

# BRIDGEWATER

## SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

### SECTION 1 AREA 2

APPROVED DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 4-10-83  
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED OFFICE OF PLANNING AND ZONING  
*[Signature]* 5/2/83  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 5-2-83  
 CHIEF, LAND DEVELOPMENT DIVISION DATE

*[Signature]* 4-17-83  
 CHIEF, BUREAU OF HIGHWAYS DATE

**GENERAL NOTES**

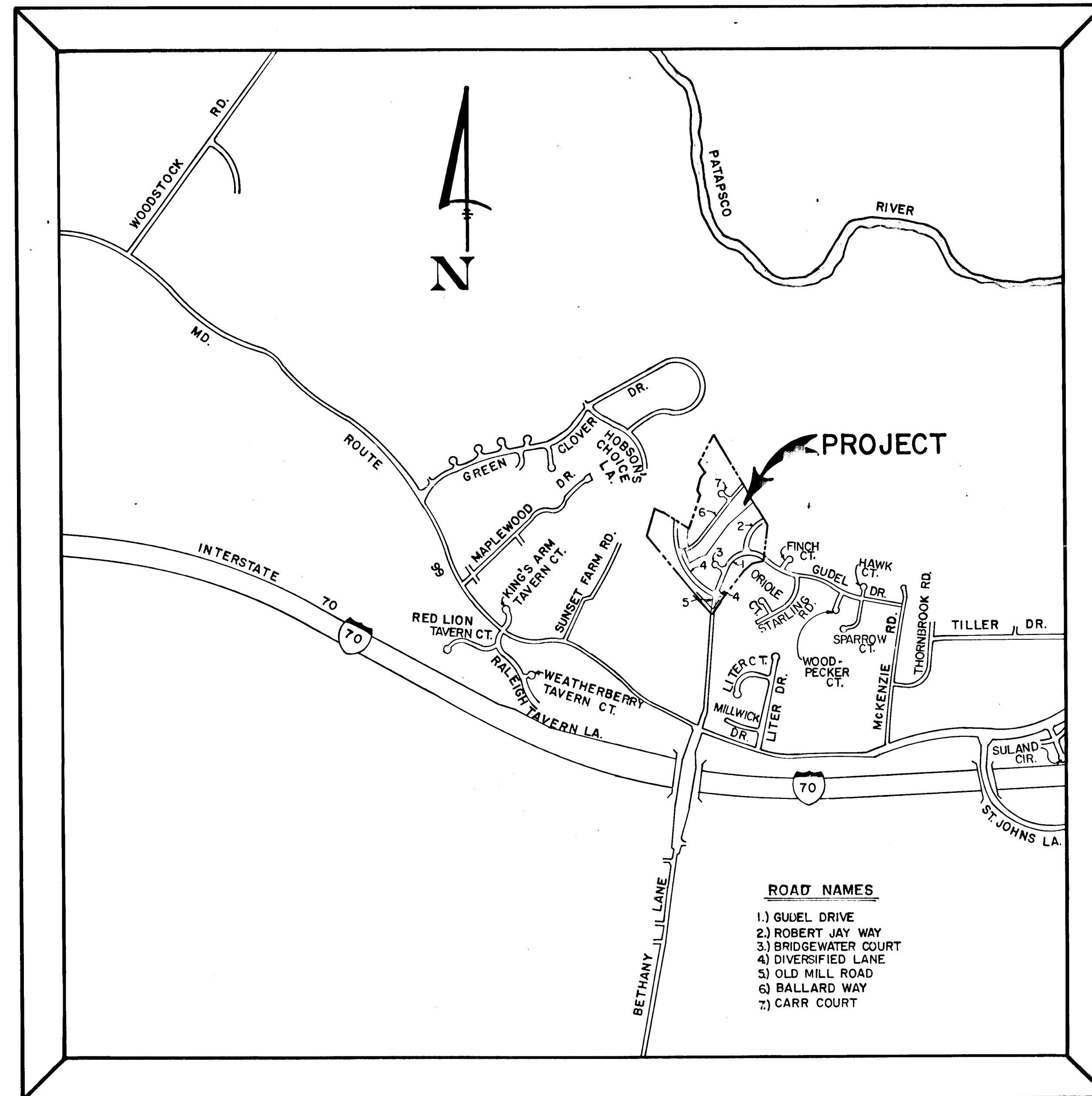
- 1.) ALL WORK SHALL BE DONE IN ACCORDANCE WITH HOWARD COUNTY STANDARDS, SPECIFICATIONS, AND DETAILS FOR CONSTRUCTION
- 2.) ALL UTILITY COMPANIES MUST BE NOTIFIED 24 HOURS IN ADVANCE OF ANY CONSTRUCTION
- 3.) ALL INLETS SHALL BE HOWARD COUNTY STANDARDS UNLESS OTHERWISE SHOWN ALL "A" INLETS SHALL BE DEPRESSED.
- 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, CURRENT REVISED EDITION.
- 8.) THE GRADING INDICATED HEREON IS FOR ROAD CONSTRUCTION ONLY. FUTURE GRADING FOR DEVELOPMENT PURPOSES WILL NOT CREATE LOTS LESS THAN THE MINIMUM LOT SIZE ALLOWED AS DEFINED IN ZONING REGULATIONS SECTION 103. A. 67.

**BENCH MARKS**

**B. M. #1** ELEV. = 473.60  
 TRAVERSE STATION "R-102", 1/2" REBAR SET APPROXIMATELY 36' OFF OF THE REAR LOT LINE IN LOT NUMBER 43 OF BRIDGEWATER, SECTION I AREA 1. FOR LOCATION SEE SHEET 4.

**B. M. #2** ELEV. = 382.79  
 TRAVERSE STATION "R-103", 1/2" REBAR SET APPROXIMATELY 452' OFF OF THE E OF BALLARD WAY IN OPEN SPACE LOT 72. FOR LOCATION SEE SHEET 4.

⊛ Denotes 175 Watt Modern Mercury Vapor Lamp Post Top Fixtures On A 14-Foot Gray Fiberglass Pole Located 2-10' From Back Of Curb At The Following Locations  
 1) E Sta 4+50 Ballard Way North Side.  
 2) Intersection Carr Court And Ballard Way SW Corner.



**VICINITY MAP**  
 SCALE: 1" = 1200'

**ROAD NAMES**

- 1.) GUIDEL DRIVE
- 2.) ROBERT JAY WAY
- 3.) BRIDGEWATER COURT
- 4.) DIVERSIFIED LANE
- 5.) OLD MILL ROAD
- 6.) BALLARD WAY
- 7.) CARR COURT

**INDEX OF SHEETS**

- 1.) TITLE SHEET
- 2.) SMALLWOOD DRIVE - PLAN & PROFILE, CARR COURT - PLAN & PROFILE
- 3.) BALLARD WAY - PROFILE ROADWAY SECTION, DETAILS & NOTES
- 4.) DRAINAGE AREA MAP
- 5.) STORM DRAIN PROFILES
- 6.) STREET TREE, GRADING AND SEDIMENT CONTROL PLAN

THE HORIZONTAL AND VERTICAL CONTROL IS BASED ON THE FOLLOWING HOWARD COUNTY CONTROL STATIONS:  
 344002 N 533573.800  
 E 857783.247  
 3441004-R N 532655.086  
 E 840720.726

AS-BUILT SURVEY CERTIFIED BY  
 CHARLES J. CROVO, L.D. PE. NO. 13204  
 ON NOVEMBER 7, 1990

**OWNER AND DEVELOPER**  
 T.R.I. PROPERTY PARTNERSHIP  
 C/O HOWARD COUNTY LAND SERVICES  
 8307 MAIN STREET  
 ELLICOTT CITY, MARYLAND 21043

*[Signature]*  
 Charles J. Crovo

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

**BALLARD WAY**  
 CURVE DATA  
 STA. 1+15.00 TO STA. 2+97.04  
 R = 250.00'  
 L = 182.04'  
 Δ = 41°43'12"  
 T = 95.27'  
 CHD. = N 65°08'24"E, 178.04'

**BALLARD WAY**  
 CURVE DATA  
 Sta. 8+07.04 To Sta. 8+92.88  
 R = 1760.00'  
 L = 85.84'  
 Δ = 04°43'14"  
 T = 72.54'  
 CHD. = N 46°35'25"E, 144.76'

**BALLARD WAY**  
 CURVE DATA  
 STA. 8+07.04 TO STA. 12+06.98  
 R = 1760.00'  
 L = 399.94'  
 Δ = 13°01'11"  
 T = 200.88'  
 CHD. = N 80°47'24"E, 399.08'



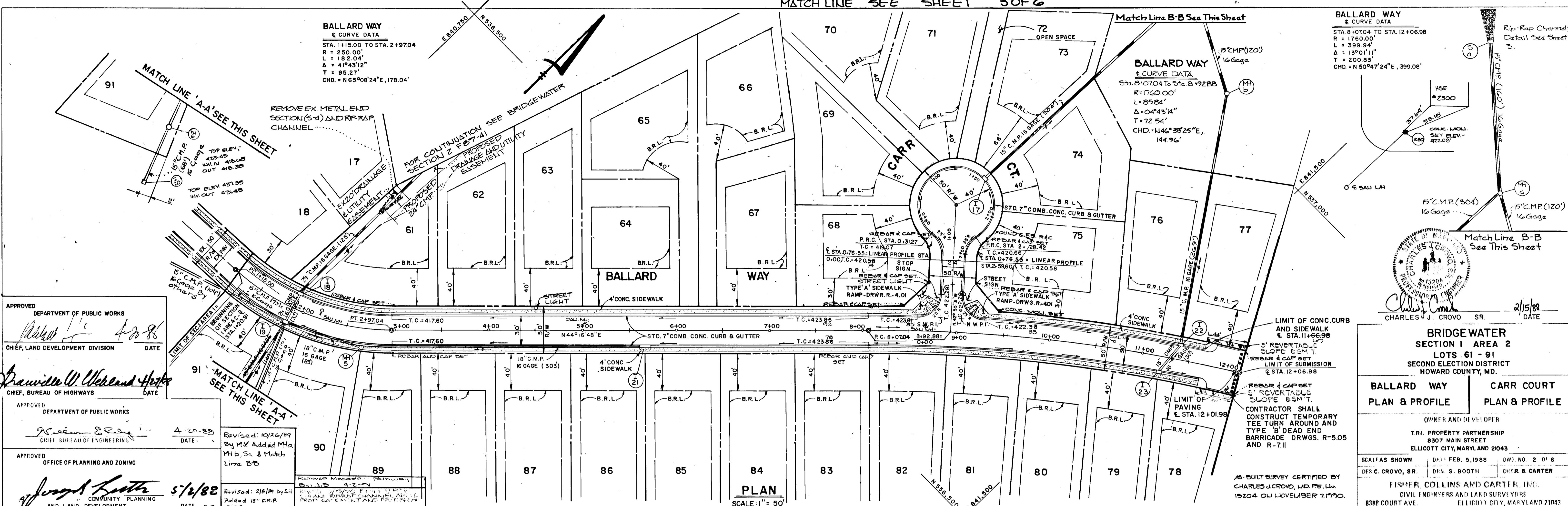
**BRIDGEWAY**  
 SECTION 1 AREA 2  
 LOTS 61 - 91  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MD.

**BALLARD WAY CARR COURT**  
 PLAN & PROFILE PLAN & PROFILE

OWNER AND DEVELOPER  
 T.R. PROPERTY PARTNERSHIP  
 8307 MAIN STREET  
 ELLICOTT CITY, MARYLAND 21043

DESIGNED BY  
 CHARLES J. CROVO, SR.  
 15204 OL LOVELUBER T. RD.

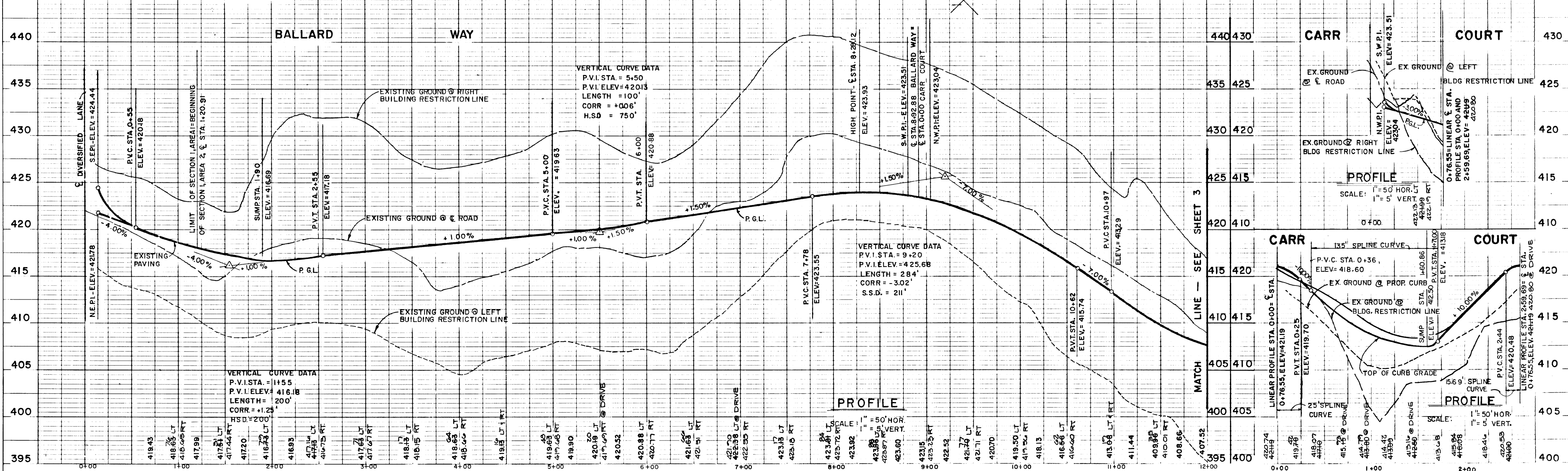
DATE: 2/15/88



APPROVED  
 DEPARTMENT OF PUBLIC WORKS  
 CHIEF, LAND DEVELOPMENT DIVISION  
 DATE: 4-20-88

APPROVED  
 DEPARTMENT OF PUBLIC WORKS  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE: 5/12/88

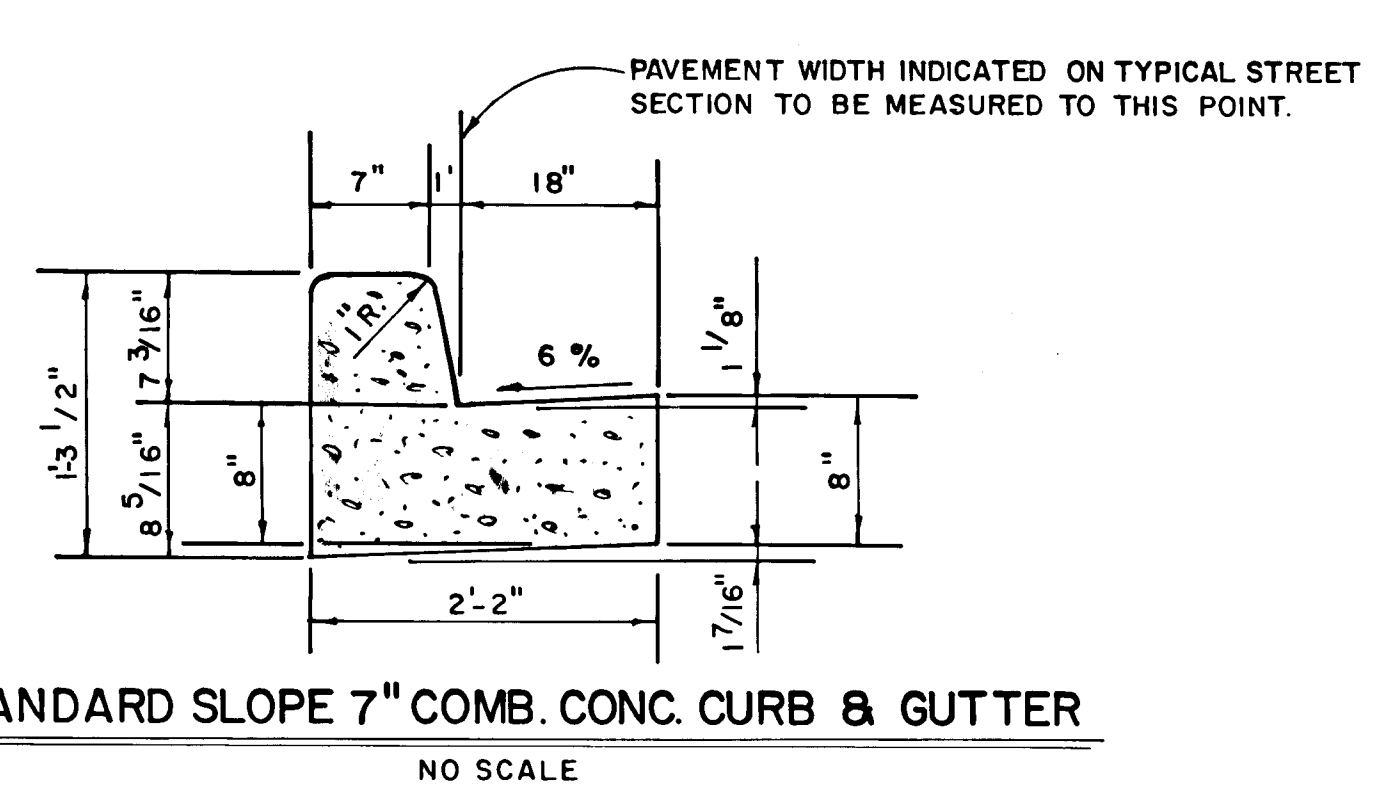
APPROVED  
 OFFICE OF PLANNING AND ZONING  
 COMMUNITY PLANNING AND LAND DEVELOPMENT  
 DATE: 5/12/88



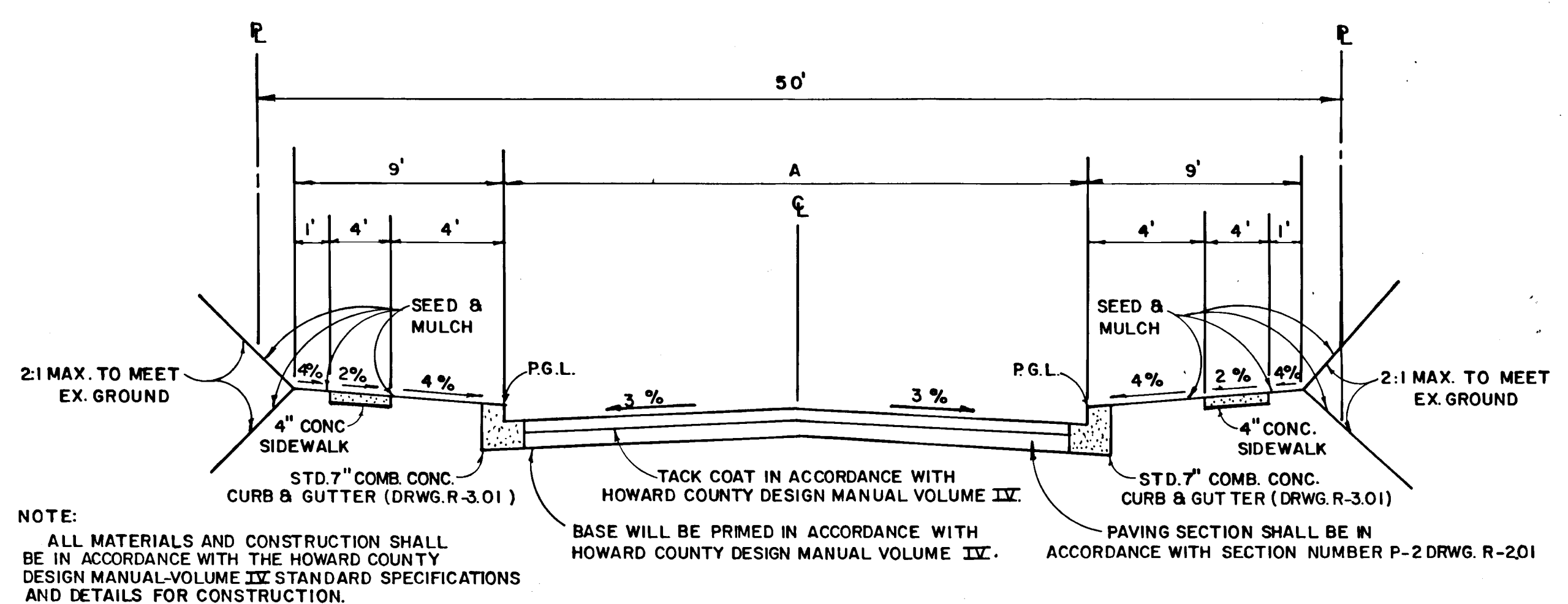
1356



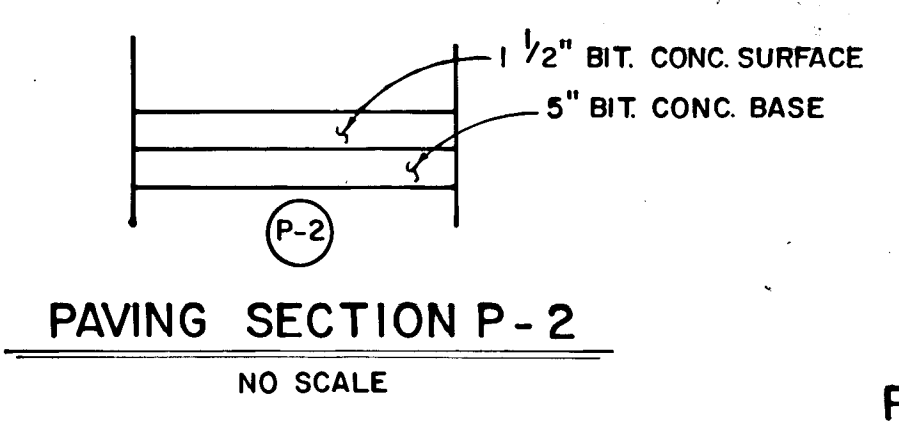
*Handwritten notes at top right of page.*



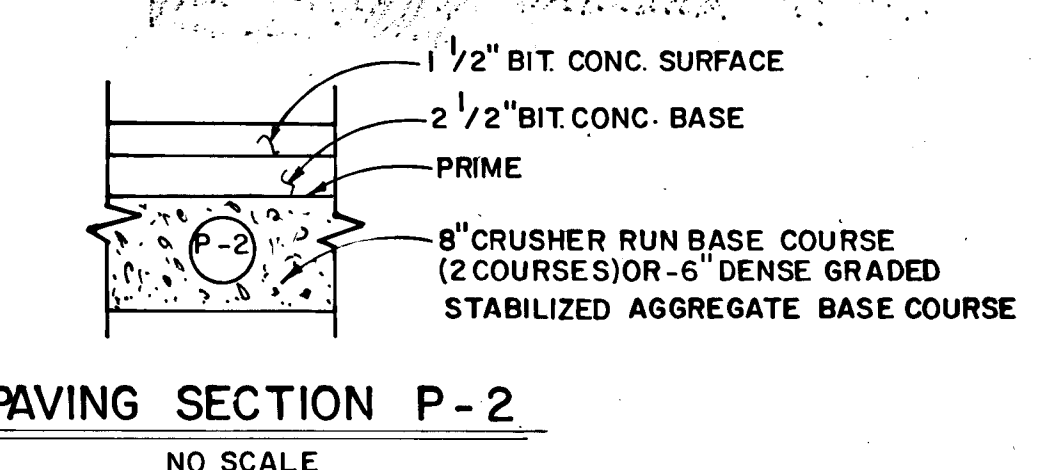
**STANDARD SLOPE 7" COMB. CONC. CURB & GUTTER**  
NO SCALE



**TYPICAL ROADWAY SECTION**  
NO SCALE



**PAVING SECTION P-2**  
NO SCALE



**PAVING SECTION P-2**  
NO SCALE

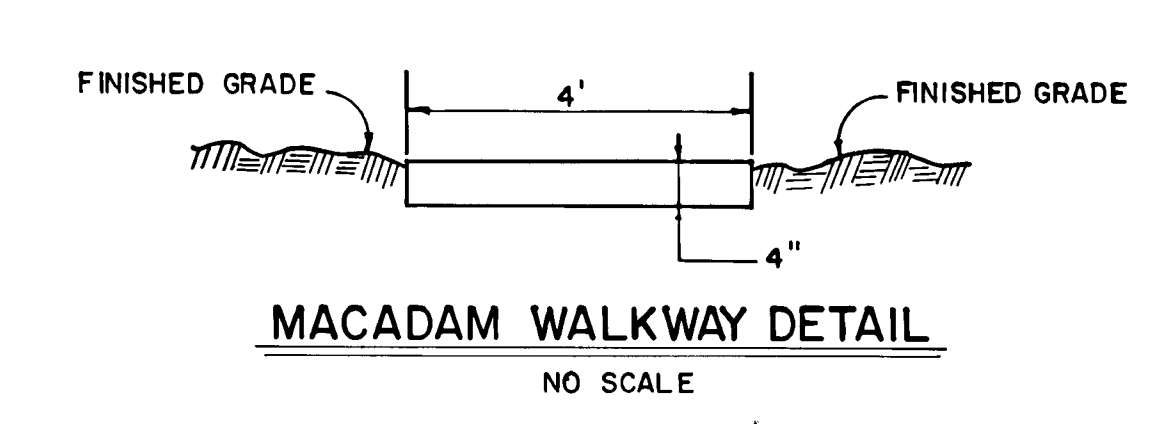
ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	STATION LIMITS	PAVING SECTION
BALLARD WAY	LOCAL ROAD	30 M.P.H.	R-20	1+20.91 TO 11+66.98	P-2
CARR COURT	CUL-DE-SAC	25 M.P.H.	R-20	0+00 TO 0+76.55	P-2

NOTE: ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL-VOLUME IX STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.

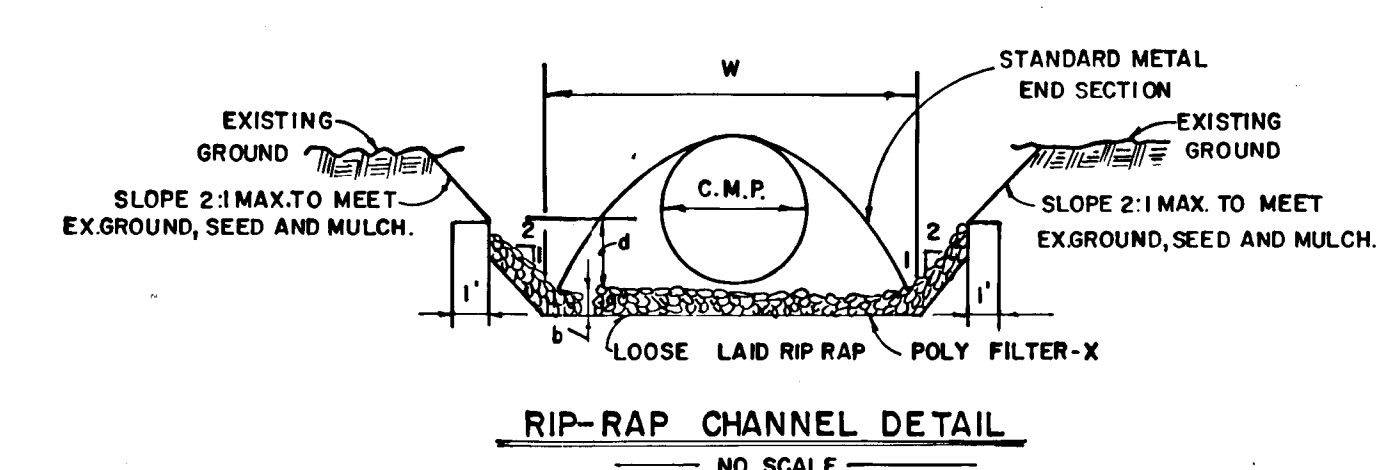
TACK COAT IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IX.

BASE WILL BE PRIMED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IX.

PAVING SECTION SHALL BE IN ACCORDANCE WITH SECTION NUMBER P-2 DRWG. R-201



**MACADAM WALKWAY DETAIL**  
NO SCALE



**RIP-RAP CHANNEL DETAIL**  
NO SCALE

STRUCTURE	A*	P1	R	R 2/3	S	S 1/2	n	Q	V	d	W	RI P-RAP SIZE
S-a	4.13	7.35	.5407	.6788	0.50%	0.707	.04	7.36 cfs	1.78 fps	0.75'	4.0'	6" 9" 14"
S-4	8.20	10.56	.7165	.8091	0.00%	.0000	.04	25.82 cfs	5.11 fps	1.82'	6.0'	6" 9" 14"
S-10	12.56	11.93	1.053	1.035	0.50%	0.707	.04	33.80 cfs	2.73 fps	1.55'	5.0'	6" 9" 14"

APPROVED  
DEPARTMENT OF PUBLIC WORKS  
*[Signature]*  
CHIEF, LAND DEVELOPMENT DIVISION  
DATE

APPROVED  
DEPARTMENT OF PUBLIC WORKS  
*[Signature]*  
CHIEF, BUREAU OF HIGHWAYS  
DATE

APPROVED  
DEPARTMENT OF PUBLIC WORKS  
*[Signature]*  
CHIEF, BUREAU OF ENGINEERING  
DATE

APPROVED  
OFFICE OF PLANNING AND ZONING  
*[Signature]*  
OF COMMUNITY PLANNING AND LAND DEVELOPMENT  
DATE

**BRIDGEWATER**  
SECTION 1 AREA 2  
LOTS 61-91  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, M.D.

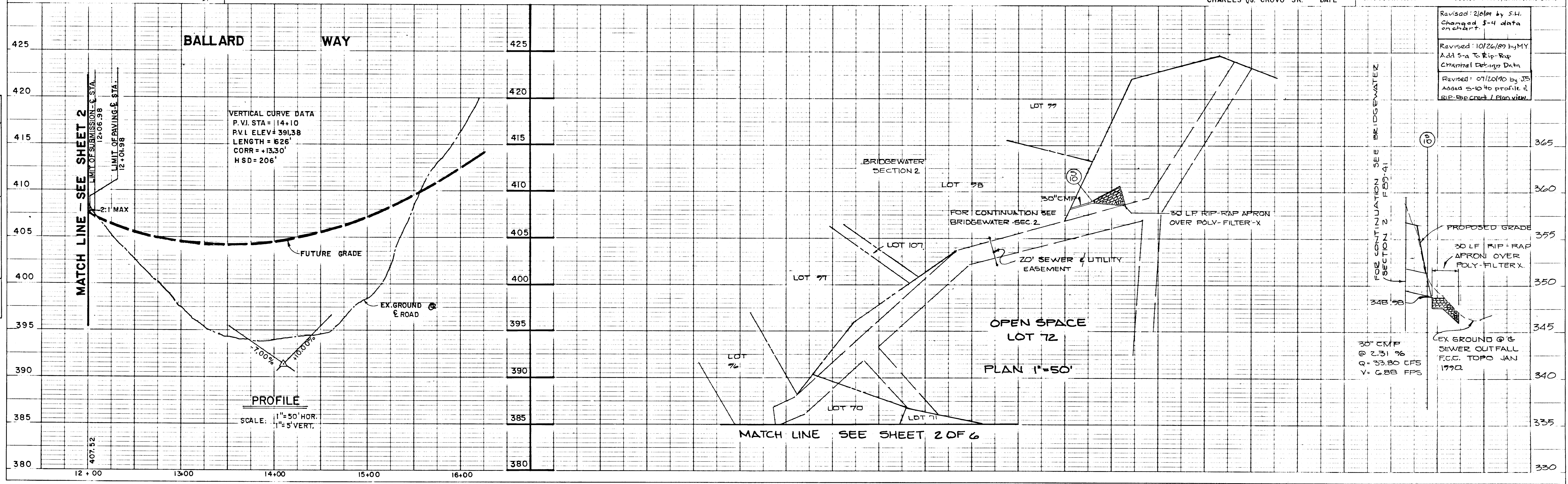
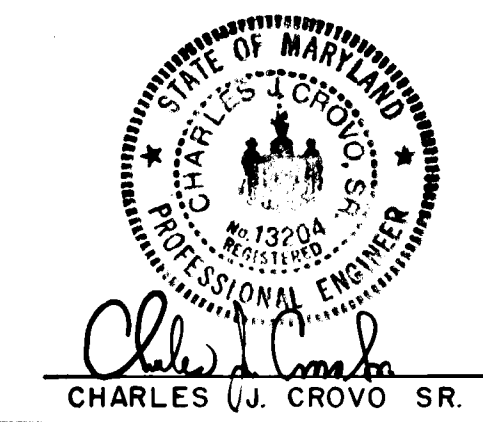
**BALLARD WAY - PROFILE, TYPICAL ROADWAY SECTION, DETAILS AND NOTES**

OWNER AND DEVELOPER  
T.R.I. PROPERTY PARTNERSHIP  
8307 MAIN STREET  
ELLCOTT CITY, MARYLAND 21043

SCALE AS SHOWN  
DATE FEB. 5, 1988  
DWG. NO. 3 OF 6

DESIGNER  
DANN S. BOOTH  
CHK. C. CROVO, SR.

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



Revised: 2/6/89 by S.H. Changed 3-4 data on chart.

Revised: 10/26/89 by M.Y. Add S-a To Rip-Rap Channel Design Data.

Revised: 07/20/90 by J.S. Added S-10 to profile & R.P. BE CRD / Plan view.

FOR CONTINUATION SEE BRIDGEWATER SECTION 2 FB9-41

PROPOSED GRADE  
30 LF RIP-RAP APRON OVER POLY-FILTER-X

EX. GROUND @ F.C.C. TOPO JAN 1990

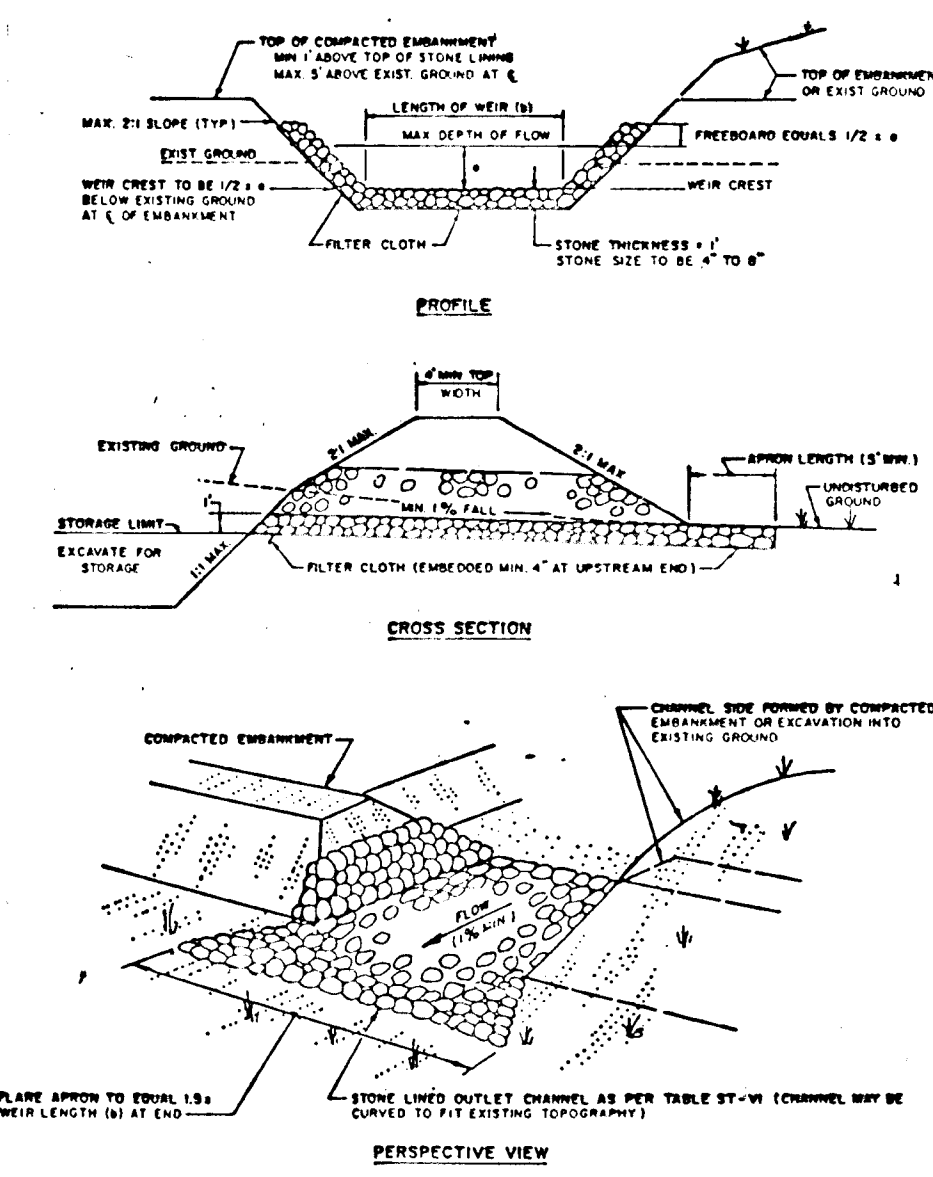
30" C.M.P. @ 2.31% Q = 33.80 CFS V = 6.88 FPS

DATE  
BY  
SURVEYED  
GRADES CHECKED  
NOTE BOOK NO.  
STRUCTURE NOTATIONS CHNG.

1356



- The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
- The fill material for the embankment shall be free of roots or 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. Maximum height of embankment shall be five (5) feet, measured at centerline of embankment.
- All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.
- Elevation of the top of any dike directing water into trap must equal or exceed the height of embankment.
- Storage area provided shall be figured by computing the volume available behind the outlet channel up to an elevation of one (1) foot below the level weir crest.
- Filter cloth shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Sections of fabric must overlap at least one (1) foot with section nearest the entrance placed on top. Fabric shall be embedded at least six (6) inches into existing ground at entrance of outlet channel.
- Stone used in the outlet channel shall be four (4) to eight (8) inches (riprap). To provide a filtering effect, a layer of filter cloth shall be embedded one (1) foot back into the upstream face of the outlet stone or a one (1) foot thick layer of two (2) inch or finer aggregate shall be placed on the upstream face of the outlet.
- 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. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
- The structure shall be inspected after each rain and repaired as needed.
- Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
- The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.
- Drainage area for this practice is limited to 15 acres or less.



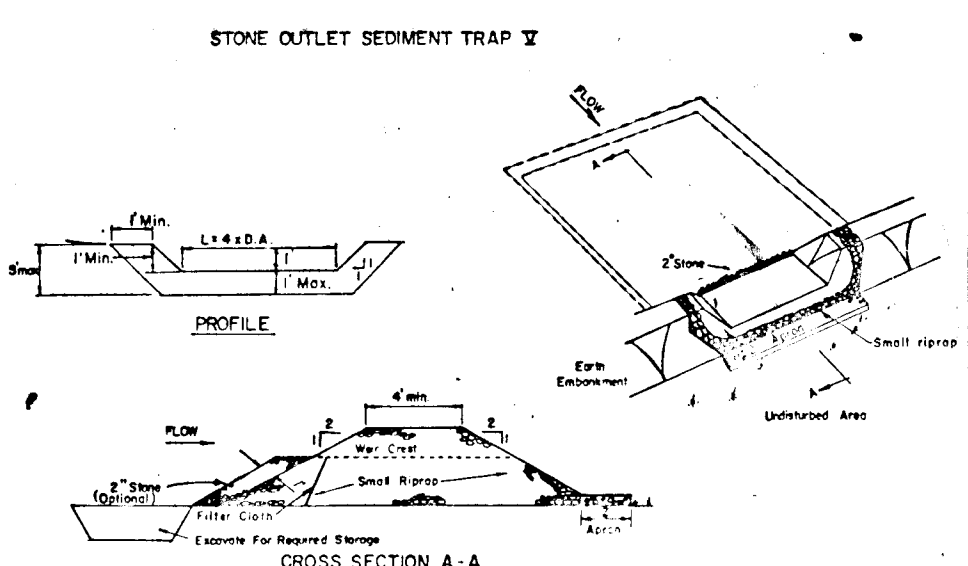
APPROVED  
 DEPARTMENT OF PUBLIC WORKS  
*William H. Wilcox* 4/1/88  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED  
 DEPARTMENT OF PUBLIC WORKS  
*William E. Bane* 4-20-88  
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED  
 DEPARTMENT OF PUBLIC WORKS  
*Robert H. ...* 4-20-88  
 CHIEF, LAND DEVELOPMENT DIVISION DATE

APPROVED  
 OFFICE OF PLANNING AND ZONING  
*James R. ...* 5/1/88  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

STRUCT.	TYPE	TOP OF STRUCTURE	INV. IN.	INV. OUT	ROAD STATION	REMARKS
1-22	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-23	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-24	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-25	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-26	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-27	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-28	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-29	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-30	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-31	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-32	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-33	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-34	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-35	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-36	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-37	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-38	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-39	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-40	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-41	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-42	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-43	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-44	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-45	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-46	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-47	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-48	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-49	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-50	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-51	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-52	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-53	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-54	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-55	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-56	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-57	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-58	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-59	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-60	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-61	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-62	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-63	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-64	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-65	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-66	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-67	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-68	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-69	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-70	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-71	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-72	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-73	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-74	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-75	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-76	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-77	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-78	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-79	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-80	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-81	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-82	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-83	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-84	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-85	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-86	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-87	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-88	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-89	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-90	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-91	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-92	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-93	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-94	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-95	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-96	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-97	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-98	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-99	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY
1-100	A-5	411.40	411.40	411.40	1+10.00	BALLARD WAY



- 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-VI
- Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
  - 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.
  - All cut and fill slopes shall be 2:1 or flatter.
  - The stone used in the outlet shall be small riprap 4"-8" along with a 1" thickness of 2" aggregate placed on the upstream side of the small riprap embedded filter cloth in the riprap.
  - 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.
  - The structure shall be inspected after each rain and repairs made as needed.
  - Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
  - The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

Revised 10/26/89  
 Added S-10, M-1, Rip-Rap Channel and Revised Structure S-10, M-1

Revised: 2/8/89 by S-11  
 Changed 15" C.M.P. pipe and chart.

Revised: 7/20/80  
 Added I-19 to I-50 and S-10, also future section b-33

AS-BUILT SURVEY CERTIFIED BY CHARLES J. CROVO, L.S., P.E. No. 13204 ON NOVEMBER 7, 1990.

OWNER & DEVELOPER  
 T.R.I. PROPERTY PARTNERSHIP  
 8307 MAIN STREET  
 ELLICOTT CITY, MARYLAND 21043

DRAINAGE AREA MAP  
 BRIDGE WATER  
 LOTS 61-91  
 2ND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 SCALE: 1"=100' FEBRUARY 5, 1988  
 SHEET 4 OF 6

CHARLES J. CROVO SR. 2/15/88 DATE

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

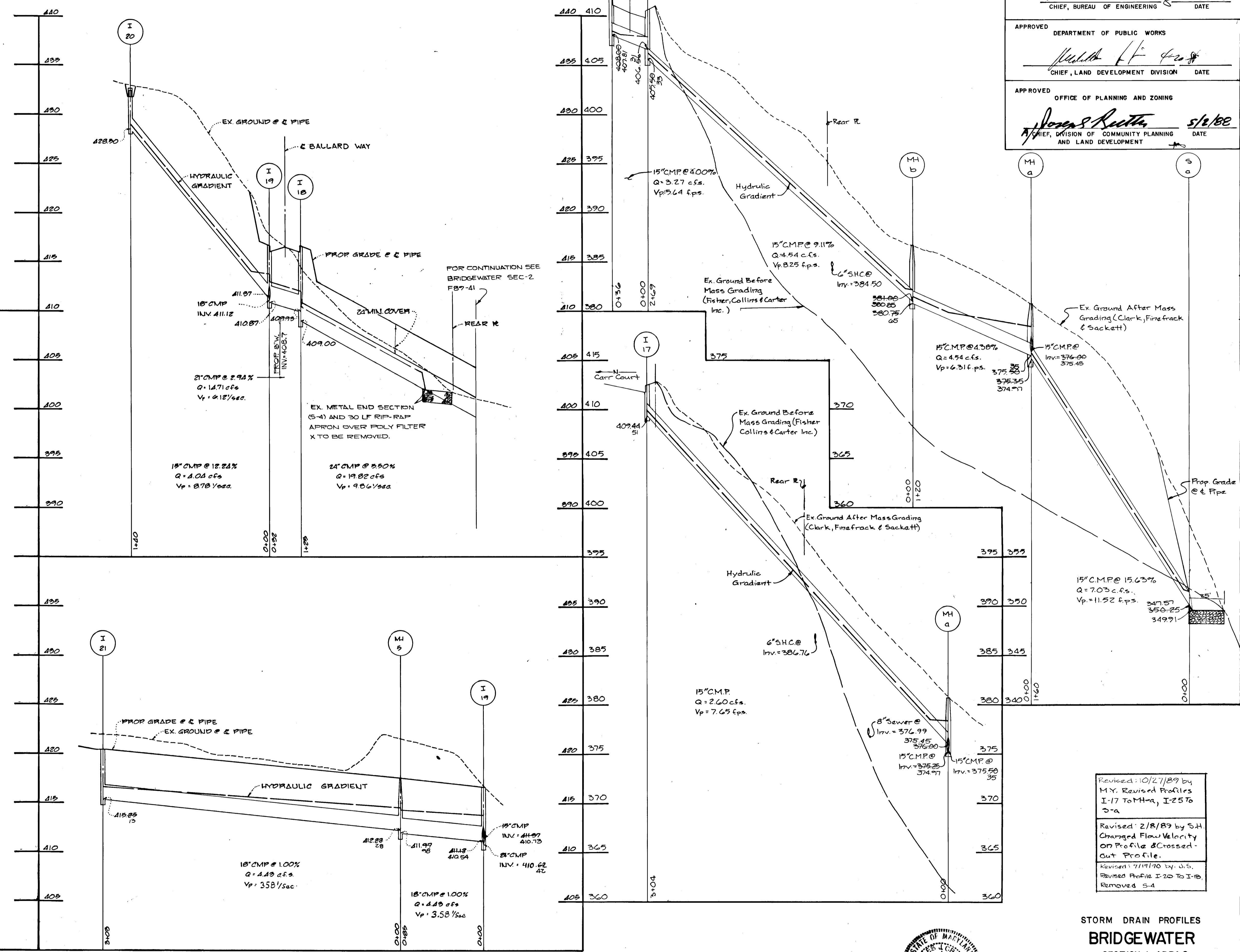
1356

APPROVED DEPARTMENT OF PUBLIC WORKS  
*Francis W. Weiland 4/27/88*  
 CHIEF, BUREAU OF HIGHWAYS DATE

*Richard S. Rely 4-20-88*  
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED DEPARTMENT OF PUBLIC WORKS  
*John F. F...*  
 CHIEF, LAND DEVELOPMENT DIVISION DATE

APPROVED OFFICE OF PLANNING AND ZONING  
*James S. R...* 5/2/88  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE



**PROFILES**  
 Scale: 1"=50' Horiz.  
 1"=5' Vert.

NOTE:  
 Vp = FULL FLOW VELOCITY  
 Vp = PARTIAL FLOW VELOCITY

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

OWNER AND DEVELOPER  
 T.R.I. PROPERTY PARTNERSHIP  
 8307 MAIN STREET  
 ELLICOTT CITY, MARYLAND 21043

AS-BUILT SURVEY CERTIFIED BY  
 CHARLES J. CROVO, L.D. P.E. No. 18204 ON NOVEMBER 7, 1990.  
*Charles J. Crovo* 2/15/88  
 CHARLES J. CROVO SR. DATE

Revised: 10/27/89 by M.Y. Revised Profiles I-17 to MH-a, I-25 to 2-a  
 Revised: 2/8/89 by S.H. Changed Flow Velocity on Profile & Crossed-Out Profile.  
 Revisions: 7/19/90 by J.S. Revised Profile I-20 to I-19. Removed S-4

STORM DRAIN PROFILES  
**BRIDGEWATER**  
 SECTION I AREA 2  
 LOTS 61-91  
 2ND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN FEBRUARY 5, 1988  
 SHEET 5 OF 6

AS-BUILT



**PERMANENT SEEDING NOTES:**  
 APPLY TO GRADED OR CLEARED AREAS BUT NOT TO DISTURBED AREAS WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

**SEEDING PREPARATION:** LOOSEN UPPER THREE-INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENED, SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- 1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 400 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING.
- 2) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ.FT.) BEFORE SEEDING. NARROW OR DISC INTO UPPER THREE-INCHES OF SOIL.

**SEEDING:** FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 40 LBS. PER ACRE (1.4 LBS/1000 SQ.FT.) OF PERENNIAL RYE GRASS. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE 10-10-10 FERTILIZER (0.2 LBS/1000 SQ.FT.). 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 SOIL. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OR UNROOTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 2 1/2 GALLONS PER ACRE (6 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 SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDING.

**TEMPORARY SEEDING NOTES:**  
 APPLY TO GRADED OR CLEARED AREAS TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

**SEEDING PREPARATION:** LOOSEN UPPER THREE-INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENED, SOIL AMENDMENTS: APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.).

**SEEDING:** FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 1 THRU NOVEMBER 30, SEED WITH 1/2 BUSSAL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ.FT.). FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 3 LBS PER ACRE OF WHEATGRASS (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 SOIL. MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT.) OF UNROOTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 2 1/2 GAL PER ACRE (6 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FT. OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/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.

**STABILIZED CONSTRUCTION ENTRANCE**  
 not to scale

STANDARD SYMBOL

**CONSTRUCTION SPECIFICATIONS**

1. Storm Silt - Not at entrance or contained or recycled concrete equivalent.
2. Length - As required, but not less than 50 feet (except on a single-lane road not more than 100 feet station length unless approved).
3. Width - Not less than 16 inches.
4. Slope - Not less than 1:1.
5. Material - Not less than 2 inches of concrete or equivalent.
6. Filter - Filter cloth shall be placed over the entire area prior to placement of storm silt. Filter cloth shall be placed over the entire area prior to placement of storm silt. Filter cloth shall be placed over the entire area prior to placement of storm silt.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking of sediment onto public roadways. This may require periodic top dressing with additional stone as conditions demand and rapid removal of any material used to trap sediment. All sediment applied, dropped, washed or tracked onto public right-of-way must be removed immediately.
8. Washing - Vehicle shall be cleaned to remove sediment prior to entrance onto public right-of-way. When washing is required, it shall be done on a well stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

**CONSTRUCTION SEQUENCE:**

1. OBTAIN GRADING PERMIT.
2. PLACE STONE CONSTRUCTION ENTRANCE AS SHOWN ON PLAN.
3. CONSTRUCT SEDIMENT TRAPS, EARTH DIKES AND TEMPORARY SWALES. STABILIZE WITH TEMPORARY SEEDING.
4. GRADE ROADS TO SUBGRADE AND CONSTRUCT STORM DRAIN SYSTEM. INSTALL THE STORM DRAIN PIPE FROM I-18 TO THE TEMPORARY STORM DRAIN SYSTEM. THE STORM DRAIN PIPE SHALL BE INSTALLED TO THE REMAINING STORM DRAIN SYSTEM SHALL BE CONSTRUCTED TO 5'-4" INSTALL RIP-RAP APPROX AND STABILIZE ALL DISTURBED AREAS WITH PERMANENT SEEDING.
5. CONSTRUCT CURB AND GUTTER AND INSTALL BASE COURSE.
6. SEDIMENT TRAPS AND SEDIMENT TRAPS WHEN THE CLEARANCE ELEVATION HAS BEEN REACHED.
7. THE CONTRACTOR SHALL MAINTAIN AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL STRUCTURES THROUGHOUT THE PROJECT AND ON A DAILY BASIS.
8. REMOVE STONE CONSTRUCTION ENTRANCE AND STORM DRAIN SYSTEM TO REMOVE ANY TRAPPED SEDIMENT. INSTALL RIP-RAP APPROX. REMOVE STONE CONSTRUCTION ENTRANCE AND STORM DRAIN SYSTEM FENCE. CLEAN BASE COURSE. APPLY TACK COAT TO BASE COURSE AND LAI SURFACE COURSE.
9. REMOVE STONE CONSTRUCTION ENTRANCE AND STORM DRAIN SYSTEM TO REMOVE ANY TRAPPED SEDIMENT. INSTALL RIP-RAP APPROX. REMOVE STONE CONSTRUCTION ENTRANCE AND STORM DRAIN SYSTEM FENCE. CLEAN BASE COURSE. APPLY TACK COAT TO BASE COURSE AND LAI SURFACE COURSE.
10. ALL DISTURBED AREAS DUE TO REMOVAL OF REMAINING SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED WITH PERMANENT SEEDING MEASURES.
11. NOTIFY HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS FOR FINAL INSPECTION AT DATE OF PROJECT.

**TRAP DATA**

TRAP #1	TRAP #2	TRAP #3	TRAP #4	TRAP #5	TRAP #6	TRAP #7
2.24AC. ±	3.05AC. ±	8.85AC. ±	2.82AC. ±	5.28AC. ±	8.20AC. ±	9.22AC. ±
0.21AC. FT.	0.31AC. FT.	1.14AC. FT.	0.12AC. FT.	0.49AC. FT.	0.66AC. FT.	0.76AC. FT.
0.21AC. FT.	0.32AC. FT.	1.18AC. FT.	0.13AC. FT.	0.51AC. FT.	0.66AC. FT.	0.76AC. FT.
101'X30'	VARIES	VARIES	VARIES	VARIES	VARIES	191'X52'
85'X14'	VARIES	VARIES	VARIES	VARIES	VARIES	175'X41'
2:1	2:1	2:1	2:1	2:1	2:1	2:1
4:1	5:1	4:1	5:1	4:1	4:1	4:1
385.00	415.00	401.00	371.00	371.25	418.00	430.00
380.00	409.00	395.00	366.00	365.25	412.00	425.00
381.25	410.75	396.00	365.70	366.67	413.61	426.05

**CONSTRUCTION SPECIFICATIONS**

1. ALL TEMPORARY SWALES SHALL HAVE UNDISTURBED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF 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 SWALES, DITCHES, STORM DRAINAGE, AND OTHER UNDISTURBED INTERFACES SHALL BE MAINTAINED AND KEPT OPEN TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE MAINTAINED OR SHIPPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND IN THE CASE OF BARR PROJECTIONS OR OTHER UNDESIRABLES WHICH WILL IMPAIR SWALE FUNCTION.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH MOVING AND NOT METHOD ON CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. STABILIZATION SHALL BE AS PER THE CHART BELOW:

**TEMPORARY STORM WATER MANAGEMENT FACILITY #3**  
 BALLARD WAY

272 PIN OAKS @ 40' O.C. SEE DETAIL THIS SHEET FOR LOCATION.

STANDARD SYMBOL

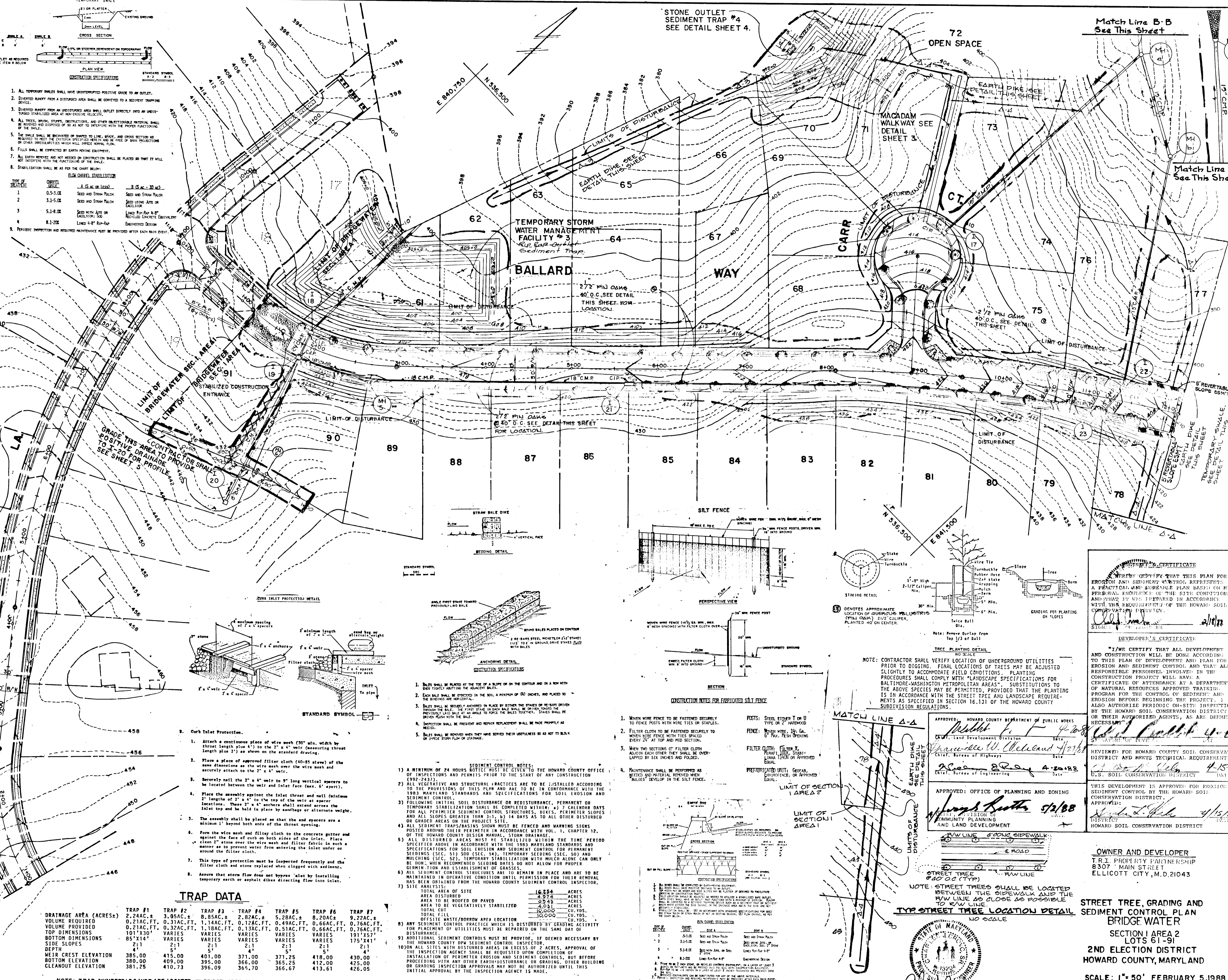
**CONSTRUCTION SPECIFICATIONS**

1. Bales shall be placed at the top of a slope or on the contour and in a row with the face of the slope.
2. Each bale shall be protected in the soil a minimum of (6) inches, and placed so that the face of the slope is protected.
3. Bales shall be securely anchored in place by either the stakes or re-bar driven through the bales. The first stake in each bale shall be driven through the bales and secured with a 2" x 4" anchor. The second stake shall be driven through the bales.
4. An anchor shall be present 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.

**CONSTRUCTION SPECIFICATIONS**

1. A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION.
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ALSO TO BE IN CONFORMANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
3. FOLLOWING ARE THE INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, BARRIERS, 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 SHALL 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. 513 SEC. 44), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE USED 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: 16.854 ACRES
  - AREA DISTURBED: 4.574 ACRES
  - AREA TO BE ROOFED OR PAVED: 29.43 ACRES
  - TOTAL FILL: 2.031 ACRES
  - TOTAL CUT: 10.000 CU.YDS.
  - OPPOSITE WASTE/BORROW AREA LOCATION: 191'X52'
- 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 INSPECTOR, TO PREVENT EROSION AND SEDIMENT CONTROL. BUT BEFORE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROL, OTHER BUILDING OR GRADING INSPECTION APPROVAL MAY NOT BE ADDED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

**FISHER, COLLINS AND CARTER, INC.**  
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**OWNER AND DEVELOPER**  
 TRI PROPERTY PARTNERSHIP  
 8307 MAIN STREET  
 ELLICOTT CITY, M.D. 21043

**STREET TREE, GRADING AND SEDIMENT CONTROL PLAN BRIDGE WATER**  
 SECTION I AREA 2  
 LOTS 61-91  
 2ND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 SCALE: 1" = 50' FEBRUARY 5, 1988  
 SHEET 6 OF 6  
 AS-BUILT