

SHEET INDEX	
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4	PLAN AND PROFILE FOR GILBRIDE LANE
5	PLAN AND PROFILE FOR GILBRIDE LANE
6	PLAN AND PROFILE FOR SHEEPHEAD COURT AND STORM DRAIN PROFILES
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8	DRAINAGE AREA MAP
9	DRAINAGE AREA MAP
10	GRADING AND SEDIMENT CONTROL PLAN
11	GRADING AND SEDIMENT CONTROL PLAN
12	GRADING AND SEDIMENT CONTROL PLAN
13	EXISTING POND PLAN, PROFILES AND DETAILS
14	ROW PLANTING PLAN
15	ROW PLANTING PLAN

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 TO VERIFY THEIR LOCATION AND ELEVATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF LOCATION OF UTILITIES IS OTHER THAN SHOWN.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK ON THESE DRAWINGS:

MISL UTILITY	1-800-257-7777
C&P TELEPHONE COMPANY	725-9976
AT&T CABLE LOCATION DIVISION	393-3553
BALTIMORE GAS AND ELECTRIC COMPANY	685-0123
STATE HIGHWAY ADMINISTRATION	531-5533
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 DESIGN MANUAL, VOL. IV, I.E., STANDARD SPECIFICATIONS AND DETAILS.
- STORM DRAIN BACKFILL WITHIN ROADWAYS, UNDER STRUCTURES AND FOR STORM DRAIN TRENCHES SHALL BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM 1557.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL STORM DRAIN PIPE BEDDING SHALL BE AS SHOWN IN DETAIL G2.01 (TRENCH IN ROCK OR TRENCH IN EARTH AS DETERMINED BY FIELD CONDITIONS) IN VOL. IV OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AS SHOWN ON THE DRAWINGS.
- ALL STREET CURB RETURNS SHALL HAVE 35.0" RADIUS UNLESS OTHERWISE NOTED.
- ALL ELEVATIONS SHOWN ARE BASED ON U.S.G.S. MEAN SEA LEVEL DATUM, 1929.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ϕ ELEVATIONS.
- TOPO TAKEN FROM FIELD RUN SURVEY DATED FEBRUARY, 1988.
- SUBJECT PROPERTY ZONED R PER 8.2.85 COMPREHENSIVE ZONING PLAN.
- INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING, AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 1984 EDITION.
- DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS:

ALL 80'± RIGHT-OF-WAYS 40' U.P.H. - GILBRIDE LANE & SHEEPHEAD COURT
ALL 80'± RIGHT-OF-WAYS 40' U.P.H. - TRIADDELPHIA MILL ROAD

- LOTS 2 AND 26 AT PLOT PLAN STAGE WILL REQUIRE A 18" CMP 16 Gg CULVERT UNDER DRIVEWAY.
- LOT 4 AT PLOT PLAN STAGE WILL REQUIRE AN 18" CMP 16 Gg CULVERT UNDER DRIVEWAY.
- LOT 22 AT PLOT PLAN STAGE WILL REQUIRE AN 18" CMP 16 Gg CULVERT UNDER DRIVEWAY.

HORIZONTAL AND VERTICAL CONTROL USED IN AS-BUILT SURVEY.

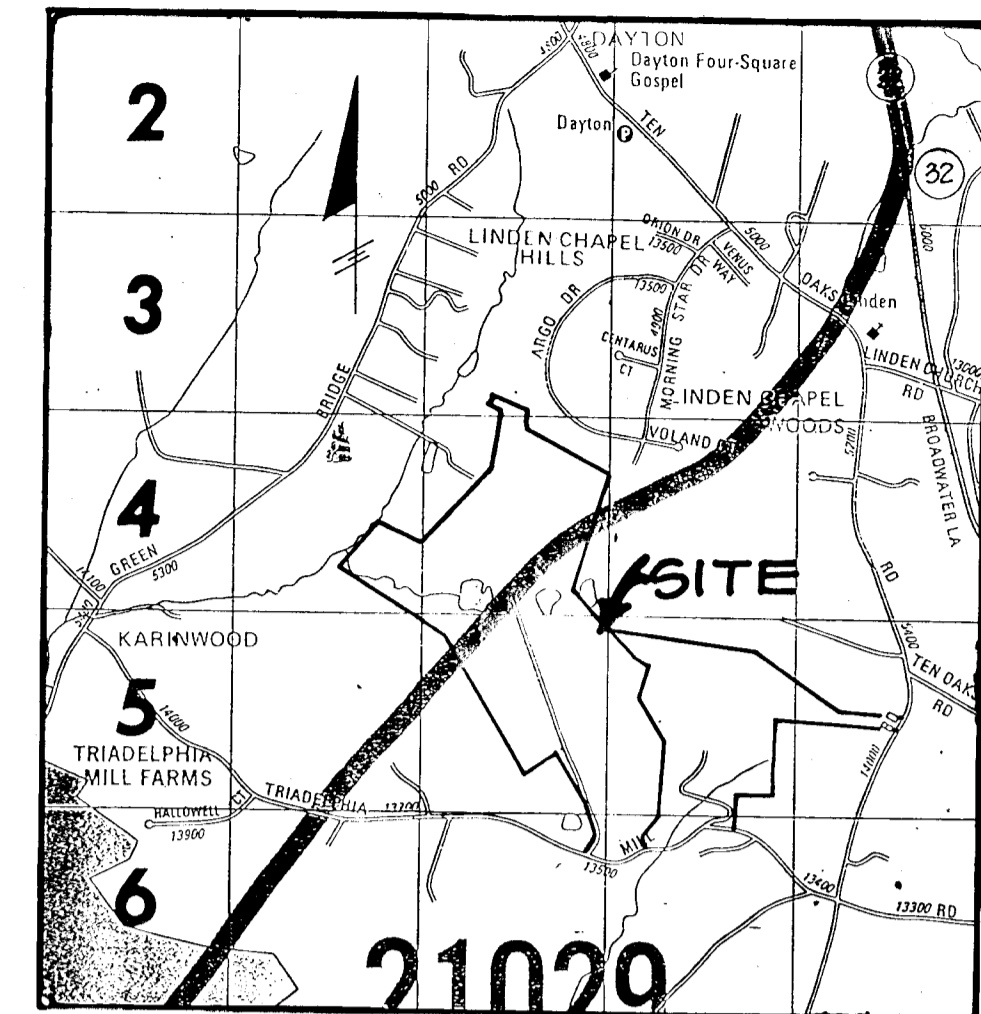
BENCH MARKS

- BM#1 TRAV. 001 ELEV. 557.41 N 505° 05' 00" E 808.19 ± 0.704 I.P. 20'± SW. & GILBRIDE LANE STA. 13+00.
- BM#2 TRAV. 002 ELEV. 516.60 N 506° 55' 00" E 808.00 ± 0.587 I.P. 100'± S.W. & GILBRIDE LANE STA. 23+20
- BM#3 TRAV. 003 ELEV. 518.84 N 500° 58' 00" E 808.15 ± 0.59 I.P. 05'± N.E. & SHEEPHEAD COURT STA. 9+88
- BM#4 TRAV. 004 ELEV. 470.58 N 503° 00' 00" E 808.00 ± 0.625 H&T 20'± NE. HEADWALL ON TRIADDELPHIA MILL ROAD.

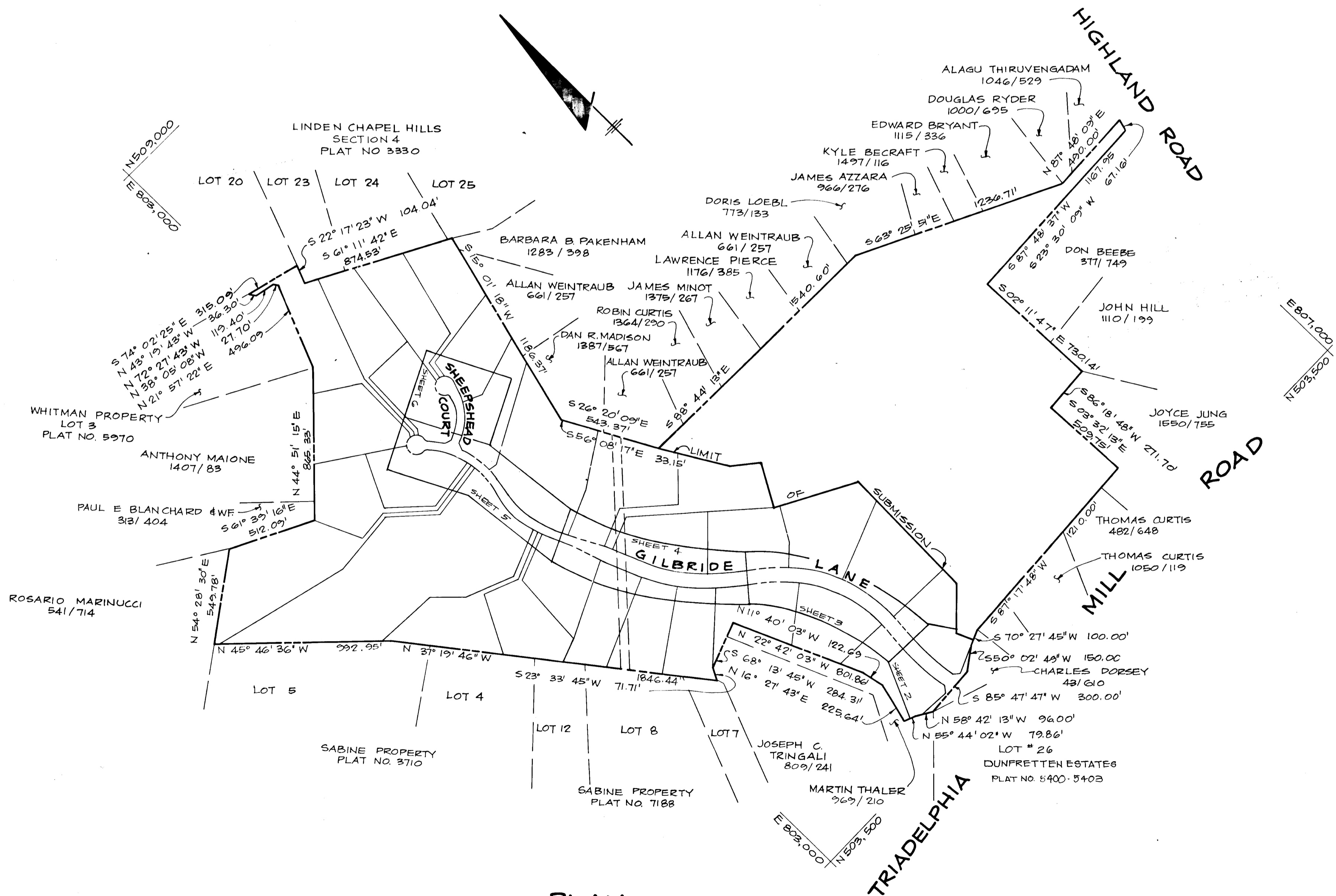
ROADWAYS AND STORM DRAINS

HEDGEROW SECTION ONE

5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 2000'



PLAN
SCALE: 1" = 400'

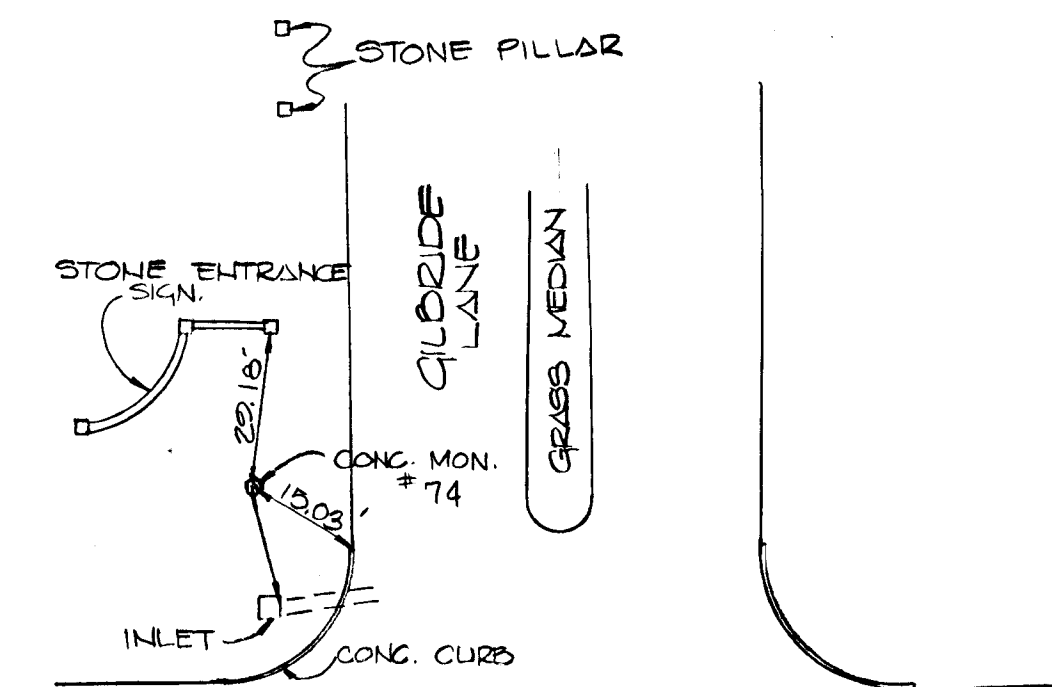
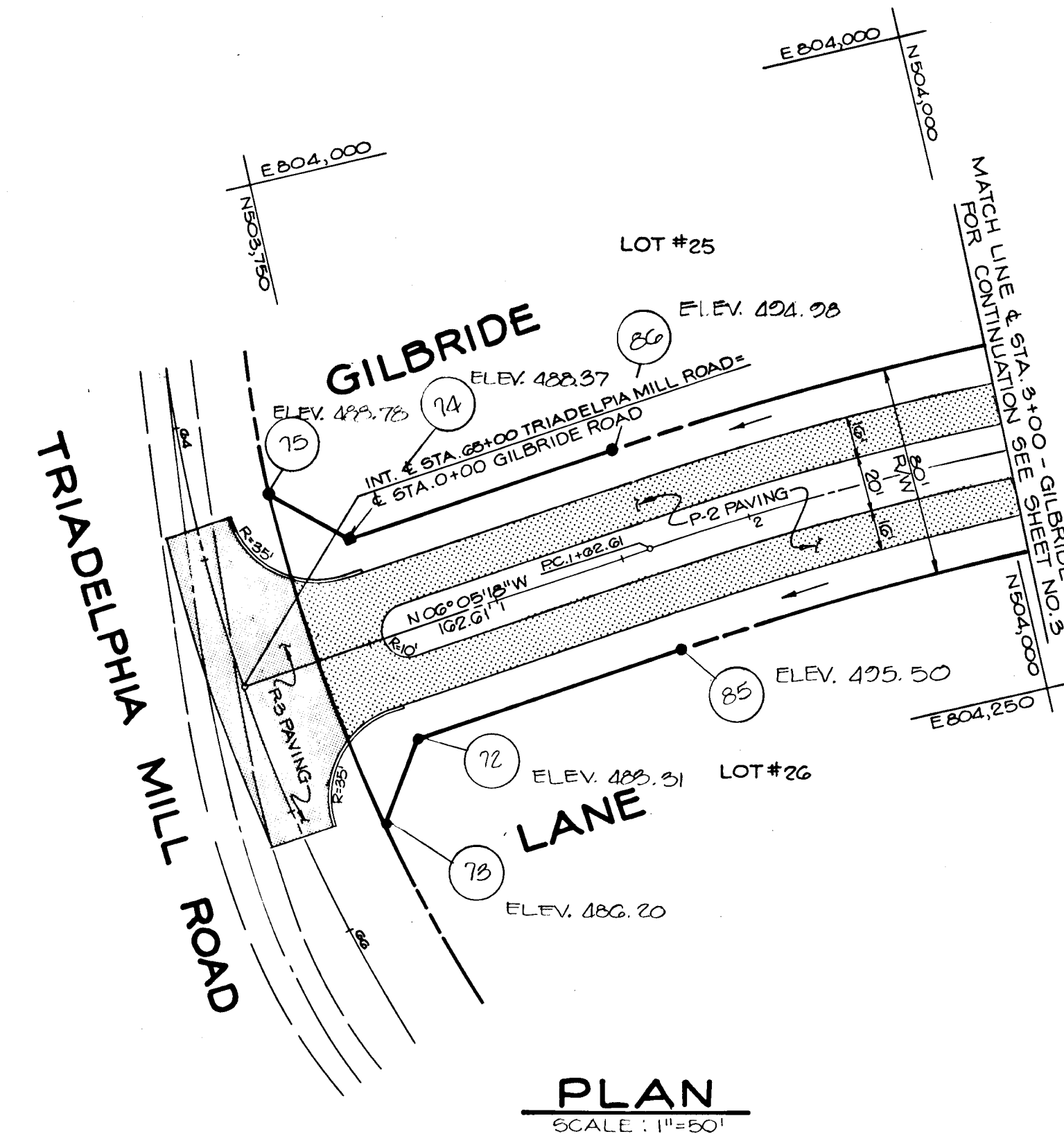
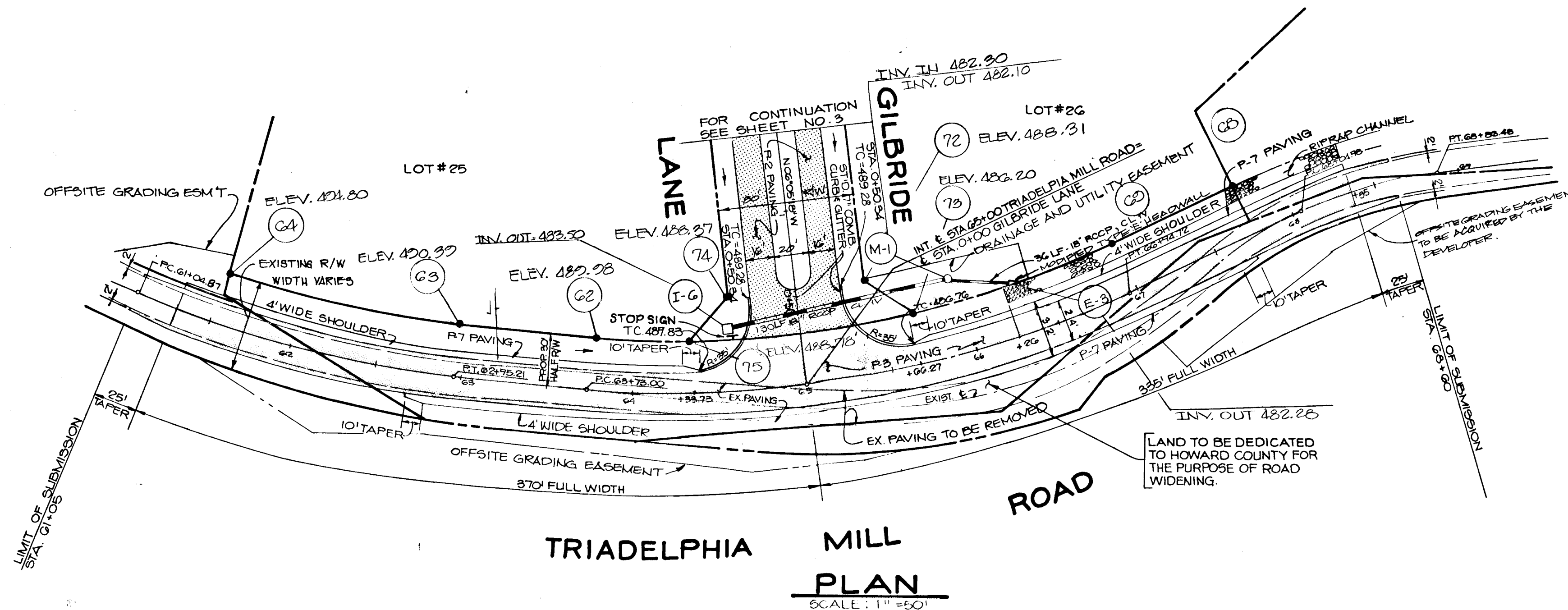
AS-BUILT CERTIFICATION	
ENGINEER _____	DATE _____
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING <i>Mark J. Campbell</i> 7/3/89 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT	
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS <i>James W. Weir</i> 6/28/89 Chief, Bureau of Highways	
DATE NO REVISION	
OWNER / DEVELOPER HEDGEROW ASSOCIATES LIMITED PARTNERSHIP C/O LOWRIE SARGENT 13243 WESTMEATH LANE CLARKSVILLE, MARYLAND 21029	
PROJECT HEDGEROW SECTION ONE (LOTS 1-28 & PARCELS A-B) AREA TAX MAP 28434 PARCELS 50, 60, 30464 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE SHEET	
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 5.10.89	WP-88-69, 588-47, F-88-74
DESIGNED BY: J.L.B.	
DRAWN BY: D.E.S.	
PROJECT NO: 47803	
DATE: MAY 10, 1989	
SCALE: AS SHOWN	
DRAWING NO. 1 OF 15	

CURVE DATA TABLE
 FROM STA. 61+04.87 TO STA. 62+76.21
 DELTA = 19°49'41.4"
 R = 549.99'
 L = 170.34'
 T = 96.13'
 Dc = 10°25'03"
 Chd = 574'08"50.5"E, 169.37'

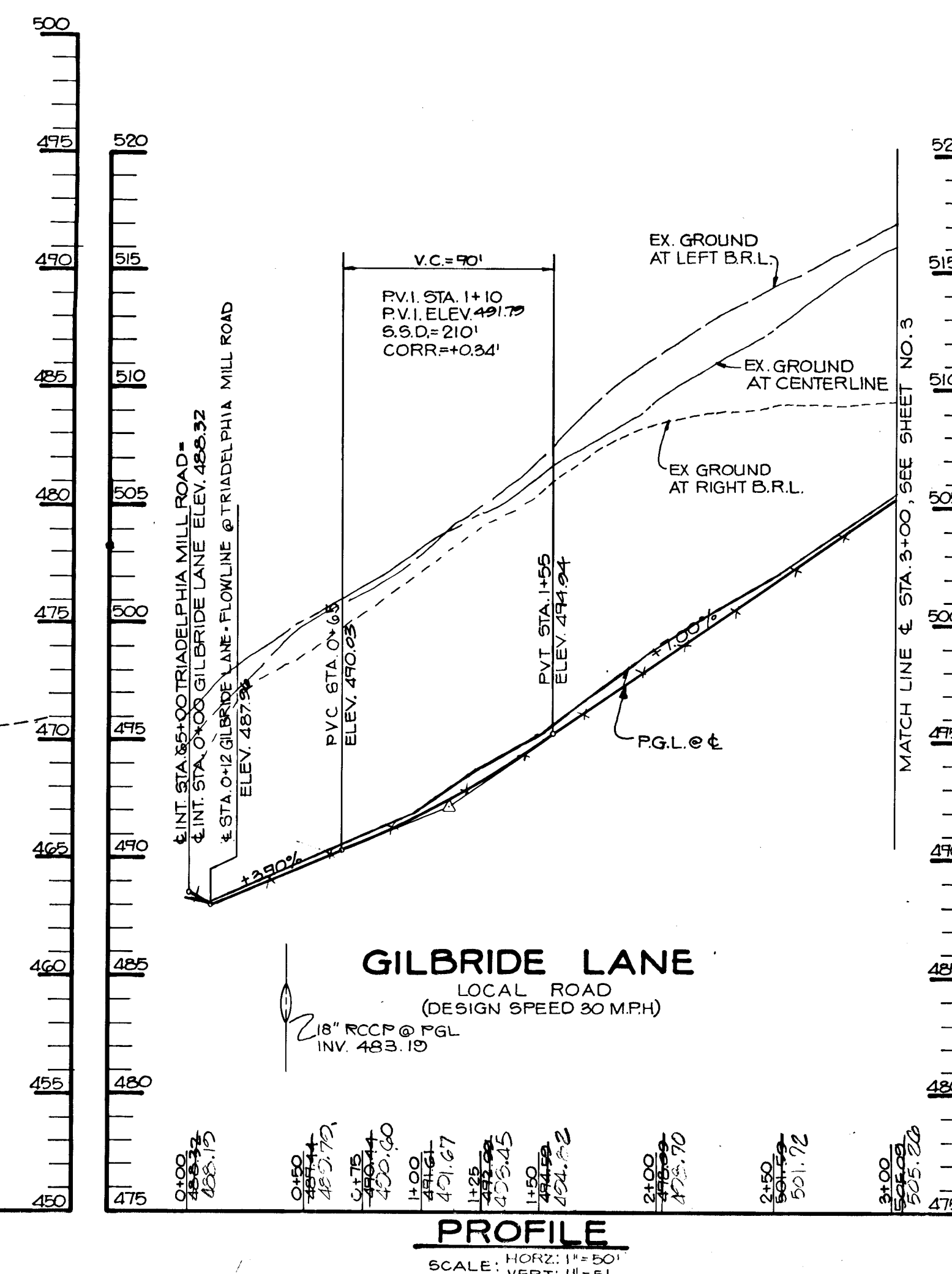
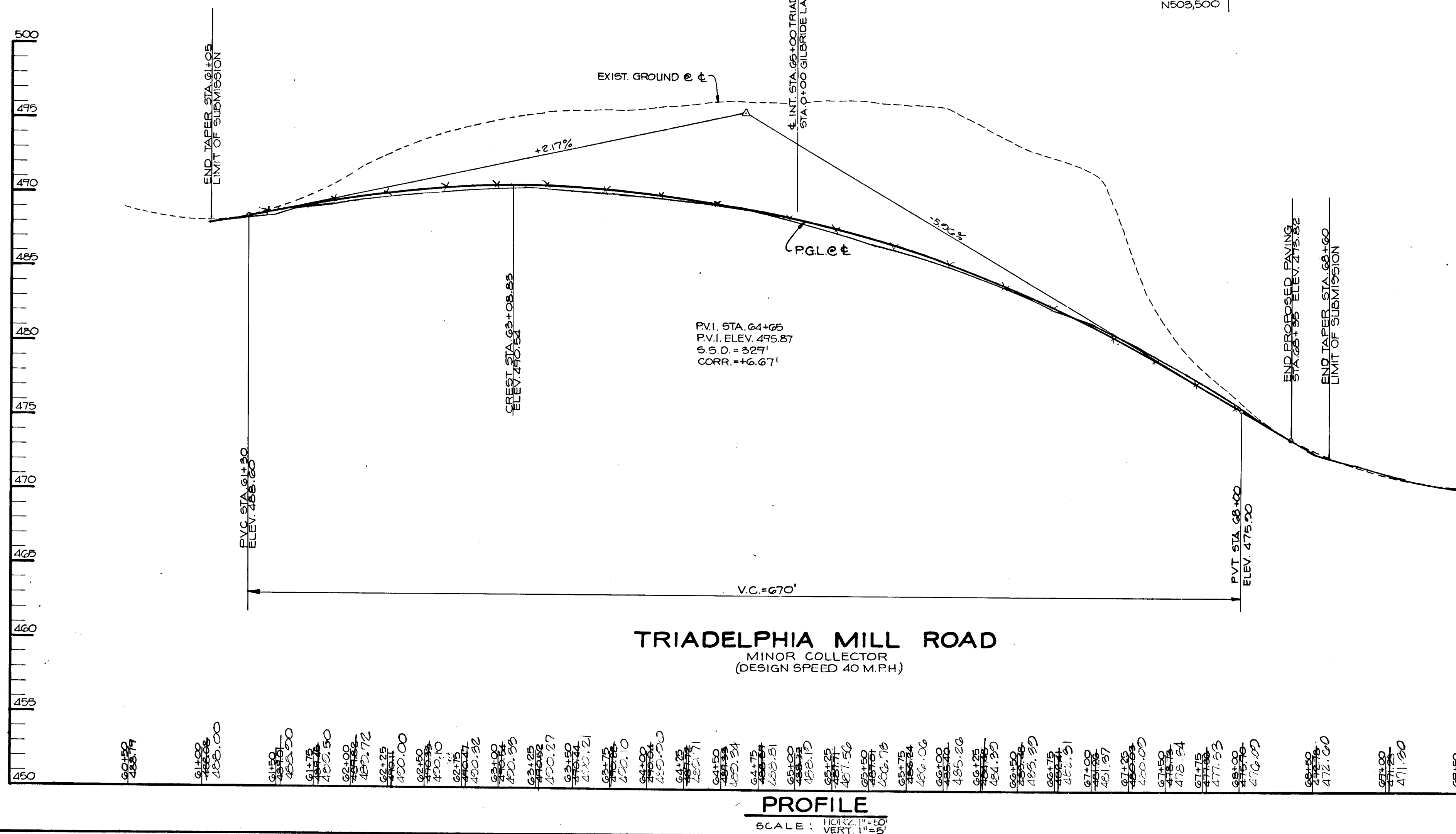
CURVE DATA TABLE
 FROM STA. 65+78.00 TO STA. 66+74.72
 DELTA = 30°28'06"
 R = 605.00'
 L = 321.72'
 T = 164.76'
 Dc = 07°28'15"
 Chd = N 80°42'15.4"E, 317.95'

CURVE DATA TABLE
 FROM STA. 68+04.98 TO STA. 68+86.48
 DELTA = 18°40'42.7"
 R = 250.00'
 L = 81.50'
 T = 41.12'
 Dc = 22°55'05"
 Chd = 74°28'54"W, 81.14'

CURVE DATA TABLE
 FROM STA. 1+02.61 TO STA. 4+04.97
 DELTA = 11°33'10.3"
 R = 1200.00'
 L = 241.96'
 T = 121.89'
 Dc = 04°42'29"
 Chd = N00°18'47"W, 241.55'



- LEGEND**
- DENOTES 1/2" PIPE OR IRON PIN.
 - 4" x 4" x 36" CONCRETE MONUMENT.



AS BUILT CERTIFICATION

ENGINEER _____
 PE # _____ DATE _____

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Mark J. DeYoung 7/2/17
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
 LKS

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Paul M. Seaman 6/3/19
 Chief, Land Development Division
Shawna W. Weisana 6/2/19
 Chief, Bureau of Highways
Elizabeth Anderson Calver 6/2/19
 Chief, Bureau of Engineering

DATE	NO.	REVISION

OWNER/DEVELOPER
 HEDGEROW ASSOCIATES LIMITED PARTNERSHIP
 % LOURIE SARGENT
 19245 WESTMEATH LANE
 CLARKSVILLE, MARYLAND 21029

PROJECT: **HEDGEROW (SECTION ONE)**
 (LOTS 1-28 & PARCELS A-D)

AREA: TAX MAPS 28 & 34 PARCELS 56, 60, 30 & 64
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE: **PLAN AND PROFILE FOR GILBRIDE LANE & TRIADELPHIA MILL RD.**

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

5-10-19 DATE
 WP-88-60, 5-28-17, P.88-74
 DESIGNED BY: JLB
 DRAWN BY: J.C.R.
 PROJECT NO.: 47803
 DATE: MAY 10, 1989
 SCALE: AS SHOWN
 DRAWING NO. 2 OF 15

ARTHUR E. MUEGGEL #6707

1453

E 805,750
N 504,000

E 804,000
N 504,000

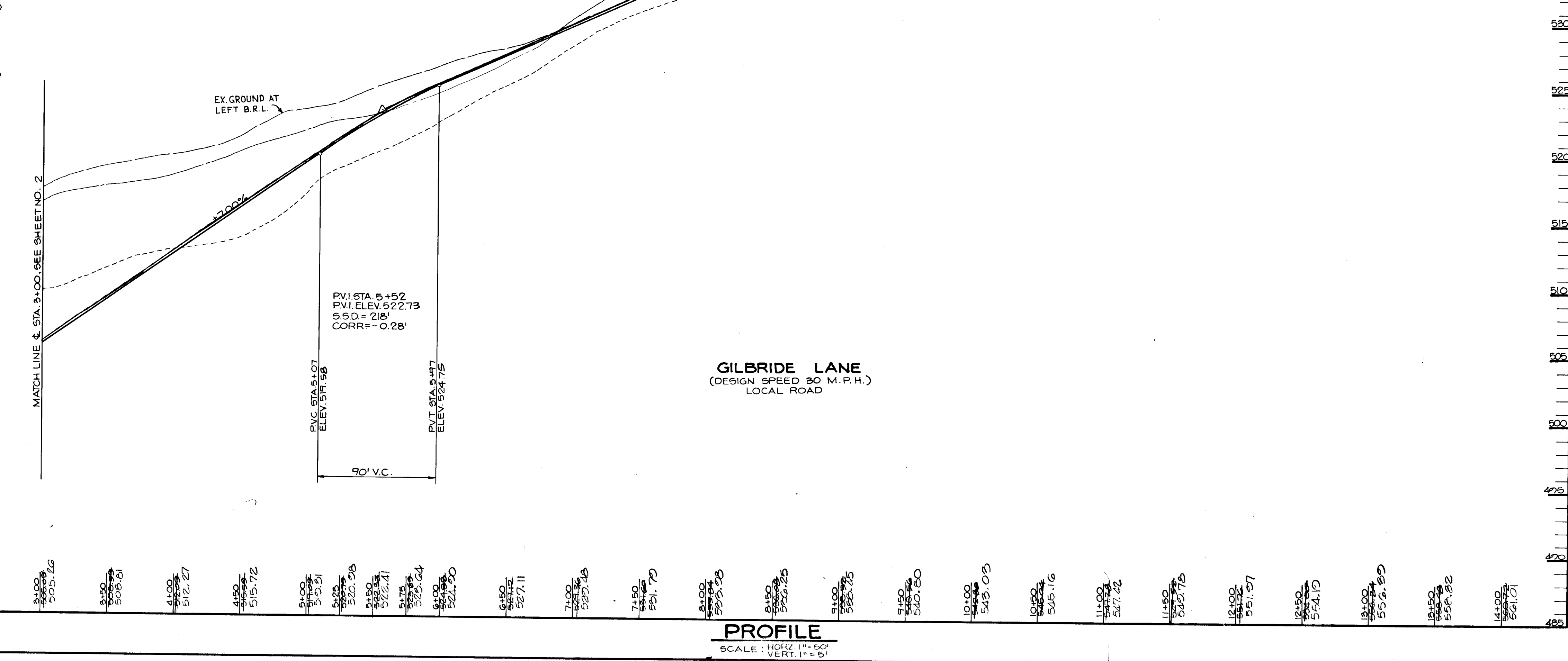
MATCH LINE & STA. 3+00 GILBRIDE LANE
FOR CONTINUATION SEE SHEET NO. 2

MATCH LINE & STA. 3+00 SEE SHEET NO. 2

LEGEND
● DENOTE 1/2" PIN OR IRON SET.
■ 4" x 4" x 36" CONCRETE MONUMENT.

CURVE DATA TABLE
FROM STA. 5+06.77 TO STA. 12+91.47
DELTA = 56°12'51.2"
R = 800.00'
L = 784.90'
T = 427.29'
Dc = 7°10'43"
Cd = N 22°38'36.1" W, 753.79'

CURVE DATA TABLE
FROM STA. 5+06.77 TO STA. 12+91.47
DELTA = 56°12'51.2"
R = 800.00'
L = 784.90'
T = 427.29'
Dc = 7°10'43"
Cd = N 22°38'36.1" W, 753.79'



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

PLAN
SCALE: 1" = 50'

GILBRIDE LANE

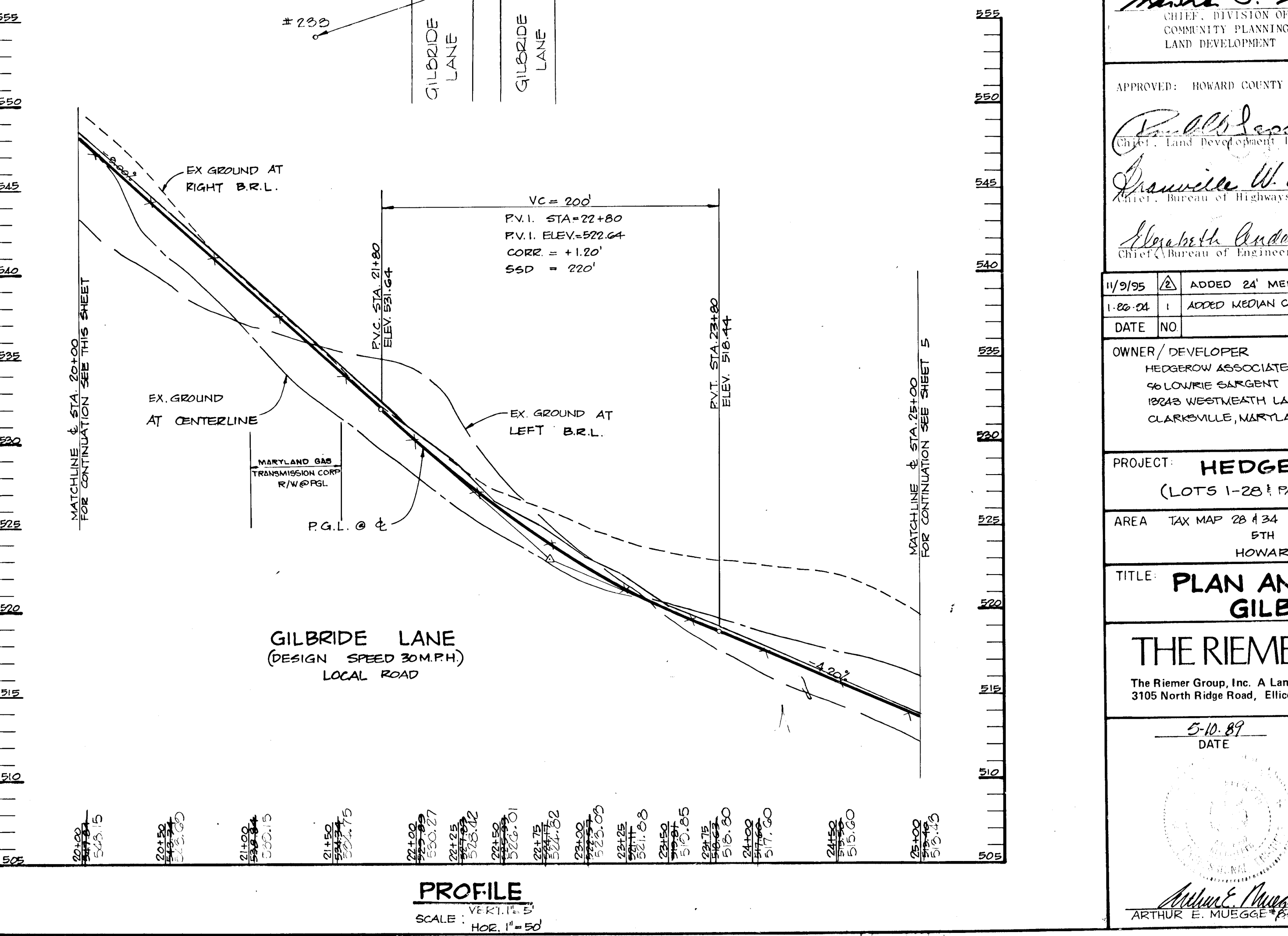
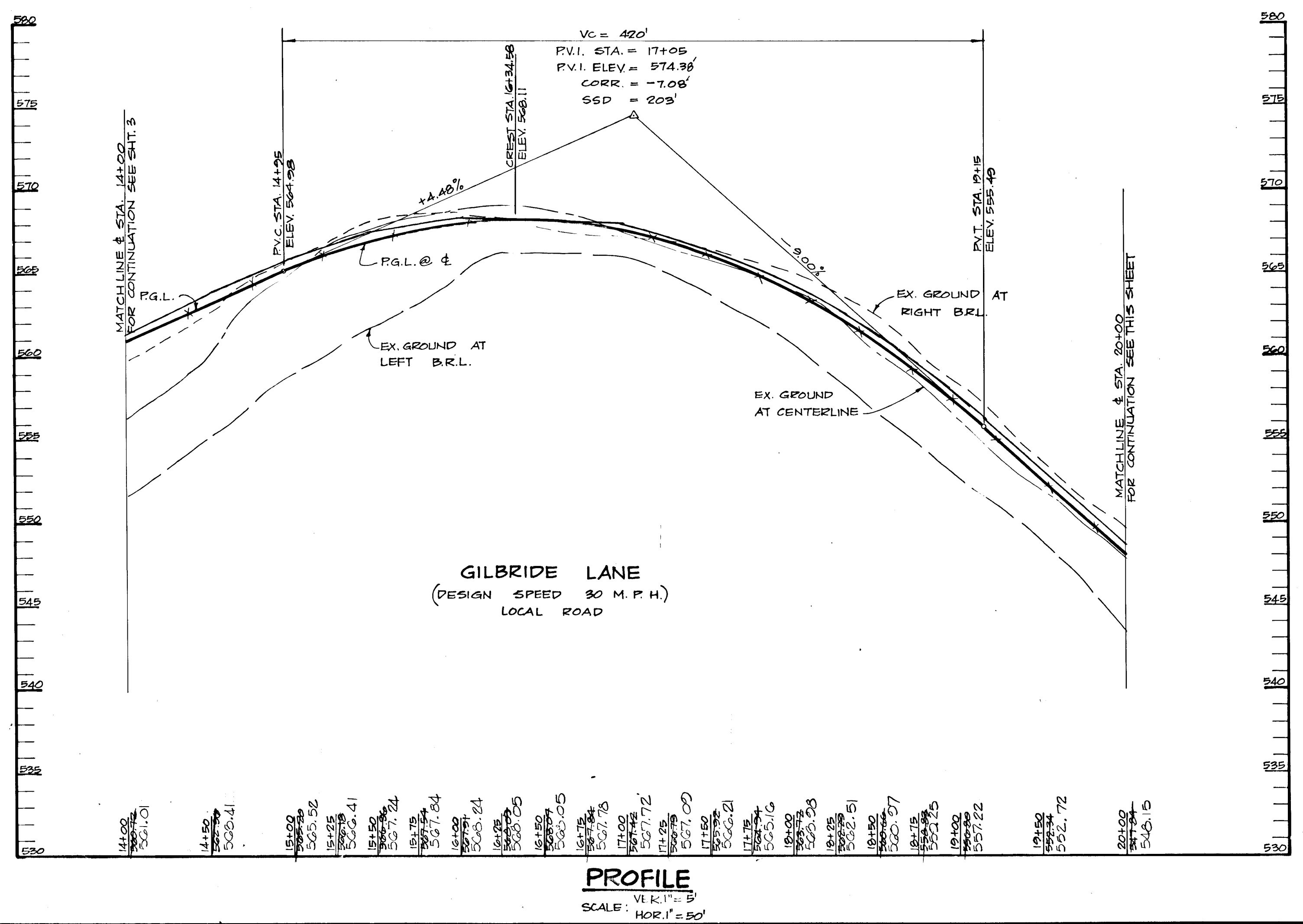
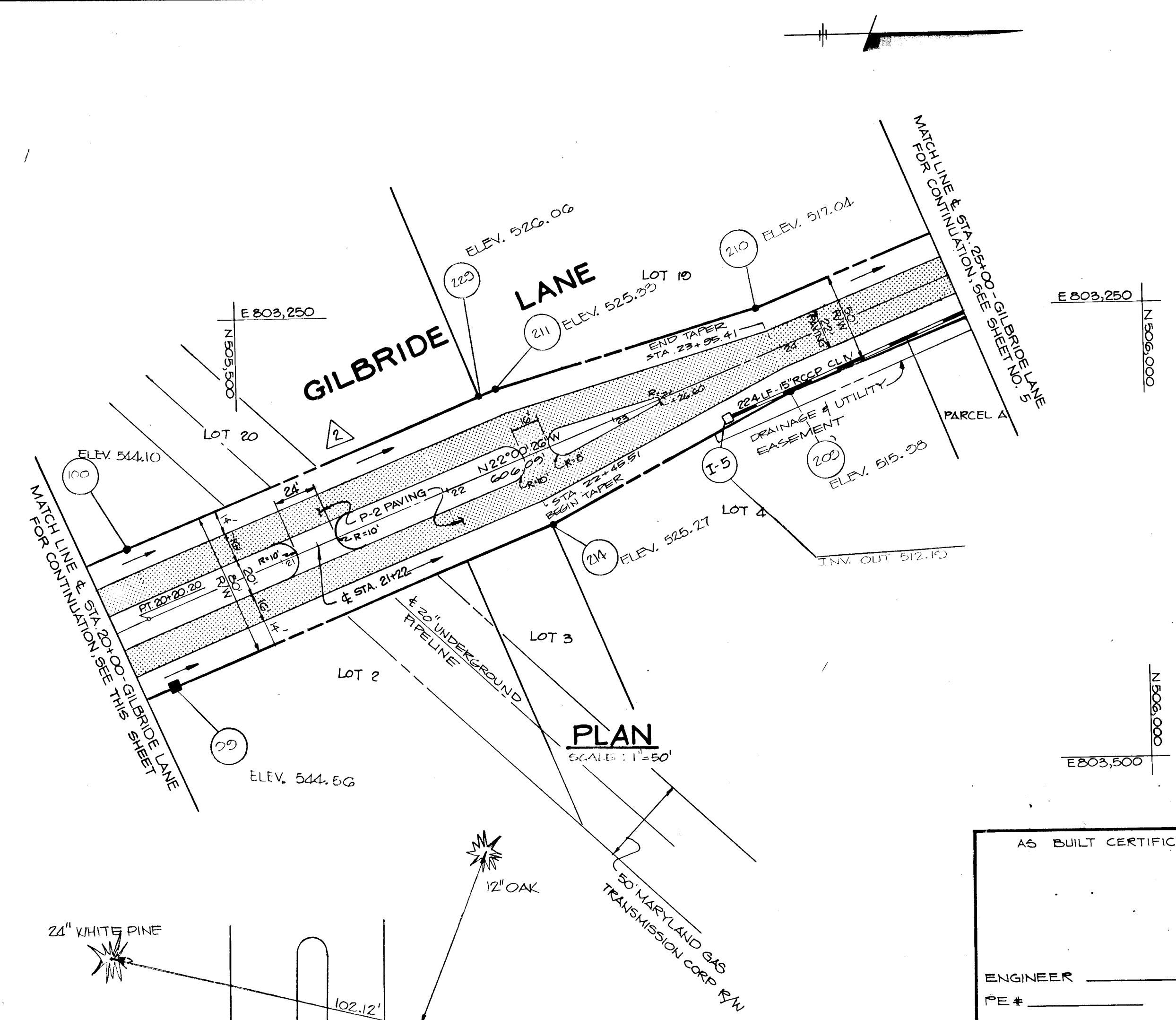
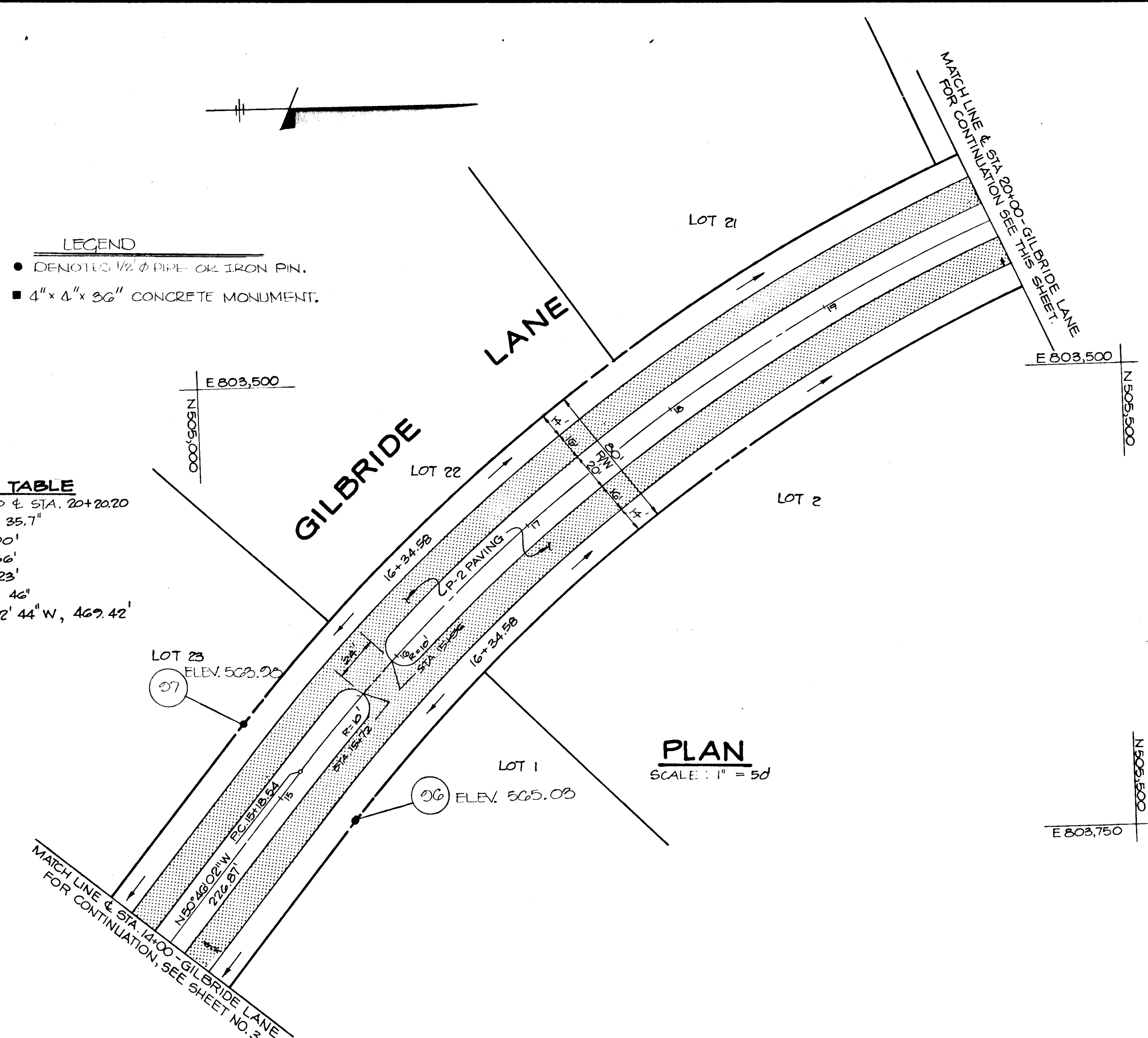
GILBRIDE LANE
(DESIGN SPEED 30 M.P.H.)
LOCAL ROAD

1453

MARYLAND SURVEYING CO., INC. 15282

AS BUILT CERTIFICATION	
ENGINEER _____	DATE _____
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING <i>Mark S. Taylor</i> 7/3/89 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT	
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS <i>John A. Pava</i> 6/19/89 Chief, Land Development Division	
<i>Granville W. Weiland</i> 6/28/89 Chief, Bureau of Highways	
<i>Elizabeth Anderson-Celia</i> 6/29/89 Chief, Bureau of Engineering	
DATE NO. _____	REVISION _____
OWNER/DEVELOPER HEDGEROW ASSOCIATES LIMITED PARTNERSHIP 90 LOWRIE MARGENT 18243 WESTLEATH LANE CLARKSVILLE, MARYLAND 21020	
PROJECT: HEDGEROW SECTION ONE (LOTS 1-28 & PARCELS A-E)	
AREA TAX MAP 28(34) PARCELS 59, 60, 30(64) 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE: PLAN AND PROFILE FOR GILBRIDE LANE	
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: 5-10-89	WP-88-69, S-88-47, P-88-74
DESIGNED BY: J.L.B.	
DRAWN BY: J.C.R.	
PROJECT NO: 47803	
DATE: MAY 10, 1989	
SCALE: AS SHOWN	
DRAWING NO. 3 OF 15	





AS BUILT CERTIFICATION

ENGINEER _____
PE # _____ DATE _____

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Date: 11/13/09
Manda S. Langley
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Date: 11/13/09
John W. Woodard
CHIEF, BUREAU OF HIGHWAYS

APPROVED: 11/13/09
Robert Anderson
CHIEF, BUREAU OF ENGINEERING

11/9/95	ADDED 24' MED. CROSS, GILBRIDE LN. STA. 21+22
1-20-04	ADDED MEDIAN CROSS OVER
DATE	NO REVISION

OWNER/DEVELOPER
HEDGEROW ASSOCIATES LIMITED PARTNERSHIP
56 LOUISE BARGENT
1838 WESTBATH LANE
CLARKSVILLE, MARYLAND 21029

PROJECT: **HEDGEROW (SECTION ONE)**
(LOTS 1-25, PARCELS A-E)

AREA TAX MAP 28 A 34 PARCEL 59, 60, 30 & 64
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: **PLAN AND PROFILE FOR GILBRIDE LANE**

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: 5-10-89
WP-88-09 S-88-17, P-88-74

DESIGNED BY: J.L.B.
DRAWN BY: J.C.R.
PROJECT NO: 47803
DATE: MAY 10, 1989
SCALE: AS SHOWN
DRAWING NO. 4 OF 15

ARTHUR E. MUEGGE, P.E.

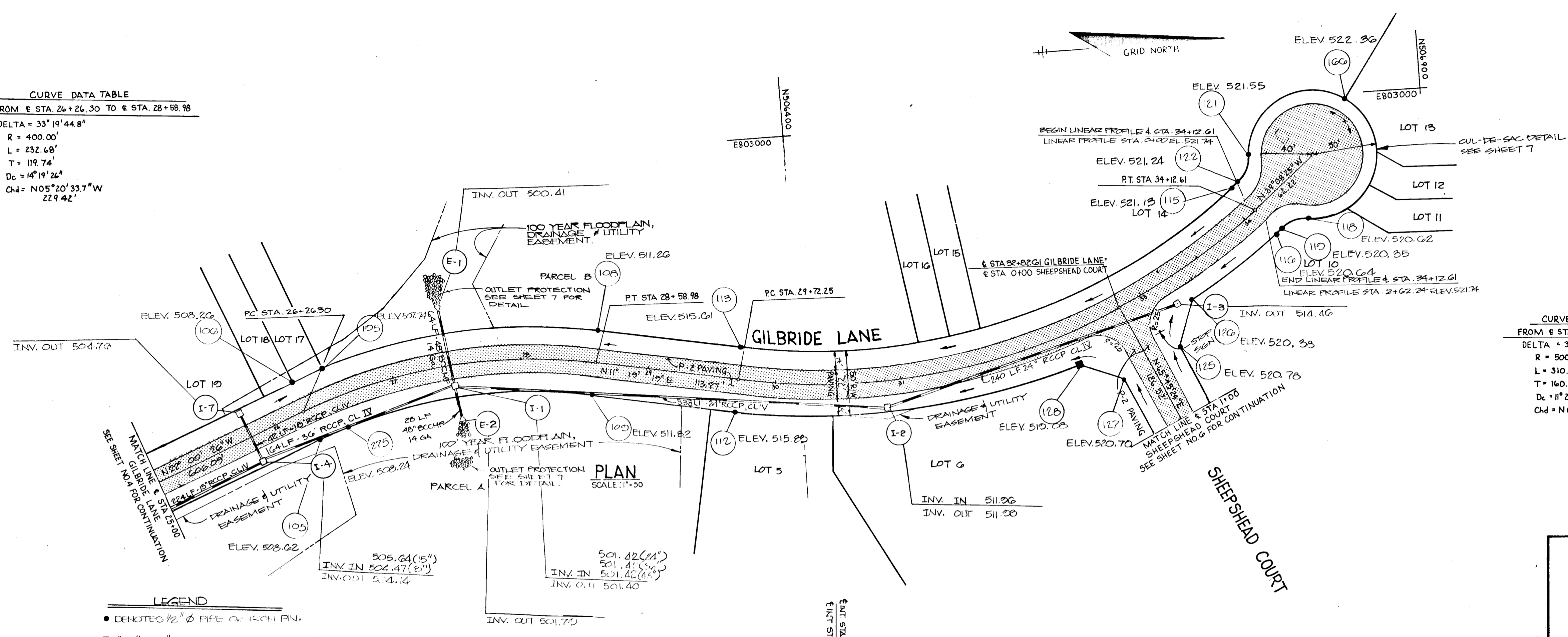
1453

CURVE DATA TABLE
FROM E STA. 26+26.30 TO E STA. 28+58.98

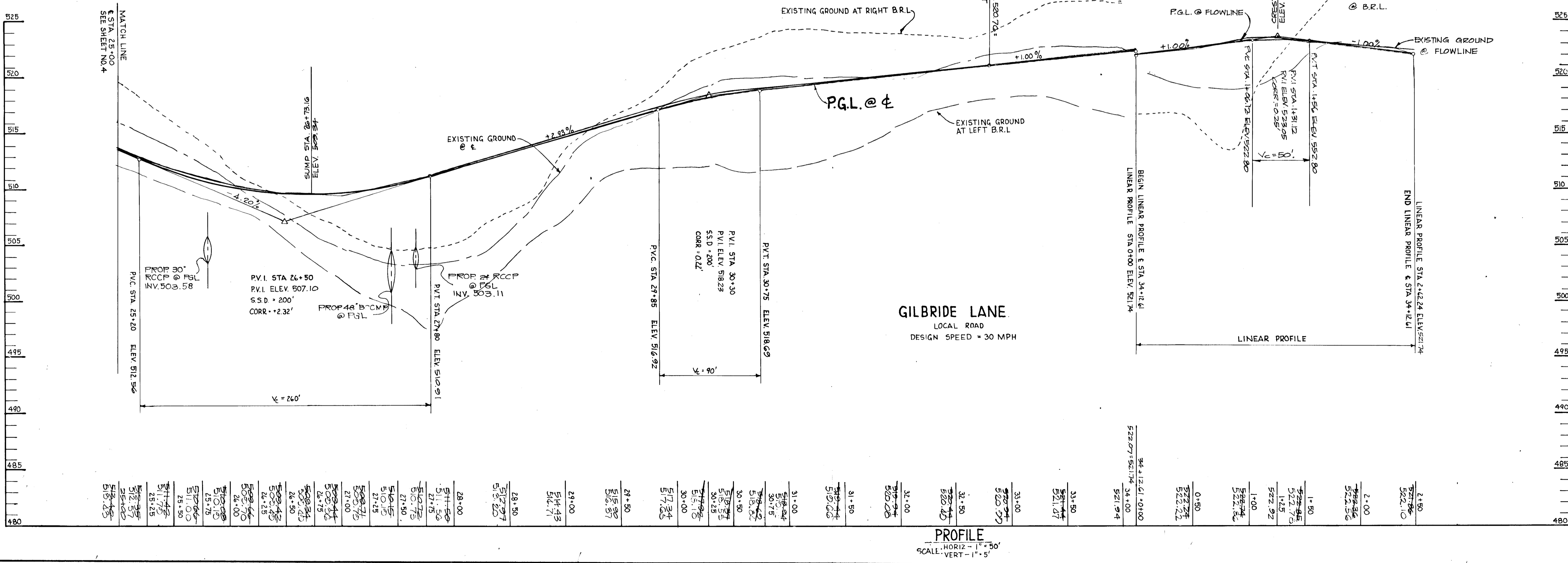
DELTA = 33°10'44.8"
R = 400.00'
L = 232.68'
T = 119.74'
Dc = 14°19'24"
Chd = N05°20'33.7"W 229.42'

CURVE DATA TABLE
FROM E STA. 29+72.26 TO E STA. 34+12.61

DELTA = 35°33'54.3"
R = 500.00'
L = 310.37'
T = 160.37'
Dc = 11°28'33"
Chd = N06°27'38.4"W 305.41'



- LEGEND**
- DENOTES 1/2" Ø PIPE OR 1/4" PIN.
 - 4" x 4" x 80" CONCRETE MONUMENT.



AS BUILT CERTIFICATION

ENGINEER _____ DATE _____

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Masha S. Taylor 2/5/09
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Paul Allerton 6/19/09
 CHIEF, LAND DEVELOPMENT DIVISION

Francis W. Wehrend 6/28/09
 CHIEF, BUREAU OF HIGHWAYS

Elizabeth Anderson-Cole 6/28/09
 CHIEF, BUREAU OF ENGINEERING

DATE NO REVISION

OWNER / DEVELOPER
 HEDGEROW ASSOCIATES LIMITED PARTNERSHIP
 c/o LOWRIE SARGENT
 18249 WESTMEATH LANE
 CLARKSVILLE, MARYLAND 21027

PROJECT **HEDGEROW SECTION ONE**
 (LOTS 1-28 PARCELS A-B)

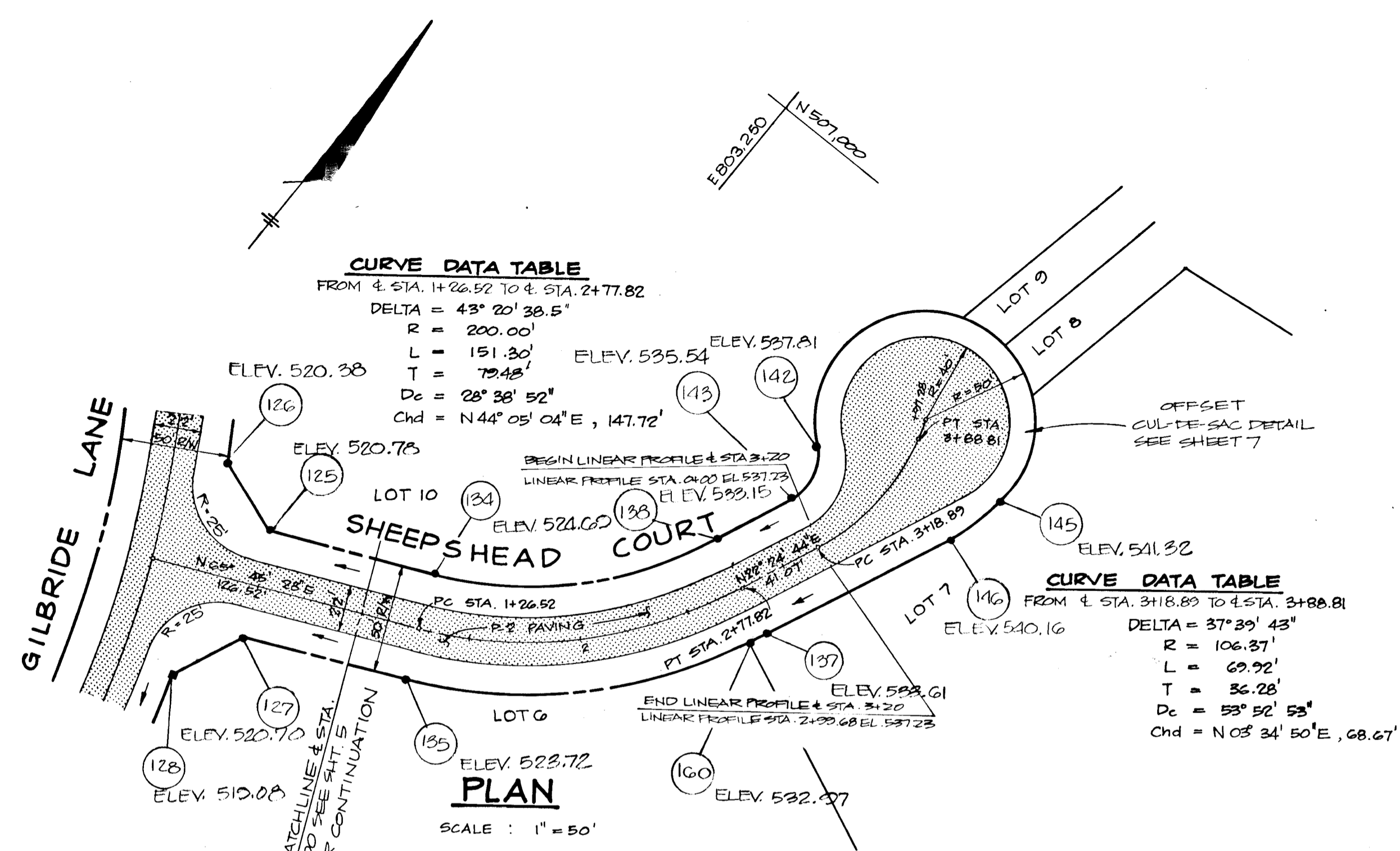
AREA: TAX MAP 28(34) PARCELS 59 60, 30 64
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE: **PLAN AND PROFILE FOR GILBRIDE LANE**

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

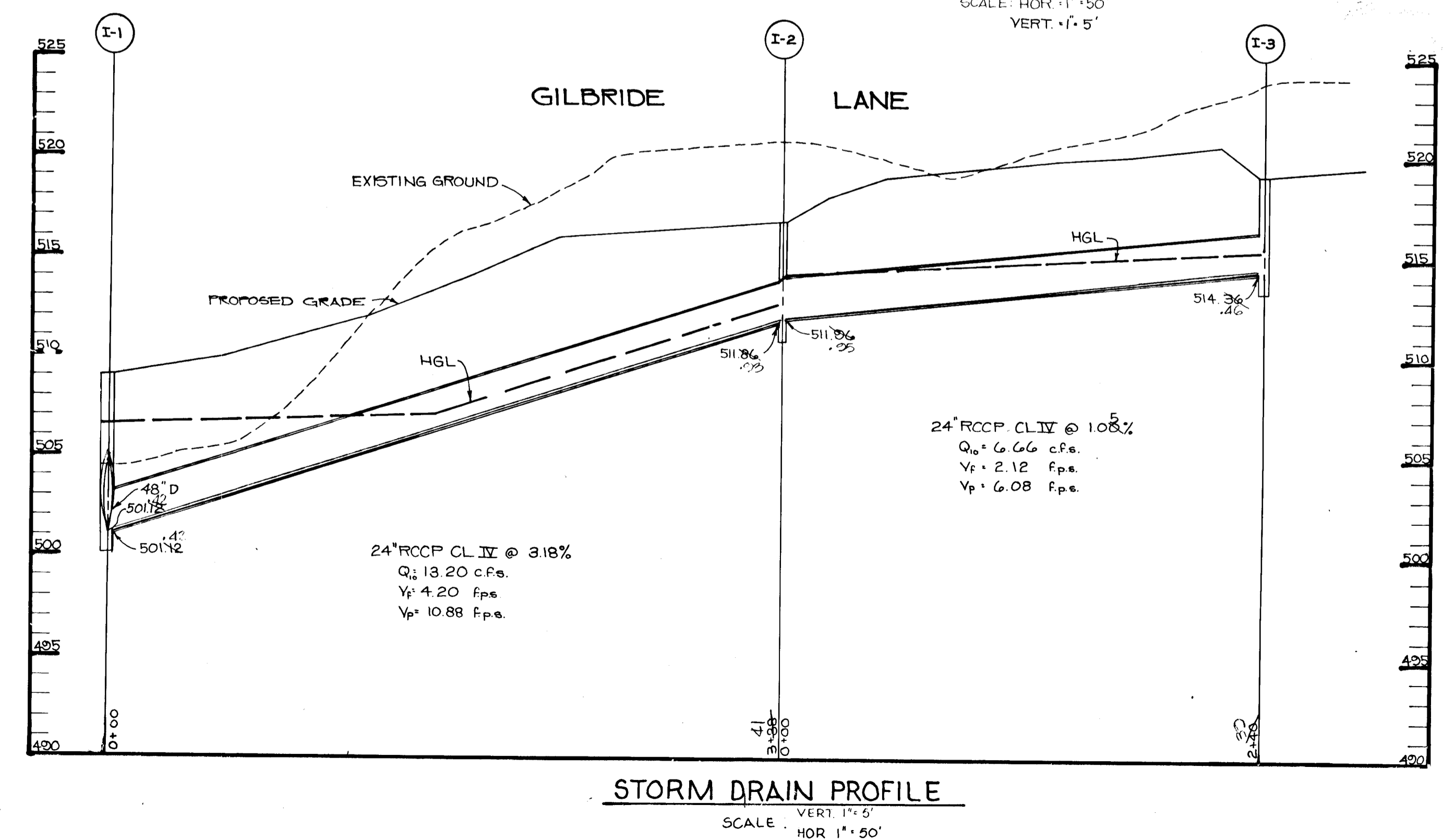
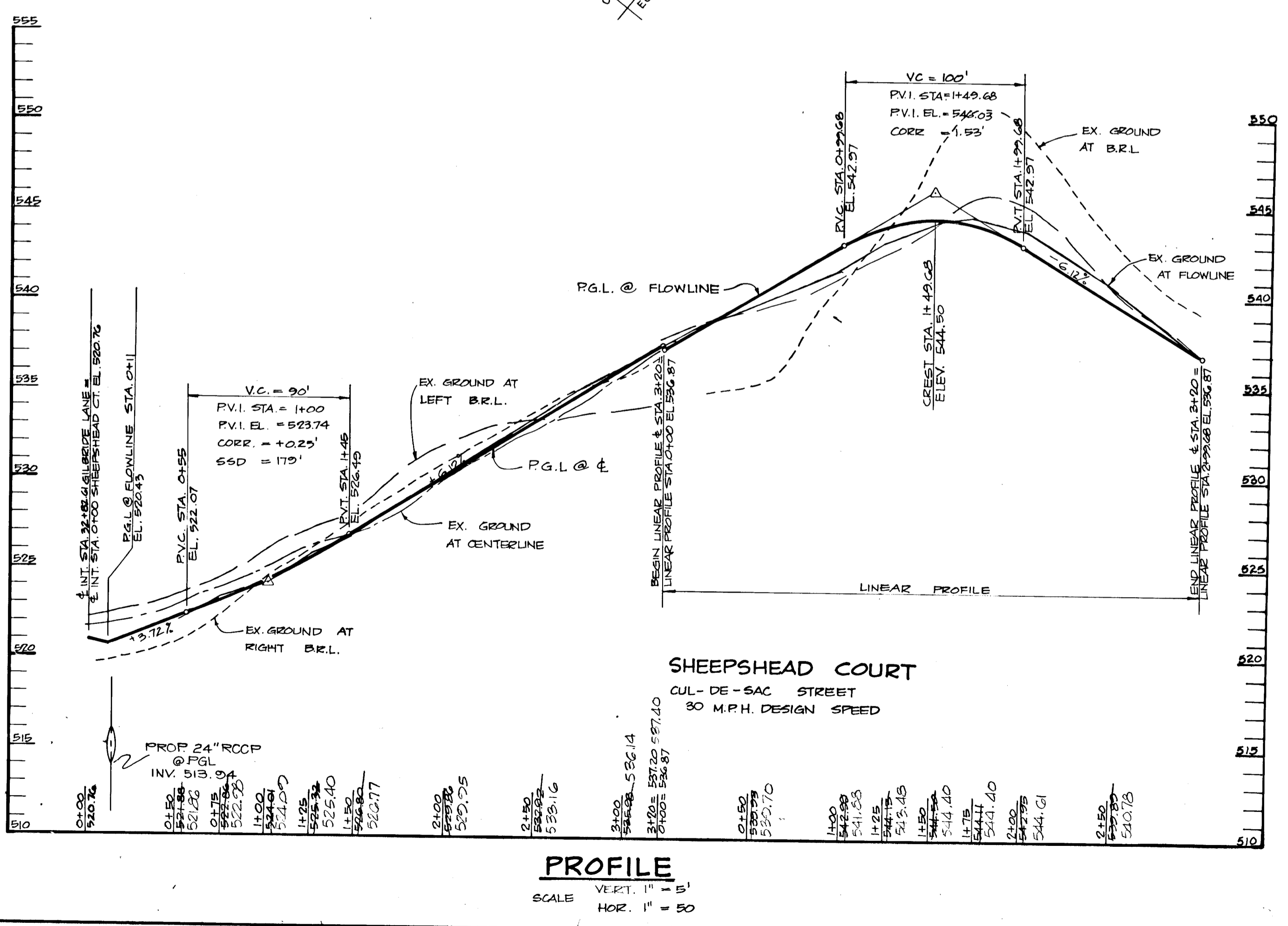
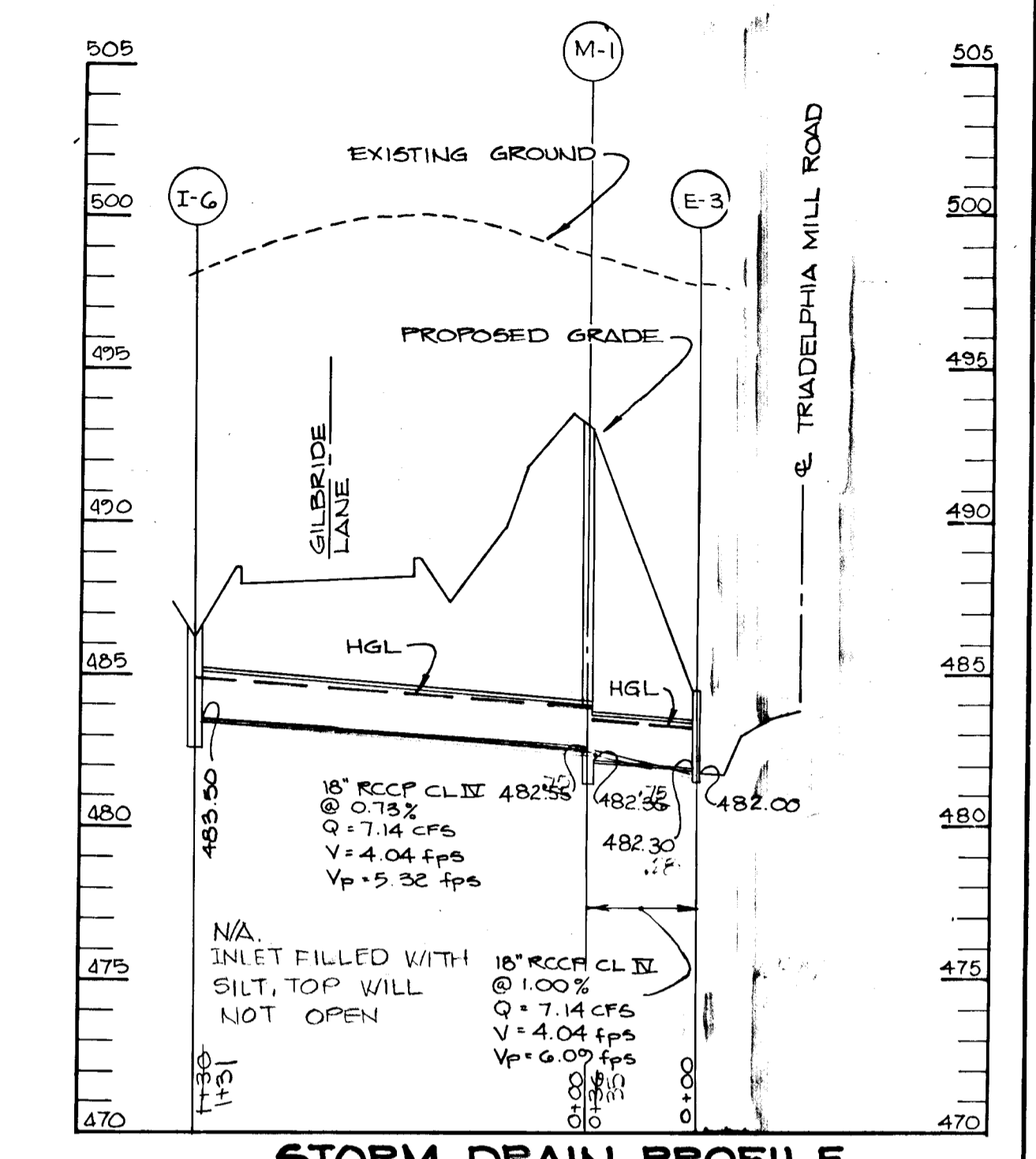
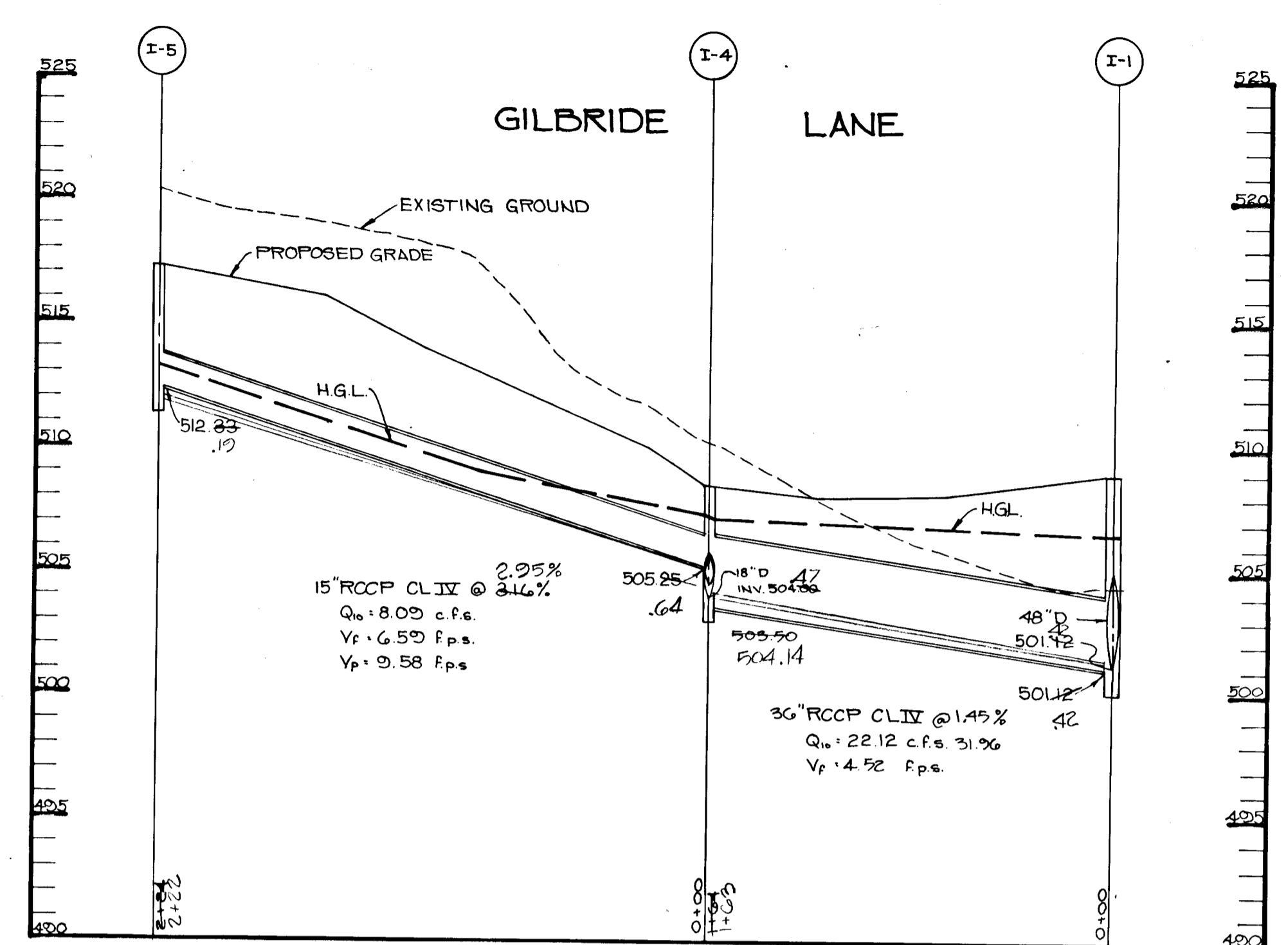
DATE: 6-10-09
 DESIGNED BY: J.L.B.
 DRAWN BY: C.G.B.
 PROJECT NO: 47803
 DATE: MAY 10, 2009
 SCALE: AS SHOWN
 DRAWING NO. 9 OF 15

1453

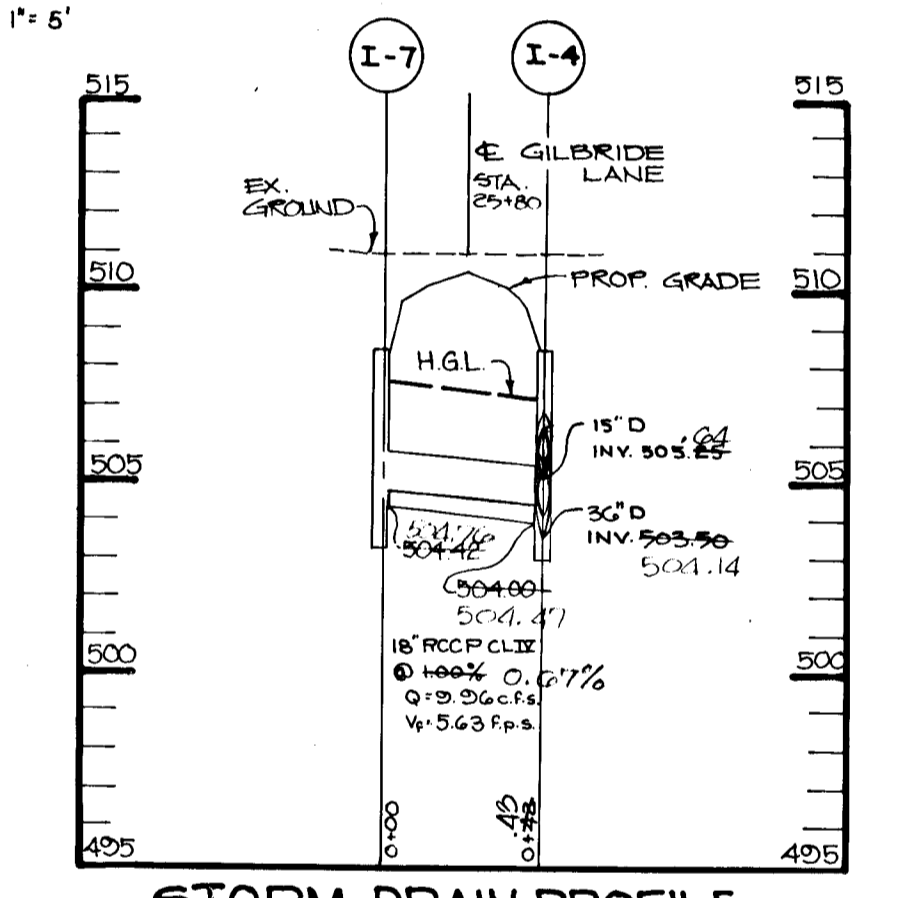


LEGEND

- DENOTE 1/2" Ø PIPE OR IRON PIN.
- 4" x 4" x 20" CONCRETE MONUMENT.



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



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

AS BUILT CERTIFICATION

ENGINEER _____
 PE # _____ DATE _____

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
James J. Taylor 7/3/89 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 CHIEF, LAND DEVELOPMENT DIVISION
Paul R. Lee 6/21/89 DATE

CHIEF, BUREAU OF HIGHWAYS
William W. McLeod 6/21/89 DATE

CHIEF, BUREAU OF ENGINEERING
Elizabeth Anderson-Cox 6/21/89 DATE

DATE	NO.	REVISION

OWNER/DEVELOPER
 HEDGEROW ASSOCIATES LIMITED PARTNERSHIP
 96 LOWRIE GARGENT
 18245 WESTMEATH LANE
 CLARKSVILLE, MARYLAND

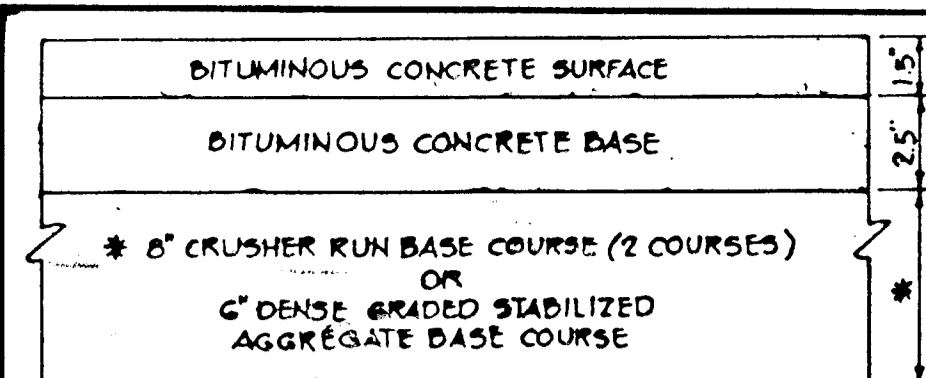
PROJECT: **HEDGEROW (SECTION ONE)**
 (LOTS 1-28, PARCELS A-D)

AREA TAX MAP 28 & 34 PARCEL 59, 60, 30, & 64
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

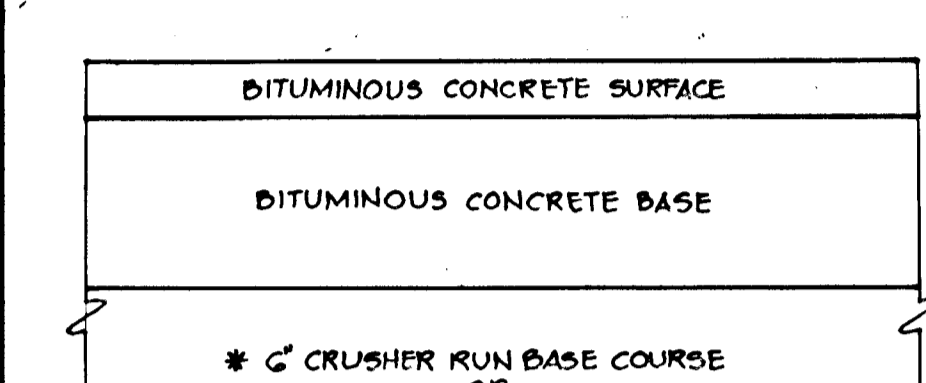
TITLE: **PLAN AND PROFILE FOR SHEEPSHEAD COURT AND STORM DRAIN PROFILES**

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

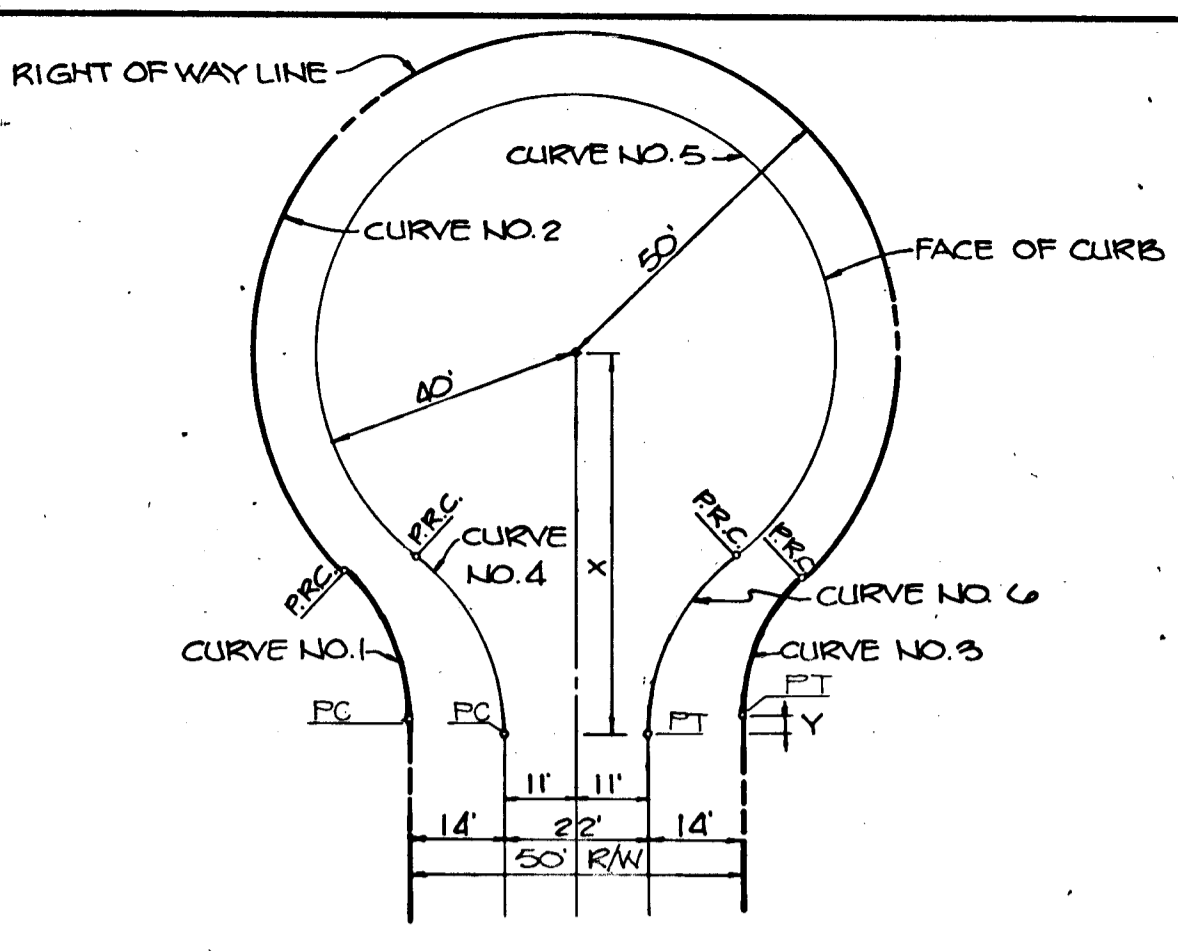
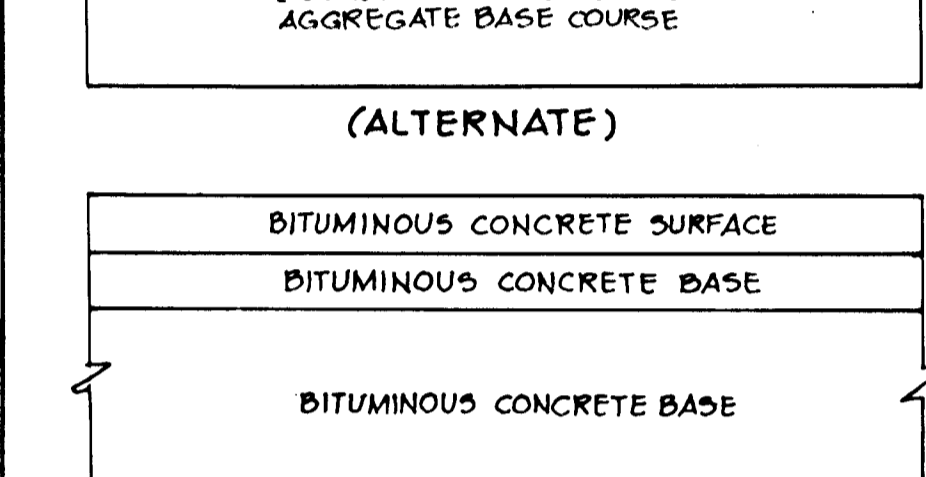
DATE: 5-10-87
 WP-88-69, S-88-47, F-88-74
 DESIGNED BY: J.L.B.
 DRAWN BY: D.B.S.
 PROJECT NO: 47803
 DATE: MAY 10, 1988
 SCALE: AS SHOWN
 DRAWING NO: 4 OF 15



(6 1/2" PAVING, P-2)



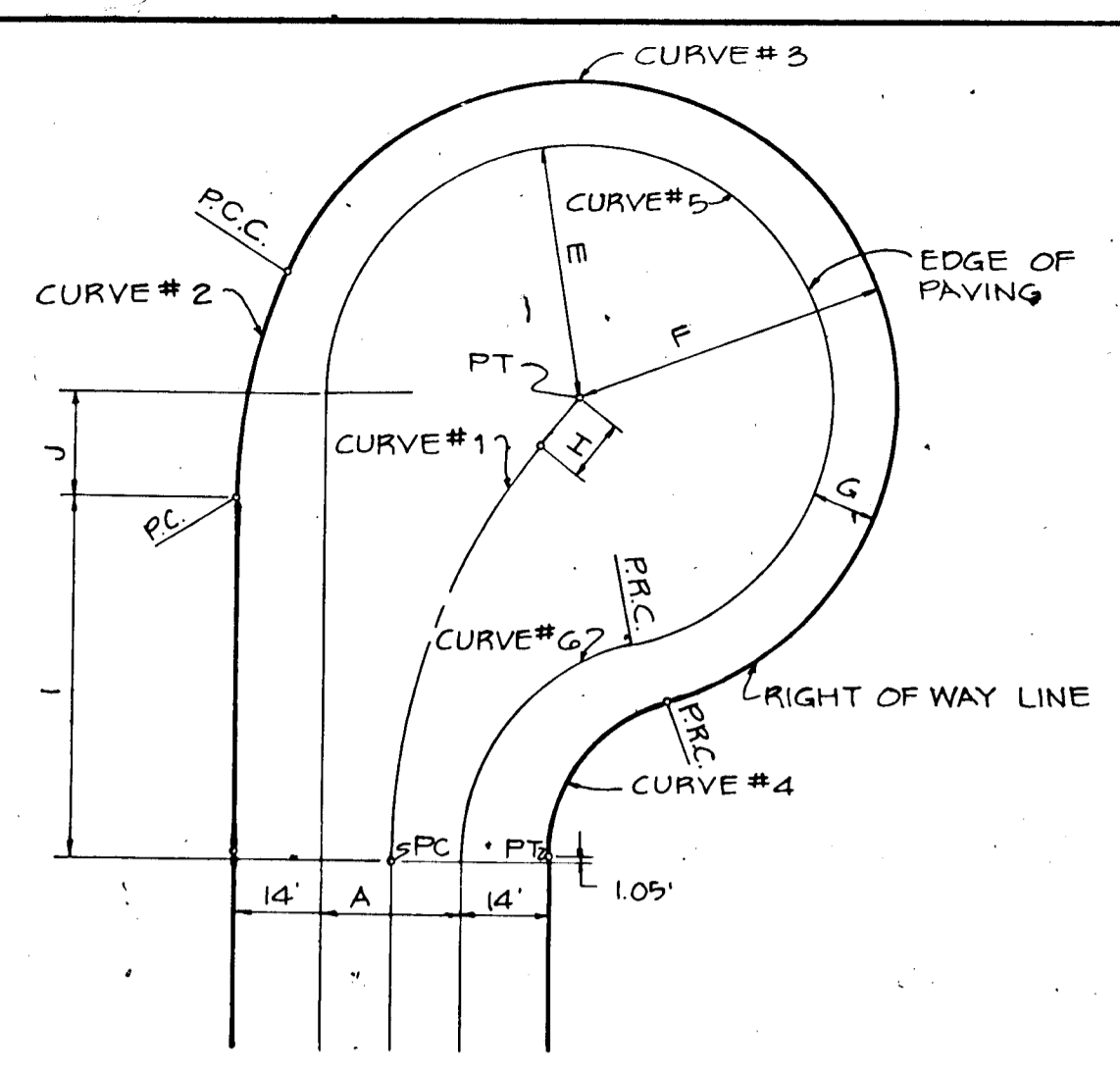
(8" PAVING, P-3)



CURVE DATA

CURVE #	CHORD BEARING	CHORD LENGTH	ARC BEARING	ARC LENGTH	PIECE POINT
1	48° 11' 25"	276' 22" 4/8	52° 10' 05"	284' 23' 18"	11.18'
2	25.00'	52.00'	35.00'	40.00'	21.03'
3	21.03'	211.15'	31.87'	128.51'	17.13'
4	20.41'	—	31.65'	—	—

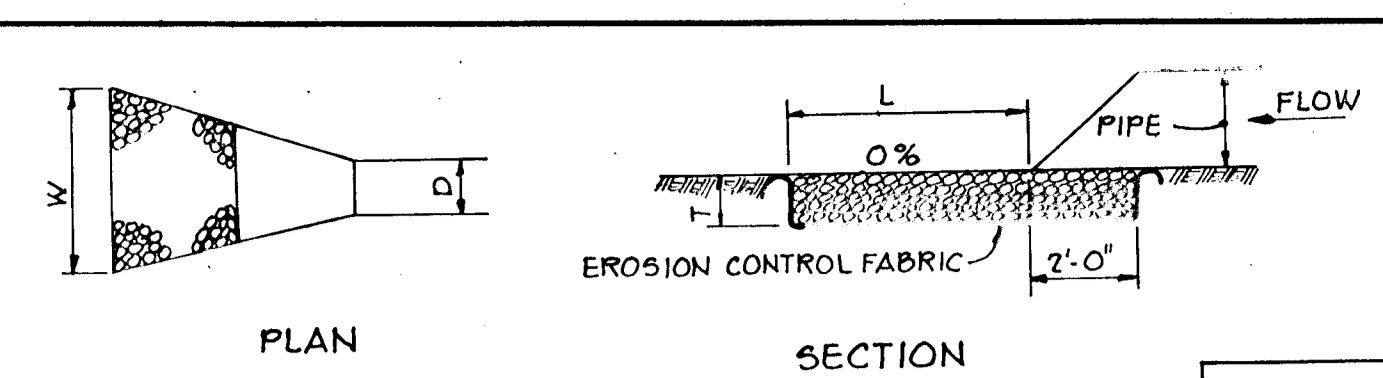
CUL-DE-SAC-DETAIL NO SCALE



LP = 68.35'

CURVE #	CHORD BEARING	CHORD LENGTH	ARC BEARING	ARC LENGTH	PIECE POINT
1	38° 35' 18"	20' 34' 14"	—	—	—
2	104.85'	100.00'	50.00'	35.00'	35.00'
3	70.61'	35.90'	203.33'	32.18'	179.35'
4	36.71'	18.15'	—	18.75'	—
5	69.29'	35.71'	—	30.00'	—

OFFSET CUL-DE-SAC-DETAIL NO SCALE



DOUBLE BITUMINOUS SURFACE TREATMENT

STRUCTURE	MEDIUM STONE DIA.	LENGTH (L)	WIDTH (W)	THICKNESS (T)
E-1	0.5'	20' x 4'	18' x 6'	14"
E-2	0.5'	30' x 4'	16' x 2'	14"
E-3	0.5'	32' x 2'	14'	14"
E-5	0.5'	40'	20'	14"

OUTLET PROTECTION DETAIL NO SCALE

DOUBLE BITUMINOUS SURFACE TREATMENT

G' CRUSHER RUN BASE COURSE OR
4 1/2" DENSE GRADED STABILIZED AGGREGATE BASE COURSE

HOWARD COUNTY DESIGN MANUAL VOLUME III
STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-202)

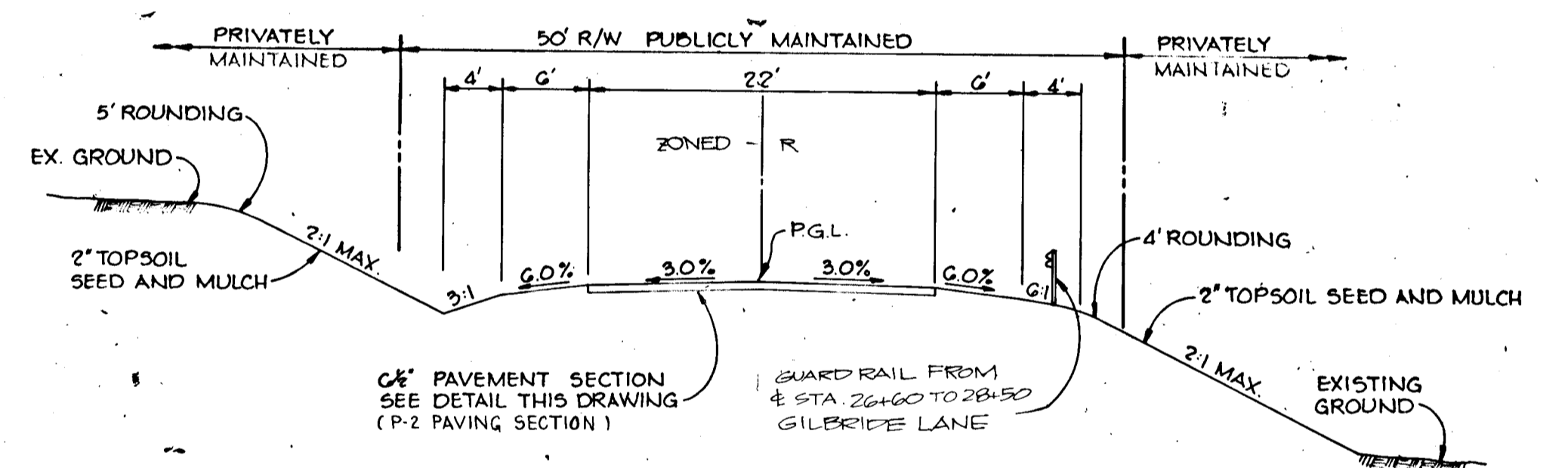
P-7 PAVING
NO SCALE

SEDIMENT CONTROL NOTES

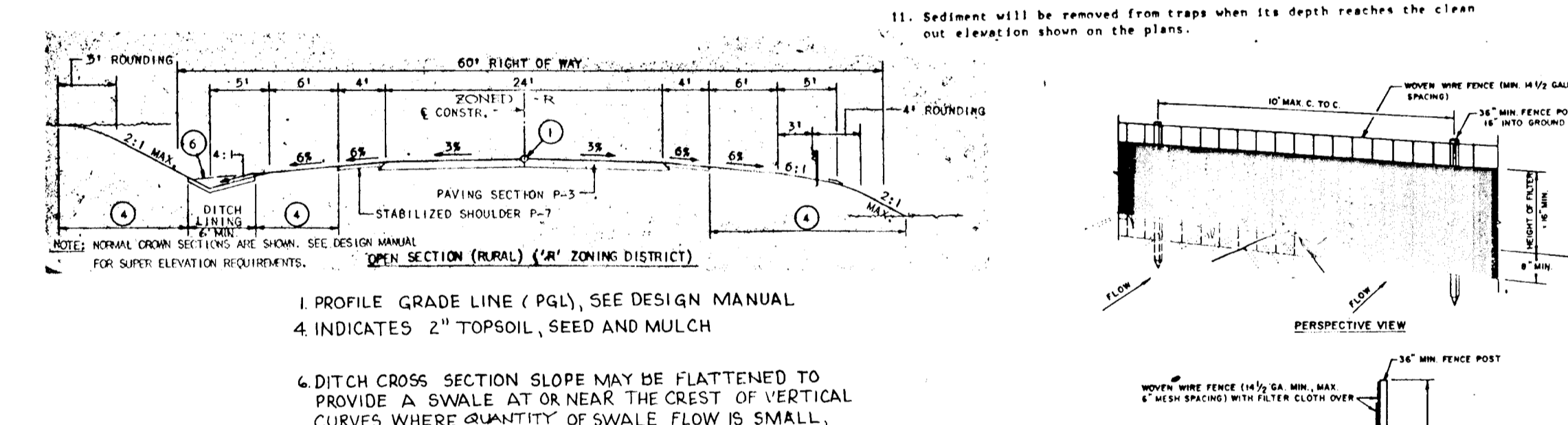
- A minimum of 24 hours notice must be given to the Howard County Office of Inspections and Permits prior to the start of any construction (902-2433).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 HARTLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all permanent sediment control structures, ditches, perimeter slopes and all slopes greater than 3:1; b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 17, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 HARTLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. For permanent seedings (Sec. 51) and (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- 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.
- Site Analysis:
Total Area of Site: 129.20 acres
Area Disturbed: 17.50 acres
Area to be roofed or paved: 8.75 acres
Area to be vegetatively stabilized: 14.71 acres
Total Cut: 302900 cu. yds.
Total Fill: 213000 cu. yds.
TOPSOIL: 11,874 Cu. yds.
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County DPW sediment control inspector.
- Site grading will begin only after all perimeter sediment control measures have been installed and are in a functioning condition.
- Sediment will be removed from traps when its depth reaches the clean out elevation shown on the plans.

PERMANENT SEEDING NOTES

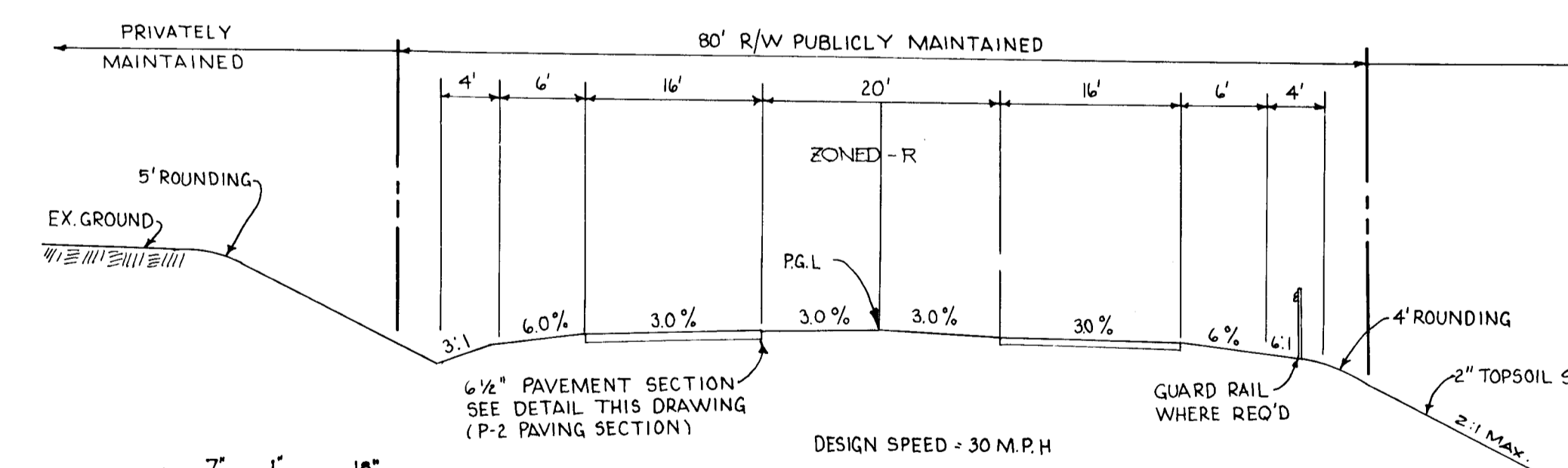
- Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.
- Seeding Preparation: Loosen upper three inches of soil by raking, stirring or other acceptable means before seeding.
- Soil Amendments: Apply 0-20-20 fertilizer at the rate of 500 lbs. per acre. Harvest or disc line and 0-20-20 fertilizer into the soil to a minimum depth of 3". Lawns or high maintenance areas will be dragged and leveled with a work rake. At the time of seeding, apply 400 lbs. of 30-0-0 ureaform fertilizer and 500 lbs. of 10-20-20 or equivalent fertilizer per acre.
- Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 40 lbs. per acre (1 lb./1000 sq. ft.) of a mixture of certified 'Merion' Kentucky bluegrass, common Kentucky bluegrass @ 40 lbs. per acre (1 lb./1000 sq. ft.) and Red Fescue, Pennlawn or Jamestown @ 20 lbs. per acre (0.5 lb./1000 sq. ft.) for the period May 1 thru July 31, seed with 40-40-20 mix as specified above and 2 lbs. per acre (0.05 lbs./1000 sq. ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: (Option 1) 2 tons per acre of well-anchored straw mulch and seed as soon as possible in the spring; (Option 2) Use sod; (Option 3) Seed with 40-40-20 mix specified above and mulch with 2 tons/acre well-anchored straw.
- Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal./1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal./1000 sq. ft.) for anchoring.
- Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedings.
- TEMPORARY SEEDING NOTES
- Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.
- Seeding Preparation: Loosen upper three inches of soil by raking, stirring or other acceptable means before seeding.
- Soil Amendments: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq. ft.) where soil is highly acidic, apply dolomitic limestone at the rate of 1 ton per acre.
- Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 140 lbs. per acre of annual type (3.2 lbs./1000 sq. ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.7 lbs./1000 sq. ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well-anchored straw mulch and seed as soon as possible in the spring, or use sod.
- Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal./1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 8 ft. or higher, use 348 gal. per acre (8 gal./1000 sq. ft.) for anchoring.



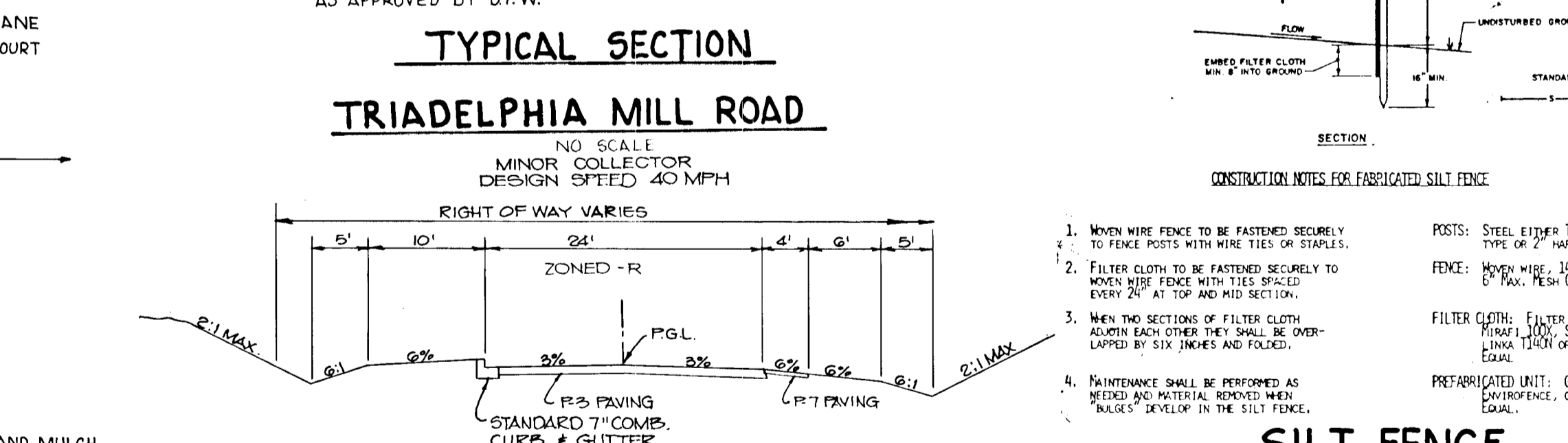
TYPICAL SECTION - 50' R/W NO SCALE



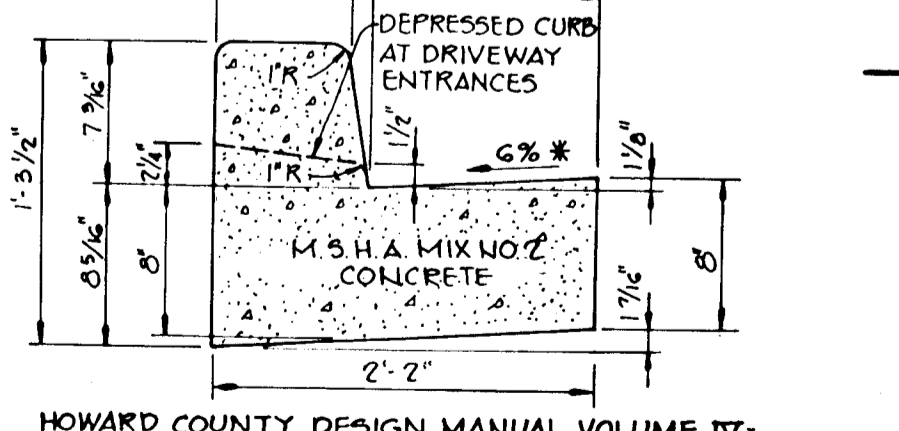
TYPICAL SECTION TRIADELPHIA MILL ROAD NO SCALE



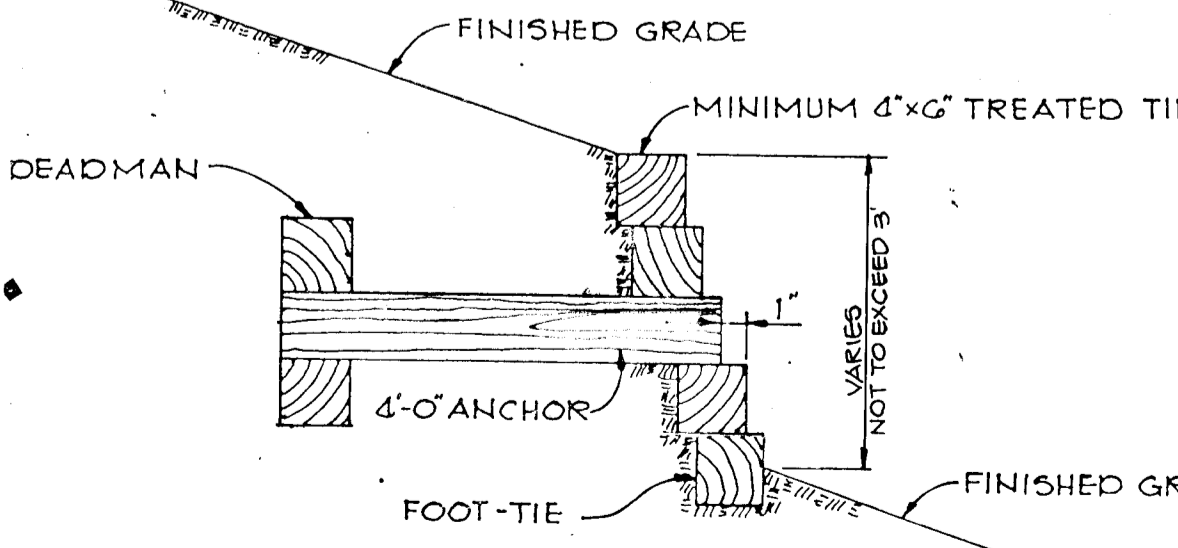
TYPICAL SECTION - 80' R/W NO SCALE



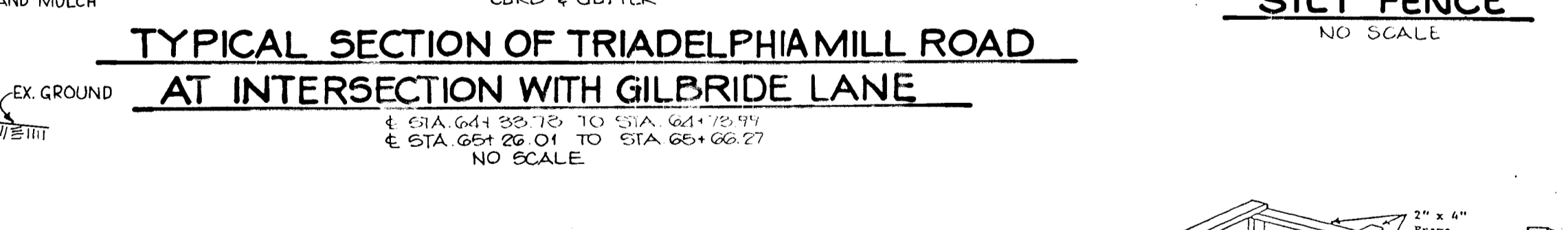
SWALE INLET PROTECTION DETAIL NO SCALE



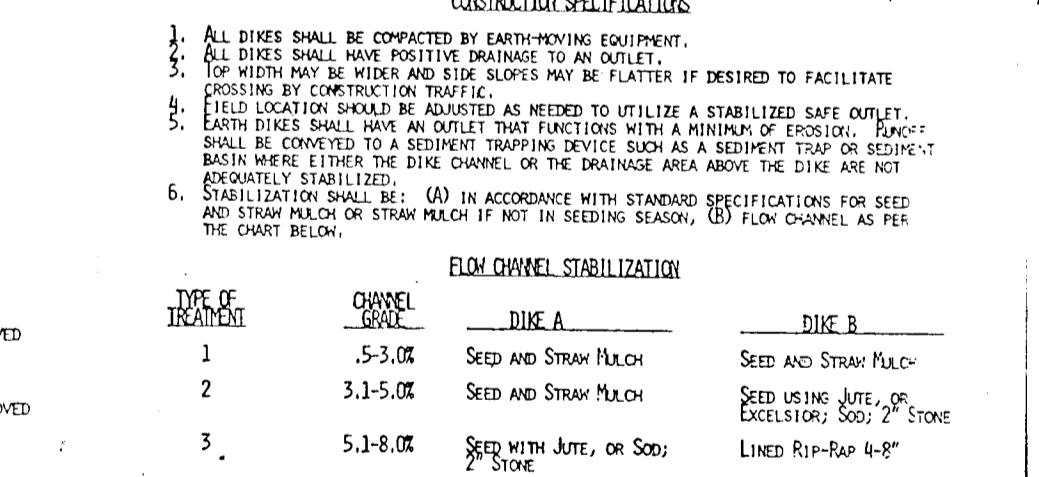
STANDARD 7" COMBINATION CURB AND GUTTER NO SCALE



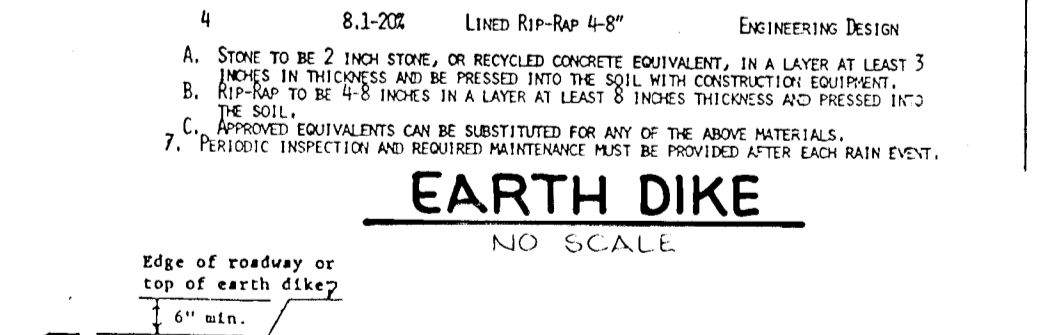
TIMBER RETAINING WALL NO SCALE



TYPICAL SECTION OF GILBRIDE LANE AT INTERSECTION WITH TRIADELPHIA MILL ROAD NO SCALE



SILT FENCE NO SCALE



EARTH DIKE NO SCALE

AS BUILT CERTIFICATION

ENGINEER: *Arthur E. Muegge* DATE: 5-10-89

BY THE DEVELOPER: *James M. A. Helm* DATE: 5-25-89

"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. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

APPROVED: *Robert J. Zichner* DATE: 5/25/89

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

APPROVED: *Mark J. Coyle* DATE: 7/13/89

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Robert J. Zichner DATE: 6/10/89
Chief, Land Development Division

Brian W. Woodard DATE: 6/18/89
Chief, Bureau of Highways

Edward J. Anderson DATE: 10/25/89
Chief, Bureau of Engineering

DATE	NO.	REVISION

OWNER/DEVELOPER: HEDGEROW ASSOCIATE'S LIMITED PARTNERSHIP
C/O LOWRIE BARGENT
15248 WESTMEATH LANE
CLARKSVILLE, MARYLAND 21029

PROJECT: HEDGEROW SECTION ONE
(LOTS 1-28 PARCELS A-B)

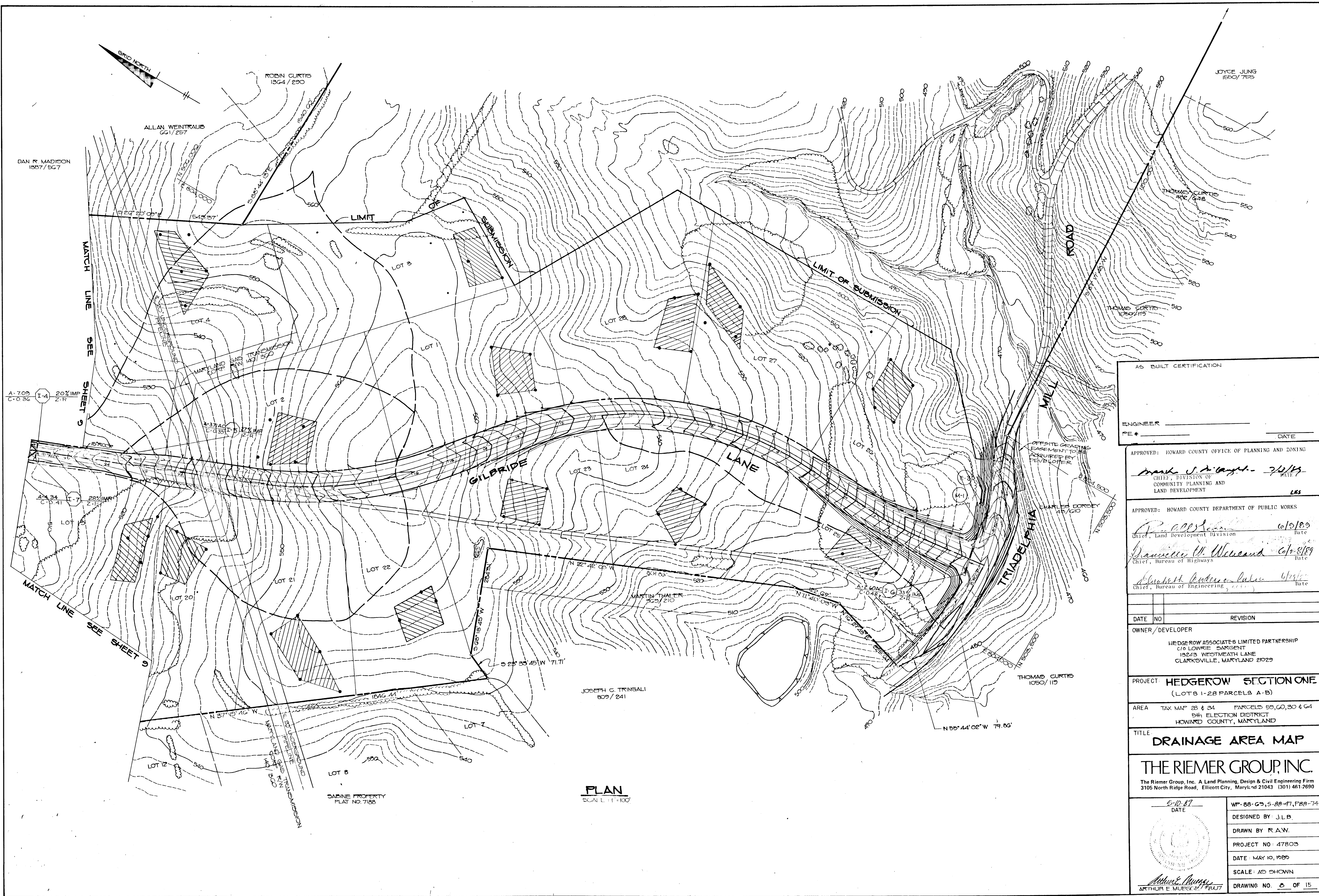
AREA: TAX MAP 2834 PARCELS 59, 60, 3044
5TH ELECTON DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: DETAIL SHEET

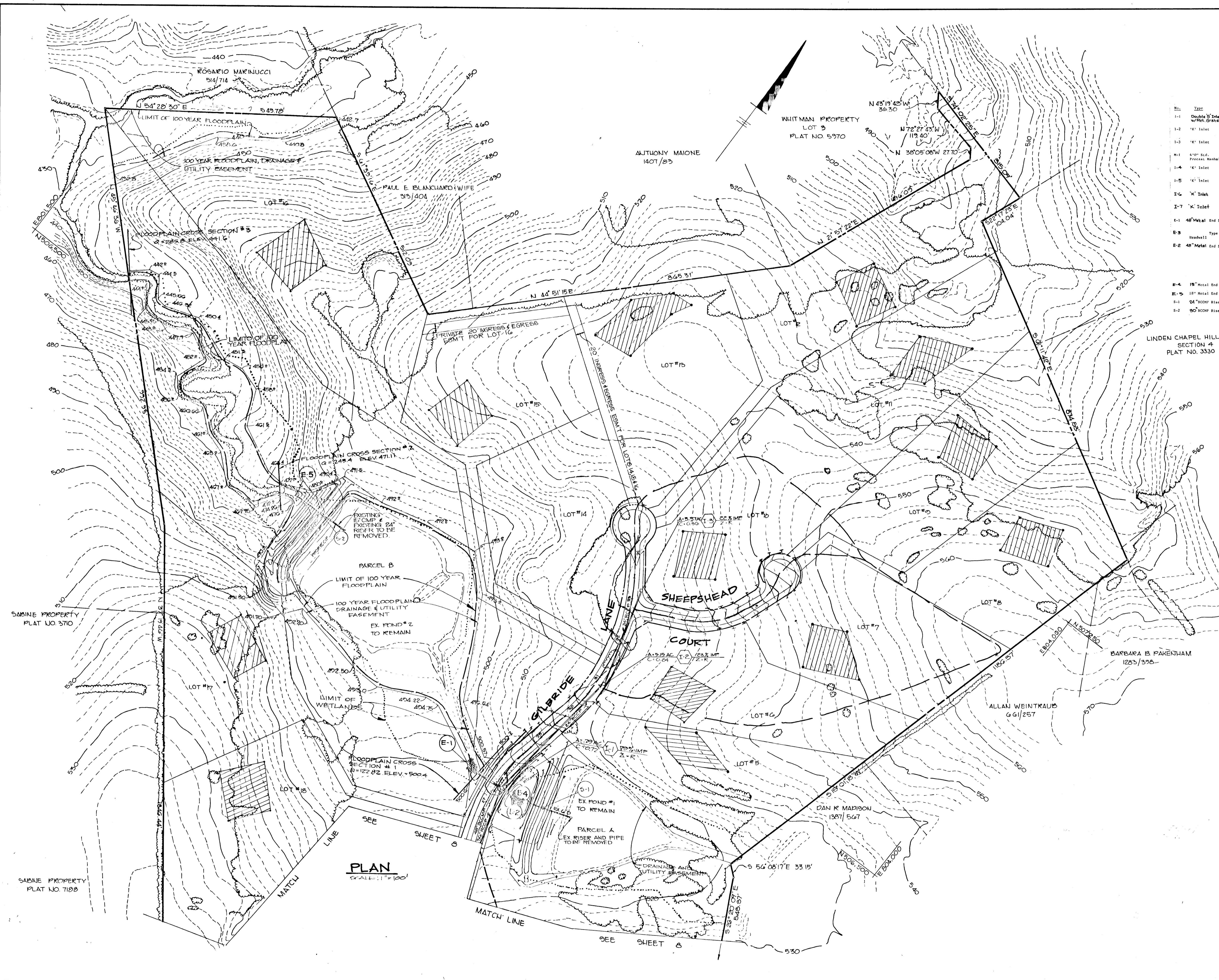
THE RIEMER GROUP, INC.
The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm
3105 North Ridge Road, Ellicott City, Maryland 21043 (301) 461-2890

DATE: 5-10-89

DESIGNED BY: J.L.B.
DRAWN BY: C.S.B.
PROJECT NO.: 47803
DATE: MAY 10, 1989
SCALE: AS SHOWN
DRAWING NO. 7 OF 15



1453



No.	Desc.	Location	Top Elev.	Inv. Elev.	Inv. Diff.	Remarks
I-1	Double 3" Inlet w/Ret. Gate	C/L Sta. 27+48.77 Rk. Gilbride Lane	500.00	501.12	1.12	No. Co. Sec. Dist. Sd. 4.28 & 4.29
I-2	4" Inlet	C/L Sta. 30+88.21 Rk. Gilbride Lane	516.81	517.93	1.12	No. Co. Sec. Dist. Sd. 4.12
I-3	4" Inlet	C/L Sta. 33+55.31 Rk. Gilbride Lane	519.91	521.03	1.12	No. Co. Sec. Dist. Sd. 4.12
M-1	6" x 6" Sid. Precast Manhole	C/L Sta. 64+92.40 Lk. Tridaphia Hill Road	478.7	482.86	4.16	No. Co. Sec. Dist. Sd. G.5.11
I-4	4" Inlet	C/L Sta. 26+78.16 Rk. Gilbride Lane	508.51	509.63	1.12	No. Co. Sec. Dist. Sd. 4.12
I-5	4" Inlet	C/L Sta. 28+58.16 Rk. Gilbride Lane	512.28	513.40	1.12	No. Co. Sec. Dist. Sd. 4.12
I-6	4" Inlet	C/L Sta. 0+37.42 Lk. Gilbride Lane	486.44	487.56	1.12	No. Co. Sec. Dist. Sd. 4.12
I-7	4" Inlet	C/L Sta. 26+78.16 Rk. Gilbride Lane	508.51	509.63	1.12	No. Co. Sec. Dist. Sd. 4.12
E-1	48" Metal End Section	C/L Sta. 27+46.48 Lk. Gilbride Lane	---	500.00	---	No. Co. Sec. Dist. Sd. 5.61
E-3	Type 'H' Headwall	C/L Sta. 66+32.33 Lk. Tridaphia Hill Road	---	482.70	---	No. Co. Sec. Dist. Sd. 9.21
E-2	48" Metal End Section	C/L Sta. 27+81.44 Rk. Gilbride Lane	---	501.68	---	No. Co. Sec. Dist. Sd. 5.61
E-4	18" Metal End Section	N500.00 E800.00	---	502.54	---	No. Co. Sec. Dist. Sd. 5.61
E-5	18" Metal End Section	N500.00 E800.00	---	490.00	---	No. Co. Sec. Dist. Sd. 5.61
S-1	24" RCP Riser 16 Ca.	N500.145 E800.801	515.5	---	---	See Detail Sheet 13
S-2	30" RCP Riser 16 Ca.	N500.864 E806.476	488.6	---	---	See Detail Sheet 13

STRUCTURE SCHEDULE

LINDEN CHAPEL HILLS SECTION 4 PLAT NO. 3330

AS BUILT CERTIFICATION

ENGINEER _____ DATE _____
 P.E. # _____

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Frank J. DeCagle 7/3/11
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
 LKS

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William M. Wainwright 6/5/10
 Chief, Land Development Division
Barbara B. Pakenjham 6/10/09
 Chief, Bureau of Highways
Elizabeth Anderson 6/10/09
 Chief, Bureau of Engineering

DATE	NO.	REVISION

OWNER/DEVELOPER
 HEDGEROW ASSOCIATES LIMITED PARTNERSHIP
 C/O LOWRIE SARGENT
 19245 WESTMEATH LANE
 CLARKSVILLE, MARYLAND 21027

PROJECT **HEDGEROW SECTION ONE**
 (LOTS 1-28 PARCELS A-B)

AREA TAX MAP 28134 PARCELS 59, 60, 301, 64
 5th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

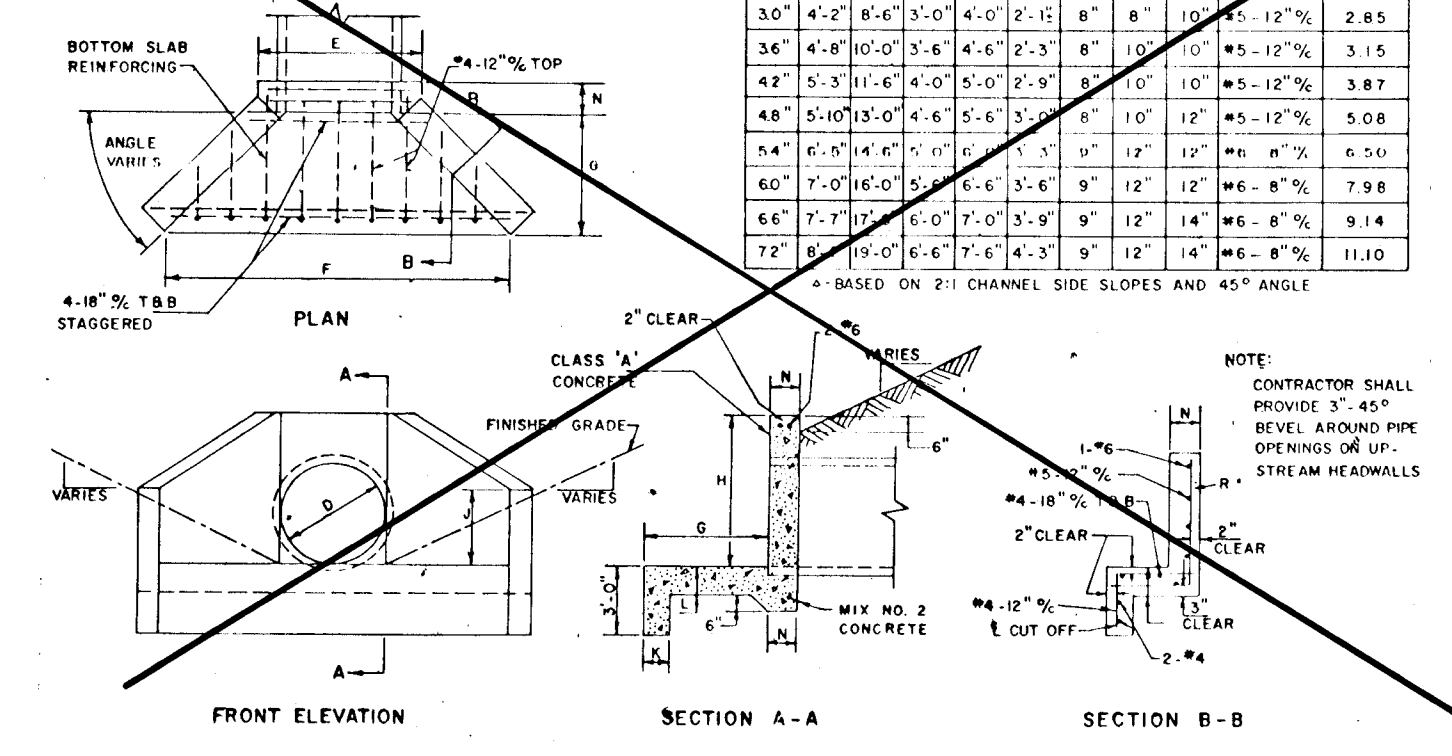
TITLE DRAINAGE AREA MAP

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: 5-10-09
 WP88-09, 5-88-47, P-88-74
 DESIGNED BY: J.L.B.
 DRAWN BY: S.L.S.
 PROJECT NO: 47803
 DATE: MAY 10, 2009
 SCALE: AS SHOWN
 DRAWING NO: 2 OF 15

1453
 MARYLAND BLUEPRINT CO. INC.

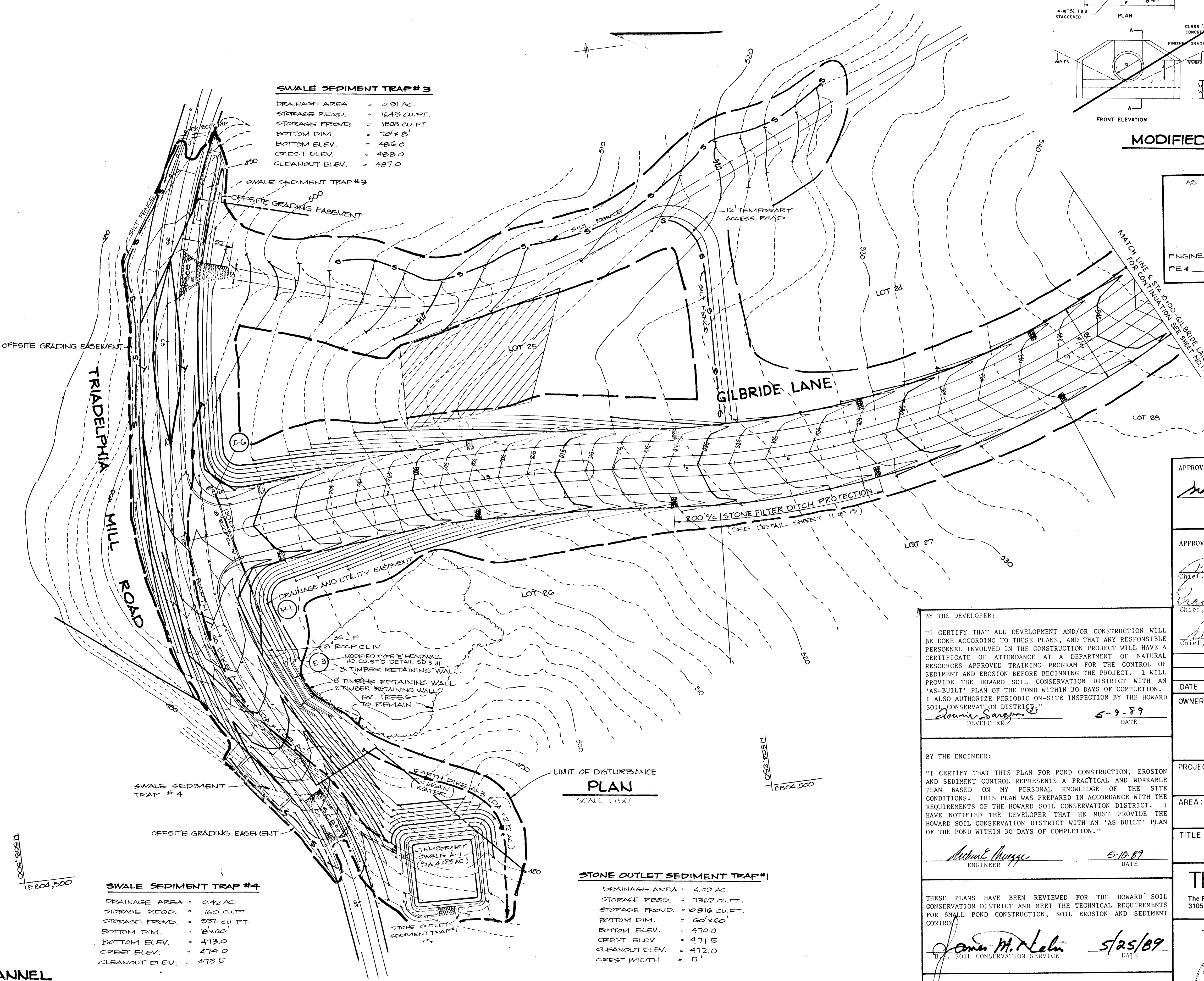
D	E	F	G	H	J	K	L	N	R	SOL. CY
18'	3'-0"	7'-6"	3'-0"	4'-0"	12'-0"	8"	8"	8"	M5-12"	1.70
24'	3'-8"	8'-0"	3'-0"	5'-0"	12'-0"	8"	8"	8"	M5-12"	1.80
30'	4'-0"	8'-6"	3'-0"	5'-6"	12'-0"	8"	8"	8"	M5-12"	2.00
36'	4'-2"	8'-6"	3'-0"	6'-0"	12'-0"	8"	8"	8"	M5-12"	2.45
42'	4'-8"	10'-0"	3'-0"	6'-6"	12'-0"	8"	8"	8"	M5-12"	3.15
48'	5'-3"	11'-6"	4'-0"	7'-0"	12'-0"	10"	10"	10"	M5-12"	3.87
54'	5'-10"	13'-0"	4'-6"	7'-6"	12'-0"	10"	10"	10"	M5-12"	5.08
60'	6'-5"	14'-6"	5'-0"	8'-0"	12'-0"	12"	12"	12"	M6-8"	6.50
66'	7'-0"	16'-0"	5'-6"	8'-6"	12'-0"	12"	12"	12"	M6-8"	7.98
72'	7'-7"	17'-6"	6'-0"	9'-0"	12'-0"	14"	14"	14"	M6-8"	9.14
78'	8'-2"	19'-0"	6'-6"	9'-6"	12'-0"	14"	14"	14"	M6-8"	11.00



MODIFIED TYPE 'A' HEADWALL (E-3)
NO SCALE

AS BUILT CERTIFICATION
ENGINEER _____ DATE _____

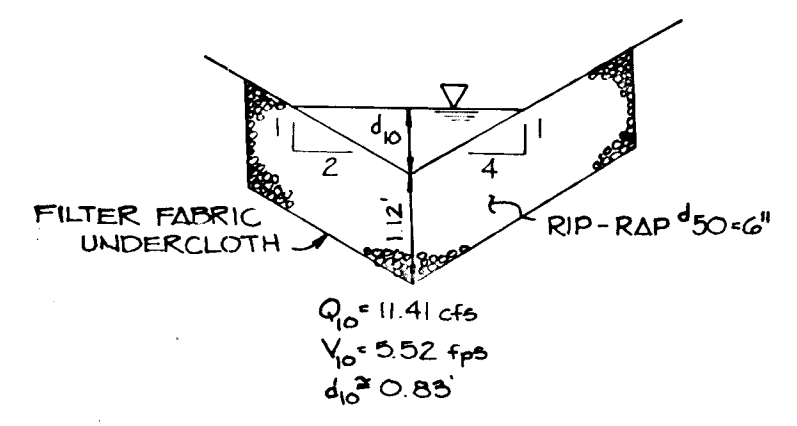
SWALE SEDIMENT TRAP #3
DRAINAGE AREA = 0.91 AC.
STORAGE REQRD. = 1643 CU.FT.
STORAGE PROVIDED = 1808 CU.FT.
BOTTOM DIM. = 70' x 28'
BOTTOM ELEV. = 486.0
CREST ELEV. = 488.0
CLEANOUT ELEV. = 487.0



PLAN
SCALE: 1"=40'

STONE OUTLET SEDIMENT TRAP #1
DRAINAGE AREA = 4.09 AC.
STORAGE REQRD. = 7362 CU.FT.
STORAGE PROVIDED = 10816 CU.FT.
BOTTOM DIM. = 60' x 60'
BOTTOM ELEV. = 470.0
CREST ELEV. = 471.5
CLEANOUT ELEV. = 472.0
CREST WIDTH = 17'

SWALE SEDIMENT TRAP #4
DRAINAGE AREA = 0.42 AC.
STORAGE REQRD. = 760 CU.FT.
STORAGE PROVIDED = 832 CU.FT.
BOTTOM DIM. = 18' x 60'
BOTTOM ELEV. = 473.0
CREST ELEV. = 474.0
CLEANOUT ELEV. = 473.5



SECTION A-A OF RIP RAP CHANNEL
NO SCALE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Frank J. Langley 7/9/89
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Paul J. ... 6/29/89
Chief, Land Development Division
Francisco W. ... 6/29/89
Chief, Bureau of Highways
Elizabeth Anderson ... 6/29/89
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. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
James M. ... 5-9-89
DEVELOPER

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 5-10-89
ENGINEER

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. ... 5/25/89
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 *Blair W. ...* 5/25/89
HOWARD COUNTY

OWNER/DEVELOPER
HEDGEROW ASSOCIATES LIMITED PARTNERSHIP
c/o LOWRIE BARGENT
13243 WESTMEATH LANE
CLARKSVILLE, MARYLAND 21029

PROJECT: **HEDGEROW (SECTION ONE)**
(LOTS 1-28 PARCELS A-B)
AREA: TAX MAP 28 434 PARCELS 56,60,30 464
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: **GRADING AND SEDIMENT CONTROL PLAN**

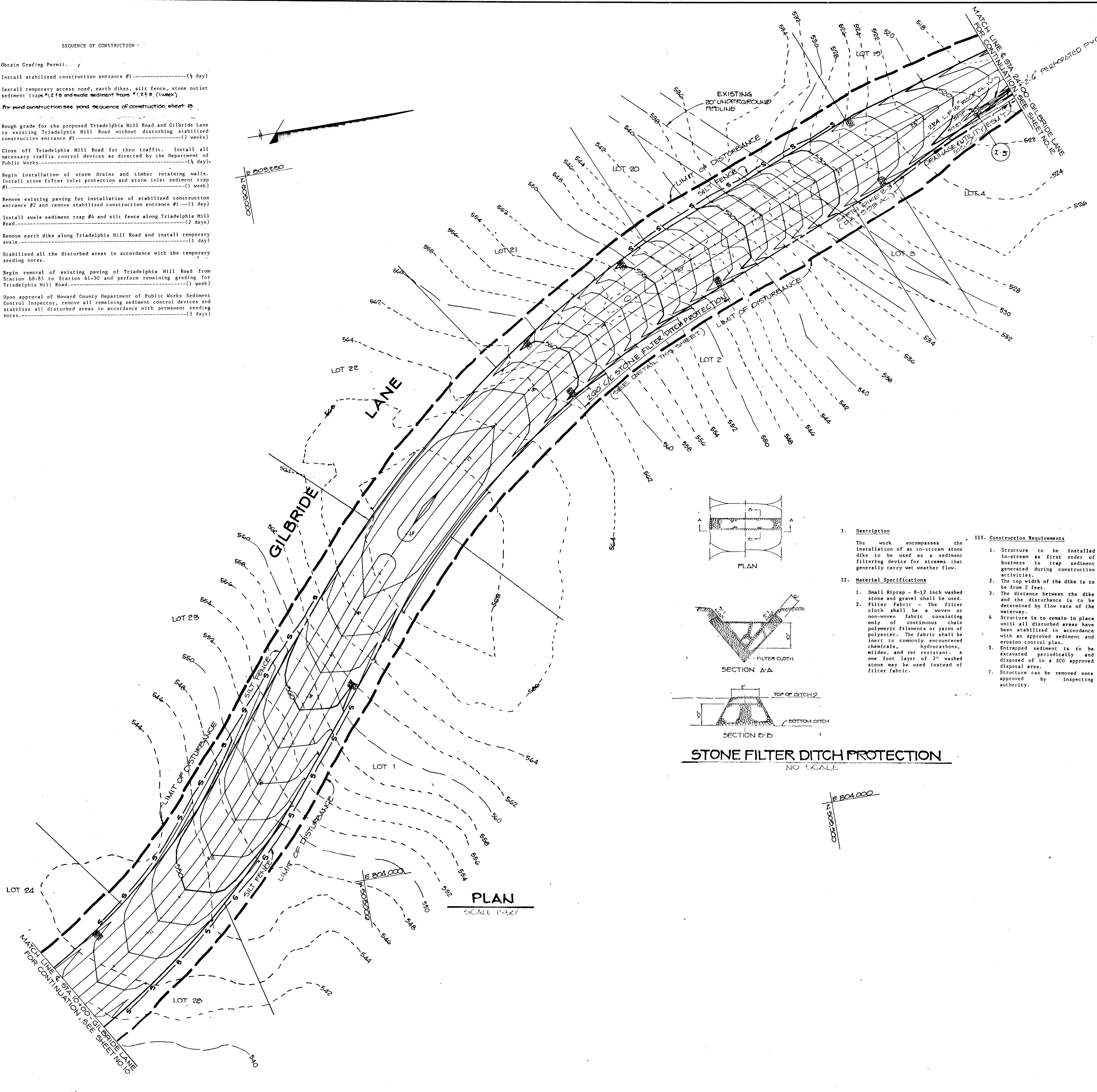
THE RIEMER GROUP, INC.
The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm
3105 North Ridge Road, Ellicott City, Maryland 21043 (301) 461-2690

DATE: 5-10-89
DESIGNED BY: J.L.B.
DRAWN BY: C.S.B.
PROJECT NO: 47803
DATE: MAY 10, 1989
SCALE: AS SHOWN
DRAWING NO. 10 OF 15

MD 378 STANDARDS & SPECIFICATIONS FOR CONSTRUCTION

- 1. 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. Channel banks and steep breaks shall be sloped to no steeper than 1:1.
- 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. Trees, brush and stumps shall be cut approximately level with the ground surface.
- 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. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.
- 2. EARTH FILL**
Material:
 The fill material shall be taken from approved designated borrow areas or areas. It shall be free of rocks, stumps, wood, rubbish, oversize stones, frozen or other objectionable materials. The embankment shall be constructed on an elevation which provides for anticipated settlement to the desired elevation. The fill height all along the length of the embankment shall be increased above the design elevation (including freeboard) as shown on the plans.
- Placement:**
 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. The most porous borrow material shall be placed in the downstream portions of the embankment.
- Compaction:**
 The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of the fill shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill materials shall contain sufficient moisture such that the required degree of compaction can be obtained with the equipment used.
- Cut-off Trench:**
 Where specified, a cutoff trench shall be excavated along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill material for the cutoff trench shall be the most impervious material available and shall be compacted with equipment or rollers to assure maximum density and minimum permeability. The material to be used in trench cut-off shall be M, C, CH or MHT only.
- III. STRUCTURAL MATERIALS**
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. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall the contractor drive equipment over any pipe or concrete structure or pipe unless there is a compacted fill of two to four inches or greater over the structure or pipe.
- IV. CORRUGATED METAL PIPE**
Material:
 (Steel Pipe)-This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of ASTM Specification A130 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.
- Connections:**
 All connections with pipe must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Watertight coupling bands shall be used at all joints. Antiseep collars shall be connected to the pipe in such a manner as to be completely watertight.
- Bedding:**
 The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
- V. CONCRETE**
Material:
 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.
 3. Sand - The sand used in concrete shall be clean, hard, strong and durable, and shall be well graded with 100 percent passing a one-quarter inch sieve. Limestone sand shall not be used.
 4. Course Aggregate - The coarse aggregate shall be clean, hard, strong and durable, and free from clay or dirt. It shall be well graded with a maximum size of one and one-half (1-1/2) inches.
 5. Reinforcing Steel - The reinforcing steel shall be deformed bars of intermediate grade billet steel or rail steel conforming to ASTM Specification A-615.
- Design Mix:**
 The concrete shall be mixed in the following proportions, measured by weight: The water-cement ratio shall be 2/3 to 3/4 U.S. gallons of water per 94 pound bag of cement. The proportion of materials for the trial mix shall be 1:2:3-1/2. The combination of aggregates may be adjusted to produce a plastic and workable mix that will not produce harshness in placing or honeycombing in the structure.
- Mixing:**
 The concrete ingredients shall be mixed in batch mixers until the mixture is homogeneous and of uniform consistency. The mixing of each batch shall continue for not less than one and one-half minutes after all the ingredients, except the full amount of water, are in the mixer. The minimum mixing time is predicated on proper control of the speed of rotation of the mixer and of the introduction of the material, including water, into the mixer. Water shall be added prior to, during, and following the mixing operation. Excessive overmixing requiring the addition of water to preserve the required concrete consistency shall not be permitted. Truck mixing will be allowed provided that the use of this method shall cause no violation of any applicable provisions of the specifications given here.
- Forms:**
 The forms shall have sufficient strength and rigidity to hold the concrete and to withstand the necessary pressure,umping, and vibration without deflection from the prescribed lines. They shall be mortar-tight and constructed so that they can be removed without hammering or prying against the concrete.
- The inside of forms shall be oiled with a non-staining mineral oil or thoroughly wetted before concrete is placed.
- Forms may be removed 24 hours after the placement of concrete. All wire ties and other devices used shall be recessed from the surface of the concrete.
- Reinforcing Steel:**
 All reinforcing material shall be free of dirt, rust, scale, oil, paint or other coatings. The steel shall be accurately placed and correctly tied and blocked into position so that no movement of the steel will occur during placement of concrete.
- Consolidation:**
 Concrete shall be consolidated with internal type mechanical vibrators. Vibration shall be supplemented by spading and hand tamping in corners, and around embedded items.
- Finishing:**
 Defective concrete, honeycombed areas, voids left by the removal of the rods, ridges 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. All voids shall be reamed and completely filled with dry-packing mortar.
- 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. Moisture may be applied by spraying or sprinkling as necessary to prevent the concrete from drying. Concrete shall not be exposed to freezing during the curing period. Curing compounds may also be used.
- Placing Temperature:**
 Concrete may not be placed at temperatures below 32° F with the temperature falling or 34° with the temperature rising.
- VI. STABILIZATION**
 All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spill and borrow areas, and berms shall be stabilized by seeding, fertilizing and mulching (if required) in accordance with the respective treatment specifications shown on or accompanying the drawings.

- SEQUENCE OF CONSTRUCTION**
1. Obtain Grading Permit.
 2. Install stabilized construction entrance #1.----- (1/2 day)
 3. Install temporary access road, earth dikes, silt fence, stone outlet sediment traps #1, #2 and waste sediment traps #1, #2. (1 week)
 4. For pond construction see pond sequence of construction sheet #1.
 5. Rough grade for the proposed Triadelphia Mill Road and Gilbride Lane to existing Triadelphia Mill Road without disturbing stabilized construction entrance #1.----- (2 weeks)
 6. Close off Triadelphia Mill Road for thru traffic. Install all necessary traffic control devices as directed by the Department of Public Works.----- (1/2 day)
 7. Begin installation of storm drains and timber retaining walls. Install stone filter inlet protection and storm inlet sediment trap #1.----- (1 week)
 8. Remove existing paving for installation of stabilized construction entrance #2 and remove stabilized construction entrance #1.----- (1 day)
 9. Install silt sediment trap #4 and silt fence along Triadelphia Mill Road.----- (2 days)
 10. Remove earth dike along Triadelphia Mill Road and install temporary scale.----- (1 day)
 11. Stabilize all the disturbed areas in accordance with the temporary seeding notes.
 12. Begin removal of existing paving of Triadelphia Mill Road from Station 68+50 to Station 61+30 and perform remaining grading for Triadelphia Mill Road.----- (1 week)
 13. Upon approval of Howard County Department of Public Works Sediment Control Inspector, remove all remaining sediment control devices and stabilize all disturbed areas in accordance with permanent seeding notes.----- (3 days)



AS BUILT CERTIFICATION

ENGINEER _____ 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. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

James Sargent 5-9-89
 DEVELOPER DATE

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR PONDS 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."

William E. Muegge 5-10-89
 ENGINEER DATE

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

James M. Sita 5/25/89
 INSPECTION SERVICE DATE

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

Robert E. Ziehm 5/25/89
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

Leslie S. Wright 7/2/89
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Robert E. Ziehm 6/10/89
 Chief, Land Development Division DATE

Shawna M. Woodland 6/27/89
 Chief, Bureau of Highways DATE

Elizabeth Anderson 6/27/89
 Chief, Bureau of Engineering DATE

DATE NO REVISION

OWNER/DEVELOPER
 HEDGEROW ASSOCIATES LIMITED PARTNERSHIP
 C/O LOWRE SERGENT
 13243 WESTMEATH LANE
 CLARKSVILLE, MARYLAND 21029

PROJECT: HEDGEROW (SECTION ONE)
 (LOTS 1-28 PARCELS A-B)

AREA: TAX MAP 28 #94 PARCELS 59, 60, 30, 4, 6
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE: GRADING AND SEDIMENT CONTROL 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

5/10/89 DATE

WP-88-CO, 5-88-47, 5-88-74

DESIGNED BY: U.L.B.

DRAWN BY: D.B.S.

PROJECT NO: 47803

DATE: MAY 10, 1989

SCALE: AS SHOWN

DRAWING NO. 11 OF 15

1953

ENGINEER _____
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. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
DATE: 5-9-89
DEVELOPER: _____

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."
DATE: 5-10-89
ENGINEER: _____

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.
DATE: 5/25/89
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: _____ DATE: 5/25/89
HOWARD SOIL CONSERVATION SERVICE

APPROVED: _____ DATE: 5/25/89
HOWARD SOIL CONSERVATION SERVICE

APPROVED: _____ DATE: 7/3/89
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: _____ DATE: 6/18/89
CHIEF, LAND DEVELOPMENT DIVISION

APPROVED: _____ DATE: 6/28/89
CHIEF, BUREAU OF HIGHWAYS

APPROVED: _____ DATE: 6/6/89
CHIEF, BUREAU OF ENGINEERING

OWNER/DEVELOPER
HEDGEROW ASSOCIATES LIMITED PARTNERSHIP
56 LOUISE GARGENT
19042 WESTLEATH LANE
CLARKSVILLE, MARYLAND 21027

PROJECT: HEDGEROW SECTION ONE
(LOTS 1-28 & PARCELS A-B)

AREA: TAX MAPS 28 & 34 PARCELS 56, 60, 80 & 64
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: GRADING AND SEDIMENT CONTROL 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

DATE: 5-10-89
WP-28-60, 5-28-47, P-88-74

DESIGNED BY: J.L.B.
DRAWN BY: D.B.S.

PROJECT NO: 47808
DATE: MAY 10, 1989
SCALE: AS SHOWN

DRAWING NO. 12 OF 15
ARTHUR E. MUEGGER, INC.

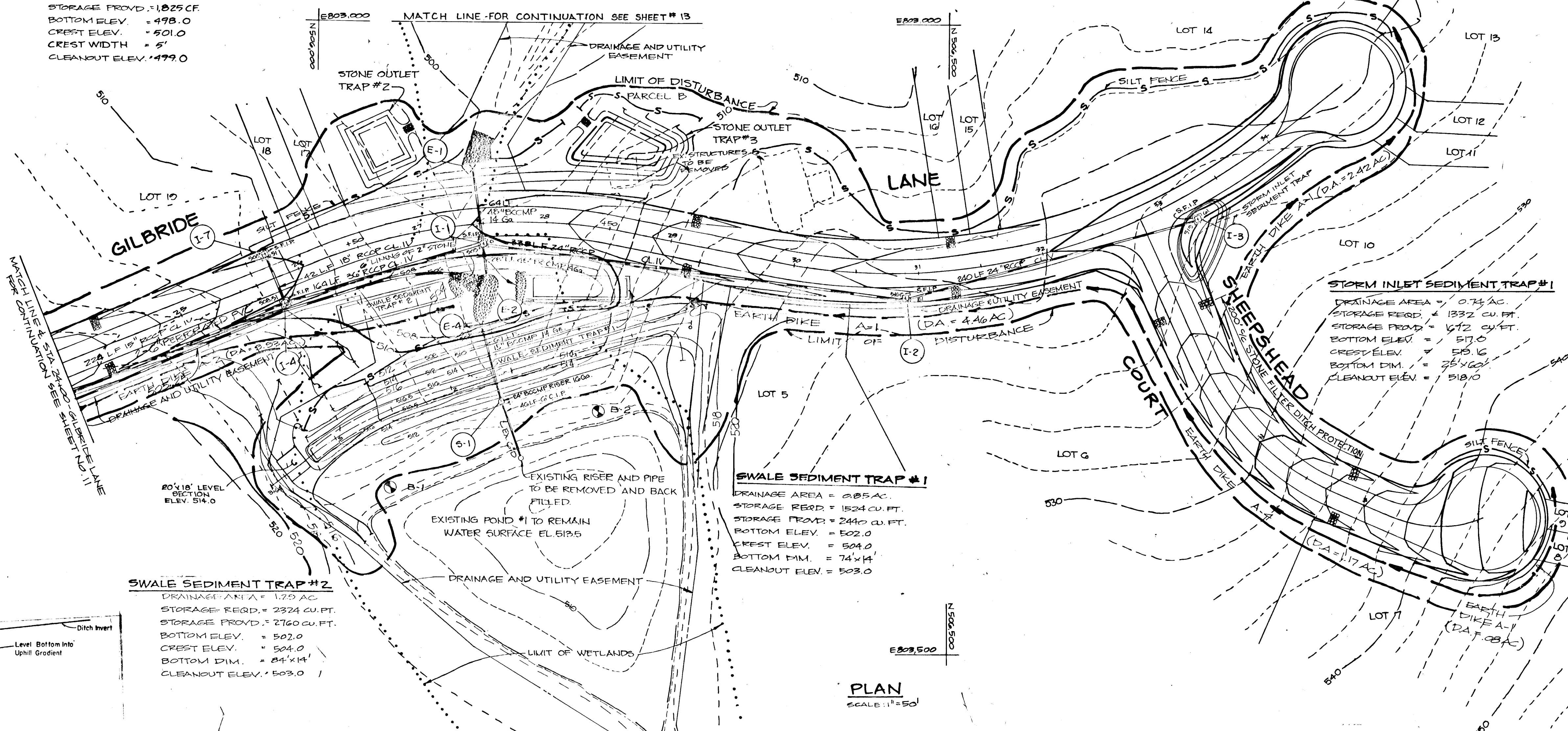
STONE OUTLET SEDIMENT TRAP #3

DRAINAGE AREA = 0.75 AC
STORAGE REQ'D = 1,350 CF
STORAGE PROVIDED = 2,900 CF
BOTTOM ELEV. = 478
CREST ELEV. = 501
CLEANOUT WIDTH = 5'
CLEANOUT ELEV. = 479.0

STONE OUTLET SEDIMENT TRAP #2

DRAINAGE AREA = 0.42 AC
STORAGE REQ'D = 756 CF
STORAGE PROVIDED = 1,825 CF
BOTTOM ELEV. = 498.0
CREST ELEV. = 501.0
CLEANOUT WIDTH = 5'
CLEANOUT ELEV. = 479.0

GRADING FOR SEDIMENT TRAPS TO BE TEMPORARY.



STORM INLET SEDIMENT TRAP #1

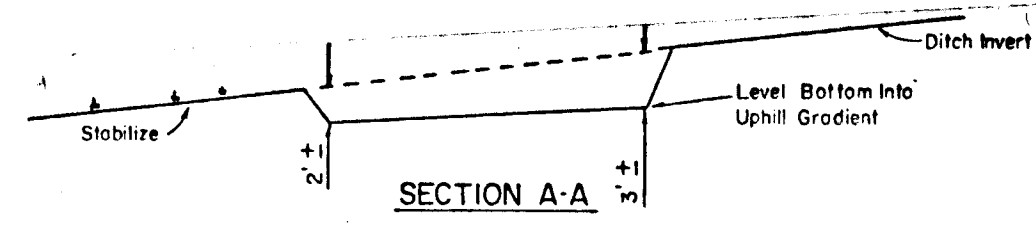
DRAINAGE AREA = 0.74 AC
STORAGE REQ'D = 1,332 CU. FT.
STORAGE PROVIDED = 1,712 CU. FT.
BOTTOM ELEV. = 517.0
CREST ELEV. = 519.6
BOTTOM DIM. = 25'x16'
CLEANOUT ELEV. = 518.0

SWALE SEDIMENT TRAP #1

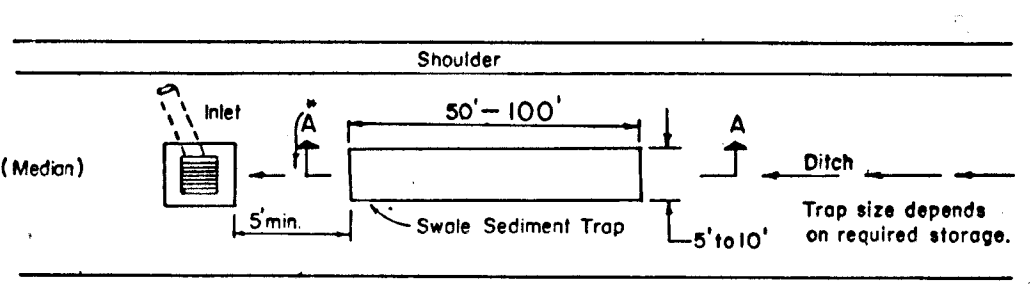
DRAINAGE AREA = 0.85 AC
STORAGE REQ'D = 1,524 CU. FT.
STORAGE PROVIDED = 2,440 CU. FT.
BOTTOM ELEV. = 502.0
CREST ELEV. = 504.0
BOTTOM DIM. = 74'x4'
CLEANOUT ELEV. = 503.0

SWALE SEDIMENT TRAP #2

DRAINAGE AREA = 1.79 AC
STORAGE REQ'D = 2,324 CU. FT.
STORAGE PROVIDED = 2,760 CU. FT.
BOTTOM ELEV. = 502.0
CREST ELEV. = 504.0
BOTTOM DIM. = 84'x14'
CLEANOUT ELEV. = 503.0



SWALE SEDIMENT TRAP

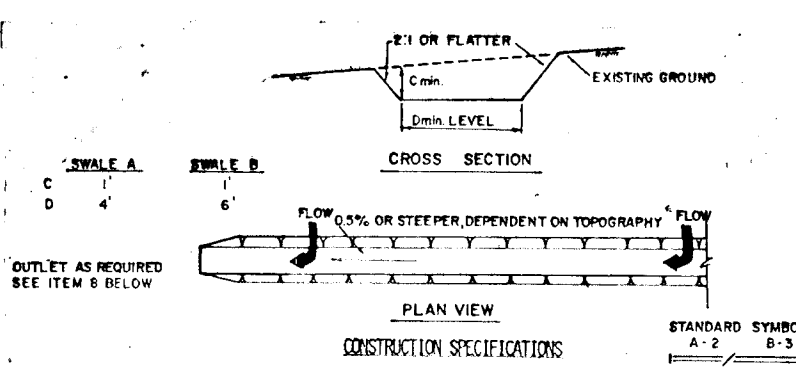


CONSTRUCTION SPECIFICATION FOR ST-1V

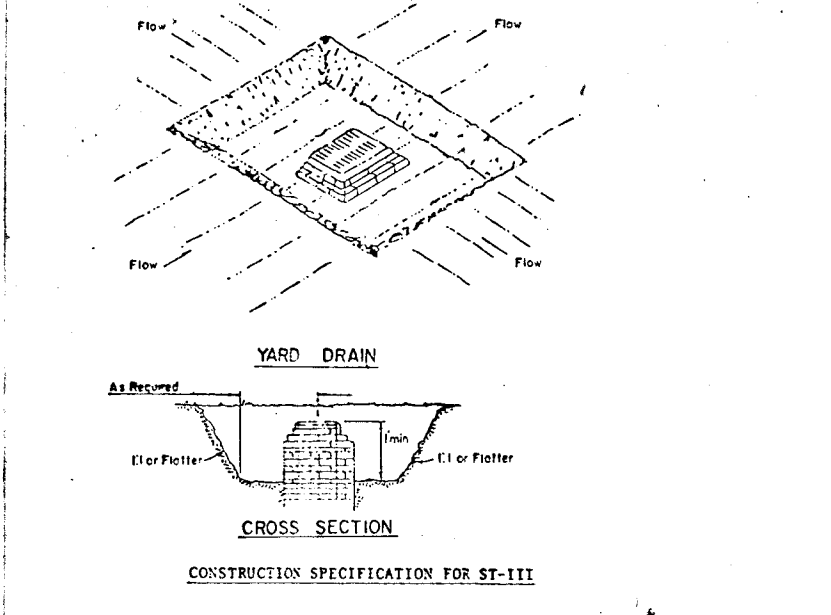
- 1. The swale sediment trap shall be constructed in accordance with the dimensions provided on the design drawings or sized to provide the minimum storage necessary 1800 cubic feet of storage for each acre of drainage area.
- 2. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
- 3. The structure shall be inspected after each rain and repairs made as needed.
- 4. Construction operations shall be carried out in such a manner that erosion and water pollution shall be minimized.
- 5. The sediment trap shall be removed and area stabilized when the contributory drainage area has been properly stabilized.
- 6. The swale sediment trap will be properly backfilled and the swale or ditch reconstructed.

- OPTION: A one foot layer of 2" stone may be placed on the upstream side of the slipway in place of the subsurface filter cloth.
- CONSTRUCTION SPECIFICATIONS FOR ST-1V:
 - 1. Area under embankment shall be cleared, graded and stripped of any vegetation and root mass. The soil area shall be checked.
 - 2. The fill material for the embankment shall be free of roots and other woody vegetation as well as oversized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by treading with equipment while it is being constructed.
 - 3. All cut and fill slopes shall be 3:1 or flatter.
 - 4. The stone used in the outlet shall be small slippage 4"-8" along with a 1" thickness of 2" aggregate placed on the updrain side on the small slippage 20' subsurface filter cloth in the slipway.
 - 5. Backfill shall be removed and trap restored to its original dimensions when the sediment has accumulated to the design depth of the trap.
 - 6. The structure shall be inspected after each rain and repairs made as needed.
 - 7. Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
 - 8. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

Maximum Drainage Area: 5 Acres
STONE OUTLET SEDIMENT TRAP
NO SCALE

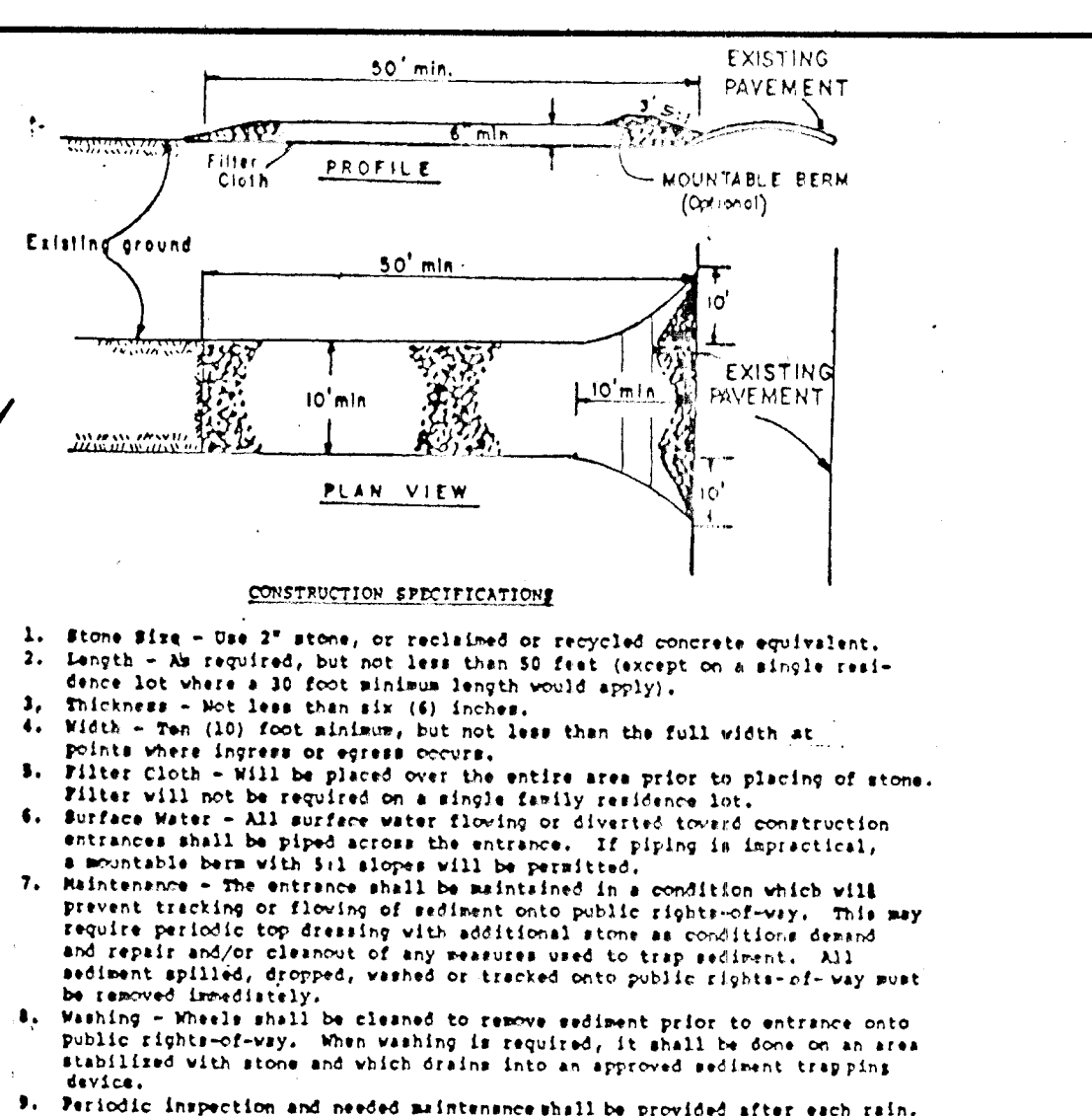
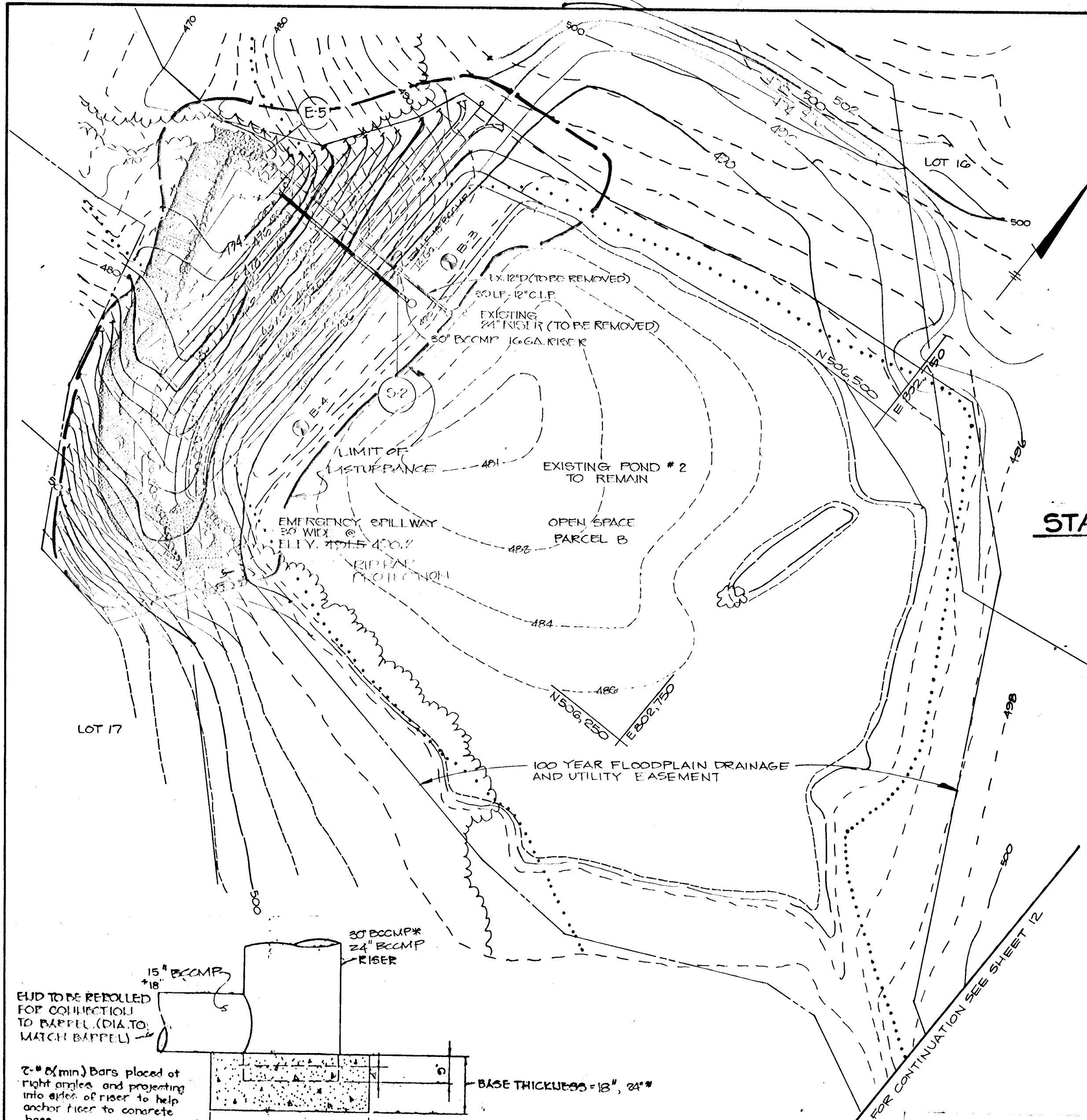


- 1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
 - 2. EROSION BANKS FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
 - 3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
 - 4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBSTRUCTIBLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
 - 5. THE SWALE SHALL BE EXCAVATED OR SHIPPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE PART OF SOIL PRODUCTIONS OR OTHER BRIDGEABLE MATERIAL WILL BE REMOVED FROM THE SWALE.
 - 6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
 - 7. ALL EXPOSED BROWNS AND HOT SPOTS ON CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
 - 8. STABILIZATION SHALL BE AS PER THE COURT ORDER.
- | TYPE OF TREATMENT | COVER | A (5 AC OR LESS) | B (5 AC - 10 AC) |
|-------------------|---------|----------------------------------|---------------------------|
| 1 | 0.5-3.0 | SEED AND STRAW PALCH | SEED AND STRAW PALCH |
| 2 | 3.1-5.0 | SEED AND STRAW PALCH | SEED USING JUTE OR COCOON |
| 3 | 5.1-8.0 | SEED WITH JUTE OR EXCELLENCE SOI | LINER 20'-50' 8"-8" |
| 4 | 8.1-20 | LINED 8"-8" RUP-RUP | ENGINEERED DESIGN |
- PERIODIC INSPECTION AND MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

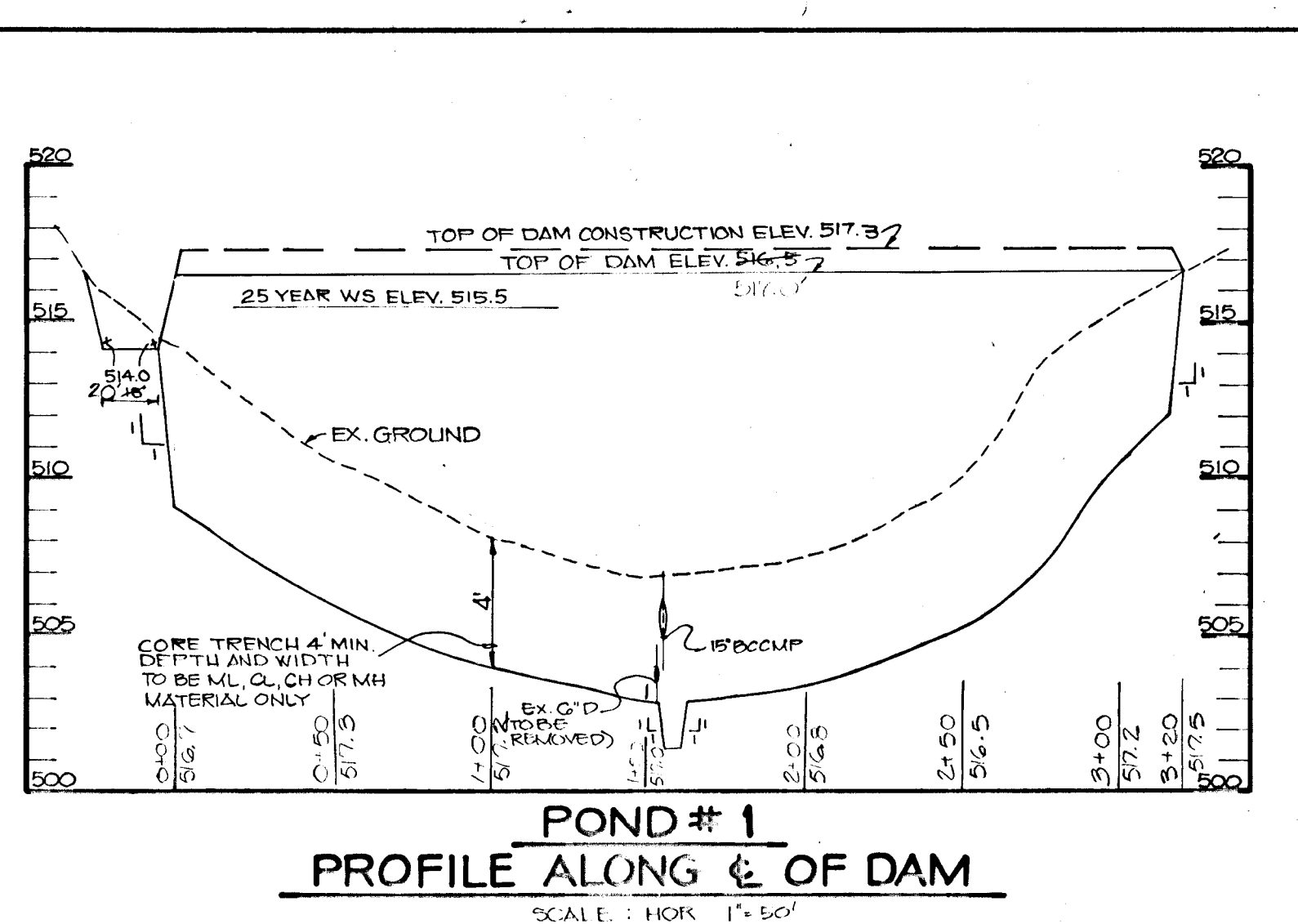


- 1. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
 - 2. THE VOLUME OF SEDIMENT STORAGE SHALL BE 1800 CUBIC FEET PER ACRE OF CONTRIBUTORY DRAINAGE.
 - 3. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
 - 4. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION SHALL BE MINIMIZED.
 - 5. THE SEDIMENT TRAP SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE CONTRIBUTORY DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
 - 6. ALL CUT SLOPES SHALL BE 3:1 OR FLATTER.
- Maximum Drainage Area: 3 Acres

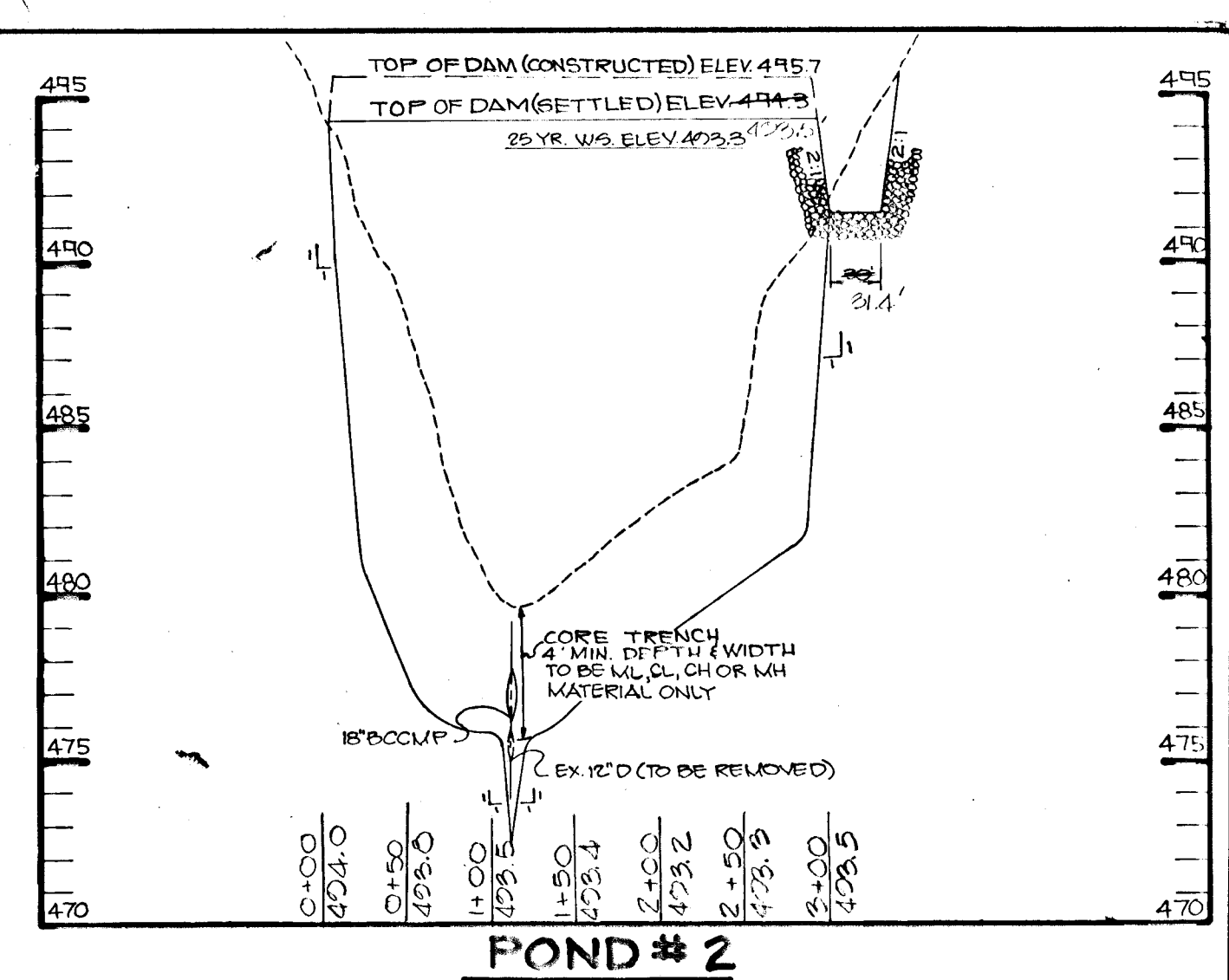
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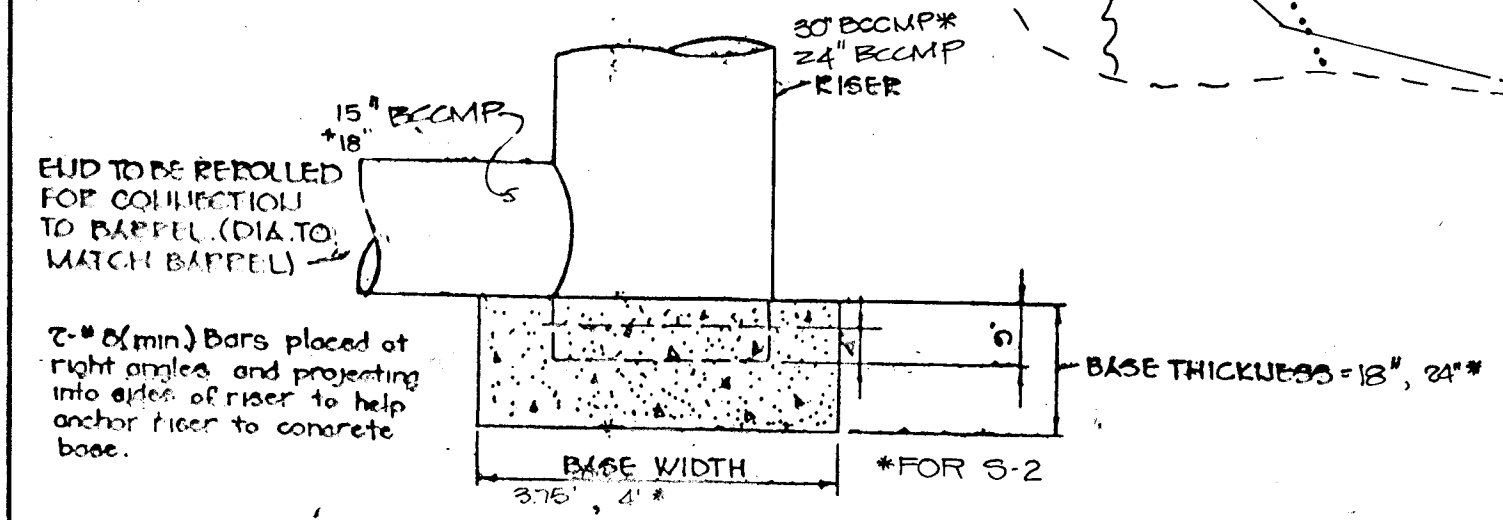
STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM
NO SCALE



PROFILE #1 ALONG E OF DAM
SCALE: HOR. 1"=50' VERT. 1"=5'



PROFILE #2 ALONG E OF DAM
SCALE: HOR. 1"=50' VERT. 1"=5'



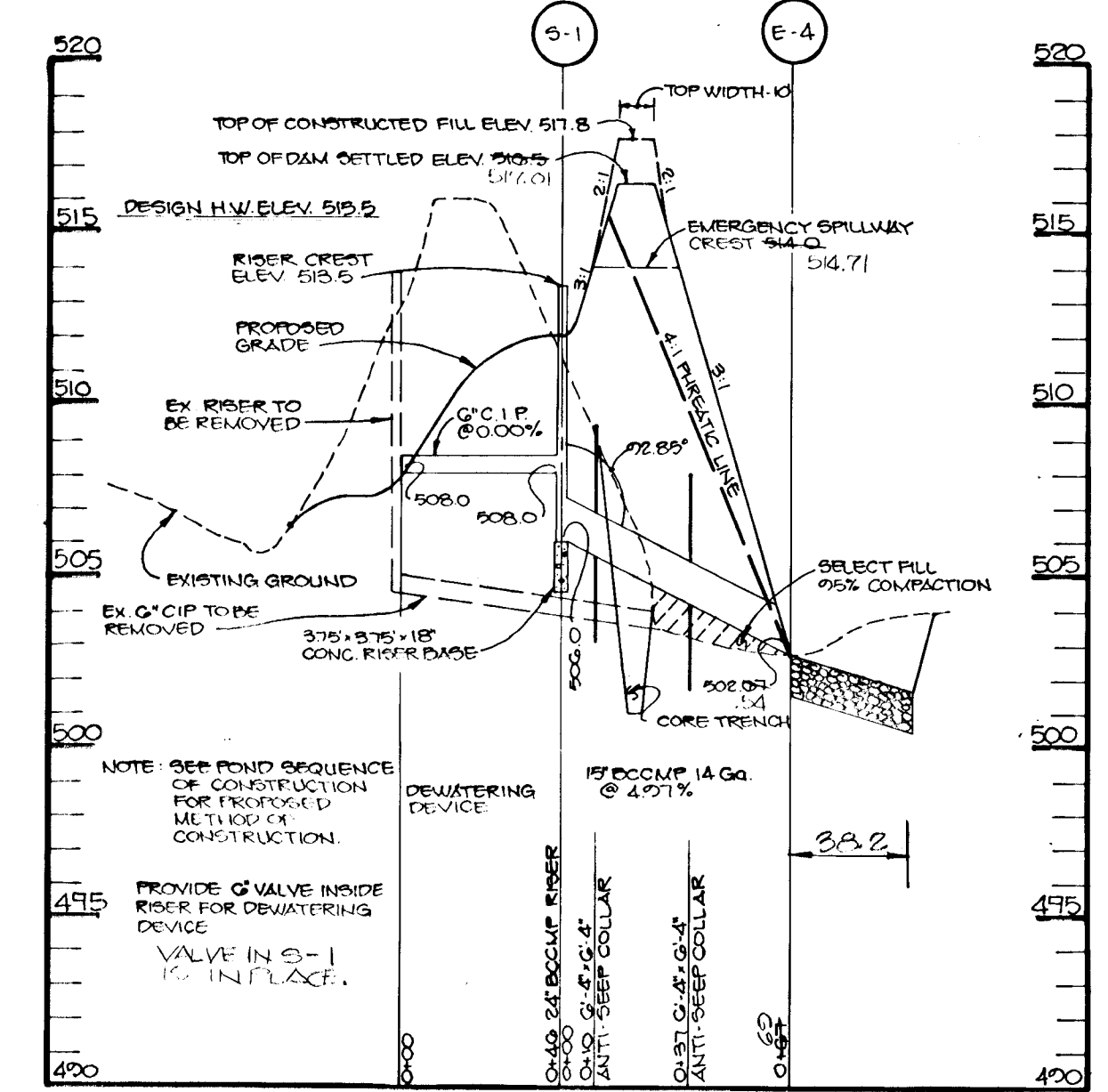
RISER BASE DETAIL (6-1,5-2)
NO SCALE

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

PLAN
SCALE: 1"=100'

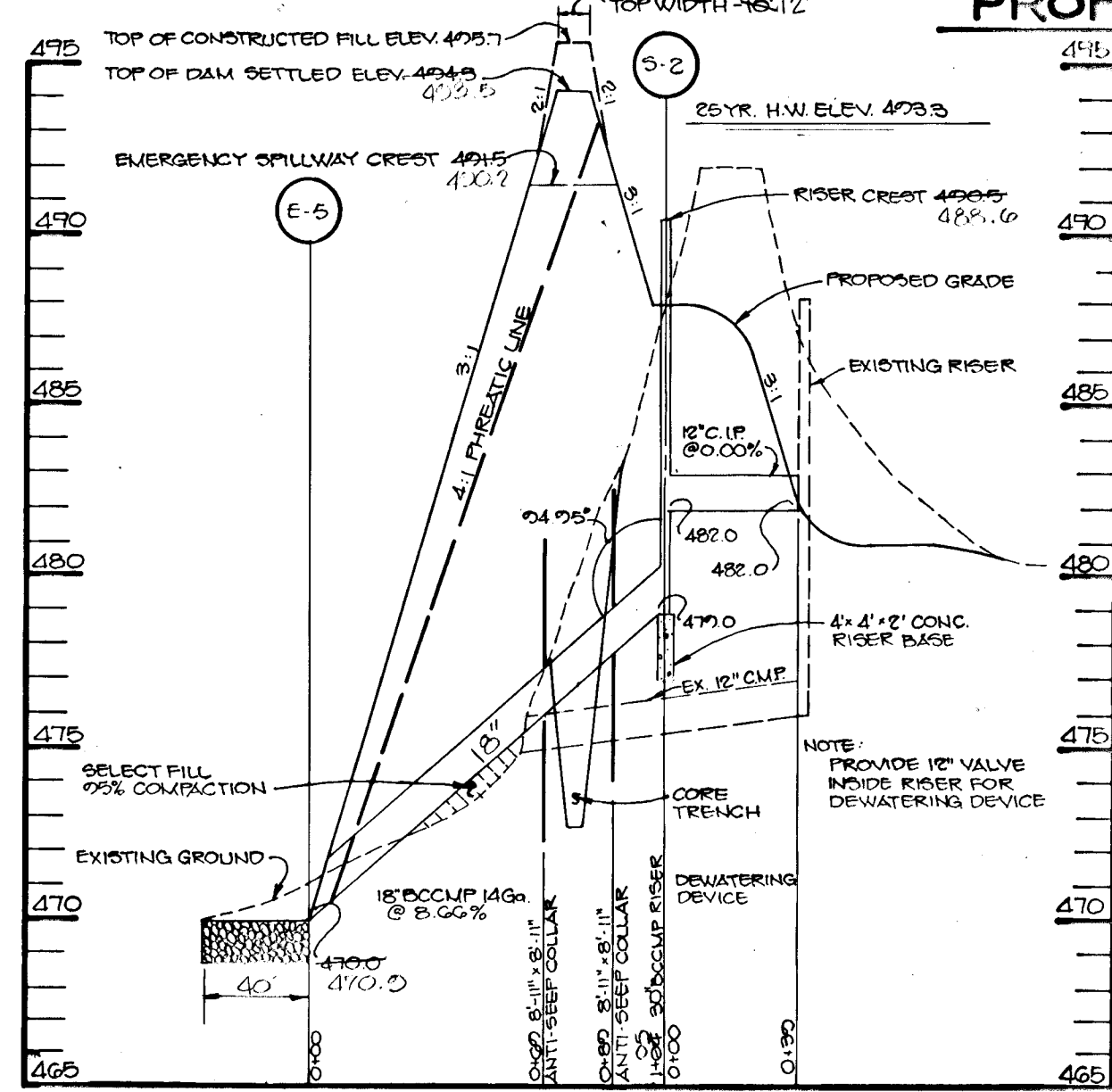
AS-BUILT CERTIFICATION

ENGINEER _____
PE # _____
DATE _____

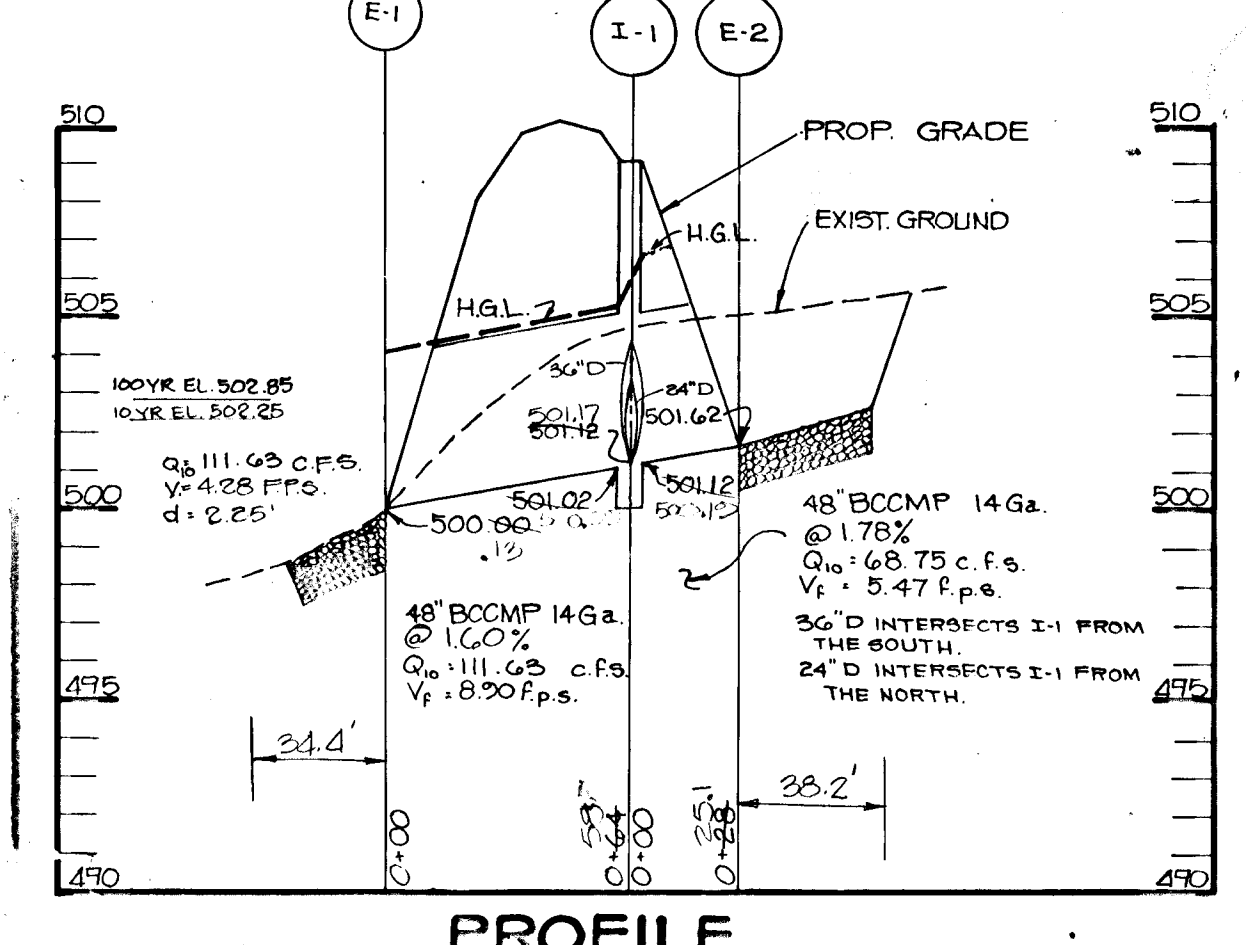


PROFILE THROUGH PRINCIPAL SPILLWAY EXISTING POND #1
SCALE: HOR. 1"=50' VERT. 1"=5'

- EXISTING PONDS SEQUENCE OF CONSTRUCTION
- Pump water out of ponds and maintain at a depth of 2 feet. (1 week)
 - Install the principal spillways and risers, removing existing outfall pipes as necessary. (1 week)
 - Upon removal of existing risers and barrels, install dewatering pipes with dewatering valves open. (5 days)
 - Backfill and grade over dewatering pipes and finish grading of new embankment. (5 weeks)
 - Upon stabilization of these new embankments, begin removal of existing embankments as per grade shown on this profile through principal spillways. (1 week)
 - Stabilize all the disturbed areas in accordance with the permanent seeding notes. (2 days)



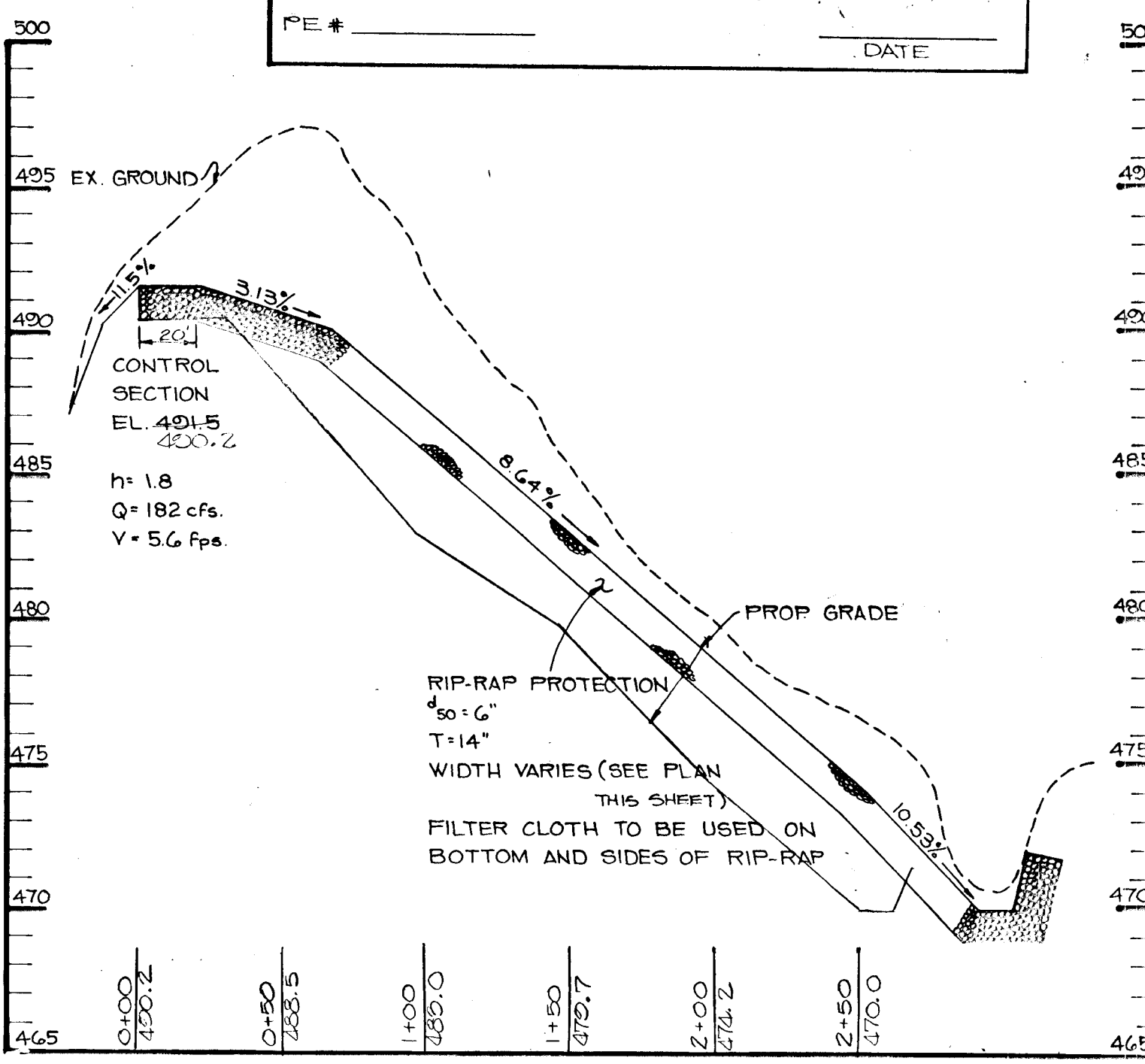
PROFILE THROUGH PRINCIPAL SPILLWAY EXISTING POND #2
SCALE: HOR. 1"=50' VERT. 1"=5'



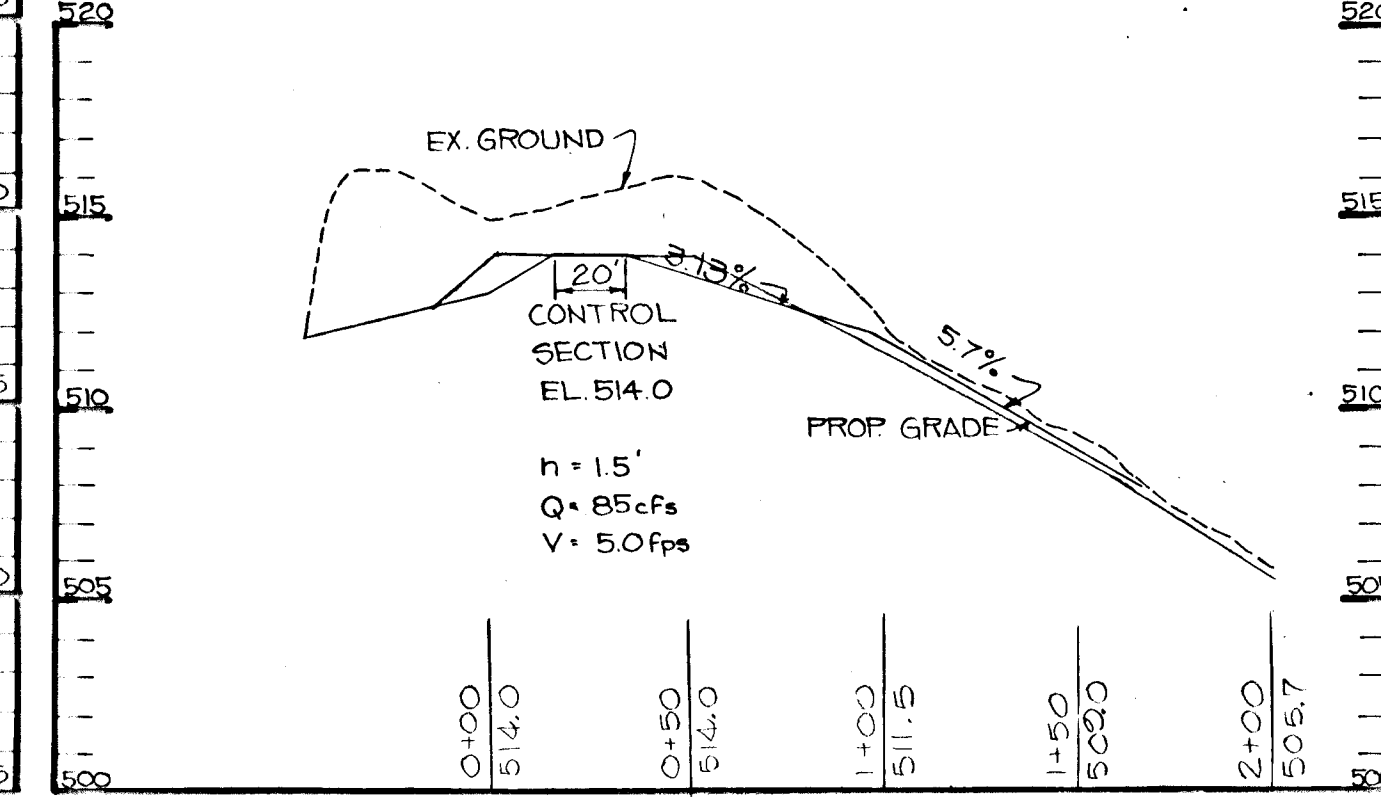
PROFILE
SCALE: HOR. 1"=50' VERT. 1"=5'

BORING LOGS
NO SCALE

DEPTH (ft)	SOIL DESCRIPTION	DEPTH (ft)	SOIL DESCRIPTION
0-4	TAN CLAY SILT WITH MICA	0-4	GRAY/TAN CLAYEY SILTY SAND WITH MICA, TRACE OF FINE SAND (SM)
4-8	TAN CLAY SILT WITH MICA AND GRAVEL	4-8	BROWN SILTY SAND/ SANDY SILT WITH DECOMPOSED ROCK (SM)
8-12	GRAY BROWN FINE SAND SILTY WITH MICA / GRAVEL	8-12	BROWN SILTY SAND WITH MICA AND DECOMPOSED ROCK (SM)
12-16	RED CLAYEY SILTY SAND	12-16	BROWN SILTY SAND WITH MICA AND DECOMPOSED ROCK (SM)
16-20	RED SILTY SAND WITH DECOMPOSED ROCK (MICA)	16-20	BROWN SILTY SAND WITH MICA AND DECOMPOSED ROCK (SM)
20-24	GRAY BROWN SILTY SAND WITH DECOMPOSED ROCK	20-24	GRAY/WHITE DECOMPOSED ROCK
24-28	BROWN SILTY SAND WITH DECOMPOSED ROCK	24-28	BROWN SILTY SAND WITH DECOMPOSED ROCK (MICA)
28-32	BROWN SILTY SAND WITH DECOMPOSED ROCK	32-36	BROWN SILTY SAND WITH DECOMPOSED ROCK (MICA)



PROFILE THROUGH EMERGENCY SPILLWAY POND #2
SCALE: HOR. 1"=50' VERT. 1"=5'



PROFILE THROUGH EMERGENCY SPILLWAY POND #1
SCALE: HOR. 1"=50' VERT. 1"=5'

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. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

DATE: 5-9-89
DEVELOPER: *Arthur E. Muegge*

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."

DATE: 5-10-89
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.

DATE: 5-25-89
HOWARD SOIL CONSERVATION DISTRICT: *John M. Hahn*

APPROVED: *Robert Zielke* 5-25-89
HOWARD SOIL CONSERVATION DISTRICT

OWNER/DEVELOPER

HEDGEROW ASSOCIATED LIMITED PARTNERSHIP
% LOWRIE BARGENT
1924B WESTMEATH LANE
CLARKSVILLE, MARYLAND 21027

PROJECT: HEDGEROW SECTION ONE (LOTS 1-28 (PARCELS A-E))

AREA TAX MAP 28 & 24 PARCEL 57,60,80 & 64
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: EXISTING POND PLAN, PROFILES AND DETAILS

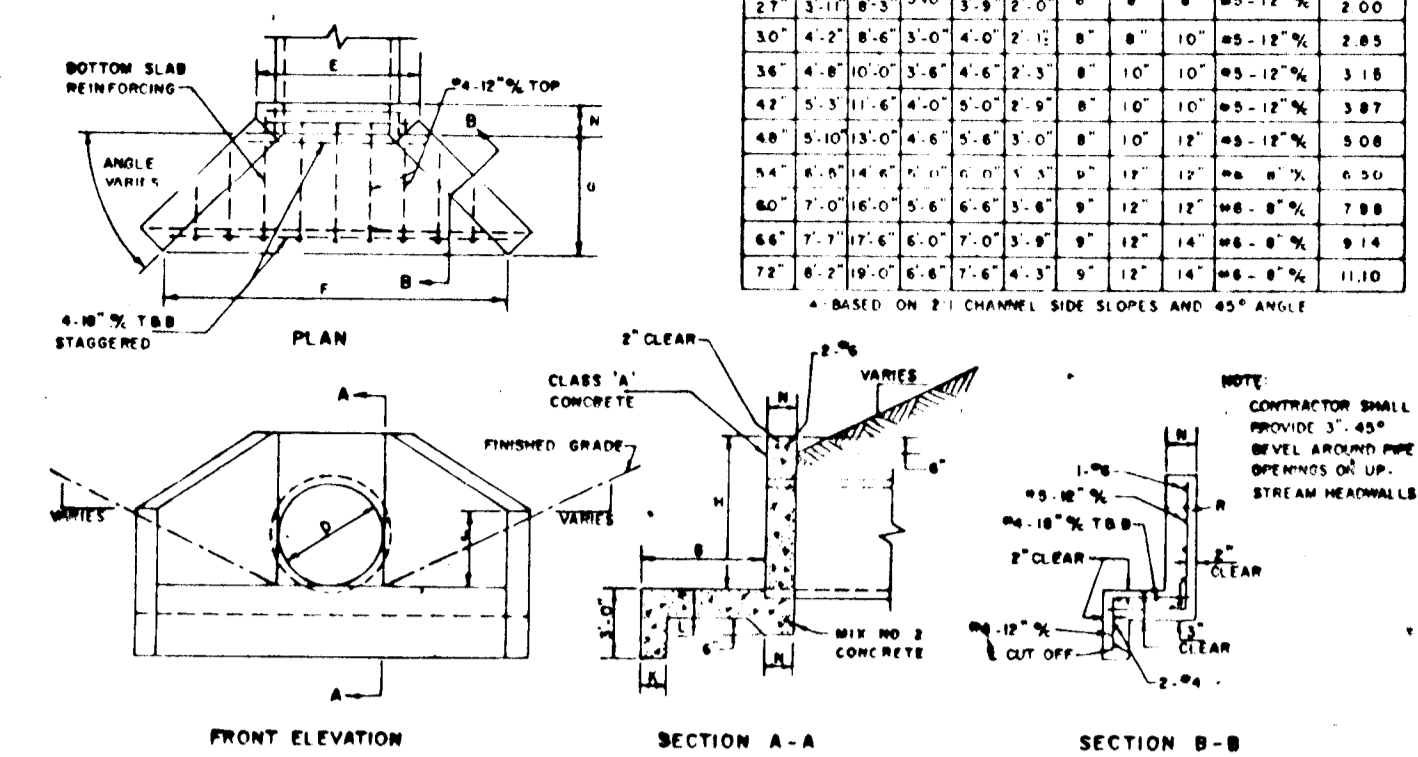
THE RIEMER GROUP, INC.
The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm
3105 North Ridge Road, Ellicott City, Maryland 21043 (301) 461-2690

DATE: 5-10-89
DATE: 6/10/89
DATE: 6/20/89
DATE: 6/28/89

DESIGNED BY: C.J.R.
DRAWN BY: J.C.R.
PROJECT NO: 47803
DATE: MAY 10, 1989
SCALE: AS SHOWN
DRAWING NO. 13 OF 15

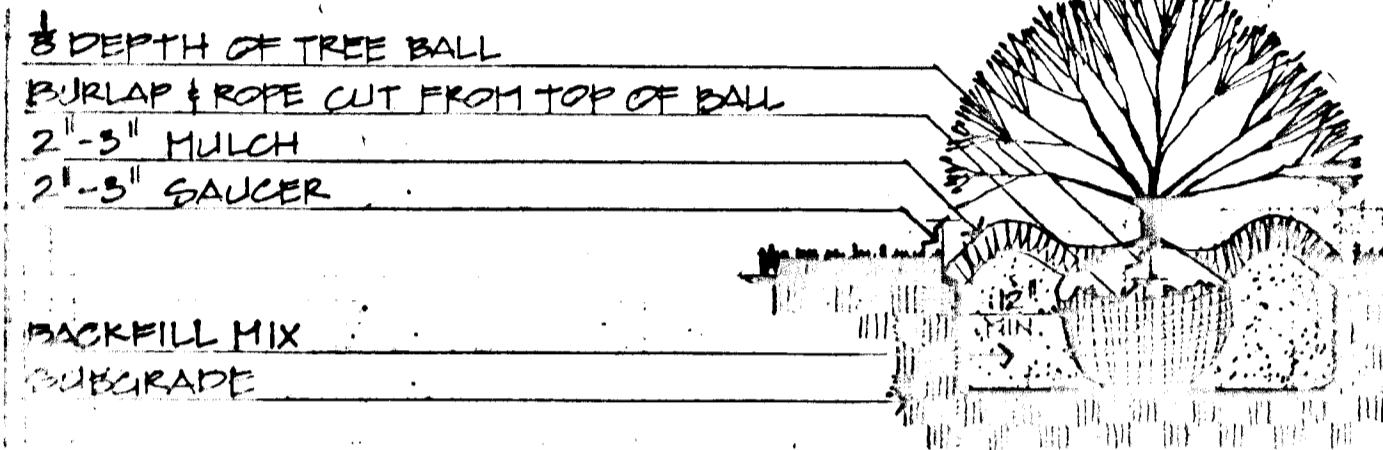
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D	E	F	G	H	I	J	K	L	M	N	A	COL. CH.
18	3.0	7.4	3.0	4.0	7.0	8	8	8	8	8	8	1.70
21	3.4	7.9	3.4	4.4	7.4	8	8	8	8	8	8	1.80
24	3.8	8.3	3.8	4.8	7.8	8	8	8	8	8	8	1.90
27	4.2	8.7	4.2	5.2	8.2	8	8	8	8	8	8	2.00
30	4.6	9.1	4.6	5.6	8.6	8	8	8	8	8	8	2.10
33	5.0	9.5	5.0	6.0	9.0	8	8	8	8	8	8	2.20
36	5.4	9.9	5.4	6.4	9.4	8	8	8	8	8	8	2.30
39	5.8	10.3	5.8	6.8	9.8	8	8	8	8	8	8	2.40
42	6.2	10.7	6.2	7.2	10.2	8	8	8	8	8	8	2.50
45	6.6	11.1	6.6	7.6	10.6	8	8	8	8	8	8	2.60
48	7.0	11.5	7.0	8.0	11.0	8	8	8	8	8	8	2.70
51	7.4	11.9	7.4	8.4	11.4	8	8	8	8	8	8	2.80
54	7.8	12.3	7.8	8.8	11.8	8	8	8	8	8	8	2.90
57	8.2	12.7	8.2	9.2	12.2	8	8	8	8	8	8	3.00
60	8.6	13.1	8.6	9.6	12.6	8	8	8	8	8	8	3.10
63	9.0	13.5	9.0	10.0	13.0	8	8	8	8	8	8	3.20
66	9.4	13.9	9.4	10.4	13.4	8	8	8	8	8	8	3.30
69	9.8	14.3	9.8	10.8	13.8	8	8	8	8	8	8	3.40
72	10.2	14.7	10.2	11.2	14.2	8	8	8	8	8	8	3.50
75	10.6	15.1	10.6	11.6	14.6	8	8	8	8	8	8	3.60
78	11.0	15.5	11.0	12.0	15.0	8	8	8	8	8	8	3.70
81	11.4	15.9	11.4	12.4	15.4	8	8	8	8	8	8	3.80
84	11.8	16.3	11.8	12.8	15.8	8	8	8	8	8	8	3.90
87	12.2	16.7	12.2	13.2	16.2	8	8	8	8	8	8	4.00
90	12.6	17.1	12.6	13.6	16.6	8	8	8	8	8	8	4.10
93	13.0	17.5	13.0	14.0	17.0	8	8	8	8	8	8	4.20
96	13.4	17.9	13.4	14.4	17.4	8	8	8	8	8	8	4.30
99	13.8	18.3	13.8	14.8	17.8	8	8	8	8	8	8	4.40
102	14.2	18.7	14.2	15.2	18.2	8	8	8	8	8	8	4.50
105	14.6	19.1	14.6	15.6	18.6	8	8	8	8	8	8	4.60
108	15.0	19.5	15.0	16.0	19.0	8	8	8	8	8	8	4.70
111	15.4	19.9	15.4	16.4	19.4	8	8	8	8	8	8	4.80
114	15.8	20.3	15.8	16.8	19.8	8	8	8	8	8	8	4.90
117	16.2	20.7	16.2	17.2	20.2	8	8	8	8	8	8	5.00
120	16.6	21.1	16.6	17.6	20.6	8	8	8	8	8	8	5.10
123	17.0	21.5	17.0	18.0	21.0	8	8	8	8	8	8	5.20
126	17.4	21.9	17.4	18.4	21.4	8	8	8	8	8	8	5.30
129	17.8	22.3	17.8	18.8	21.8	8	8	8	8	8	8	5.40
132	18.2	22.7	18.2	19.2	22.2	8	8	8	8	8	8	5.50
135	18.6	23.1	18.6	19.6	22.6	8	8	8	8	8	8	5.60
138	19.0	23.5	19.0	20.0	23.0	8	8	8	8	8	8	5.70
141	19.4	23.9	19.4	20.4	23.4	8	8	8	8	8	8	5.80
144	19.8	24.3	19.8	20.8	23.8	8	8	8	8	8	8	5.90
147	20.2	24.7	20.2	21.2	24.2	8	8	8	8	8	8	6.00
150	20.6	25.1	20.6	21.6	24.6	8	8	8	8	8	8	6.10
153	21.0	25.5	21.0	22.0	25.0	8	8	8	8	8	8	6.20
156	21.4	25.9	21.4	22.4	25.4	8	8	8	8	8	8	6.30
159	21.8	26.3	21.8	22.8	25.8	8	8	8	8	8	8	6.40
162	22.2	26.7	22.2	23.2	26.2	8	8	8	8	8	8	6.50
165	22.6	27.1	22.6	23.6	26.6	8	8	8	8	8	8	6.60
168	23.0	27.5	23.0	24.0	27.0	8	8	8	8	8	8	6.70
171	23.4	27.9	23.4	24.4	27.4	8	8	8	8	8	8	6.80
174	23.8	28.3	23.8	24.8	27.8	8	8	8	8	8	8	6.90
177	24.2	28.7	24.2	25.2	28.2	8	8	8	8	8	8	7.00
180	24.6	29.1	24.6	25.6	28.6	8	8	8	8	8	8	7.10
183	25.0	29.5	25.0	26.0	29.0	8	8	8	8	8	8	7.20
186	25.4	29.9	25.4	26.4	29.4	8	8	8	8	8	8	7.30
189	25.8	30.3	25.8	26.8	29.8	8	8	8	8	8	8	7.40
192	26.2	30.7	26.2	27.2	30.2	8	8	8	8	8	8	7.50
195	26.6	31.1	26.6	27.6	30.6	8	8	8	8	8	8	7.60
198	27.0	31.5	27.0	28.0	31.0	8	8	8	8	8	8	7.70
201	27.4	31.9	27.4	28.4	31.4	8	8	8	8	8	8	7.80
204	27.8	32.3	27.8	28.8	31.8	8	8	8	8	8	8	7.90
207	28.2	32.7	28.2	29.2	32.2	8	8	8	8	8	8	8.00
210	28.6	33.1	28.6	29.6	32.6	8	8	8	8	8	8	8.10
213	29.0	33.5	29.0	30.0	33.0	8	8	8	8	8	8	8.20
216	29.4	33.9	29.4	30.4	33.4	8	8	8	8	8	8	8.30
219	29.8	34.3	29.8	30.8	33.8	8	8	8	8	8	8	8.40
222	30.2	34.7	30.2	31.2	34.2	8	8	8	8	8	8	8.50
225	30.6	35.1	30.6	31.6	34.6	8	8	8	8	8	8	8.60
228	31.0	35.5	31.0	32.0	35.0	8	8	8	8	8	8	8.70
231	31.4	35.9	31.4	32.4	35.4	8	8	8	8	8	8	8.80
234	31.8	36.3	31.8	32.8	35.8	8	8	8	8	8	8	8.90
237	32.2	36.7	32.2	33.2	36.2	8	8	8	8	8	8	9.00
240	32.6	37.1	32.6	33.6	36.6	8	8	8	8	8	8	9.10
243	33.0	37.5	33.0	34.0	37.0	8	8	8	8	8	8	9.20
246	33.4	37.9	33.4	34.4	37.4	8	8	8	8	8	8	9.30
249	33.8	38.3	33.8	34.8	37.8	8	8	8	8	8	8	9.40
252	34.2	38.7	34.2	35.2	38.2	8	8	8	8	8	8	9.50
255	34.6	39.1	34.6	35.6	38.6	8	8	8	8	8	8	9.60
258	35.0	39.5	35.0	36.0	39.0	8	8	8	8	8	8	9.70
261	35.4	39.9	35.4	36.4	39.4	8	8	8	8	8	8	9.80
264	35.8	40.3	35.8	36.8	39.8	8	8	8	8	8	8	9.90
267	36.2	40.7	36.2	37.2	40.2	8	8	8	8	8	8	10.00

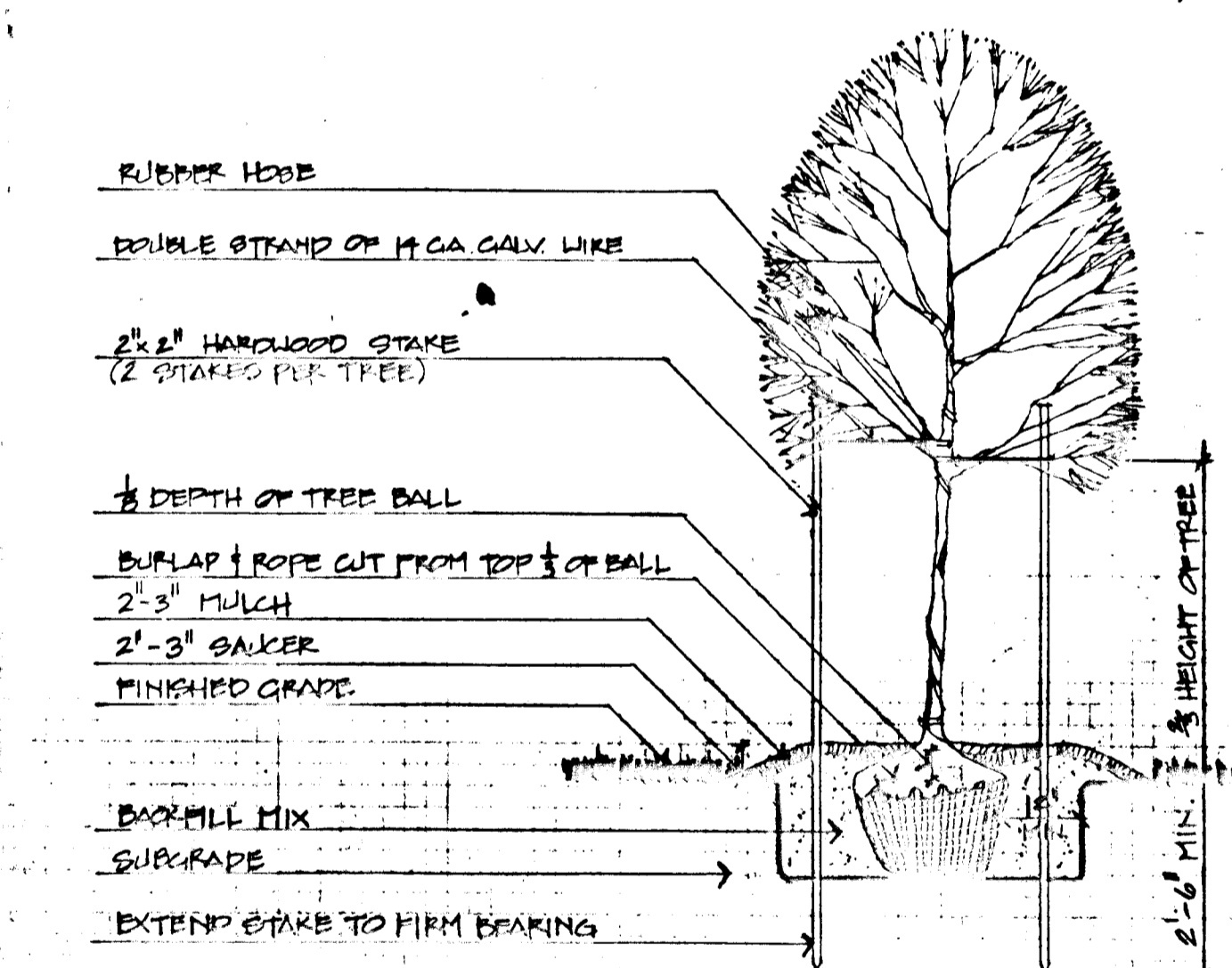


MODIFIED TYPE A HEADWALL
NO SCALE

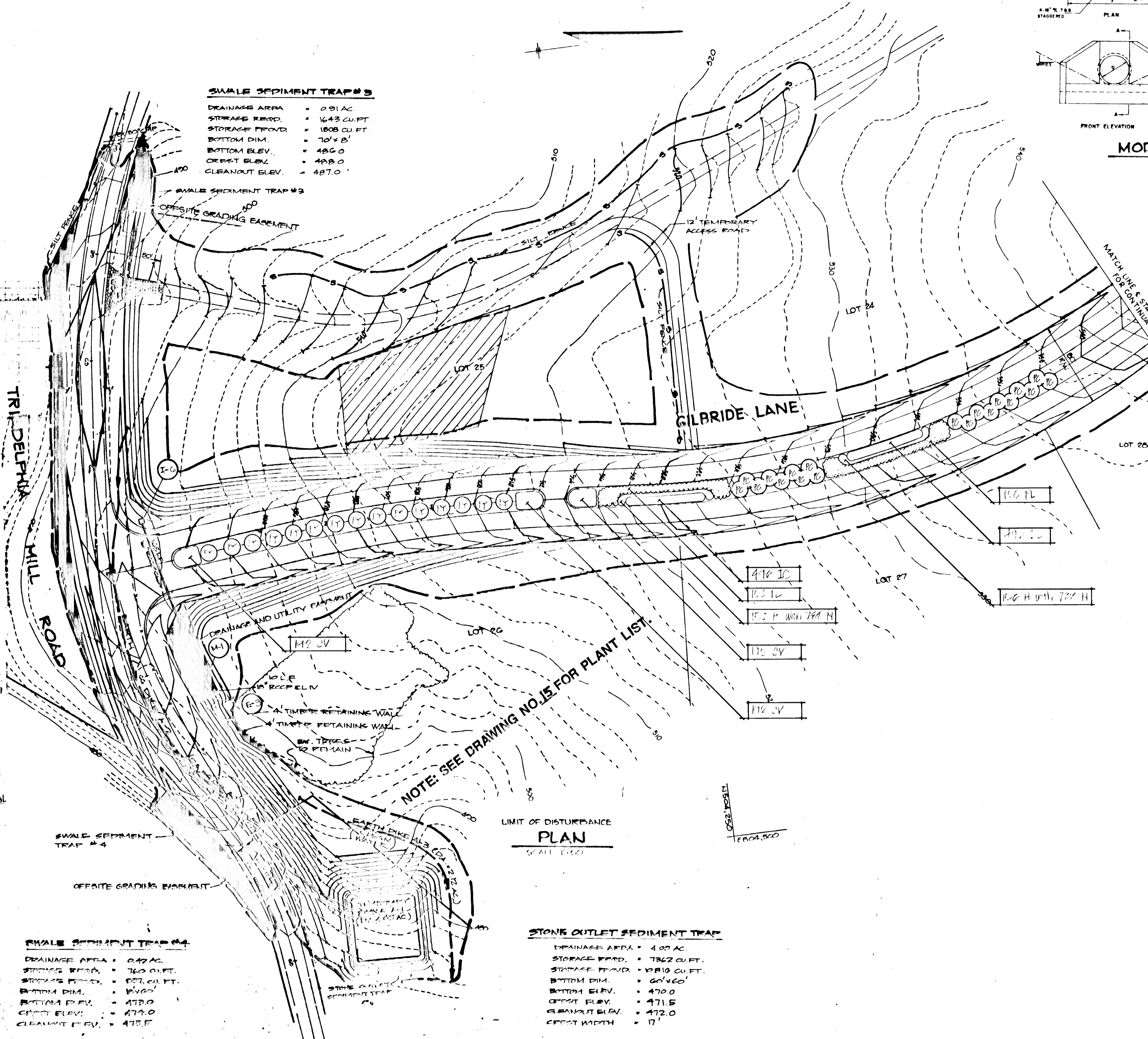
SWALE SEDIMENT TRAP #3
 DRAINAGE AREA = 0.91 AC
 STORAGE REVD. = 1643 CU.FT.
 STORAGE TPOVD. = 1808 CU.FT.
 BOTTOM DIM. = 70' X 8'
 BOTTOM ELEV. = 486.0
 CREST ELEV. = 488.0
 CLEANOUT ELEV. = 487.0



SHRUB PLANTING DETAIL
NO SCALE



TREE PLANTING DETAIL - TREES UNDER 2 1/2" CAL
NO SCALE



LIMIT OF DISTURBANCE
PLAN
SCALE 1/8" = 1'

STONE OUTLET SEDIMENT TRAP
 DRAINAGE AREA = 4.09 AC
 STORAGE REVD. = 7862 CU.FT.
 STORAGE TPOVD. = 9216 CU.FT.
 BOTTOM DIM. = 60' X 60'
 BOTTOM ELEV. = 470.0
 CREST ELEV. = 471.5
 CLEANOUT ELEV. = 472.0
 CREST WIDTH = 17'

SWALE SEDIMENT TRAP #4
 DRAINAGE AREA = 0.42 AC
 STORAGE REVD. = 760 CU.FT.
 STORAGE TPOVD. = 873 CU.FT.
 BOTTOM DIM. = 40' X 40'
 BOTTOM ELEV. = 478.0
 CREST ELEV. = 479.0
 CLEANOUT ELEV. = 478.5

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Mark S. Layton 10/15/80
 Chief, Division of Community Planning and Land Development
 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William W. Williams 6/15/80
 Chief, Bureau of Highways
 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
John B. Williams 6/15/80
 Chief, Bureau of Engineering
 DATE

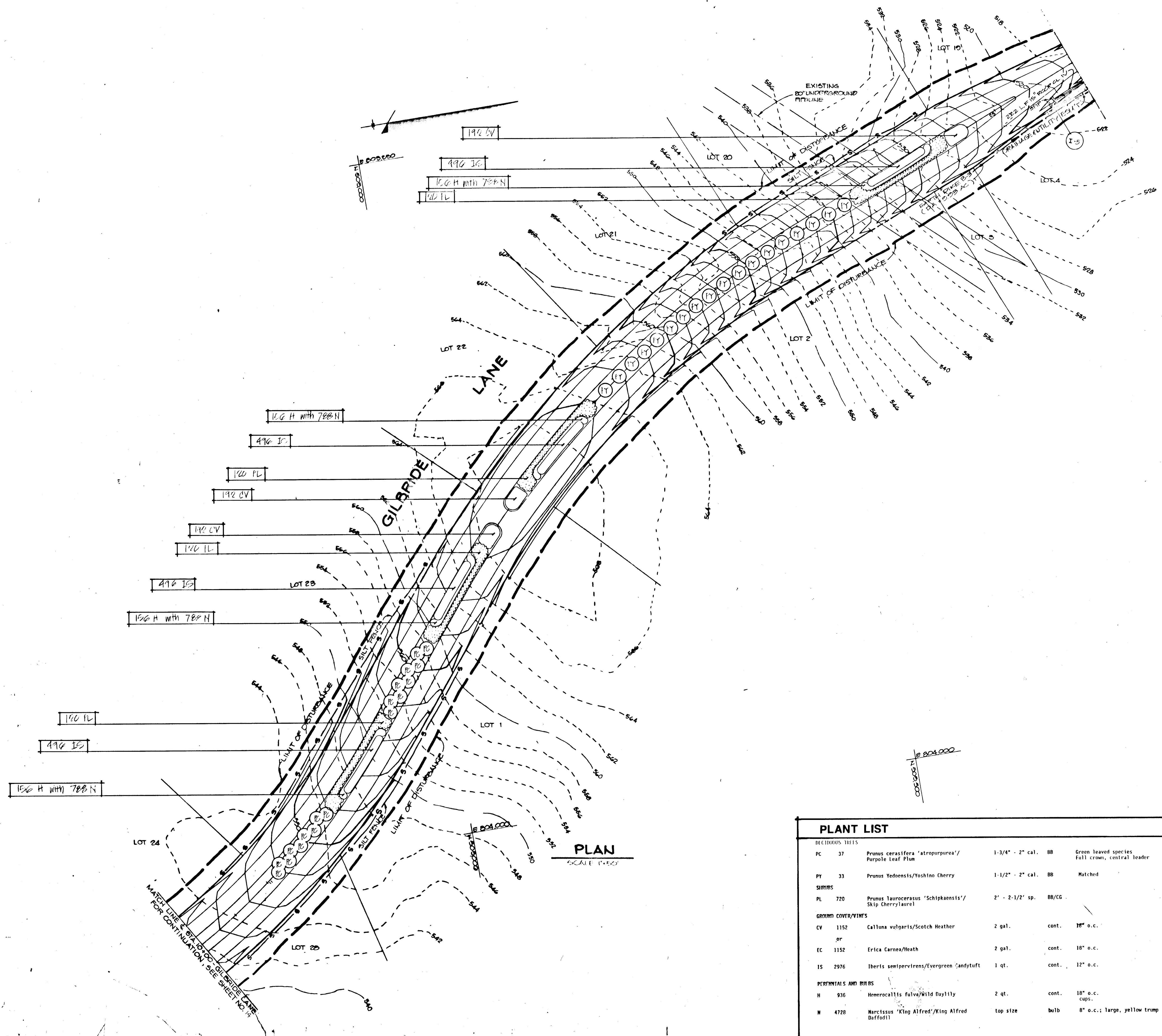
OWNER/DEVELOPER
 HEDGEROW ASSOCIATES LIMITED PARTNERSHIP
 %LOWRIE BARGENT
 18245 WESTMEATH LANE
 CLARKSVILLE, MARYLAND 21029

PROJECT: HEDGEROW (SECTION ONE)
 (LOTS 1-28 & PARCELS A-B)
 AREA: TAX MAP 28 & 54 PARCELS 56, 60, 80 & 64
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE: R.O.W. PLANTING PLAN

CDC Columbia Design Collective 880 Broken Land Parkway
 Architects, Planners, Landscape Architects Suite 200 Columbia Maryland 21048

DESIGNED BY: *Mark S. Layton*
 DRAWN BY:
 PROJECT NO: 4700
 DATE: MAY 10, 1980
 SCALE: AS SHOWN
 DRAWING NO: 14.0.15



PLAN
SCALE 1/4" = 1'-0"

PLANT LIST

DECIDUOUS TREES			
PC	37	Prunus cerasifera 'atropurpurea'/ Purple Leaf Plum	1-3/4" - 2" cal. BB Green leaved species Full crown, central leader
PY	33	Prunus Yedoensis/Yoshino Cherry	1-1/2" - 2" cal. BB Matched
SHRUBS			
PL	720	Prunus laurocerasus 'Schipkaensis'/ Skip Cherry/laurel	2' - 2-1/2' sp. BB/CG
GROUND COVER/VINES			
CV	1152	Calluna vulgaris/Scotch Heather	2 gal. cont. 18" o.c.
	or		
EC	1152	Erica Carnea/Heath	2 gal. cont. 18" o.c.
IS	2976	Iberis sempervirens/Evergreen Candytuft	1 qt. cont. 12" o.c.
PERENNIALS AND BIRDS			
H	936	Heemerocallis fulva/Wild Daylily	2 qt. cont. 18" o.c. cups.
N	4728	Narcissus 'King Alfred'/King Alfred Daffodil	top size bulb 8" o.c.; large, yellow trump

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Doreen S. Taylor 7/10/80
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William M. McLeod
 Chief, Land Development Division
William M. McLeod
 Chief, Bureau of Highways
William M. McLeod
 Chief, Bureau of Engineering

DATE	NO.	REVISION

OWNER/DEVELOPER
 HEDGEROW ASSOCIATES LIMITED PARTNERSHIP
 96 LOWRIE MARGENT
 18248 WESTMEATH LANE
 CLARKSMILLE, MARYLAND 21029

PROJECT **HEDGEROW (SECTION ONE)**
 (LOTS 1-28 & PARCELS A-B)

AREA TAX MAP 28 434 PARCELS 59, 60, 30, 4, 6
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE
R.O.W. PLANTING PLAN

CDC Columbe Design Collective Architects Planners Landscape Architects
 8891 Broken Land Parkway Suite 200 Columbia Maryland 21046

WF-88-60 5-28-87 P.28-74
 DESIGNED BY
 DRAWN BY
 PROJECT NO: 47809
 DATE: MAY 10, 1980
 SCALE: AS SHOWN
 DRAWING NO. 15 OF 15