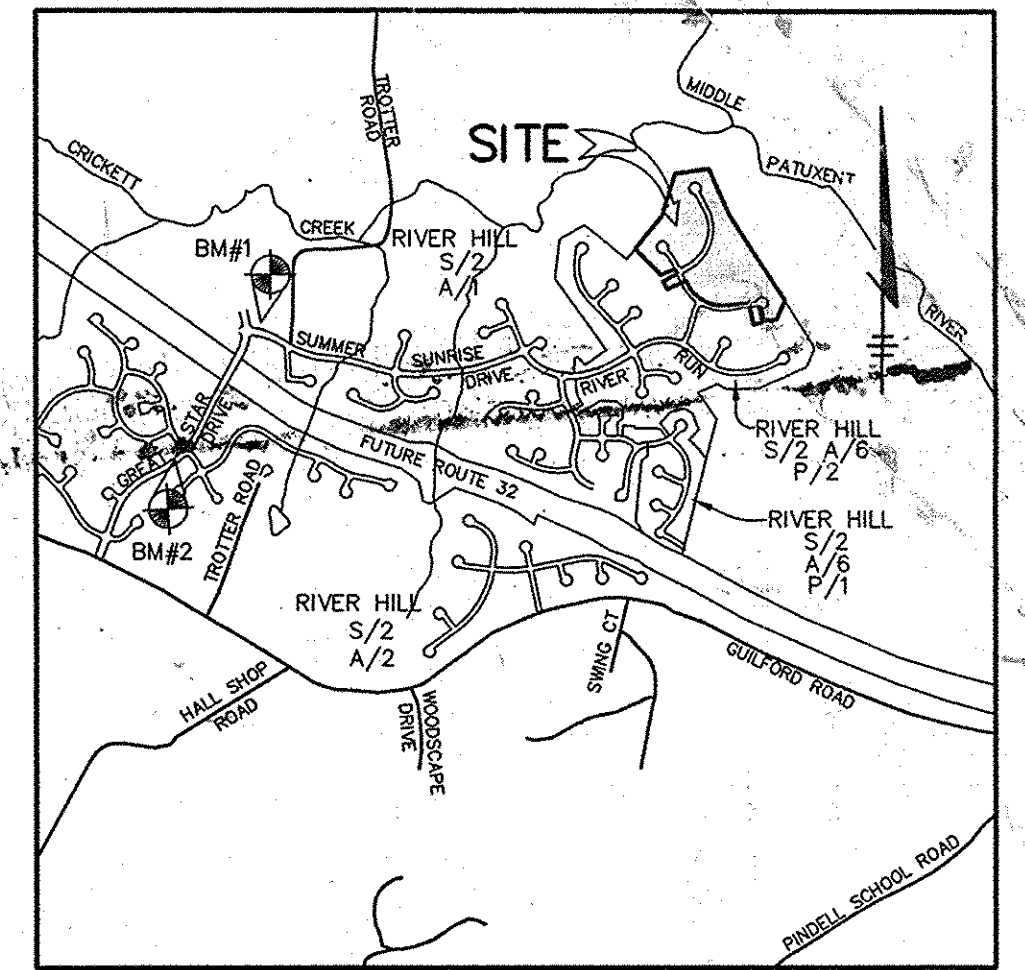


# ROADWAYS, STORM DRAINS AND STORMWATER MANAGEMENT

## VILLAGE OF RIVER HILL SECTION 2 AREA 6 PHASE 3

LOTS 201 - 241  
5th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

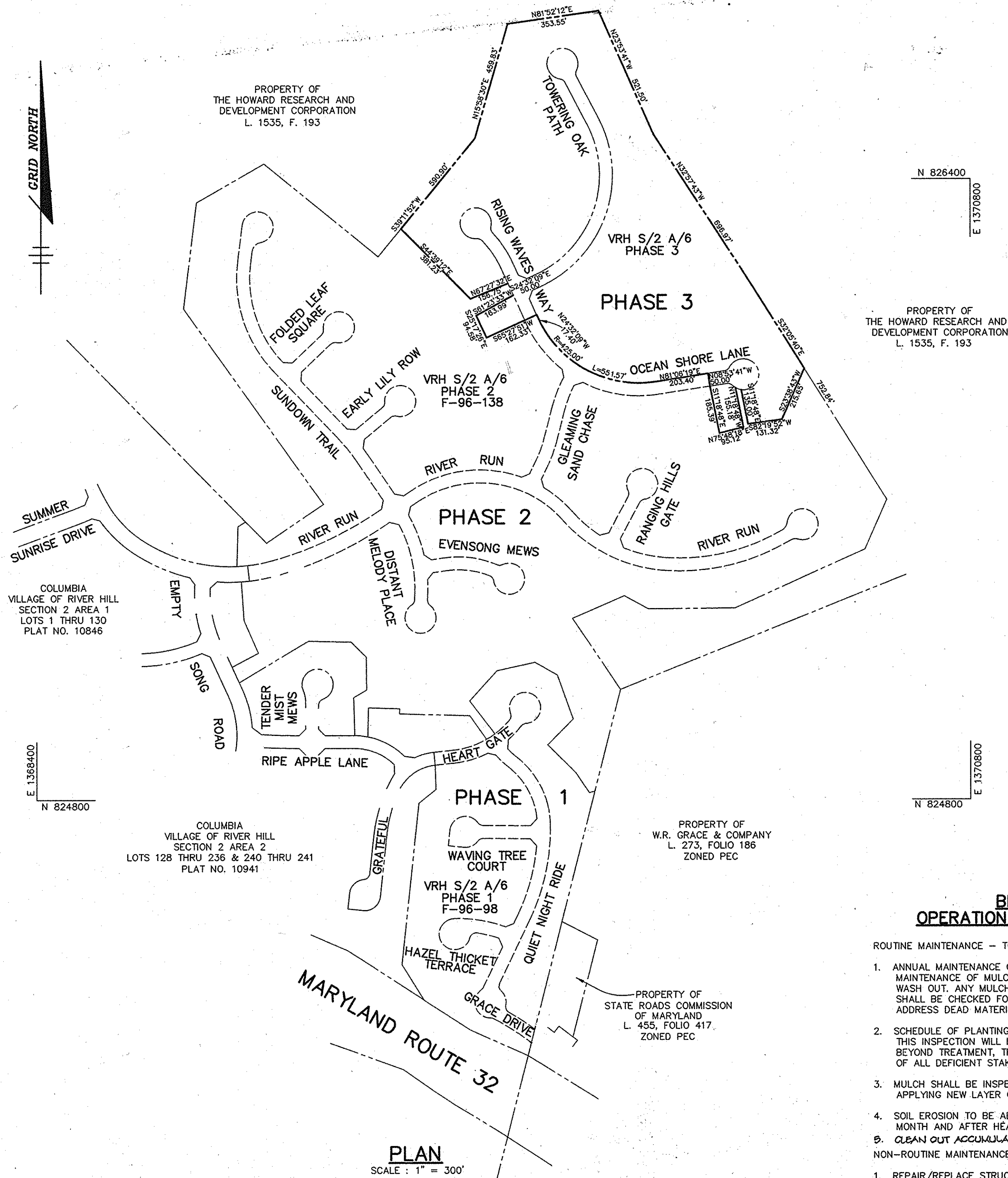


VICINITY MAP  
SCALE: 1" = 2000'

SHEET INDEX	
NO	DESCRIPTION
1	TITLE SHEET
2	PLAN AND PROFILE OF RISING WAVES WAY
3	PLAN AND PROFILE OF TOWERING OAK PATH
4	PLAN AND PROFILE OF OCEAN SHORE LANE AND DETAIL SHEET
5	DRAINAGE AREA MAP AND STRUCTURE SCHEDULE
6	GRADING AND SEDIMENT CONTROL PLAN
7	GRADING AND SEDIMENT CONTROL PLAN, DETAILS AND NOTES
8	STORM DRAIN PROFILES

### GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME II (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (CANE 1993)". A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM AERIAL SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY MAPPING ASSOCIATES DATED 1989.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 2337001, 2337002 AND 2437003 WERE USED FOR THIS PROJECT.
- WATER IS PUBLIC. CONTRACT NO. 34-3576-D
- SEWER IS PUBLIC. SEWER DRAINAGE AREA: MIDDLE PATUXENT. CONTRACT NO. 34-3576-D
- STORMWATER MANAGEMENT QUANTITY CONTROL IS PROVIDED BY THE MD RTE 32 STREAM CROSSINGS. WATER QUALITY IS PROVIDED BY PUBLICLY OWNED BIO-RETENTION AREAS. COLUMBIA ASSOCIATION WILL PROVIDE ROUTINE MAINTENANCE FOR MOWING AND TRASH PICK-UP. NON-ROUTINE MAINTENANCE WILL BE PROVIDED BY HOWARD COUNTY. SEE THIS SHEET FOR OPERATION AND MAINTENANCE GUIDELINES.
- 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. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- THERE IS NO 100-YEAR FLOODPLAIN AFFECTING THIS PROJECT.
- WETLANDS DELINEATION FOR THIS PROJECT WAS PREPARED BY GEO-TECHNOLOGY ASSOCIATES INC. AND WAS APPROVED BY ARMY CORPS OF ENGINEERS ON 9-20-93.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY GOROVE/SLADE ASSOCIATES AND WAS APPROVED UNDER 5-91-03 ON 12-17-91.
- THE NOISE STUDY FOR THIS PROJECT WAS PREPARED BY STAMOND ENGINEERING, INC. AND WAS APPROVED UNDER P-92-15 AND P-92-15 ON 4-28-92 AND 1-4-93 RESPECTIVELY.
- THE GEOTECHNICAL STUDIES FOR THIS PROJECT WERE PREPARED BY ROBERT BALTER COMPANY.
- THE BOUNDARY SURVEY FOR THIS PROJECT WAS PREPARED BY KOL, INC. DATED AUGUST 28, 1991.
- SUBJECT PROPERTY ZONED (NEW TOWN) PER 10-18-93 COMPREHENSIVE ZONING PLAN.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NOS. 5-91-03, P-95-17, F-96-98, F-96-138, 09-99-12
- THE CONTRACTOR SHALL TEST FIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- 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.
- 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 INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
- PROFILES STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARD:  
ALL 50' RIGHT OF WAYS 25 AND 30 M.P.H.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF EXISTING TIES.
- ALL STREET CURBS RETURNS SHALL HAVE 25' RADIUS UNLESS OTHERWISE NOTED.
- ALL STREET LIGHTS SHALL BE LOCATED BETWEEN 2'-0" AND 4'-0" BEHIND FACE OF CURB.
- STREET TREES (90) THE LOCATION, TYPE AND NUMBER OF TREES SHOWN ON THIS PLAN ARE TENTATIVE AND ARE USED FOR BOND PURPOSES ONLY. THE FINAL LOCATION AND VARIETY OF TREES MAY VARY TO ACCOMMODATE FIELD CONDITIONS INCLUDING 20' CLEARANCE OF ANY STREET LIGHT AND BUILDERS LANDSCAPE PROGRAMS. BOND RELEASE IS CONTINGENT UPON SECTION 15.31 OF THE HOWARD COUNTY SUBDIVISION REGULATIONS, AS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING.



PROPERTY OF THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION L. 1535, F. 193

PROPERTY OF W.R. GRACE & COMPANY L. 273, FOLIO 186 ZONED PEC

PROPERTY OF STATE ROADS COMMISSION OF MARYLAND L. 455, FOLIO 417, ZONED PEC

### BIO-RETENTION AREAS OPERATION AND MAINTENANCE GUIDELINES

- ROUTINE MAINTENANCE - TO BE PERFORMED BY THE COLUMBIA ASSOCIATION:
- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING.
  - SCHEDULE OF PLANTING INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASE VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
  - MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
  - SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE A MONTH AND AFTER HEAVY STORMS.
  - CLEAN OUT ACCUMULATED BEDDIMENT FROM BASIN AS NECESSARY.
- NON-ROUTINE MAINTENANCE - TO BE PERFORMED BY THE HOCO DEPT. OF PUBLIC WORKS:
- REPAIR/REPLACE STRUCTURES AS NECESSARY INCLUDING RIP-RAP AND PERFORATED PVC PIPING.

SUMMARY	
SINGLE FAMILY LOW DENSITY	35
SINGLE FAMILY MEDIUM DENSITY	4
OPEN SPACE LOTS	2

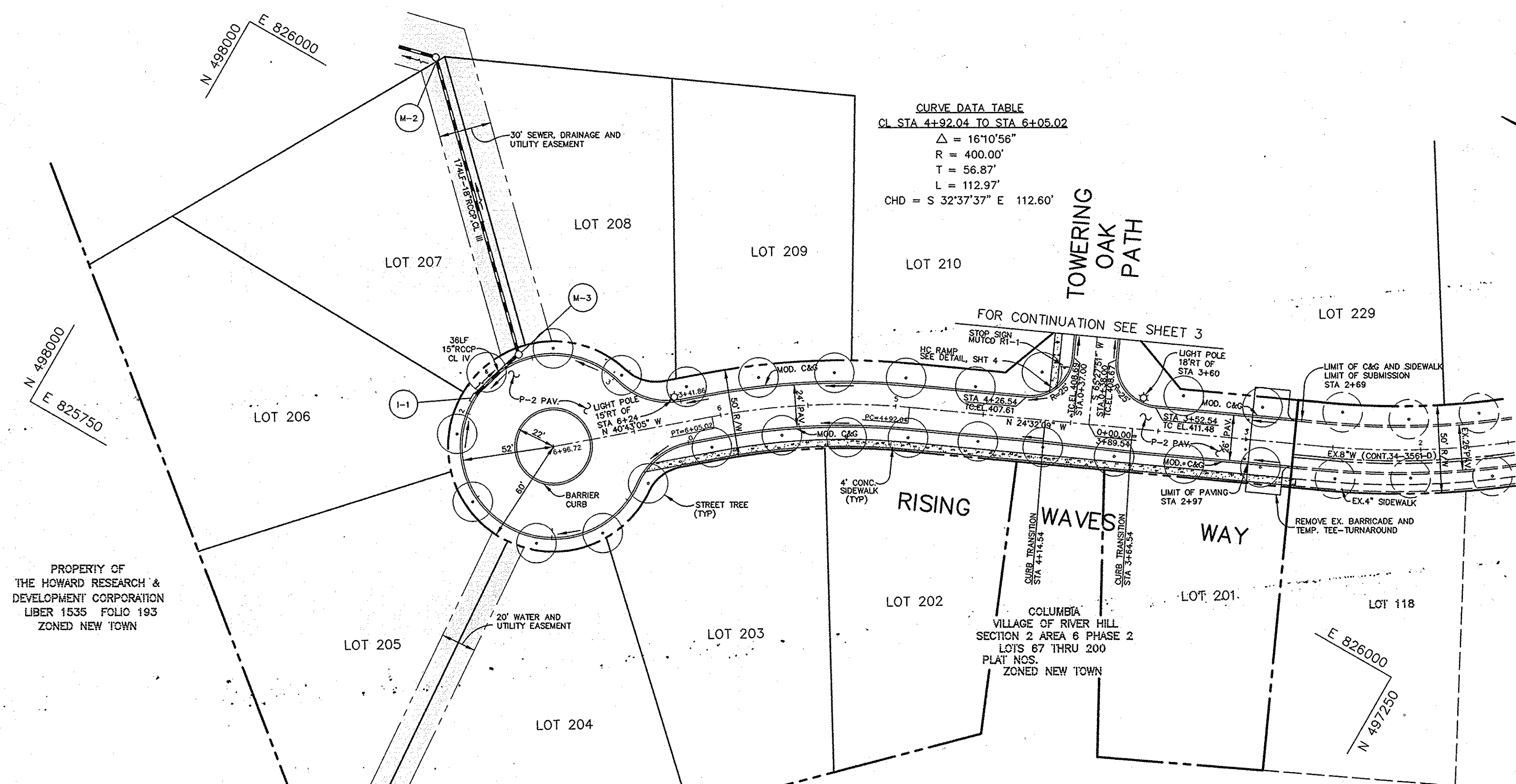
VILLAGE OF RIVER HILL SECTION 2 AREA 6	
PHASE 1	
NO. OF LOTS RECORDED	63
BUILDABLE	3
OPEN SPACE	66
TOTAL	66
PHASE 2	
NO. OF LOTS RECORDED	128
BUILDABLE	6
OPEN SPACE	134
TOTAL	134
PHASE 3	
NO. OF LOTS RECORDED	39
BUILDABLE	2
OPEN SPACE	41
TOTAL	41
PHASE 1,2,&3 TOTAL	230
BUILDABLE	11
OPEN SPACE	211
TOTAL	241

### BENCHMARKS

BM#1	RAILROAD SPIKE IN POLE #525680		
	TROTTER ROAD	ELEV. 393.27	
		N 496697.02	E 822026.81
BM#2	RAILROAD SPIKE IN POPLAR		
		ELEV. 438.92	
		N 495551.90	E 820727.80

AS BUILT CERTIFICATE	
DATE	
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.	
<i>Stephen M. O'Neale</i>	5-22-97
CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Cathy Hamilton</i>	5/27/97
DIVISION OF LAND DEVELOPMENT	DATE
<i>John Dammann</i>	5/27/97
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DATE	REVISION
OWNER / DEVELOPER	
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION THE ROUSE BUILDING 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044	
PROJECT	VILLAGE OF RIVER HILL SECTION 2 AREA 6 PHASE 3 LOTS 201 THRU 241
AREA TAX MAP	35 BLOCKS 15 & 21 ZONED NEW TOWN PART OF PARCEL 70 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	TITLE SHEET
RIEMER MUEGGE & ASSOCIATES, INC. ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING 8818 Centre Park Drive, Columbia, Maryland 21045 tel 410.997.8900 fax 410.997.9282	
<i>J. Powell</i>	4/30/97
JAYKANT G. PAREKH #19148	DATE
DESIGNED BY: C.J.R.	
DRAWN BY: DAM	
PROJECT NO: HOCO\102800 PH3RD1.DWG	
DATE: APRIL 20, 1997	
SCALE: AS SHOWN	
DRAWING NO. 1 OF 8	

1487



- NOTES:
- STREET LIGHTS SHOWN AS ✖ TO BE 100 WATT HPS VAPOR MODERN POST TOP FIXTURE (BRONZE) MOUNTED ON A 14' BRONZE FIBERGLASS POLE.
  - THE REQUIRED PERIMETER LANDSCAPING WILL BE FULFILLED VIA THE RETENTION OF EXISTING TREES ON THIS SITE, AND/OR THE ADJACENT MIDDLE-PATUXENT ENVIRONMENTAL AREA.

STREET LIGHT SUMMARY TABLE	
LOCATION	TYPE
18' RT. CL STA. 3+60 RISING WAVES WAY	100 WATT HPS VAPOR MODERN POST TOP FIXTURE (BRONZE) MOUNTED ON A 14' BRONZE FIBERGLASS POLE.

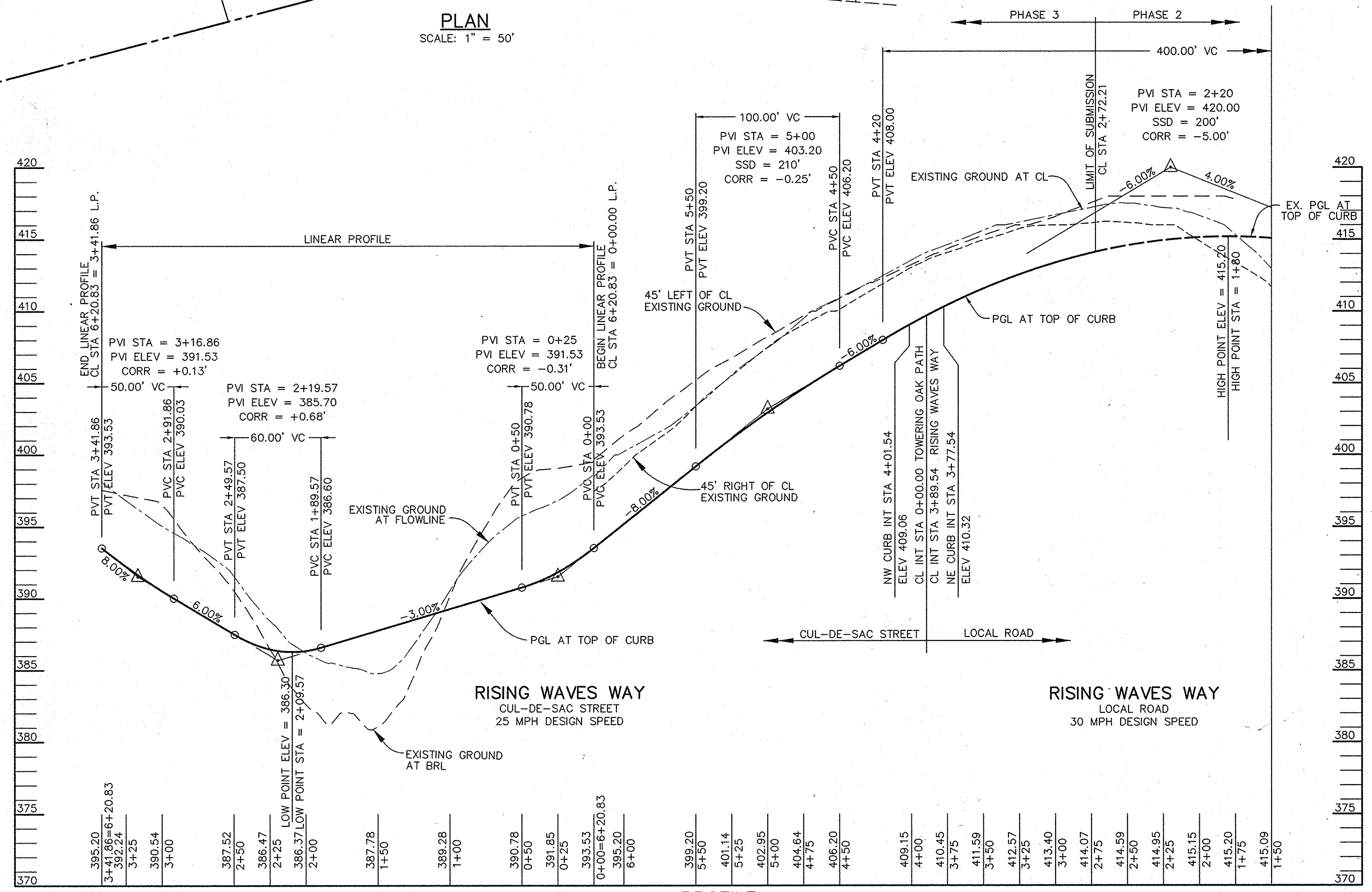
**LEGEND**

- (○) PROPOSED STREET TREE, SEE PLANT LIST THIS SHEET
- (●) EXISTING STREET TREE, F-97-138 VILLAGE OF RIVER HILL S/2 A/6 P/2

**STREET TREE LIST**

KEY	QTY.	BOTANICAL & COMMON NAME	SIZE	REMARKS
PC	87	PYPUS CALLERYANA (CLEVELAND SELECT)	2-1/2"-3" CAL. 12' - 15 HT.	B&B

**PLAN**  
SCALE: 1" = 50'



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

AS BUILT CERTIFICATE

DATE \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*Andrew M. Daniels* 5-22-97  
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
*Cindy Hamilton* 5/21/97  
 DIVISION OF LAND DEVELOPMENT

*Bill Dammen* 5/22/97  
 CHIEF DEVELOPMENT ENGINEERING DIVISION

DATE NO. \_\_\_\_\_ REVISION \_\_\_\_\_

OWNER / DEVELOPER  
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
 THE ROUSE BUILDING  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044

PROJECT **VILLAGE OF RIVER HILL SECTION 2 AREA 6 PHASE 3**  
 LOTS 201 THRU 241

AREA TAX MAP 35 BLOCKS 15 & 21 ZONED NEW TOWN  
 PART OF PARCEL 70  
 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

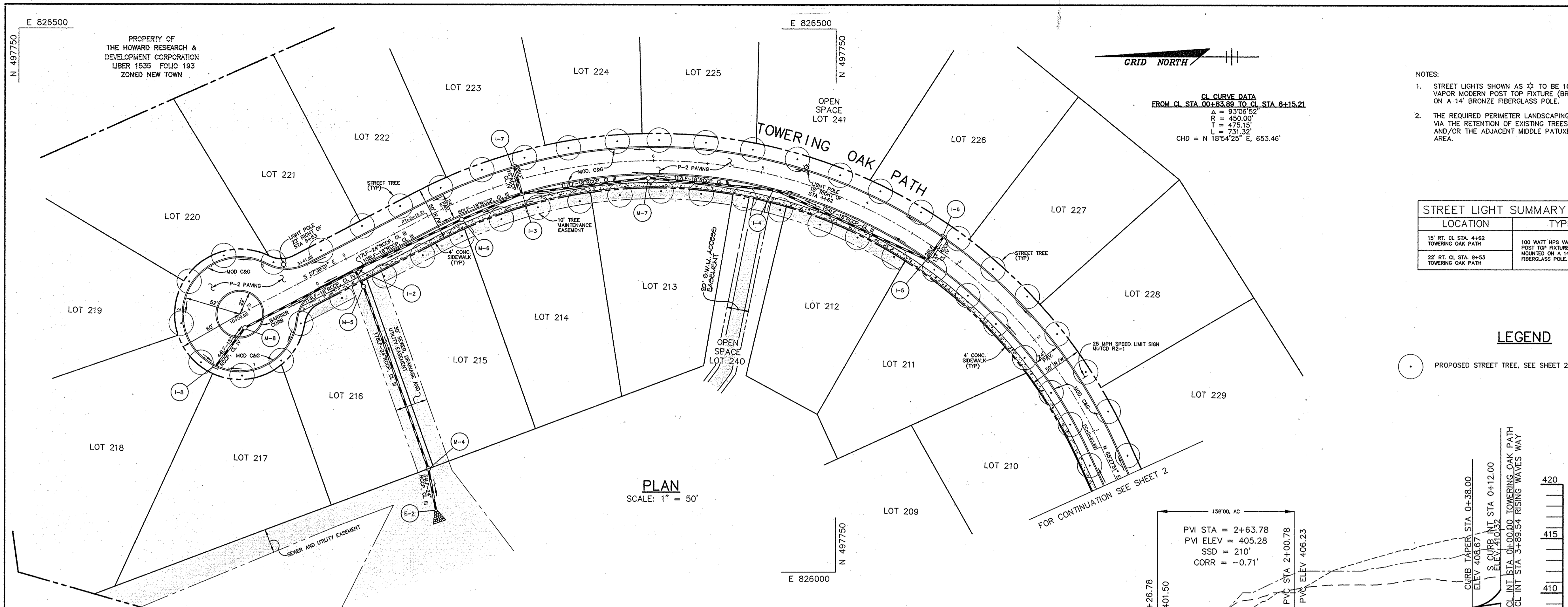
TITLE **PLAN AND PROFILE OF RISING WAVES WAY**

**RIEMER MUEGGE & ASSOCIATES, INC.**  
 ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
 8818 Centre Park Drive, Columbia, Maryland 21045  
 tel 410.997.8900 fax 410.997.9282

DATE 4/20/97  
 DESIGNED BY: C.J.R.  
 DRAWN BY: DAM  
 PROJECT NO: HOCO\_102800 PH3RD2.DWG  
 DATE: APRIL 20, 1997  
 SCALE: AS SHOWN  
 DRAWING NO. 2 OF 8

J. Fauch  
 JAYKANT D. PAREKH #19148

1487

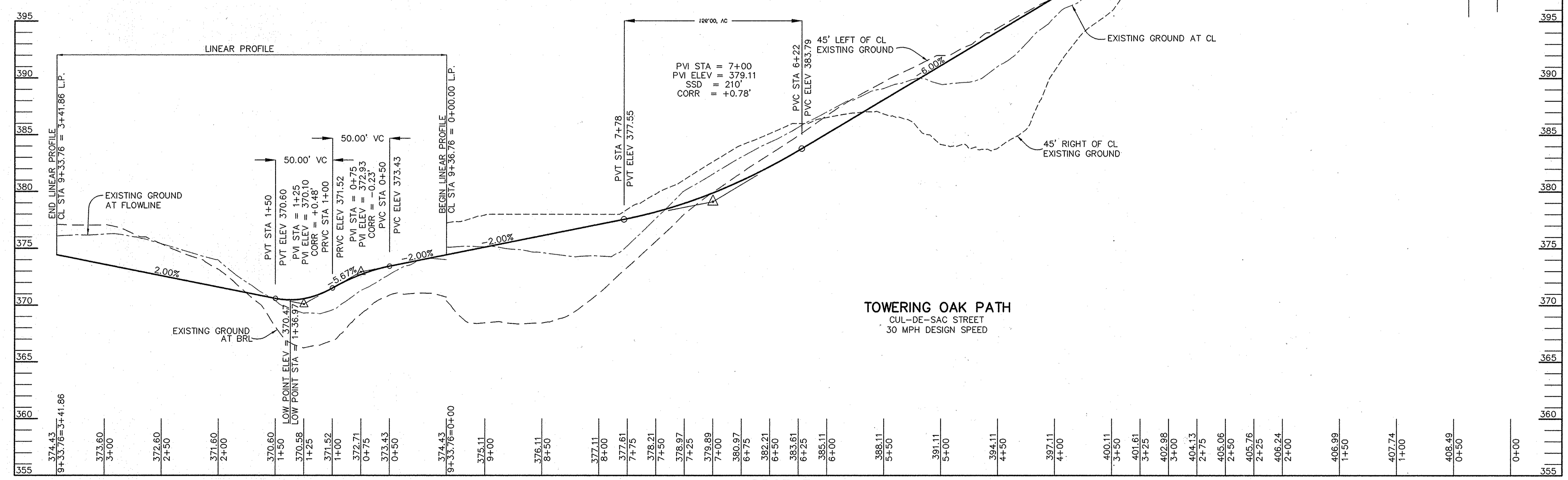


- NOTES:
- STREET LIGHTS SHOWN AS  $\star$  TO BE 100 WATT HPS VAPOR MODERN POST TOP FIXTURE (BRONZE) MOUNTED ON A 14" BRONZE FIBERGLASS POLE.
  - THE REQUIRED PERIMETER LANDSCAPING WILL BE FULFILLED VIA THE RETENTION OF EXISTING TREES ON THIS SITE AND/OR THE ADJACENT MIDDLE PATUXENT ENVIRONMENTAL AREA.

STREET LIGHT SUMMARY TABLE	
LOCATION	TYPE
15' RT. CL STA. 4+62 TOWERING OAK PATH	100 WATT HPS VAPOR MODERN POST TOP FIXTURE (BRONZE) MOUNTED ON A 14" BRONZE FIBERGLASS POLE.
22' RT. CL STA. 9+53 TOWERING OAK PATH	100 WATT HPS VAPOR MODERN POST TOP FIXTURE (BRONZE) MOUNTED ON A 14" BRONZE FIBERGLASS POLE.

**LEGEND**

$\circ$  PROPOSED STREET TREE, SEE SHEET 2 FOR PLANT LIST



AS BUILT CERTIFICATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*Andrew M. Dwyer* 5-22-97  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
*Cindy Hamilton* 5/22/97  
 DIVISION OF LAND DEVELOPMENT DATE

*Mr. Dwyer* 5/22/97  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

DATE	NO.	REVISION

OWNER / DEVELOPER  
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
 THE ROUSE BUILDING  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044

PROJECT  
**VILLAGE OF RIVER HILL**  
 SECTION 2 AREA 6 PHASE 3  
 LOTS 201 THRU 241

AREA TAX MAP 35 BLOCKS 15 & 21 ZONED NEW TOWN  
 PART OF PARCEL 70  
 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

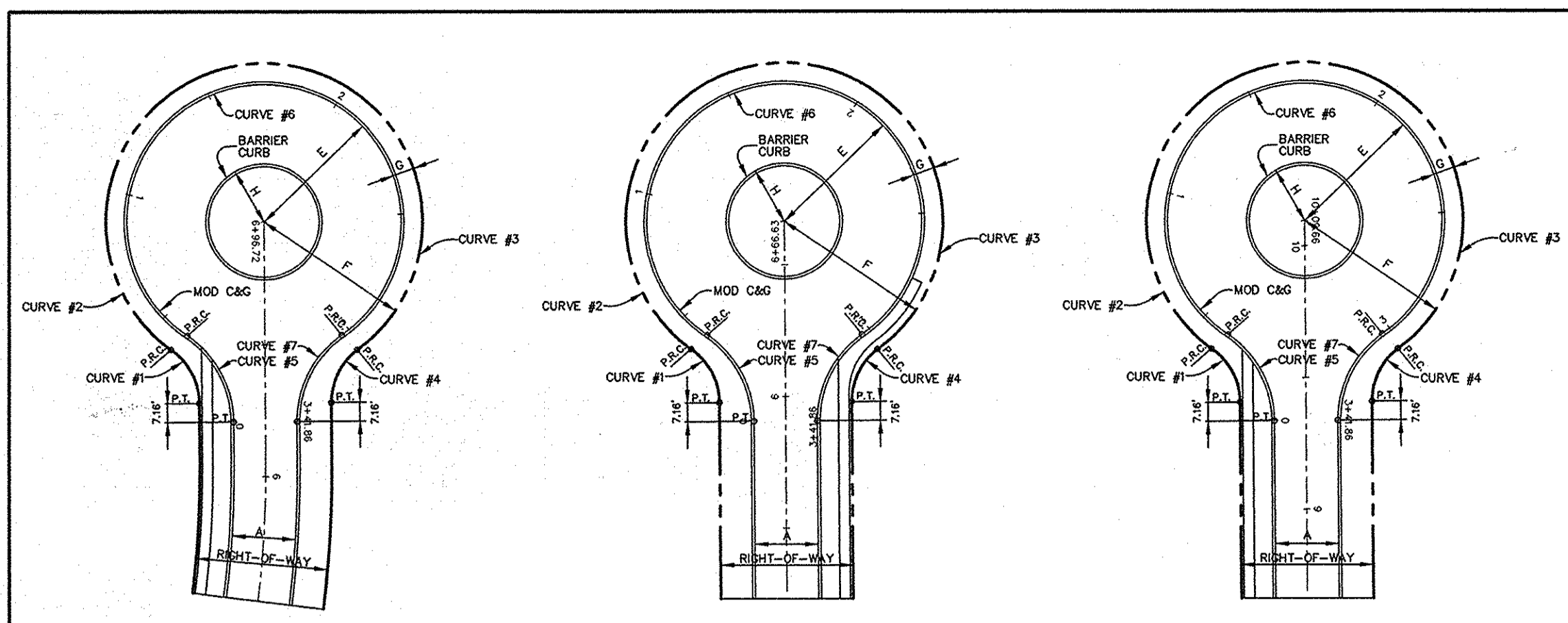
TITLE  
**PLAN AND PROFILE OF TOWERING OAK PATH**

**RIEMER MUEGGE & ASSOCIATES, INC.**  
 ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
 8818 Centre Park Drive, Columbia, Maryland 21045  
 tel 410.997.8900 fax 410.997.9282

DESIGNED BY: C.J.R.  
 DRAWN BY: DAM  
 PROJECT NO: HOC0\102800 PH3RD3.DWG  
 DATE: APRIL 20, 1997  
 SCALE: AS SHOWN  
 DRAWING NO. 3 OF 8

JAYKANT D. PAREKH #19148

1487



ZONING DISTRICTS	E	F	G	H	R/W	A
RESIDENTIAL	52'	60'	6'	22'	50'	24'

\* SEE STD. NO. R-1-01

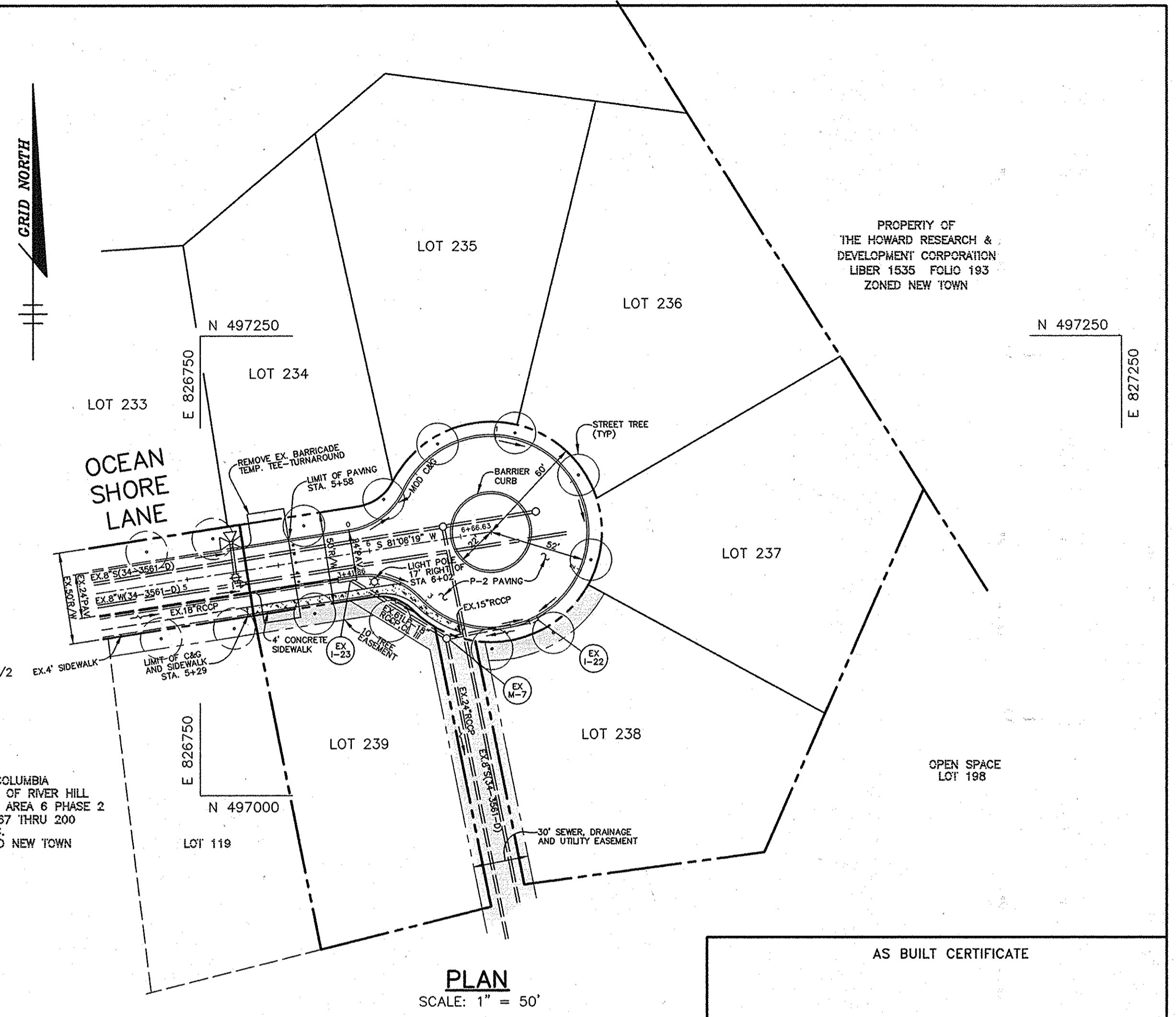
CURVE DATA							CURVE DATA							CURVE DATA						
RESIDENTIAL (24' APPROACH)							RESIDENTIAL (24' APPROACH)							RESIDENTIAL (24' APPROACH)						
L.P. = 341.86'							L.P. = 341.86'							L.P. = 341.86'						
1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Δ	53.5800°	59.3320°	136.2246°	53.5800°	55.3457°	55.3457°	Δ	53.5800°	59.3320°	136.2246°	53.5800°	55.3457°	55.3457°	Δ	53.5800°	59.3320°	136.2246°	53.5800°	55.3457°	55.3457°
R	25.00'	60.00'	60.00'	25.00'	40.00'	40.00'	R	25.00'	60.00'	60.00'	25.00'	40.00'	40.00'	R	25.00'	60.00'	60.00'	25.00'	40.00'	40.00'
L	12.73'	34.33'	157.67'	12.73'	35.63'	21.08'	L	12.73'	34.33'	157.67'	12.73'	35.63'	21.08'	L	12.73'	34.33'	157.67'	12.73'	35.63'	21.08'
T	23.55'	62.37'	144.91'	23.55'	38.80'	284.25'	T	23.55'	62.37'	144.91'	23.55'	38.80'	284.25'	T	23.55'	62.37'	144.91'	23.55'	38.80'	284.25'
L.C.	22.69'	59.60'	112.17'	22.69'	37.30'	58.78'	L.C.	22.69'	59.60'	112.17'	22.69'	37.30'	58.78'	L.C.	22.69'	59.60'	112.17'	22.69'	37.30'	58.78'

- NOTES:
- STREET LIGHTS SHOWN AS ○ TO BE 100 WATT HPS VAPOR MODERN POST TOP FIXTURE (BRONZE) MOUNTED ON A 14" BRONZE FIBERGLASS POLE.
  - THE REQUIRED PERIMETER LANDSCAPING WILL BE FULFILLED VIA THE RETENTION OF EXISTING TREES ON THIS SITE AND/OR THE ADJACENT MIDDLE PATUXENT ENVIRONMENTAL AREA.

LOCATION	TYPE
17' RT. OF CL STA 6+02 OCEAN SHORE LANE	100 WATT HPS VAPOR MODERN POST TOP FIXTURE (BRONZE) MOUNTED ON A 14" BRONZE FIBERGLASS POLE.

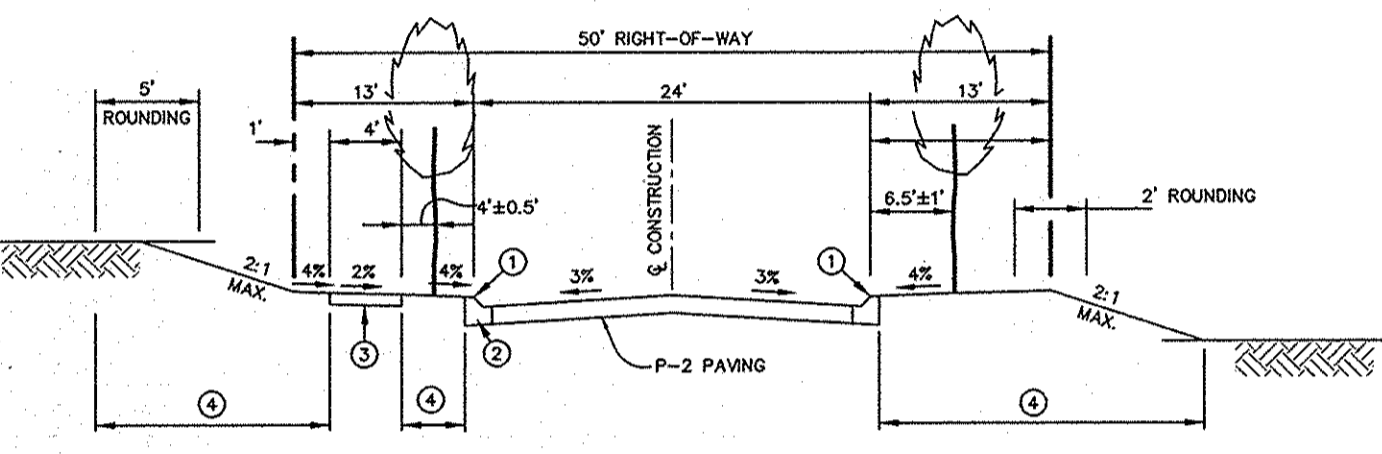
**LEGEND**

- PROPOSED STREET TREE, SEE SHEET 2 FOR PLANT LIST
- EXISTING STREET TREE, F-96-138 VILLAGE OF RIVER HILL S/2 A/6 P/2



**PLAN**  
SCALE: 1" = 50'

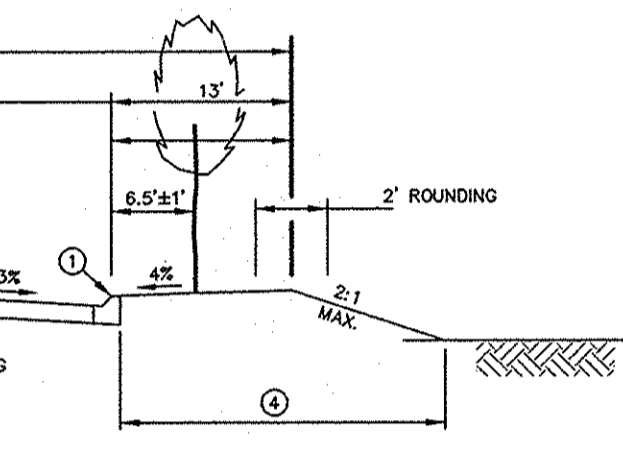
**RISING WAVES WAY CUL-DE-SAC DETAIL**  
NO SCALE



**CLOSED SECTION**

- PROFILE GRADE LINE (PGL) AT TOP OF CURB
- TYPE OF CURB (MOD. COMB. CURB & GUTTER)
- 4" CONCRETE SIDEWALK (ONE SIDE ONLY)
- INDICATES 2" TOPSOIL, SEED AND MULCH
- DESIGN SPEED = 25 M.P.H.

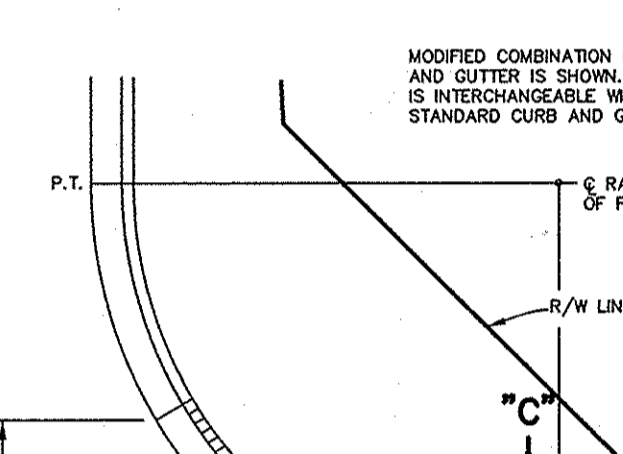
**WAVING TREE COURT CUL-DE-SAC DETAIL**  
NO SCALE



**CLOSED SECTION**

- PROFILE GRADE LINE (PGL) AT TOP OF CURB
- TYPE OF CURB (MOD. COMB. CURB & GUTTER)
- 4" CONCRETE SIDEWALK (ONE SIDE ONLY)
- INDICATES 2" TOPSOIL, SEED AND MULCH
- DESIGN SPEED = 25 M.P.H.

**TOWERING OAK PATH CUL-DE-SAC DETAIL**  
NO SCALE



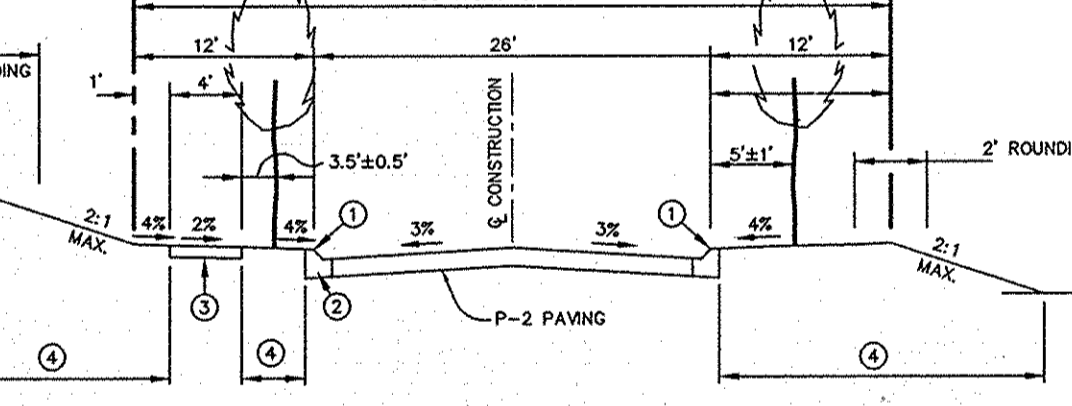
**CLOSED SECTION**

- PROFILE GRADE LINE (PGL) AT TOP OF CURB
- TYPE OF CURB (MOD. COMB. CURB & GUTTER)
- 4" CONCRETE SIDEWALK (ONE SIDE ONLY)
- INDICATES 2" TOPSOIL, SEED AND MULCH
- DESIGN SPEED = 25 M.P.H.

**TYPICAL SECTION CUL-DE-SAC STREET**  
NO SCALE

RISING WAVES WAY FROM CL STA 3+89 TO CL STA 6+21  
OCEAN SHORE LANE FROM CL STA 5+29 TO CL STA 5+90

TOWERING OAK PATH FROM CL STA 0+38 TO CL STA 9+37

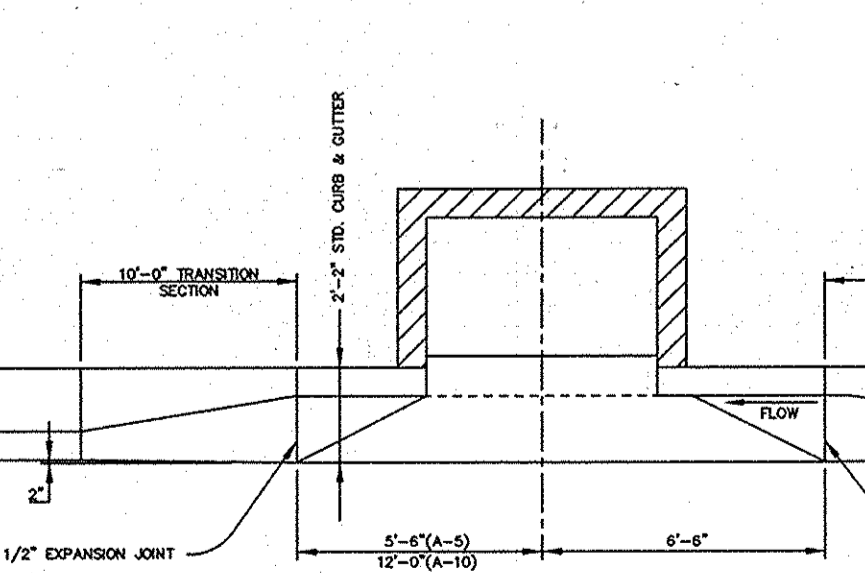


**CLOSED SECTION**

- PROFILE GRADE LINE (PGL) AT TOP OF CURB
- TYPE OF CURB (MOD. COMB. CURB & GUTTER)
- 4" CONCRETE SIDEWALK (ONE SIDE ONLY)
- INDICATES 2" TOPSOIL, SEED AND MULCH
- DESIGN SPEED = 30 M.P.H.

**TYPICAL SECTION LOCAL ROAD**  
NO SCALE

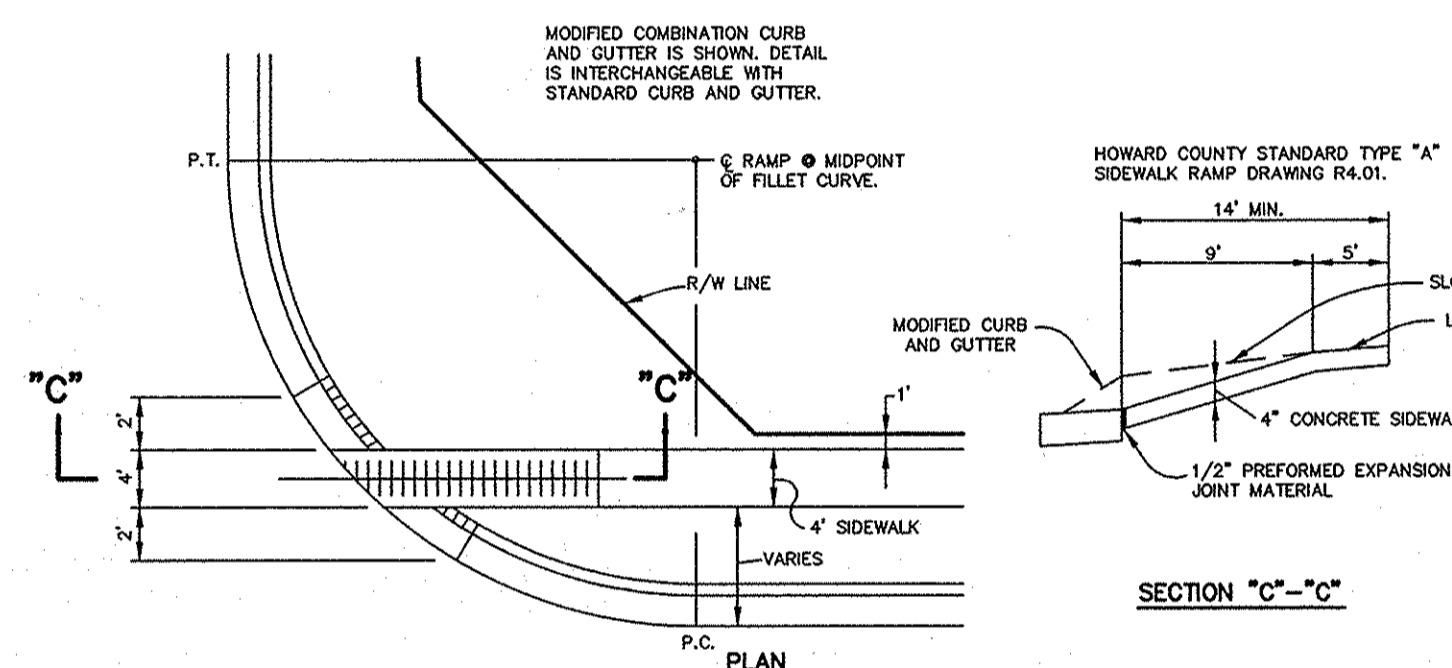
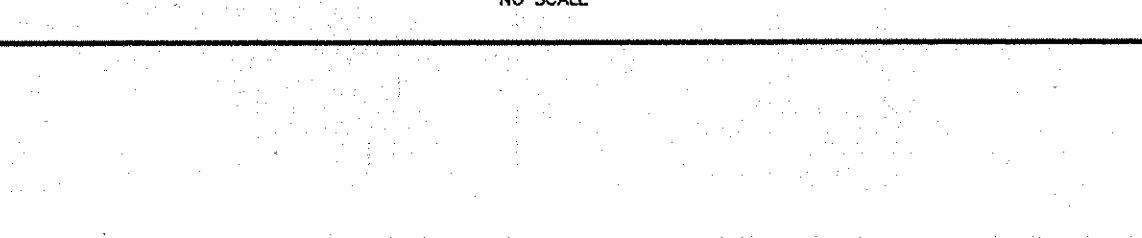
RISING WAVES WAY FROM CL STA 2+72 TO CL STA 3+89



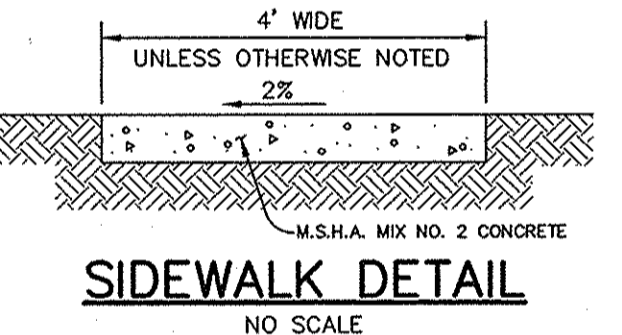
**CLOSED SECTION**

- PROFILE GRADE LINE (PGL) AT TOP OF CURB
- TYPE OF CURB (MOD. COMB. CURB & GUTTER)
- 4" CONCRETE SIDEWALK (ONE SIDE ONLY)
- INDICATES 2" TOPSOIL, SEED AND MULCH
- DESIGN SPEED = 30 M.P.H.

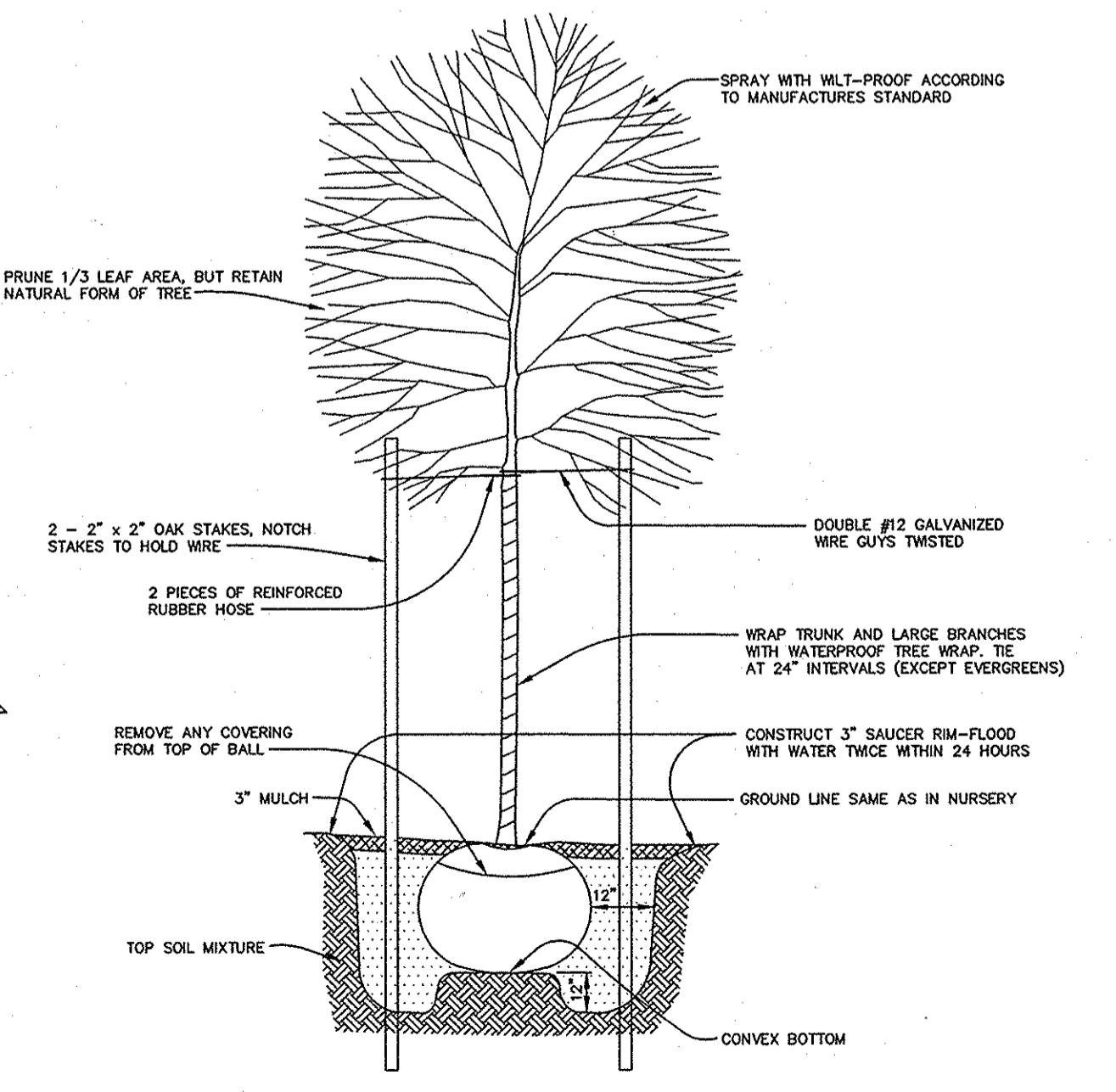
**MODIFIED COMBINATION CURB AND GUTTER TRANSITION CURB SECTION AT "A" TYPE INLETS**  
NO SCALE



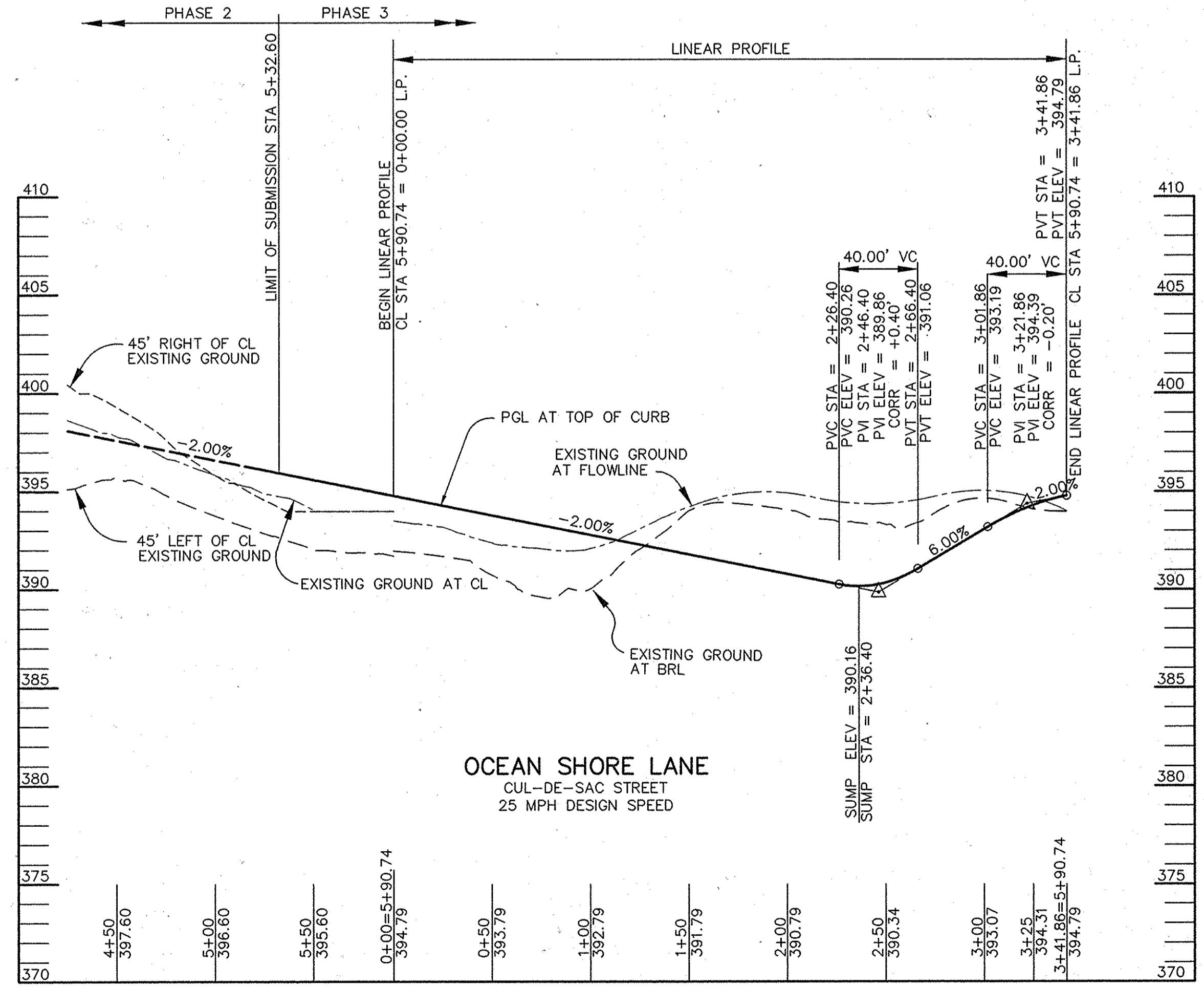
**HANDICAP RAMP DETAIL**  
NO SCALE



**SIDEWALK DETAIL**  
NO SCALE



**TREE PLANTING DETAIL**  
NO SCALE



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

AS BUILT CERTIFICATE

DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*Andrew M. Danel* CHIEF, BUREAU OF HIGHWAYS 5-22-97 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
*Cindy Hamilton* DIVISION OF LAND DEVELOPMENT 5/21/97 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF ENGINEERING DIVISION.  
*John P. ...* CHIEF, DEVELOPMENT ENGINEERING DIVISION 5/21/97 DATE

DATE NO. REVISION

OWNER / DEVELOPER  
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
THE ROUSE BUILDING  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044

PROJECT VILLAGE OF RIVER HILL SECTION 2 AREA 6 PHASE 3 LOTS 201 THRU 241

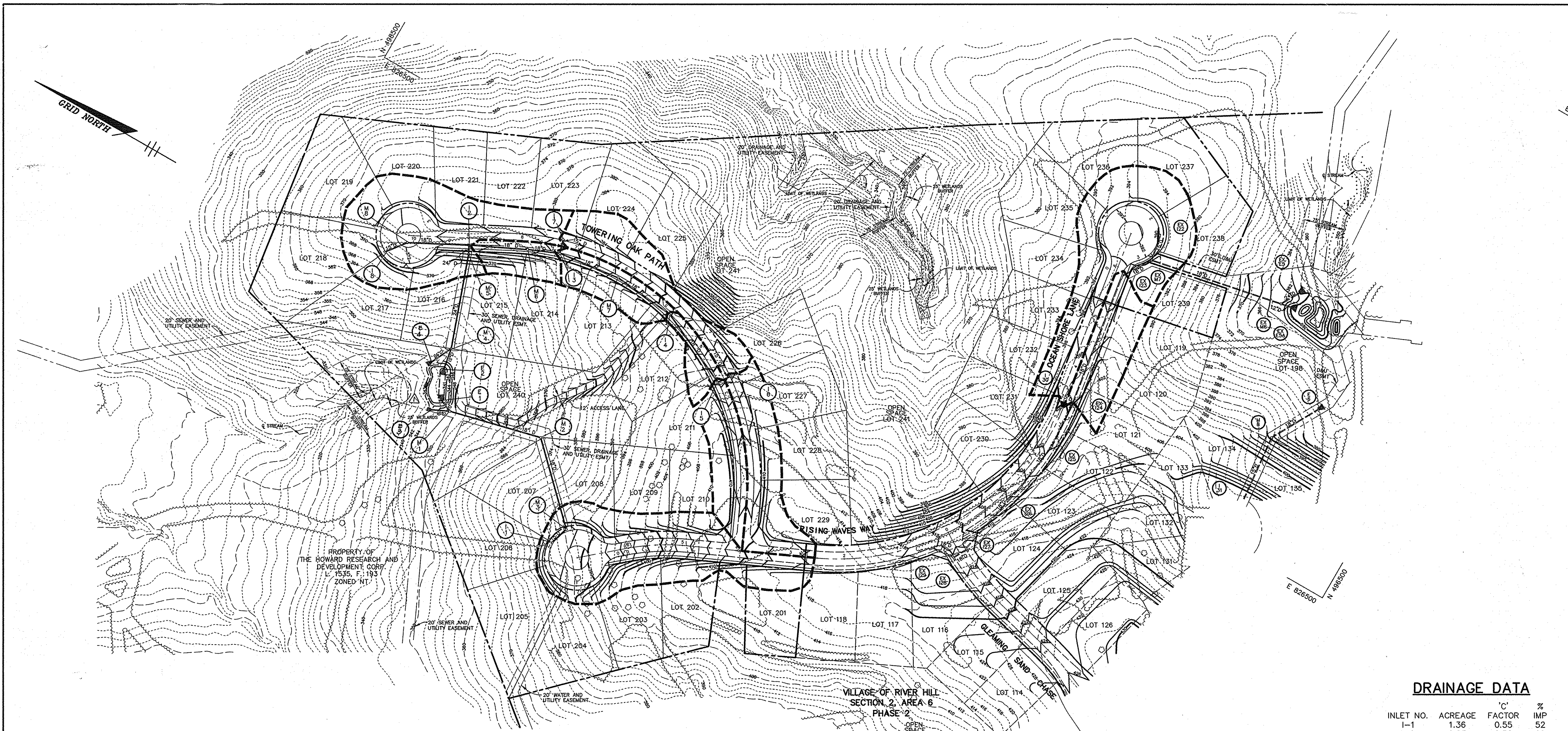
AREA TAX MAP 35 BLOCKS 15 & 21 ZONED NEW TOWN PART OF PARCEL 70 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE PLAN AND PROFILE OF OCEAN SHORE LANE AND DETAIL SHEET

RIEMER MUEGG & ASSOCIATES, INC.  
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
8818 Centre Park Drive, Columbia, Maryland 21045  
tel 410.997.8900 fax 410.997.9282

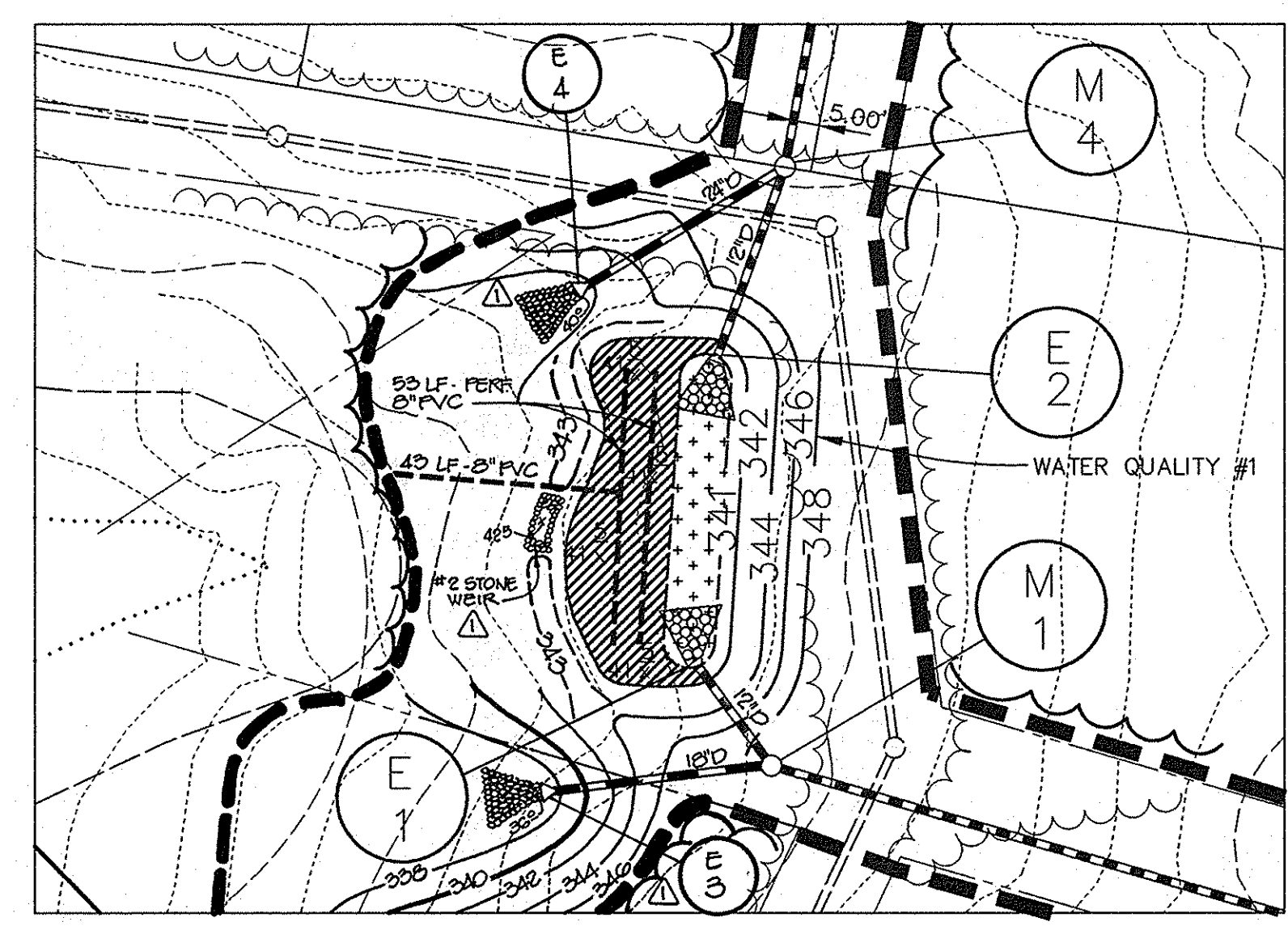
DESIGNED BY: C.J.R.  
DRAWN BY: DAM  
PROJECT NO: HOCO, 102800 PHSRD4.DWG  
DATE: APRIL 20, 1997  
SCALE: AS SHOWN  
DRAWING NO. 4 OF 8

1487



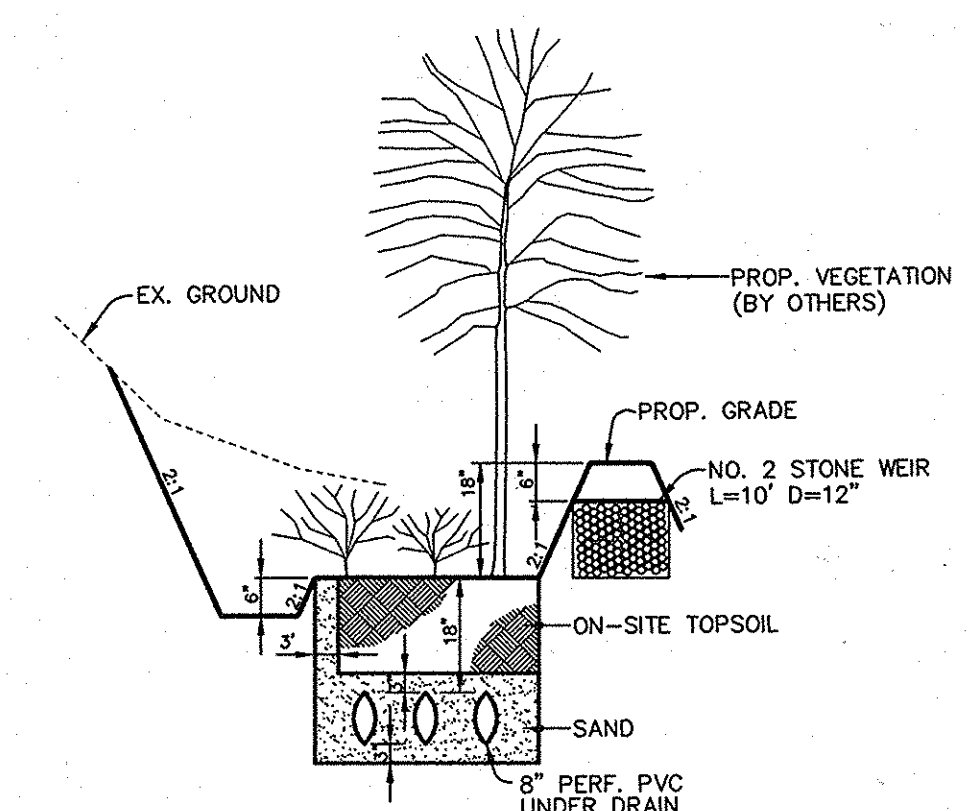
E 826500  
N 488500

E 826500  
N 488500



WATER QUALITY BASIN #1 PLANTING ENLARGEMENT  
SCALE: 1"=30'

PLAN  
SCALE: 1"=100'



TYPICAL SECTION THRU  
WATER QUALITY AREAS  
NO SCALE

**WATER QUALITY PLANTING SPECIFICATIONS**

- PLANT SPECIES REQUIRED ARE NORMALLY UNAVAILABLE FROM STANDARD LANDSCAPE NURSERY SOURCES. THE CONTRACTOR MUST MAKE ARRANGEMENTS WITH COMPETENT METLANDS RESTORATION SPECIALISTS TO INSURE A SUPPLY OF THE REQUIRED MATERIAL.
- THE CONTRACTOR AND/OR THEIR SUBCONTRACTOR SHOULD BE AWARE OF THE SITE DESIGN CONDITIONS AND SHOULD TAKE ALL PRUDENT STEPS TO INSURE THAT THE PLANT MATERIAL SPECIFIED ON THE PLANS IS PROPERLY ACCLIMATED. IF THE PLANT MATERIAL IS AVAILABLE FROM SOURCES WHERE METLAND CONDITIONS ARE DILIGENTLY AT THE NURSERY, THE CONTRACTOR SHOULD FAVOR THESE SOURCES AS THE SUPPLIER.
- IT IS RECOMMENDED THAT PLANTING BE COMPLETED EARLY IN THE SPRING

**WATER QUALITY PLANTING SCHEDULE**

SYMBOL	QTY.	SPECIES	SIZE	SPACING
	422	JUNCUS EFFUSUS	ROOTS	2' O.C.
	824	TYPHIA LATIFOLIA	1 QT. POT	15' O.C.

SEE SHEET 6 OF 8 FOR WATER QUALITY BASIN 1.

**DRAINAGE DATA**

INLET NO.	ACREAGE	C' FACTOR	% IMP
I-1	1.36	0.55	52
I-2	0.25	0.52	60
I-3	0.32	0.54	50
I-4	0.16	0.58	56
I-5	0.40	0.54	50
I-6	0.60	0.52	47
I-7	0.56	0.50	45
I-8	1.25	0.50	45

**STRUCTURE SCHEDULE**

NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP ELEV.	REMARKS
I-1	A-5	LP STA 2+09.57	-	382.30	386.58	HO. CO. STD. DETAIL SD-4.40
I-2	A-5	12.52' LT OF CL STA 8+97	371.37(18")	364.69	375.45	HO. CO. STD. DETAIL SD-4.40
I-3	A-5	12.52' LT OF CL STA 7+26	365.29(18")	374.83	379.22	HO. CO. STD. DETAIL SD-4.40
I-4	A-5	12.52' LT OF CL STA 4+83	374.93(18")	378.90	392.41	HO. CO. STD. DETAIL SD-4.40
I-5	A-5	12.52' RT OF CL STA 3+25	388.00	397.49	401.89	HO. CO. STD. DETAIL SD-4.40
I-6	A-5	12.52' RT OF CL STA 3+25	-	397.75	401.89	HO. CO. STD. DETAIL SD-4.40
I-7	A-5	12.52' RT OF CL STA 7+26	-	375.44	379.22	HO. CO. STD. DETAIL SD-4.40
I-8	A-5	LP STA 1+36.97	-	366.55	370.75	HO. CO. STD. DETAIL SD-4.40
M-1	4"-0" DIA MANHOLE	TOWERING OAK PATH	344.75	341.25	6" ABOVE EX. GR.	HO. CO. STD. DETAIL G-5.12
M-2	4"-0" DIA MANHOLE	SEE SHEET 6	367.22	364.00	6" ABOVE EX. GR.	HO. CO. STD. DETAIL G-5.12
M-3	4"-0" DIA MANHOLE	4' LT OF LP STA 2+44	381.58	381.33	387.4	HO. CO. STD. DETAIL G-5.12
M-4	4"-0" DIA MANHOLE	RIDING WAVES WAY	344.11	341.34	6" ABOVE EX. GR.	HO. CO. STD. DETAIL G-5.12
M-5	4"-0" DIA MANHOLE	SEE SHEET 6	362.90	362.80	374.0	HO. CO. STD. DETAIL G-5.12
M-6	4"-0" DIA MANHOLE	30' LT OF CL STA 8+97	373.63	373.53	377.5	HO. CO. STD. DETAIL G-5.12
M-7	4"-0" DIA MANHOLE	16' LT OF CL STA 7+88	380.88	380.78	385.0	HO. CO. STD. DETAIL G-5.12
M-8	4"-0" DIA MANHOLE	16' LT OF CL STA 6+05	366.11	365.86	372.8	HO. CO. STD. DETAIL G-5.12
E-1	12" CONCRETE END SECTION	TOWERING OAK PATH	341.00	-	-	HO. CO. STD. DETAIL SD-5.51
E-2	12" CONCRETE END SECTION	SEE SHEET 6	341.00	-	-	HO. CO. STD. DETAIL SD-5.51
E-3	12" CONCRETE END SECTION	N 400+105.04 E 025+068.70	340.00	-	-	HO. CO. STD. DETAIL SD-5.51
E-4	24" CONCRETE END SECTION	N 400+140.10 E 020+054.00	340.00	-	-	HO. CO. STD. DETAIL SD-5.51

AS BUILT CERTIFICATE

DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*Andrew M. Packer* 5-22-97  
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
*Cindy Hamilton* 5/27/97  
DIVISION OF LAND DEVELOPMENT

*J. Savelle* 5/27/97  
CHIEF DEVELOPMENT ENGINEERING DIVISION

7-51-07 ADDED E-3 & E-4, REV. GRADING, PIPE SIZES & STRUCTURE SCHEDULE

DATE	NO.	REVISION

OWNER / DEVELOPER  
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
THE ROUSE BUILDING  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044

PROJECT **VILLAGE OF RIVER HILL**  
SECTION 2 AREA 6 PHASE 3  
LOTS 201 THRU 241

AREA TAX MAP 35 BLOCKS 15 & 21 ZONED NEW TOWN  
PART OF PARCEL 70  
5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE **DRAINAGE AREA MAP AND STRUCTURE SCHEDULE**

**RIEMER MUEGGE & ASSOCIATES, INC.**  
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
8818 Centre Park Drive, Columbia, Maryland 21045  
tel 410.997.8500 fax 410.997.9282

*J. Savelle* 5-27-97  
DATE

DESIGNED BY: C.J.R.  
DRAWN BY: DAM  
PROJECT NO: HOCO102800 PH3RD5.DWG  
DATE: APRIL 20, 1997  
SCALE: 1" = 100'  
DRAWING NO. 5 OF 8

JAYKANT D PAREKH #19148

1487

**STONE OUTLET SEDIMENT TRAP NO. 1**

DRAINAGE AREA 2.20 ACRES  
 STORAGE VOLUME REQUIRED 3960 CF  
 STORAGE VOLUME PROVIDED 3488 CF @ EL.362.0  
 WEIR ELEVATION 363.0  
 TOP OF DAM 364.0  
 BOTTOM ELEVATION 359.0  
 CLEANOUT ELEVATION 360.5  
 SIDE SLOPES 2:1  
 CREST WIDTH 11'  
 BOTTOM DIMENSIONS 8'x100'  
 DEPTH 3'



BY THE DEVELOPER :  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

*[Signature]* 4/20/97  
 DEVELOPER DATE

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

*[Signature]* 4/20/97  
 ENGINEER DATE

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

*[Signature]* 5/15/97  
 NATURAL RESOURCES CONSERVATION SERVICE DATE

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

*[Signature]* 5/15/97  
 HOWARD SOIL CONSERVATION DISTRICT DATE

AS BUILT CERTIFICATE  
 DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*[Signature]* 5-22-97  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
*[Signature]* 5/22/97  
 DIVISION OF LAND DEVELOPMENT DATE

*[Signature]* 5/22/97  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

1-21-97  
 DATE NO. REVISION

OWNER / DEVELOPER  
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
 THE ROUSE BUILDING  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044

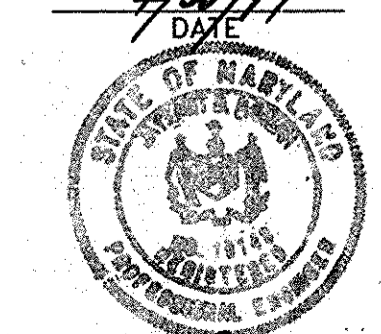
PROJECT VILLAGE OF RIVER HILL  
 SECTION 2 AREA 6 PHASE 3  
 LOTS 201 THRU 241

AREA TAX MAP 35 BLOCKS 15 & 21 ZONED NEW TOWN  
 PART OF PARCEL 70  
 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE GRADING AND SEDIMENT CONTROL PLAN

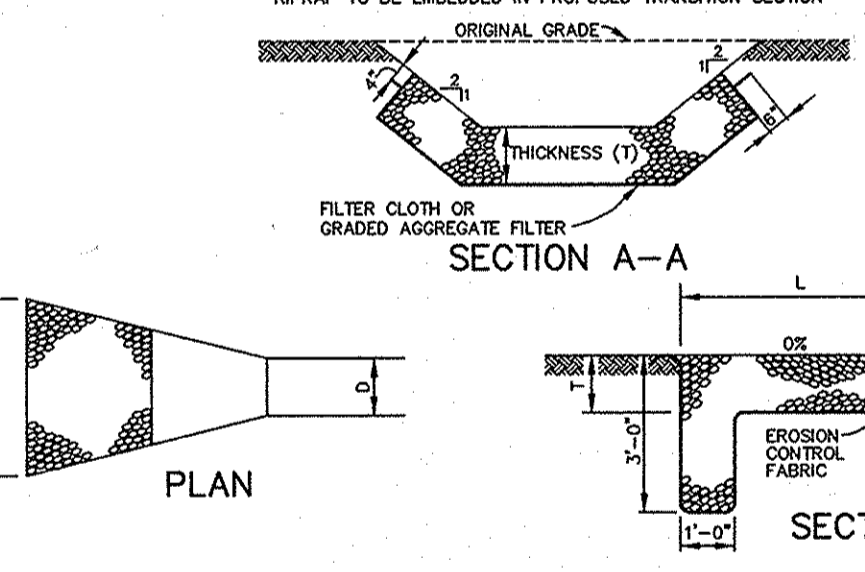
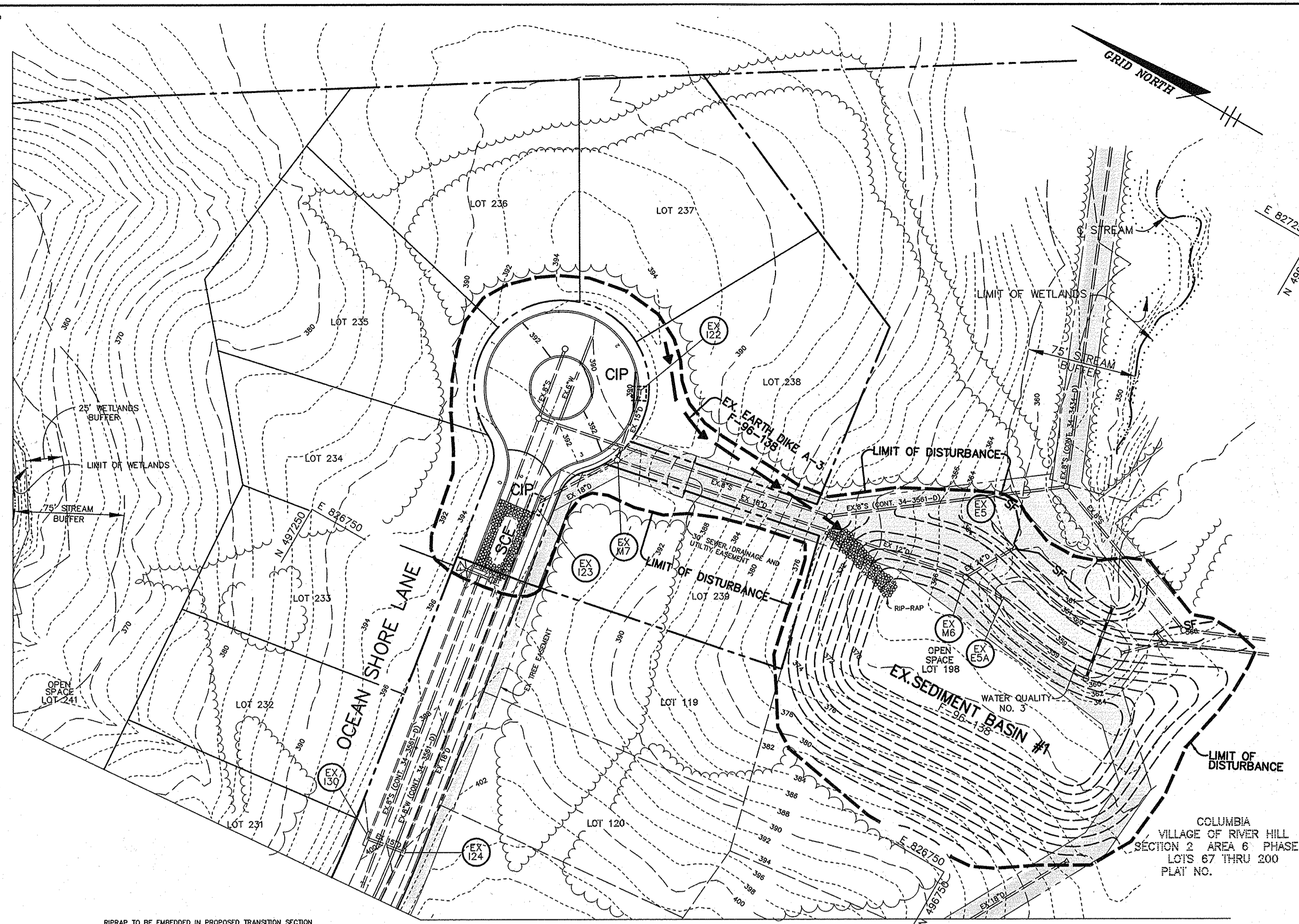
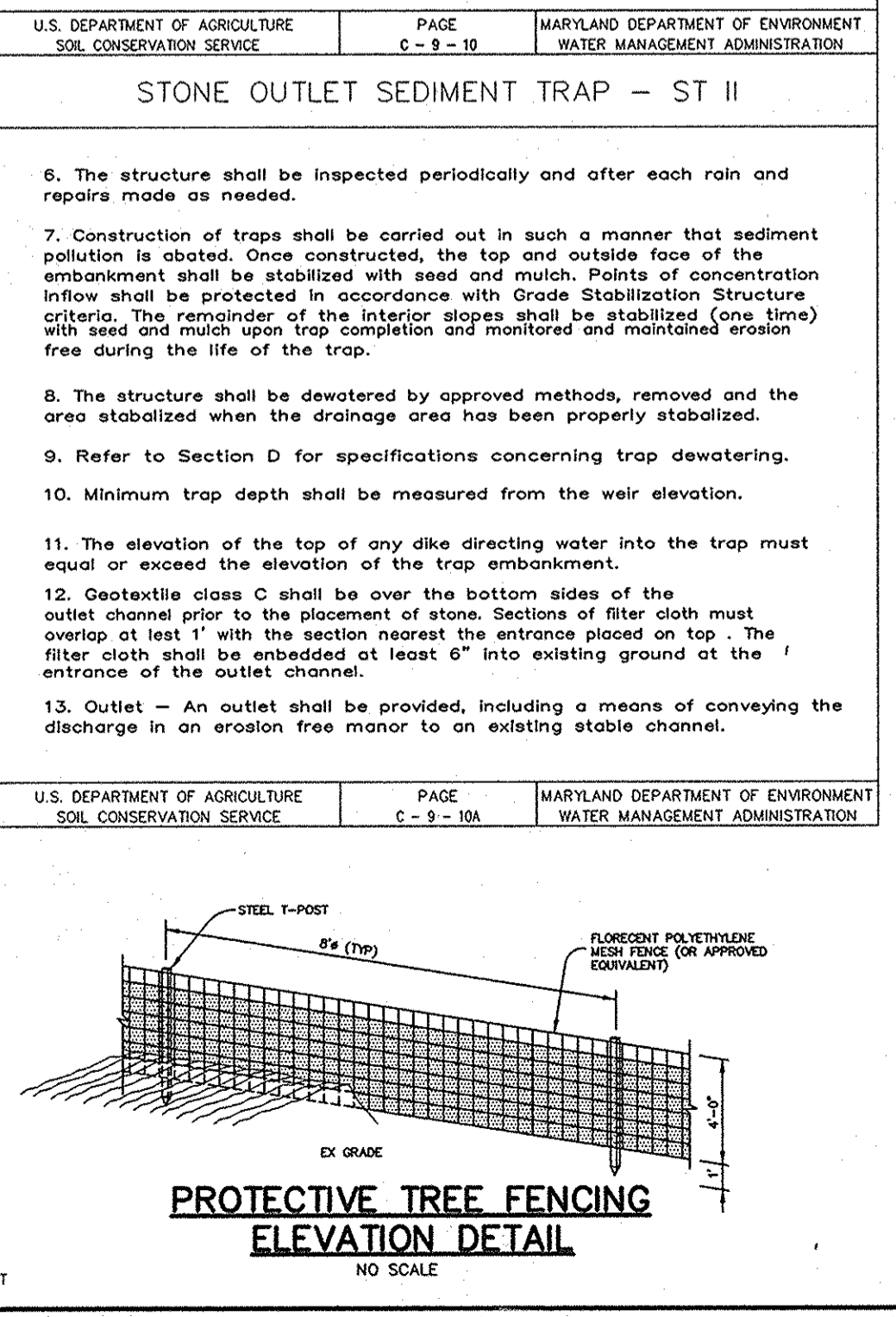
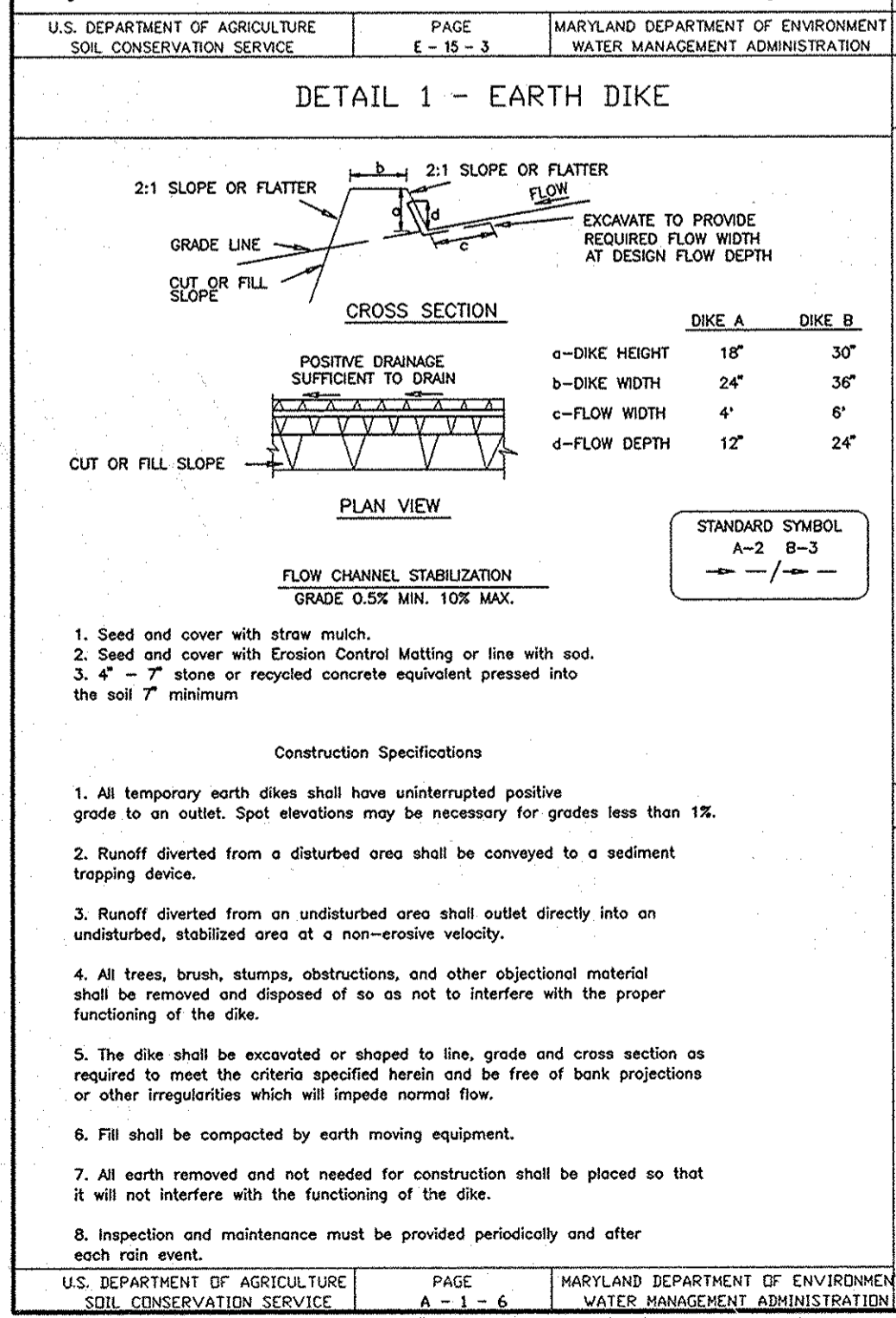
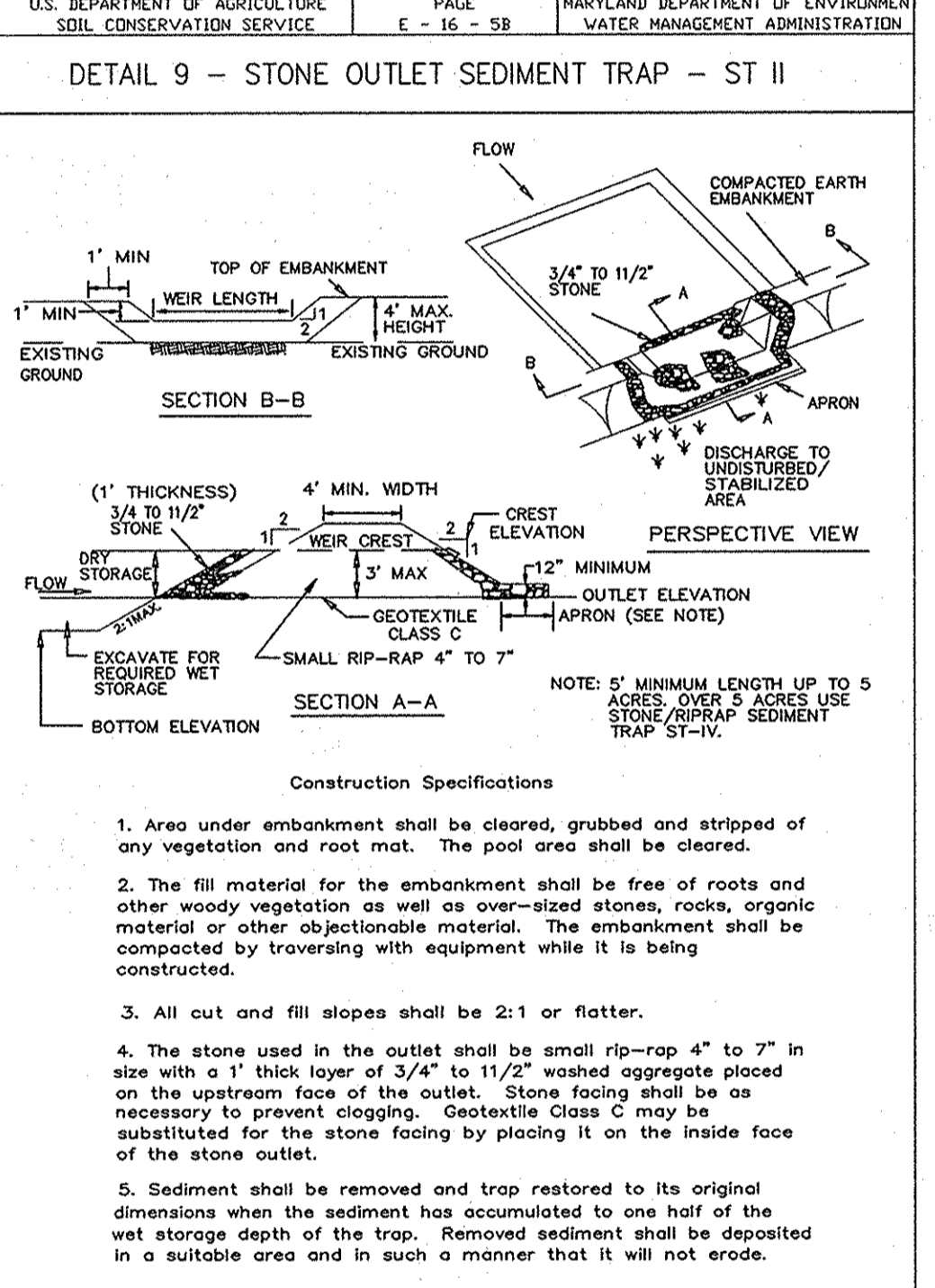
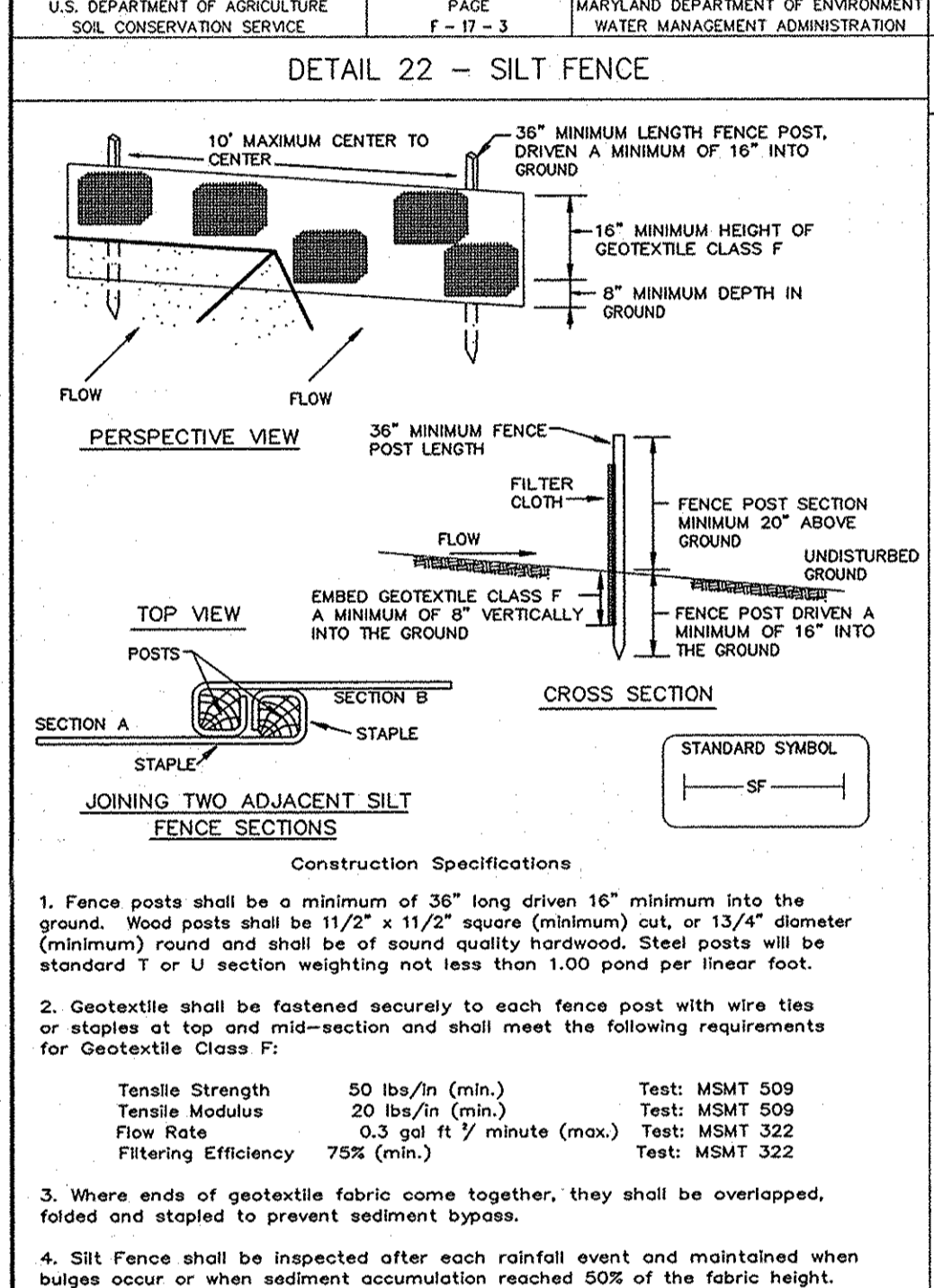
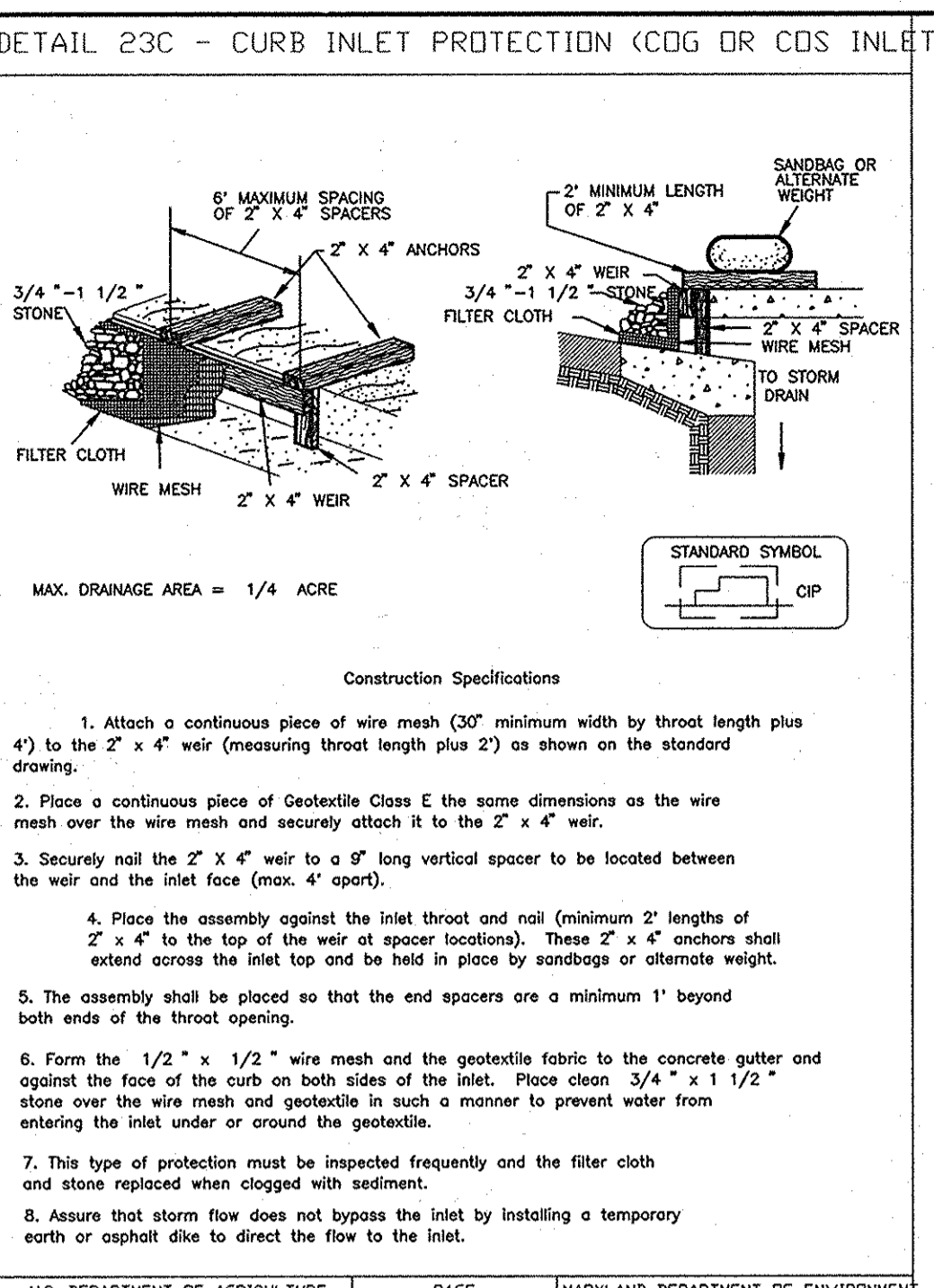
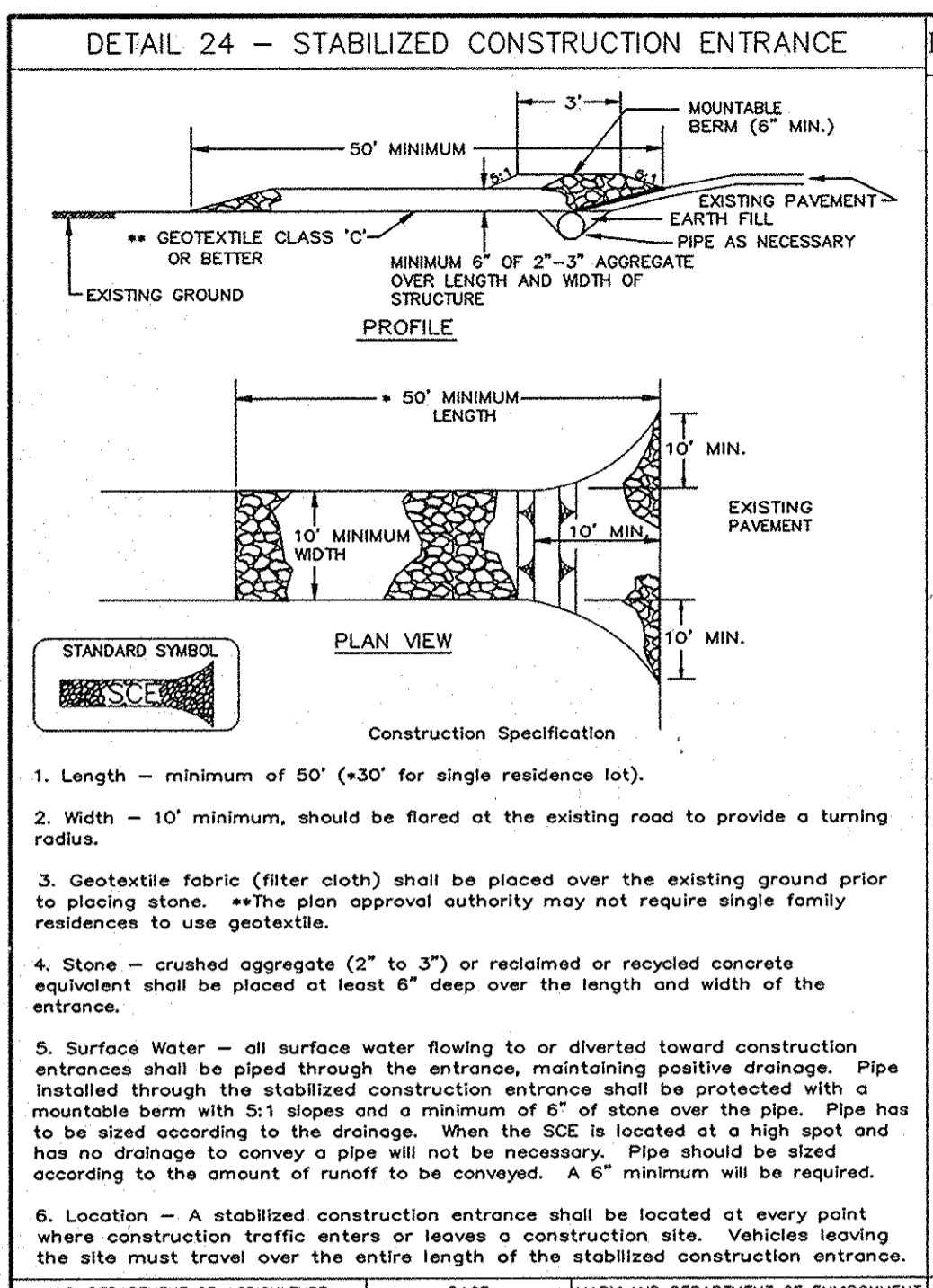
**RIEMER MUEGG & ASSOCIATES, INC.**  
 ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
 8818 Centre Park Drive, Columbia, Maryland 21045  
 tel 410.997.8900 fax 410.997.9282

4/20/97  
 DATE  
 DESIGNED BY: C.J.R.  
 DRAWN BY: DAM  
 PROJECT NO: HOCO.102800  
 PH3RD6.DWG  
 DATE: APRIL 20, 1997  
 SCALE: 1" = 50'  
 DRAWING NO. 6 OF 8



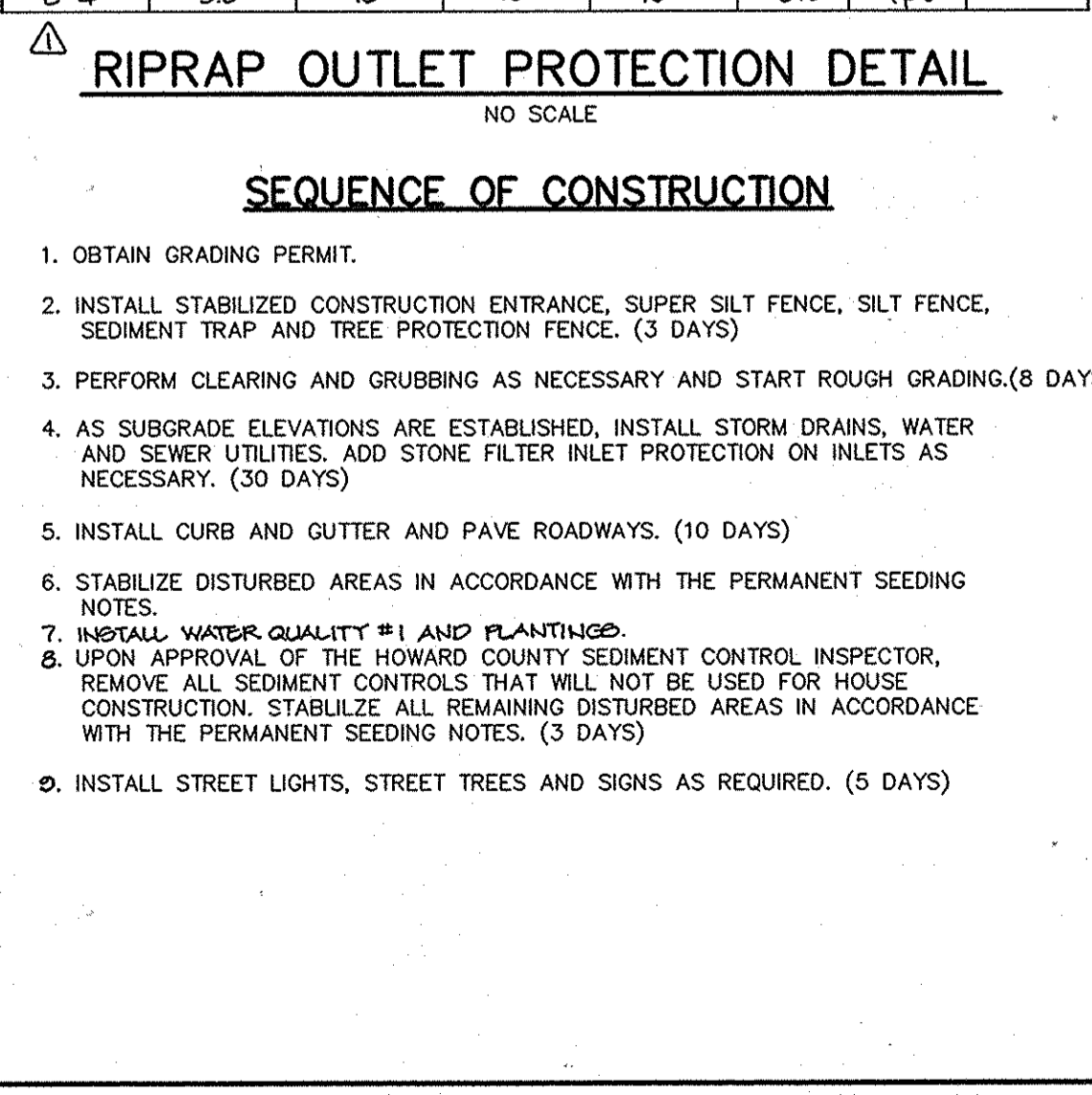
S-91-03 P-95-17 F-96-98 F-96-138

1487



NOTE:  $Q_{25}$ , V & DEPTH CALCULATED AT END OF RIPRAP OUTLET CHANNEL.

STRUCTURE	STONE DIA.	LENGTH (L)	WIDTH (W)	THICKNESS (T)	$Q_{25}$	V	DEPTH
E-1	9.5"	10'	12'	19"	cfs	fps	0
E-2	9.5"	10'	12'	19"	cfs	fps	0
E-3	9.5"	10'	12'	19"	cfs	fps	0
E-4	9.5"	10'	12'	19"	cfs	fps	0



### TEMPORARY SEEDING NOTES

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

**Seeded Preparation** - Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

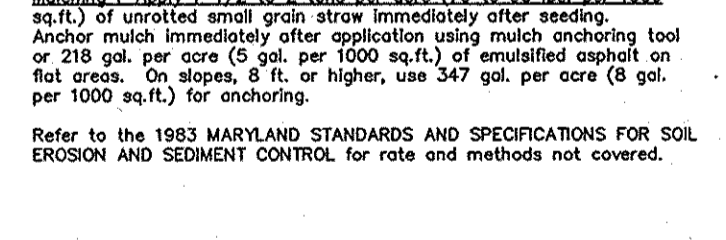
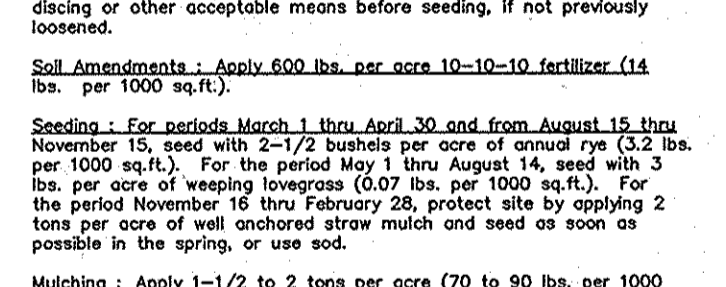
**Soil Amendments** - Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.).

**Seeding** - For the period March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual ryegrass (3.2 lbs. per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of creeping lovegrass (0.07 lbs. per 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. per 1000 sq.ft.) of unweeded small grain straw immediately after seeding.

Anchor mulch immediately after application using mulch anchoring tool of 200 gals per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.



### 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, if not previously loosened.

**Soil Amendments** - In lieu of soil test recommendations, use one of the following schedules:

- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 urea-form fertilizer (8 lbs. per 1000 sq.ft.).
- Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

**Seeding** - For the period March 1 thru April 30 and from August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs. per 1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (0.05 lbs. per 1000 sq.ft.) of creeping lovegrass. During the period October 16 thru February 28, protect site by one of the following options:

- 2 tons per acre of well-anchored mulch and seed as soon as possible in the spring.
- Use sod.
- Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well anchored straw.

**Mulching** - Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unweeded small grain straw immediately after seeding.

Anchor mulch immediately after application using mulch anchoring tool of 200 gals per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

**Maintenance** - Inspect all seeded areas and make needed repairs, replacements and reseedings.

### SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL, AND REVISIONS THERE TO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) CALENDAR DAYS SPECIFIED ABOVE IN ACCORDANCE WITH THE 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL FOR PERMANENT SEEDINGS (SEC. 51), 500 (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONG CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT TRAPS/BASINS SHALL BE FENCED AND WARNING SIGNS POSTED AROUND THE PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12 OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL FOR PERMANENT SEEDINGS (SEC. 51), 500 (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONG 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	28.35 ACRES
AREA TO BE ROADED OR PAVED	6.58 ACRES
AREA TO BE VEGETATIVELY STABILIZED	1.32 ACRES
TOTAL CUT	5.26 ACRES
TOTAL FILL	9900 CU.YDS.
TOTAL FILL	3158 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 SEDIMENT CONTROL INSPECTOR.
- SITE GRADING WILL BEGIN ONLY AFTER ALL PERMITS, SEEDING CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
- SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT ELEVATION SHOWN ON THE PLANS.
- CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT REPRESENT SO QUANTITIES. THESE QUANTITIES DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL OR EMBANKMENT MATERIAL, NOR DO THEY REFLECT CONSIDERATION OF UNDERCUTTING OR REMOVAL OF UNSUITABLE MATERIAL. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH SITE CONDITIONS WHICH MAY AFFECT THE WORK.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 AC., APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERMITS, EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACKFILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

### EX SEDIMENT BASIN #1

DRAINAGE AREA	16.8 ACRES
STORAGE VOLUME REQUIRED	59760 CF
STORAGE VOLUME PROVIDED	104000 CF @ EL.364.0
TOP OF EMBANKMENT	368.0
RISER CREST	365.0
CLEANOUT ELEVATION	362.0

BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER: *J. Parekh* DATE: 4/20/97

BY THE ENGINEER :

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

ENGINEER: *J. Parekh* DATE: 4/20/97

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

*Cheryl Simmons* DATE: 5/15/97  
NATURAL RESOURCES CONSERVATION SERVICE

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

*John P. Blanton* DATE: 5/15/97  
HOWARD SOIL CONSERVATION DISTRICT

AS BUILT CERTIFICATE

DATE: \_\_\_\_\_

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

*Andrew M. Daniels* DATE: 5-22-97  
CHIEF, BUREAU OF HIGHWAYS

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*Cindy Hamilton* DATE: 5/27/97  
DIVISION OF LAND DEVELOPMENT

*Chad Damman* DATE: 5/27/97  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

7-21-97 REVISION: REV. E-2, ADDED E-3 & E-4 TO RIPRAP OUTLET PROTECTION DETAIL.

DATE: \_\_\_\_\_ NO. \_\_\_\_\_ REVISION \_\_\_\_\_

OWNER / DEVELOPER

THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
THE ROSE BUILDING  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044

PROJECT: VILLAGE OF RIVER HILL SECTION 2 AREA 6 PHASE 3 LOTS 201 THRU 241

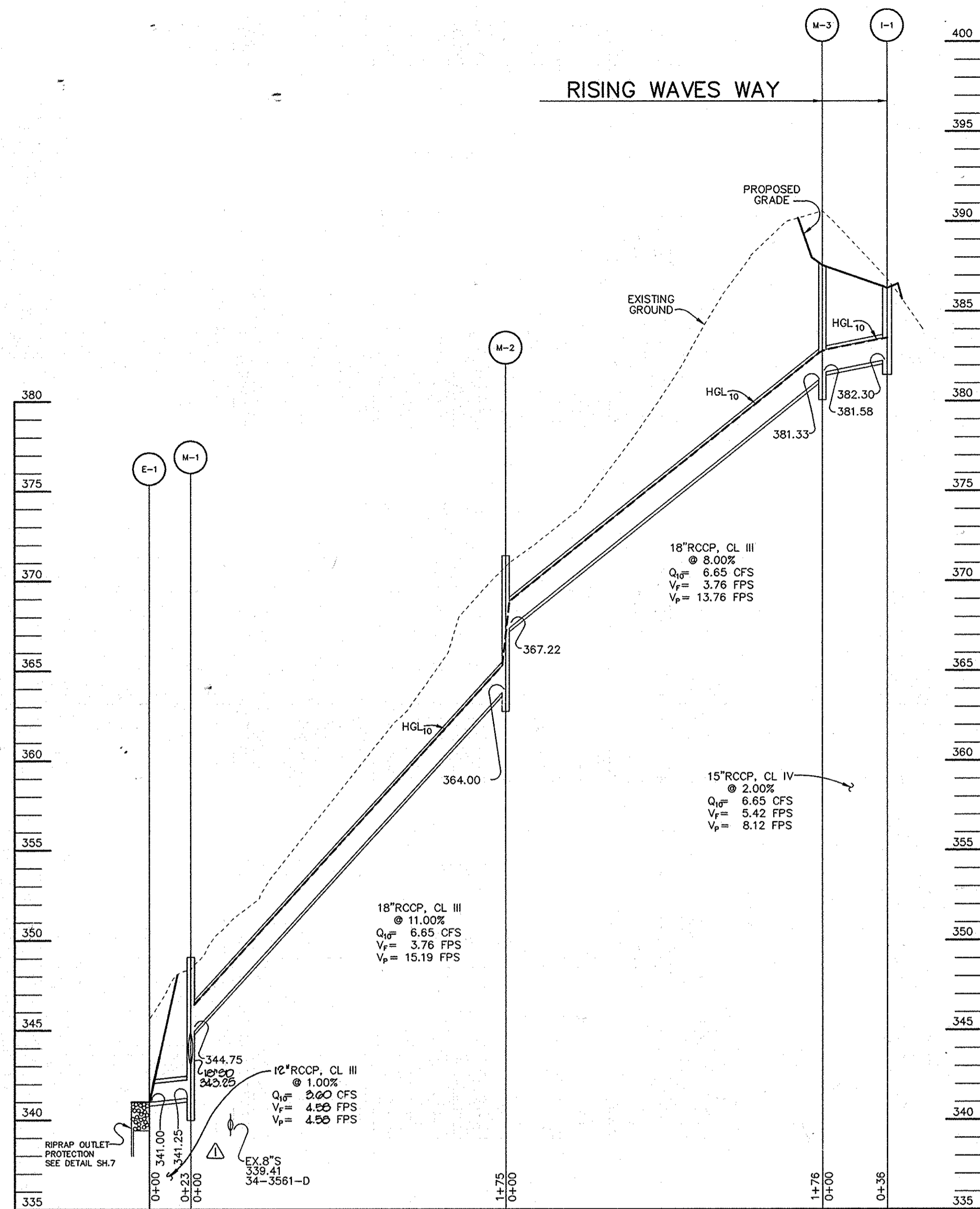
AREA TAX MAP 35 BLOCKS 15 & 21 ZONED NEW TOWN PART OF PARCEL 70 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE: GRADING AND SEDIMENT CONTROL PLAN, DETAILS AND NOTES

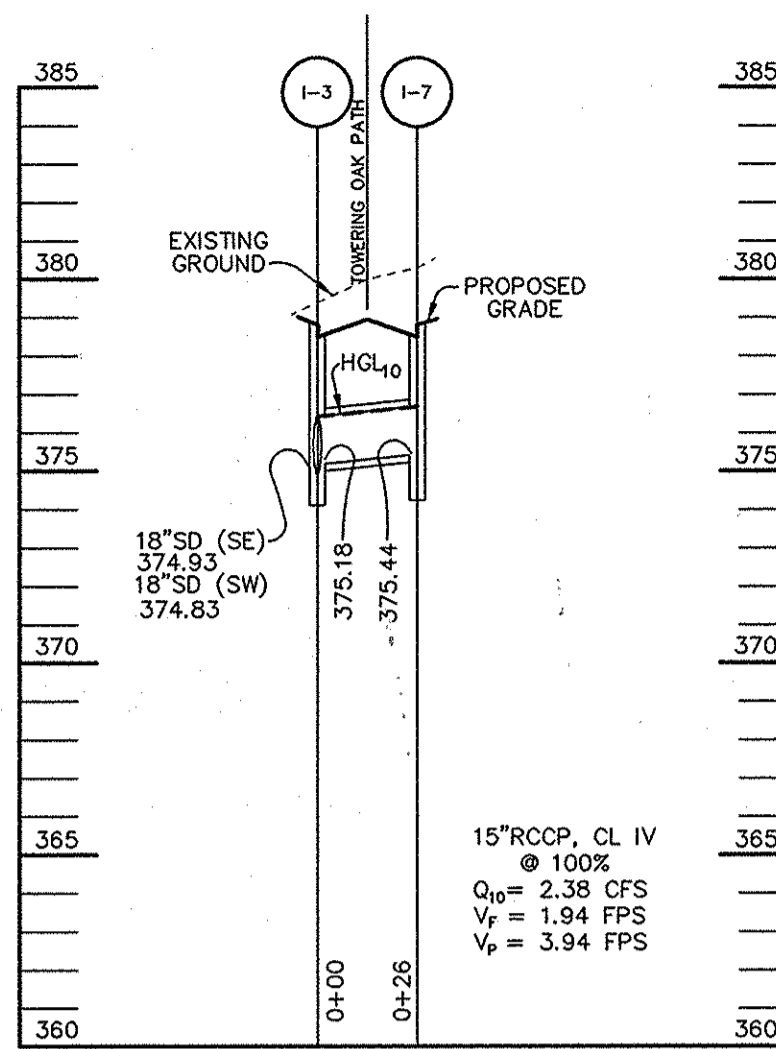
RIEMER MUEGGE & ASSOCIATES, INC.  
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
8818 Centre Park Drive, Columbia, Maryland 21045  
tel 410.997.8900 fax 410.997.9282

DESIGNED BY: C.J.R.  
DRAWN BY: DAM  
PROJECT NO: HOCO102800 PH3RD7.DWG  
DATE: APRIL 20, 2007  
SCALE: 1" = 50'  
DRAWING NO. 7 OF 8

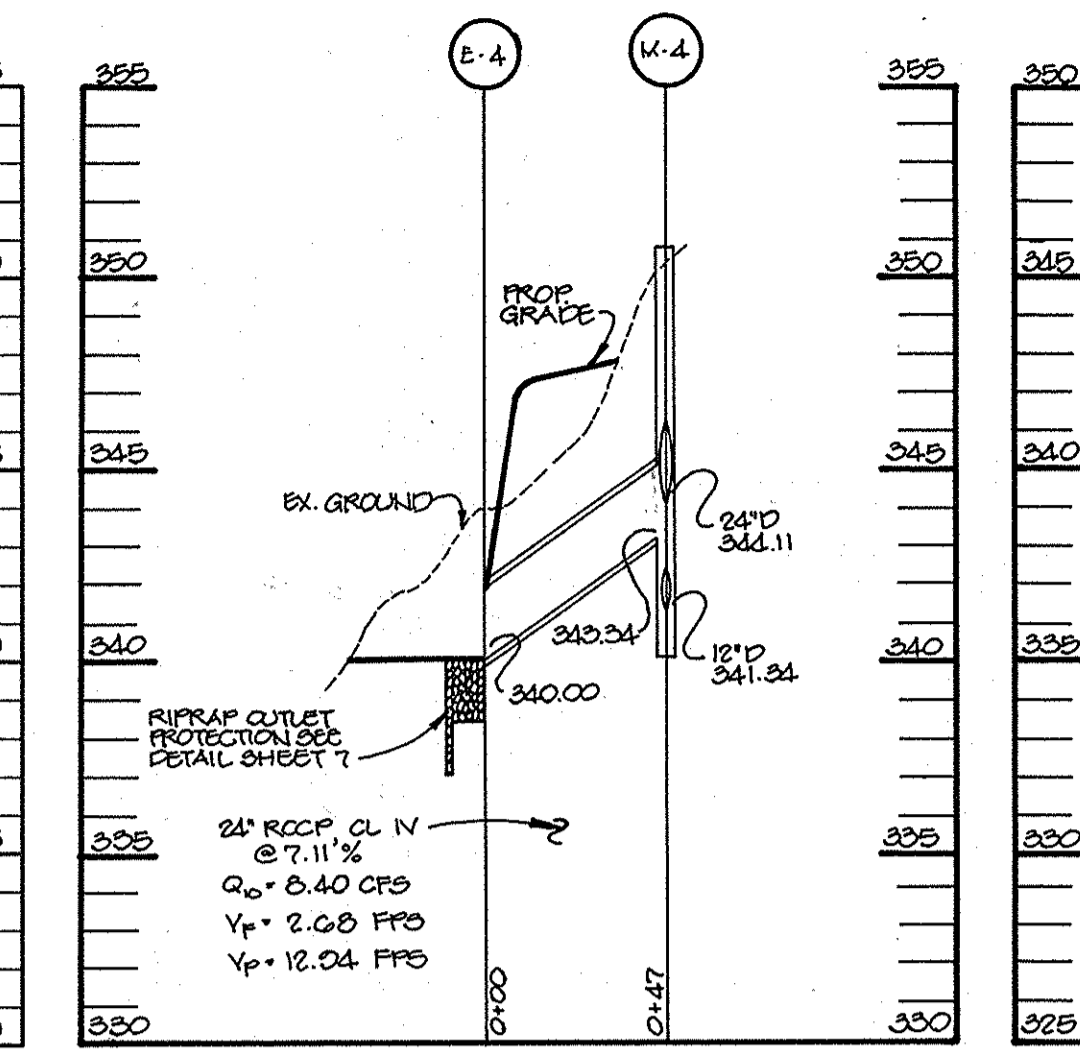
7841



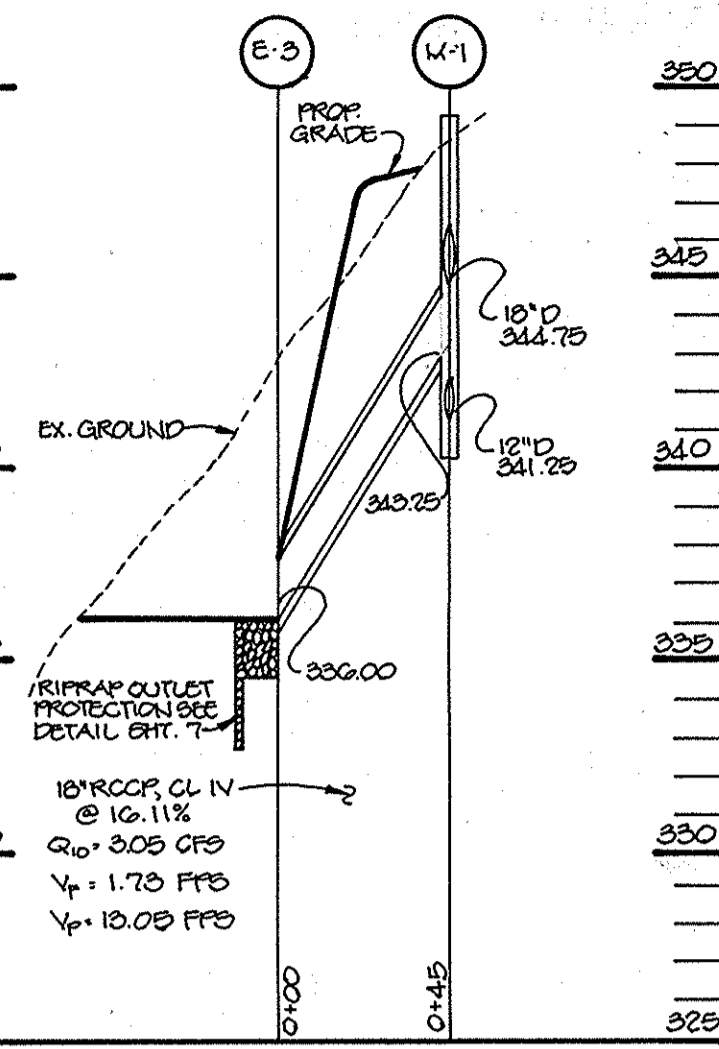
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SCALE:  
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VERT. 1"=5'



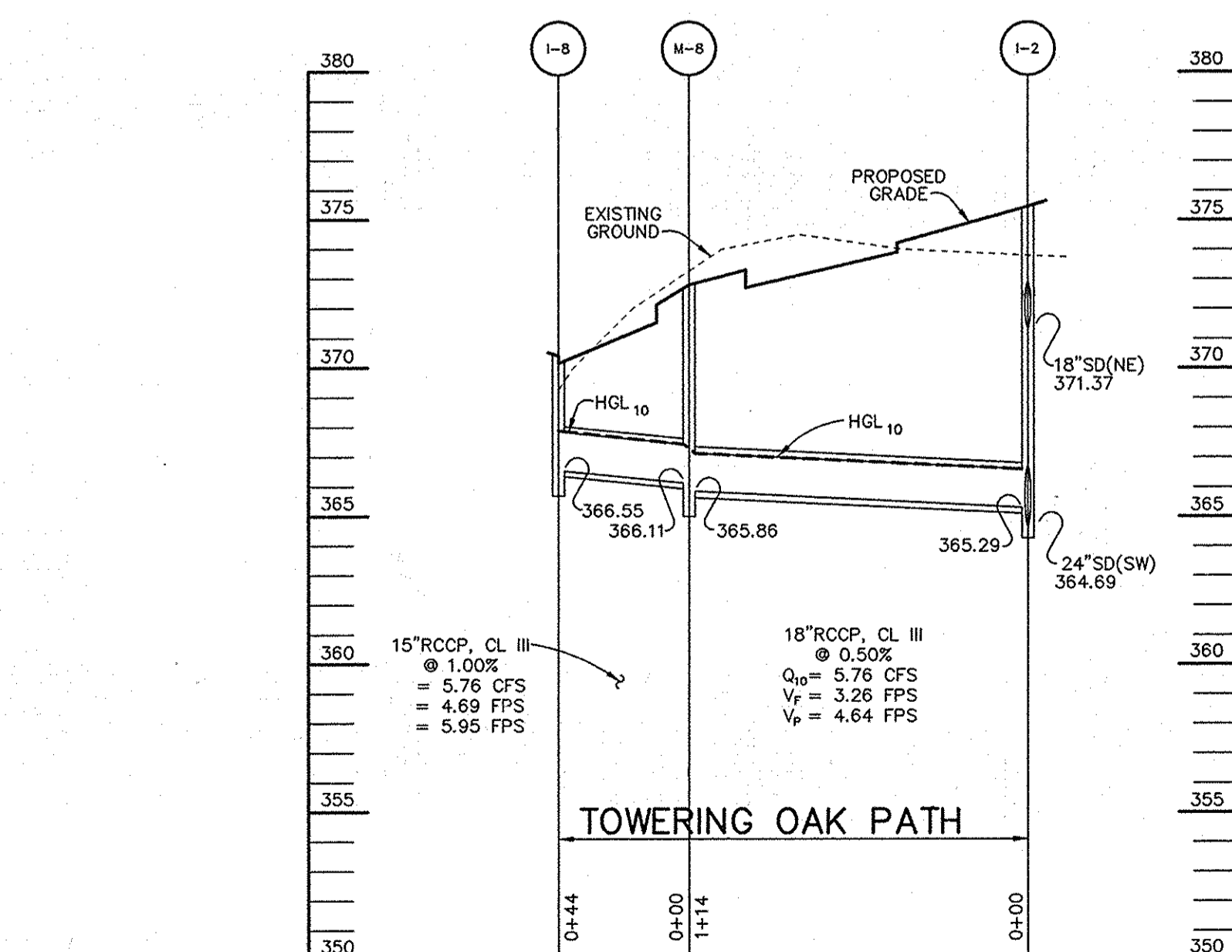
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HOR. 1"=50'  
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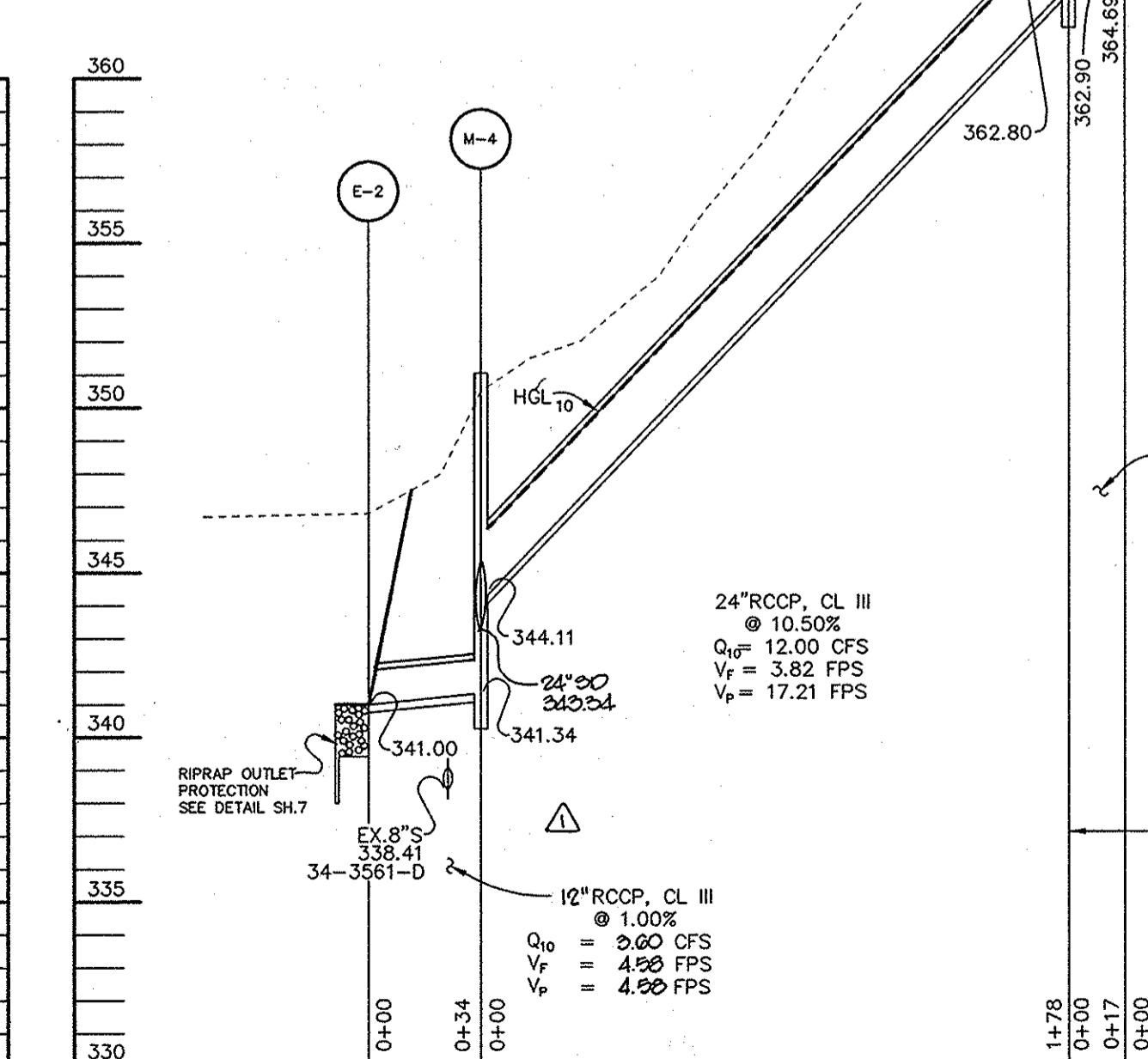
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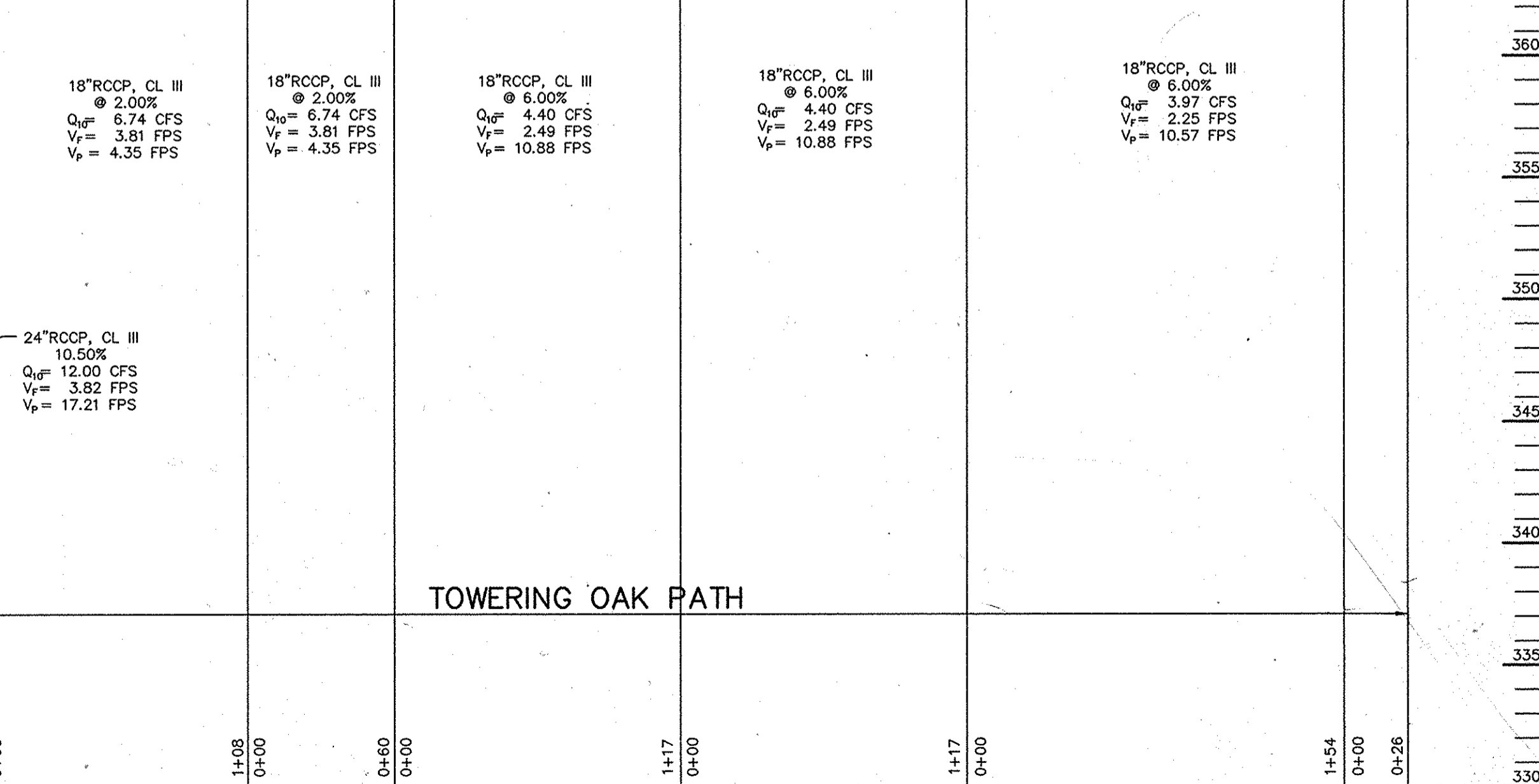
**PROFILE**  
SCALE:  
HOR. 1"=50'  
VERT. 1"=5'



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



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



AS BUILT CERTIFICATE

DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*Andrew M. Danek* CHIEF, BUREAU OF HIGHWAYS **5-22-97** DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
*Cindy Hamilton* DIVISION OF LAND DEVELOPMENT **5/27/97** DATE

*William J. ...* CHIEF, DEVELOPMENT ENGINEERING DIVISION **5/27/97** DATE

7-31-97 **ADDED PROFILES E-3 TO M-1 & E-4 TO M-4 & REV. PROF. E-1 & E-2**

DATE	NO.	REVISION

OWNER / DEVELOPER  
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
THE ROUSE BUILDING  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044

PROJECT **VILLAGE OF RIVER HILL SECTION 2 AREA 6 PHASE 3**  
LOTS 201 THRU 241

AREA TAX MAP 35 BLOCKS 15 & 21 ZONED NEW TOWN PART OF PARCEL 70  
5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE **STORM DRAIN PROFILES**

**RIEMER MUEGGE & ASSOCIATES, INC.**  
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
8818 Centre Park Drive, Columbia, Maryland 21045  
tel 410.997.8900 fax 410.997.9282

DESIGNED BY: C.J.R.  
DRAWN BY: DAM  
PROJECT NO: HOCO.102800 PH3RD8.DWG  
DATE: APRIL 20, 1997  
SCALE: AS SHOWN  
DRAWING NO. **8** OF **8**

*J. Farrell*  
JAYKANT D. PAREKH #19148

1487