

COLUMBIA

VILLAGE OF KINGS CONTRIVANCE

SECTION FIVE AREA TWO

SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

APPROVED
DEPARTMENT OF PUBLIC WORKS
3-18-87
DATE
CHIEF, BUREAU OF ENGINEERING

APPROVED
OFFICE OF PLANNING AND ZONING
3-16-87
DATE
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

GENERAL NOTES

- 1.) ALL WORK SHALL BE DONE IN ACCORDANCE WITH HOWARD COUNTY STANDARDS, SPECIFICATIONS, AND DETAILS FOR CONSTRUCTION.
- 2.) ALL UTILITY COMPANIES MUST BE NOTIFIED 24 HOURS IN ADVANCE OF ANY CONSTRUCTION.
- 3.) ALL INLETS SHALL BE HOWARD COUNTY STANDARDS UNLESS OTHERWISE SHOWN. ALL "A" INLETS SHALL BE DEPRESSED.
- 4.) STORM DRAIN TRENCHES WITHIN ROAD RIGHTS-OF-WAYS SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
- 5.) ANY DAMAGE TO PUBLIC RIGHTS-OF-WAYS OR PAVING WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- 6.) CONTRACTOR TO NOTIFY THE HOWARD COUNTY DEPT. OF INSPECTION AT LEAST 3 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS. TELEPHONE 792-7272.
- 7.) ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 1978 EDITION.
- 8.) CONTRACTOR SHALL TRANSITION THE CURB AT ALL INLETS IN ACCORDANCE WITH DRAWING R-3.06 SHOWN IN VOLUME IX OF THE HOWARD COUNTY DESIGN MANUAL.
- 9.) TYPE OF BEDDING FOR ALL STORM DRAINS WILL BE CLASS "C"

BENCH MARKS

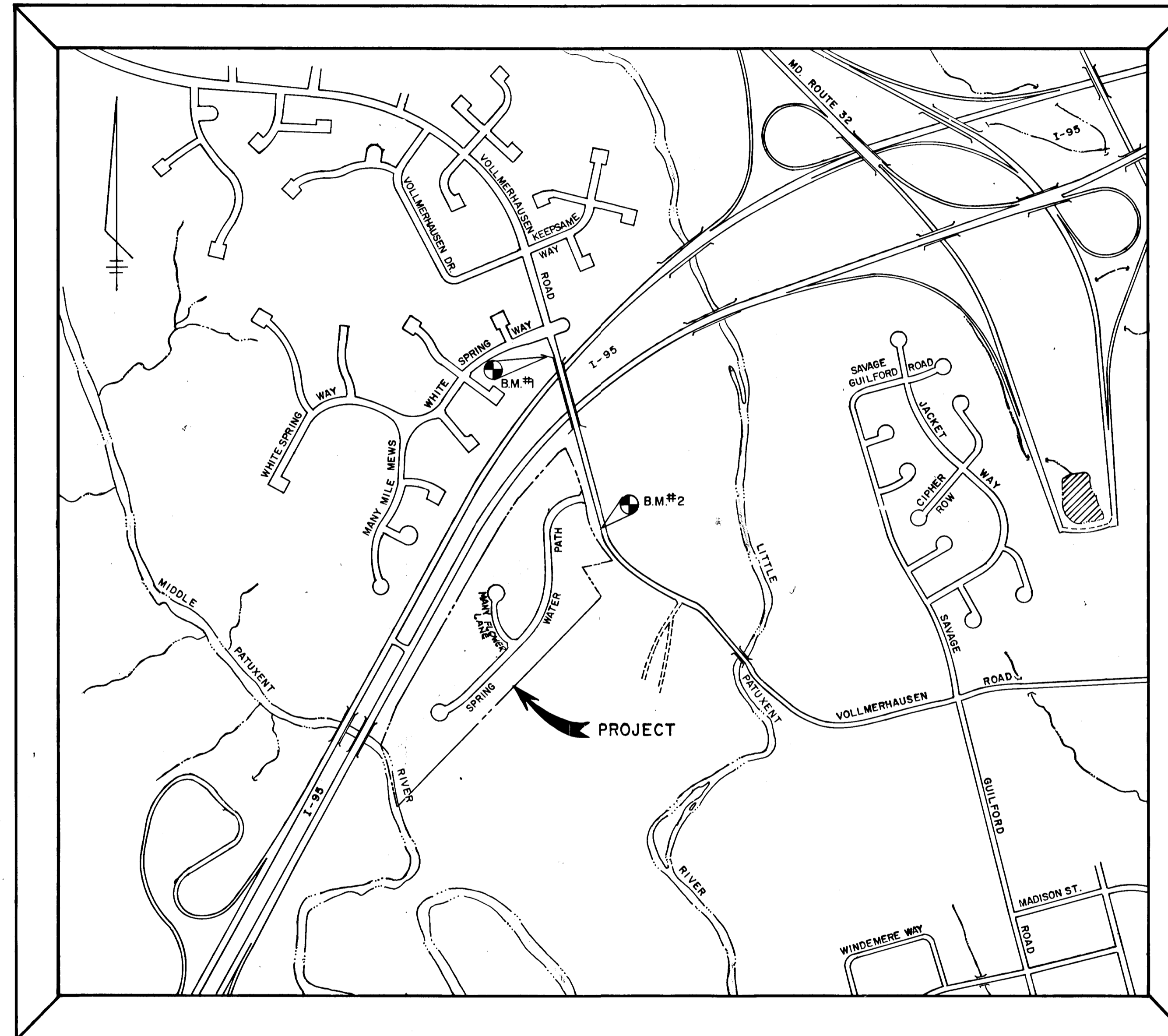
B.M.#1 ELEV. = 359.67
HOWARD CO. MON.#2142006
CONC. MON. SET 3' ± NORTH OF BACK EDGE OF
CONC. WALK, 2' BELOW SURFACE.

B.M.#2 ELEV. = 317.69
TRAVERSE POINT C-27
P.K. NAIL SET 245' ± SOUTH OF PROPOSED INTERSECTION
OF SPRING WATER PATH AND VOLLMERHAUSEN ROAD.

⊕ DENOTES STREET LIGHTS

TYPE "A" 250-WATT MERCURY VAPOR LAMP PENDANT MOUNTED FIXTURE ON 30-FOOT BRONZE ALUMINUM POLE LOCATED AT VOLLMERHAUSEN ROAD AND SPRING WATER PATH.

TYPE "B" 175-WATT "MODERN" MERCURY VAPOR LAMP POST TOP FIXTURES ON 12-FOOT BRONZE FIBERGLASS POLES LOCATED AT SPRING WATER PATH STA. 5+35 LT., STA. 9+00 LT., AT THE SOUTH CORNER OF SPRING WATER PATH AND RED RAIN ROW, AND AT STA. 17+50 ± LT. OF SPRING WATER PATH.



VICINITY MAP

SCALE: 1" = 600'

INDEX OF SHEETS

1. TITLE SHEET
2. SPRING WATER PATH - PLAN & PROFILE
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4. RED RAIN ROW - PLAN & PROFILE
5. ROADWAY SECTIONS & DETAILS AND STORM DRAIN PROFILES
6. DRAINAGE AREA MAP AND STORM DRAIN PROFILES
7. STREET TREE, GRADING, AND SEDIMENT CONTROL PLAN
8. STREET TREE, GRADING, AND SEDIMENT CONTROL PLAN

THE HORIZONTAL & VERTICAL CONTROL SHOWN
HEREON IS BASED ON THE FOLLOWING STATIONS:
2041003 N 478528.67E
E 844482.917
2142006 N 481139.450
E 846013.010

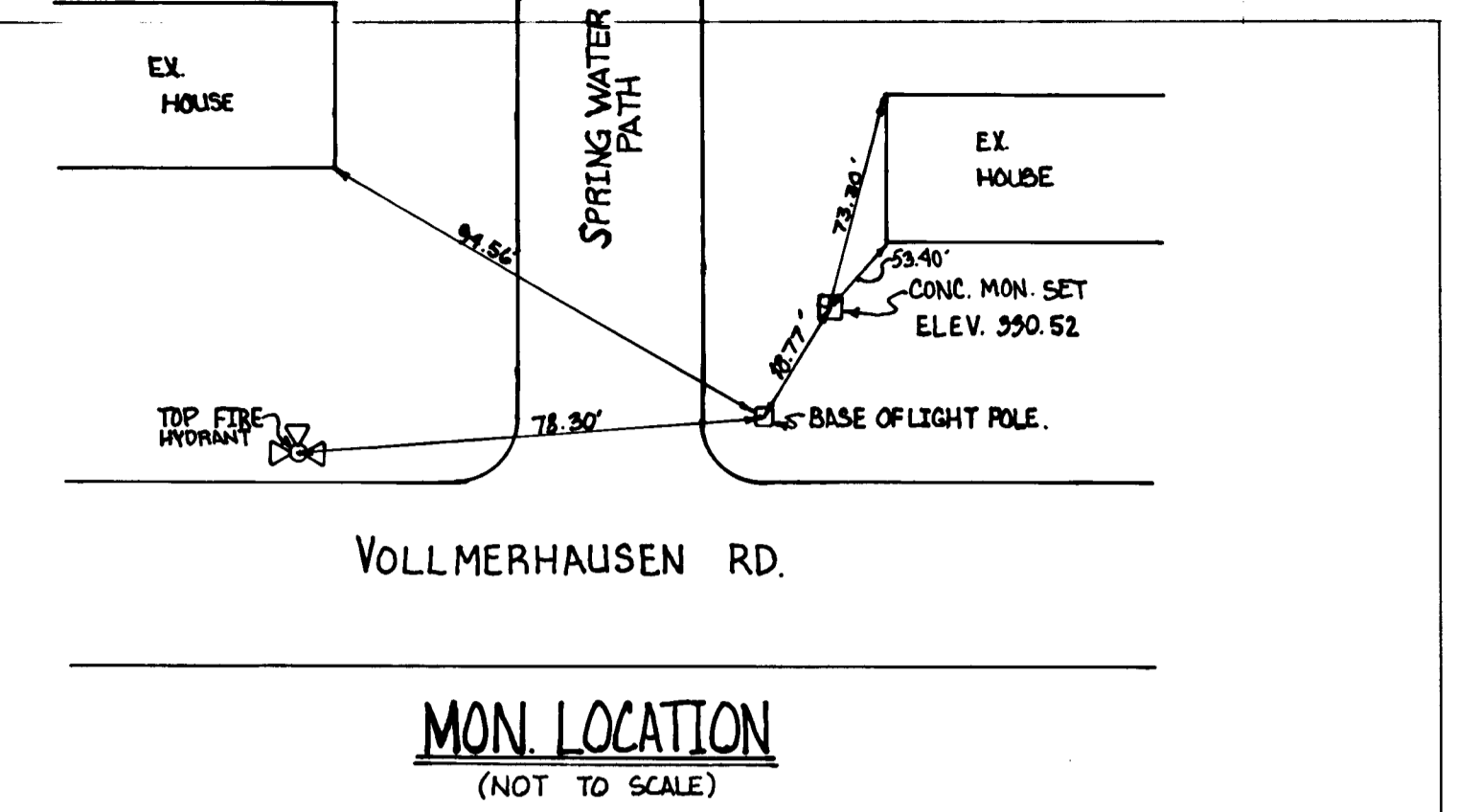
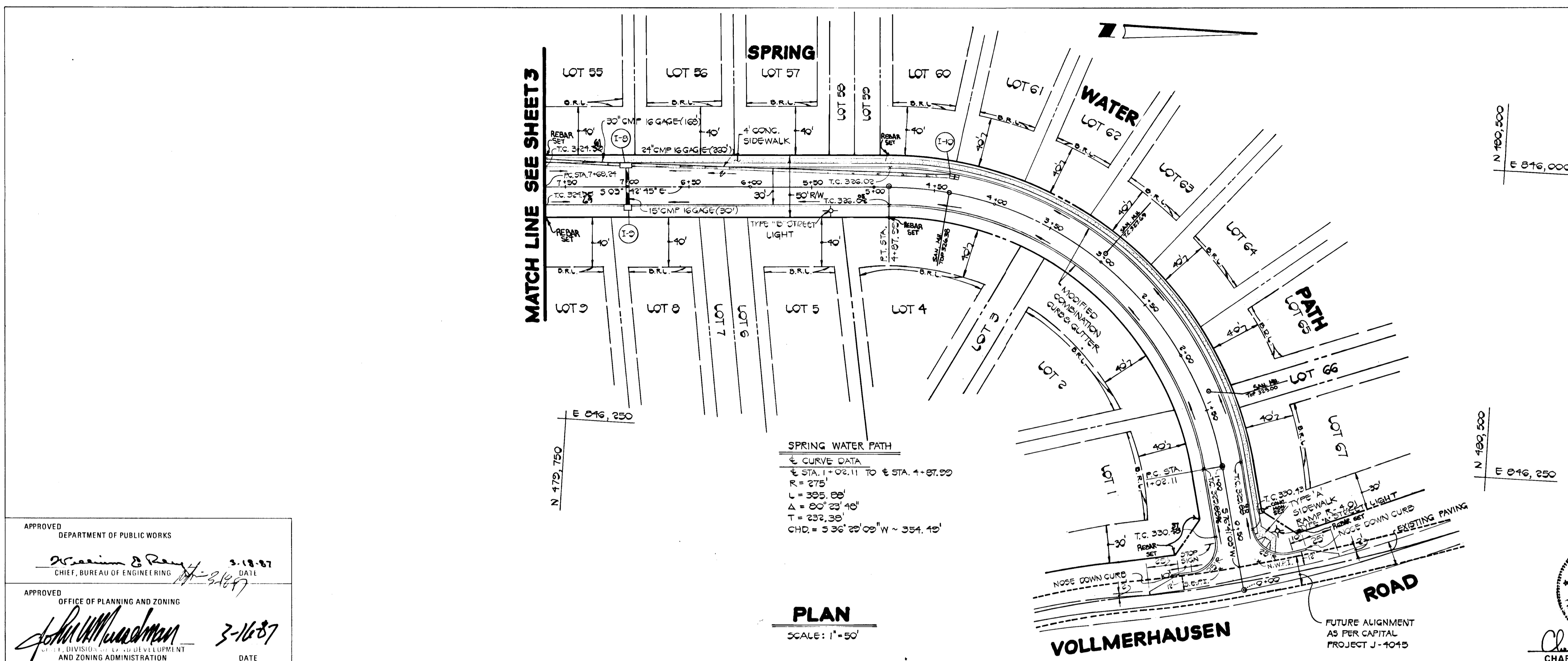
FISHER, COLLINS AND CARTER, INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
8388 COURT AVENUE
ELLICOTT CITY, MARYLAND 21043



OWNER & DEVELOPER
THE HOWARD RESEARCH AND
DEVELOPMENT LAND COMPANY
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044

DATE	
BY	
NO.	
PLANNING	
CHECKED	
DATE	

DATE	
BY	
NO.	
PROFILE	
CHECKED	
DATE	



AS-BUILT SURVEY CERTIFIED BY
 CHARLES J. CROVO, SR., MD. P.E.
 NO. 13204 ON 5-7-89

APPROVED
 DEPARTMENT OF PUBLIC WORKS
 [Signature] 3-18-87
 CHIEF, BUREAU OF ENGINEERING

APPROVED
 OFFICE OF PLANNING AND ZONING
 [Signature] 3-16-87
 DIVISION OF PLANNING AND ZONING ADMINISTRATION

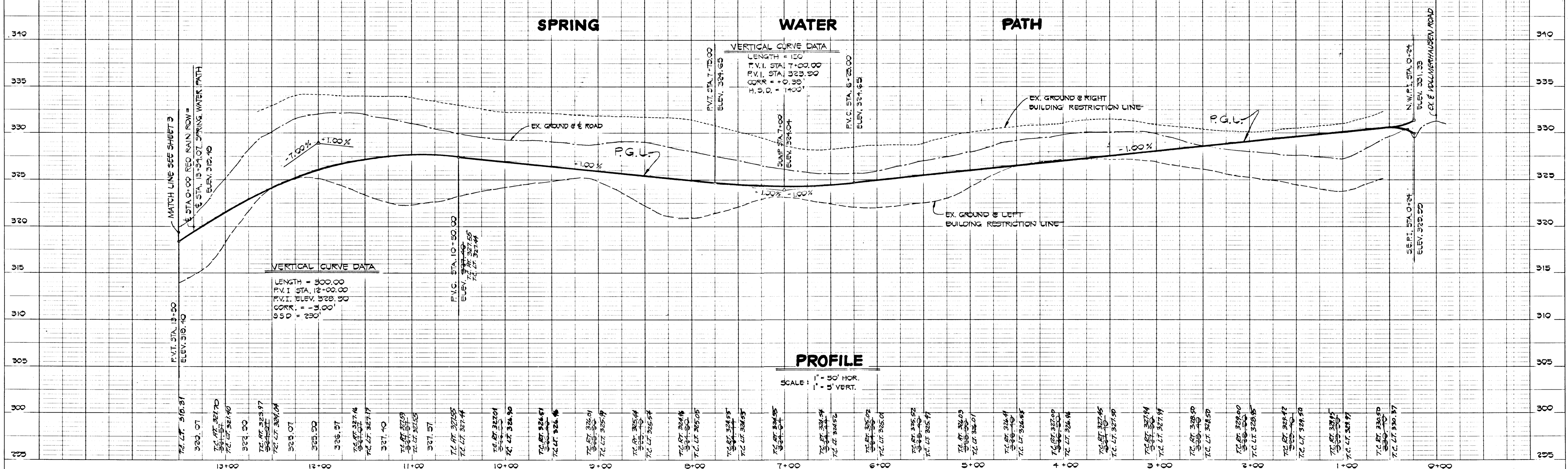
VILLAGE OF KING'S CONTRIVANCE
 SECTION 5 AREA 2
 LOTS 1-68
 6 TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SPRING WATER PATH
 PLAN AND PROFILE

OWNER AND DEVELOPER
 THE HOWARD RESEARCH AND
 DEVELOPMENT LAND COMPANY
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044

SCALE AS SHOWN DATE OCT. 31, 1986 DWG. NO. 2 OF 8
 DES. D. VANDE RYT DRN. J. O'DONNELL CHK. C. J. CROVO

FISHER, COLLINS AND CARTER, INC.
 CIVIL ENGINEERS AND LAND SURVEYORS
 8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043

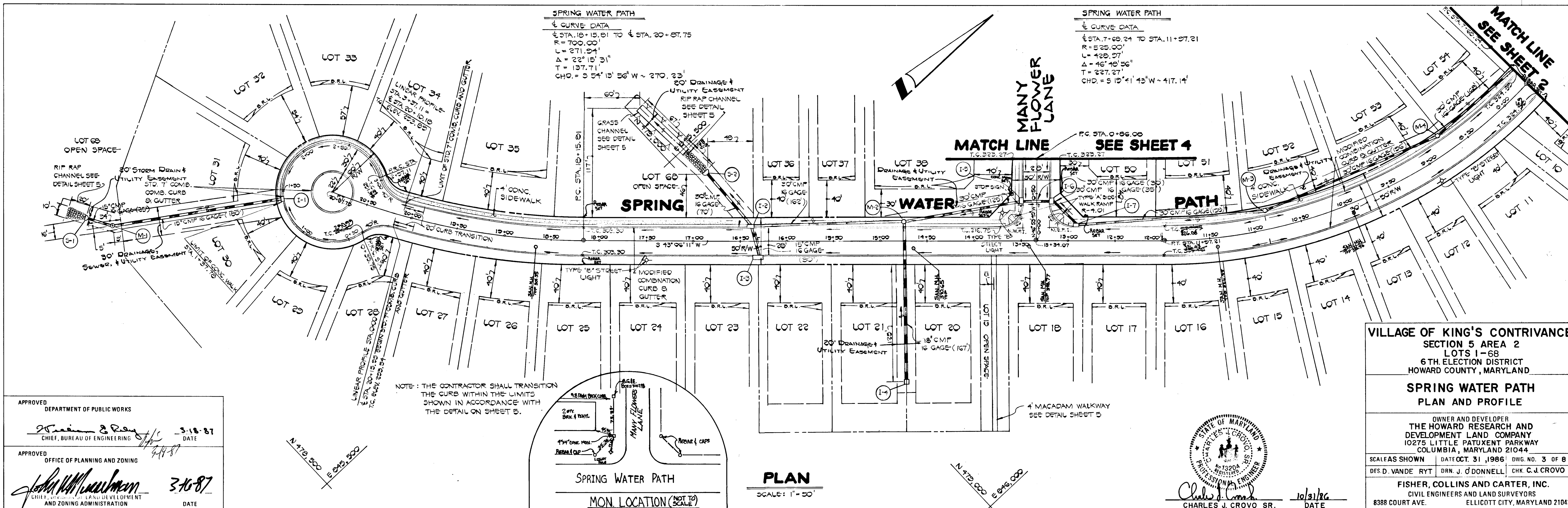


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BY: _____ DATE: _____
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
 NOTE BOOK: _____
 NO. _____

APPROVED: _____ DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF ENGINEERING
 DATE: 3-18-87

APPROVED: _____ OFFICE OF PLANNING AND ZONING
 CHIEF, BUREAU OF PLANNING AND ZONING ADMINISTRATION
 DATE: 3-16-87



VILLAGE OF KING'S CONTRIVANCE
 SECTION 5 AREA 2
 LOTS 1-68
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

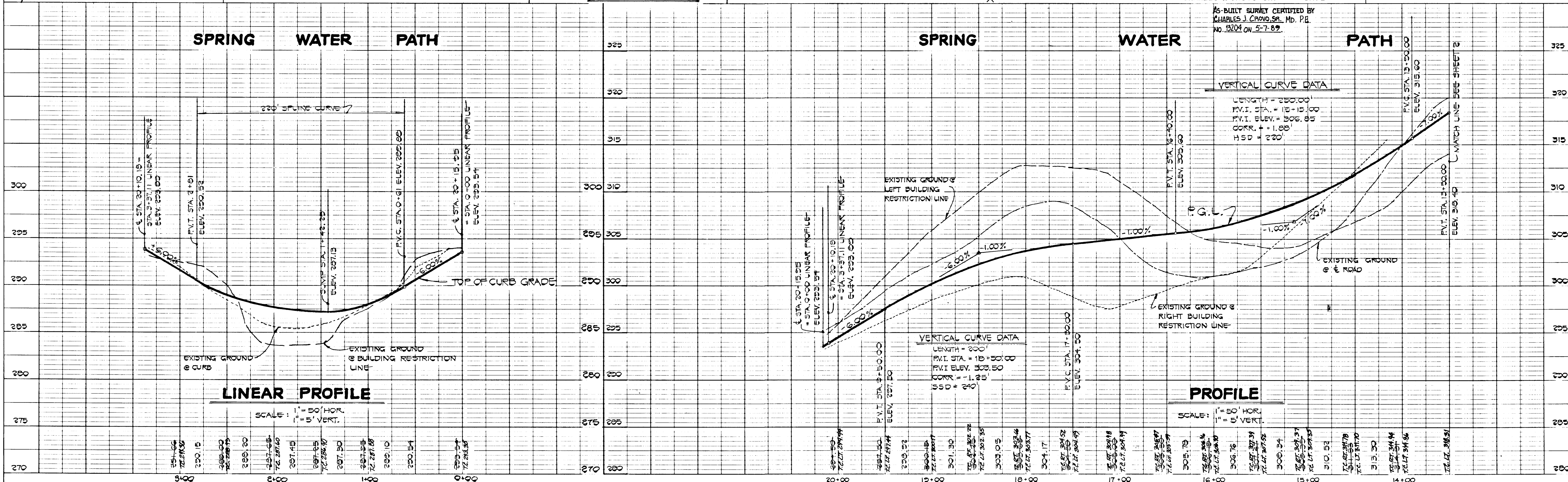
SPRING WATER PATH
 PLAN AND PROFILE

OWNER AND DEVELOPER
 THE HOWARD RESEARCH AND
 DEVELOPMENT LAND COMPANY
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044

DESIGNED BY: _____ DATE: OCT. 31, 1985
 DRAWN BY: _____ DATE: 10/31/86
 CHECKED BY: _____ DATE: _____

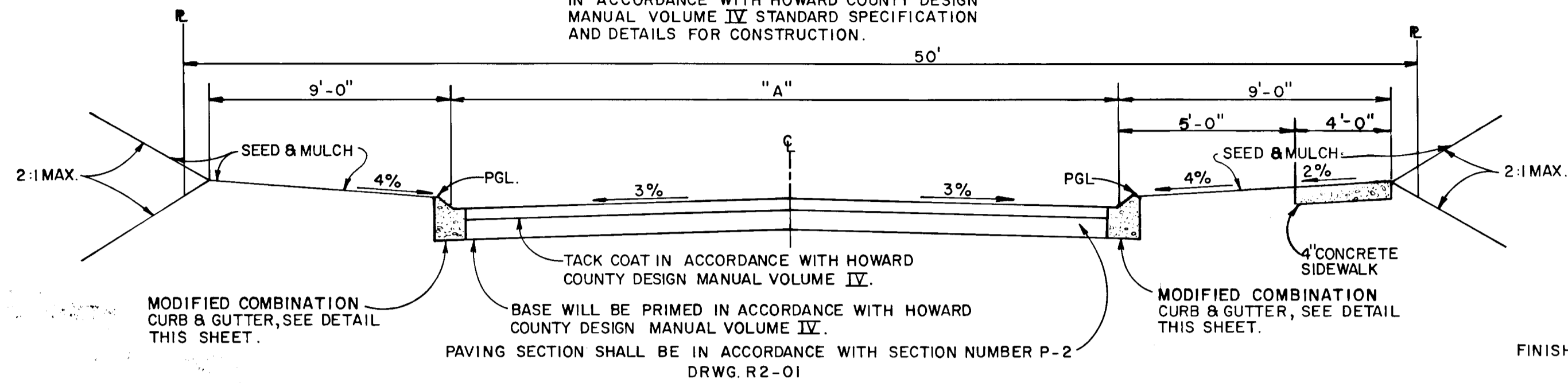
FISHER, COLLINS AND CARTER, INC.
 CIVIL ENGINEERS AND LAND SURVEYORS
 8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043

BY: _____ DATE: _____
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
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 NO. _____



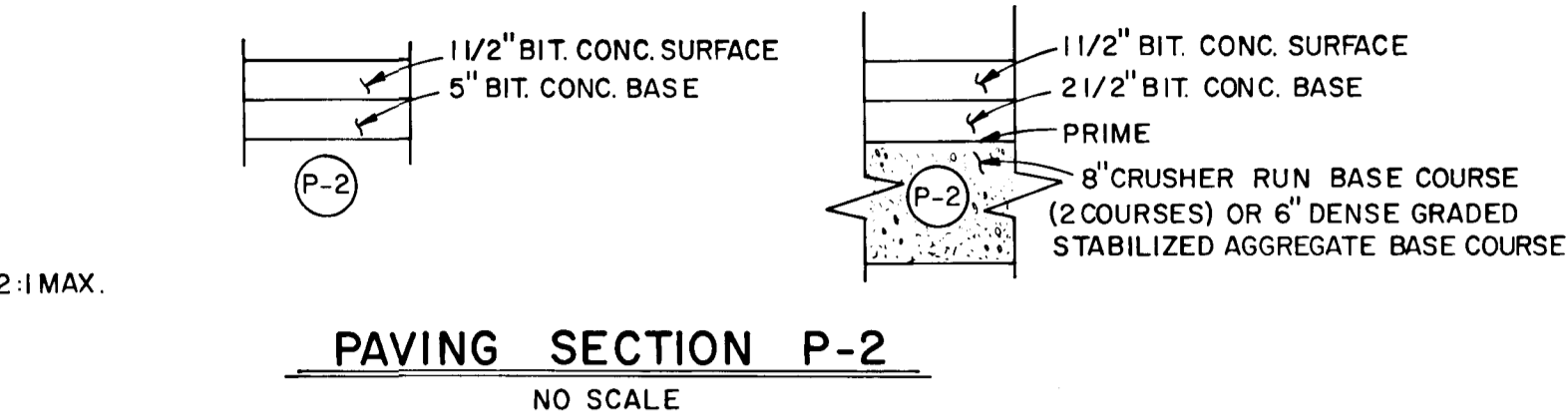
TYPICAL ROADWAY SECTION

ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION.

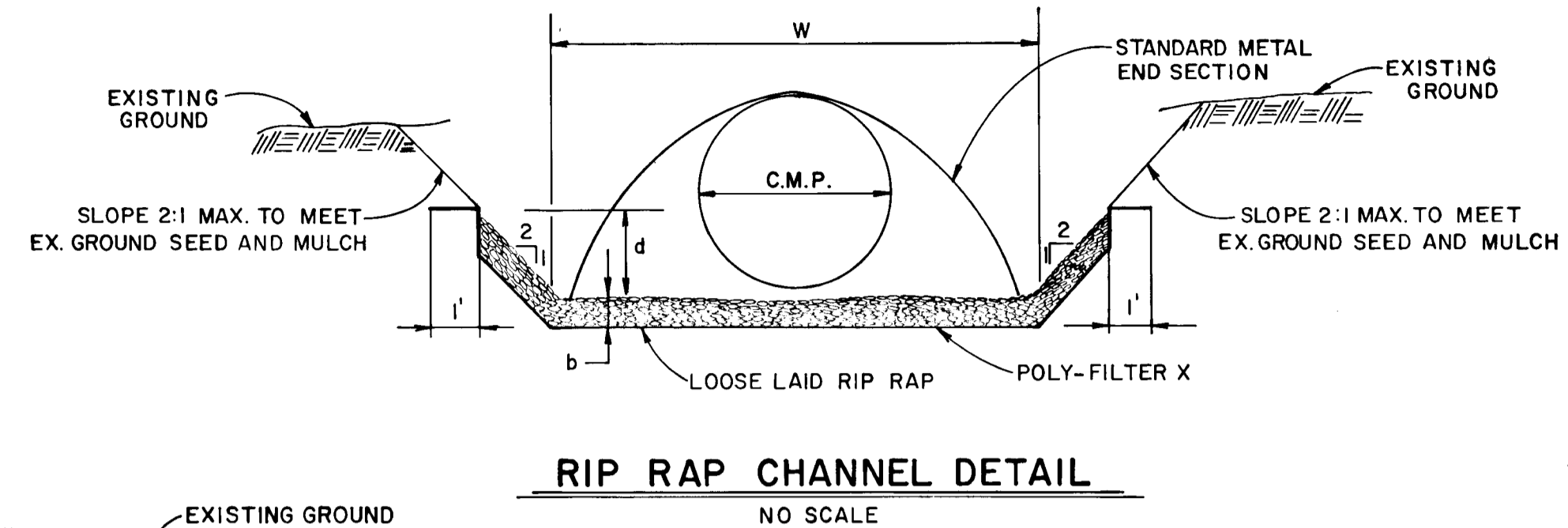


ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	STA. LIMITS	"A"
SPRING WATER PATH	LOCAL	30 M.P.H.	R-20	0+00 TO 13+34.07	30'
RED RAIN ROW	CUL-DE-SAC	25 M.P.H.	R-20	0+00 TO 3+69.56	28'
SPRING WATER PATH	CUL-DE-SAC	30 M.P.H.	R-20	13+34.07 TO 20+15.95	28'

PAVING SECTION P-2

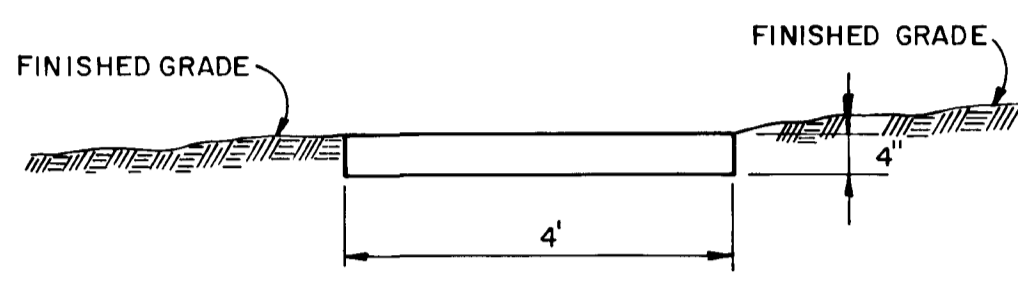


RIP RAP CHANNEL DETAIL

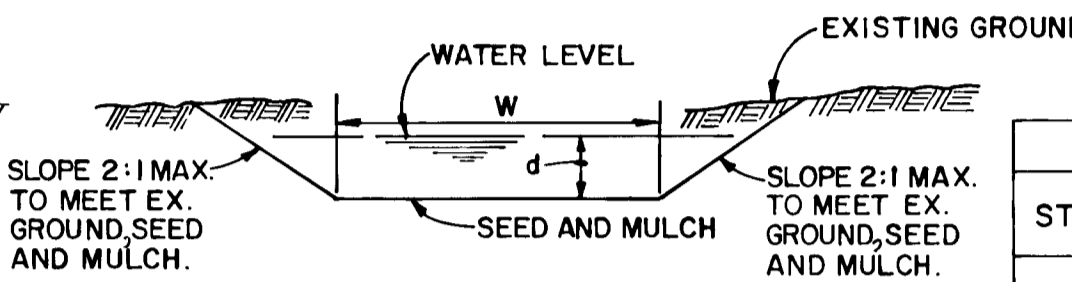


RIP RAP CHANNEL DESIGN DATA														
STRUCTURE	A ^d	P ⁱ	R	R 2/3	S	S 1/2	n	Q cfs.	V fps.	d	W	RIP RAP SIZE		
										d ₅₀	d _{max.}	b		
S-1	1.98	5.83	3388	.4842	1.00	.100	0.04	3.56	1.80	.41'	4'	6"	9"	14"
S-2	11.03	4.16	7790	.8459	1.00	.100	0.04	34.63	3.14	.93'	10'	6"	9"	14"

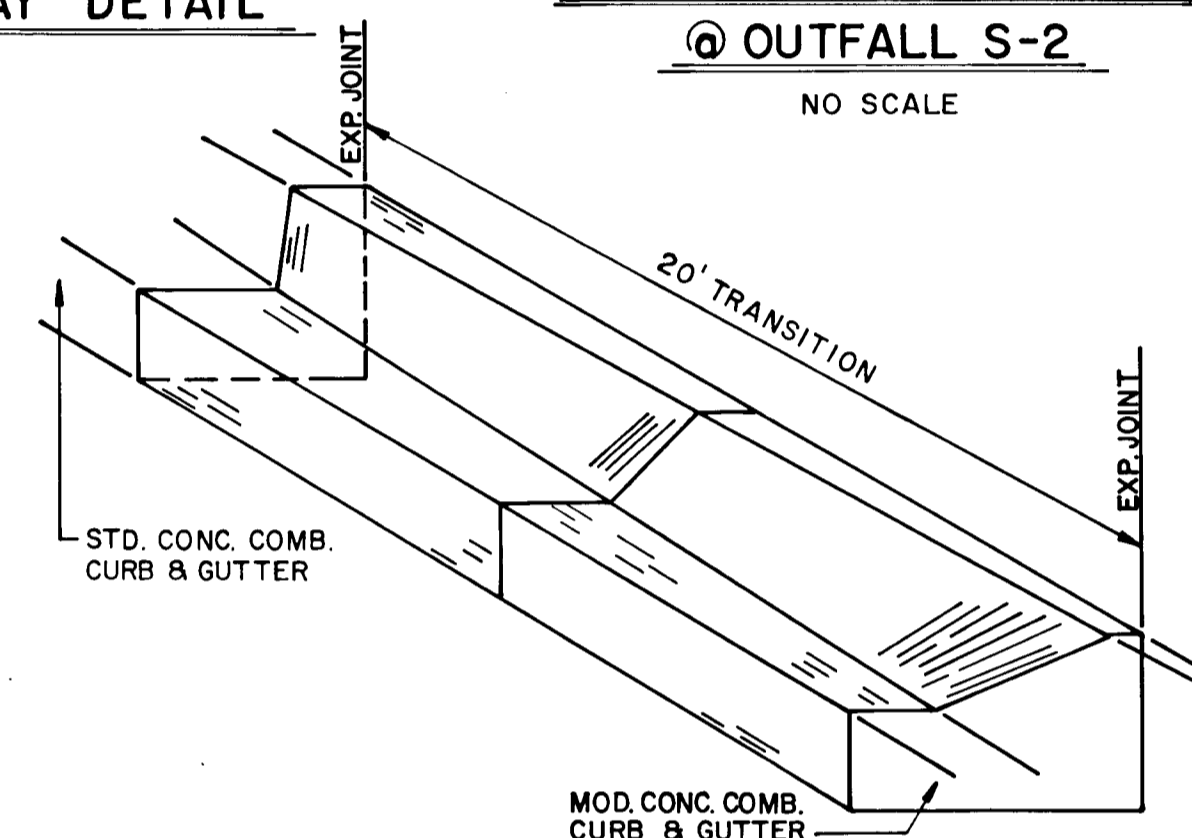
GRASS CHANNEL DESIGN DATA														
STRUCTURE	A ^d	P ⁱ	R	R 2/3	S	S 1/2	n	Q cfs.	V fps.	d	W	d ₅₀	d _{max.}	b
S-2	9.15	1353	6760	.7692	1.00	.100	0.03	34.86	3.81	.79'	10'			



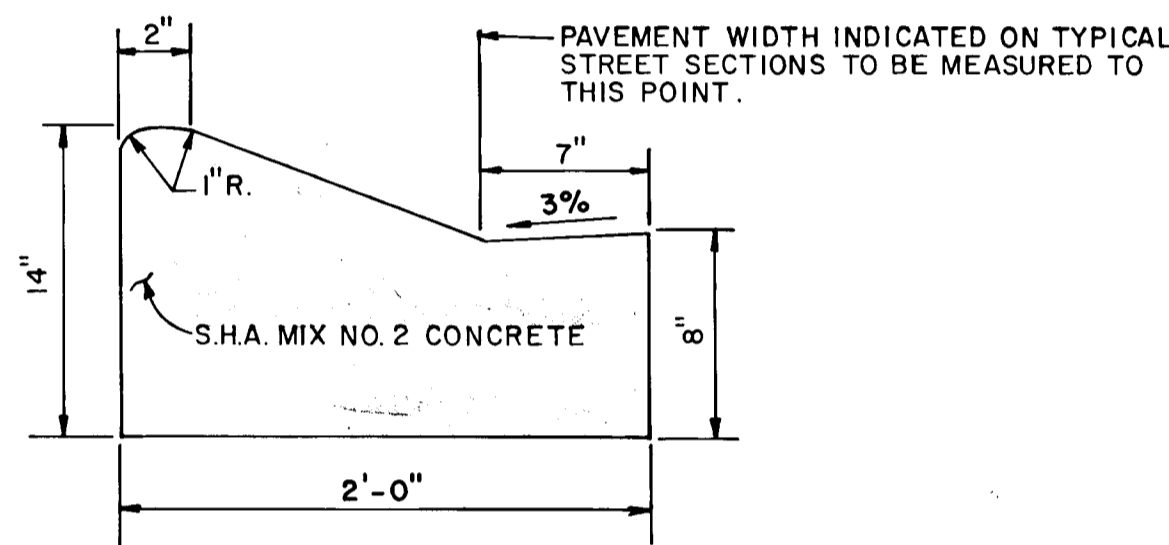
MACADAM WALKWAY DETAIL



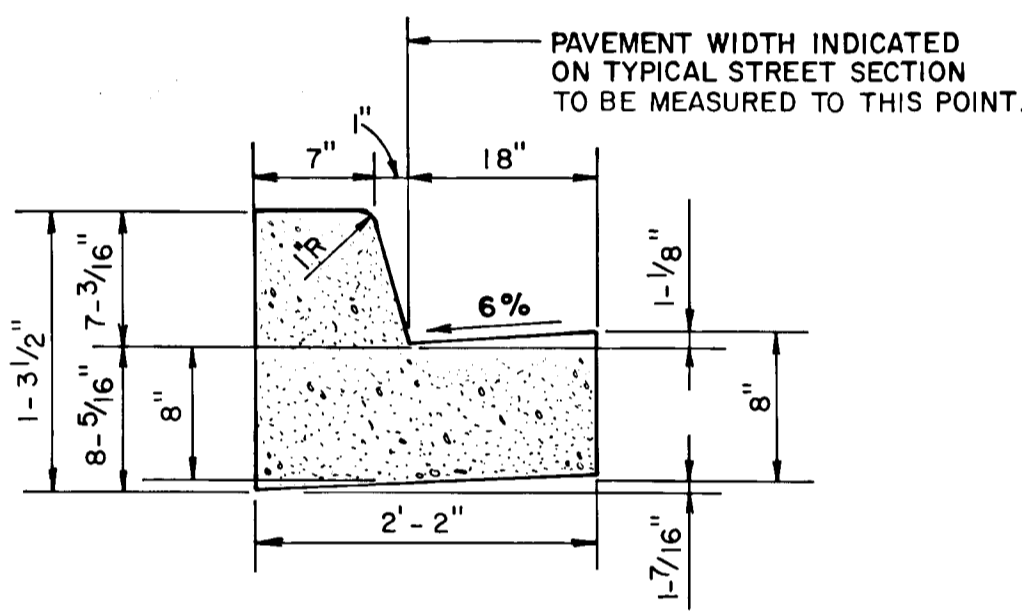
GRASS CHANNEL DETAIL @ OUTFALL S-2



CURB TRANSITION DETAIL



MODIFIED COMBINATION CURB AND GUTTER



STANDARD 7" COMB. CONC. CURB & GUTTER

APPROVED DEPARTMENT OF PUBLIC WORKS
 [Signature] 3-18-87
 CHIEF, BUREAU OF ENGINEERING

APPROVED OFFICE OF PLANNING AND ZONING
 [Signature] 3-16-87
 AND ZONING ADMINISTRATION

VILLAGE OF KING'S CONTRIVANCE
 SECTION 5 AREA 2
 LOTS 1-68
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

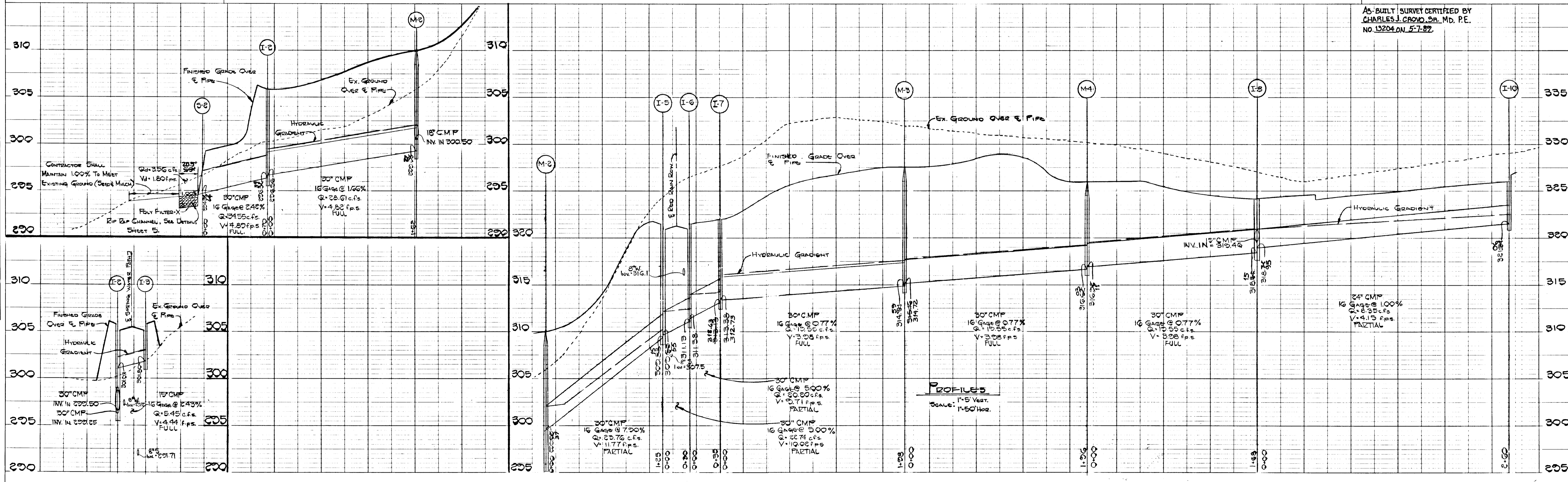
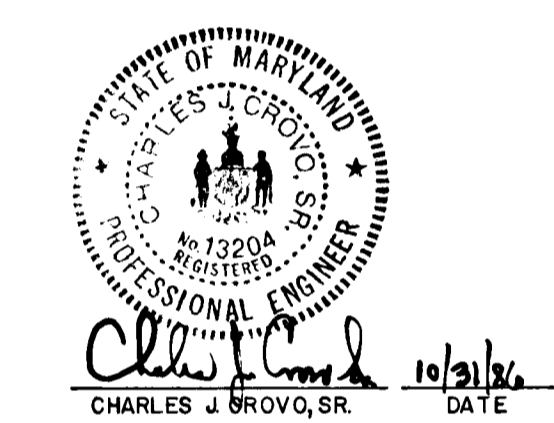
ROADWAY SECTIONS & DETAILS AND STORM DRAIN PROFILES

OWNER AND DEVELOPER
 THE HOWARD RESEARCH AND DEVELOPMENT LAND COMPANY
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044

SCALE AS SHOWN DATE OCT. 31, 1986 DWG. NO. 5 OF 8
 DES. D. VANDE RYT DRN. D. NEWTON CHK. C. J. CROVO

FISHER, COLLINS AND CARTER, INC.
 CIVIL ENGINEERS AND LAND SURVEYORS
 8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043

AS-BUILT SURVEY CERTIFIED BY
 CHARLES J. CROVO, SR., MD. P.E.
 NO. 19204 ON 5-7-89



DATE
 BY
 SURVEYED
 PLOTTED
 ALIGNMENT CHECKED
 RT. OF WAY CHECKED

PLAN
 NOTE BOOK NO.
 APPROVED
 DEPARTMENT OF PUBLIC WORKS
 [Signature] 3-18-87
 CHIEF, BUREAU OF ENGINEERING

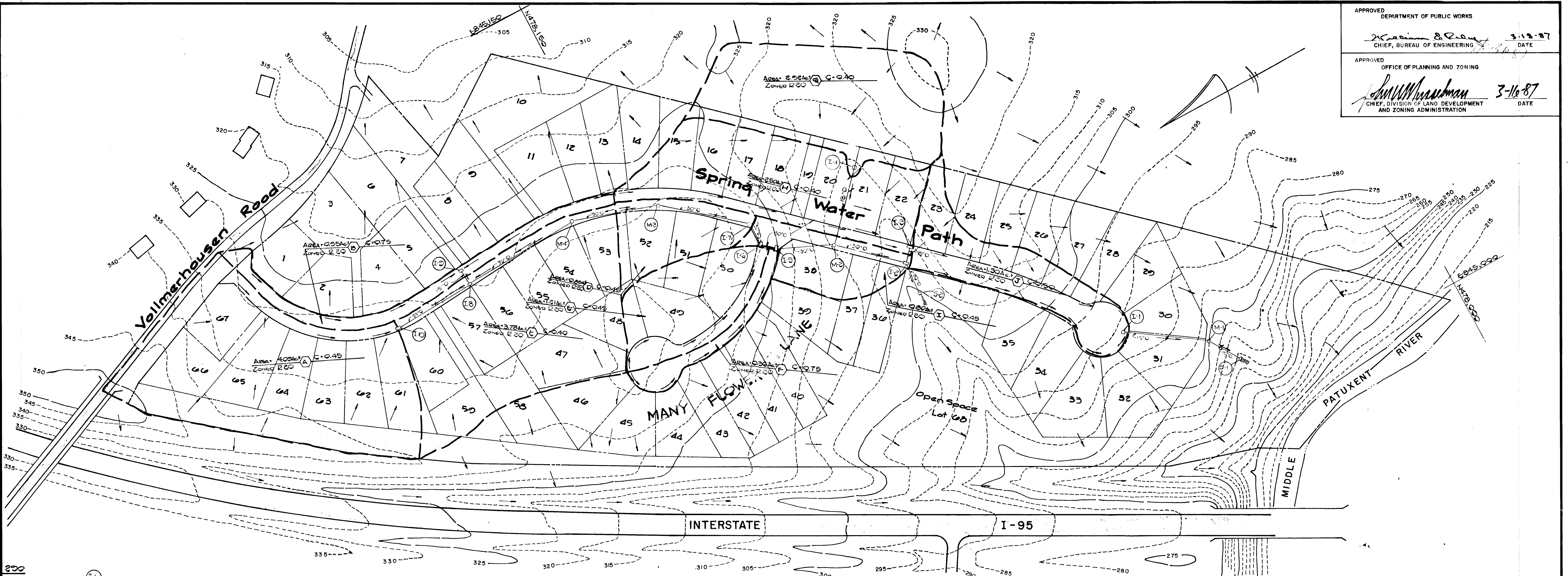
DATE
 BY
 SURVEYED
 PLOTTED
 GRADES CHECKED
 STRUCTURE NOTATIONS CHECKED

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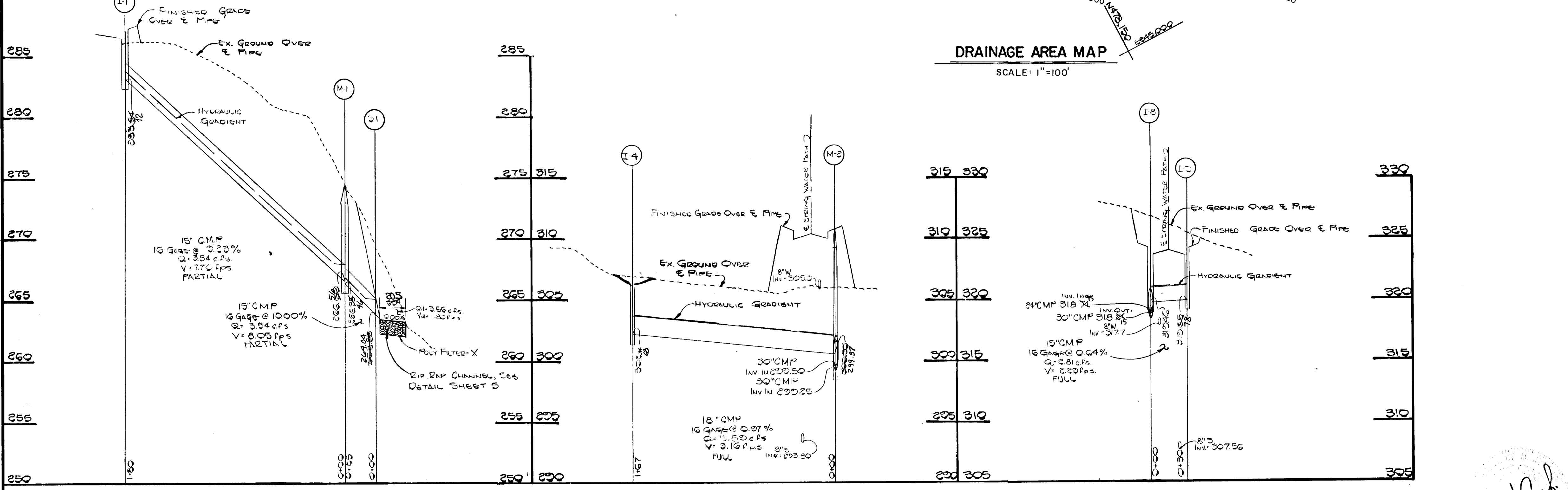
AS-BUILT 5-7-89

APPROVED
 DEPARTMENT OF PUBLIC WORKS
William R. ... 3-12-87
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED
 OFFICE OF PLANNING AND ZONING
William ... 3-16-87
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE



DRAINAGE AREA MAP
 SCALE: 1"=100'



PROFILES
 SCALE: 1"=5' Vert.
 1"=50' Hor.

STRUCTURE SCHEDULE						
NO.	TYPE	INVERT IN	INVERT OUT	TOP ELEVATION	STATION	REMARKS
I-1	A-5	---	283.24	287.18	1+42.25 L.P.	DRWG. SD 4.01
I-2	A-5	291.07	296.34	305.84	18+33-38' 14+28.5'	Spring Water Path DRWG. SD 4.01
I-3	A-10	---	301.80	305.34	16+29-26' 11.27'	Spring Water Path DRWG. SD 4.02
I-4	"H" Inlet	---	302.86	307.08	---	DRWG. SD 4.11
I-5	A-5 w/ deflectors	309.84	309.38	321.56	0+43	Red Rain Row DRWG. SD 4.01
I-6	A-5 w/ deflectors	311.38	311.13	321.50	0+43	Red Rain Row DRWG. SD 4.01
I-7	A-5 w/ deflectors	313.35	313.17	322.84	12+92.97'	Spring Water Path DRWG. SD 4.01
I-8	A-10	318.45	318.21	324.04	8+00	Spring Water Path DRWG. SD 4.02
I-9	A-5	---	319.56	324.04	7800' 4+99.5'	Spring Water Path DRWG. SD 4.01
I-10	Double "S" comb. depressed	---	321.34	326.84	4+39-19' 4+18.5'	Spring Water Path DRWG. SD 4.34
M-1	Standard Manhole	266.88	266.38	274.81	---	DRWG. G 5.01
M-2	Standard Manhole	300.80	299.28	310.80	14+72-44' 14+73.5'	Spring Water Path DRWG. G 5.02
M-3	Standard Manhole	315.16	314.84	327.25	10+87-50' 10+90.28'	Spring Water Path DRWG. G 5.02
M-4	Standard Manhole	316.38	316.83	325.81	8+79' 8+77'	Spring Water Path DRWG. G 5.02
S-1	Standard Metal End Section	---	263.84	265.35	---	DRWG. SD 5.61
S-2	Standard Metal End Section	---	293.84	296.51	10+04	DRWG. SD 5.61

Charles ...

DRAINAGE AREA MAP AND STORM DRAIN PROFILES
VILLAGE OF KING'S CONTRIVANCE

SECTION 5 AREA 2
 LOTS 1-60

OWNER AND DEVELOPER:

THE HOWARD RESEARCH AND DEVELOPMENT LAND COMPANY
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044

AS-BUILT SURVEY CERTIFIED BY
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 NO. 13204, ON 5-7-87

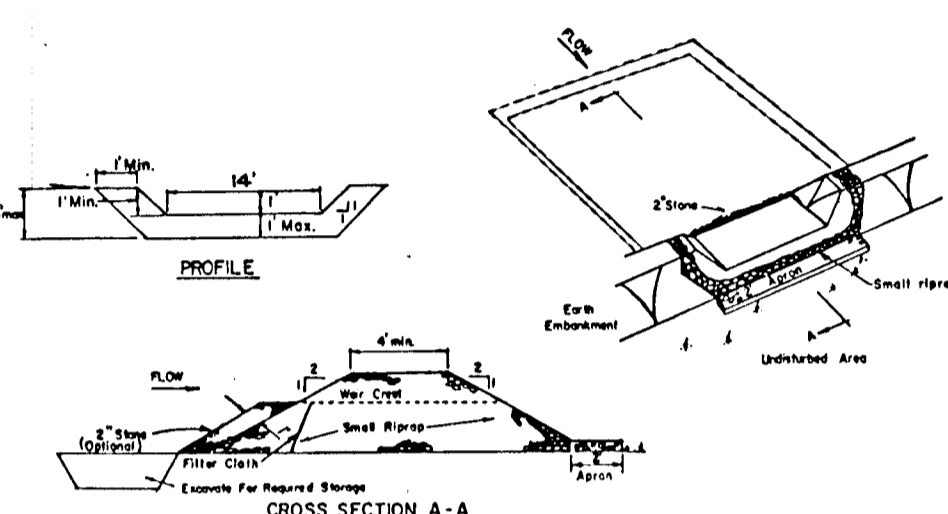
6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN
 OCTOBER 31, 1986
 SHEET 6 OF 8

FISHER, COLLINS, AND CARTER, INC.
 CIVIL ENGINEERS AND LAND SURVEYORS
 8388 COURT AVENUE
 ELLICOTT CITY, MARYLAND 21043
 TELEPHONE (301) 461-2855

CONSTRUCTION SEQUENCE:

1. OBTAIN GRADING PERMIT.
2. CONSTRUCT STONE CONSTRUCTION ENTRANCE.
3. CONSTRUCT SEDIMENT TRAPS AND INSTALL STRAW BALE DIKES.
4. CONSTRUCT STORM DRAIN SYSTEMS AND INSTALL INLET PROTECTION DEVICES.
5. GRADE ROADS TO SUBGRADE STABILIZING SLOPE AREAS BETWEEN EXISTING GROUND AND BACK OF CURB USING PERMANENT SEEDING.
6. CONSTRUCT CONCRETE CURB AND LAY BASE COURSE.
7. UPON STABILIZATION OF GRADED AREAS, INLETS SHALL BE OPENED AND ALL ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE STORM DRAIN SYSTEM.
8. DURING CONSTRUCTION, SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT TRAPS WHEN THE CLEANOUT ELEVATION HAS BEEN REACHED.
9. DURING CONSTRUCTION AND AFTER EACH RAINFALL, THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON.
10. REMOVE STONE CONSTRUCTION ENTRANCE.
11. CLEAN BASE COURSE, APPLY TACK COAT TO BASE COURSES AND LAY SURFACE COURSE. STABILIZE ALL SHOULDERS USING PERMANENT SEEDING.
12. UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT TRAPS AND STRAW BALE DIKES ONCE DISTURBED AREAS HAVE BEEN STABILIZED.
13. ALL DISTURBED AREAS DUE TO REMOVAL OF SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED BY PERMANENT SEEDING.
14. CONSTRUCT REMAINING STORM DRAIN SYSTEM DUE TO LOCATION OF SEDIMENT TRAPS AND INSTALL RIP RAP CHANNELS. STABILIZE ALL DISTURBED AREAS WITH PERMANENT SEEDING.
15. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCH PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1; b) 14 DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

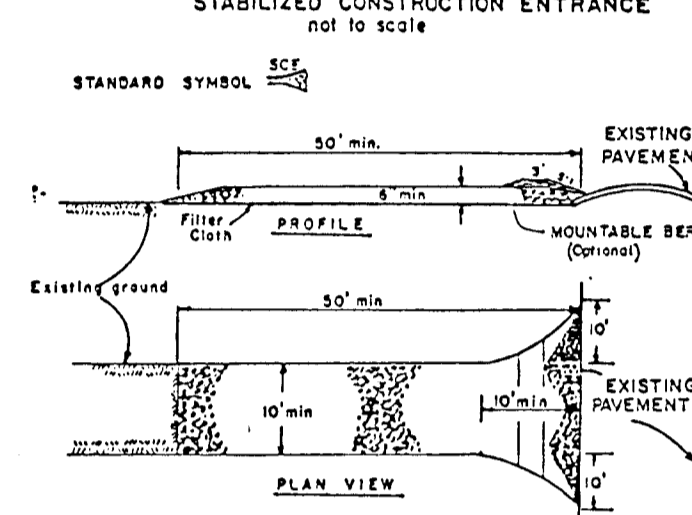
STONE OUTLET SEDIMENT TRAP



OPTION: A one foot layer of 2" stone may be placed on the upstream side of the riprap in place of the embedded filter cloth.

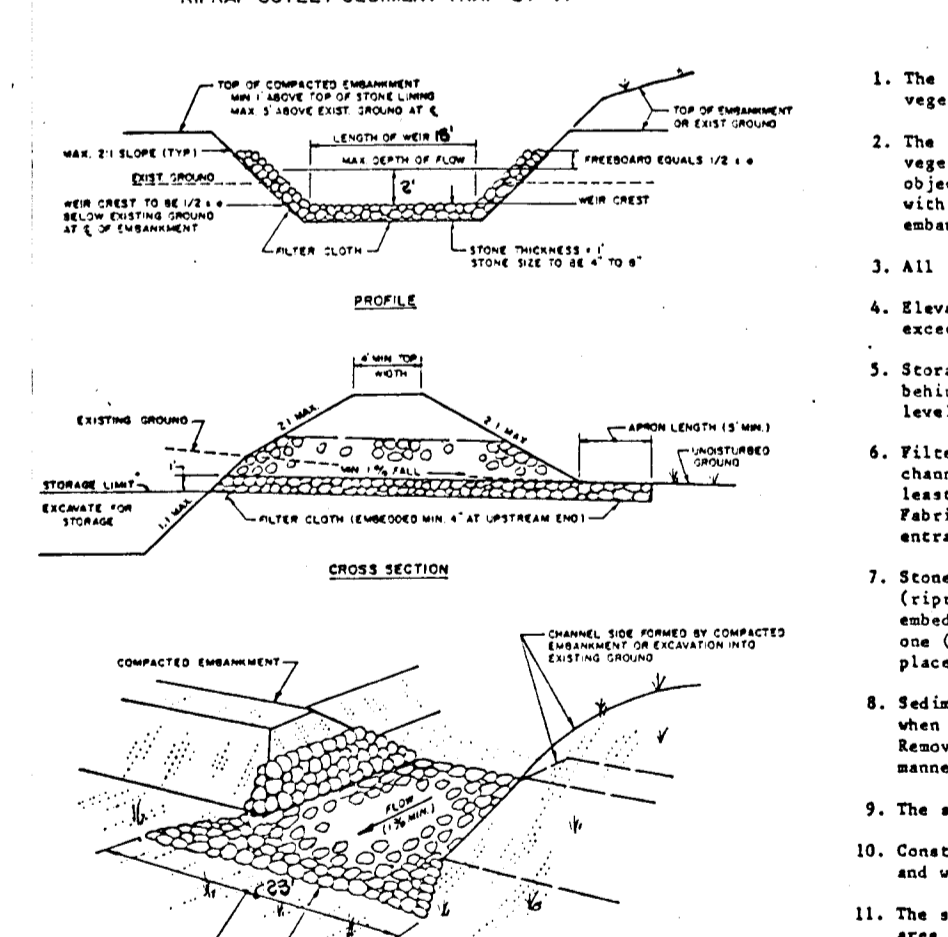
- CONSTRUCTION SPECIFICATIONS FOR ST-V**
1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
 2. The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
 3. All cut and fill slopes shall be 2:1 or flatter.
 4. The stone used in the outlet shall be small riprap 4"-8" along with a 1" thickness of 2" aggregate placed on the upgrade side on the small riprap on embedded filter cloth in the riprap.
 5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 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.

STABILIZED CONSTRUCTION ENTRANCE



- CONSTRUCTION SPECIFICATIONS**
1. Stone Size - One 3" stone or related or recycled concrete equivalent.
 2. Length - As required, but not less than 10 feet (except on a slight residence lot where a 30 foot minimum length would apply).
 3. Thickness - Not less than six (6) inches.
 4. Width - Ten (10) foot minimum, but not less than the full width as indicated hereon or as required.
 5. Filter Cloth - Will be placed over the entire area prior to placing of stone filter will not be required on a slight facility residence lot.
 6. Surface Water - All surface water (flowing or diverted toward construction entrance) shall be piped across the entrance. If piping is impractical, a suitable berm with 3:1 slopes will be permitted.
 7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanup of any materials used to trap sediment. All sediment applied, dropped, washed or tracked onto public rights-of-way must be removed immediately.
 8. Washing - Washing shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
 9. Periodic inspection and needed maintenance shall be provided after each rain.

RIPRAP OUTLET SEDIMENT TRAP ST-VI



STONE AND RIPRAP CHANNELS, AS PER TABLE 17-1 CHANNELS MAY BE PLACED UP TO 10' FROM THE ENTRANCE.

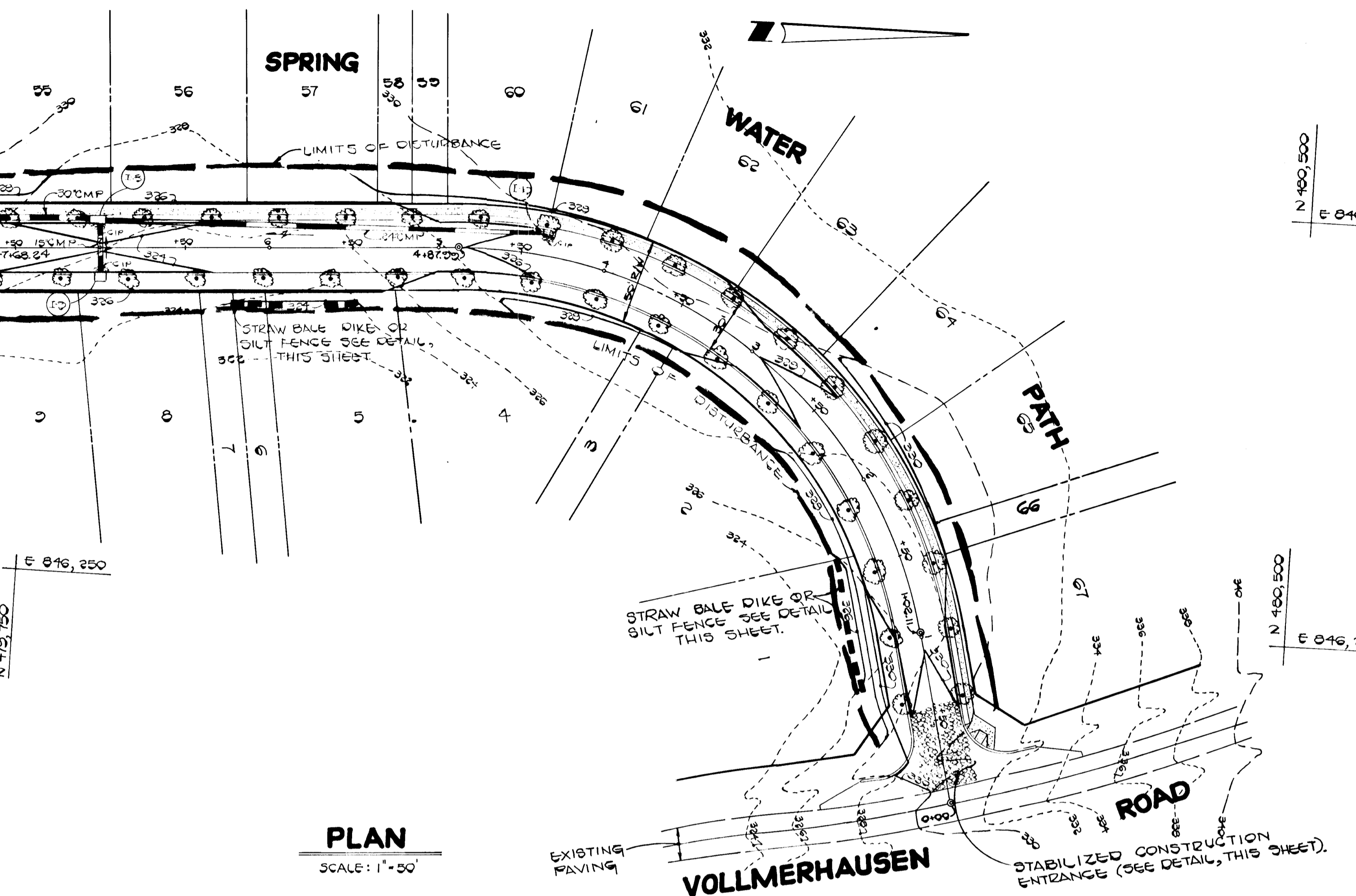
- CONSTRUCTION NOTES FOR PREPARED SILT FENCE**
1. Make wire fence to be fastened securely to stake posts with wire ties or staples.
 2. Filter cloth to be fastened securely to stake posts with wire ties or staples.
 3. When top sections of filter cloth have been installed they shall be overlapped by six inches and fastened.
 4. Maintenance shall be performed as needed to maintain the silt fence.



NOTE: CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND UTILITIES PRIOR TO DIGGING. FINAL LOCATIONS OF TREES MAY BE ADJUSTED SLIGHTLY TO ACCOMMODATE FIELD CONDITIONS. PLANTING PROCEDURES SHALL COMPLY WITH "LANDSCAPE SPECIFICATIONS FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS". SUBSTITUTIONS TO THE ABOVE SPECIES MAY BE PERMITTED, PROVIDED THAT THE PLANTING IS IN ACCORDANCE WITH THE STREET TREE AND LANDSCAPE REQUIREMENTS AS SPECIFIED IN SECTION 16.131 OF THE HOWARD COUNTY SUBDIVISION REGULATIONS.

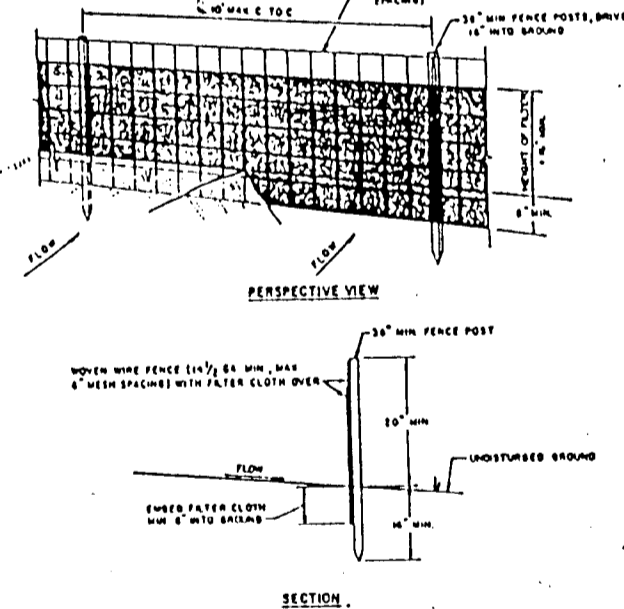
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERS & LAND SURVEYORS
 8000 COURT AVENUE
 ELWIGG CITY, MARYLAND 21043
 TELEPHONE (301) 461-2855

MATCH LINE SEE SHEET &



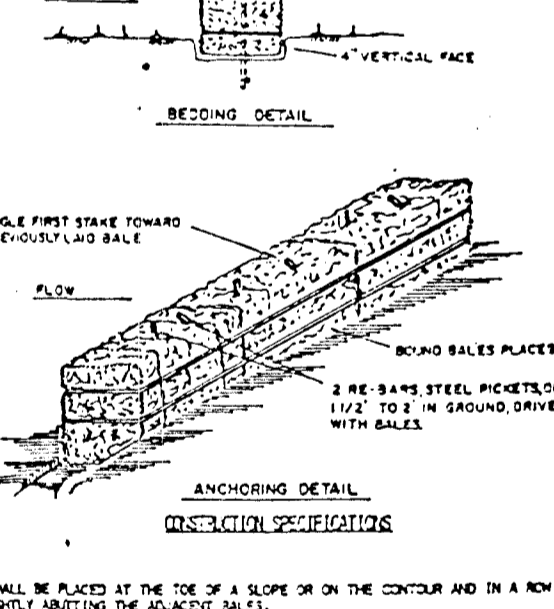
PLAN
 SCALE: 1" = 50'

SILT FENCE



- CONSTRUCTION NOTES FOR PREPARED SILT FENCE**
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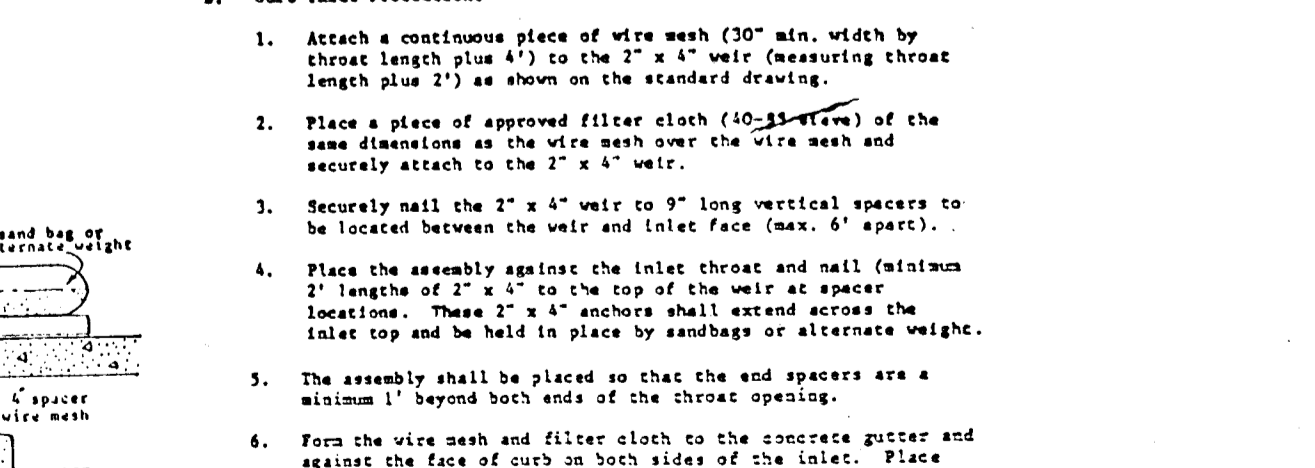
STRAW BALE DIKE



- CONSTRUCTION SPECIFICATIONS**
1. Bales shall be placed at the toe of a slope on the contour and in a row with ties tightly knitting the adjacent bales.
 2. Each bale shall be pressed in the soil a minimum of (8) inches, and placed so the binding are horizontal.
 3. Bales shall be securely anchored in place by three (3) rows of rebar driven through the bales. The first row in each row shall be driven through the dike and the second row shall be driven through the soil.
 4. Inspection shall be provided and repair replacement shall be made promptly as needed.
 5. Bales shall be removed when they have served their usefulness so as not to block or impede storm flow or drainage.

STREET TREES:
 THE LOCATIONS, TYPE AND NUMBER OF TREES SHOWN ON THESE PLANS ARE TENTATIVE AND ARE USED FOR BOND PURPOSES ONLY. THE FINAL LOCATION AND VARIETY OF TREES MAY VARY TO ACCOMMODATE FIELD CONDITIONS AND BUILDERS LANDSCAPE PROGRAM. BOND RELEASE IS CONTINGENT UPON SECTION 16.131 OF THE HOWARD COUNTY SUBDIVISION REGULATIONS, AS APPROVED BY THE OFFICE OF PLANNING AND ZONING.

- CONSTRUCTION SPECIFICATIONS**
1. Make wire fence to be fastened securely to stake posts with wire ties or staples.
 2. Filter cloth to be fastened securely to stake posts with wire ties or staples.
 3. When top sections of filter cloth have been installed they shall be overlapped by six inches and fastened.
 4. Maintenance shall be performed as needed to maintain the silt fence.



- Curb Inlet Protection**
1. Attach a continuous piece of wire mesh (30" min. width by throat length plus 4") to the 2" x 4" weir (measuring throat length plus 2") as shown on the standard drawing.
 2. Place a piece of approved filter cloth (10-25 mesh) of the same dimensions as the wire mesh over the wire mesh and securely attach to the 2" x 4" weir.
 3. Securely nail the 2" x 4" weir to 9" long vertical spacers to be located between the weir and inlet face (max. 8" apart).
 4. Place the assembly against the inlet throat and nail (minimum 2" length of 2" x 2" on the top of the weir at spacer locations). These 2" x 4" anchors shall extend across the inlet top and be held in place by anchors or alternate weights.
 5. The assembly shall be placed so that the end spacers are a minimum 1" beyond both ends of the throat opening.
 6. Form the wire mesh and filter cloth to the concrete gutter and against the face of curb on both sides of the inlet. Place 1/2" stone over the wire mesh and filter cloth in such a manner as to prevent water from entering the inlet under or around the filter cloth.
 7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
 8. Assure that storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow into inlet.

ENGINEER'S CERTIFICATE
 I HEREBY 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 OF ENGINEER: *Charles R. Smith* DATE: 10/31/86

DEVELOPER'S CERTIFICATE
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."
 SIGNATURE OF DEVELOPER: _____ DATE: 10-31-86

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
 U.S. SOIL CONSERVATION DISTRICT DATE: 11-3-86

APPROVED: DEPARTMENT OF PUBLIC WORKS
 DISTRICT HOWARD SOIL CONSERVATION DISTRICT DATE: _____
 APPROVED: DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF ENGINEERING DATE: 3-18-87

APPROVED: OFFICE OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE: 3-16-87

- SEDIMENT CONTROL NOTES:**
- 1) A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (892-2437).
 - 2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND STANDARD, AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 - 3) FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
 - 4) ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
 - 5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. 52), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
 - 6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
 - 7) SITE ANALYSIS:
 TOTAL AREA OF SITE: 39.14 ACRES
 AREA DISTURBED: 7.14 ACRES
 AREA TO BE ROOFED OR PAVED: 3.28 ACRES
 AREA TO BE VEGETATIVELY STABILIZED: 3.86 ACRES
 TOTAL CUT: _____ CU. YDS.
 TOTAL FILL: _____ CU. YDS.
 - 8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
 - 9) ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
 - 10) ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER 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.

STREET TREE, GRADING & SEDIMENT CONTROL PLAN
VILLAGE OF KING'S CONTRIVANCE
 SECTION 5 AREA 2
 LOTS 1-60
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN OCTOBER 31, 1986
 SHEET 7 OF 8

OWNER AND DEVELOPER:
 THE HOWARD RESEARCH AND DEVELOPMENT LAND COMPANY
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044

Charles R. Smith

ENGINEER'S CERTIFICATE
 I HEREBY 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.
 APPROVED: Charles A. Carter 10/31/86
 SIGNATURE OF ENGINEER DATE

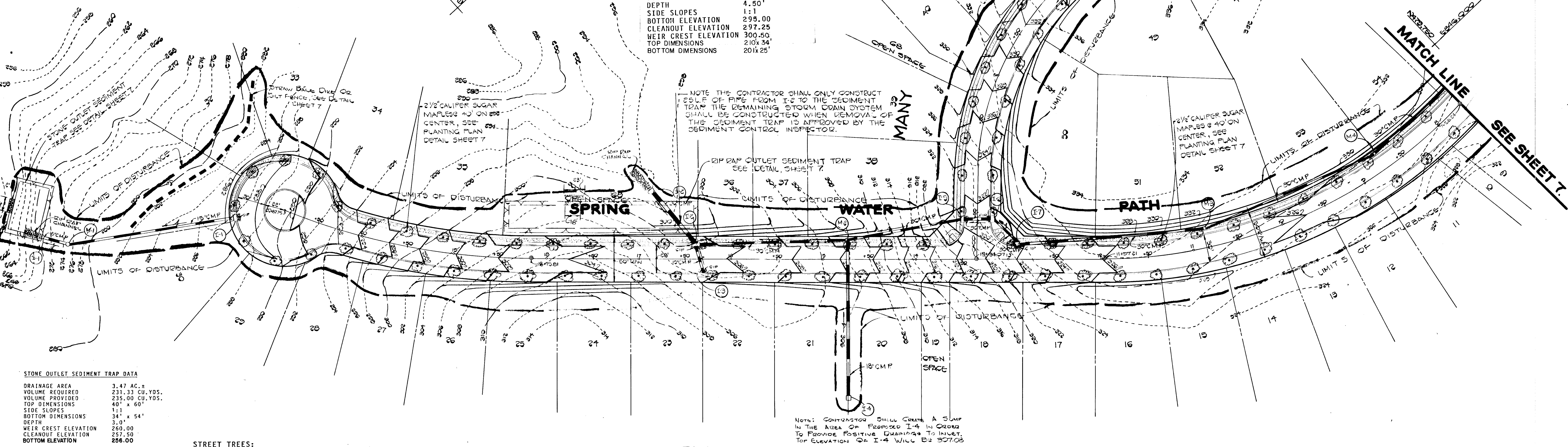
DEVELOPER'S CERTIFICATE
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."
 APPROVED: Henry B. Miller 10-31-86
 SIGNATURE OF DEVELOPER DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
 U.S. SOIL CONSERVATION DISTRICT DATE
 THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: John R. [Signature] 3/10/87
 DISTRICT HOWARD SOIL CONSERVATION DISTRICT DATE
 APPROVED: DEPARTMENT OF PUBLIC WORKS
William R. [Signature] 3-18-87
 CHIEF, BUREAU OF ENGINEERING DATE
 APPROVED: OFFICE OF PLANNING AND ZONING
John W. [Signature] 3-16-87
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

RIP RAP OUTLET SEDIMENT TRAP DATA

DRAINAGE AREA	14.95 AC. ±
VOLUME REQUIRED	997.00 CU. YDS.
VOLUME PROVIDED	1014.00 CU. YDS.
DEPTH	4.50'
SIDE SLOPES	1:1
BOTTOM ELEVATION	295.00
CLEANOUT ELEVATION	297.25
WEIR CREST ELEVATION	300.50
TOP DIMENSIONS	210' x 34'
BOTTOM DIMENSIONS	20' x 25'

NOTE THE CONTRACTOR SHALL ONLY CONSTRUCT 25' OF PIPE FROM I-2 TO THE SEDIMENT TRAP. THE REMAINING STORM DRAIN SYSTEM SHALL BE CONSTRUCTED WHEN REMOVAL OF THE SEDIMENT TRAP IS APPROVED BY THE SEDIMENT CONTROL INSPECTOR.



STONE OUTLET SEDIMENT TRAP DATA

DRAINAGE AREA	3.47 AC. ±
VOLUME REQUIRED	231.33 CU. YDS.
VOLUME PROVIDED	235.00 CU. YDS.
TOP DIMENSIONS	40' x 60'
SIDE SLOPES	1:1
BOTTOM DIMENSIONS	34' x 54'
DEPTH	3.0'
WEIR CREST ELEVATION	260.00
CLEANOUT ELEVATION	257.50
BOTTOM ELEVATION	256.00

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PLAN
 SCALE: 1"=50'

NOTE: CONTRACTOR SHALL CONSTRUCT A JUMP IN THE AREA OF PROPOSED I-4 IN ORDER TO PROVIDE POSITIVE DRAINAGE TO INLET. TOP ELEVATION OF I-4 WILL BE 307.00

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERS & LAND SURVEYORS
 8289 COURT AVE.
 ELUGOTT CITY, MARYLAND 21043
 TELEPHONE: (301) 761-2555

Charles A. Carter

OWNER AND DEVELOPER:
 THE HOWARD RESEARCH AND DEVELOPMENT LAND COMPANY
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044

STREET TREE, GRADING & SEDIMENT CONTROL PLAN
VILLAGE OF KING'S CONTRIVANCE
 SECTION 5 AREA 2
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 SCALE: AS SHOWN OCTOBER 31, 1986
 SHEET 8 OF 8