

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.) STORM WATER MANAGEMENT WAS PROVIDED FOR THIS SUBDIVISION IN AUTUMN MANOR SECTION 1 AREA 1, FEB-1984.
- 9.) THE CONTRACTOR SHALL NOTIFY MR. JOE SCOTT OF A.T.&T. COMMUNICATIONS (703) 691-6207 AT LEAST 5 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.

AUTUMN MANOR

SECTION ONE AREA TWO

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

APPROVED DEPARTMENT OF PUBLIC WORKS
James W. Hildebrand 9/1/88
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED DEPARTMENT OF PUBLIC WORKS
William S. Pugh 9-2-88
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED DEPARTMENT OF PUBLIC WORKS
Donald Johnson 9/1/88
 CHIEF, LAND DEVELOPMENT DIVISION DATE

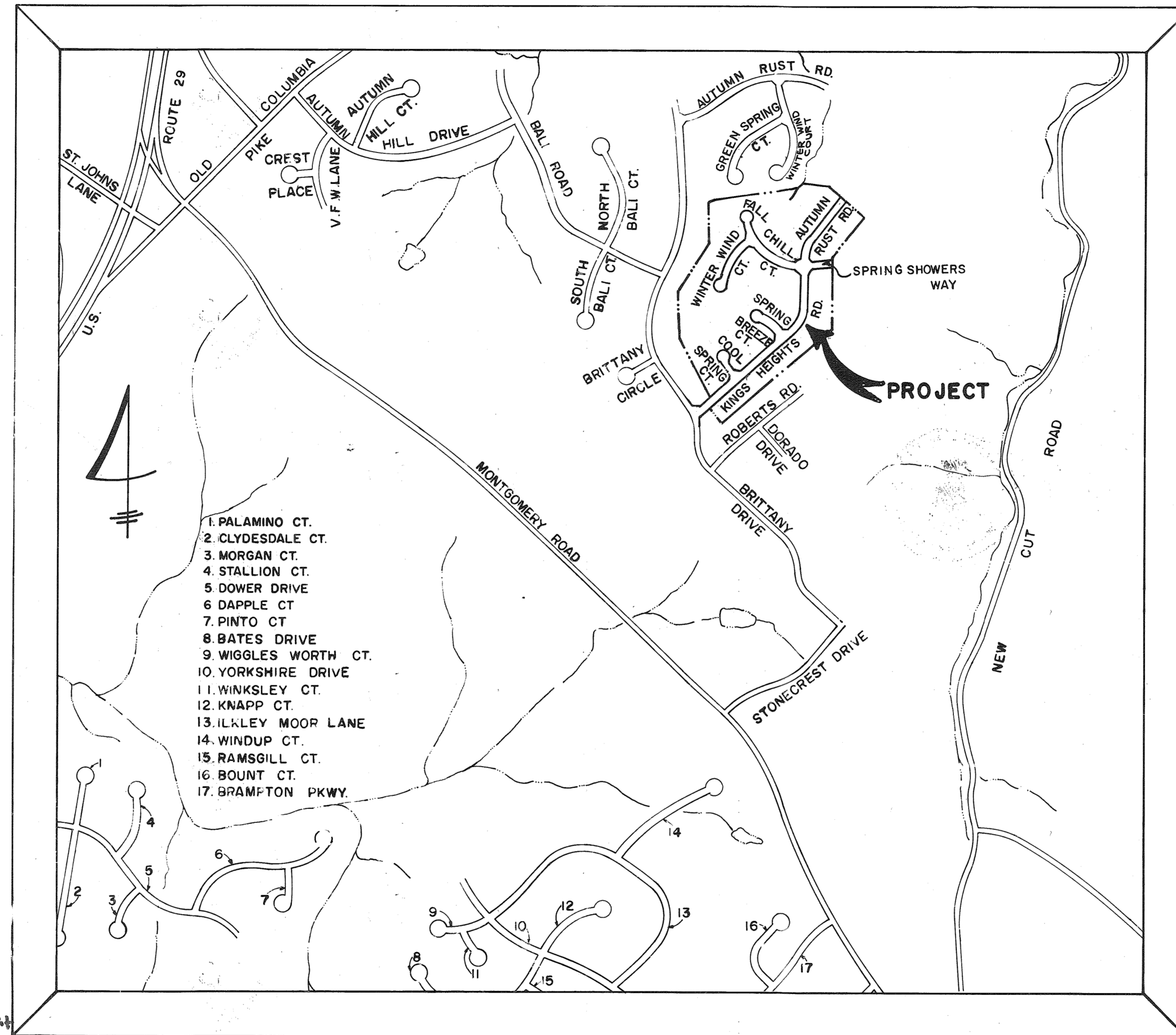
APPROVED OFFICE OF PLANNING AND ZONING
Frank J. L. Cuyler 9-2-88
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

BENCH MARKS

- B.M.#5 ELEV.= 431.84
 R.R. SPIKE FOUND IN EAST SIDE OF B.G. & E. POLE
 # 336878 25' WEST OF E. KINGS HEIGHTS ROAD.
 * FOR LOCATION SEE SHEET 2.
- B.M.#6 ELEV.= 402.78
 R.R. SPIKE SET IN NORTH SIDE OF B.G. & E. POLE
 # 484590 LOCATED 150' NORTH-WEST OF WINTER WIND COURT.
 * FOR LOCATION SEE SHEET 2.

STREET LIGHTS

- ✦ 280 WATT MERCURY VAPOR MOUNTED FIXTURE ON A 29 FOOT GALVANIZED STEEL POLE LOCATED AT THE NORTH INTERSECTION OF BRITANNY DRIVE AND KINGS HEIGHTS ROAD
- ✦ 175 WATT MERCURY VAPOR LAMP POST TOP FIXTURE ON A 12 FOOT GRAY FIBERGLASS POLE AT THE FOLLOWING LOCATIONS:
 1. THE NORTH INTERSECTION OF COOL SPRING COURT AND KINGS HEIGHTS ROAD
 2. THE NORTH INTERSECTION OF SPRING BREEZE COURT AND KINGS HEIGHTS ROAD
 3. THE NORTH INTERSECTION OF FALL CHILL COURT AND AUTUMN RUST ROAD
 4. AT STA. 18+30 LEFT ON AUTUMN RUST ROAD.
 5. AT STA. 5+00 LEFT ON FALL CHILL COURT.



VICINITY MAP

SCALE: 1" = 600'

INDEX OF SHEETS

- 1.) TITLE SHEET
- 2.) KINGS HEIGHTS ROAD PLAN AND PROFILE, SPRING BREEZE CT.-PLAN
- 3.) AUTUMN RUST ROAD PLAN AND PROFILE, COOL SPRING COURT PROFILES, SPRING SHOWERS WAY PLAN
- 4.) WINTER WIND CT. & FALL CHILL CT.-PLAN & PROFILE, COOL SPRING CT.-PLAN
- 5.) SPRING BREEZE COURT, SPRING SHOWERS WAY, FALL CHILL COURT PROFILES, ROADWAY SECTION, DETAILS AND NOTES
- 6.) DRAINAGE AREA MAP
- 7.) STORM DRAIN PROFILES
- 8.) MITIGATION BASIN SPECIFICATIONS, DETAILS AND STORM DRAIN PROFILES
- 9.) STREET TREE, GRADING AND SEDIMENT CONTROL PLAN
- 10.) STREET TREE, GRADING AND SEDIMENT CONTROL PLAN

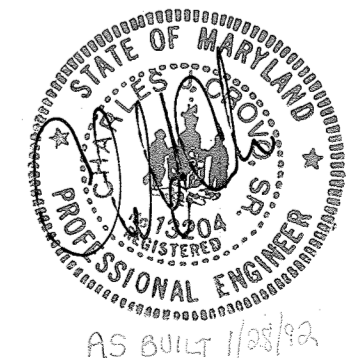
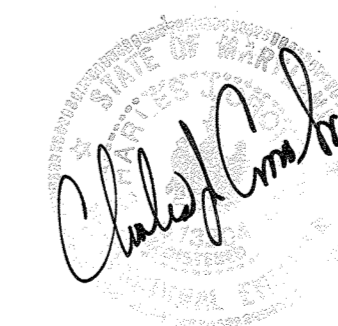
REVISION NOTE: On or around July 17, 2019, Capital Project D-157 entitled, Autumn Manor Pond Rehabilitation was created. Project replaced 64-inch CIP with anti-vortex head, anti-weep collars, and 42-inch SCEPT spillway pipe, and added... Installed new concrete riser, 48-inch RCF spillway pipe, outfall, concrete cradle and filter diaphragm. The existing emergency spillway was reconfigured, 4 storm drain inlets were stabilized with riprap, and a plunge pool and riprap added at pond cut fall. Pond bottom was regraded to increase pool depth and to incorporate berms and micro pools.

THIS INSTRUMENT AND VERTICAL CONTROL IS A SET ON THE FOLLOWING HORIZONTAL CONTROL SYSTEMS:
 NAD 83
 NAD 83
 NAD 83
 NAD 83

1132

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

No.	Date	Descriptions
1	1/4/93	REMOVED MAC. WALKWAYS ON LOT 14G
		REVISIONS



OWNER AND DEVELOPER
HOWARD COUNTY LAND SERVICES, INC.
 10176 Baltimore National Pike • Suite 202 • Ellicott City, MD 21043 • 301-465-1643

AS-BUILT
 DWG. No. 1 of 10

DATE	
BY	
PLAN	
NOTE BOOK NO.	

DATE	
BY	
PROFILE	
NOTE BOOK NO.	

1132

APPROVED
DEPARTMENT OF PUBLIC WORKS

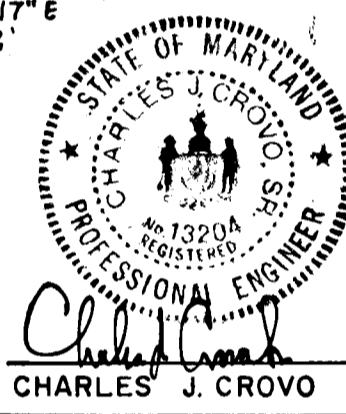
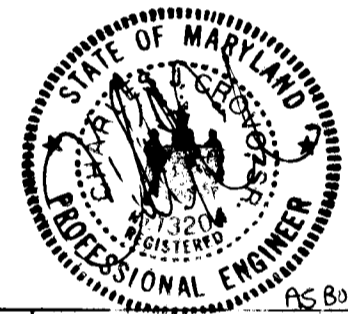
Donald W. Johnson 9/1/88
CHIEF, LAND DEVELOPMENT DIVISION DATE

Drewville W. Weiland 8/31/88
CHIEF, BUREAU OF HIGHWAYS DATE

W.S. ... 9-2-88
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED
OFFICE OF PLANNING AND ZONING

Martha S. ... 9-2-88
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE



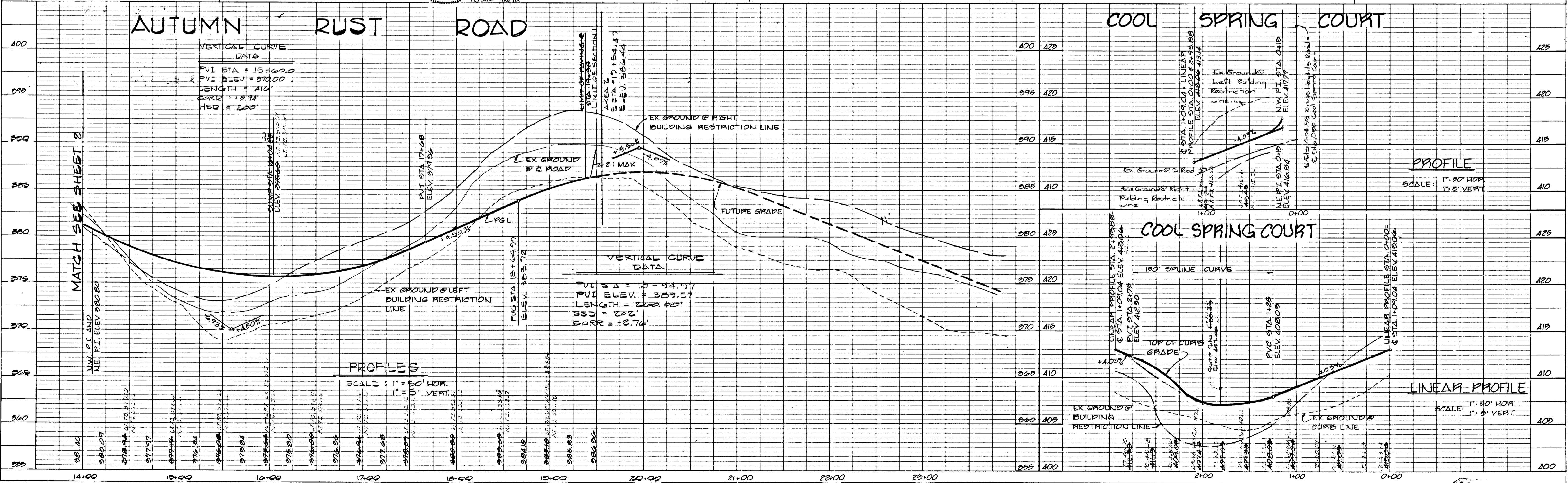
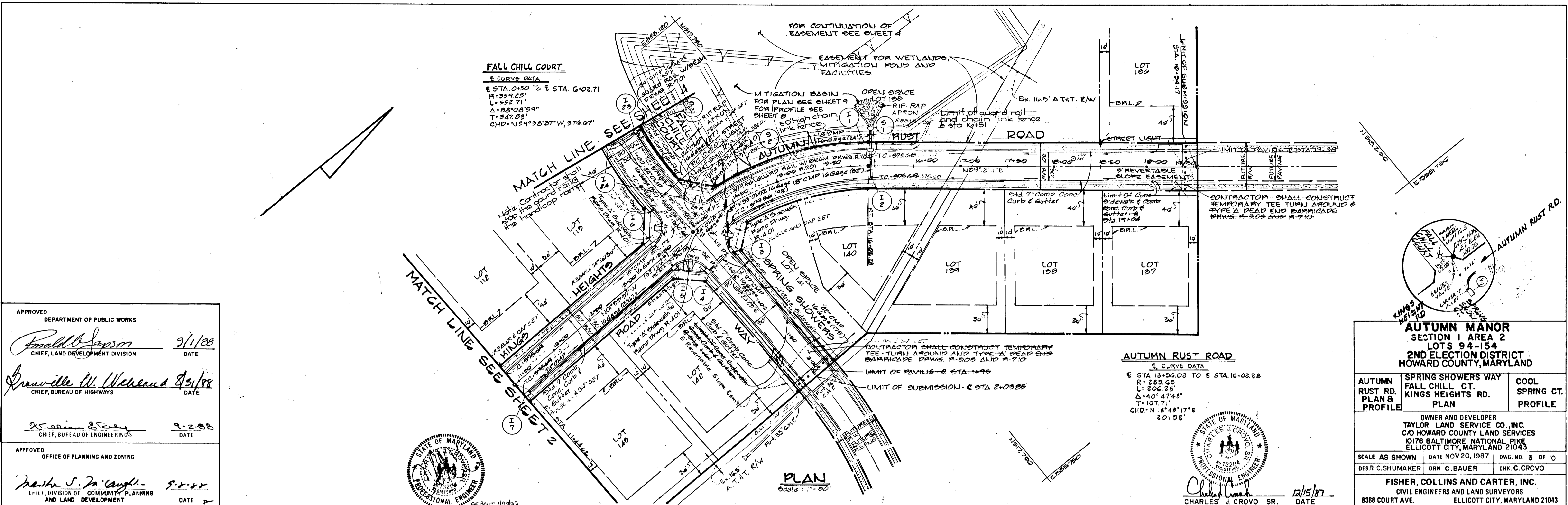
AUTUMN MANOR
SECTION 1 AREA 2
LOTS 94-154
2ND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

AUTUMN RUST RD. PLAN & PROFILE	SPRING SHOWERS WAY FALL CHILL CT. KINGS HEIGHTS RD. PLAN	COOL SPRING CT. PROFILE
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OWNER AND DEVELOPER
TAYLOR LAND SERVICE CO., INC.
C/O HOWARD COUNTY LAND SERVICES
10176 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21043

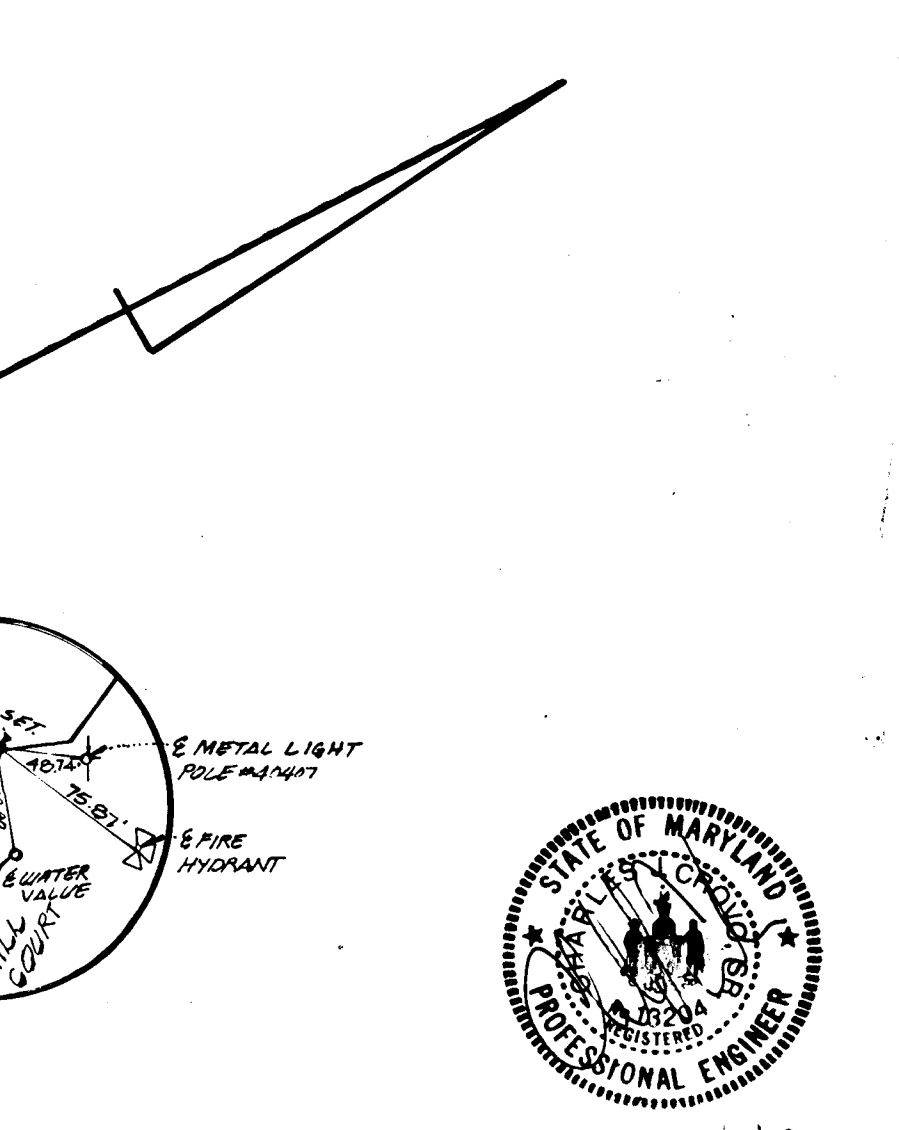
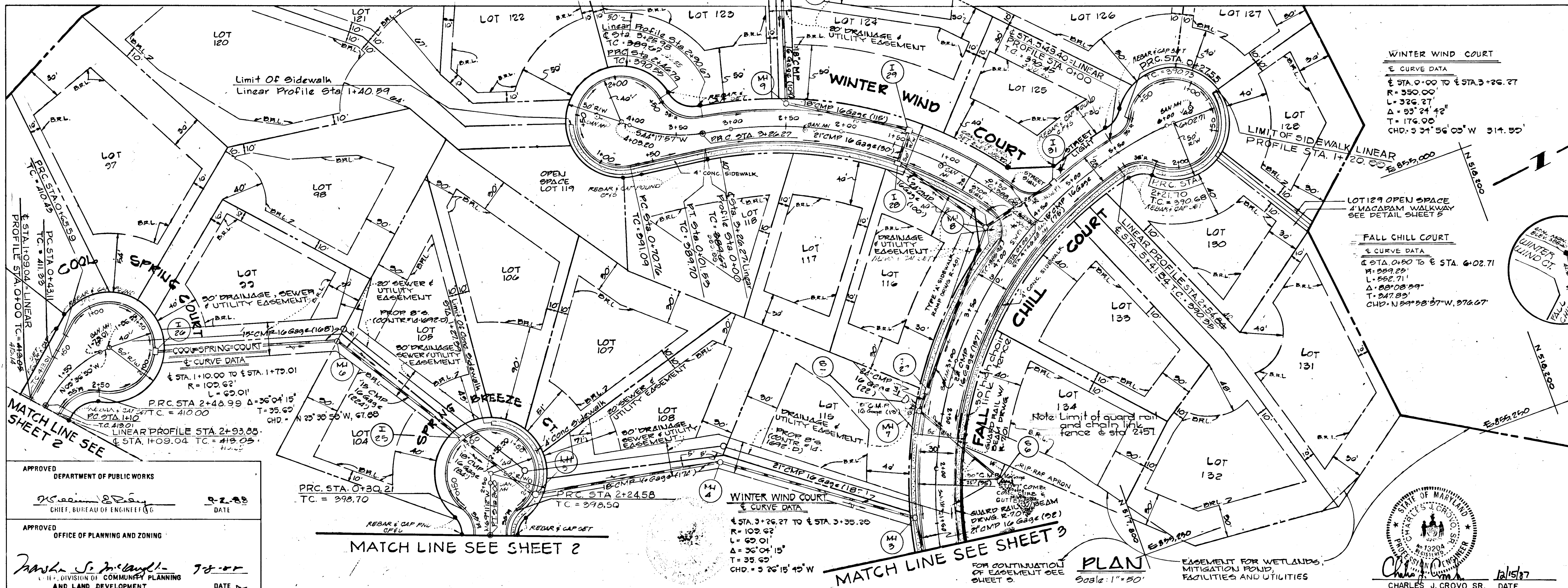
SCALE AS SHOWN DATE NOV 20, 1987 DWG. NO. 3 OF 10
DESR. C. SHUMAKER DRN. C. BAUER CHK. C. CROVO

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



AS-BUILT

DATE	
BY	
PLAN	
APPROVED	
DEPARTMENT OF PUBLIC WORKS	
CHIEF, BUREAU OF ENGINEERING	
DATE	
APPROVED	
OFFICE OF PLANNING AND ZONING	
DATE	
APPROVED	
DEPARTMENT OF PUBLIC WORKS	
CHIEF, LAND DEVELOPMENT DIVISION	
DATE	
APPROVED	
DEPARTMENT OF PUBLIC WORKS	
CHIEF, BUREAU OF HIGHWAYS	
DATE	



AUTUMN MANOR
 SECTION 1 AREA 2
 LOTS 94 - 154
 2ND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

WINTER WIND COURT
 PLAN & PROFILE

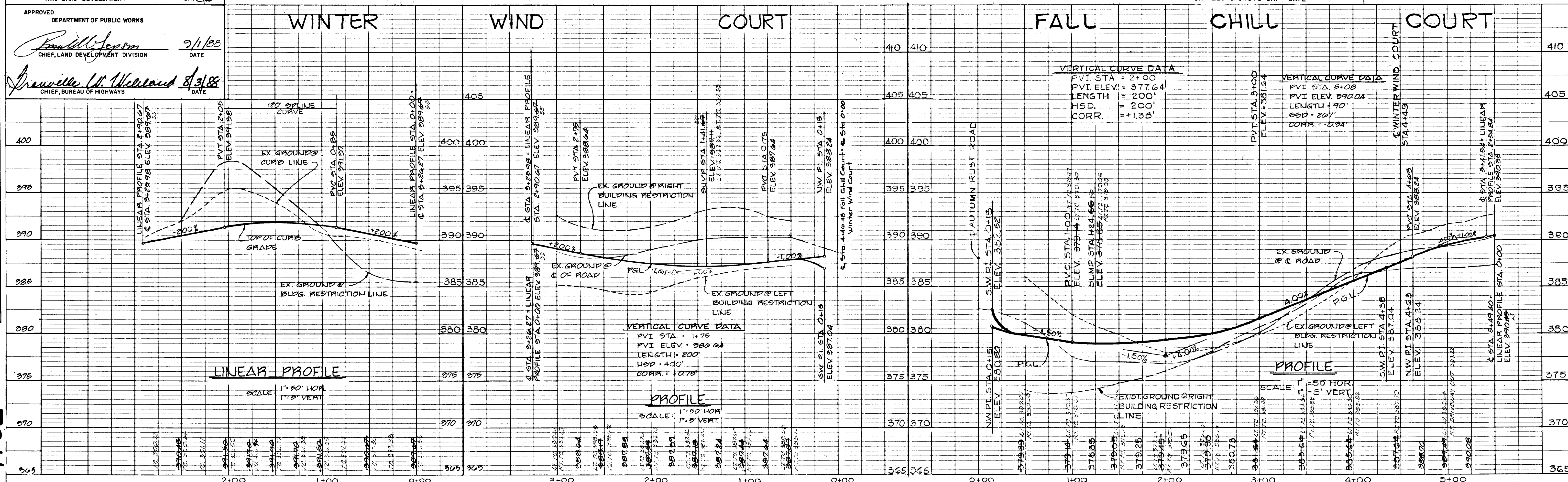
FALL CHILL COURT
 PLAN & PROFILE

OWNER AND DEVELOPER
 TAYLOR LAND SERVICE CO., INC.
 C/O HOWARD COUNTY LAND SERVICES
 10176 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21043

SCALE AS SHOWN DATE NOV. 20, 1987 DWG. NO. 4 OF 10
 DES. R.C. SHUMAKER DRN. C. BAUER CHK. C. CROVO

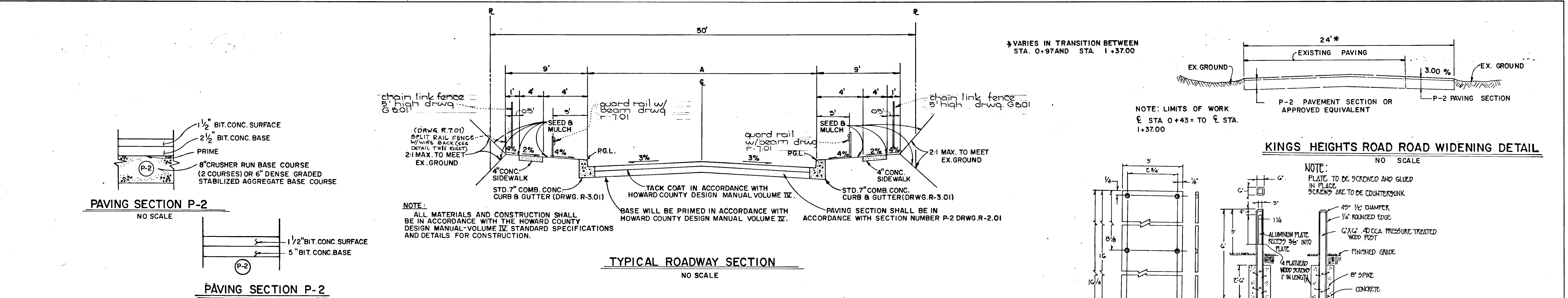
FISHER, COLLINS AND CARTER, INC.
 CIVIL ENGINEERS AND LAND SURVEYORS
 8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043

DATE	
BY	
PROFILE	
APPROVED	
DEPARTMENT OF PUBLIC WORKS	
CHIEF, BUREAU OF ENGINEERING	
DATE	
APPROVED	
OFFICE OF PLANNING AND ZONING	
DATE	
APPROVED	
DEPARTMENT OF PUBLIC WORKS	
CHIEF, LAND DEVELOPMENT DIVISION	
DATE	
APPROVED	
DEPARTMENT OF PUBLIC WORKS	
CHIEF, BUREAU OF HIGHWAYS	
DATE	



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APPROVED
DEPARTMENT OF PUBLIC WORKS

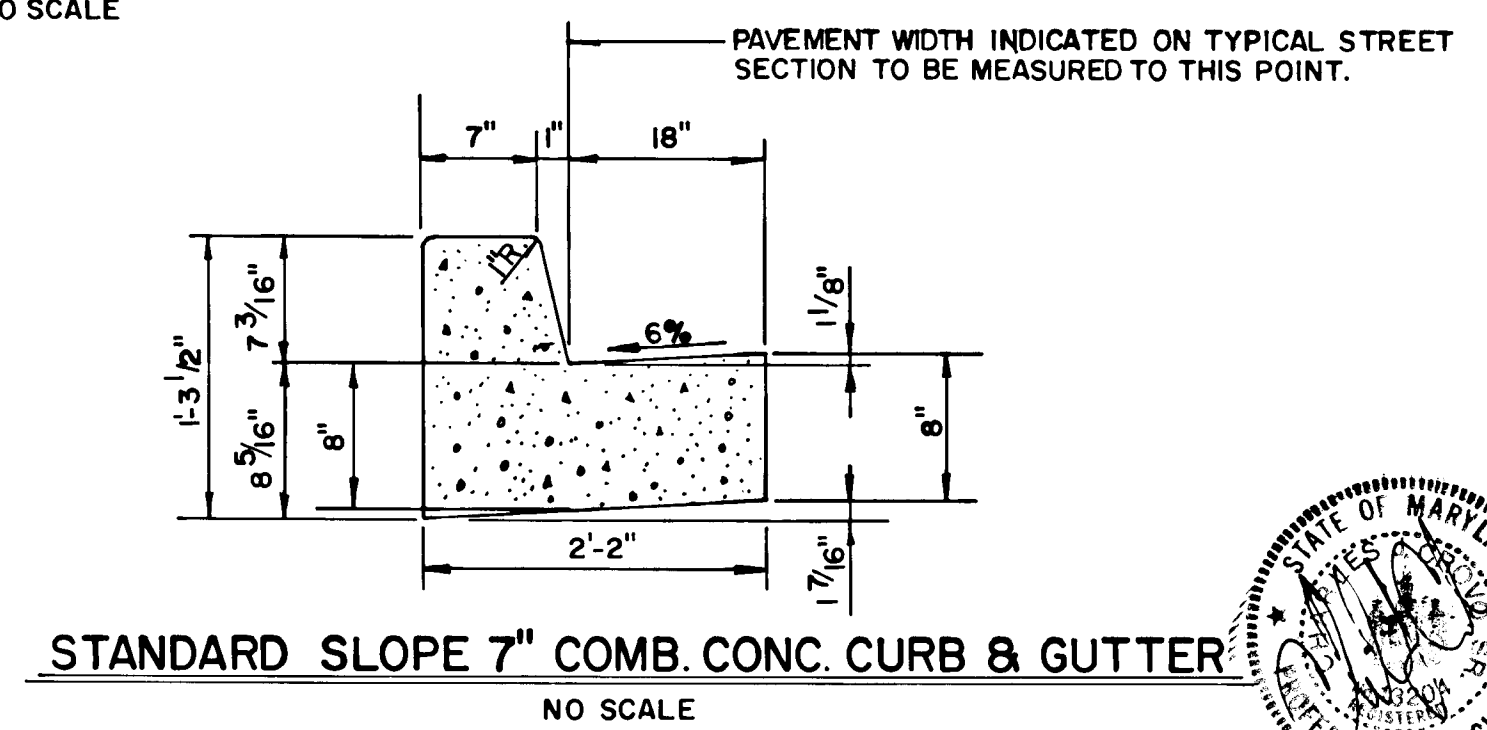
Paul Johnson 9/1/88
CHIEF, LAND DEVELOPMENT DIVISION DATE

Lawrence W. Wickard 8/31/88
CHIEF, BUREAU OF HIGHWAYS DATE

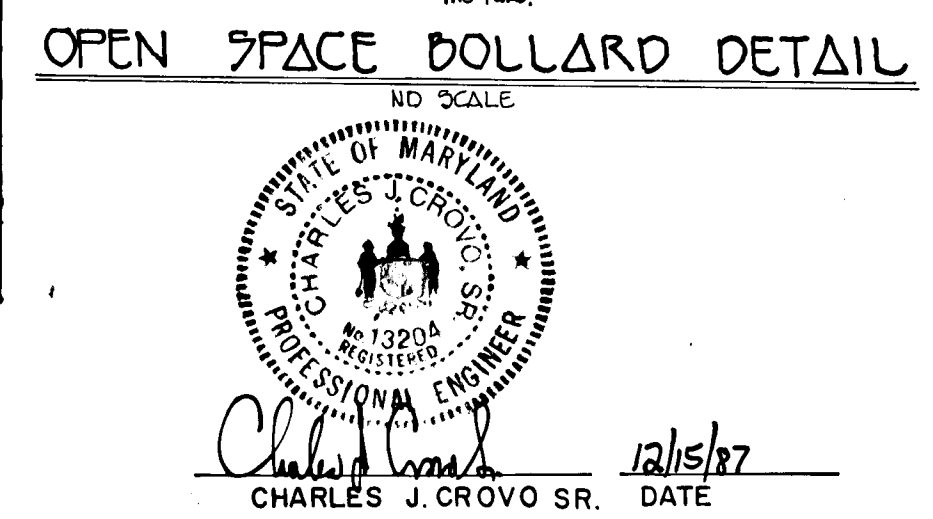
James E. Reid 9-2-88
CHIEF, BUREAU OF ENGINEERS DATE

APPROVED
OFFICE OF PLANNING AND ZONING

Janet S. D'Angeli 5-1-88
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE



ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	A	C STATION LIMITS
KINGS HEIGHTS ROAD	LOCAL ROAD	30 M.P.H.	R - 20	30	1+37 TO 13+96.03
AUTUMN RUST ROAD	LOCAL ROAD	30 M.P.H.	R - 20	30	13+96.03 TO 19+38
COOL SPRING COURT	CUL-DE-SAC	25 M.P.H.	R - 20	24	0+00 TO 1+09.04
SPRING BREEZE COURT	CUL-DE-SAC	25 M.P.H.	R - 20	28	0+00 TO 1+98.91
FALL CHILL COURT	LOCAL ROAD	30 M.P.H.	R - 20	30	0+00 TO 4+46.48
WINTER WIND COURT	CUL-DE-SAC	25 M.P.H.	R - 20	28	4+46.48 TO 5+49.40
SPRING SHOWERS WAY	LOCAL ROAD	30 M.P.H.	R - 20	30	0+00 TO 1+95



AUTUMN MANOR SECTION 1 AREA 2 LOTS 94-154 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SPRING BREEZE CT. SPRING SHOWERS WAY FALL CHILL CT. PROFILES

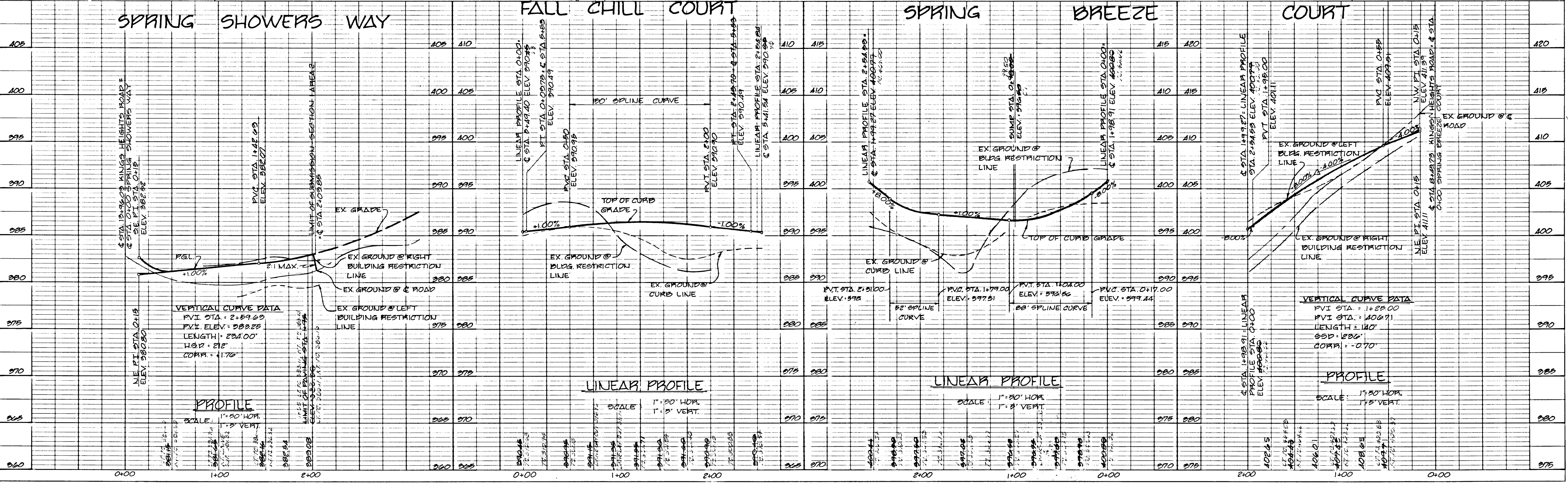
TYPICAL ROADWAY SECTION & DETAILS

TAYLOR LAND SERVICE CO., INC.
C/O HOWARD COUNTY LAND SERVICES
10176 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21043

SCALE AS SHOWN DATE NOV. 20, 1987 DWG. NO. 5 OF 10
DESIGNED BY R.C. SHUMAKER DRAWN BY C.B. UER CHECKED BY C. CROVO

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

DATE	
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1132

APPROVED
DEPARTMENT OF PUBLIC WORKS

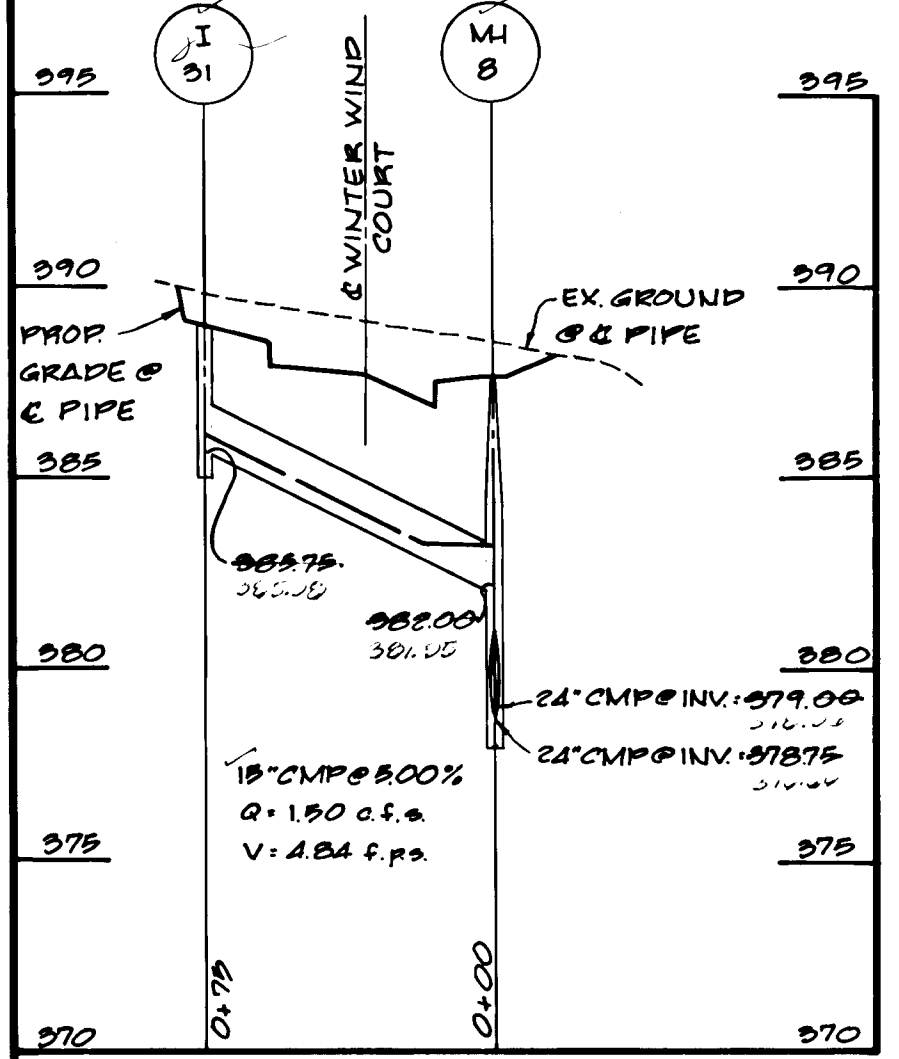
Donald J. Larson 9/1/88
CHIEF, LAND DEVELOPMENT DIVISION DATE

Arvin W. Wilsand 8/13/88
CHIEF, BUREAU OF HIGHWAYS DATE

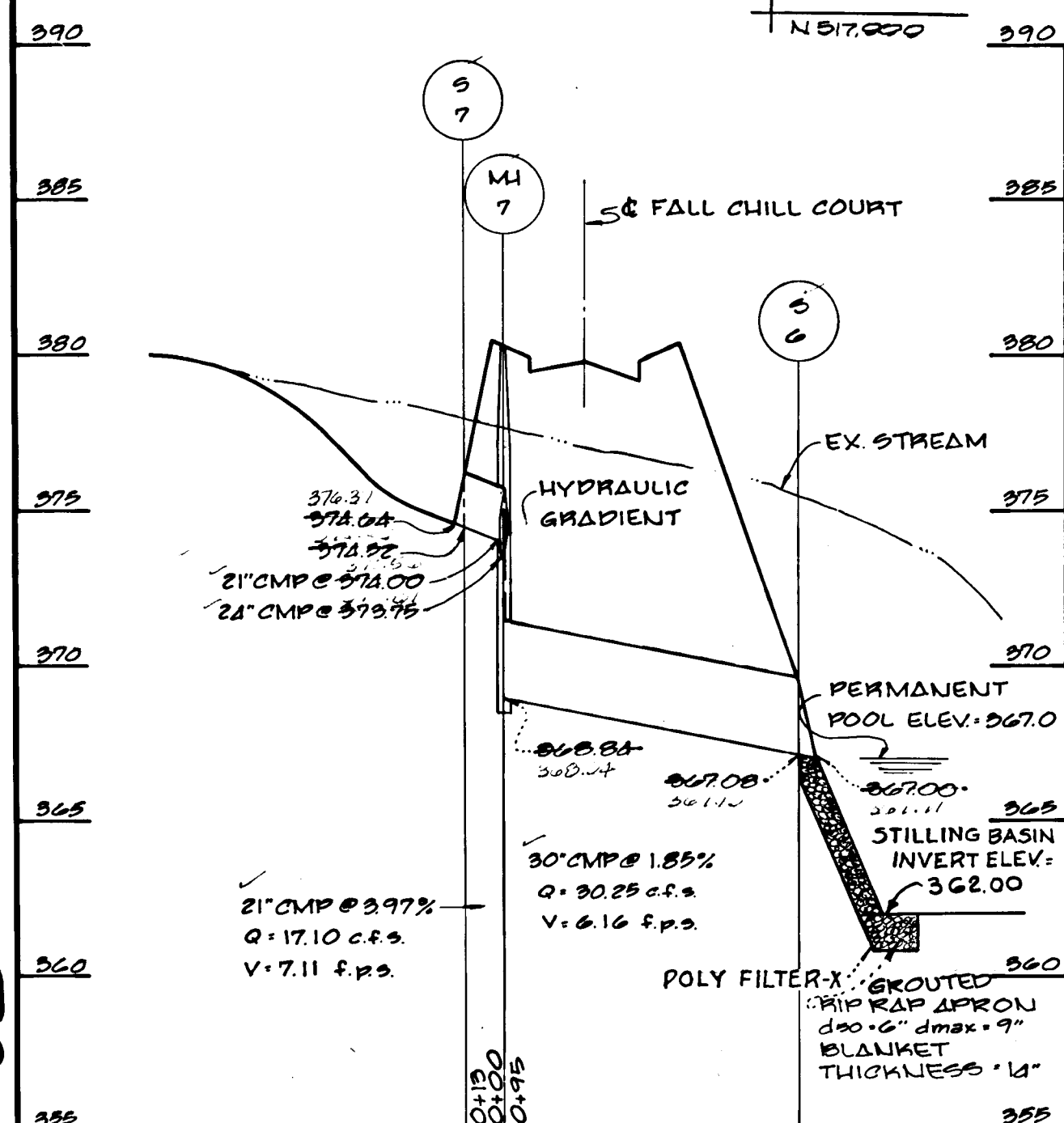
Robert E. Ryan 9-2-88
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED
OFFICE OF PLANNING AND ZONING

Frank J. Langley 9-2-88
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE



PROFILE
Scale: 1" = 5' Vert



PROFILE
Scale: 1" = 5' Vert

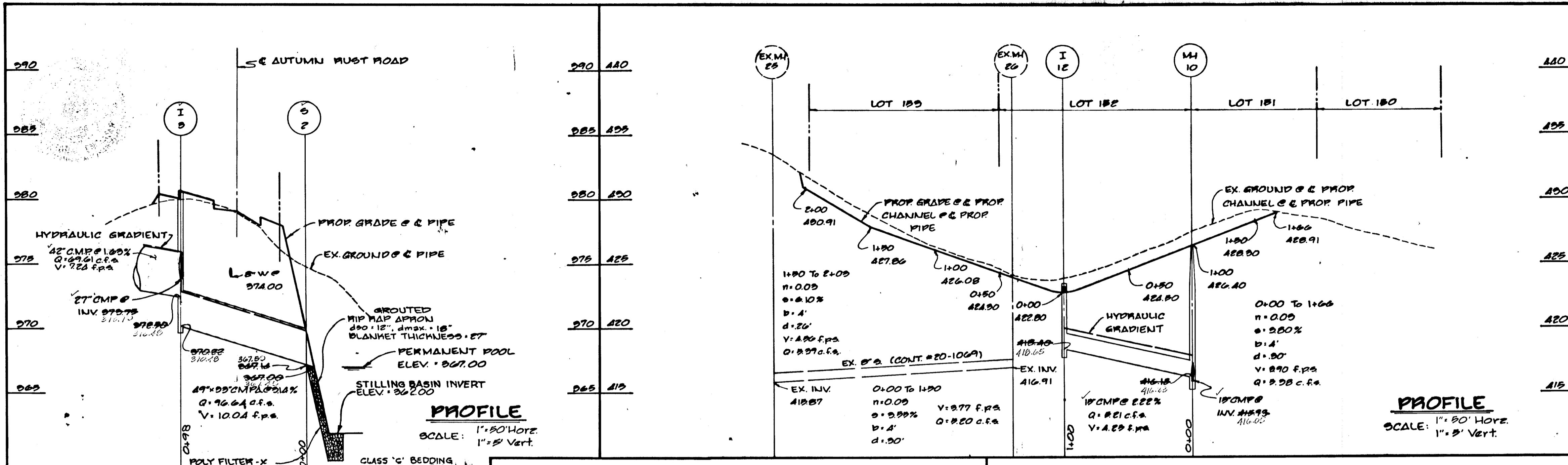
DRAINAGE AREA MAP
SCALE: 1" = 100'



DRAINAGE AREA MAP
AUTUMN MANOR
SECTION 1 AREA 2
LOTS 94-154
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN SHEET 6 OF 10 NOVEMBER 20, 1987

1132

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



These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

J. Helm 7/7/88
U.S. Soil Conservation Service Date

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Robert J. Zehn 7/7/88
Howard Soil Conservation District Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Donald J. Capin 3/1/88
Chief, Land Development Division Date

Lawrence W. McVey 8/31/87
Chief, Bureau of Highways Date

APPROVED: OFFICE OF PLANNING AND ZONING

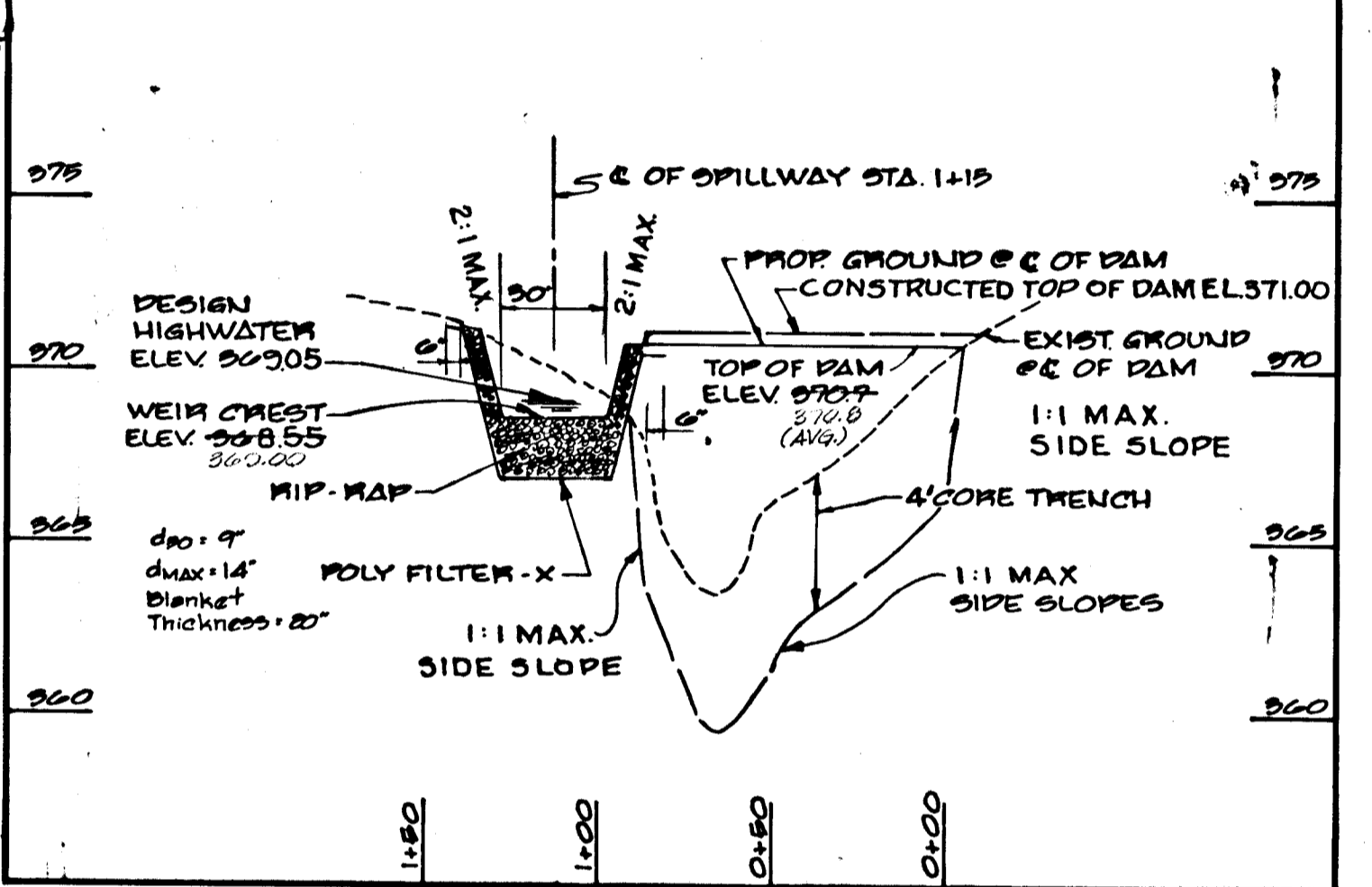
Frank J. Langell 9-2-88
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

STRUCTURE SCHEDULE

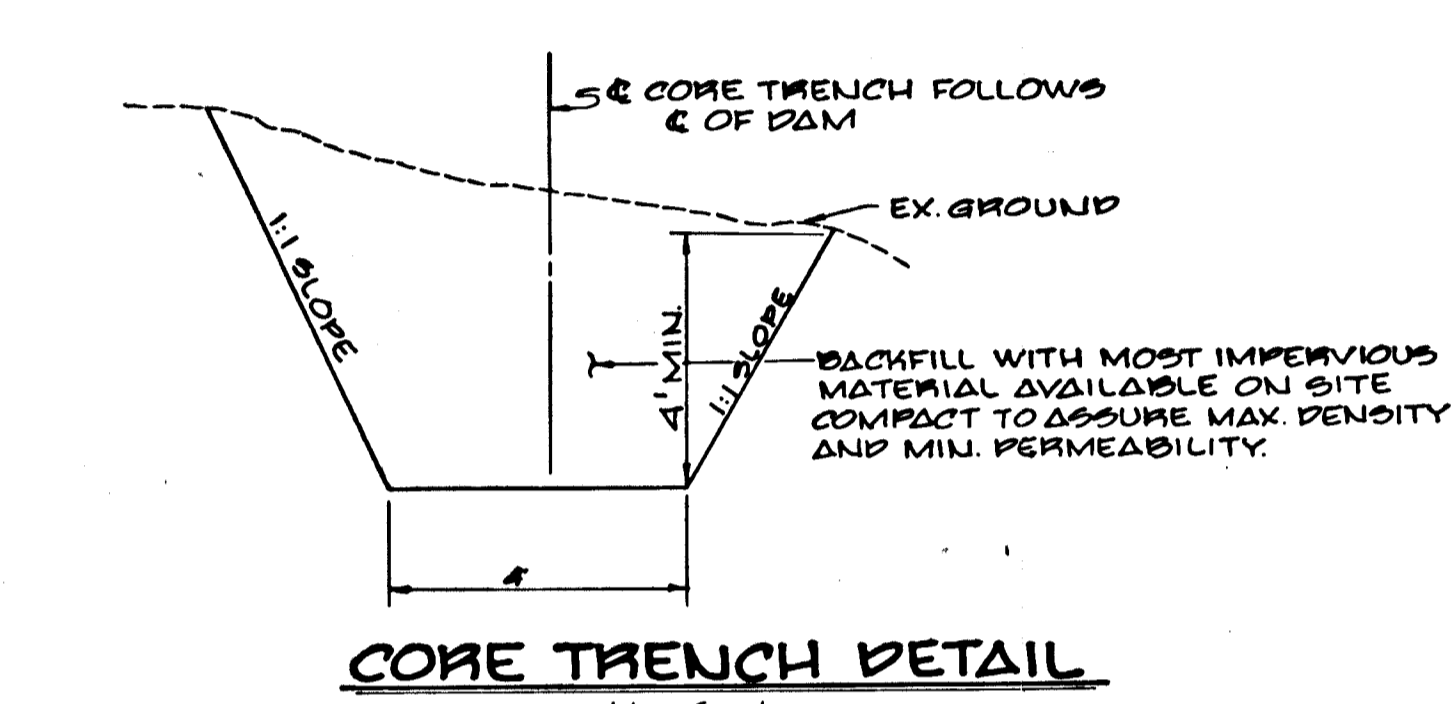
STRUC	TYPE	INV. IN.	INV. OUT	TOP ELEV.	ROAD STATION	REMARKS
1-1	A-5	369.65	369.48	375.60	STA. 16+04.22' AUTUMN RUST RD.	S.D. 4.01
1-2	A-5	373.75	370.00	375.60	STA. 16+04.22' AUTUMN RUST RD.	S.D. 4.01
1-3	A-5	373.75	374.49	380.69	STA. 16+04.22' AUTUMN RUST RD.	S.D. 4.01
1-4	A-5	374.80	374.55	380.69	STA. 04+93.00' SPRING SHOWERS WAY	S.D. 4.01
1-5	A-5 W/DEFLECTORS	379.00	378.00	384.35	STA. 13+53.09' KINGS HEIGHTS RD.	S.D. 4.01 & 4.83
1-6	A-5 W/DEFLECTORS	379.00	379.23	384.35	STA. 13+53.09' KINGS HEIGHTS RD.	S.D. 4.01 & 4.83
1-7	A-5 W/DEFLECTORS	390.35	390.18	395.82	STA. 13+53.09' KINGS HEIGHTS RD.	S.D. 4.01 & 4.83
1-8	A-5 W/DEFLECTORS	400.25	400.00	407.49	STA. 10+05.60' KINGS HEIGHTS RD.	S.D. 4.01 & 4.83
1-9	A-5 W/DEFLECTORS	404.60	403.75	411.27	STA. 8+50.00' KINGS HEIGHTS RD.	S.D. 4.02
1-10	A-5 W/DEFLECTORS	407.00	407.00	414.31	STA. 8+00.00' KINGS HEIGHTS RD.	S.D. 4.01 & 4.83
1-11	A-10	408.97	408.47	414.31	STA. 5+59.50' KINGS HEIGHTS RD.	S.D. 4.02
1-12	'0' INLET	371.25	418.40	423.63	STA. 14+24.66' FALL CHILL COURT	S.D. 4.11
1-13	A-5	371.25	371.25	378.85	STA. 14+24.66' FALL CHILL COURT	S.D. 4.01
1-14	A-5	371.25	371.25	378.85	STA. 14+24.66' FALL CHILL COURT	S.D. 4.01
1-15	A-5	391.50	391.25	396.50	L.P. STA. 05+90.00' SPRING BREEZE CT.	S.D. 4.01
1-16	A-5	402.42	402.42	407.00	L.P. STA. 05+90.00' SPRING BREEZE CT.	S.D. 4.01
1-17	A-5	376.43	374.18	380.49	STA. 2+67.50' FALL CHILL COURT	S.D. 4.01
1-18	A-5	381.25	381.00	387.11	STA. 1+41.67' WINTER WIND COURT	S.D. 4.01
1-19	A-5	382.38	381.97	387.11	STA. 1+41.67' WINTER WIND COURT	S.D. 4.01
1-20	'0' INLET	382.38	388.50	392.83	STA. 1+41.67' WINTER WIND COURT	S.D. 4.11
1-21	A-5 W/DEFLECTORS	385.75	385.75	389.15	STA. 4+88.48' FALL CHILL COURT	S.D. 4.01 & 4.83
MH 3	STANDARD MANHOLE	372.43	372.28	378.93	STA. 1+56.25' FALL CHILL COURT	G. 5.01
MH 4	STANDARD MANHOLE	375.07	374.82	386.50	STA. 2+44.22' FALL CHILL COURT	G. 5.01
MH 5	STANDARD MANHOLE	388.00	388.55	397.85	L.P. STA. 2+03.00' SPRING BREEZE CT.	G. 5.01
MH 6	STANDARD MANHOLE	397.12	396.07	401.10	STA. 2+44.22' FALL CHILL COURT	G. 5.01
MH 7	STANDARD MANHOLE	416.18	415.93	426.40	STA. 1+41.67' WINTER WIND COURT	G. 5.01
MH 8	STANDARD MANHOLE	402.00	402.00	407.00	STA. 4+17.60' FALL CHILL COURT	G. 5.01
MH 9	STANDARD MANHOLE	384.33	384.08	388.37	STA. 2+49.00' WINTER WIND COURT	G. 5.01
MH 10	STANDARD MANHOLE	370.41	370.31	372.90	STA. 1+41.67' WINTER WIND COURT	G. 5.01
S-1	STD. METAL END SECT	369.10	369.06	370.60	STA. 16+04.22' AUTUMN RUST RD. @ 40' FROM E.	S.D. 5.61
S-2	STD. METAL END SECT	368.52	368.38	371.52	STA. 16+04.22' AUTUMN RUST RD. @ 40' FROM E.	S.D. 5.61
S-3	STD. METAL END SECT	370.64	370.59	372.64	STA. 16+04.22' AUTUMN RUST RD. @ 40' FROM E.	S.D. 5.61
S-4	STD. METAL END SECT	370.64	370.59	372.64	STA. 16+04.22' AUTUMN RUST RD. @ 40' FROM E.	S.D. 5.61
S-5	STD. METAL END SECT	374.64	374.52	376.27	STA. 2+67.50' FALL CHILL CT. @ 50' FROM E.	S.D. 5.61

MITIGATION BASIN SPECIFICATIONS

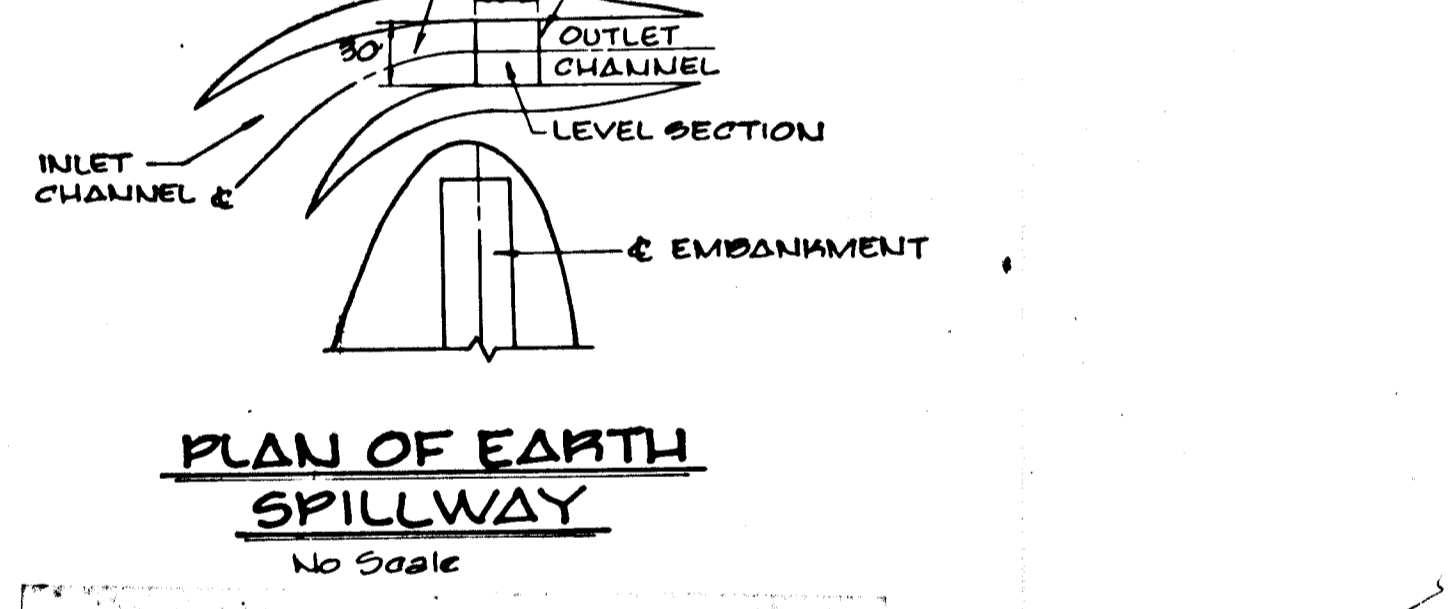
- SITE PREPARATION**
Areas under the embankment and structural works shall be cleared, grubbed and the topsoil stripped to remove all trees, vegetation, roots or other objectionable material. To facilitate clean out and restoration, it is recommended that the permanent pool area be cleared of all brush and trees.
- EARTH FILL**
Material
The fill material shall be taken from approved designated borrow area or areas. It shall be free from roots, stumps, wood, rubbish, over-size stones, frozen or other objectionable materials. The embankment shall be constructed to an elevation which provides for anticipated settlement to the design elevation. The fill height all along the length of the embankment shall be increased at least 10 percent above the design elevation (including freeboard) unless otherwise shown on the plans. All fill material shall be CL or ML, as approved by Soils Engineer.
Placement
Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in 8-inch maximum thickness (before compaction) layers which are to be continuous over the entire length of the fill. The most porous borrow material shall be placed in the downstream portion of the embankment.
Core Trench
Where specified, a core trench shall be excavated along or parallel to the centerline of the embankment, as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation with the minimum width being 4-feet. The depth shall be at least 4-feet or as shown on the plans. The side slopes of the trench shall be 1:1 or flatter. The backfill material for the core trench shall be the most impervious material available and shall be compacted with equipment or rollers to assure maximum density and minimum permeability. Compact to 95% of AASHTO T-99 density. Materials shall be CL or ML as approved by Soils Engineer.
- STRUCTURAL BACKFILL**
Backfill material shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed 4-inches in thickness and compacted by hand tampers or other compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than 4-feet to any part of a structure. Under no circumstances shall the contractor drive equipment over any part of a structure or pipe unless there is a compacted fill of 2-feet or greater over the structure or pipe.
- PIPE CONNECTIONS**
A. CORRUGATED METAL PIPE
1. Material - Metal
Pipes - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211, with watertight coupling bands.
2. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the control structure shall be mortared all around. Watertight coupling bands shall be used at all joints. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight.
3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
4. Laying pipe - The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the sides.
5. Backfilling shall conform to structural backfill as shown above.
6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.
B. CONCRETE
Concrete shall meet minimum requirements set forth in Maryland State Highway Administration Specifications for Materials, Highways, Bridges, and Incidental Structures, Article 20-07 (Portland Cement Concrete Mixture), Mix No. 3.
VI. STABILIZATION
All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway and borrow areas shall be stabilized by permanent seeding and applying straw mulch in accordance with "Standards and Specifications for Soil Erosion and Sediment Control in Urbanizing Areas" immediately after finish grading.



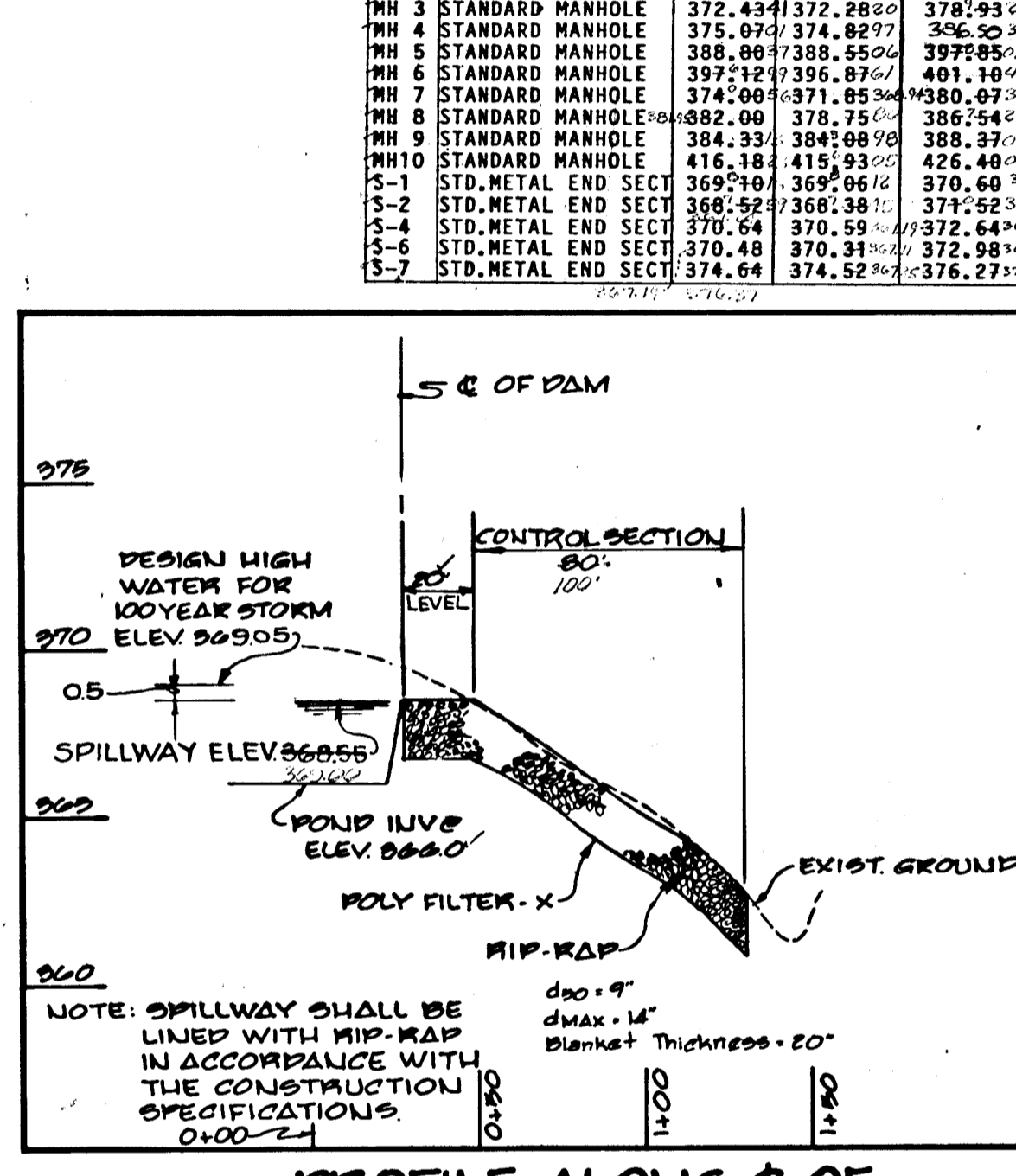
MITIGATION BASIN PROFILE ALONG C/L OF DAM
SCALE: 1"=50' Horiz. 1"=5' Vert.



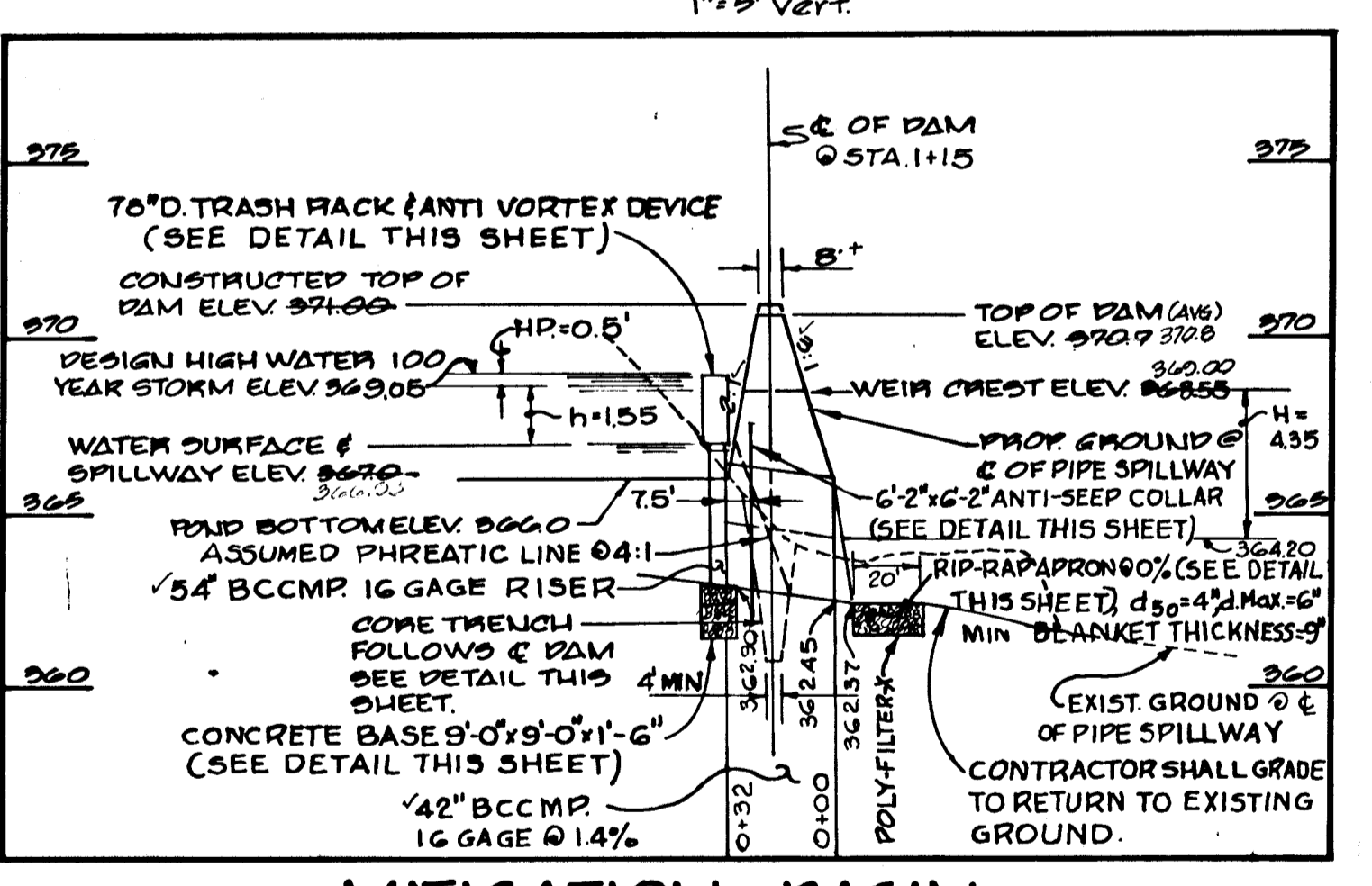
CORE TRENCH DETAIL
No Scale



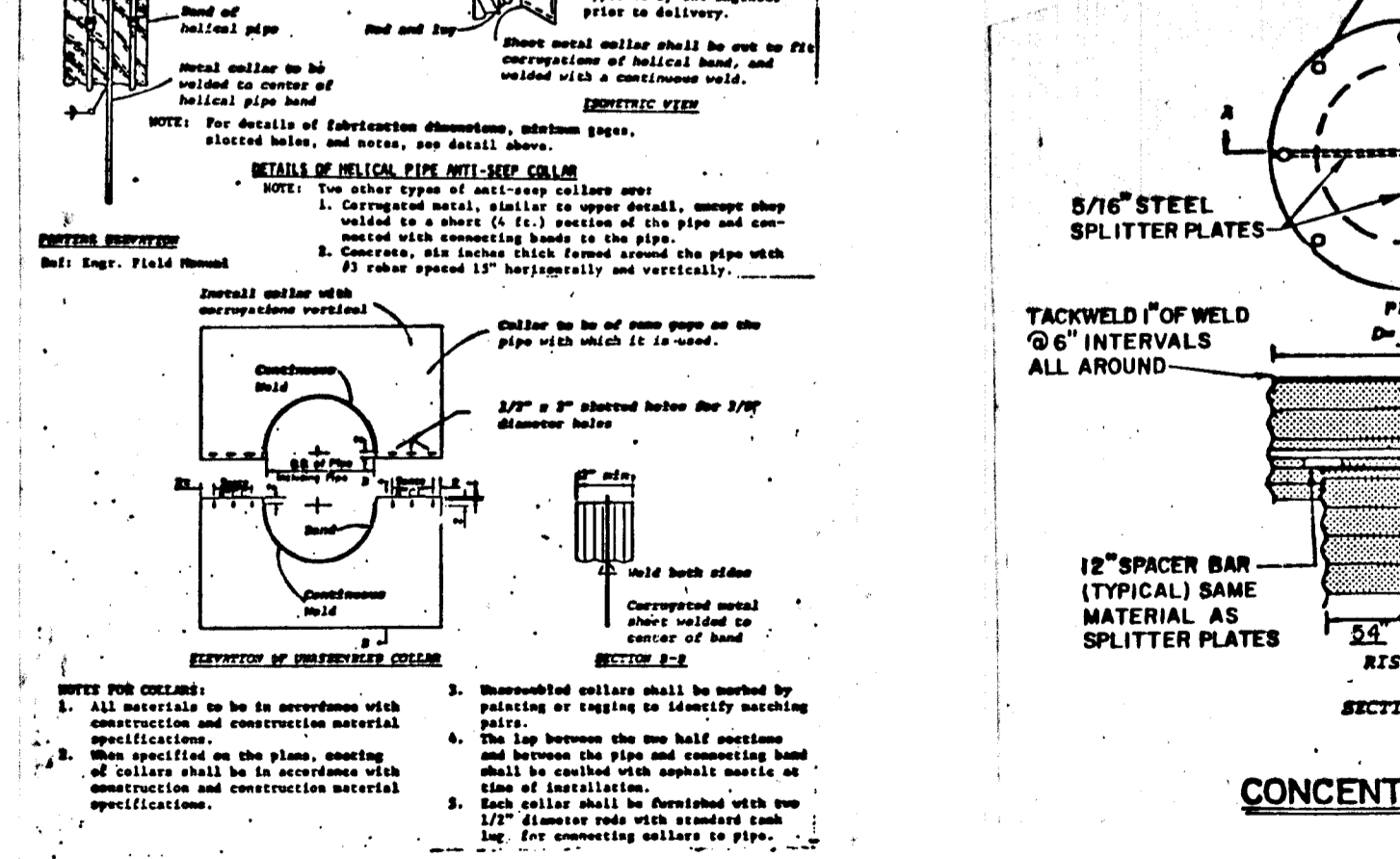
PLAN OF EARTH SPILLWAY
No Scale



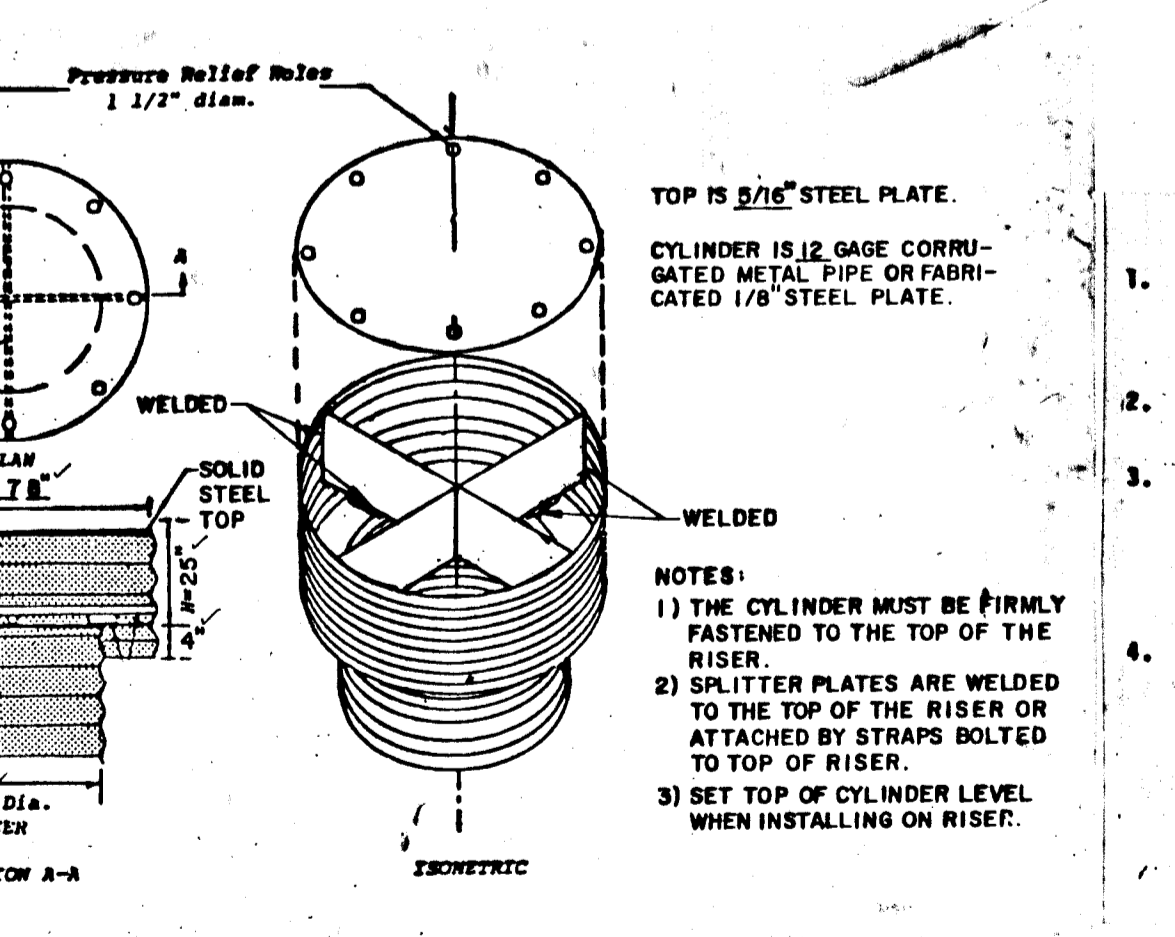
PROFILE ALONG C/L OF EARTH SPILLWAY
SCALE: 1"=50' Horiz. 1"=5' Vert.



MITIGATION BASIN CROSS SECTION & OF EXISTING STREAM
SCALE: 1"=50' Horiz. 1"=5' Vert.



CORRUGATED METAL ANTI-SEEP COLLAR DETAILS
NO SCALE



RIP-RAP CONSTRUCTION SPECIFICATIONS

ENGINEER'S CERTIFICATE

I certify that the plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with an "as-built" plan of the pond within 90 days of completion.

W. H. Taylor 6-27-88
Signature of Engineer Date

DEVELOPER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I will provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

W. H. Taylor 6-27-88
Signature of Developer Date

MITIGATION BASIN SPECIFICATIONS, DETAILS AND STORM DRAIN PROFILES

AUTUMN MANOR

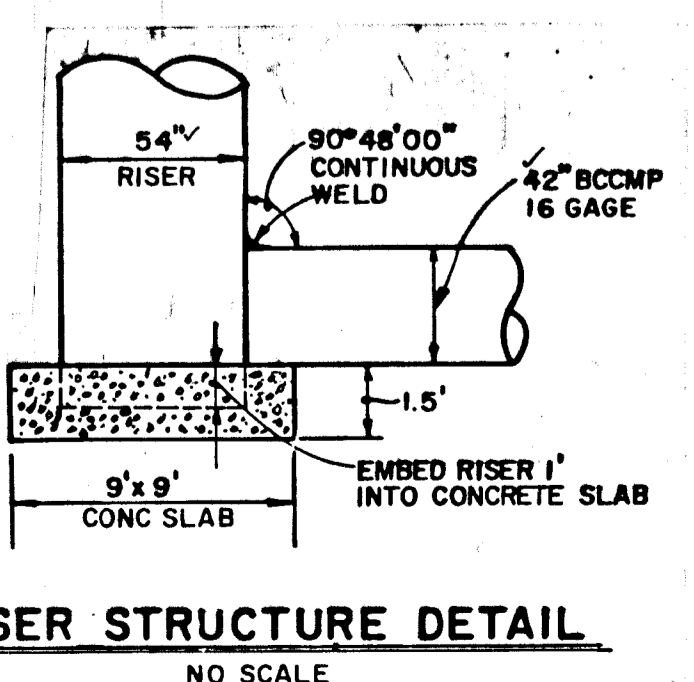
SECTION 1 AREA 2
LOTS 94-154

2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN NOVEMBER 20, 1987

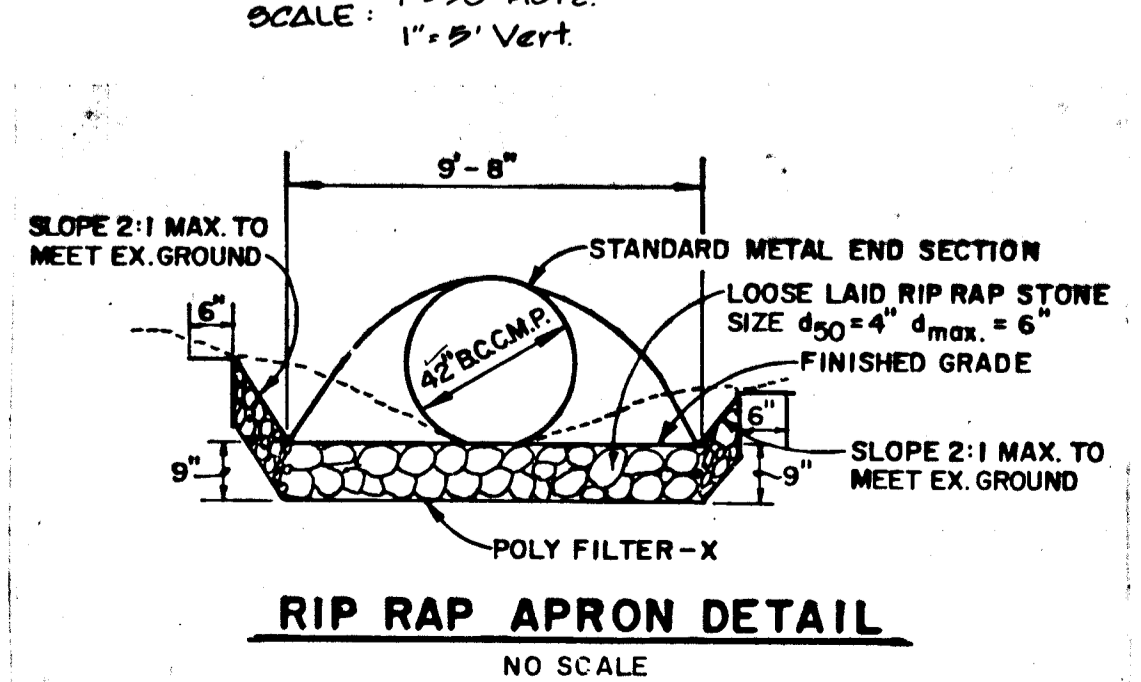
SHEET 8 OF 10

1132

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

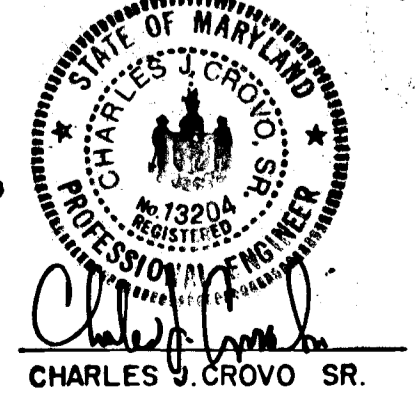
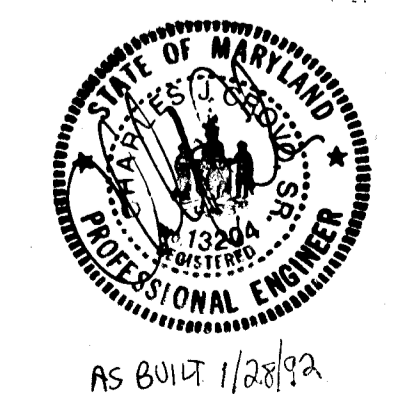


RISER STRUCTURE DETAIL
NO SCALE



RIP RAP APRON DETAIL
NO SCALE

Revised: 2/6/89 by S.H.
Change M4 elevation



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 _____ 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."

D. Hunt 6-21-88
 SIGNATURE OF DEVELOPER DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
J. Helm 7/7/88
 U.S. SOIL CONSERVATION DISTRICT DATE

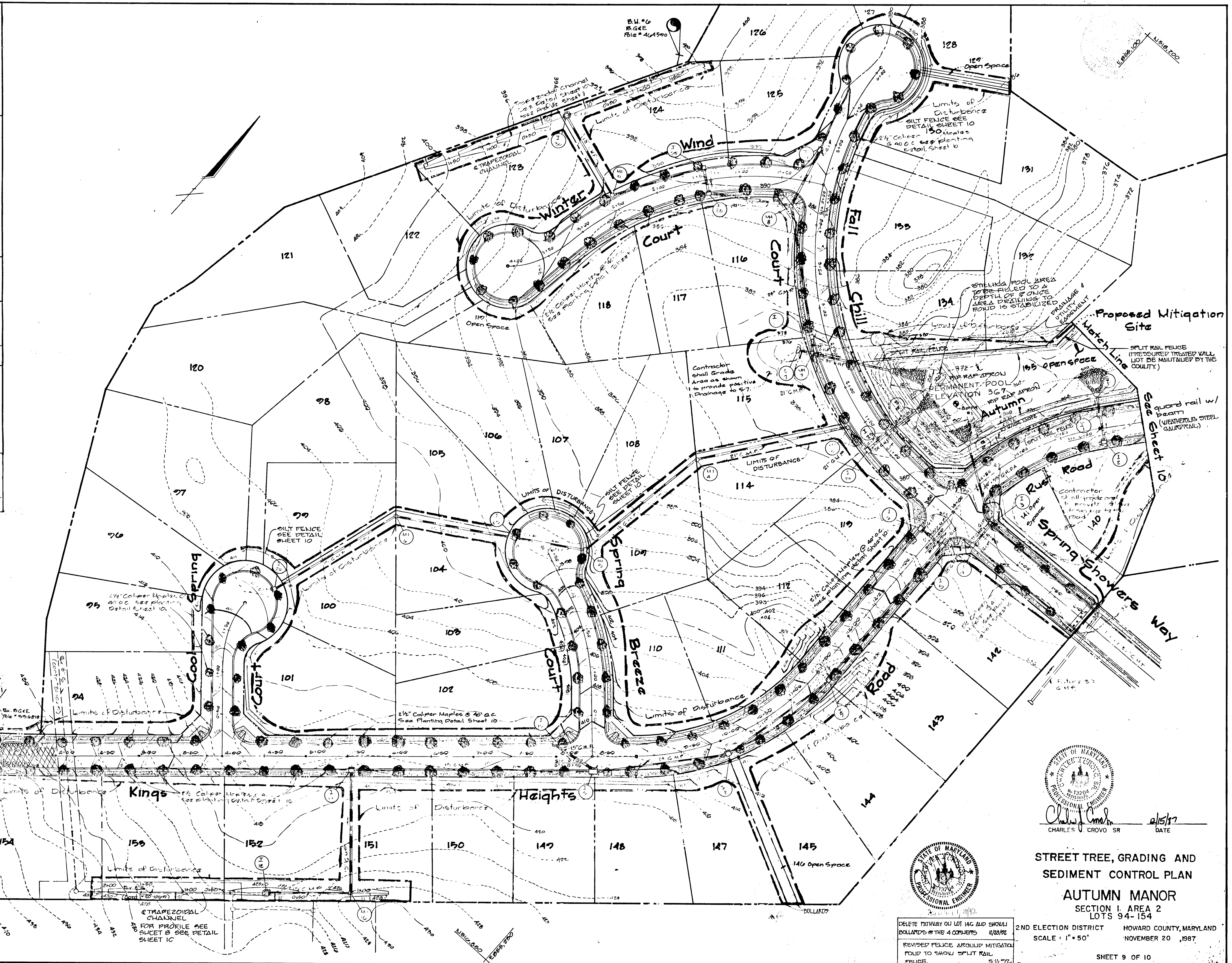
THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED:
Robert J. Zelman 7/7/88
 DISTRICT DATE
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Paul J. Jepsen 9/1/88
 Chief, Land Development Division DATE

Franklin W. Weisand 9/1/88
 Chief, Bureau of Highways DATE

J. S. ... 9-2-88
 Chief, Bureau of Engineering DATE

APPROVED
 OFFICE OF PLANNING AND ZONING
David J. ... 9-2-88
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE



1132

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

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
Charles Crovo SR 11/5/87
 CHARLES CROVO SR DATE

STREET TREE, GRADING AND SEDIMENT CONTROL PLAN
AUTUMN MANOR
 SECTION 1, AREA 2
 LOTS 94-154

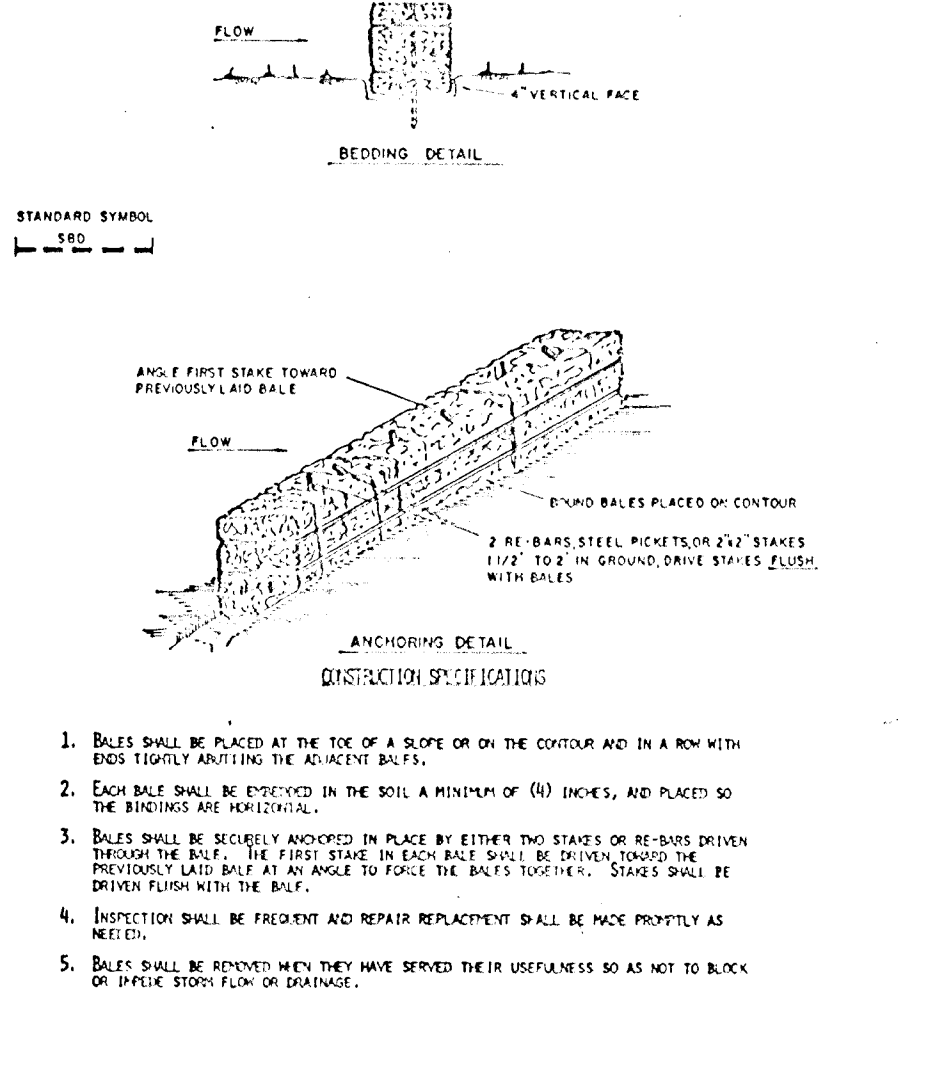
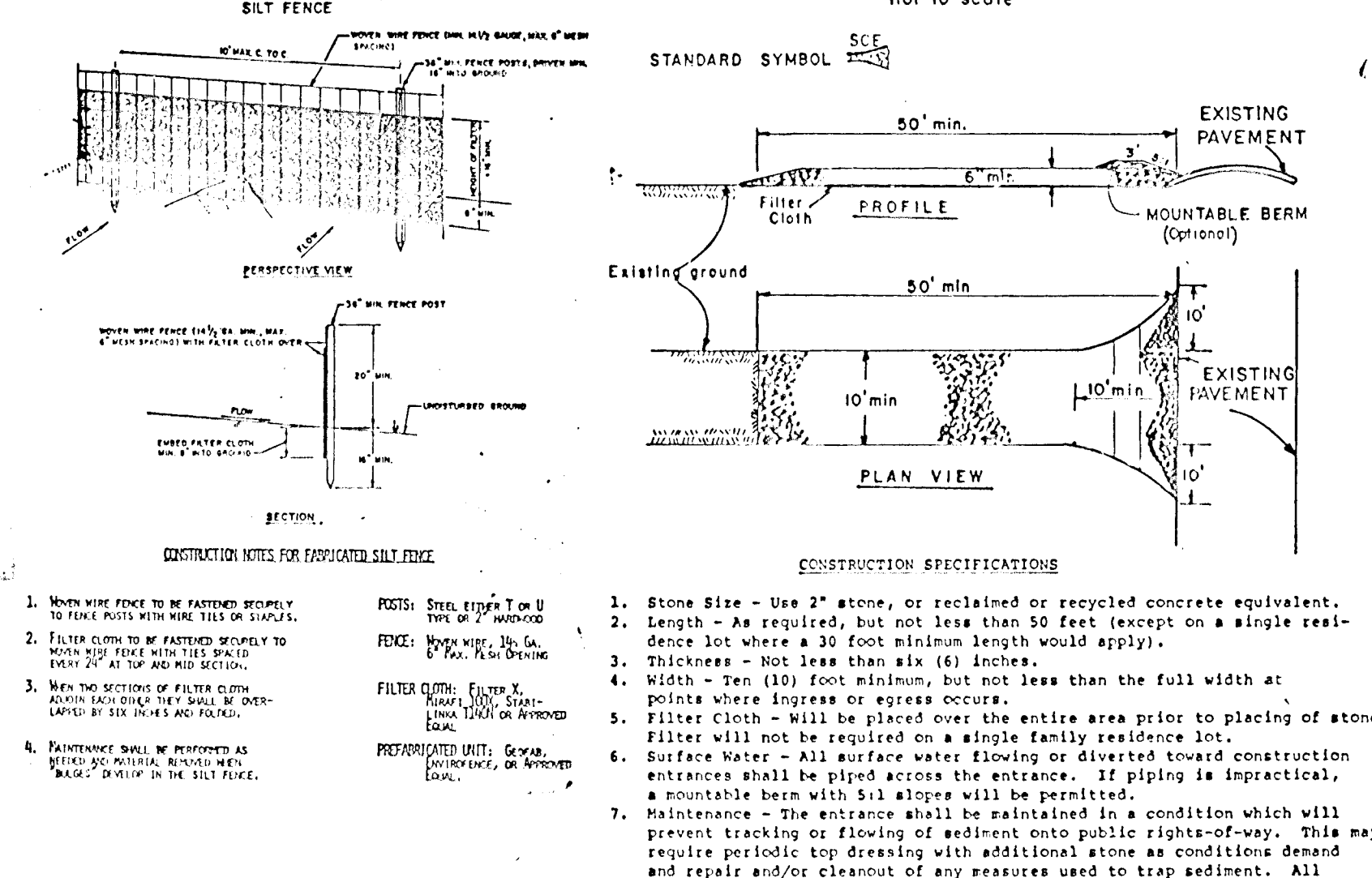
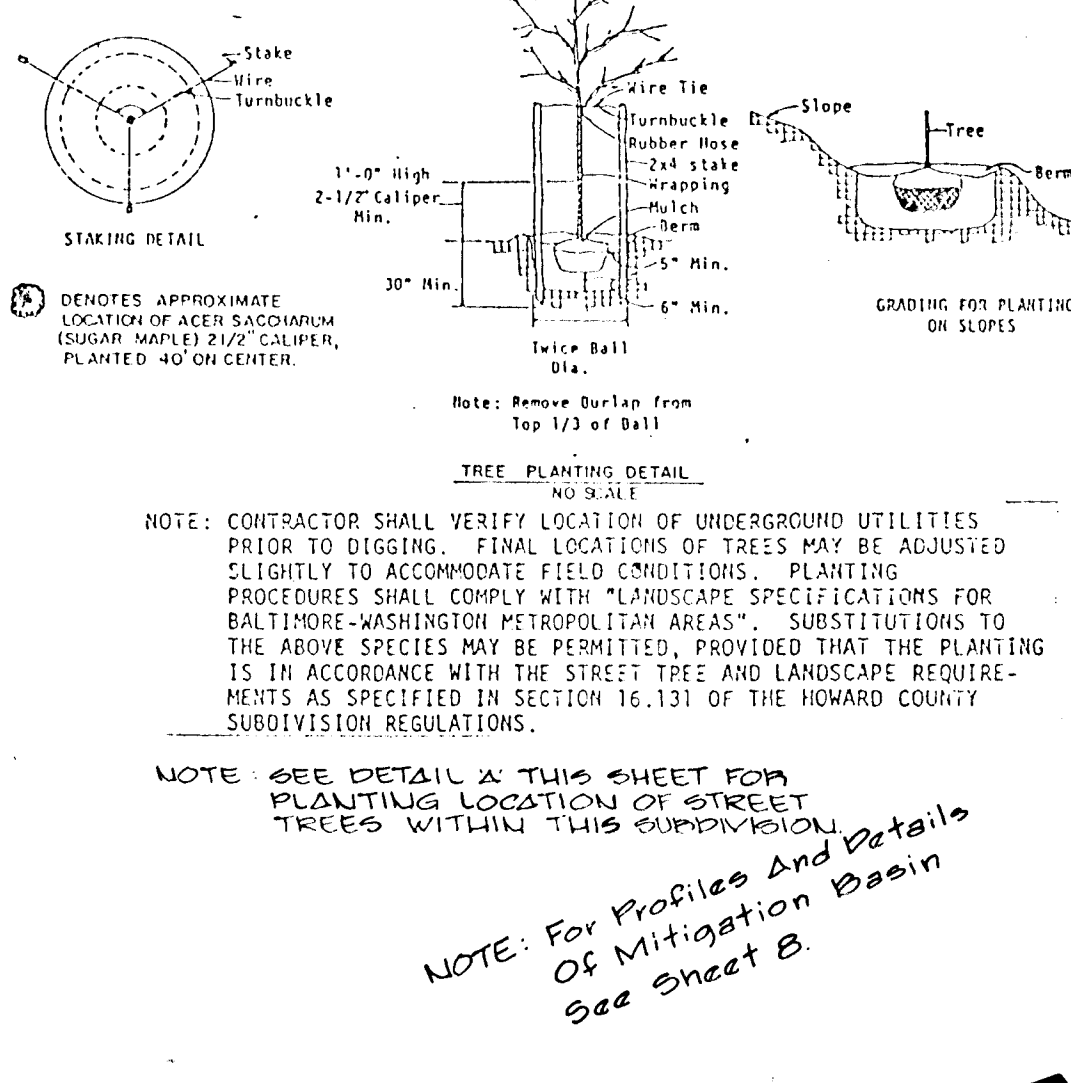
DELETE PATHWAY ON LOT 146 AND SHOW BOLLARD'S @ THE 4 CORNERS 11/22/87
 REVISED FELICE AROUND MITIGATION ROAD TO SHOW SPLIT RAIL FELICE 5-11-87

2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 50' NOVEMBER 20, 1987

SHEET 9 OF 10

PERMANENT SEEDING NOTES:
 APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE DISTURBED WHERE A PERMANENT LONG-VEGETATIVE COVER IS NEEDED.
 SEEDING PREPARATION: LOOSEN UPPER THREE-INCHES OF SOIL BY BAKING, 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) **LEVEL 1** - APPLY 2 TONS PER ACRE OF OPTIMUM LIMESTONE (90 LBS/1000 SQ.FT.) AND 400 LBS PER ACRE TO 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING.
 2) **LEVEL 2** - APPLY 2 TONS PER ACRE OF OPTIMUM LIMESTONE (90 LBS/1000 SQ.FT.) AND 400 LBS PER ACRE TO 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE-INCHES OF SOIL.
 SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS/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/1000 SQ.FT.) OF WHEATING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 29, PROJECT SITE SPEC. OPTION (2) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (3) USE SOO. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 210 GALLONS PER ACRE (5 GAL/1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 210 GALLONS PER ACRE (5 GAL/1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. MAINTENANCE: INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.
TEMPORARY SEEDING NOTES:
 APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE DISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.
 SEEDING PREPARATION: LOOSEN UPPER THREE-INCHES OF SOIL BY BAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF NOT PREVIOUSLY LOOSENED, SOIL AMENDMENTS: APPLY 600 LBS PER ACRE TO 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING.
 SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 TONS PER ACRE OF ANNUAL RYE (3.7 LBS/1000 SQ.FT.). FROM THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WHEATING LOVEGRASS (0.07 LBS/1000 SQ.FT.) FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 29, PROJECT SITE SPEC. OPTION (2) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (3) USE SOO. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 210 GALLONS PER ACRE (5 GAL/1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. MAINTENANCE: INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.
 REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

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 (1992 2433).
 2) ALL MARYLAND STANDARDS AND SPECIFICATIONS ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN COMPLIANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 3) FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, 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 OR TEMPORARY STABILIZATION. TEMPORARY SEEDING (ESC. 50) AND MULCHING (ESC. 52), TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASS.
 6) ALL SEDIMENT CONTROL STRUCTURES AND TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
 7) **SITE ANALYSIS:**
 TOTAL AREA OF SITE: 22.58 ACRES
 AREA DISTURBED: 2.07 ACRES
 AREA TO BE GRADED OR PAVED: 2.16 ACRES
 AREA TO BE VEGETATIVELY STABILIZED: 5.54 ACRES
 TOTAL ERI: 16,000 CU. YDS.
 TOTAL TIE: 16,000 CU. YDS.
 8) **WASTE/SPILLAGE AREA LOCATION:**
 ANY WASTE/SPILLAGE AREA LOCATION FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
 9) ADDITIONAL SEDIMENT CONTROL MEASURES, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
 10) ANY ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUIRED UPON COMPLETION OF THE PERIMETER EROSION AND SEDIMENT CONTROL. NOT BEFORE INSPECTION OF 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.



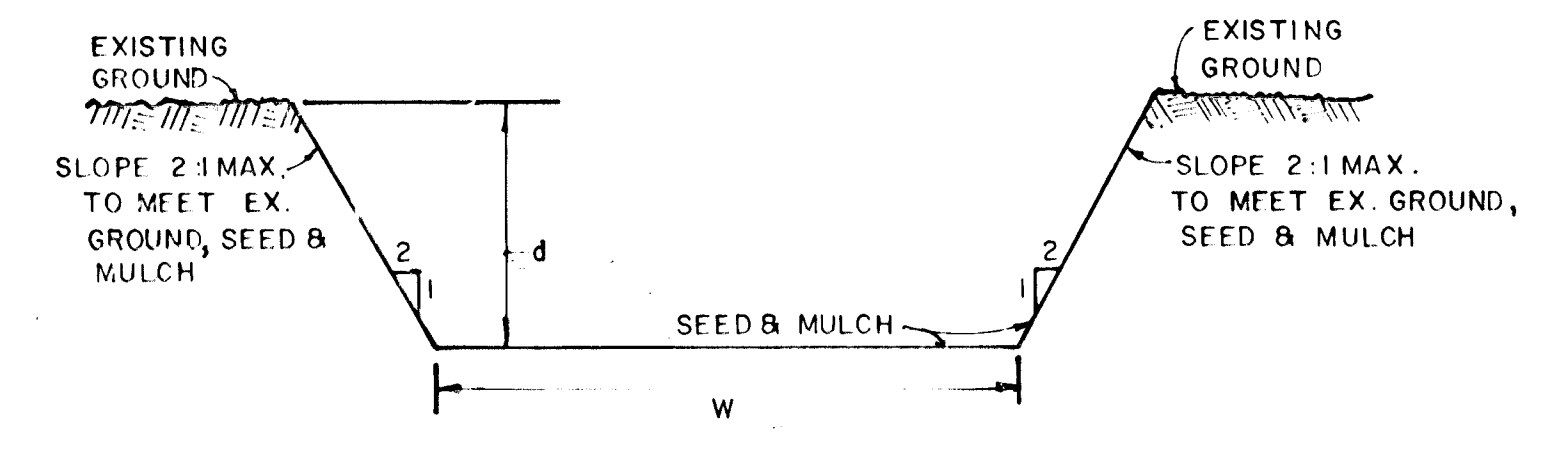
ENGINEER'S CERTIFICATE:
 I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 SIGNATURE OF ENGINEER: Charles J. Grovo
 DATE: 12/18/97

DEVELOPER'S CERTIFICATE:
 I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL. I AM RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL BE A CERTIFIED CLASS OF AFFILIATION 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: [Signature]
 DATE: 6-27-98

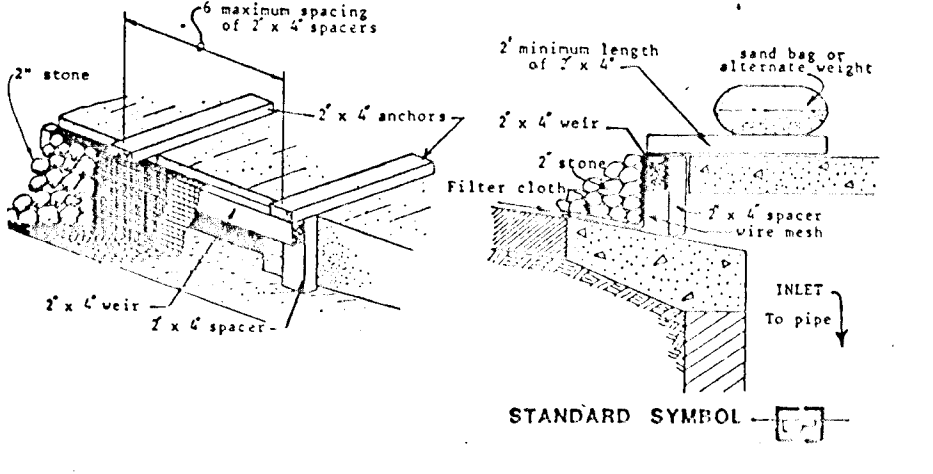
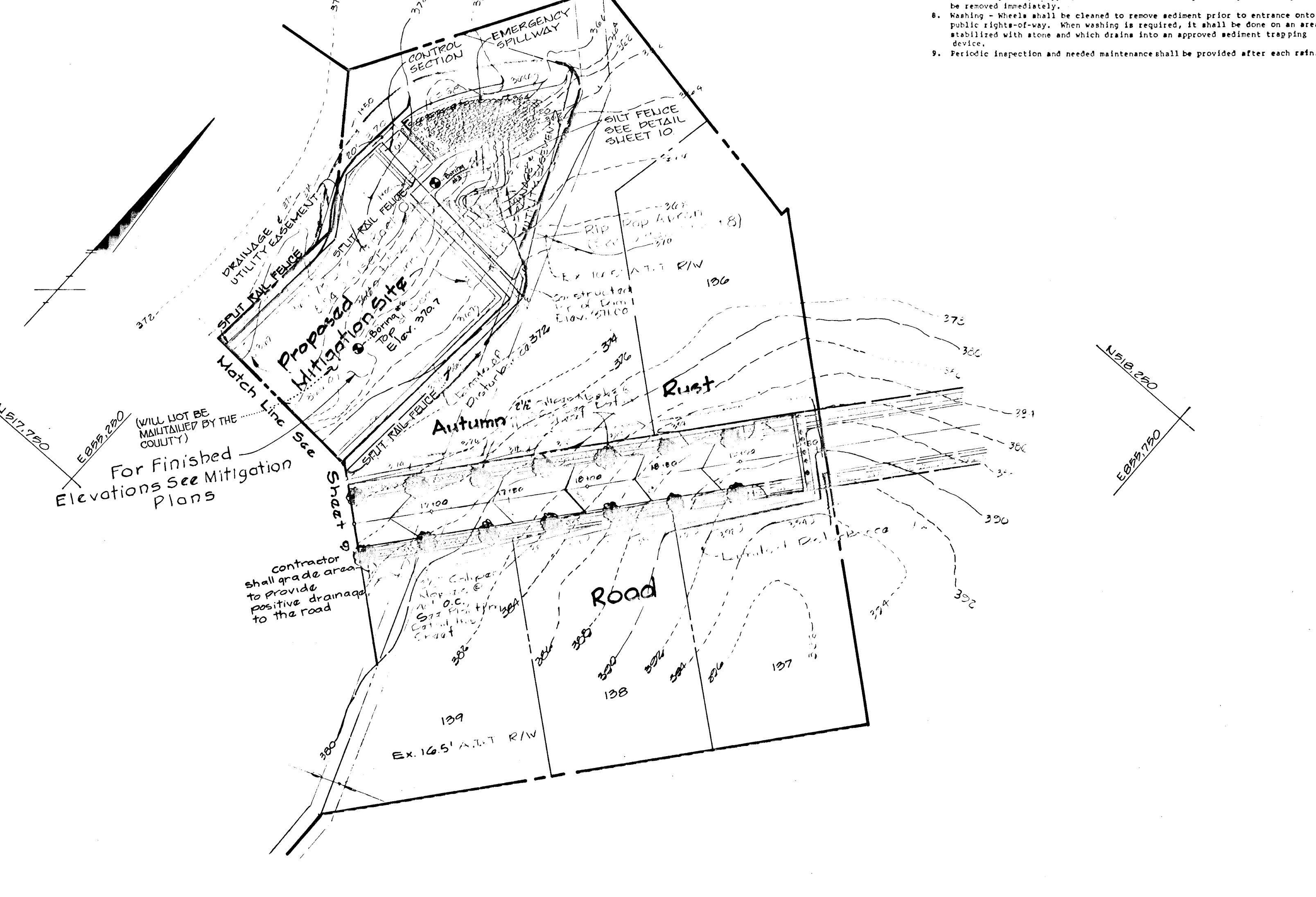
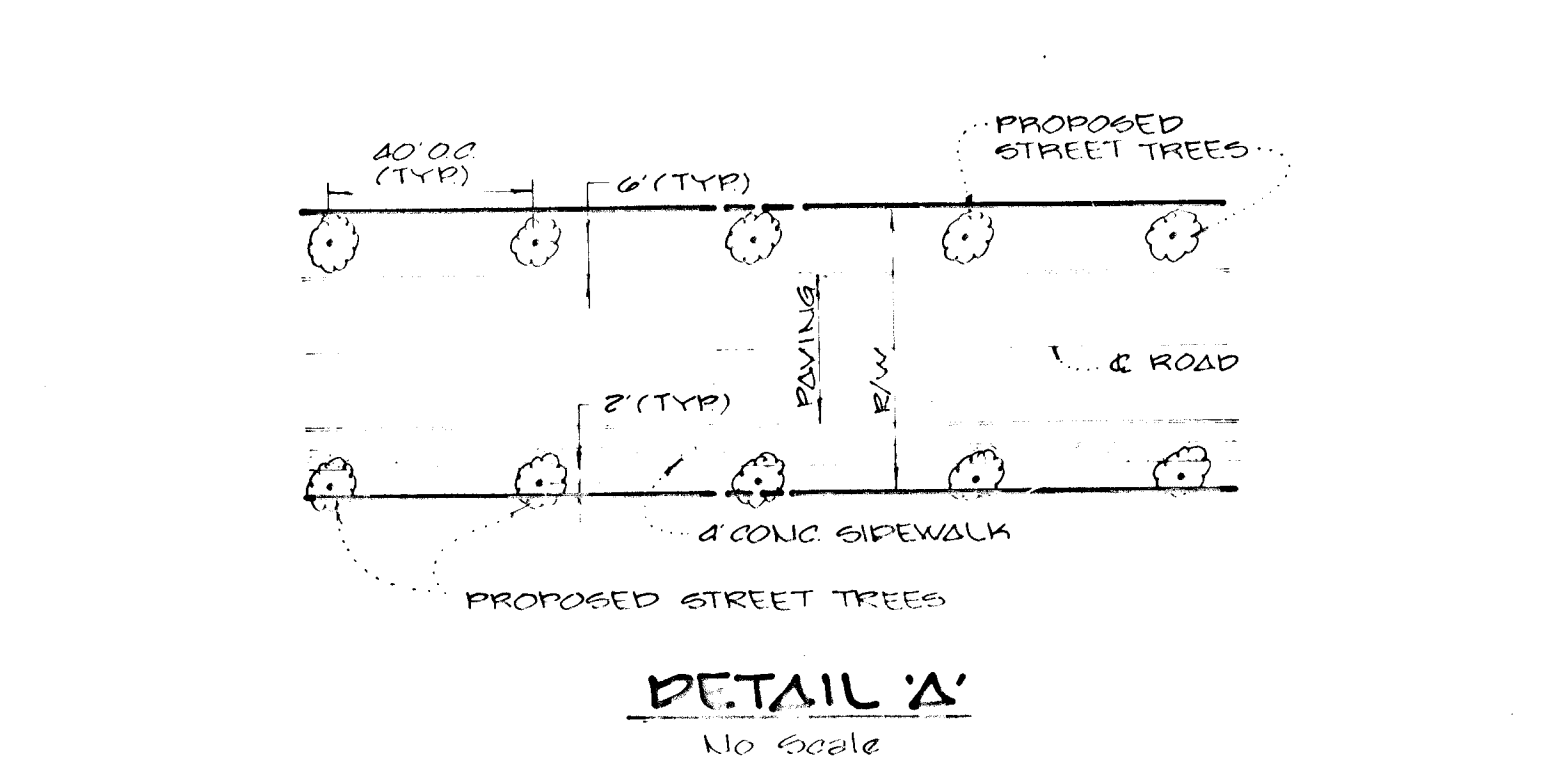
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature]
 DATE: 9/1/98

APPROVED: OFFICE OF PLANNING AND ZONING
 [Signature]
 DATE: 5-1-98

NOTE: FOR DIMENSIONS OF CHANNELS, SEE PROFILES ON SHEETS 7 AND 8.



TRAPEZOIDAL CHANNEL DETAIL ALONG REAR OF LOTS 151-154 AND 123-124



- 8. Curb Inlet Protection.**
1. Attach a continuous piece of wire mesh (30" min. width by throat length plus 4") to the 2" x 4" curb (measuring throat length plus 2") as shown on the standard drawing.
 2. Place a piece of approved filter cloth (40-15 gauge) of the same dimensions as the wire mesh over the wire mesh and securely attach to the 2" x 4" curb.
 3. Securely nail the 2" x 4" curb to 9" long vertical anchors to be located between the curb and inlet face (max. 6' apart).
 4. Place the assembly against the inlet throat and nail (minimum 2" lengths of 2" x 4" to the top of the curb on both sides of the junctions. These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
 5. The assembly shall be placed so that the anchors are a minimum 1" beyond both ends of the curb.
 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 clean 2" stone over the wire mesh and filter fabric 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 dike directing flow into inlet.

- CONSTRUCTION SEQUENCE:**
1. OBTAIN GRADING PERMIT.
 2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AND SEDIMENT BASIN ON LOT 135 AS SHOWN ON PLAN. STABILIZE THE BASIN WITH TEMPORARY SEEDING.
 3. GRADE ROADS TO SUBGRADE.
 4. CONSTRUCT STORM DRAIN SYSTEM AND INSTALL INLET PROTECTION DEVICES AT ALL INLETS.
 5. THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON, AFTER EACH RAINFALL AND ON A DAILY BASIS. SEDIMENT SHALL BE REMOVED FROM THE BASIN WHEN THE CLEANOUT ELEVATION HAS BEEN REACHED.
 6. THE SEDIMENT BASIN SHALL BE DEWATERED BY PUMPING.
 7. REMOVE SEDIMENT FROM ROADWAYS AND DRESS STONE CONSTRUCTION ENTRANCE AS REQUIRED.
 8. REMOVE INLET PROTECTION DEVICES AND FLUSH STORM DRAIN SYSTEM TO REMOVE ANY TRAPPED SEDIMENT.
 9. REMOVE STONE CONSTRUCTION ENTRANCE. CLEAN BASE COURSE. APPLY LACK COAT TO BASE COURSE AND LAY SURFACE COURSE.
 10. REMOVE ALL ACCUMULATED SEDIMENT FROM MITIGATION BASIN AND GRADE TO FINISH ELEVATIONS ACCORDING TO MITIGATION PLAN.
 11. ALL DISTURBED AREAS DUE TO REMOVAL OF SEDIMENT CONTROL MEASURES SHALL BE GRADED AND STABILIZED BY PERMANENT SEEDING.
 12. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SLOPES, DITCH PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1; 14 DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
 13. NOTIFY HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS FOR FINAL INSPECTION AT DURATION OF PROJECT.

1132
 FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERS & LAND SURVEYORS
 8388 COURT AVENUE
 ELICOTT CITY, MARYLAND 21043



Charles J. Grovo
 CHARLES J. GROVO SR.
 DATE: 12/18/97

STREET TREE, GRADING AND SEDIMENT CONTROL PLAN
 AUTUMN MANOR
 SECTION I- AREA 2
 LOTS 1- AREA 154
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 50' NOVEMBER 20, 1987
 SHEET 10 OF 10