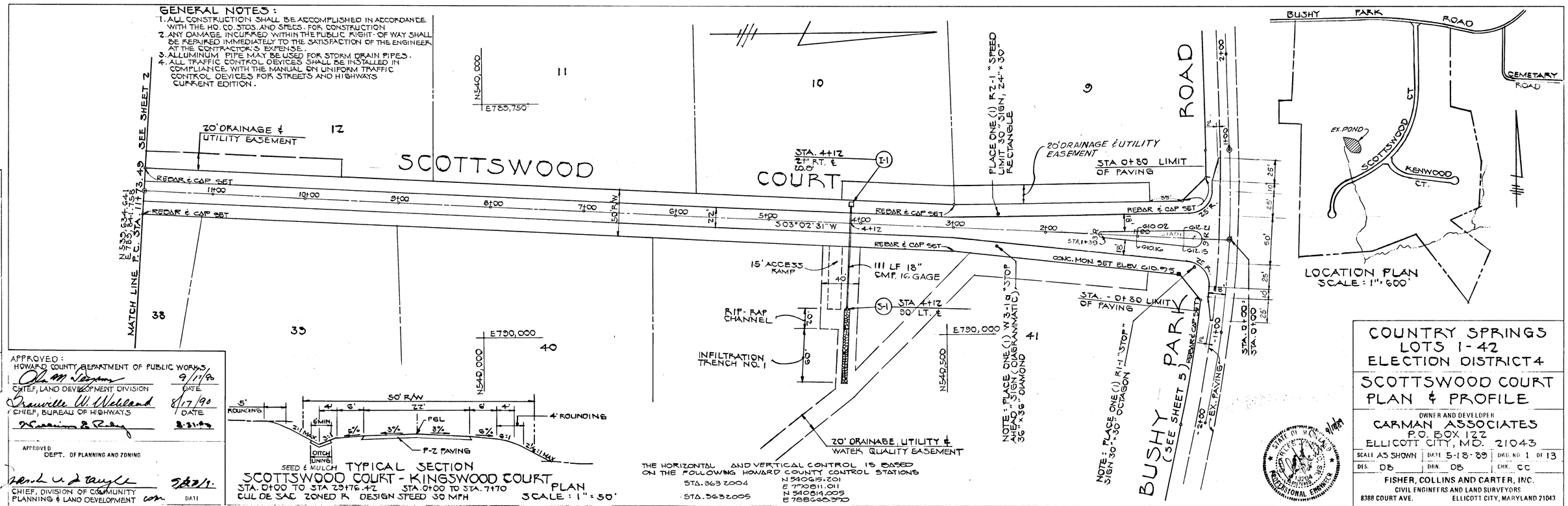
GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE HO. CO. STDS. AND SPECS. FOR CONSTRUCTION
2. ANY DAMAGE INCURRED WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
3. ALLUMINUM PIPE MAY BE USED FOR STORM DRAIN PIPES.
4. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS CURRENT EDITION.

SURVEYED / PLOTTED / GRADES CHECKED / R/W MONS SET / STRUCTURE NOTATIONS CHKD — DATE — BY — NOTE BOOK NO. — PLAT

APPROVED:
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — DATE 9/1/90
CHIEF, BUREAU OF HIGHWAYS — DATE 8/17/90
DIRECTOR — DATE 8-31-90

APPROVED:
DEPT. OF PLANNING AND ZONING
CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE 8/23/90



TYPICAL SECTION
SCOTTSWOOD COURT - KINGSWOOD COURT
STA. 0+00 TO STA 29+76.42 — STA. 0+00 TO STA. 7+70
CUL DE SAC ZONED R — DESIGN SPEED 30 MPH
SCALE: 1" = 50'

THE HORIZONTAL AND VERTICAL CONTROL IS BASED ON THE FOLLOWING HOWARD COUNTY CONTROL STATIONS

STA. 363 2004	N 540615.201
	E 790811.011
STA. 363 2005	N 540814.005
	E 788680.970

COUNTRY SPRINGS LOTS 1-42 ELECTION DISTRICT 4

SCOTTSWOOD COURT PLAN & PROFILE

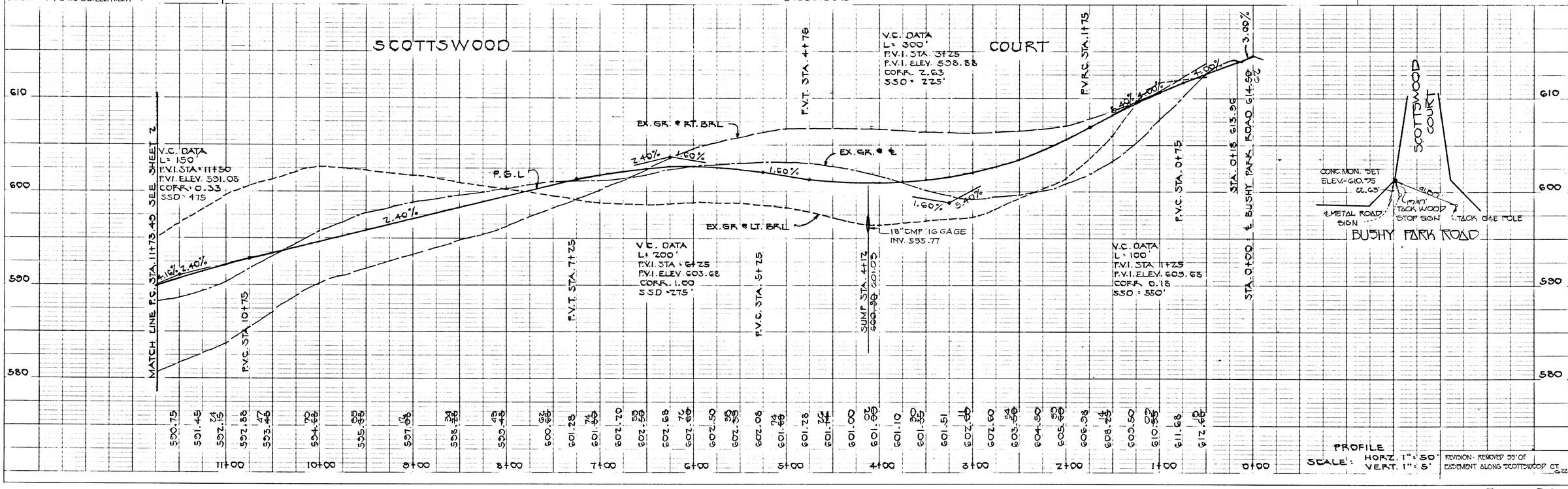
OWNER AND DEVELOPER
CARMAN ASSOCIATES
P.O. BOX 122
ELLICOTT CITY, MD. 21043

SCALE AS SHOWN	DATE 5-18-89	DWG. NO. 1 OF 13
DES. DB	DRN. DB	CHK. CC

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

STATE OF MARYLAND — CHARLES W. COLLINS — No. 7200 — REGISTERED PROFESSIONAL ENGINEER — 4/1989

PROFILE — SURVEYED / PLOTTED / GRADES CHECKED / R/W MONS SET / STRUCTURE NOTATIONS CHKD — DATE — BY — NOTE BOOK NO. —



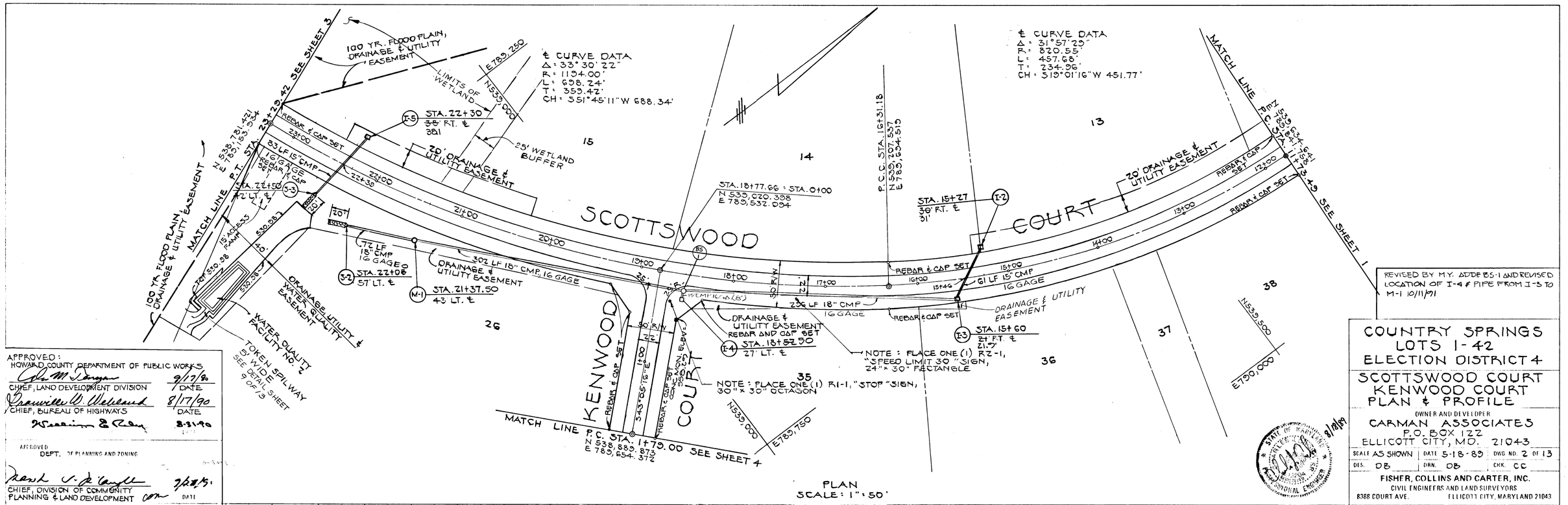
PROFILE
SCALE: HORZ. 1" = 50' VERT. 1" = 5'

REVISION - REMOVED 35' OF EASEMENT ALONG SCOTTSWOOD CT. 6-22-92

1561

AS-BUILT 9/27/92

F 90-59A



APPROVED:
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 9/12/90

CHIEF, BUREAU OF HIGHWAYS — DATE 8/17/90

DATE 8-31-90

APPROVED
DEPT. OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE 9/27/90

COUNTRY SPRINGS
LOTS 1-42
ELECTION DISTRICT 4

SCOTTSWOOD COURT
KENWOOD COURT
PLAN & PROFILE

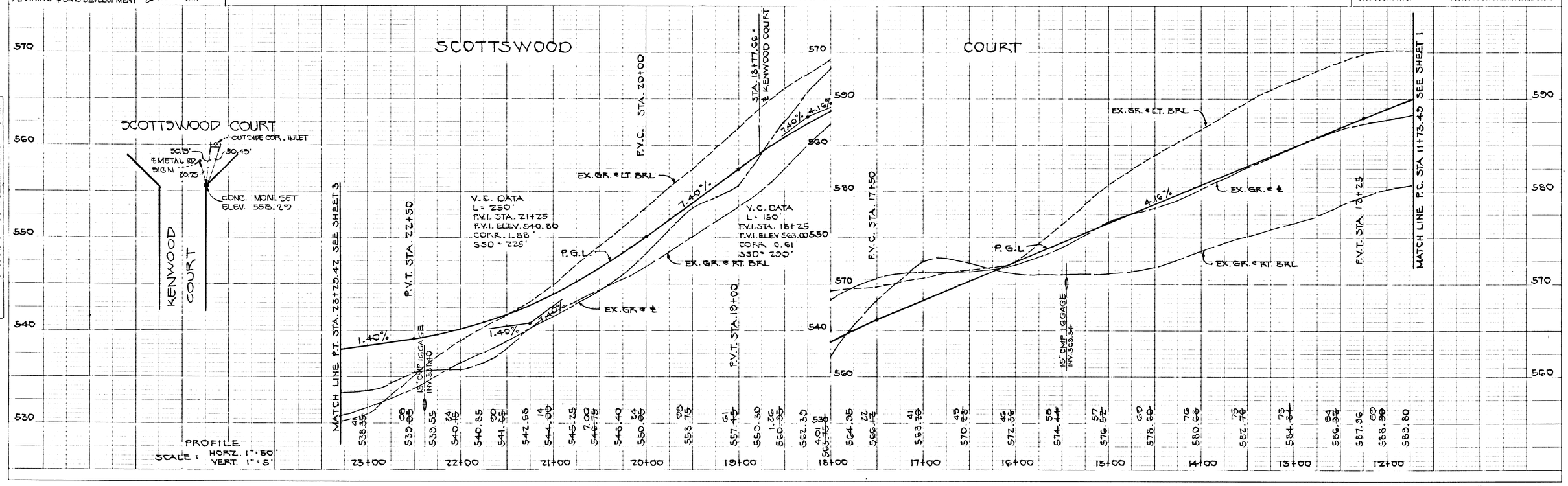
OWNER AND DEVELOPER
CARMAN ASSOCIATES
P.O. BOX 122
ELLICOTT CITY, MD. 21043

SCALE AS SHOWN	DATE 5-18-89	DWG NO. 2 OF 13
DES. DB	DRN. DB	CHK. CC

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

STATE OF MARYLAND — CHARLES M. COLLINS — No. 5382 — PROFESSIONAL ENGINEER — 9/18/89

PLAN
SCALE: 1" = 50'



AS-BUILT
3/27/92

F90-59A

1561

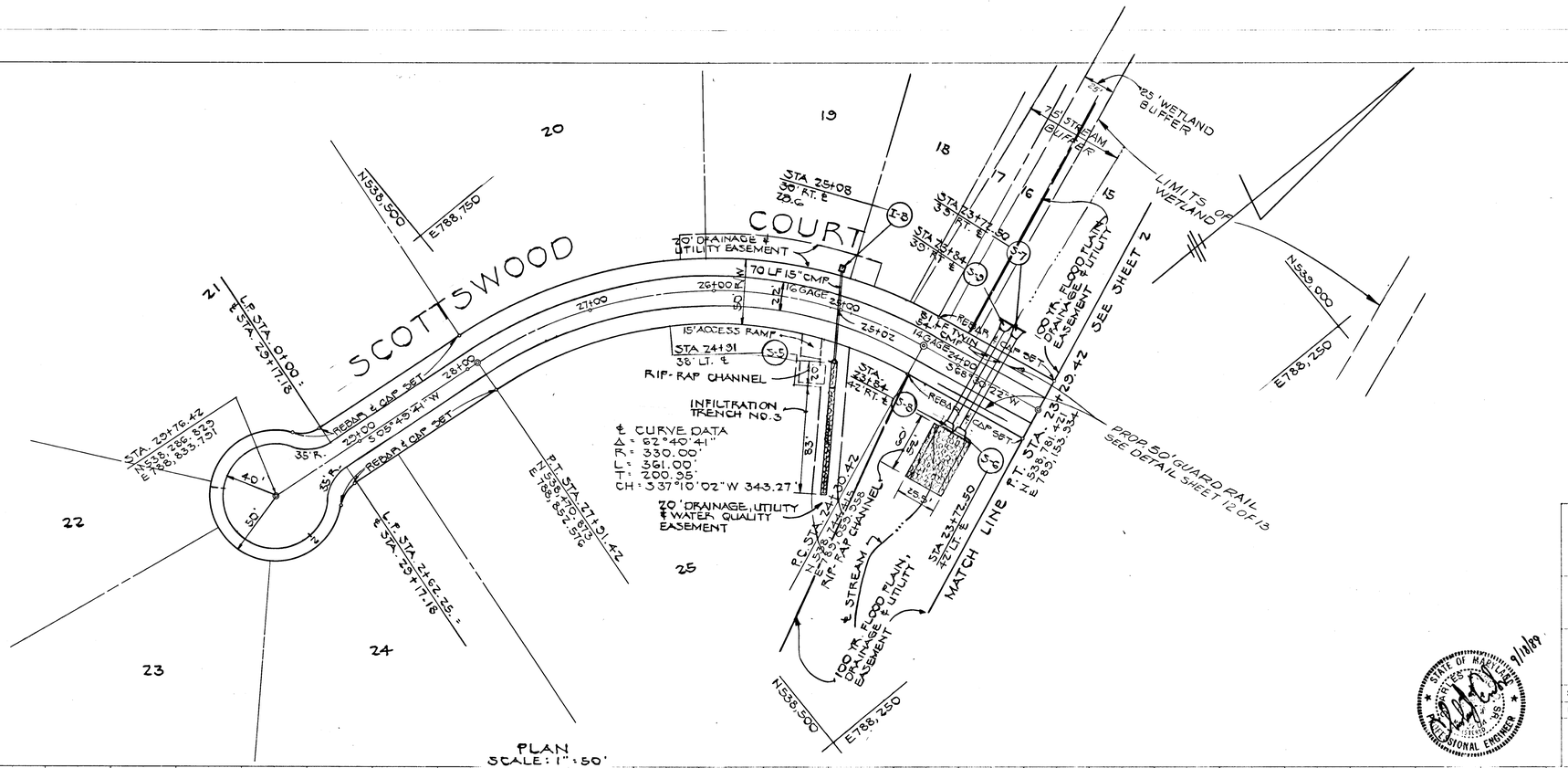
PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
R/W NOTED
NOTE BOOK
NO.

DATE | BY

APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — DATE 9/12/90
CHIEF, BUREAU OF HIGHWAYS — DATE 8/17/90

APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING — DATE 8-24-90

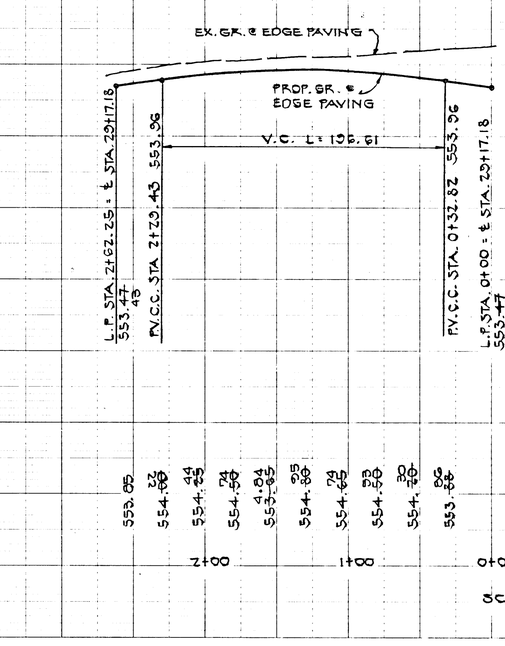
APPROVED
DEPT. OF PLANNING AND ZONING
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 9/21/90



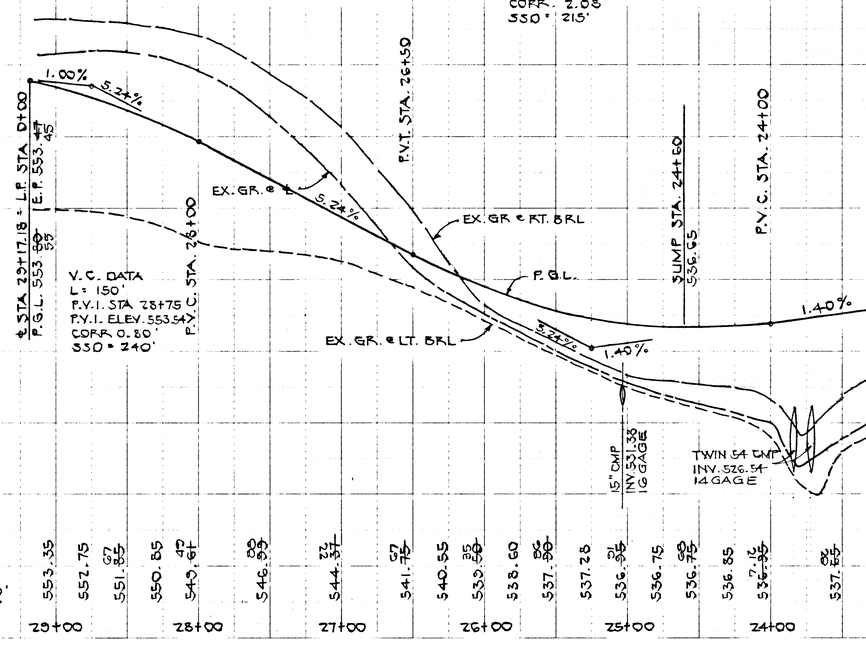
PLAN
SCALE: 1" = 50'

PROFILE
SURVEYED
PLOTTED
ALIGNMENT CHECKED
R/W NOTED
NOTE BOOK
NO.
STRUCTURE NOTATIONS CHKD

DATE | BY



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



STATE OF MARYLAND
DONALD C. CARMAN
No. 5538
REGISTERED PROFESSIONAL ENGINEER
9/18/89

COUNTRY SPRINGS
LOTS 1-42
ELECTION DISTRICT 4

SCOTTSWOOD COURT
PLAN & PROFILE

OWNER AND DEVELOPER
CARMAN ASSOCIATES
P.O. BOX 122
ELLICOTT CITY, MD. 21043

SCALE AS SHOWN	DATE 5-18-89	DWG NO. 3 OF 13
DES. DB	DRN. DB	CHK CC

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

1561

AS-BUILT
3/27/92

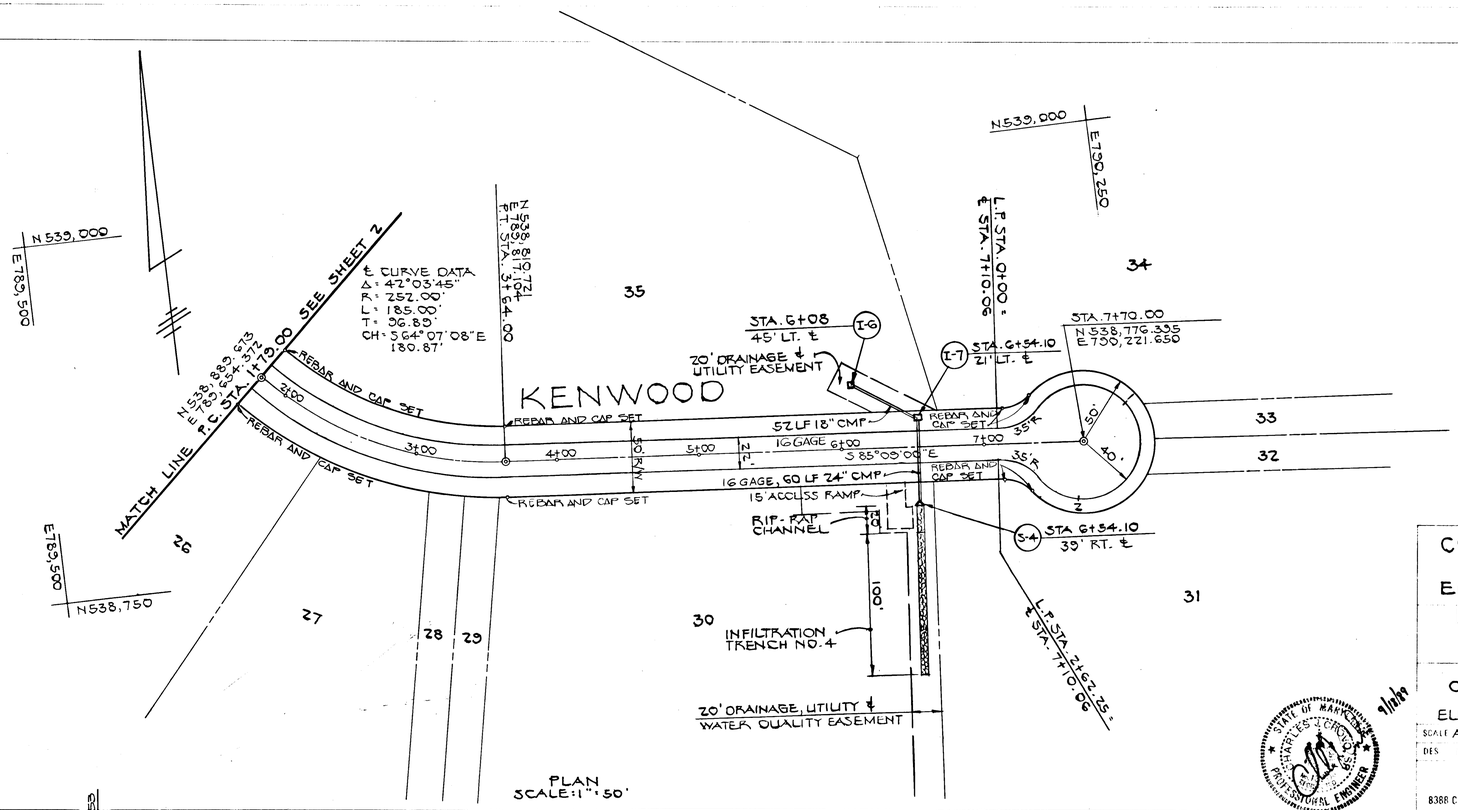
F 90-59A

PLAN | SURVEYED | PLOTTED | GRADES CHECKED | R/W NOTES | STRUCTURE NOTATIONS CHKD | BY | DATE

APPROVED
DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION — 8/2/90 DATE
CHIEF, BUREAU OF HIGHWAYS — 8/17/90 DATE

APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING — 8-31-90 DATE

APPROVED
DEPT. OF PLANNING AND ZONING
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — 9/24/90 DATE



PLAN
SCALE: 1" = 50'

COUNTRY SPRINGS
LOTS 1-42
ELECTION DISTRICT 4
KENWOOD COURT
PLAN & PROFILE

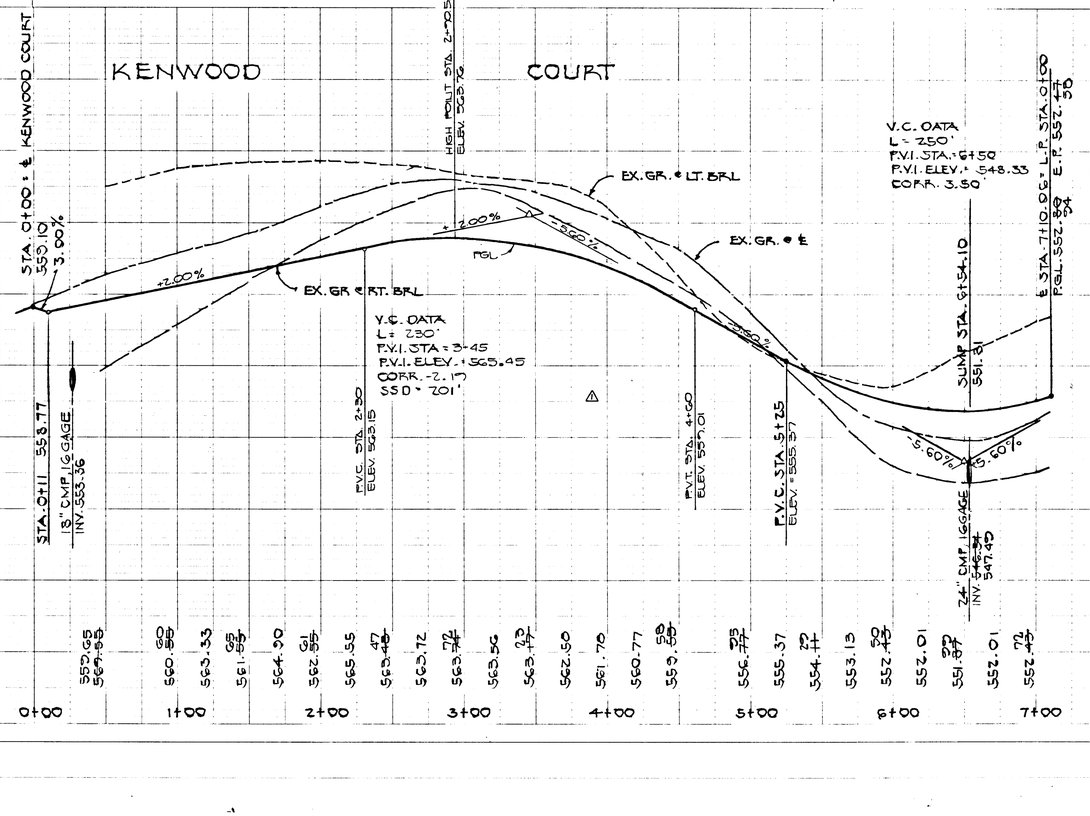
OWNER AND DEVELOPER
CARMAN ASSOCIATES
P.O. BOX 122
ELLICOTT CITY, MD. 21043

SCALE AS SHOWN	DATE 5-18-89	DWG NO 4 OF 13
DES DB	DRN DB	CHK CC

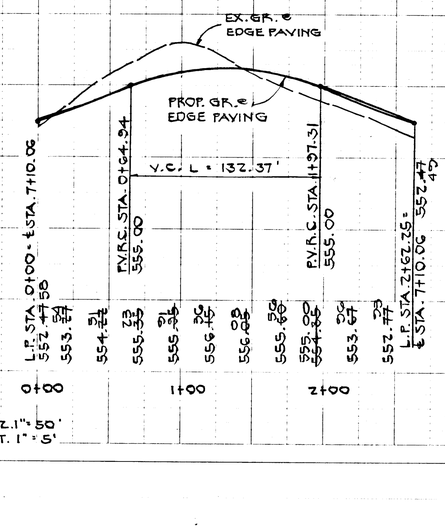
FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043

STATE OF MARYLAND — CHARLES V. CROSS — No. 5371 — PROFESSIONAL ENGINEER — 9/10/90

PROFILE | SURVEYED | PLOTTED | GRADES CHECKED | R/W NOTES | STRUCTURE NOTATIONS CHKD | BY | DATE



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



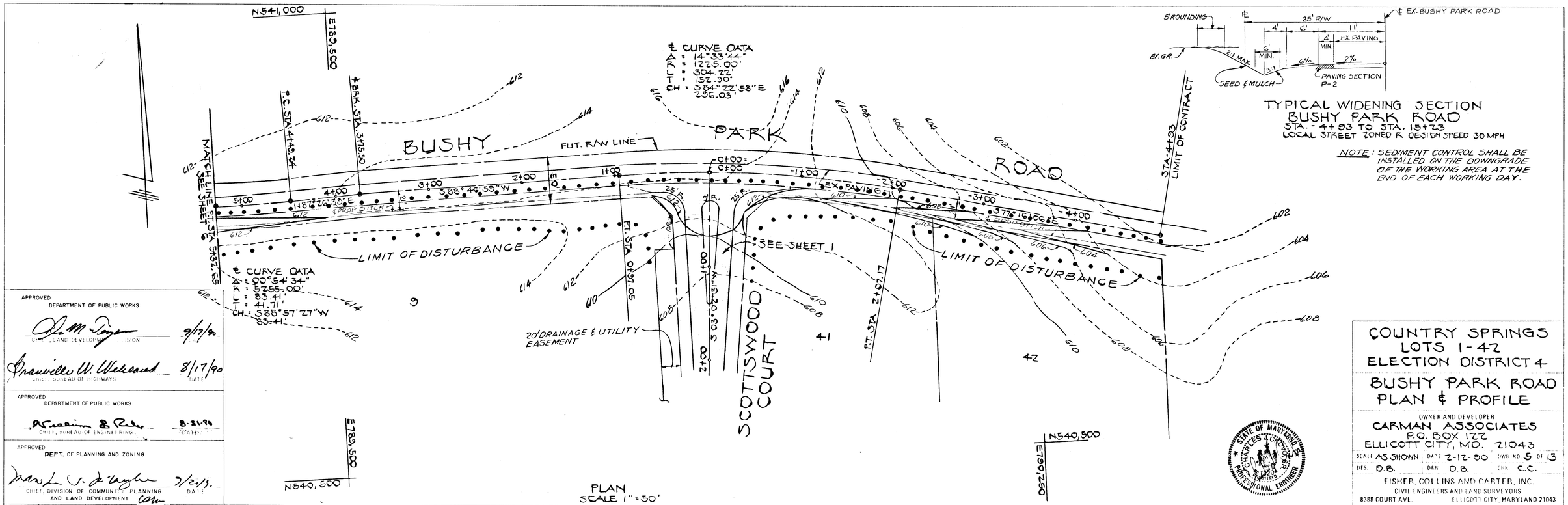
NUMBER	DATE	DESCRIPTION
1	10-7-91	CHANGED VERTICAL ALIGNMENT OF KENWOOD COURT.

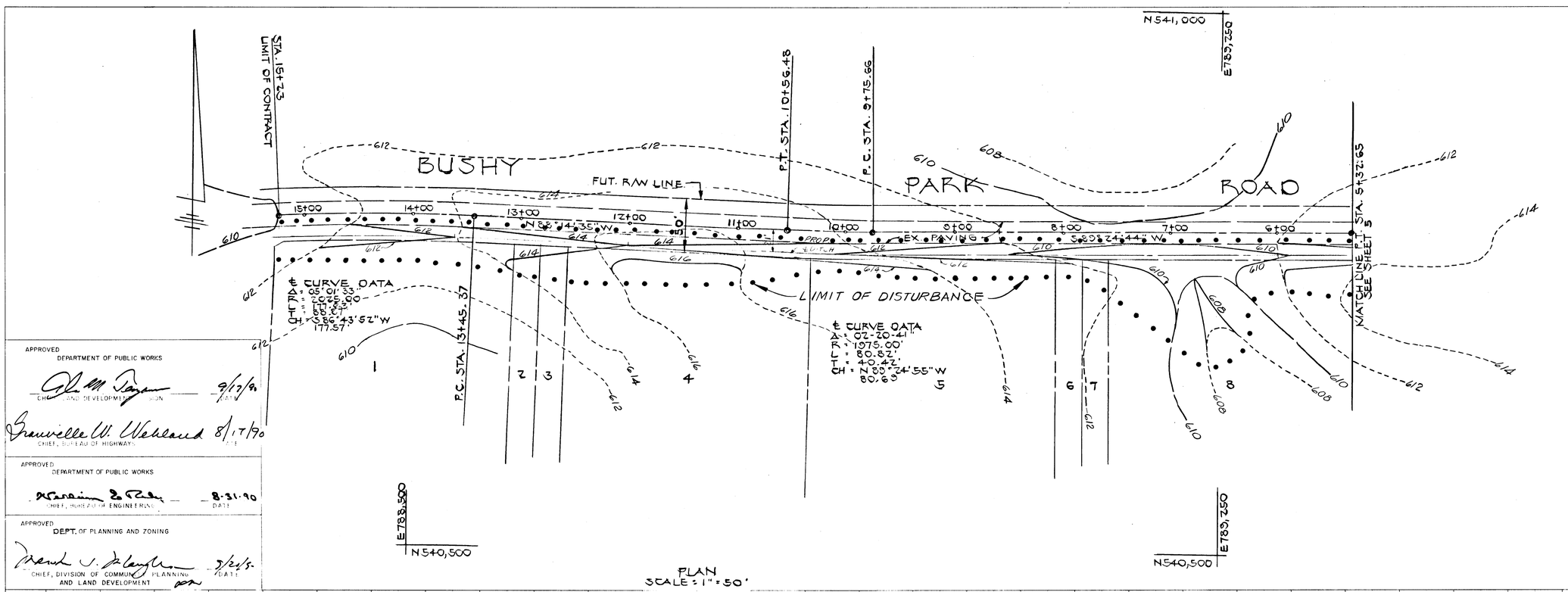
REVISIONS

1561

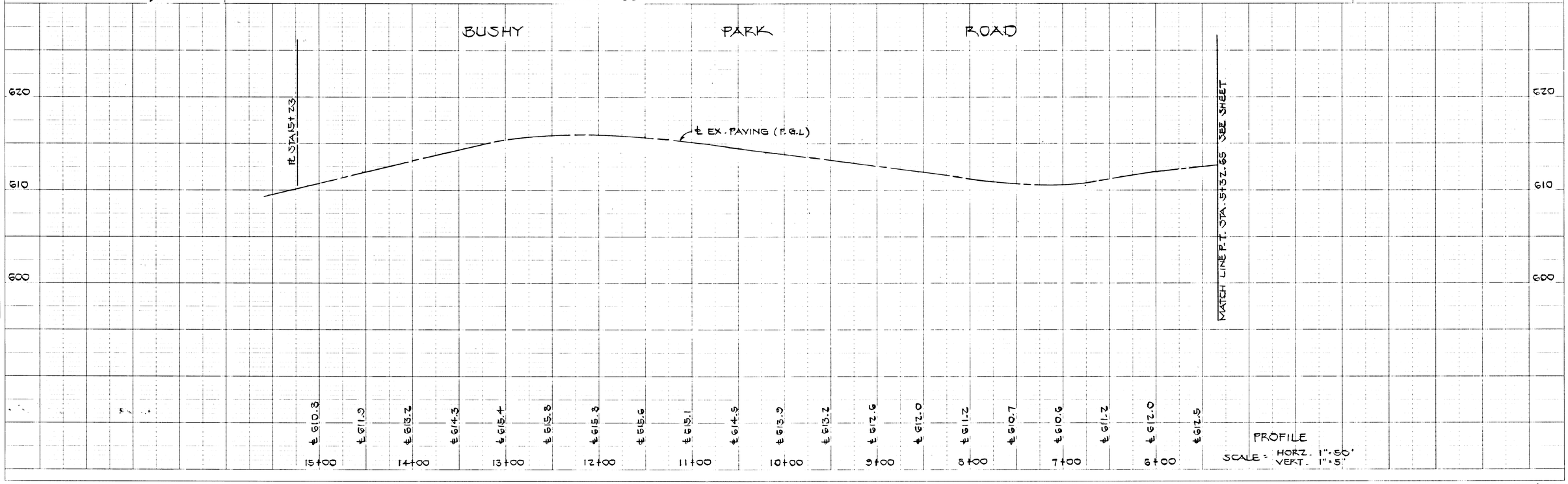
AS-BUILT
3/27/92

F90-594


N541,000
E789,500
℄ BRK. STA. 3+15.50
P.C. STA. 4+49.24
MATCH LINE SEE SHEET 2
P.T. STA. 5+32.65
BUSHY
PARK
ROAD
FUT. R/W LINE
℄ CURVE DATA
Δ = 14°33'44"
R = 1225.00'
T = 304.22'
L = 557.90'
CH = S84°22'58"E
556.03'
5'ROUNDING
25' R/W
4'
6'
11'
EX. PAVING
MIN.
2% MAX.
EX. GR.
SEED & MULCH
PAVING SECTION P-2
℄ EX. BUSHY PARK ROAD
TYPICAL WIDENING SECTION
BUSHY PARK ROAD
STA. - 4+93 TO STA. 15+23
LOCAL STREET ZONED R OESIGN SPEED 30 MPH
NOTE: SEDIMENT CONTROL SHALL BE INSTALLED ON THE DOWNGRADE OF THE WORKING AREA AT THE END OF EACH WORKING DAY.
STA. 4+93 LIMIT OF CONTRACT
LIMIT OF DISTURBANCE
SEE SHEET 1
℄ CURVE DATA
Δ = 00°54'34"
R = 265.00'
T = 83.71'
L = 41.71'
CH = S88°57'27"W
83.41'
20' DRAINAGE & UTILITY EASEMENT
SCOTTSWOOD COURT
P.T. STA 0+97.05
P.T. STA 2+07.17
S 03°02'31" W
41
42
N540,500
E788,500
N540,500
E790,260
PLAN
SCALE 1" = 50'
SURVEYED
PLOTTED
ALIGNMENT CHECKED
PLAN
NOTE BOOK
NO.
DATE
BY
APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION
9/7/90
DATE
Granville W. Wellwood
CHIEF, BUREAU OF HIGHWAYS
8/17/90
DATE
APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING
8-21-90
DATE
APPROVED
DEPT. OF PLANNING AND ZONING
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
9/21/90
DATE
SEAL OF MARYLAND
CHARLES J. CROSS JR.
No. 7885
REGISTERED PROFESSIONAL ENGINEER
COUNTRY SPRINGS
LOTS 1-42
ELECTION DISTRICT 4
BUSHY PARK ROAD
PLAN & PROFILE
OWNER AND DEVELOPER
CARMAN ASSOCIATES
P.O. BOX 122
ELLICOTT CITY, MD. 21043
SCALE AS SHOWN
DATE 2-12-90
DWG NO. 5 OF 13
DES. D.B.
DRN. D.B.
CHK. C.C.
FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
8388 COURT AVE.
ELLICOTT CITY, MARYLAND 21043
PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
BASE NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
DATE
BY
BUSHY
PARK
ROAD
MATCH LINE P.T. STA. 5+32.65 SEE SHEET
℄ EX. PAVING (P.G.L.)
0+00 = ℄ SCOTTSWOOD COURT
℄ STA. 4+93
620
610
600
629
619
609
℄ 613.0
℄ 613.5
℄ 614.0
℄ 614.6
℄ 615.1
℄ 615.4
℄ 615.1
℄ 614.5
℄ 614.8
℄ 614.6
℄ 614.50
℄ 613.7
℄ 612.6
℄ 611.3
℄ 610.1
℄ 608.8
℄ 607.3
℄ 606.6
℄ 604.1
℄ 602.8
5+00
4+00
3+00
2+00
1+00
0+00
-1+00
-2+00
-3+00
-4+00
PROFILE
SCALE: HORZ. 1" = 50', VERT 1" = 5'
REVISION - REMOVED 39' OF AN EASEMENT ON SCOTTSWOOD COURT. 6-22-92
AS-BUILT
3/27/92
F90-594
1561



PLAN
SCALE: 1" = 50'



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

APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — DATE 9/17/90

Granville W. Wehland — CHIEF, BUREAU OF HIGHWAYS — DATE 8/17/90

APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING — DATE 8-31-90

APPROVED
DEPT. OF PLANNING AND ZONING
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 9/21/90

PLAN — NOTE BOOK NO. — SURVEYED — PLOTTED — ALIGNMENT CHECKED — RT. OF WAY CHECKED — BY — DATE

PROFILE — NOTE BOOK NO. — SURVEYED — PLOTTED — GRADES CHECKED — B.M.'s NOTED — STRUCTURE NOTAT'NS CH'KD — BY — DATE

STATE OF MARYLAND — CHARLES J. CROSS, JR. — PROFESSIONAL ENGINEER

COUNTRY SPRINGS LOTS 1-42 ELECTION DISTRICT 4

BUSHY PARK ROAD PLAN & PROFILE

OWNER AND DEVELOPER
CARMAN ASSOCIATES
P.O. BOX 122
ELLICOTT CITY, MD. 21043

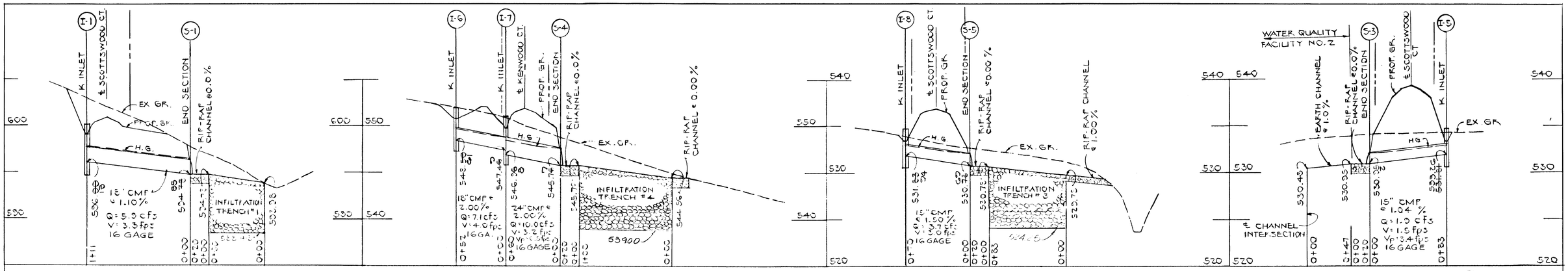
SCALE AS SHOWN	DATE 2-12-90	DWG. NO. 6 OF 13
DES. D.B.	DRN. D.B.	CHK. C.C.

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

AS-BUILT 3/27/92

F90-59A

1561



CONSTRUCTION NOTES FOR INFILTRATION TRENCH

1. The aggregate material for the infiltration trench shall consist of a clean aggregate with a maximum diameter of 2 inches and a minimum diameter of ¼ inches. The aggregate shall be graded such that there will be few aggregates smaller than the selected size.
2. The aggregate fill material shall be completely surrounded with an engineering filter fabric

Timing

An infiltration trench shall not be constructed or placed in service until all of the contributing drainage area has been stabilized and approved by the responsible inspector.

Trench Preparation

Excavate the trench to the design dimensions. Excavated materials shall be placed away from the trench sides to enhance trench wall stability. Large tree roots must be trimmed flush with the trench sides in order to prevent fabric puncturing or tearing during subsequent installation procedures. The side walls of the trench shall be roughened where sheared and sealed by heavy equipment.

Fabric Laydown

The filter fabric roll must be cut to the proper width prior to installation. The cut width must include sufficient material to conform to trench perimeter irregularities and for a 6-inch minimum top overlap. Place the fabric roll over the trench and unroll a sufficient length to allow placement of the fabric down into the trench. Stones or other anchoring objects should be placed on the fabric at the edge of the trench to keep the lined trench open during windy periods. When overlaps are required between rolls, the upstream roll should lap a minimum of 2 feet over the downstream roll in order to provide a shingled effect. The overlap ensures fabric continuity or to ensure that the fabric conforms to the excavation surface during aggregate placement and compaction.

Stone Aggregate Placement and Compaction

The stone aggregate should be placed in lifts and compacted using plate compactors. As a rule of thumb, a maximum loose lift thickness of 12 inches is recommended. The compaction process ensures fabric conformity to the excavation sides, thereby reducing the potential for soil piping, fabric clogging, and settlement problems.

Overlapping and Covering

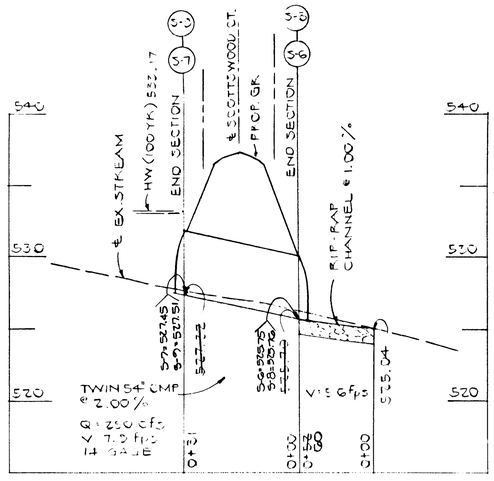
Following the stone aggregate placement, the filter fabric shall be folded over the stone aggregate to form a 6" minimum longitudinal lap. The desired fill soil or stone aggregate shall be placed over the lap at sufficient intervals to maintain the lap during subsequent backfilling.

Contamination

Care shall be exercised to prevent natural or fill soils from intermixing with the stone aggregate. All contaminated stone aggregate shall be removed and replaced with uncontaminated stone aggregate.

Voids Behind Fabric

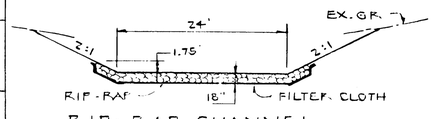
Voids can be created between the fabric and excavation sides and shall be avoided. Removing boulders or other obstacles from the trench walls is one source of such voids. Natural soils should be placed in these voids at the most convenient time during construction to ensure fabric conformity to the excavation sides. Soil piping, fabric clogging, and possible surface subsidence will be avoided by this remedial process.



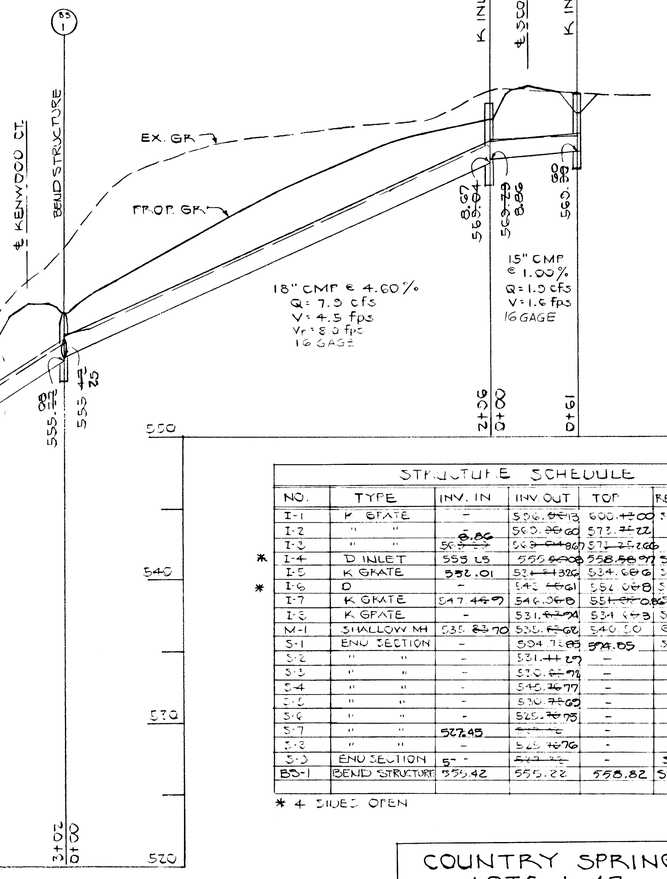
A = 48.1 ℄
P = 21.8'
R = 1.51'
R^2/3 = 1.32

S = 0.010
S^1/2 = 0.10
n = 0.035
K = 462.5

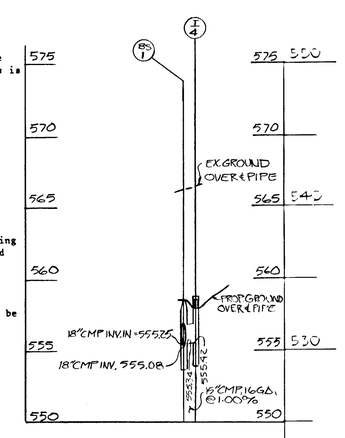
V = 5.6 fps
Q = 260 cfs

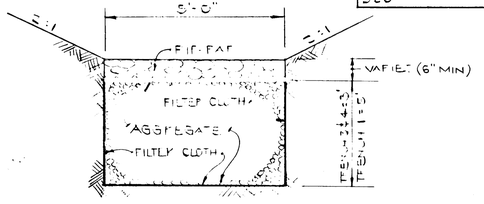


RIP-RAP CHANNEL BELOW S-6 & S-8
SCALE: 1"=10'

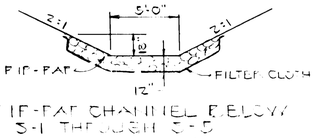


PROFILES
SCALE: HORZ 1"=50', VERT. 1"=5'





SECTION THROUGH INFILTRATION TRENCH
SCALE: 1"=2'



RIP-RAP CHANNEL BELOW S-1 THROUGH S-5
SCALE: 1"=5'

STRUCTURE SCHEDULE

NO.	TYPE	INV. IN	INV. OUT	TOP	REMARKS
I-1	K GRATE	–	526.~~04~~13	600.~~42~~00	SD 4.13
I-2	" "		560.~~26~~60	573.~~22~~22	"
I-3	" "	~~6.86~~	563.~~04~~80	571.~~25~~26	"
I-4	D INLET	555.45	~~555.60~~	~~558.58~~ 558.97	SD 4.11
I-5	K GRATE	532.01	~~52~~ 531.~~38~~26	534.~~66~~66	SD 4.13
I-6	D	–	542.~~46~~61	556.~~08~~	SD 4.11
I-7	K GRATE	547.~~44~~49	546.~~06~~76	55~~1.80~~ 554.~~80~~	SD 4.13
I-8	K GRATE	–	531.~~42~~74	534.~~43~~73	SD 4.13
M-1	SHALLOW MH	535.~~87~~70	535.~~52~~60	540.00	SD 5.01
S-1	END SECTION	–	554.~~72~~85	~~554.85~~	SD 3.01
S-2	" "	–	531.~~44~~27	–	"
S-3	" "	–	530.~~85~~79	–	"
S-4	" "	–	540.~~26~~77	–	"
S-5	" "	–	530.~~72~~60	–	"
S-6	" "	–	526.~~78~~75	–	"
S-7	" "	527.45	~~527.45~~	–	"
S-8	" "	–	526.~~46~~76	–	"
S-9	END SECTION	5~~27.45~~	~~527.45~~	–	SD 3.01
BS-1	BEND STRUCTURE	555.42	555.22	558.82	SD 1.01

* 4 SIDES OPEN

APPROVED:
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/27/90
CHIEF, BUREAU OF HIGHWAYS — DATE 8/17/90
CHIEF, BUREAU OF ENGINEERING — DATE 8-31-90

APPROVED
DEPT. OF PLANNING & ZONING
CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE 7/25/90

REVISE BY MY 10/11/91 ADDED BS-1 TO PROFILE & ADDED BS-1 TO I-4 TROFILE. ADDED BS-1 & I-4 TO STRUCTURE SCHEDULE

STATE OF MARYLAND — CHARLES WILLIAM CARTER — PROFESSIONAL ENGINEER

COUNTRY SPRINGS LOTS 1-42 ELECTION DISTRICT 4

STORM DRAIN PROFILES AND DETAILS

OWNER AND DEVELOPER:
CARMAN ASSOCIATES
P.O. BOX 122
ELLICOTT CITY, MD. 21043

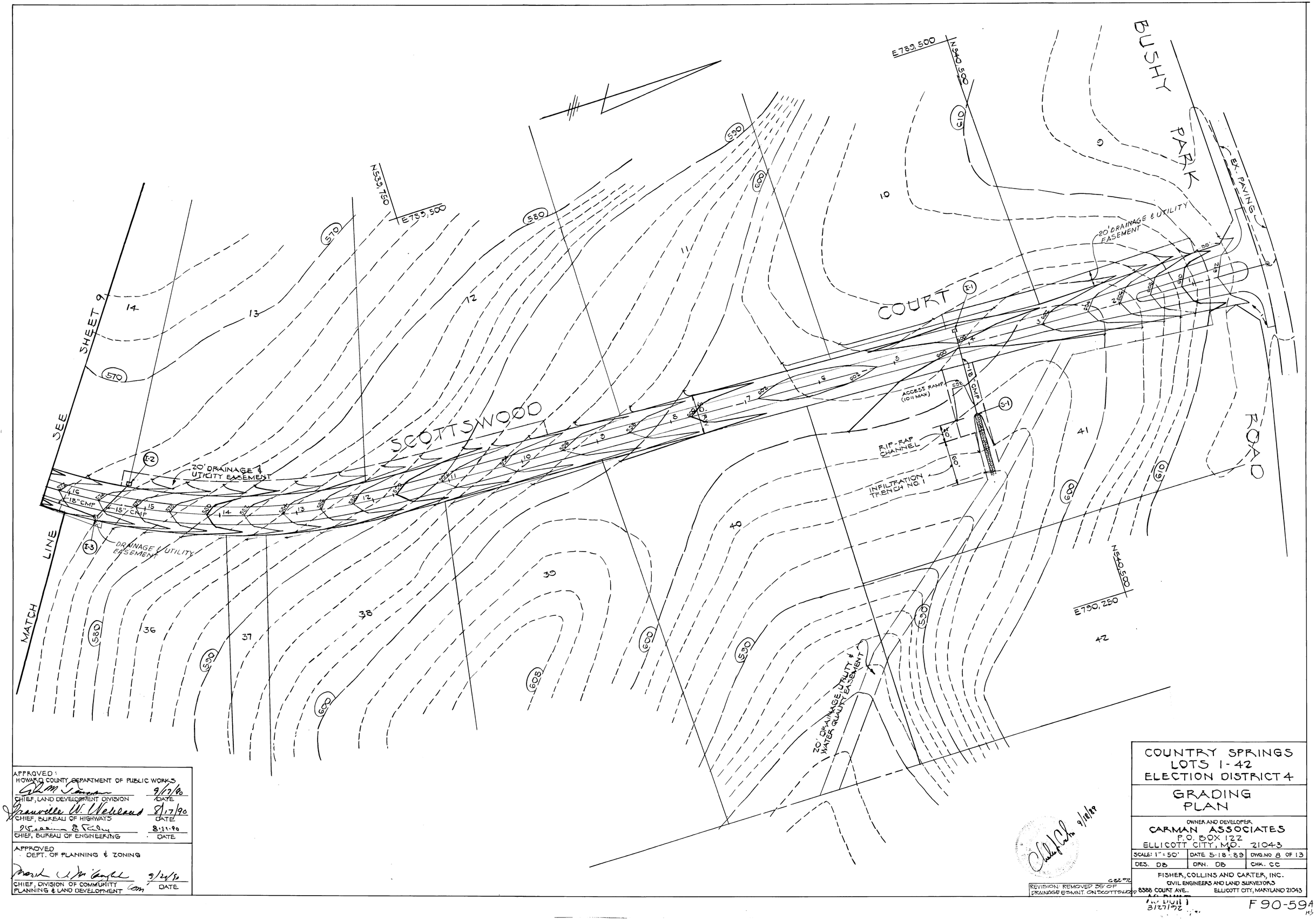
SCALE: AS SHOWN	DATE: 5-18-89	DWG. NO. 7 OF 13
DES. DB	DRN. DB	CHK. CC

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

AS-BUILT 3/27/92

F 90-59A

1561



APPROVED:
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 9/7/90

CHIEF, BUREAU OF HIGHWAYS — DATE 8/17/90

CHIEF, BUREAU OF ENGINEERING — DATE 8-21-90

APPROVED
DEPT. OF PLANNING & ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE 9/24/90

REVISION: REMOVED 35' OF DRAINAGE ESMNT ON SCOTTSWOOD

9/18/90

COUNTRY SPRINGS LOTS 1-42 ELECTION DISTRICT 4

GRADING PLAN

OWNER AND DEVELOPER
CARMAN ASSOCIATES
P.O. BOX 122
ELLICOTT CITY, MD. 21043

SCALE: 1" = 50'	DATE 5-18-89	DWG. NO 8 OF 13
DES. DB	DRN. DB	CHK. CC

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

AS BUILT
3/27/92

F 90-59

1561

STORM WATER MANAGEMENT POND CERTIFICATION AND APPROVAL

DEVELOPER'S CERTIFICATE

"I HEREBY 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."

Donald B. Carlin — 8/3/90
SIGNATURE — DATE

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Chuck Cole — 8/3/90
SIGNATURE — DATE

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

[illegible] — 8-3-90
SIGNATURE — DATE

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

Robert W. Zellhum — 8/3/90
SIGNATURE — DATE

NOTE: CONTRACTOR SHALL CUT-IN THE SPILLWAY AS SHOWN HEREON AND SHALL PLACE THE CUT MATERIAL ON THE FACE OF THE DAM AT A 2:1 SLOPE MAX. ALL DISTURBED AREAS WILL BE STABILIZED WITH PERMANENT SEED AND MULCH.

EX. POND
EX. 24" B C.M.P.
RISER TOP ELEV 544.5±
18" C.M.P.
544.5±
TOP OF DAM 547.5±
SPILLWAY SEE DETAIL THIS SHEET
542.00
SILT FENCE
LIMITS OF WETLAND
EX. RIP-RAP
100 YR. FLOODPLAIN, WETLANDS, DRAINAGE & UTILITY EASEMENT
℄ STREAM
25' WETLAND BUFFER
25' WETLAND BUFFER
25' STREAM BUFFER
WETLAND
DRAINAGE & UTILITY EASEMENT
MATCH LINE
SEE SHEET 8
N539,250
E790,000
N539,000
E788,750
SCOTTSWOOD COURT
KENWOOD COURT
20' DRAINAGE & UTILITY EASEMENT
TWIN 54" C.M.P.
101.4 LF 54" C.M.P.
RIP-RAP CHANNEL
18" C.M.P.
INFILTRATION TRENCH NO. 3
20' DRAINAGE UTILITY & WATER QUALITY EASEMENT
WATER QUALITY FACILITY NO. 2
DRAINAGE UTILITY & WATER QUALITY EASEMENT
TOKEN SPILLWAY CREST ELEV. = 550.00 SEE DETAIL THIS SHEET
100 YR. FLOODPLAIN & WETLAND EASEMENT
SEE DETAIL SHEET 13
INFILTRATION TRENCH NO. 4
20' DRAINAGE UTILITY & WATER QUALITY EASEMENT
B-1 B-2 B-3 B-4 B-5 B-6 B-7
I-1 I-2 I-3 I-4 I-5 I-6 I-7 I-8
S-1 S-2 S-3 S-4 S-5 S-6 S-7
M-1

TOKEN SPILLWAY
@ WATER QUALITY FACILITY #2

SPILLWAY DETAIL
NOT TO SCALE

PROFILE THROUGH SPILLWAY
NOT TO SCALE

APPROVED:
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — DATE 9/17/90
CHIEF, BUREAU OF HIGHWAYS — DATE 8/17/90
CHIEF, BUREAU OF ENGINEERING — DATE 8/31/90

APPROVED:
DEPT. OF PLANNING & ZONING
CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE 9/21/90

REVISED BY M.Y. 10/11/91
ADDED B6-1 RELOCATED I-4 & PIPE FROM M-1 TO I-3

△ REVISED PROPOSED GRADES ON KENWOOD COURT. OCTOBER 07, 1991 JB

COUNTRY SPRINGS
LOTS 1-42
ELECTION DISTRICT 4

GRADING PLAN

OWNER AND DEVELOPER
CARMAN ASSOCIATES
P.O. BOX 122
ELLICOTT CITY, MD. 21043

SCALE: 1" = 50'	DATE 5-18-89	DWG. NO. 9 OF 13
DES. DB	DRN. DB	CHK. CC

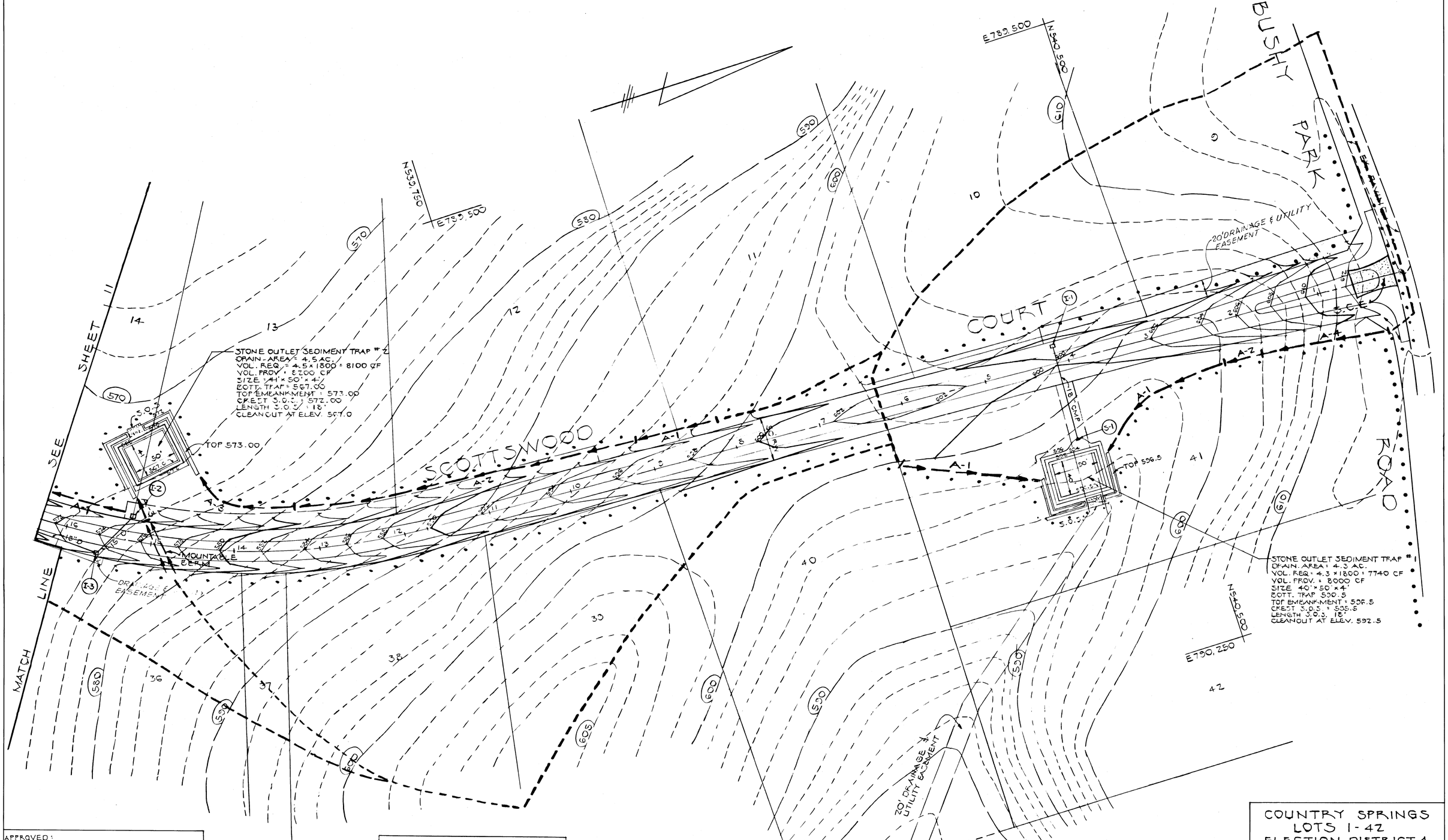
FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043

STATE OF MARYLAND — DONALD B. CARLIN — No. 13504 — REGISTERED PROFESSIONAL ENGINEER

1561

AS-BUILT

F 90-59



APPROVED:
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION — DATE 9/7/90
CHIEF, BUREAU OF HIGHWAYS — DATE 8/17/90
CHIEF, BUREAU OF ENGINEERING — DATE 8-31-90

APPROVED
DEPT. OF PLANNING & ZONING
CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE 9/24/90

Reviewed for HOWARD S.C.D. and meets Technical Requirements

U.S. Soil Conservation Service — Date

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

Howard S.C.D. — Date 8/13/90

By the Engineer:

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature of Engineer — Date 9/19/89

By the Developer:

"I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

Signature of Developer — Date 9/19/89

STATE OF MARYLAND — CHARLES A. COLLINS — No. 13204 — REGISTERED PROFESSIONAL ENGINEER

COUNTRY SPRINGS
LOTS 1-42
ELECTION DISTRICT 4

SEDIMENT CONTROL PLAN

OWNER AND DEVELOPER
CARMAN ASSOCIATES
P.O. BOX 122
ELLICOTT CITY, MD. 21043

SCALE: 1" = 50'	DATE 5-18-89	DWG.NO 10 OF 13
DES. DB	DRN. DB	CHK. CC

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

AS-BUILT
3/27/92

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HS

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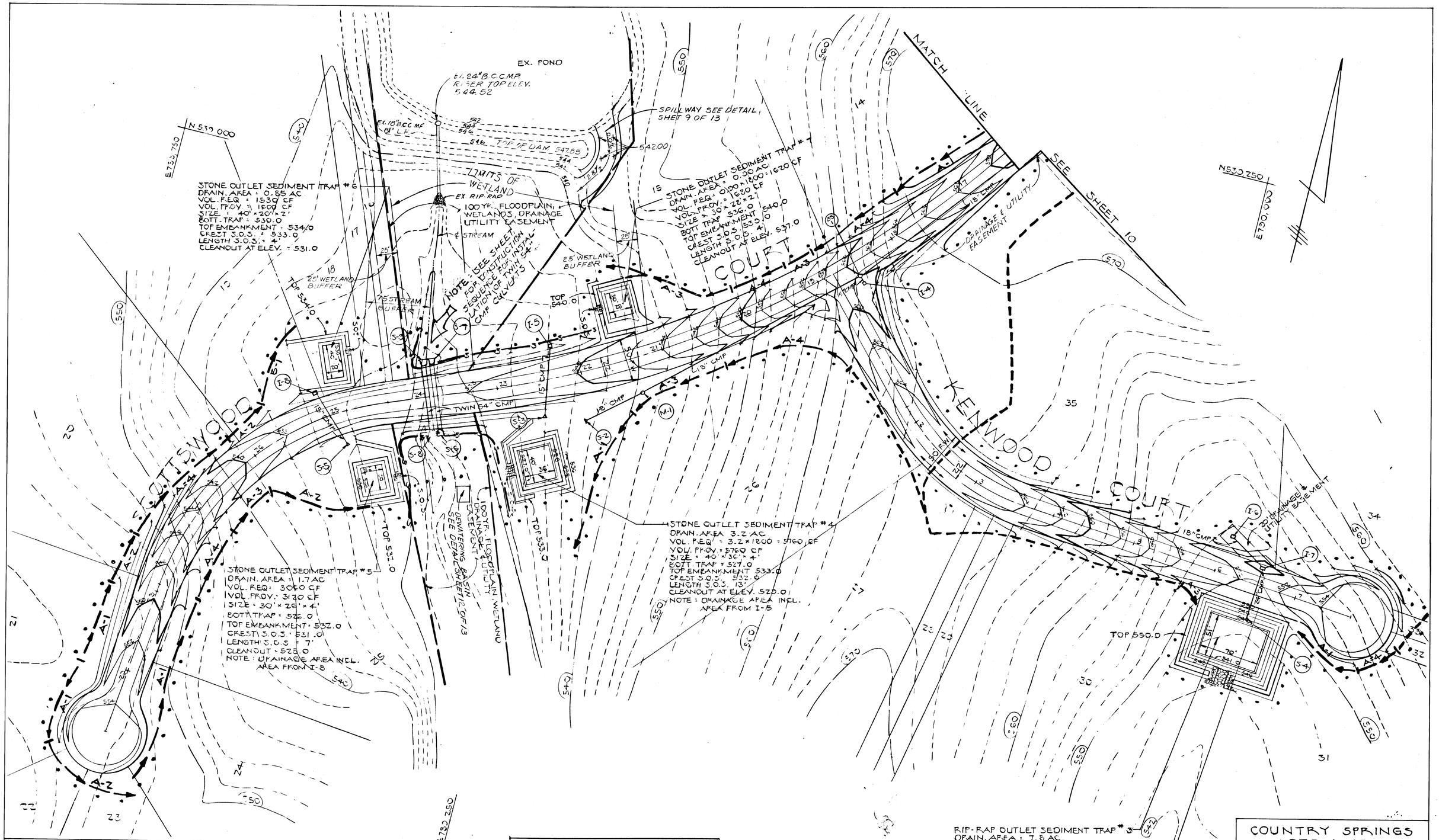

APPROVED:
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION	DATE 9/17/90
CHIEF, BUREAU OF HIGHWAYS	DATE 8/17/90
CHIEF, BUREAU OF ENGINEERING	DATE 8-31-90

APPROVED
DEPT. OF PLANNING & ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT	DATE 9/20/90

Reviewed for HOWARD S.C.D. and meets Technical Requirements

Soil Conservation Service	Date 8/3/90

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

Howard S.C.D.	Date 8/3/90

By the Engineer:

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature of Engineer	Date 9/18/89

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Signature of Developer	Date 9/19/89

REVISED BY M.Y. 10/11/91
ADDED BS-1 RELOCATED
I-4 & PIPE M-1 TO I-3

STATE OF MARYLAND
CHARLES J. CARTER, JR.
No. 3204
REGISTERED PROFESSIONAL ENGINEER

COUNTRY SPRINGS
LOTS 1-42
ELECTION DISTRICT 4

SEDIMENT CONTROL PLAN

OWNER AND DEVELOPER
CARMAN ASSOCIATES
P.O. BOX 122
ELLICOTT CITY, MD. 21043

SCALE: 1" = 50'	DATE 5-18-89	DWG. NO. 11 OF 13
DES. DB	DRN. DB	CHK. CC

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

AS-BUILT 3/27/92

F90-59

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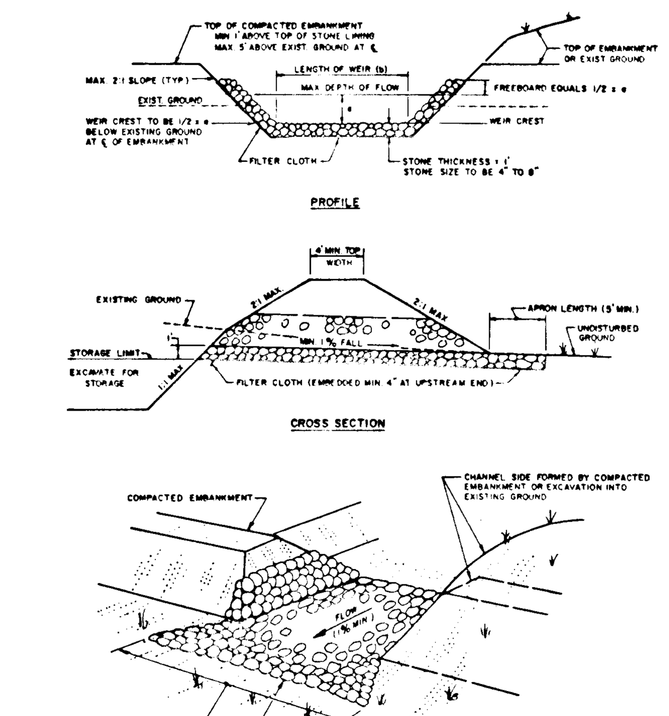
RIPRAP OUTLET SEDIMENT TRAP ST-VI

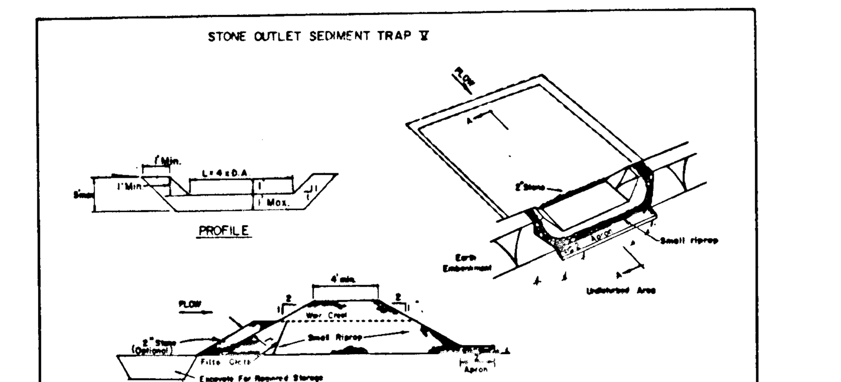


U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	RIPRAP OUTLET SEDIMENT TRAP	STANDARD DRAWING ST-VI

CONSTRUCTION SPECIFICATIONS FOR ST-VI

1. The 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 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.
3. All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.
4. Elevation of the top of any dike directing water into trap must equal or exceed the height of embankment.
5. 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.
6. 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.
7. 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.
8. 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.
9. The structure shall be inspected after each rain and repaired as needed.
10. Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
11. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.
12. Drainage area for this practice is limited to 15 acres or less.

STONE OUTLET SEDIMENT TRAP V



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.

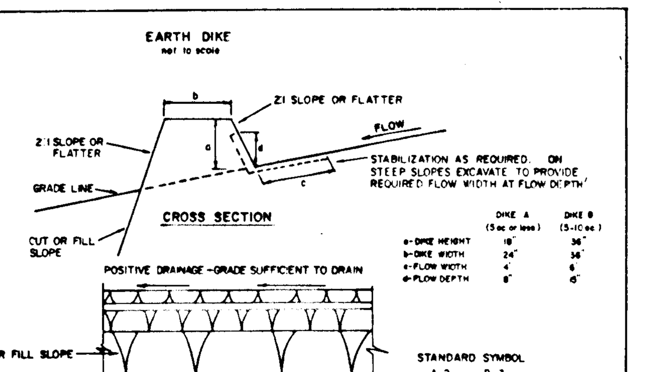
CONSTRUCTION SPECIFICATIONS FOR ST-V

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 up-grade side on the small riprap or embedded filter cloth in the riprap.
5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to ½ the design depth of the trap.
6. The structure shall be inspected after each rain and repairs made as needed.
7. Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
8. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

Maximum Drainage Area: 5 Acres

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	STONE OUTLET SEDIMENT TRAP	STANDARD DRAWING ST-V

EARTH DIKE
not to scale



	DIKE A (5ac or less)	DIKE B (5-10ac)
a-DIKE HEIGHT	18"	36"
b-DIKE WIDTH	24"	36"
c-FLOW WIDTH	4'	6'
d-FLOW DEPTH	8"	15"

CONSTRUCTION SPECIFICATIONS

1. All dikes shall be compacted by earth-moving equipment.
2. All dikes shall have positive drainage to an outlet.
3. Top width may be wider and side slopes may be flatter if desired to facilitate crossing by construction traffic.
4. Field location should be adjusted as needed to utilize a stabilized safe outlet.
5. Earth dikes shall have an outlet that functions with a minimum of erosion. Runoff shall be conveyed to a sediment trapping device such as a sediment trap or sediment basin where either the dike channel or the drainage area above the dike are not adequately stabilized.
6. Stabilization shall be: (A) in accordance with standard specifications for seed and straw mulch or straw mulch if not in seeding season, (B) flow channel as per the chart below.

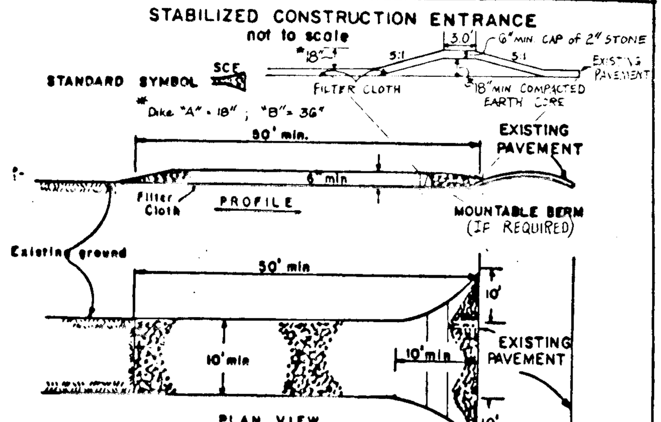
FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	.5-3.0%	Seed and Straw Mulch	Seed and Straw Mulch
2	3.1-5.0%	Seed and Straw Mulch	Seed using Jute, or Excelsior; Sod; 2" Stone
3	5.1-8.0%	Seed with Jute, or Sod; 2" Stone	Lined Rip-Rap 4-8"
4	8.1-20%	Lined Rip-Rap 4-8"	Engineering Design

A. Stone to be 2 inch stone, or recycled concrete equivalent, in a layer at least 3 inches in thickness and be pressed into the soil with construction equipment.
B. Rip-Rap to be 4-8 inches in a layer at least 8 inches thickness and pressed into the soil.
C. Approved equivalents can be substituted for any of the above materials.
7. Periodic inspection and required maintenance must be provided after each rain event.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	EARTH DIKE	STANDARD DRAWING ED-1

STABILIZED CONSTRUCTION ENTRANCE
not to scale

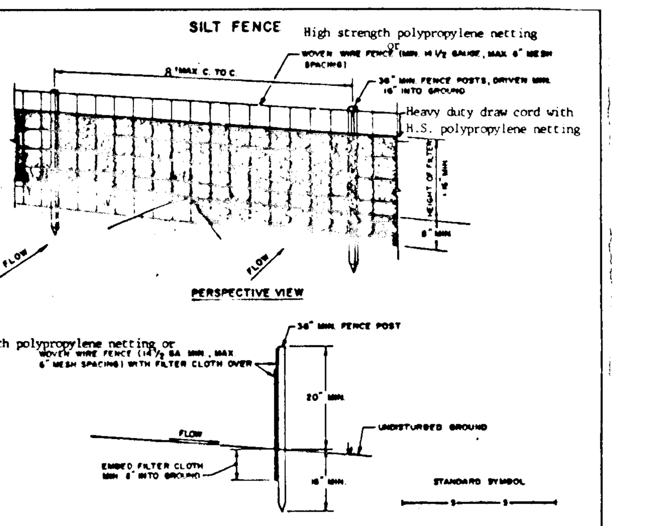


CONSTRUCTION SPECIFICATIONS

1. Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 ft. (except on a single residence lot where a 30 ft minimum length would apply).
3. Thickness - Not less than six (6) inches.
4. Width - Ten (10) ft. minimum, but not less than the full width at points where ingress or egress occurs.
5. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 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 cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing - Wheels 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.

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE College Park, Md.	STABILIZED CONSTRUCTION ENTRANCE	Standard Drawing SCE-1

SILT FENCE



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. High strength polypropylene netting or woven wire fence to be fastened securely to fence posts with wire ties or staples.
2. Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" at top and mid section.
3. When two sections of filter cloth adjoin each other they shall be over-lapped by six inches and folded.
4. Maintenance shall be performed as needed and material removed when "bulges" develop in the silt fence.

POSTS: Steel either T or U type or Hardwood 1½"x1½" Min. (Actual)
FENCE: Woven wire, 14½ Ga. 6" Max. Mesh Opening or high strength polypropylene netting
FILTER CLOTH: Filter X, Mirafi 100X, Stabilinka T140N or Approved Equal.
PREFABRICATED UNIT: Geofab, Envirofence, or Approved Equal.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	SILT FENCE	STANDARD DRAWING SF-1

EXCAVATED PONDS

General - Excavated ponds with contributing watershed areas of more than 10 ares and create a failure hazard will be designed as embankment ponds. Excavated ponds, that are normally dry (SWM ponds) that include a pipe control system, shall be designed using the principal and emergency spillways design criteria for Embankment Ponds, Table 1.

Excavated ponds with a pipe control system will meet the criteria contained in Appendix B.

Side Slopes - Side slopes of excavated ponds shall be such that they will be stable and shall not be steeper than 1 horizontal to 1 vertical. Flatter slopes are to be utilized where safety for children, livestock, watering, etc. is a design factor.

Perimeter Form

Where the structures are used for recreation or are located in high public view, the perimeter or edge should be shaped to a curvilinear form.

Inlet Protection - When the excavated pond is a bypass type and water is being diverted from a stream, the minimum size inlet line shall be 4 inch diameter pipe. All state laws concerning water use and downstream rights shall be strictly adhered to.

Where surface water enters the pond in a natural or excavated channel, the side slope of the pond shall be protected against erosion.

Placement of Excavated Material

The material excavated from the pond shall be placed in one of the following ways so that its weight will not endanger the stability of the pond side slopes and where it will not be washed back into the pond by rainfall:

1. Uniformly spread to a height not exceeding 3 feet with the top graded to a continuous slope away from the pond;
2. Uniformly placed or shaped reasonably well with side slopes no steeper than 2 to 1. The excavated material will be placed at a distance equal to the depth of the pond, but not less than 12 feet from the edge of the pond;
3. Shaped to a designed form that blends visually with the landscape;
4. Used for low embankment and leveling;
5. Hauled away.

SEDIMENT CONTROL NOTES

1) A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
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 STANDARDS 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, Chaper 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. 51) sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52.) Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
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 153.9 Acres
   - Area Disturbed 11.7 Acres
   - Area to be roofed or paved 2.0 Acres
   - Area to be vegetatively stabilized 9.7 Acres
   - Total Cut 9800 Cu. yds
   - Total Fill 9800 Cu. yds
   - Offsite waste/borrow area location NA
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 DPW sediment control inspector.
10) On 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.

PERMANENT SEEDING NOTES:

APPLY TO GRADED OR CLEARED AREA NOT SUBJECT TO IMMEDIATE FURTHER DISTRUBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED 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 SCHEDULE.
1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE-INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ.FT.)
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. HARROW OR DISC INTO UPPER THREE-INCHES OF SOIL.

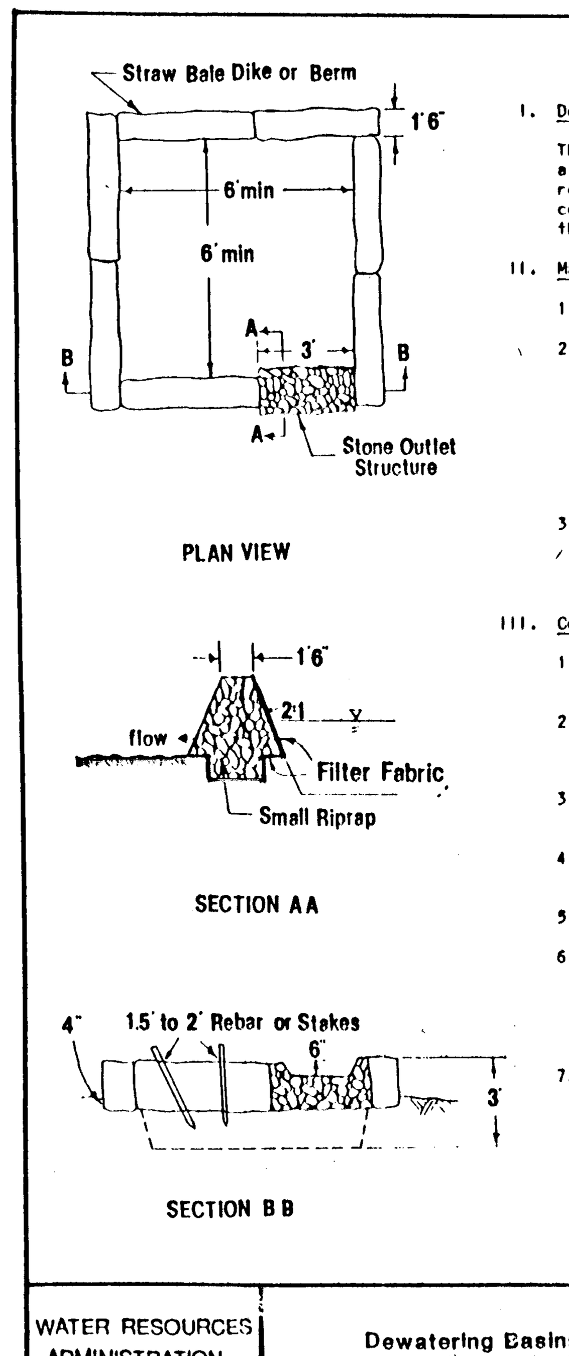
SEEDING: FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS/1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (.05 LBS/1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WILL ANCHORED STRAW.
MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT.) OR UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHTER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.
MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES:

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED 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 15 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ.FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (.07 LBS/1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.
MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES, 8 FT. OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.



I. Description

The work shall consist of the construction of a dewatering basin for the purpose of receiving sediment-laden water pumped from a construction site to allow filtration before the water re-enters the waterway.

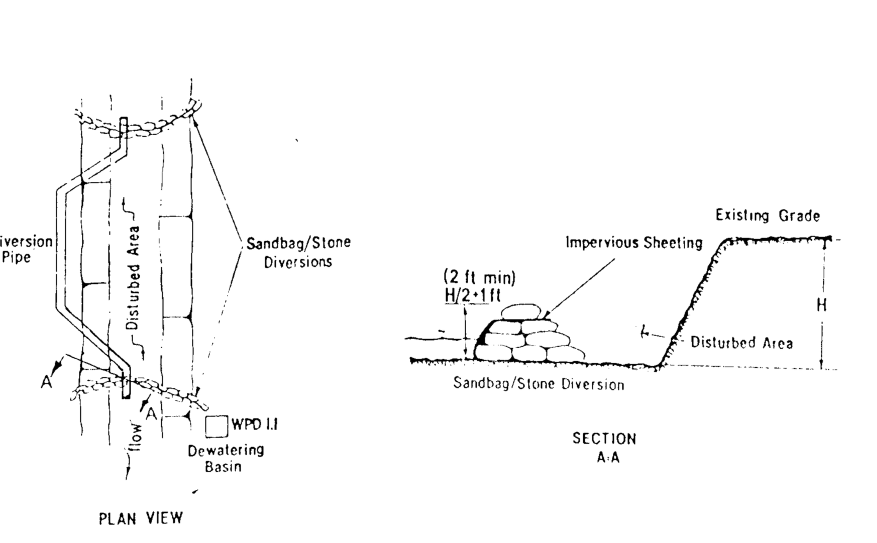
II. Material Specifications

1. Riprap: Riprap shall consist of 4-8 inch washed stone or gravel.
2. Filter Fabric: The filter cloth shall be a woven or nonwoven fabric consisting only of continuous chain polymeric filaments or yarns of polyester. The fabric shall be inert to commonly encountered chemicals, hydro-carbons, mildew, and rot resistant. No. 6 stone (AASHTO 57) may be used on the inner-face for filtering instead of fabric.
3. Strawbales: Strawbales shall meet the criteria as specified in the Maryland Standards and Specifications for Soil Erosion and Sediment Control.

III. Construction Requirements

1. The contractor shall install all sediment and erosion control devices as the first order of business.
2. Excavated materials shall be stored such that sediments are prevented from entering the waterway; i.e., sediment perimeter controls may be necessary.
3. Excavated subsoil and topsoil shall be kept separate and replaced in their natural order.
4. Any dewatering of the construction area shall be filtered through a dewatering basin prior to entering the waterway.
5. The dewatering basin shall be excavated to a minimum depth of 3 feet.
6. Once the dewatering basin becomes filled to 1/2 of the excavated depth, accumulated sediment shall be removed and disposed of in a SCD approved disposal area outside the 100-year floodplain unless otherwise approved on the plans by the WRA.
7. Sediment control devices are to remain in place until all disturbed areas are stabilized and the inspecting authority approves their removal. All ground contours shall be returned to their original condition unless specifically approved otherwise by the Administration.

WATER RESOURCES ADMINISTRATION	Dewatering Basins	Approved On 1.24.86 Chief, Waterway Permits	WPD 1.1

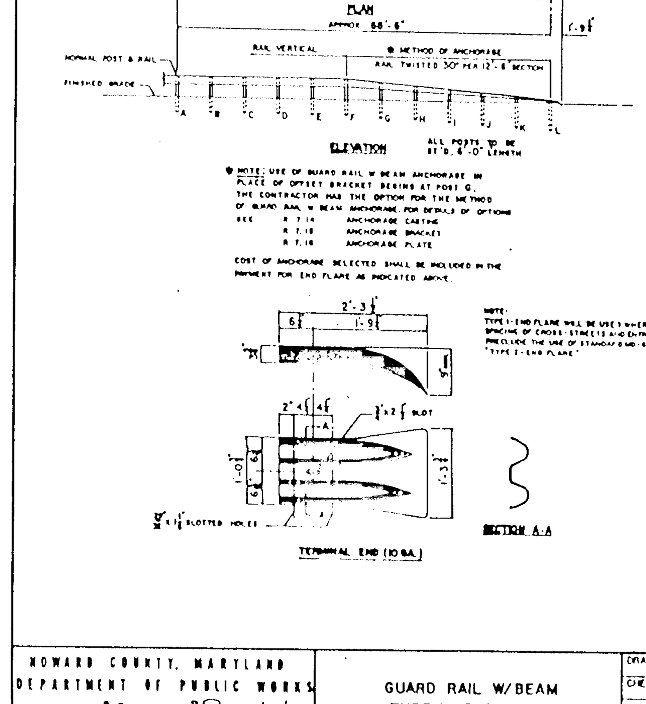


I. Description
The work shall consist of installing a flow diversion structure when construction activities take place within the stream channel such as culvert construction or culvert replacement.

II. Material Specifications
1. Sandbags: Sandbags shall consist of materials which are resistant to ultra-violet radiation, tearing and puncture and woven tightly enough to prevent leakage of fill material (i.e., sand, fine gravel, etc.).
2. Stone: Stone shall be washed and have a minimum diameter of 6 inches.
3. Sheeting: Sheeting shall consist of polyethylene or other material which is impervious and resistant to puncture and tearing.

III. Construction Requirements
1. All erosion and sediment control devices shall be installed as the first order of work.
2. The height of the sandbag/stone diversion structure shall be one half the distance from the stream bed to the bank plus one foot, as indicated in section a:a. The sandbags shall be placed on a smooth, prepared surface.
3. All excavated materials shall be disposed of in a SCD approved disposal area outside the 100-year floodplain unless otherwise approved on the plans by the WRA.
4. All dewatering of the construction area shall be pumped to a dewatering basin (Plate WPD1.1) or otherwise approved on the plans by the WRA.
5. Sheeting shall be overlapped a minimum of 18 inches.
6. The diversion pipe shall have a minimum diameter of sufficient size to convey the normal stream flow.
7. If necessary, silt fence or strawbales shall be installed around the perimeter of the work area.
8. Sediment control devices are to remain in place until all disturbed areas are stabilized and the inspecting authority approves their removal.

WATER RESOURCES ADMINISTRATION	Diversion Pipe	Approved On 1/24/86 Chief, Waterway Permits	WPD 2.2



HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS Approved / Chief - Bureau of Engineering	GUARD RAIL W/BEAM TYPE I - END FLARE	DRAWN BY: W.H. CHECKED BY: Y.P. SCALE: NONE R 7.13

LEGEND

- EX. CONTOURS ——— (530) ———
- PROP. CONTOURS ——— 530 ———
- LIMIT OF DISTURBANCE • • • •
- SILT FENCE S——S——S
- EARTH DIKE → A-2 →
- STABILIZED CONSTRUCTION ENTRANCE SCE

SEQUENCE OF CONSTRUCTION:

1. OBTAIN GRADING PERMIT.
2. NOTIFY THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS AT LEAST 24 HOURS BEFORE STARTING CONSTRUCTION (992-2437).
3. CLEAR AND GRUB FOR INSTALLATION OF SEDIMENT CONTROL DEVICES.
4. INSTALL SEDIMENT CONTROL DEVICES, AND CONSTRUCT SPILLWAY IN EXISTING POND.
5. NOTIFY OFFICE OF INSPECTION AND PERMITS TO OBTAIN APPROVAL OF INSTALLATION.
*6. CONSTRUCT A DIVERSION PIPE IN CONJUNCTION WITH WPD 2.2.
*7. BUILD DEWATERING BASIN AS SHOWN ON PLAN AND DETAIL.
*8. CONSTRUCT A TEMPORARY SANDBAG DIVERSION UPSTREAM TO DIVERT WATER INTO THE PIPE.
*9. PLACE A SANDBAG DIKE DOWNSTREAM TO PREVENT THE STREAM FROM BACKWASHING INTO CONSTRUCTION AREA.
*10. INSTALL TWIN 54" C.M.P. CULVERTS.
11. ROUGH GRADE SITE.
12. INSTALL STORM DRAINS.
13. PLACE SUB-BASE MATERIAL ON ROADS.
14. STABILIZE REMAINING AREAS.
15. PAVE ROADS.
16. REMOVE SEDIMENT CONTROL DEVICES ONLY AFTER RECEIVING PERMISSIONS FROM THE SEDIMENT CONTROL INSPECTOR.
17. INSTALL WATER QUALITY FACILITIES.

* FOR INSTALLATION OF TWIN 54" C.M.P. CULVERT.

APPROVED:
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
9/12/90
CHIEF, LAND DEVELOPMENT DIVISION — DATE
8/17/90
CHIEF, BUREAU OF HIGHWAYS — DATE
8.31.90
CHIEF, BUREAU OF ENGINEERING — DATE

APPROVED:
DEPT. OF PLANNING & ZONING
5/21/91
CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE

Reviewed for HOWARD S.C.D. and meets Technical Requirements
8-3-90
U.S. Soil Conservation Service — Date

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
8/3/90
Howard S.C.D. — Date

By the Engineer:

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

8/3/90
Signature of Engineer — Date

By the Developer:

"I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

8/3/90
Signature of Developer — Date

STATE OF MARYLAND — CHARLES J. CROWLEY — PROFESSIONAL ENGINEER

COUNTRY SPRINGS
LOTS 1-42
ELECTION DISTRICT 4

SEDIMENT CONTROL PLAN

OWNER AND DEVELOPER
CARMAN ASSOCIATES
P.O. BOX 122
ELLICOTT CITY, MD. 21043

SCALE: 1" = 50'	DATE: 5-18-89	DWG. NO. 12 OF 13
DES. DB	DRN. DB	CHK. CC

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

AS BUILT 3/27/92

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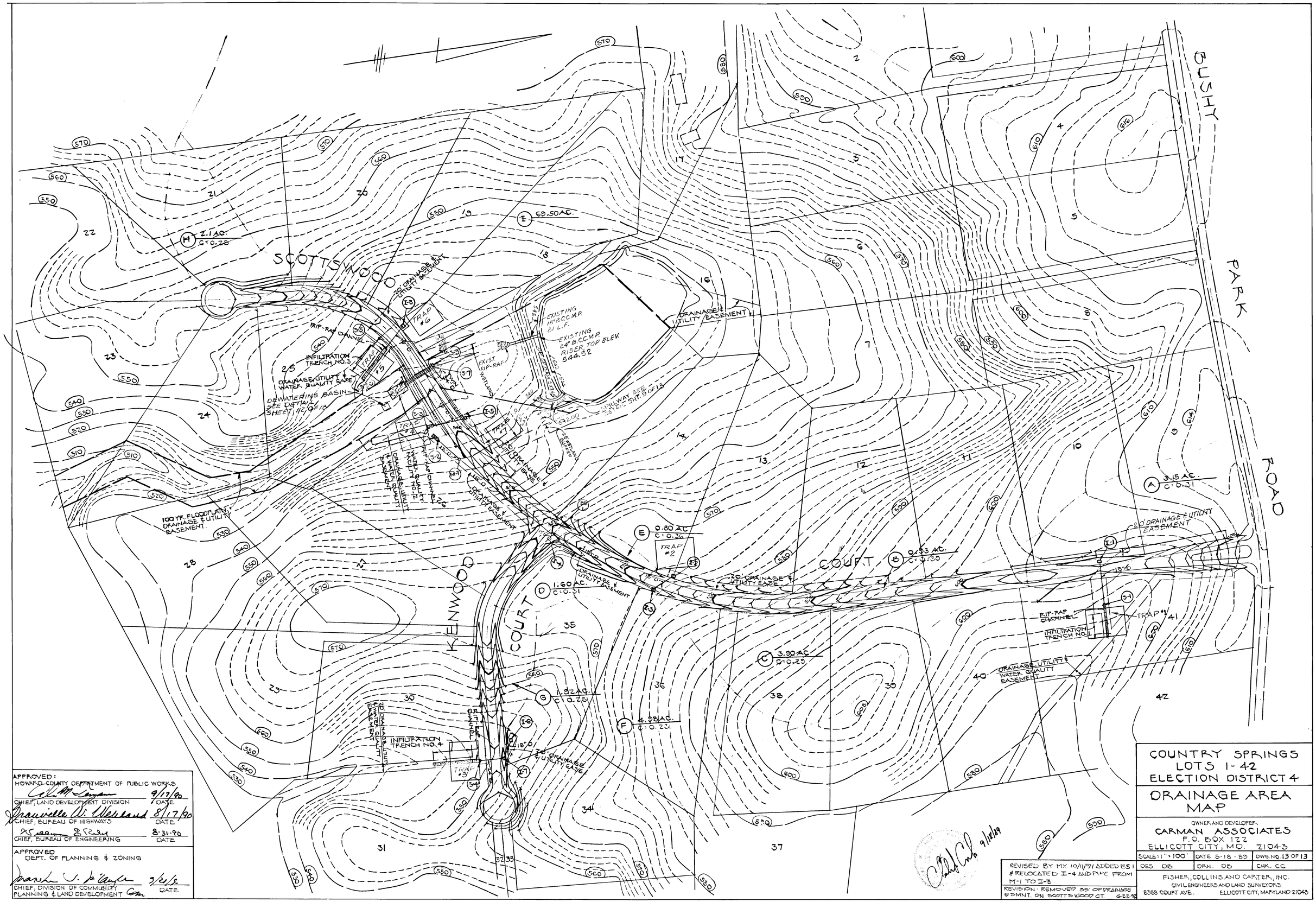

APPROVED:
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION	DATE 9/17/90
CHIEF, BUREAU OF HIGHWAYS	DATE 8/17/90
CHIEF, BUREAU OF ENGINEERING	DATE 8-31-90

APPROVED
DEPT. OF PLANNING & ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT	DATE 3/21/9

REVISED BY M.Y. 10/11/91 ADDED BS 1 & RELOCATED I-4 AND PIPE FROM M-1 TO I-3

REVISION: REMOVED 35' OF DRAINAGE & SMNT. ON SCOTTSWOOD CT. 6-22-92

COUNTRY SPRINGS
LOTS 1-42
ELECTION DISTRICT 4

DRAINAGE AREA MAP

OWNER AND DEVELOPER
CARMAN ASSOCIATES
P.O. BOX 122
ELLICOTT CITY, MD. 21043

SCALE: 1" = 100'	DATE 5-18-89	DWG. NO. 13 OF 13
DES. DB	DRN. DB	CHK. CC

FISHER, COLLINS AND CARTER, INC.
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8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043

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