (EP-18-14)
 DATE NO REVISION

OWNER/DEVELOPER
 WEISSBERG CORPORATION
 1121 FORT MYER DRIVE
 ROSSLYN, VIRGINIA 22203

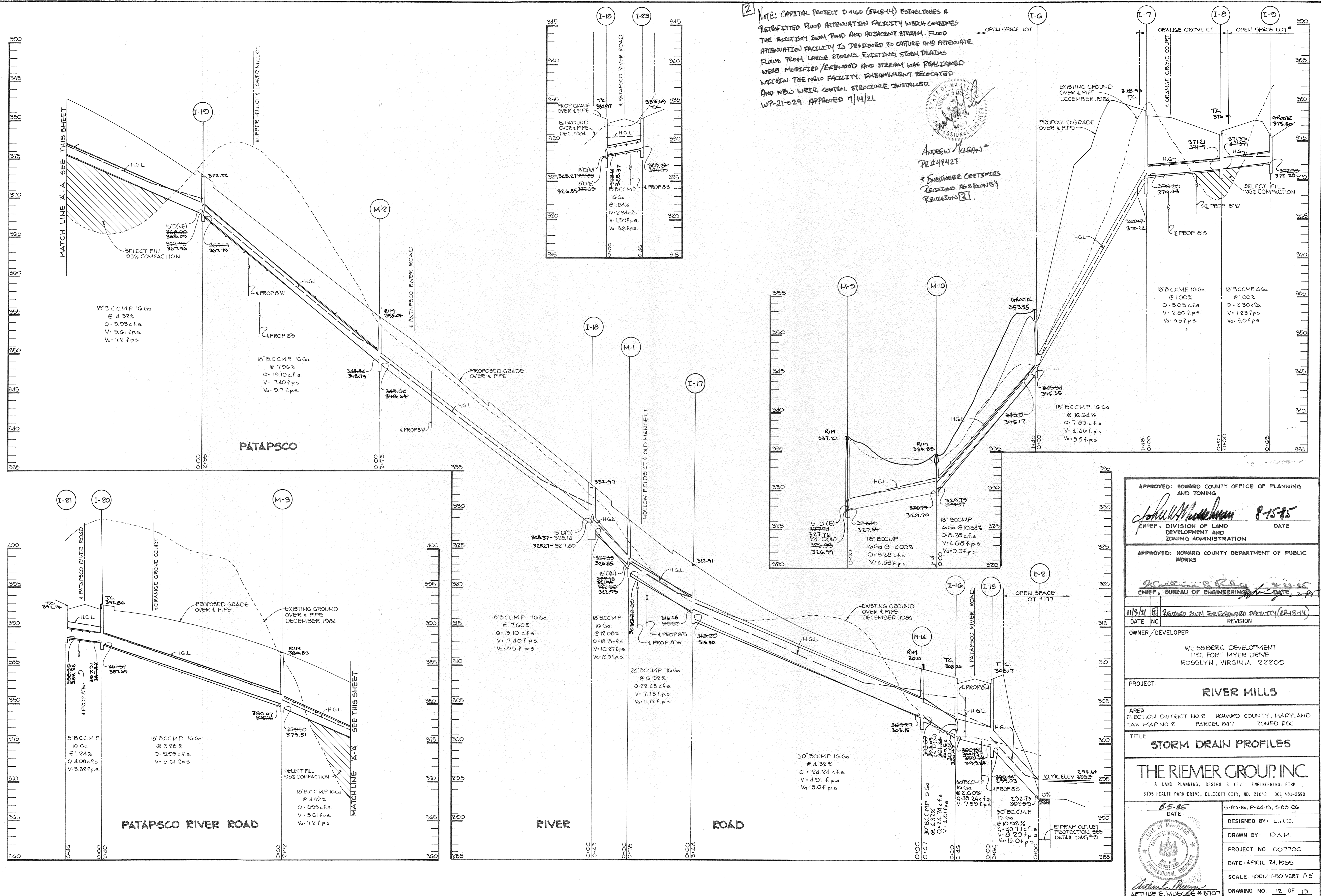
PROJECT: RIVER MILLS

AREA ELECTION DISTRICT #2 HOWARD COUNTY MARYLAND
 TAX MAP #2 PARCEL 847 ZONED R5C

TITLE: STORM DRAIN PROFILES

THE RIEMER GROUP, INC.
 A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
 3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-5-85 DATE
 5-05-16, P-04-24, S-05-06
 DESIGNED BY: L.J.D.
 DRAWN BY: D.A.M.
 PROJECT NO: 007100
 DATE: APRIL 22, 1985
 SCALE: HORIZ: 1"=50' VERT: 1"=5'
 DRAWING NO. 11 OF 19



NOTE: CAPITAL PROJECT D-160 (87-18-14) ESTABLISHES A RETROFITTED FLOOD ATTENUATION FACILITY WHICH COMBINES THE EXISTING SWAMP AND ADJACENT STREAM. FLOOD ATTENUATION FACILITY IS DESIGNED TO CAPTURE AND ATTENUATE FLOWS FROM LARGE STORMS. EXISTING STREAM DRAINS WERE MODIFIED/EXTENDED AND STREAM WAS REALIGNED WITHIN THE NEW FACILITY. SUBBANKMENT RELOCATED AND NEW WEIR CONTROL STRUCTURE INSTALLED. WSP-21-029 APPROVED 7/14/21.

ANDREW MUELAN*
PE #49427
*ENGINEER CERTIFIES REVISIONS AS SHOWN BY REVISIONS [2].

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
John W. ... 8-15-85
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION
 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
... 8-22-85
 CHIEF, BUREAU OF ENGINEERING
 DATE

11/9/21 01 Retain SWM For Extended Facility (87-18-14)
 DATE NO REVISION

OWNER/DEVELOPER
 WEISSBERG DEVELOPMENT
 1101 FORT MYER DRIVE
 ROSSLYN, VIRGINIA 22202

PROJECT:
RIVER MILLS

AREA
 ELECTION DISTRICT NO 2 HOWARD COUNTY, MARYLAND
 TAX MAP NO. 2 PARCEL 247 ZONED R5C

TITLE:
STORM DRAIN PROFILES

THE RIEMER GROUP, INC.
 A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
 3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301-461-2690

DATE: 8-5-85
 DESIGNED BY: L.J.D.
 DRAWN BY: D.A.M.
 PROJECT NO: 007700
 DATE: APRIL 24, 1985
 SCALE: HORIZ: 1"=50' VERT: 1"=5'
 DRAWING NO: 12 OF 19

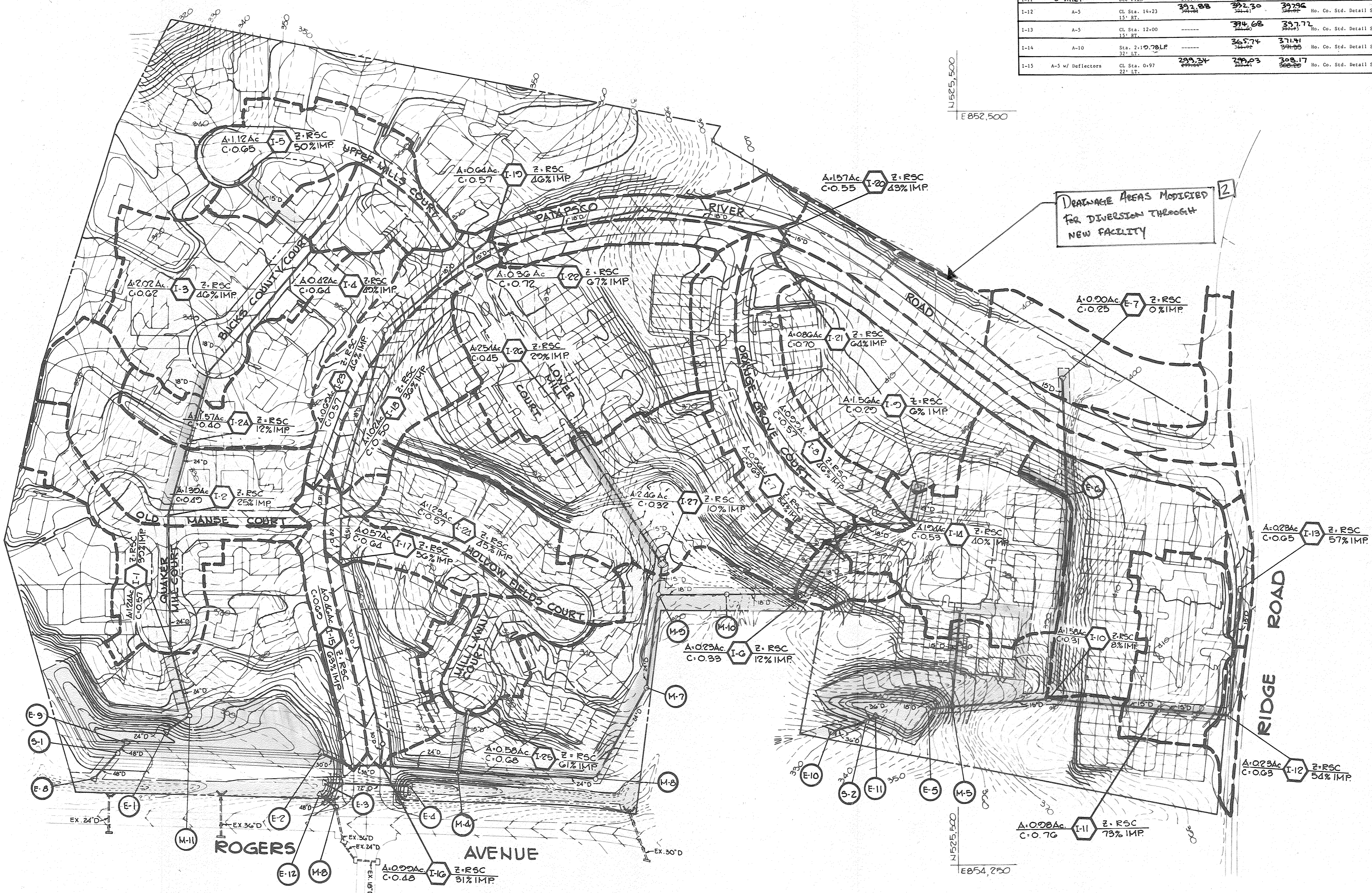
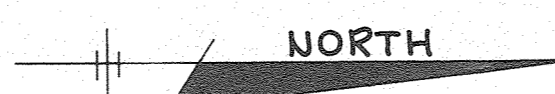
STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP OF CURB	REMARKS
1-1	A-5	Sta. 1+28.20 L.P.	310.93	310.77	316.24	No. Co. Std. Detail SD-4.01
1-2	A-5	CL Sta. 2+62.78 14' LT.	311.17	311.01	316.89	No. Co. Std. Detail SD-4.01
1-2a	'K' Inlet W/GRATE	See Plan	312.86	312.11	322.17	No. Co. Std. Detail SD-4.12
1-3	A-5	Sta. 1+18 L.P.	314.80	314.64	321.70	No. Co. Std. Detail SD-4.01
1-4	A-5	CL Sta. 1+55 18' LT.	314.03	313.73	322.86	No. Co. Std. Detail SD-4.01
1-5	A-10	Sta. 0+78 L.P.	315.62	315.60	323.80	No. Co. Std. Detail SD-4.02
1-6	'K' Inlet W/GRATE	See Plan	315.75	315.17	325.53	No. Co. Std. Detail SD-4.11
1-7	A-5 w/ Deflectors	CL Sta. 1+56 18' LT.	310.55	310.22	318.53	No. Co. Std. Detail SD-4.01
1-8	A-5 w/ Deflectors	CL Sta. 6+51 22' LT.	311.33	311.21	316.01	No. Co. Std. Detail SD-4.01
1-9	'K' Inlet W/GRATE	See Plan	312.28	312.17	320.03	No. Co. Std. Detail SD-4.11
1-10	'K' Inlet W/GRATE	See Plan	320.87	319.79	322.87	No. Co. Std. Detail SD-4.11
1-11	'S' Inlet	See Plan	321.56	320.30	326.58	No. Co. Std. Detail A-22
1-12	A-5	CL Sta. 14+23 15' LT.	322.08	321.50	327.26	No. Co. Std. Detail SD-4.01
1-13	A-5	CL Sta. 12+00 15' LT.	324.68	323.71	328.28	No. Co. Std. Detail SD-4.01
1-14	A-10	Sta. 1+07.81 L.P.	325.74	324.90	331.91	No. Co. Std. Detail SD-4.02
1-15	A-5 w/ Deflectors	CL Sta. 0+97 22' LT.	320.24	319.03	326.17	No. Co. Std. Detail SD-4.01

STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP OF CURB	REMARKS
1-16	A-5 w/ Deflectors	CL Sta. 0+97 22' LT.	320.24	319.03	326.17	No. Co. Std. Detail SD-4.01
1-17	A-5 w/ Deflectors	CL Sta. 4+90 22' LT.	315.30	315.20	322.50	No. Co. Std. Detail SD-4.01
1-18	A-10 w/ Deflectors	CL Sta. 3+07.42 15' D 18' LT.	322.77	322.85	328.97	No. Co. Std. Detail SD-4.02
1-19	A-5 w/ Deflectors	CL Sta. 10+70.52 15' D 18' LT.	322.77	322.79	327.79	No. Co. Std. Detail SD-4.01
1-20	A-10	CL Sta. 15+69.49 22' LT.	321.71	321.71	327.54	No. Co. Std. Detail SD-4.02
1-21	A-10	CL Sta. 15+69.49 22' LT.	321.71	321.71	327.54	No. Co. Std. Detail SD-4.02
1-22	A-5	CL Sta. 10+70.52 22' LT.	322.77	322.77	327.79	No. Co. Std. Detail SD-4.01
1-23	A-5 w/ Deflectors	CL Sta. 9+07.52 22' LT.	323.24	323.09	328.09	No. Co. Std. Detail SD-4.01
1-24	A-5 w/ Deflectors	CL Sta. 0+65.19 14' LT.	321.70	321.55	326.91	No. Co. Std. Detail SD-4.01
1-25	A-5	Sta. 1+45.08 L.P.	322.06	321.94	327.01	No. Co. Std. Detail SD-4.01
1-26	A-5	See Plan	322.06	321.94	327.01	No. Co. Std. Detail SD-4.01
1-27	'K' Inlet W/GRATE	See Plan	323.47	323.27	328.12	No. Co. Std. Detail SD-4.11
M-1	Std. 4'-0" Dia.	CL Sta. 3+21 15' D 18' LT.	322.17	322.17	328.75	No. Co. Std. Detail C-3.01 or No. Co. Std. Detail C-3.12
M-2	Std. 4'-0" Dia.	CL Sta. 8+43 17' LT.	322.79	322.64	328.04	No. Co. Std. Detail C-3.01 or No. Co. Std. Detail C-3.12
M-3	Std. 4'-0" Dia.	CL Sta. 13+35 18' LT.	320.10	320.10	326.83	No. Co. Std. Detail C-3.01 or No. Co. Std. Detail C-3.12
M-4	Std. 4'-0" Dia.	See Plan	320.49	320.46	326.58	No. Co. Std. Detail C-3.01 or No. Co. Std. Detail C-3.12
M-5	Std. 4'-0" Dia.	See Plan	324.59	324.17	329.35	No. Co. Std. Detail C-3.01 or No. Co. Std. Detail C-3.12
M-7	Shallow 4'-0" Dia.	See Plan	324.01	323.90	329.31	No. Co. Std. Detail C-3.12
M-8	Std. 4'-0" Dia.	See Plan	324.35	324.50	329.16	No. Co. Std. Detail C-3.01
M-9	Std. 4'-0" Dia.	See Plan	324.76	324.76	329.21	No. Co. Std. Detail C-3.01 or No. Co. Std. Detail C-3.12
M-10	Std. 4'-0" Dia.	See Plan	325.79	325.70	329.85	No. Co. Std. Detail C-3.01 or No. Co. Std. Detail C-3.12
M-11	Std. 4'-0" Dia.	See Plan	325.67	325.24	329.77	No. Co. Std. Detail C-3.01 or No. Co. Std. Detail C-3.12
E-1	24" Metal End Section	See Plan	329.16	329.16	334.81	No. Co. Std. Detail SD-3.61
E-2	30" Metal End Section	CL Sta. 1+23 80' LT.	329.18	329.18	334.81	No. Co. Std. Detail SD-3.61
E-3	24" Metal End Section	CL Sta. 0+63 75' LT.	329.55	329.55	334.81	No. Co. Std. Detail SD-3.61
E-4	24" Metal End Section	CL Sta. 0+67 75' LT.	329.78	329.78	334.81	No. Co. Std. Detail SD-3.61
E-5	18" Metal End Section	See Plan	332.45	332.45	337.21	No. Co. Std. Detail SD-3.61
E-6	15" Metal End Section	See Plan	332.67	332.67	337.21	No. Co. Std. Detail SD-3.61
E-7	15" Metal End Section	CL Sta. 20+66 36' LT.	330.19	330.19	334.81	No. Co. Std. Detail SD-3.61
E-8	48" Metal End Section	See Plan	329.72	329.72	334.81	No. Co. Std. Detail SD-3.61
E-9	48" Metal End Section	See Plan	329.74	329.74	334.81	No. Co. Std. Detail SD-3.61
E-10	36" Metal End Section	See Plan	329.58	329.58	334.81	No. Co. Std. Detail SD-3.61
E-11	36" Metal End Section	See Plan	329.75	329.75	334.81	No. Co. Std. Detail SD-3.61
E-12	48" Metal End Section	See Plan	329.74	329.74	334.81	No. Co. Std. Detail SD-3.61
S-1	Special Structure	See Plan	326.53	325.49	328.68	See Plan for Detail
S-2	Special Structure	See Plan	328.31	328.51	332.40	See Plan for Detail
M-1A	STD. 4'-0" Dia.	CL Sta. 1+41 22' LT.	329.15	329.09	330.10	No. Co. Std. Detail C-3.01 or No. Co. Std. Detail C-3.12

* ELEVATIONS AT RIM OR GRATE



APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
John W. Maclean 8-15-85
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Arthur E. Muegge 8-23-85
 CHIEF, BUREAU OF ENGINEERING

11/8/81 [2] Revised SWM For Expanded Facility (SP-18-1)
 DATE NO REVISION

OWNER/DEVELOPER
 WEISSBERG CORPORATION
 1511 FORT MYER DRIVE
 ROSSLIN, VIRGINIA 22203

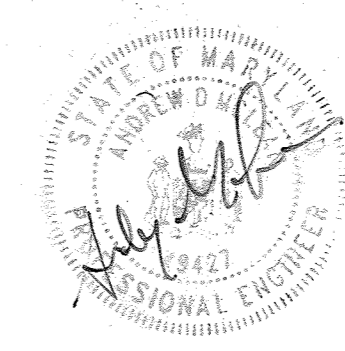
PROJECT
 RIVER MILLS

AREA ELECTION DISTRICT NO 2 HOWARD COUNTY, MARYLAND
 TAX MAP NO 24 PARCEL 847 ZONED RSC

TITLE
 DRAINAGE AREA MAP

THE RIEMER GROUP, INC.
 A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
 3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-5-85 DATE
 DESIGNED BY LJD
 DRAWN BY D.A.M.
 PROJECT NO 007700
 DATE APRIL 24, 1985
 SCALE: 1" = 100'
 DRAWING NO 13 OF 19



ARTHUR E. MUEGGE #870

* ENGINEER CERTIFIED REVISIONS SHOWN BY REVISION [2]



FOR CONTINUATION
SEE DRAWING NO 15

FOR CONTINUATION
SEE DRAWING NO 15

PROPERTY OF
HAROLD E. HALLMAN
105/520

PROPERTY OF
ROBERT K. GURIN
86/0475

PROPERTY OF
ROBERT K. GURIN
86/0475

PROPERTY OF
JASPER L. MAPE & WIFE
223/0377

NOTE: 1) GRADES SHOWN FOR ROADS AND
S.W.M.F. AREAS ARE FINAL. ALL OTHER
AREAS ARE FOGHT GRADES.
2) LIMIT OF GRADING WILL BE THE PROPERTY LINE,
UNLESS OTHERWISE SHOWN ON PLAN.

NOTE:
EARTH DIKE CROSSING PATAPSCO RIVER ROAD
SHALL BE REBUILT AT THE END OF EACH WORKING
DAY.

NEW FACILITY FOOTPRINT
UNDER EP-18-14, EXTENDS
SOUTH BEYOND SHEET LIMIT.

NEW PILOT
CHANNEL UNDER
EP-18-14

SEDIMENT BASIN NO 1
MAX DRAINAGE AREA: 20Ac
REQUIRED VOLUME: 52200CF
VOLUME PROVIDED: 70000CF
TOP ELEVATION: 209.0
RISER CREST ELEV: 205.0
CLEANOUT ELEV: 203.0

APPROVED: HOWARD COUNTY OFFICE OF PLANNING
AND ZONING.

John W. Muschman 8-27-85
CHIEF, DIVISION OF LAND DEVELOPMENT AND
ZONING ADMINISTRATION DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC
ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Marvin F. Weissberg 8-23-85
CHIEF, BUREAU OF ENGINEERING DATE

BY THE DEVELOPER:
"I CERTIFY THAT ALL DEVELOPMENT AND/OR CON-
STRUCTION 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 DE-
PARTMENT OF NATURAL RESOURCES APPROVED
TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT
AND EROSION BEFORE BEGINNING THE PROJECT. I
WILL PROVIDE THE HOWARD SOIL CONSERVATION
DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND
WITHIN 30 DAYS OF COMPLETION."

Marvin F. Weissberg 8-23-85
DEVELOPER: MARVIN F. WEISSBERG DATE

BY THE ENGINEER:
"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION,
EROSION AND SEDIMENT CONTROL REPRESENTS A PRA-
CTICAL AND WORKABLE PLAN BASED ON MY PERSONAL
KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS
PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF
THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE
NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE
HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-
BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COM-
PLETION."

Arthur E. Muegge 8-5-85
ENGINEER: ARTHUR E. MUEGGE DATE

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

James McVicker 8-12-85
U.S. SOIL CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL
EROSION AND SEDIMENT CONTROL MEET THE REQUIRE-
MENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: *Howard S. C. O.* 8-9-85
HOWARD S. C. O. DATE

11/3/91 [2] REVISED SHOWN FOR EXPANDED FACILITY (EP-18-14)
DATE NO REVISION

OWNER/DEVELOPER
WEISSBERG CORPORATION
1101 FORT MYER DRIVE
ROSSLYN, VIRGINIA 22203

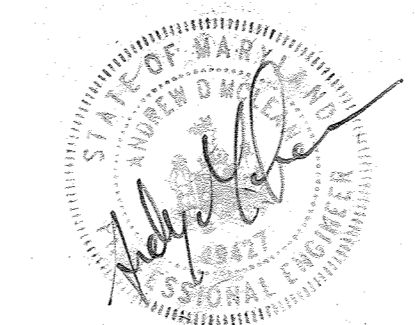
PROJECT
RIVER MILLS

AREA
ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND
TAX MAP NO 2 PARCEL 047 ZONED-R5C

TITLE
GRADING AND SEDIMENT CONTROL PLAN

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

DESIGNED BY: H.C.M.
DRAWN BY: T.J.M.
PROJECT NO: 007700
DATE: APRIL 24, 1985
SCALE: 1" = 50'
DRAWING NO. 14 OF 19



ANDREW McLEAN * ENGINEER CERTIFIED
REG. NO. 44427 REVISIONS SHOWN BY
REVISION [2]

REVISION LEGEND
[Symbol] SWM FACILITY FOOTPRINT
[Symbol] PILOT CHANNEL

STONE OUTLET TRAP #1

MAX. D.A. = 2.3 Ac.
 REQUIRED VOL. = 4140 CF
 VOL. PROVIDED = 4332 CF
 CREST ELEV. = 322.0
 BOTTOM ELEV. = 318.0
 CLEANOUT = 320.0
 BOTTOM DIM. = 32' x 32'
 WEIR LENGTH = 10'

STONE OUTLET TRAP #2

MAX. D.A. = 0.9 Ac.
 REQUIRED VOL. = 1620 CF
 VOL. PROVIDED = 2028 CF
 CREST ELEV. = 350.0
 BOTTOM ELEV. = 346.0
 CLEANOUT ELEV. = 348.0
 BOTTOM DIM. = 20' x 20'
 WEIR LENGTH = 4'

STONE OUTLET TRAP #3

MAX. D.A. = 3.4 Ac.
 REQUIRED VOL. = 6120 CF
 VOL. PROVIDED = 6348 CF
 CREST ELEV. = 350.0
 BOTTOM ELEV. = 346.0
 CLEANOUT ELEV. = 348.0
 BOTTOM DIM. = 40' x 40'
 WEIR LENGTH = 14'

RIP RAP OUTLET TRAP #4

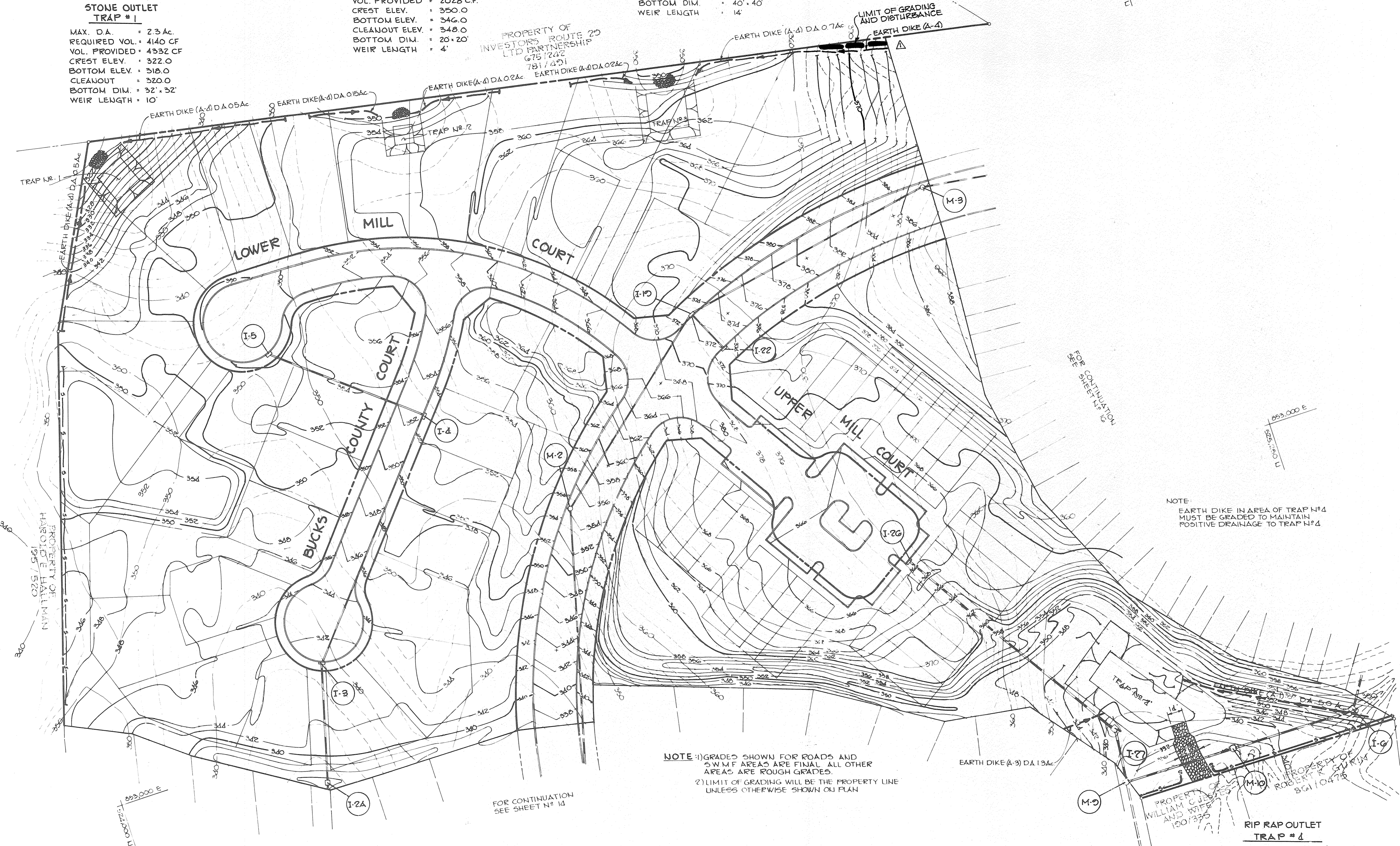
MAX. D.A. = 10.0 Ac.
 REQUIRED VOLUME = 19670 C.F.
 PROVIDED VOLUME = 20350 C.F.
 WEIR CREST ELEV. = 337.0
 TOP OF EMBANKMENT = 341.0
 BOTTOM ELEV. = 332.0
 CLEANOUT ELEV. = 334.0

NOTE: 1) GRADES SHOWN FOR ROADS AND SWMF AREAS ARE FINAL. ALL OTHER AREAS ARE ROUGH GRADES.
 2) LIMIT OF GRADING WILL BE THE PROPERTY LINE UNLESS OTHERWISE SHOWN ON PLAN

NOTE: EARTH DIKE IN AREA OF TRAP #4 MUST BE GRADED TO MAINTAIN POSITIVE DRAINAGE TO TRAP #4

FOR CONTINUATION SEE SHEET #14

FOR CONTINUATION SEE SHEET #16



APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

John W. Muschman 8-27-85
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Madison B. Kelly 8-23-85
 CHIEF, BUREAU OF ENGINEERING DATE

BY THE DEVELOPER:
 "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 WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."
Marvin F. Weisberg 8-23-85
 DEVELOPER: MARVIN F. WEISBERG DATE

BY THE ENGINEER:
 "I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."
Arthur E. Muegge 8-5-85
 ENGINEER: ARTHUR E. MUEGGE DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.
Ernest M. Nelson 8-12-85
 U.S. SOIL CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: *Robert W. Ziehm* 8-9-85
 HOWARD S.C.D. DATE

MAR. '88	ADD GRADING, EXTEND EARTH DIKE
DATE NO.	REVISION

OWNER / DEVELOPER
 WEISBERG CORPORATION
 1101 FORT MYER DRIVE
 ROSSLYN, VIRGINIA 22209

PROJECT
RIVER MILLS

AREA
 ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND
 TAX MAP NO. 2 PARCEL 287 ZONED - RSC

TITLE
GRADING AND SEDIMENT CONTROL PLAN

THE RIEMER GROUP, INC.
 A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
 3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-5-85 DATE

Arthur E. Muegge ARTHUR E. MUEGGE 8702

DESIGNED BY	MCM
DRAWN BY	JCJ
PROJECT NO.	007700
DATE	APRIL 24, 1985
SCALE	1" = 50'
DRAWING NO.	15 OF 19



NOTE: 1) GRADES SHOWN FOR ROADS AND S.W.M.F. AREAS ARE FINAL. ALL OTHER AREAS ARE ROUGH GRADES.
 2) LIMIT OF GRADING WILL BE THE PROPERTY LINE UNLESS OTHERWISE SHOWN ON PLAN

SEDIMENT BASIN No. 2
 MAX DRAINAGE AREA 7.8ac
 REQUIRED VOLUME: 14044 CF
 VOLUME PROVIDED: 21400 CF
 TOP ELEVATION: 336.7
 RISER CREST ELEV. 334.0
 CLEANOUT ELEV. 332.0

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

John W. Muschman 8-27-85
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Madison E. Kelly 8-23-85
 CHIEF, BUREAU OF ENGINEERING DATE

BY THE DEVELOPER:
 "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 WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

M. Weisberg Aug 19 1985
 DEVELOPER: MARVIN F. WEISBERG DATE

BY THE ENGINEER:
 "I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Arthur E. Muegge 8-5-85
 ENGINEER: ARTHUR E. MUEGGE DATE

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

James M. Hahn 8-12-85
 U.S. SOIL CONSERVATION SERVICE DATE

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

APPROVED: *Robert W. Ziehm* 8-9-85
 HOWARD S. C. D. DATE

MAR '85	ADD GRADING, EXTEND EARTH DIKE
DATE NO.	REVISION

OWNER/DEVELOPER
 WEISBERG CORPORATION
 1101 FORT MYER DRIVE
 ROSSLYN, VIRGINIA 22205

PROJECT
 RIVER MILLS

AREA
 ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND
 TAX MAP NO. 2 PARCEL #47 ZONED - RSC

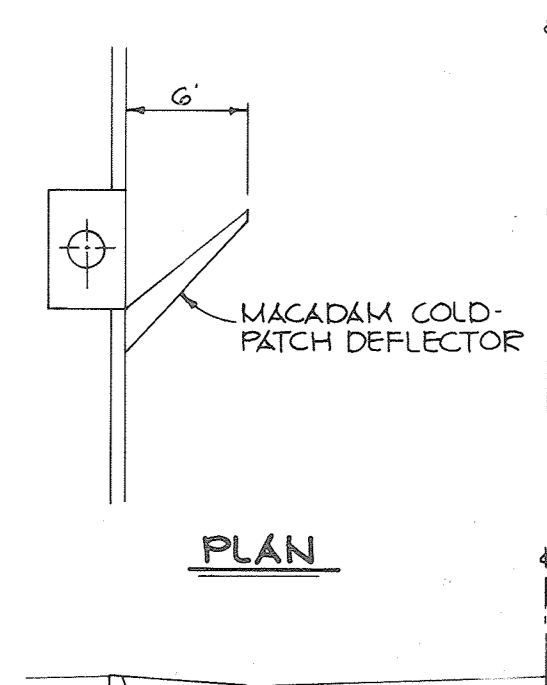
TITLE
 GRADING AND SEDIMENT CONTROL PLAN

THE RIEMER GROUP, INC.
 A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
 3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301-461-2690

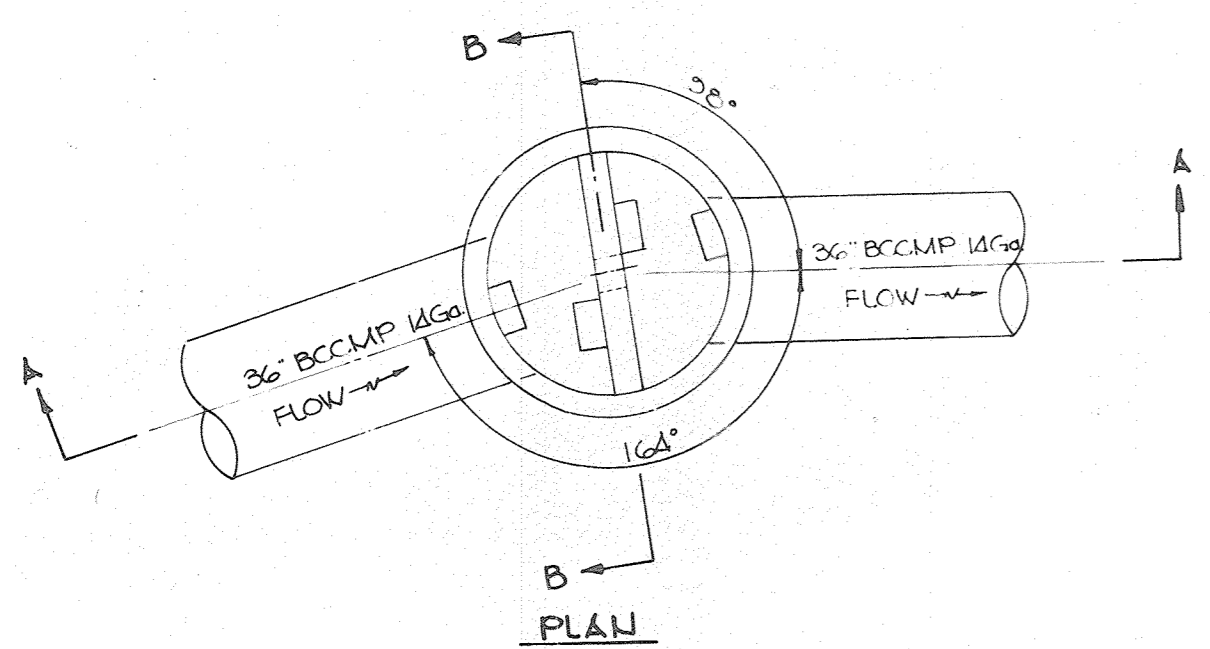
	DATE 8-5-85
	DESIGNED BY MCM
	DRAWN BY J.C.J.
	PROJECT NO. J07761
	DATE APR 11 1985
SCALE 1" = 50'	
DATE	DRAWING NO. 16 OF 19

#1155

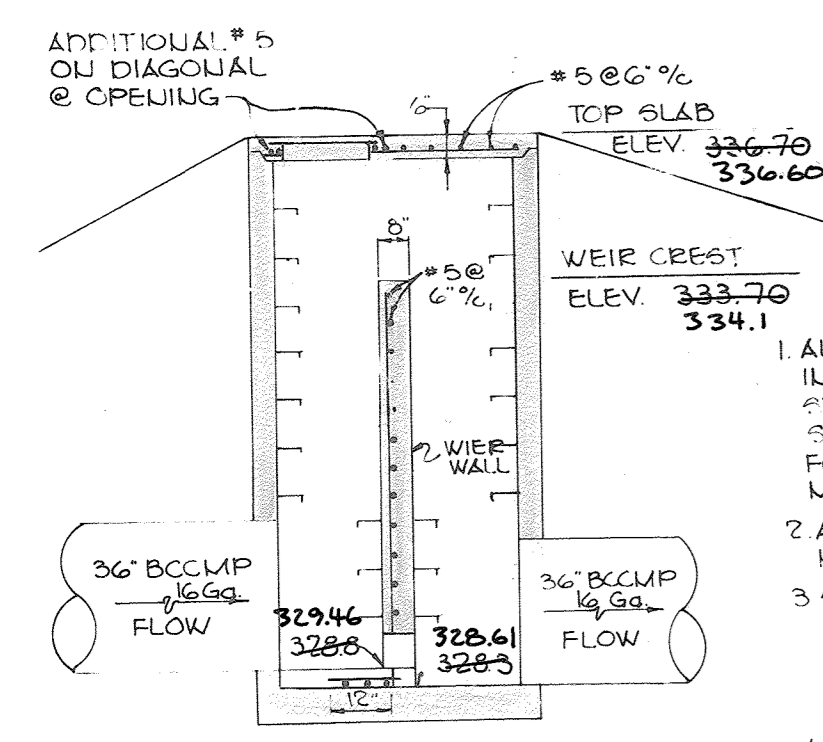
MARYLAND BLUEPRINT CO. INC. 4152889



PROFILE COLD PATCH DEFLECTOR
NO SCALE



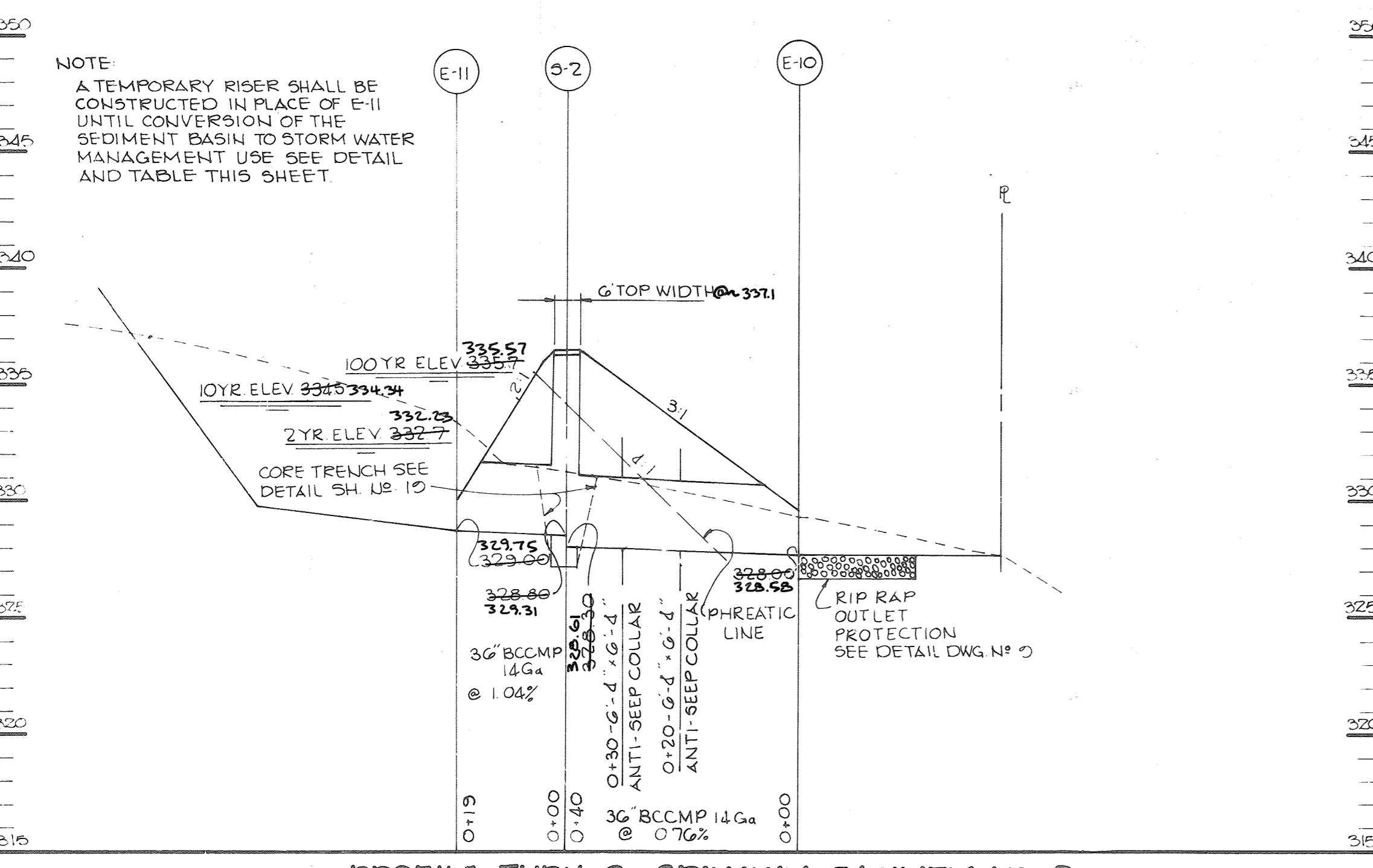
PLAN



SECTION A-A

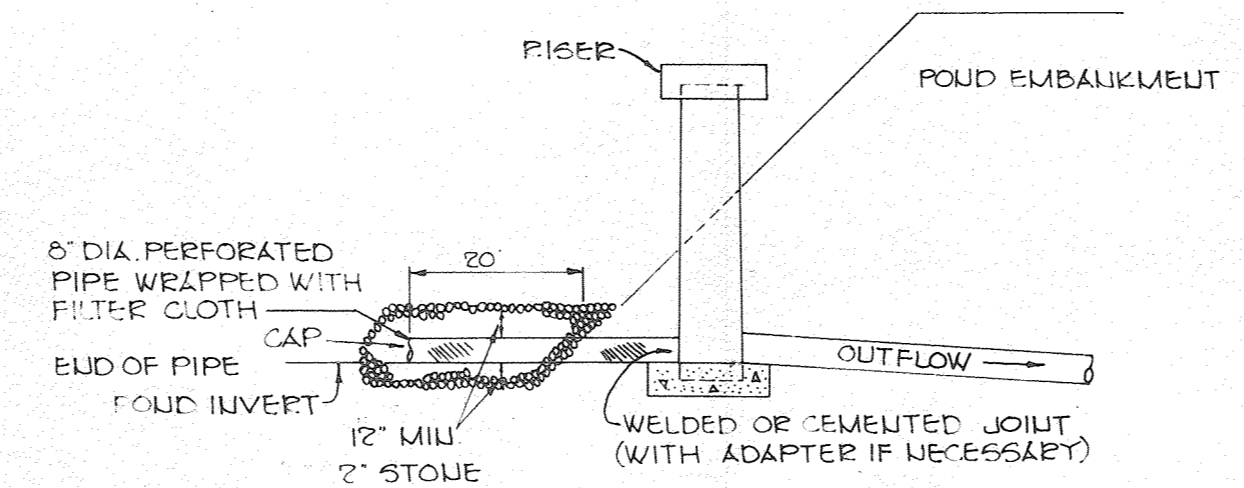
- NOTES**
1. ALL WORK AND MATERIALS TO BE IN ACCORDANCE WITH HO. CO. STANDARD DETAIL G-5.13 5' DIA. SHALLOW PRECAST MAUHOLE EXCEPT FOR MODIFICATION TO TOP SLAB MAUHOLE STEPS AND WEIR WALL.
 2. ALL BEBAR SHALL HAVE A 2" MIN. CLEARCOVER.
 3. SHADED AREA (WEIR WALL) SHALL NOT BE CONSTRUCTED UNTIL CONVERSION OF THE SEDIMENT BASIN TO STORM WATER MANAGEMENT USE.
 4. MAUHOLE STEPS SHALL BE A SIDE-WALK FRAME AND COVER PER HO. CO. STD. DETAIL D-3.01.
 5. DOWEL EVERY OTHER HORIZONTAL BEBAR IN WEIR WALL 4" INTO MAUHOLE WALLS. GRANT HOLES WITH NON-SHRINK GROUT PRIOR TO POURING WEIR WALL.

CONTROL STRUCTURE S-2
1/2" SCALE

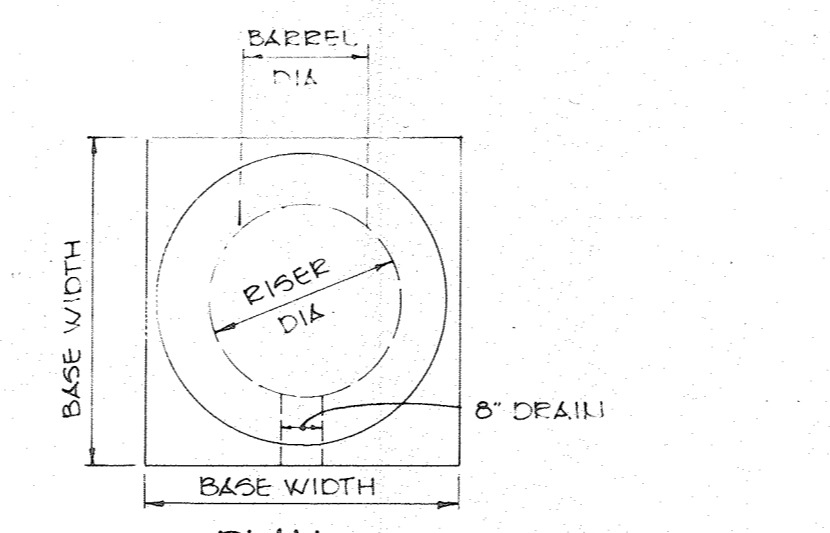


PROFILE THRU SPILLWAY FACILITY NO. 2

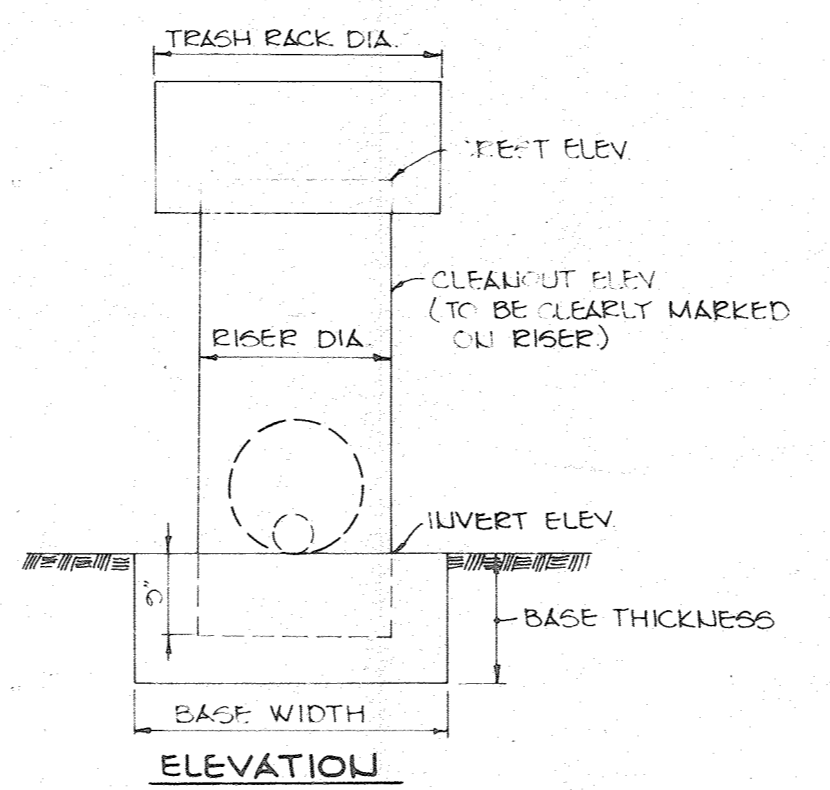
SCALE: HORIZ. 1" = 20' VERT. 1" = 5'



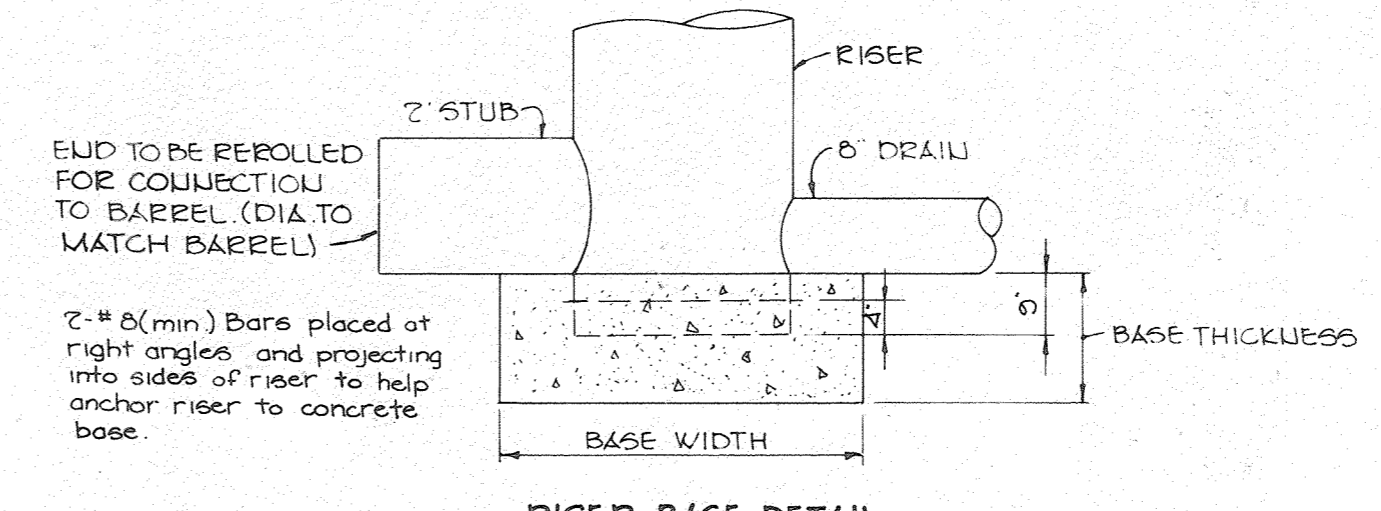
DEWATERING OUTLET
1/2" SCALE



PLAN

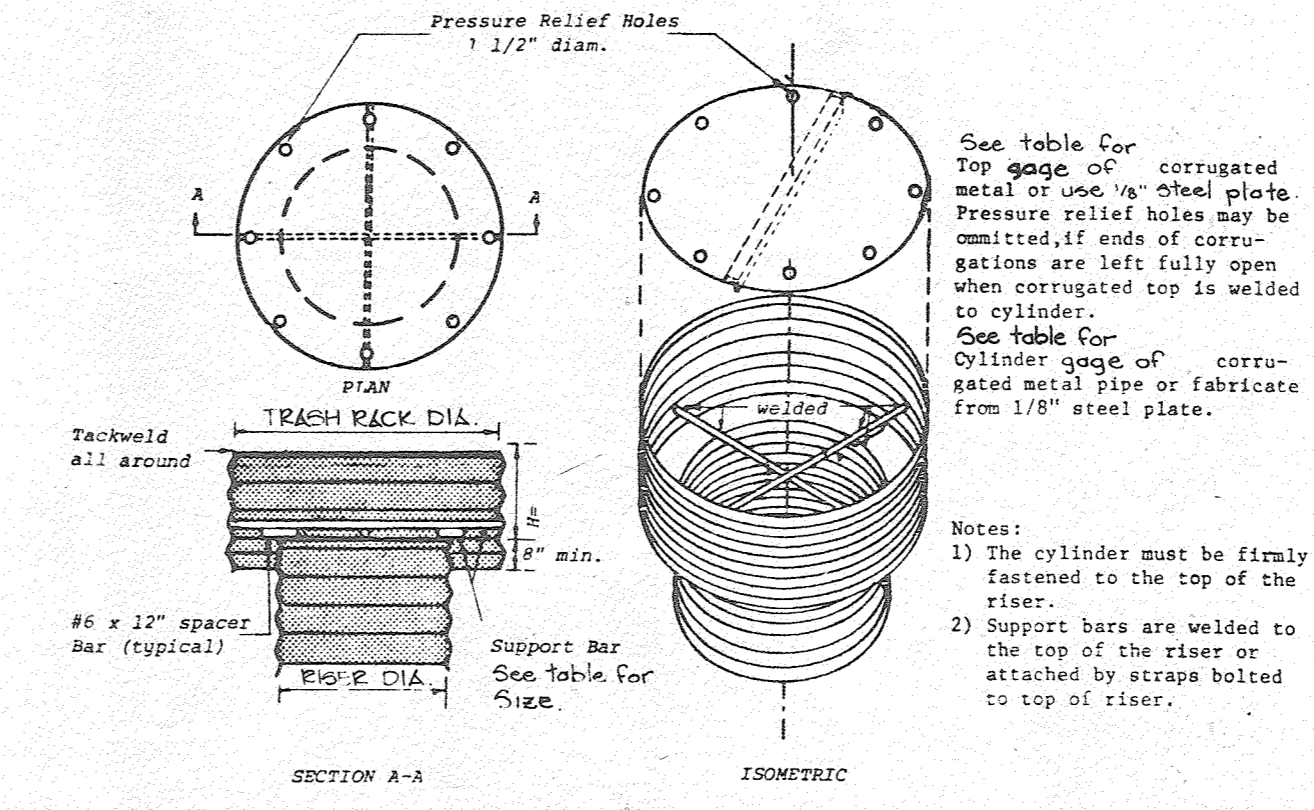


ELEVATION



RISER BASE DETAIL
1/2" SCALE

NOTE: The concrete base shall be poured in such a manner to insure that the concrete fills the bottom of the riser to the invert of the outlet pipe to prevent the riser from breaking away from the base.



CONCENTRIC TRASH RACK & ANTI-VORTEX DEVICE
1/2" SCALE

DETAILS FOR TEMPORARY RISER FOR SEDIMENT BASINS

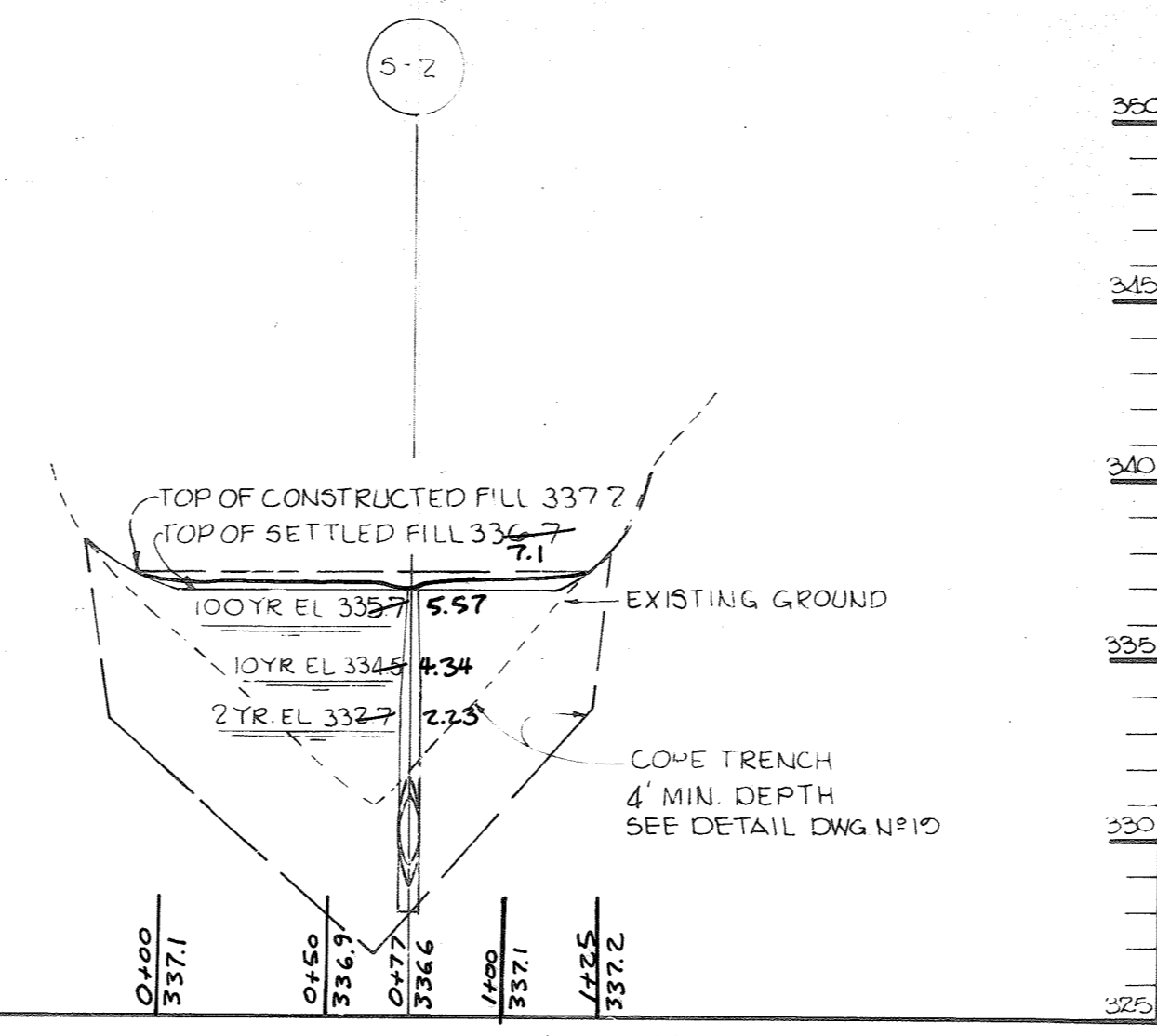
1/2" SCALE

TEMPORARY RISER AND ANTI-SEEP COLLAR

DATA TABLE

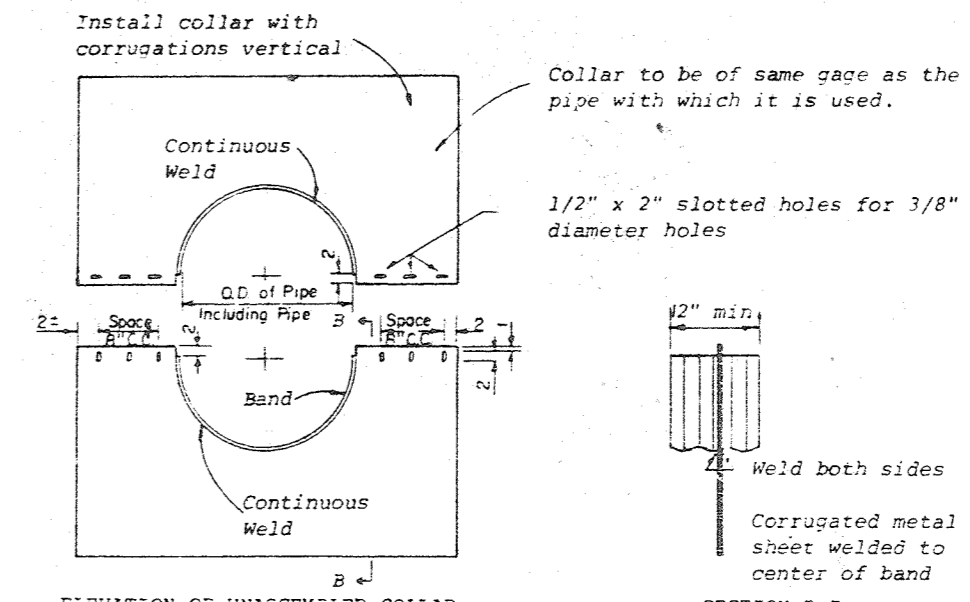
SEDIMENT BASIN/FACILITY	RISER DIA	RISER GAGE	BARREL DIA	BARREL GAGE	CREST ELEV	INVERT ELEV	CLEANOUT ELEV	BASE WIDTH	BASE THICKNESS	TRASH RACK		TOP GAGE	SUPPORT BAR	ANTI-SEEP COLLARS*		
										CYLINDER DIA	H			HEIGHT	WIDTH	
1	60"	10	48"	10	295.0	288.0	293.0	9.0'	18"	90"	12	29"	8	1/2" Pipe	7'-6"	7'-6"
2	48"	10	36"	14	334.0	329.0	332.0	6.0'	18"	72"	12	21"	10	1 1/2" Pipe	6'-4"	6'-4"

* 2 Collars for facility No. 2
* 3 collars for facility No. 1



PROFILE ALONG DAM FACILITY NO. 2

SCALE: HORIZ. 1" = 20' VERT. 1" = 5'

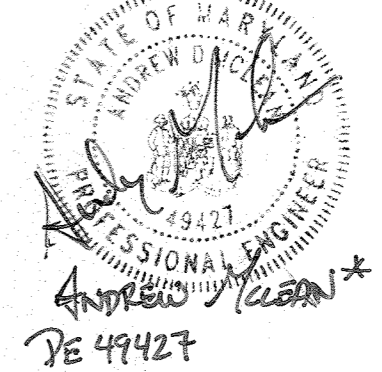


ELEVATION OF UNASSEMBLED COLLAR

- NOTES FOR COLLARS:**
1. All materials to be in accordance with construction and construction material specifications.
 2. When specified on the plans, coating of collars shall be in accordance with construction and construction material specifications.
 3. Unassembled collars shall be marked by painting or tagging to identify matching pairs.
 4. The lap between the two half sections and between the pipe and connecting band shall be caulked with asphalt mastic at time of installation.
 5. Each collar shall be furnished with two 1/2" diameter rods with standard tank lugs for connecting collars to pipe.

ANTI-SEEP COLLAR
1/2" SCALE

NOTE: CAPITAL PROJECT D-116 (EP-18-14) ESTABLISHES A RESTRICTED FLOOD ATTENUATION FACILITY WHICH COMBINES THE EXISTING SWM POND AND ADJACENT STREAM. FLOOD ATTENUATION FACILITY IS DESIGNED TO CAPTURE AND ATTENUATE FLOODS FROM LARGE STORMS. EXISTING SWM DRAINS WERE MODIFIED/EXTENDED AND STREAM WAS REBANKED WITHIN THE NEW FACILITY. EMBANKMENT RELOCATED AND NEW WEIR CONTROL STRUCTURE INSTALLED. WP-21-029 APPROVED 7/14/21.



APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

John W. Muschman 8-27-85
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

William E. Rainey 8-23-85
CHIEF, BUREAU OF ENGINEERING

BY THE DEVELOPER:
"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 WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Mark F. Weissberg August 1985
DEVELOPER: HARVIL F. WEISSBERG

BY THE ENGINEER:
"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Arthur E. Muegge 8-5-85
ENGINEER: ARTHUR E. MUEGGE

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

James M. Kohn 8-12-85
U.S. SOIL CONSERVATION SERVICE

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

APPROVED: *Robert J. Zichner* 8-9-85
HOWARD S.C.D.

11/3/85 REVISION FOR EXPANDED FACILITY (EP-18-14)
DATE NO REVISION

OWNER/DEVELOPER
WEISSBERG CORPORATION
1191 FORT MYER DRIVE
ROSBURY, VIRGINIA 22509

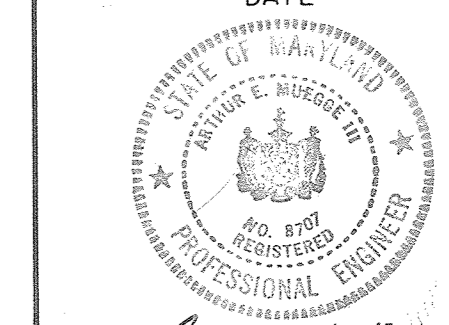
PROJECT
RIVER MILLS

AREA
ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND
TAX MAP NO. 2 PARCEL 847 ZONED BSC

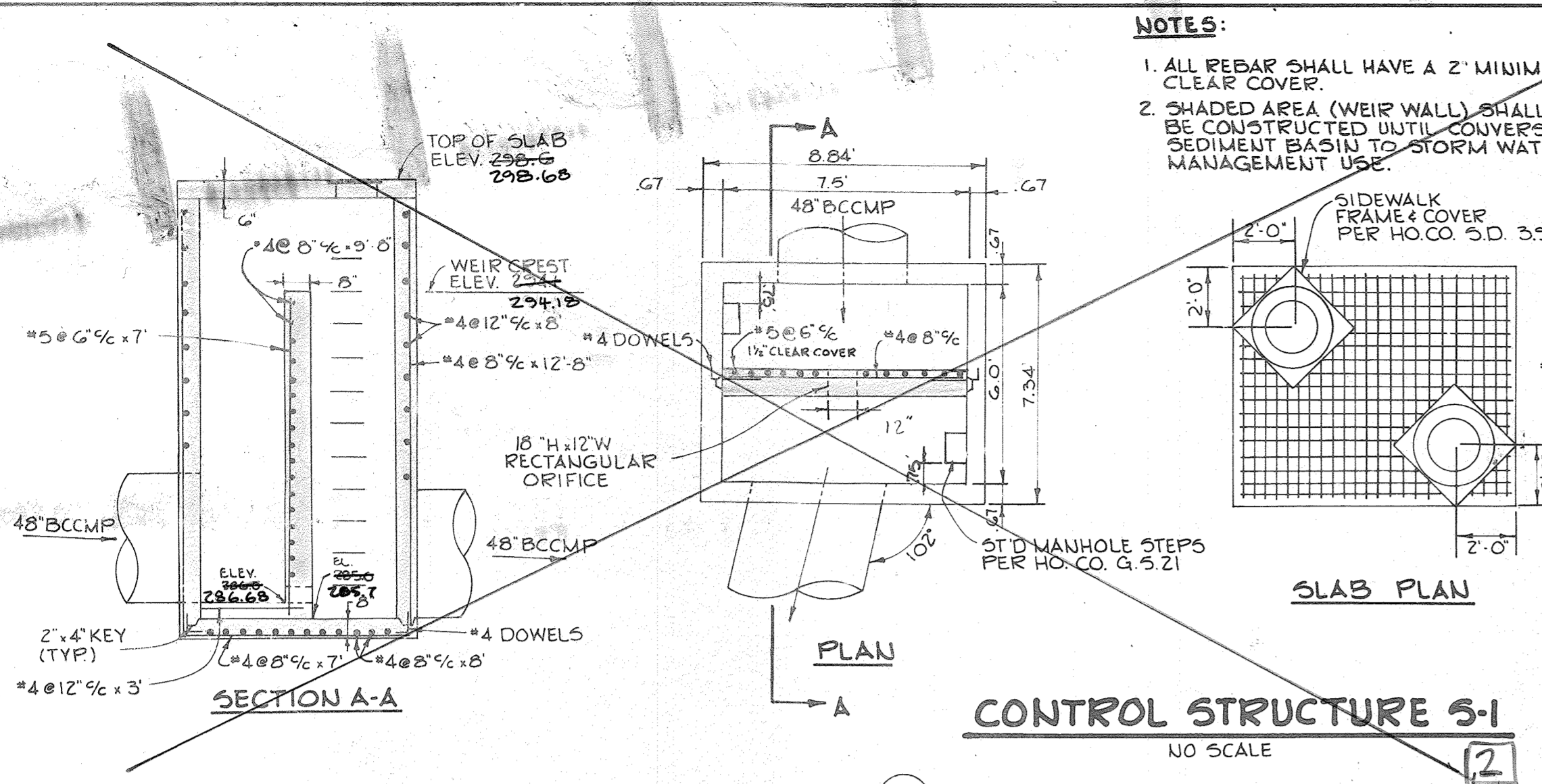
TITLE
STORM WATER MANAGEMENT AND SEDIMENT CONTROL, PROFILES & DETAILS

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

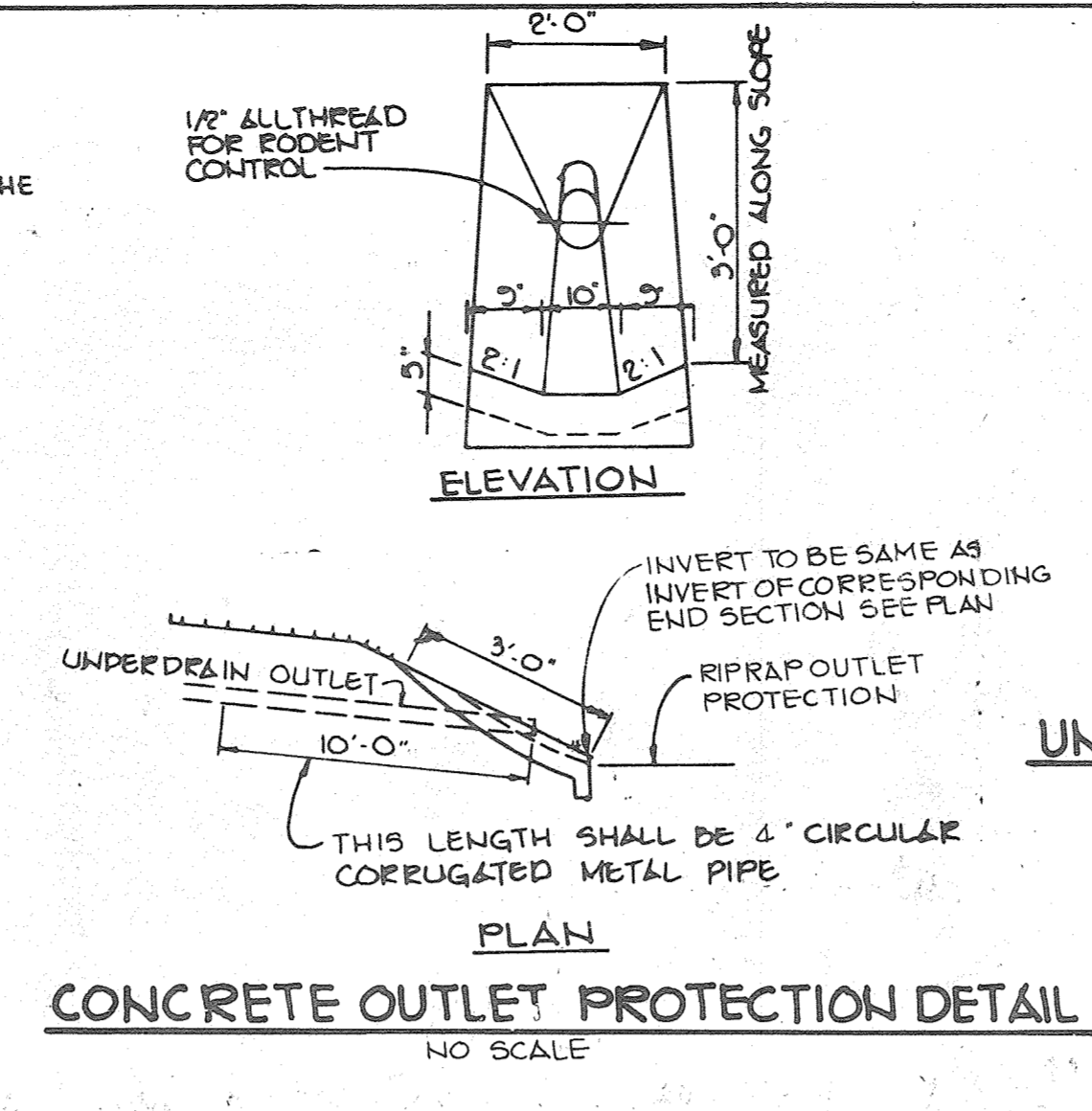
8-5-85
DATE
DESIGNED BY JKB
DRAWN BY JCW
PROJECT NO 007700
DATE APRIL 24, 1985
SCALE: AS SHOWN
DRAWING NO. 17 OF 19



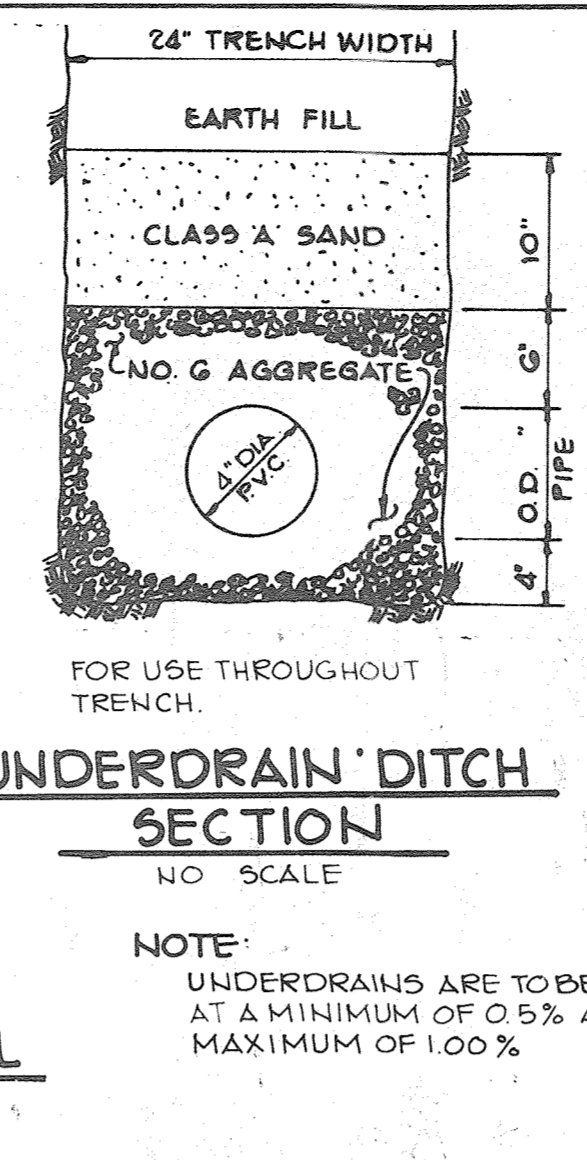
Arthur E. Muegge 8/10/87
ARTHUR E. MUEGGE



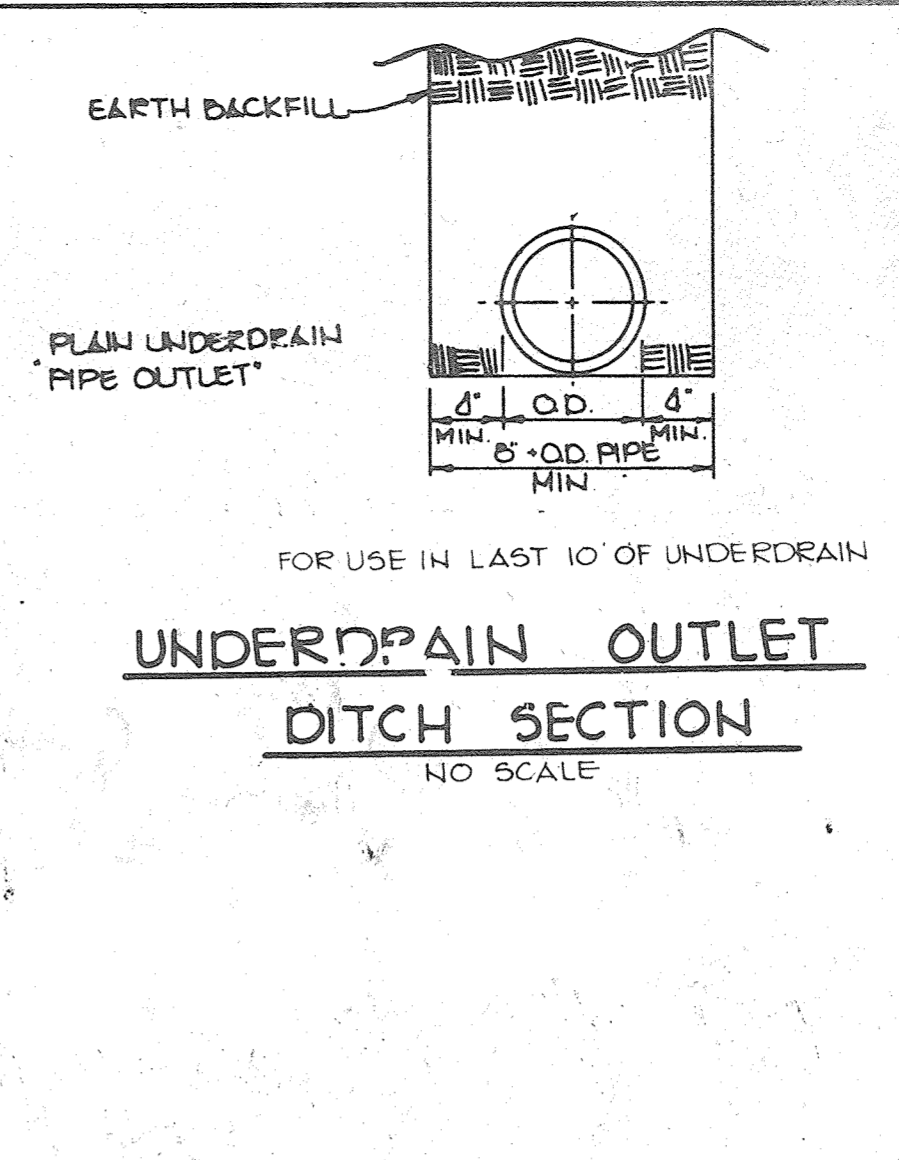
CONTROL STRUCTURE S-1
NO SCALE



CONCRETE OUTLET PROTECTION DETAIL
NO SCALE

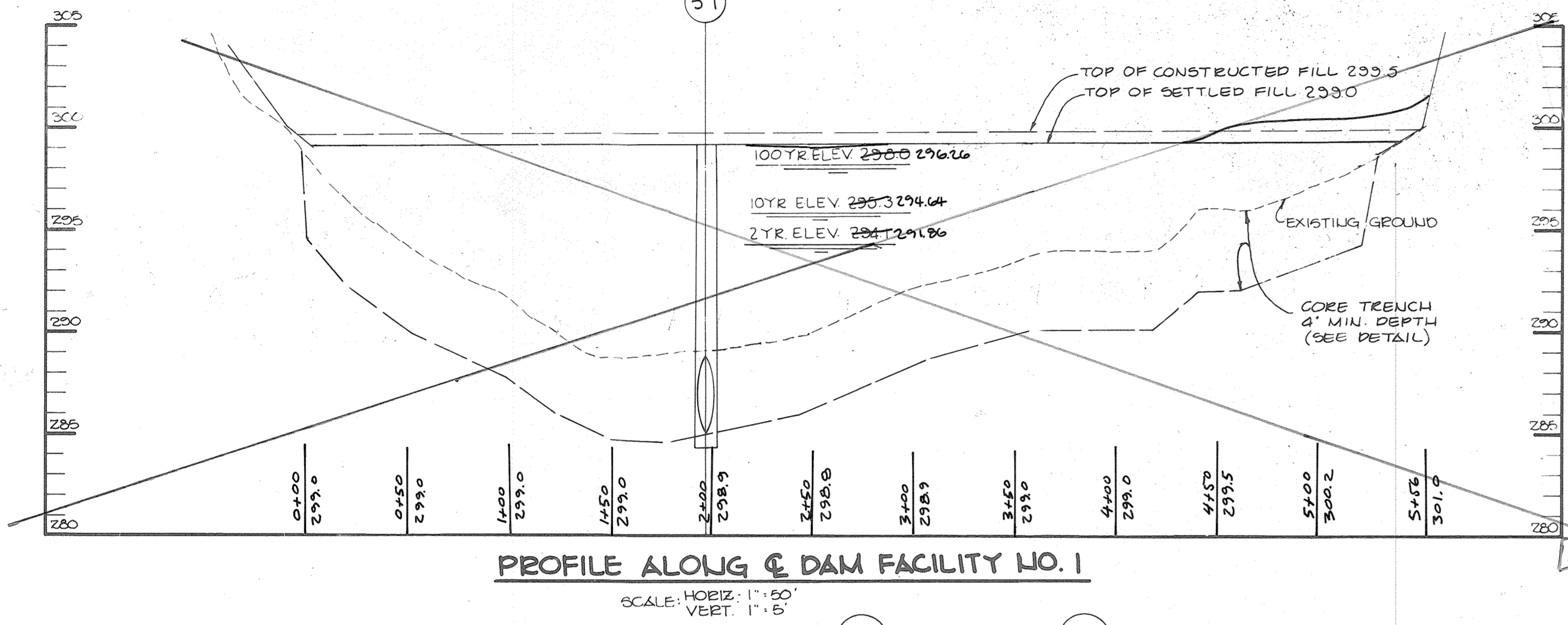


UNDERDRAIN DITCH SECTION
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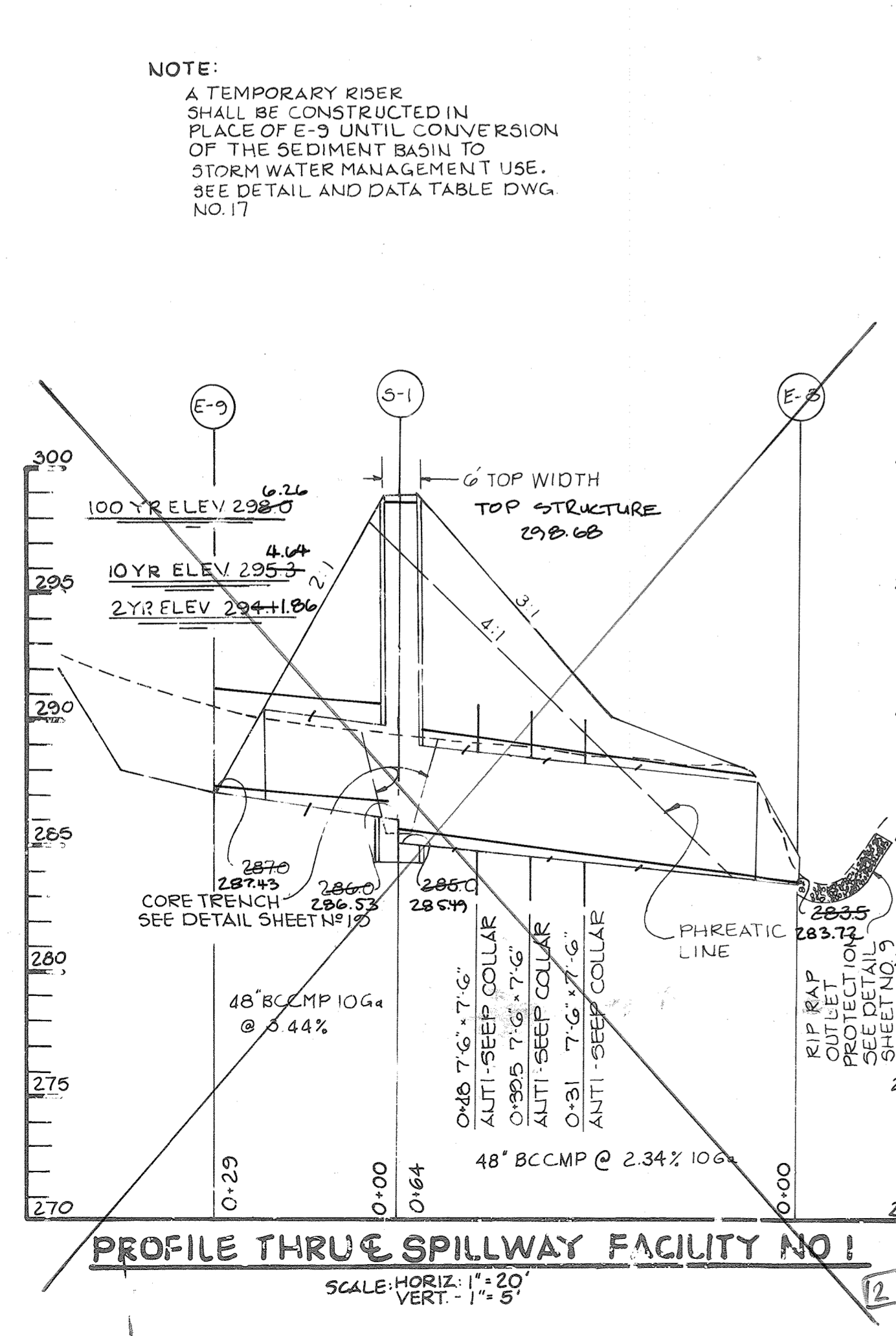


UNDERDRAIN OUTLET DITCH SECTION
NO SCALE

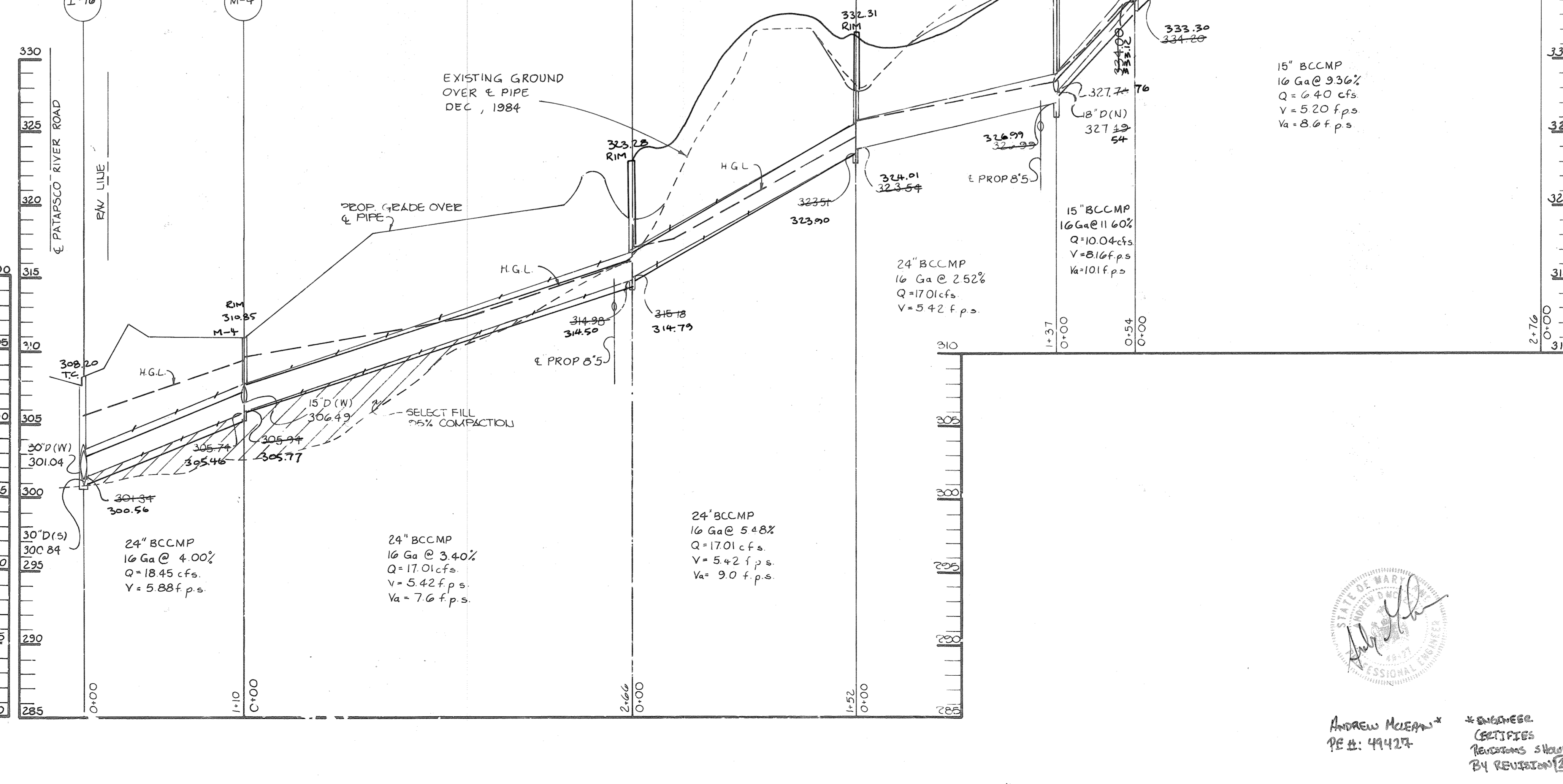
NOTES:
1. ALL REBAR SHALL HAVE A 2" MINIMUM CLEAR COVER.
2. SHADED AREA (WEIR WALL) SHALL NOT BE CONSTRUCTED UNTIL CONVERSION OF THE SEDIMENT BASIN TO STORM WATER MANAGEMENT USE.



PROFILE ALONG & DAM FACILITY NO. 1
SCALE: HORIZ: 1"=50'
VERT: 1"=5'



PROFILE THRU SPILLWAY FACILITY NO. 1
SCALE: HORIZ: 1"=20'
VERT: 1"=5'



APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

John W. Muschman 8-27-85
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

William E. Muegge 8-25-85
CHIEF, BUREAU OF ENGINEERING DATE

BY THE DEVELOPER:

"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 WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Marvin F. Weissberg Aug 1985
DEVELOPER: MARVIN F. WEISSBERG DATE

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Aethue E. Muegge 8-5-85
ENGINEER: AETHUE E. MUEGGE DATE

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

Robert D. Ziehan 8-12-85
U.S. SOIL CONSERVATION SERVICE DATE

APPROVED: *Robert D. Ziehan* 8-9-85
HOWARD S.C.D. DATE

DATE NO. REVISION

OWNER / DEVELOPER
WEISSBERG CORPORATION
1101 FORT LAYNE DRIVE
BOSSYVALE, VIRGINIA 22003

PROJECT
RIVER MILLS

AREA
ELECTION DISTRICT #2 HOWARD COUNTY, MARYLAND
TAX MAP # 24 PARCEL 647 ZONED R5C

TITLE
STORM WATER MANAGEMENT PROFILES & DETAILS

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
5 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301-461-2690

DATE 8-5-85

DESIGNED BY LJD
DRAWN BY BAC
PROJECT NO 1700
DATE APRIL 24, 1985
SCALE AS SHOWN
DRAWING NO. 16 OF 19

ANDREW MEEHAN
PE # 49427

ARTHUR E. MUEGGE
PROFESSIONAL ENGINEER

POUND CONSTRUCTION SPECIFICATIONS

I. SITE PREPARATION

Areas under the borrow areas, embankment, and structural works shall be cleared, grubbed and the topsoil stripped to remove all trees, vegetation, roots or other objectionable material.

Areas covered by the pond or reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans.

All cleared and grubbed material shall be disposed of outside the limits of the dam and reservoir as directed by the owner or his representative.

II. EARTH FILL

The fill material shall be taken from approved designated borrow area or areas. It shall be free of roots, stumps, wood, rubbish, oversize stones, frozen or other objectionable materials.

Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in 8-inch maximum thickness (before compaction) layers which are to be continuous over the entire length of the fill.

III. STRUCTURAL BACKFILL

Backfill material shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other compaction equipment.

IV. CORRUGATED METAL PIPE

(Steel Pipe)-This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands.

V. CONCRETE

1. Cement - Normal Portland cement shall conform to the latest ASTM Specification C-150.
2. Water - The water used in concrete shall be clean, free from oil, acid, alkali, scales, organic matter or other objectionable substances.

The concrete shall be mixed in the following proportions, measured by weight. The water-cement ratio shall be 5-3 to 6 U.S. gallons of water per 94 pound bag of cement.

Forms:

The forms shall have sufficient strength and rigidity to hold the concrete and to withstand the necessary pressure, tamping, and vibration without deflection from the prescribed lines.

Reinforcing Steel: All reinforcing material shall be free of dirt, rust, scale, oil, paint or other coatings. The steel shall be accurately placed and securely tied and blocked into position so that no movement of the steel will occur during placement of concrete.

Consolidating:

Concrete shall be consolidated with internal type mechanical vibrators. Vibration shall be supplemented by spading and hand tamping as necessary to insure smooth and dense concrete along form surfaces.

Finishing:

Defective concrete, honeycombed areas, voids left by the removal of tie rods, edges on all concrete surfaces permanently exposed to view or exposed to water on the finished structure, shall be repaired immediately after the removal of forms.

Protection and Curing:

Exposed surfaces of concrete shall be protected from the direct rays of the sun for at least the first three (3) days. All concrete shall be kept continuously moist for at least ten (10) days after being placed.

Placing Temperature:

Concrete may not be placed at temperatures below 37° F with the temperature falling, or 32° with the temperature rising.

VI. STABILIZATION

All borrow areas shall be graded to provide proper drainage and left in a slightly undulating. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, fertilizing and mulching (if required) in accordance with the vegetative treatment specifications shown on or accompanying the drawings.

SEEDING 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.
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.

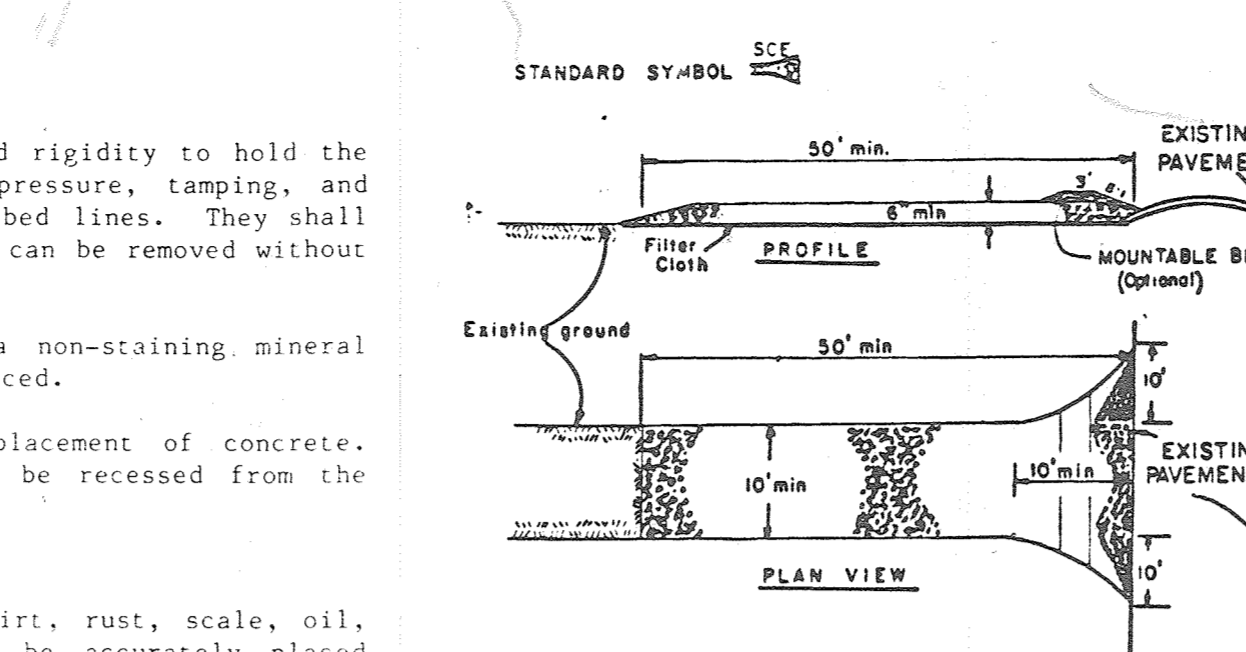
7. Site Analysis:

Table with 2 columns: Item, Value. Includes Total Area of Site (44.81 acres), Area Disturbed (40.00 acres), Area to be roofed or paved (15.00 acres), Area to be vegetatively stabilized (19.800 cu. yds.), Total Cut (192.800 cu. yds.), Total Fill (192.857 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.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.
Seeded Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.



- 1. Stone Size - Use 2" stones, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 feet (except on a single residence lot where a 25 foot minimum length would apply).

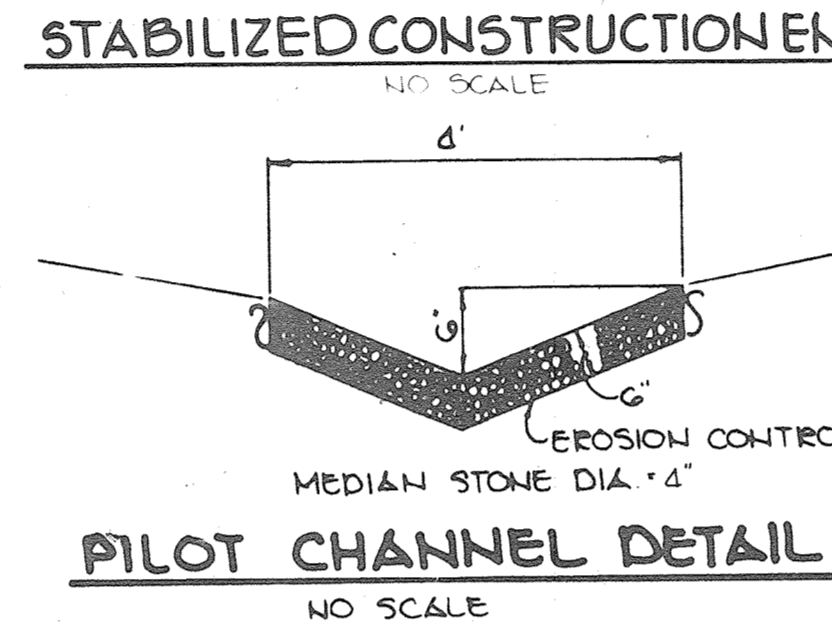
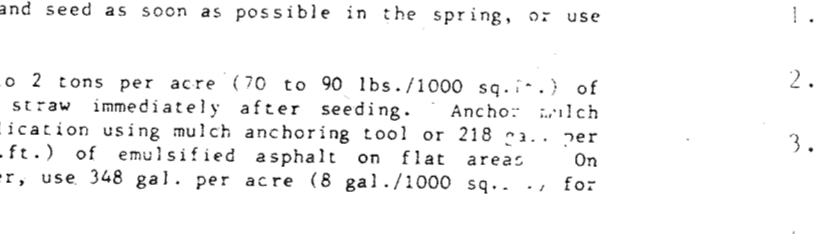


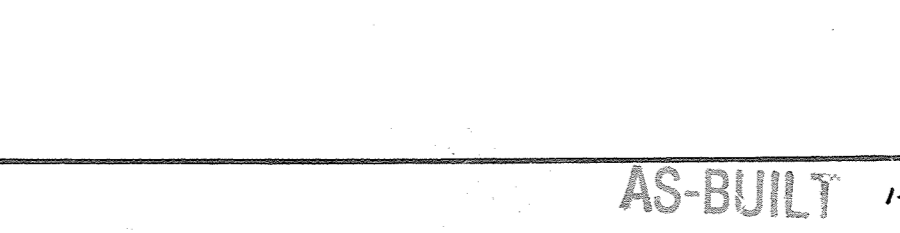
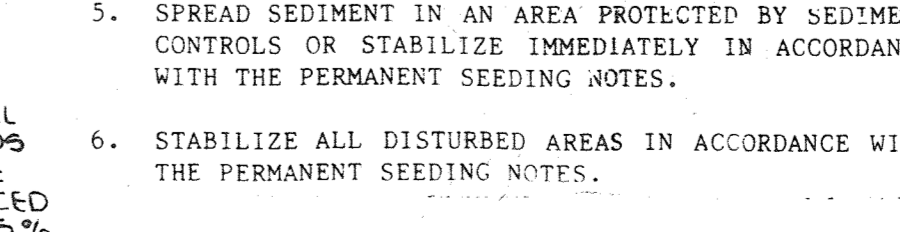
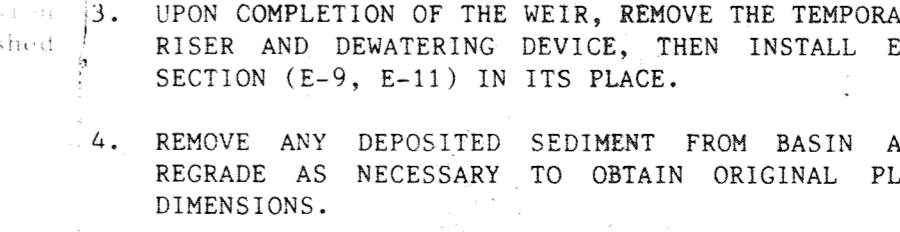
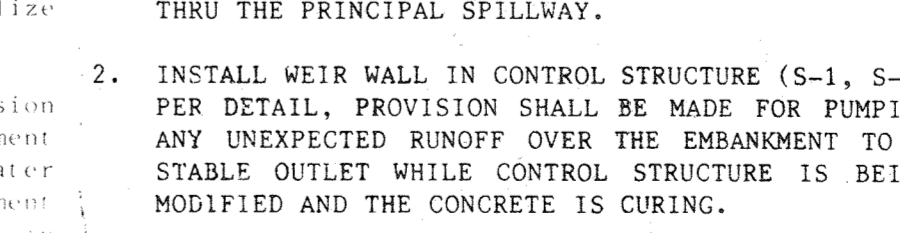
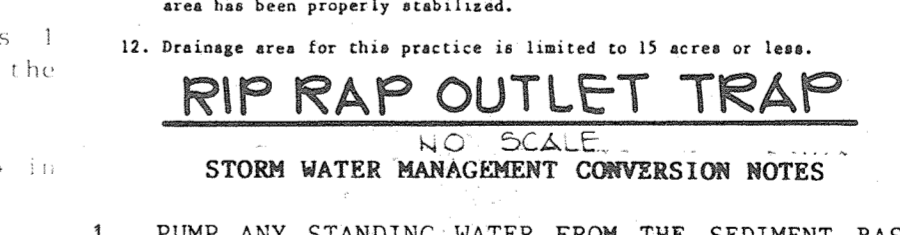
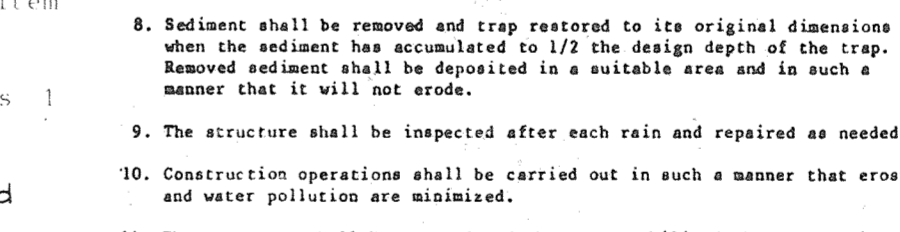
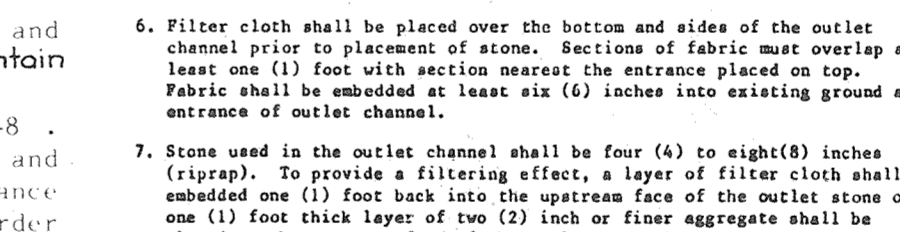
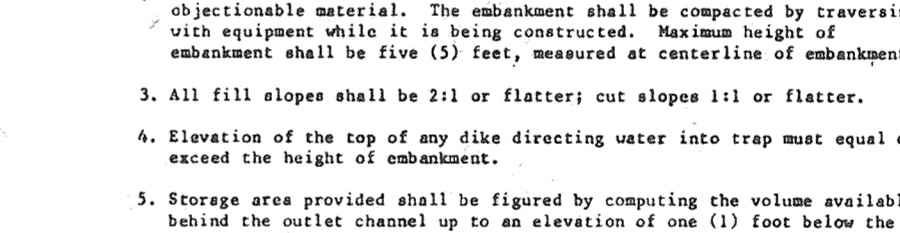
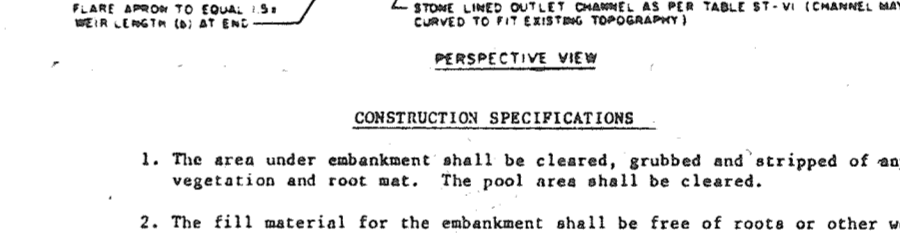
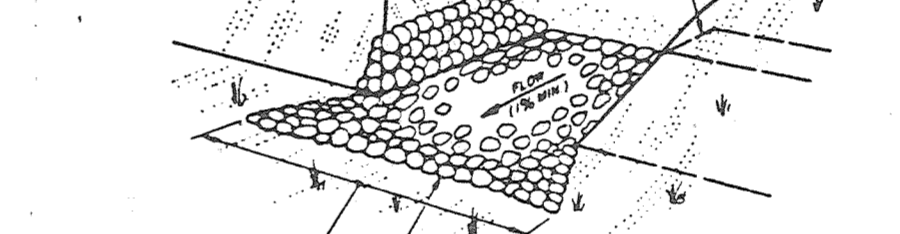
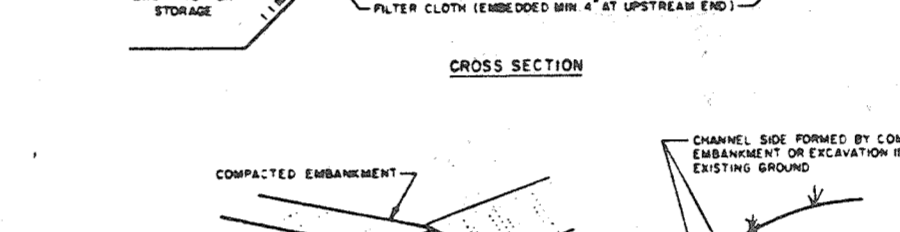
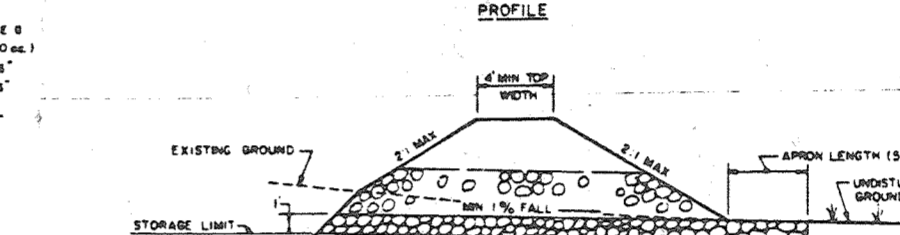
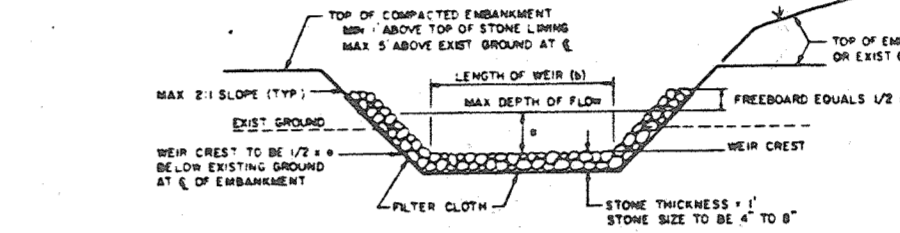
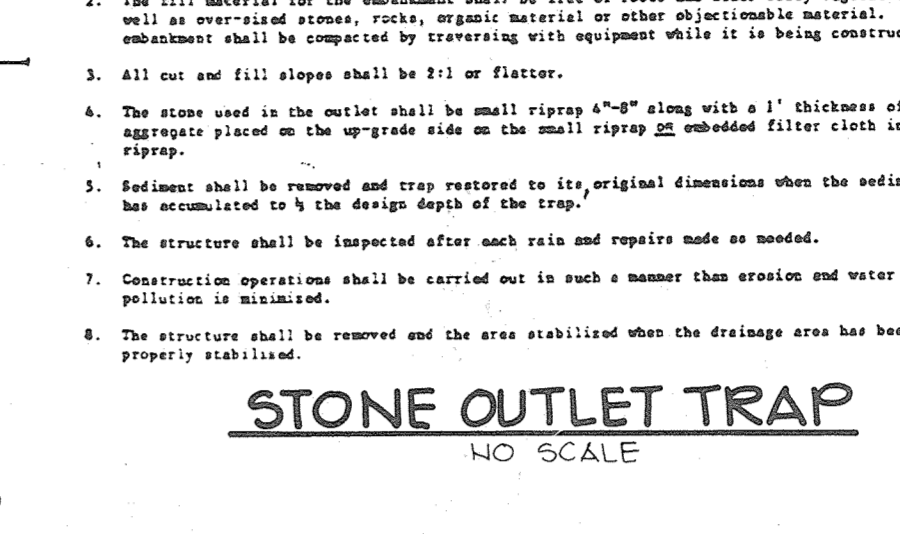
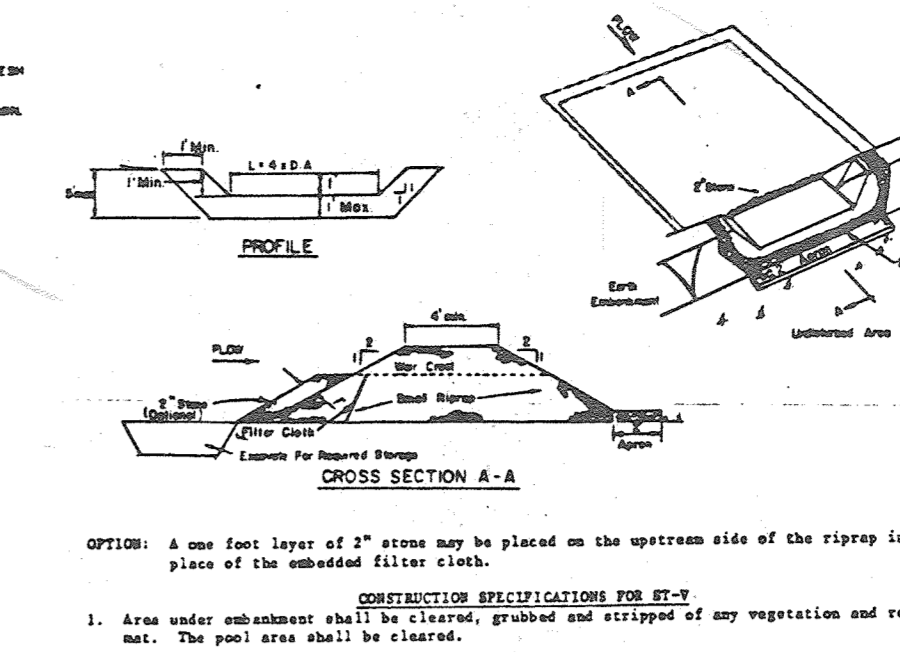
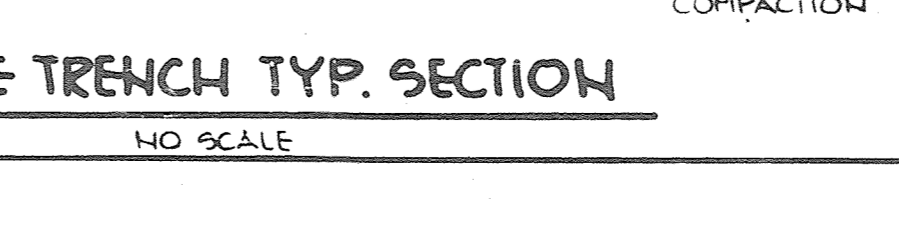
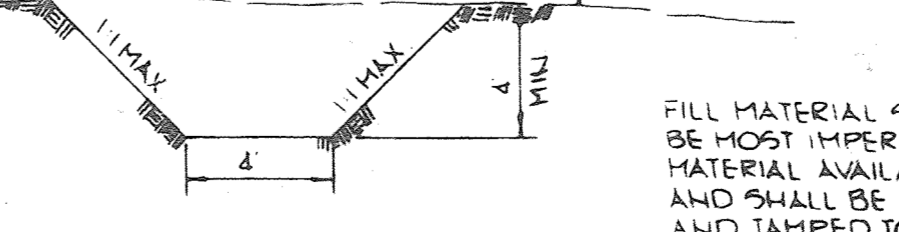
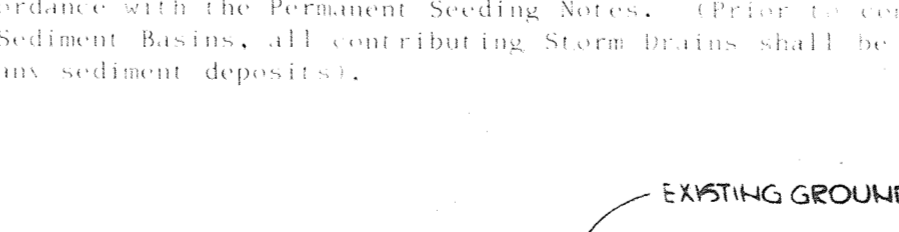
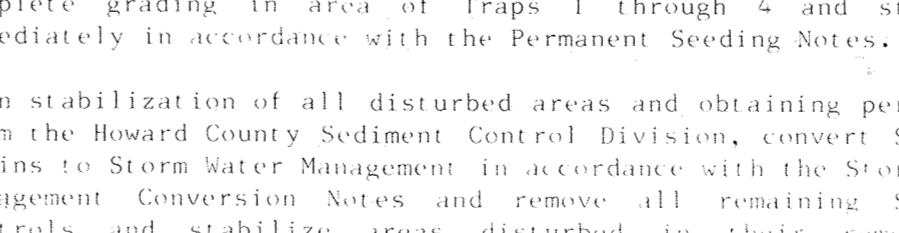
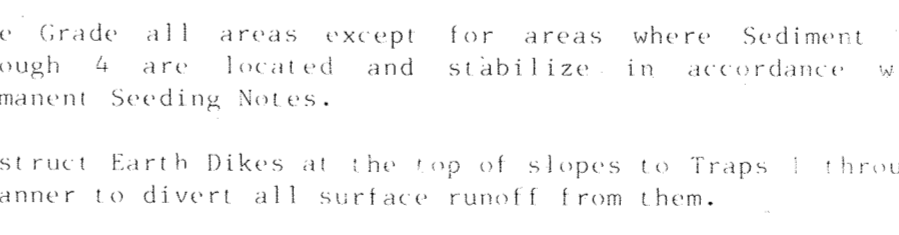
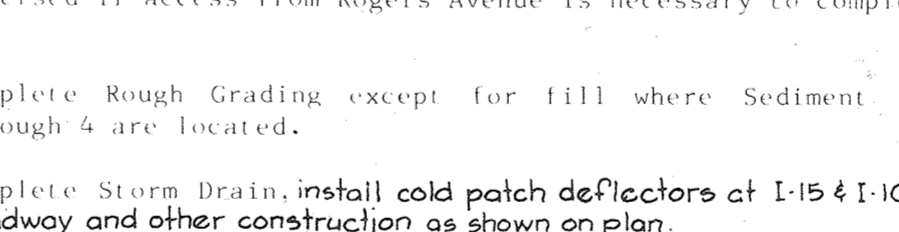
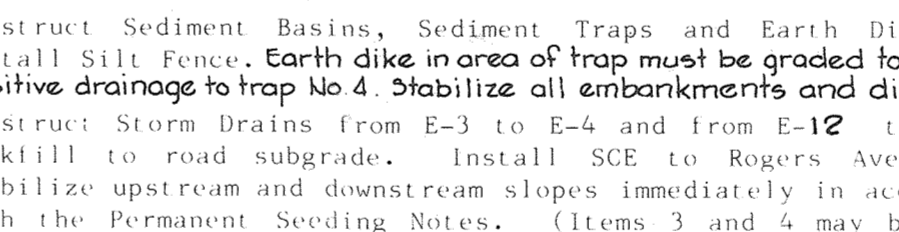
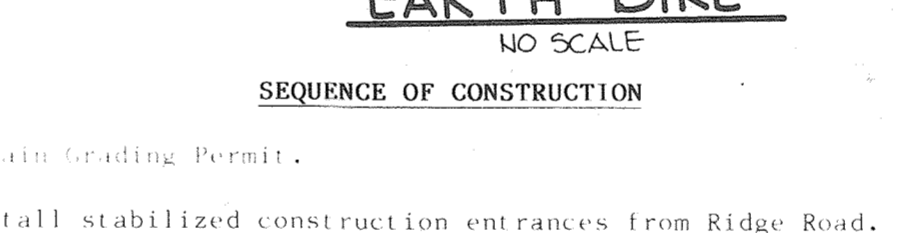
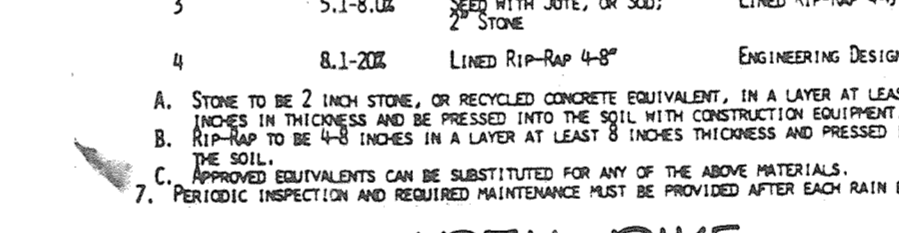
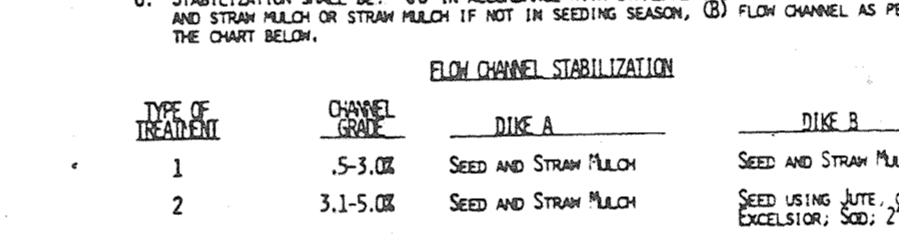
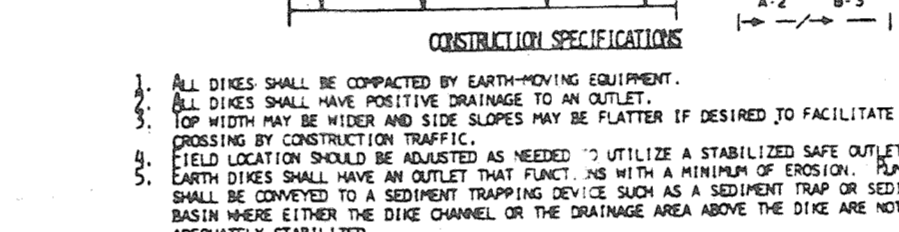
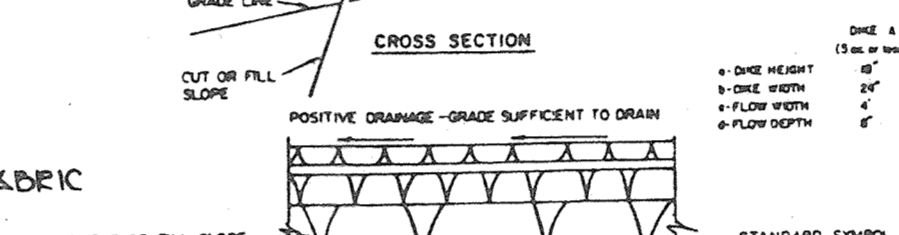
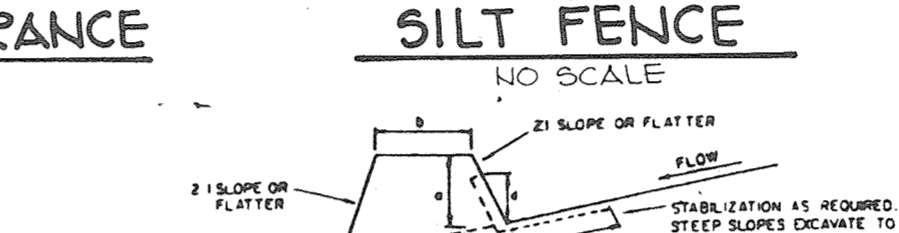
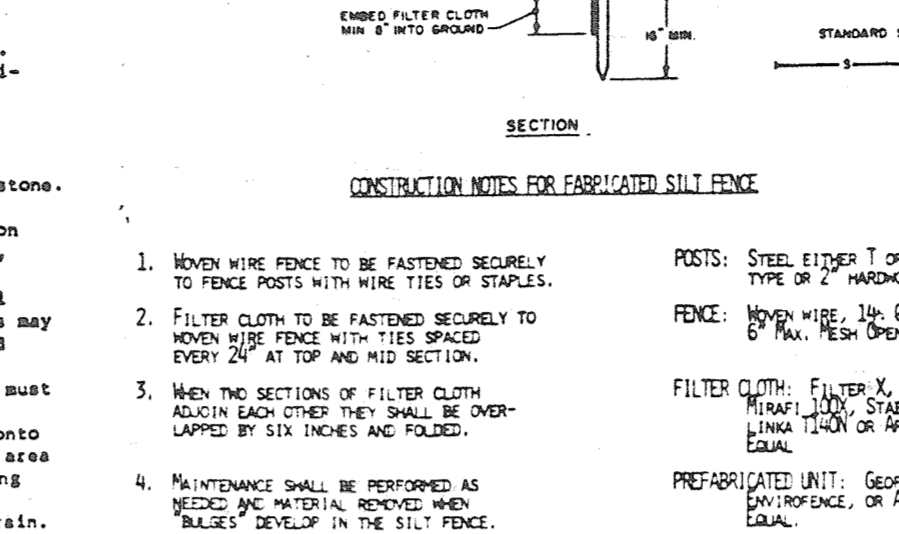
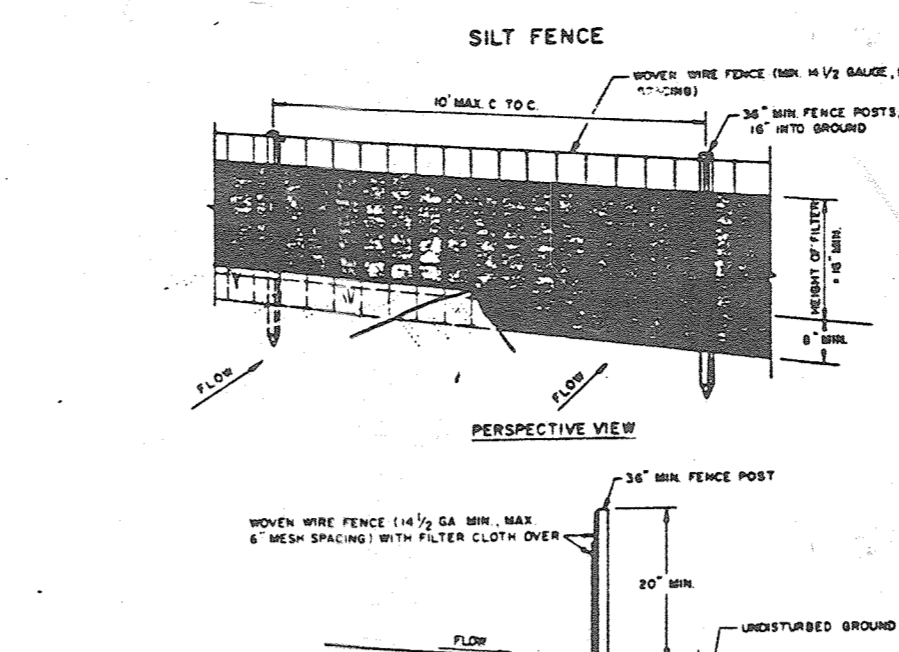
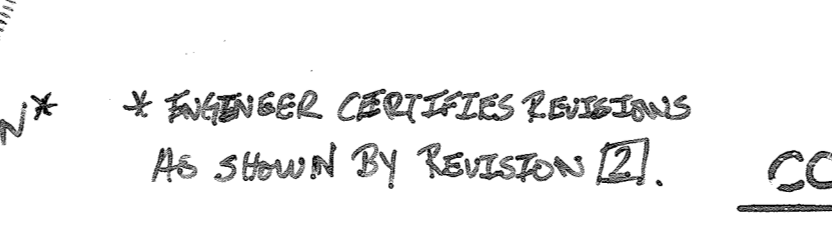
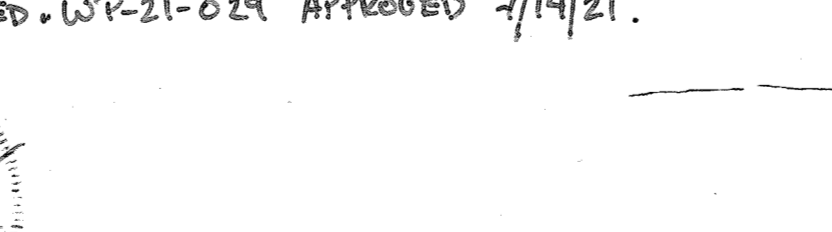
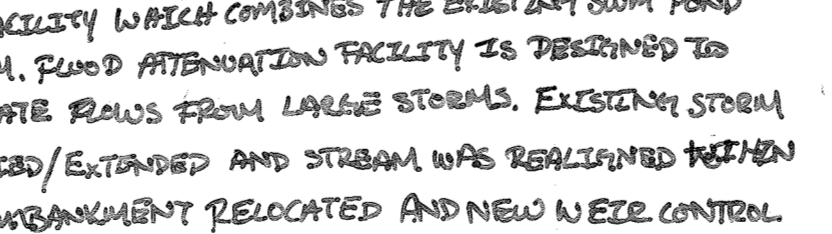
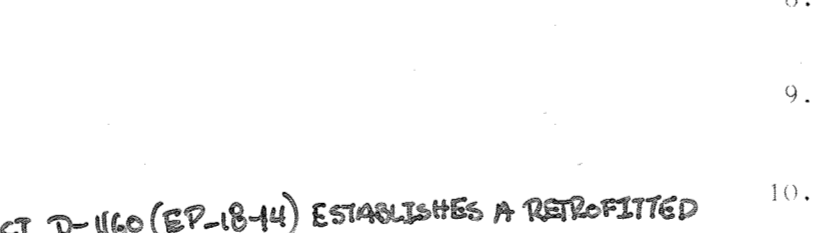
Table for SITE ANALYSIS showing AREA OF SITE (45.1A), AREA DISTURBED (45.1A), AREA TO BE PAVED (75.6A), and AREA TO BE RE-VEGETATED (37.5A).

Table for FLOW CHANNEL STABILIZATION showing CHANNEL SIZE, DIKE A, and DIKE B specifications.

Table for EARTH DIKE showing SEQUENCE OF CONSTRUCTION steps 1 through 10.



NOTE: CAPITAL PROJECT D-160 (EP-18-14) ESTABLISHES A REDEVELOPED ROAD ATTENUATION FACILITY WHICH COMBINES THE EXISTING SWAMP POND AND ADJACENT STREAM. POND ATTENUATION FACILITY IS DESIGNED TO CAPTURE AND ATTENUATE RUNOFF FROM LARGE STORMS. EXISTING STORM DRENAGE WERE MAINTAINED/EXTENDED AND STREAM WAS REALIGNED BETWEEN THE NEW FACILITY. EMBANKMENT RELOCATED AND NEW WEIR CONTROL STRUCTURE INSTALLED. W.P.-21-0122 APPROVED 7/14/21.



APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

John W. Meacham 8-27-15
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Marvin F. Weissberg 8-23-15
CHIEF, BUREAU OF ENGINEERING

BY THE DEVELOPER:
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.

By the Engineer:
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS.

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

APPROVED: U.S. SOIL CONSERVATION SERVICE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

OWNER/DEVELOPER: WEISSBERG CORPORATION, 1011 POET LAYER DRIVE, ROSSLYN, VIRGINIA 22209

PROJECT: RIVER MILLS

AREA: ELECTION DISTRICT 102 HOWARD COUNTY, MARYLAND. TAX MAP 102 24. PARCEL 847. ZONED RSC.

TITLE: STORM WATER MANAGEMENT & SEDIMENT CONTROL, & NOTES & DETAILS

THE RIEMER GROUP, INC. A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM

DESIGNED BY JKB, DRAWN BY JCU

DATE: APRIL 22, 1985

SCALE: AS SHOWN, DRAWING NO. 19 OF 19