ENGINEER'S CERTIFICATE

REPORT, PLAN FOR EROSION AND SEDIMENT CONTROL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE AND OBSERVATIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

STATE OF MARYLAND — CHARLES J. CROVO — No. 13204 — PROFESSIONAL ENGINEER

9/1/84

CHARLES J. CROVO SR.

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 ONSITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY."

RICHARD DEMUTT — DATE 9/1/84

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S. SOIL CONSERVATION SERVICE — DATE 9-14-84

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 9/14/84

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 HRS. IN ADVANCE OF ANY CONSTRUCTION.
3) STORM DRAINAGE TRENCHES WITHIN ROAD RIGHTS-OF-WAYS SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
4) ANY DAMAGE TO PUBLIC RIGHTS-OF-WAYS OR PAVING WILL BE CORRECTED AT THE CONTRACTORS EXPENSE.
5) CONTRACTOR TO NOTIFY THE HOWARD COUNTY INSPECTION AND SURVEY DIVISION AT LEAST 3 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS-TELEPHONE: 792-7272.
6) HORIZONTAL AND VERTICAL CONTROLS ARE BASED ON STA. NO'S:

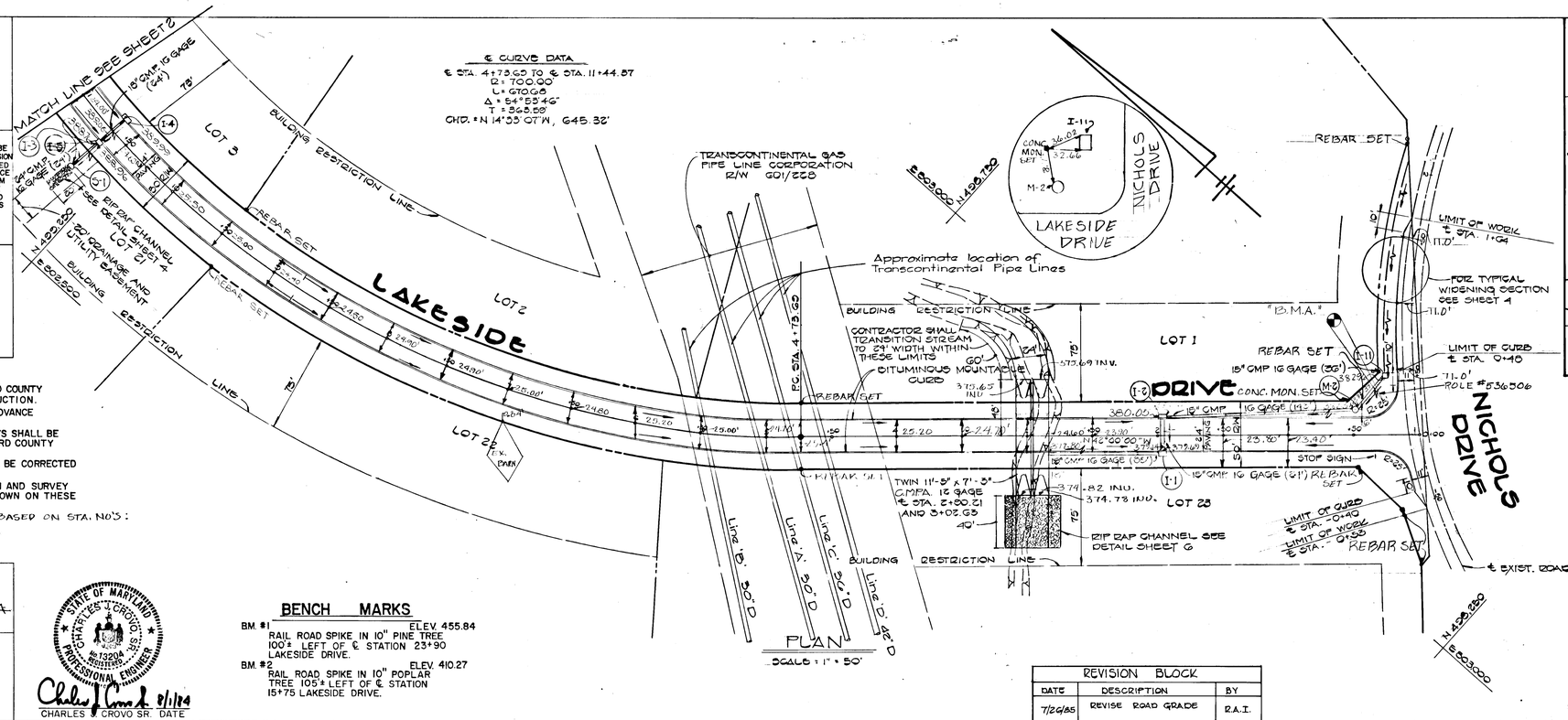
STA. 253 4001 — N 497815.03, E 805060.98
STA. 2535007 — N 498505.93, E 806849.06

APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING — DATE 9-17-84

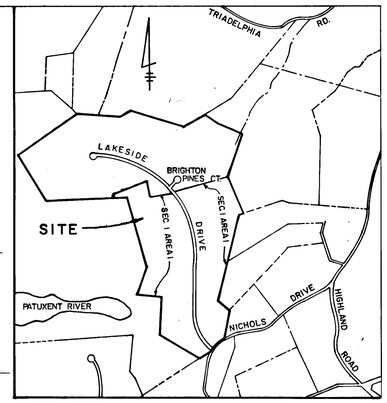
APPROVED
OFFICE OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 9/14/84

STATE OF MARYLAND — CHARLES J. CROVO — No. 13204 — REGISTERED PROFESSIONAL ENGINEER

Charles J. Crovo Jr. 9/1/84
CHARLES J. CROVO SR. DATE



PLAN
SCALE: 1" = 50'



VICINITY MAP

SCALE: 1" = 1200'

"B.M.A." ELEV. 388.92
RAILROAD SPIKE SET IN POLE

BENCH MARKS

BM. #1 — ELEV. 455.84
RAIL ROAD SPIKE IN 10" PINE TREE 100± LEFT OF ℄ STATION 23+90 LAKESIDE DRIVE.

BM. #2 — ELEV. 410.27
RAIL ROAD SPIKE IN 10" POPLAR TREE 105± LEFT OF ℄ STATION 15+75 LAKESIDE DRIVE.

REVISION BLOCK		
DATE	DESCRIPTION	BY
7/26/85	REVISE ROAD GRADE	R.A.I.

BRIGHTON PINES
SECTION I AREA I
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

LAKESIDE DRIVE
PLAN AND PROFILE

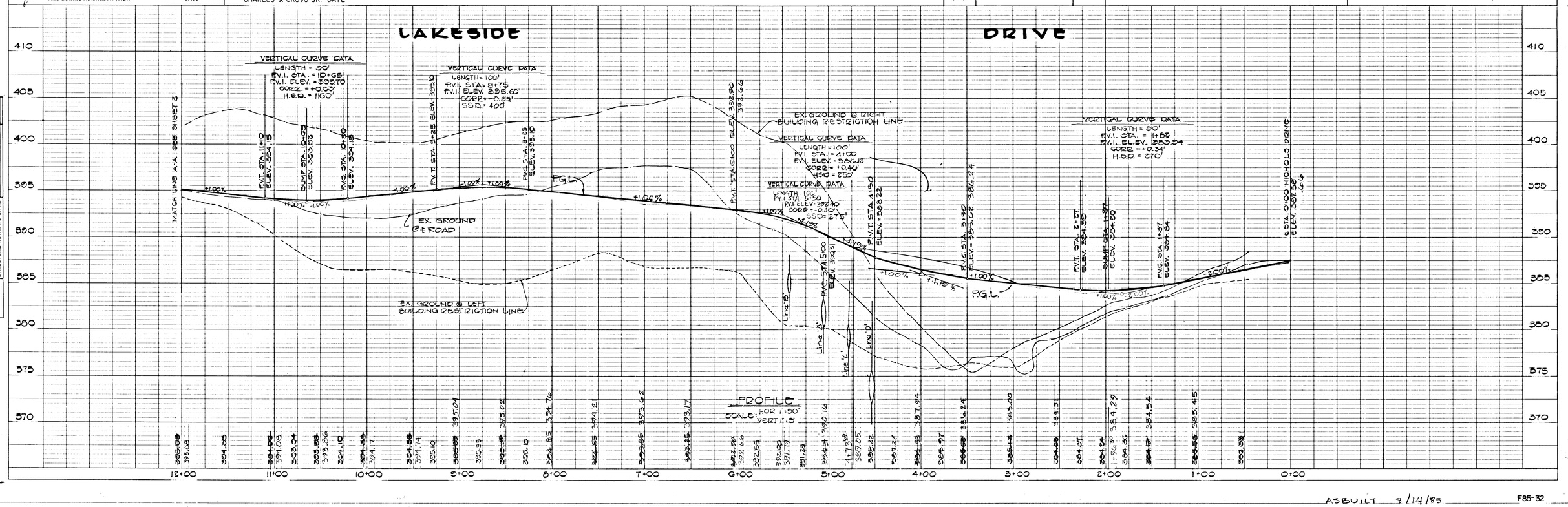
OWNER AND DEVELOPER
HIGHLAND DEVELOPMENT CORPORATION
9966 ROUTE 99
ELLICOTT CITY, MARYLAND 21043

SCALE AS SHOWN	DATE JULY, 31 1984	DWG. NO. 1 OF 7
DES. C.CROVO	DRN. E.N.THUKU	CHK. R.B.CARTER

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

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

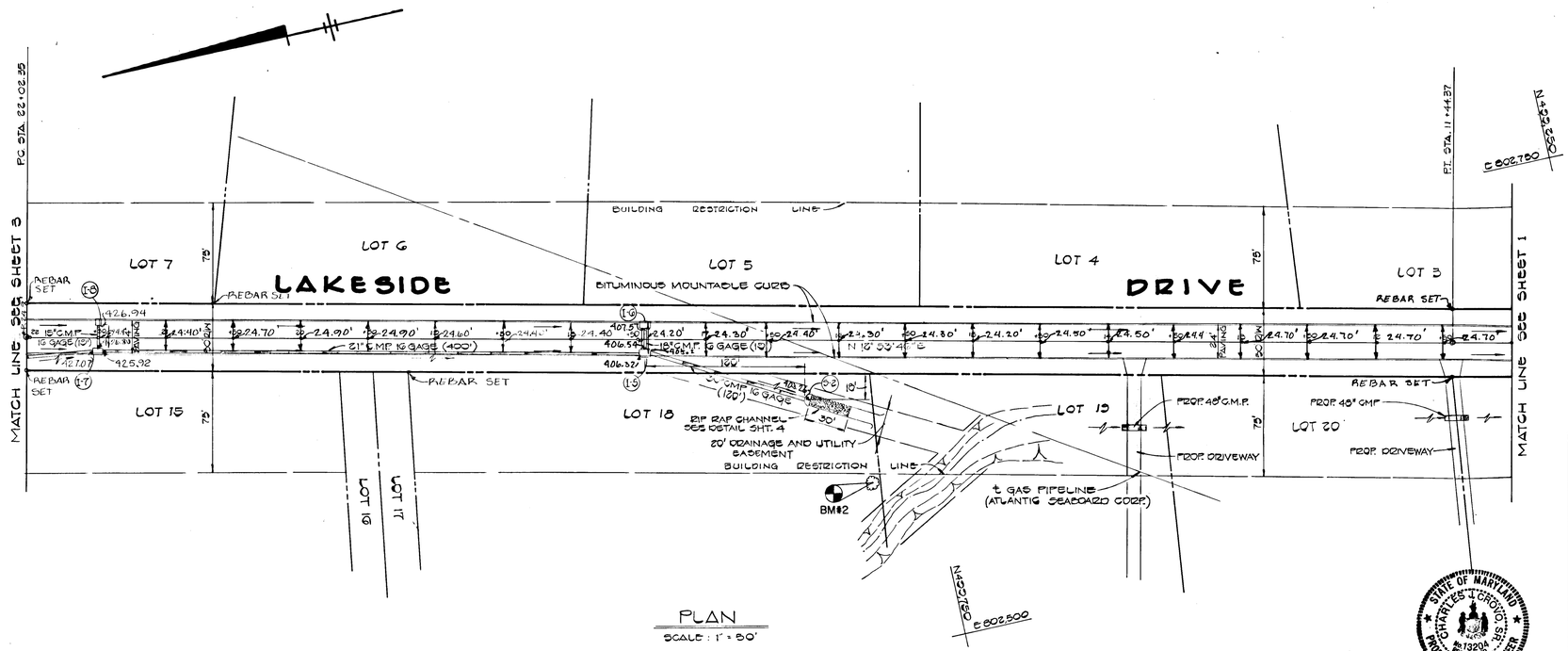
PROFILE — SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATIONS CHKD — NOTE BOOK NO. — BY — DATE



1094

AS BUILT 3/14/85

F85-32



PLAN
SCALE : 1" = 50'

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

APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING — DATE 9-17-84

APPROVED
OFFICE OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 9-14-84

STATE OF MARYLAND — CHARLES J. CROVO — No. 13204 — REGISTERED PROFESSIONAL ENGINEER
CHARLES J. CROVO SR. — DATE 8/1/84

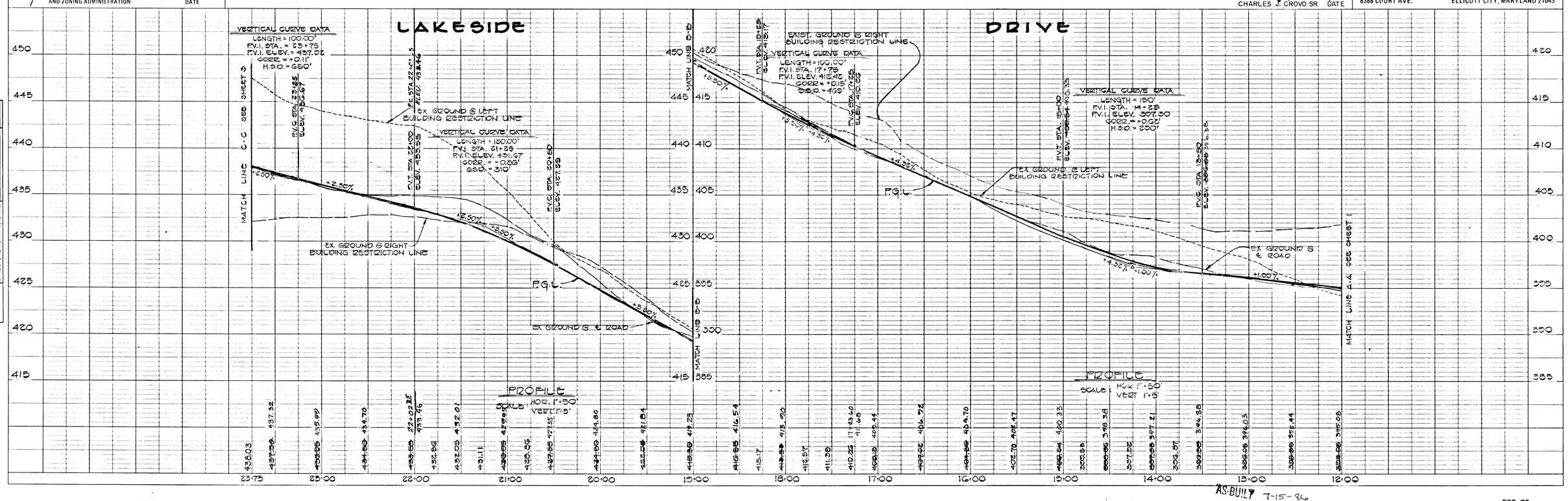
BRIGHTON PINES
SECTION 1 AREA 1
5TH. ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

LAKESIDE DRIVE
PLAN AND PROFILE

OWNER AND DEVELOPER
HIGHLAND DEVELOPMENT CORPORATION
9966 ROUTE 99
ELLICOTT CITY, MARYLAND 21043

SCALE AS SHOWN	DATE JULY 31, 1984	DWG. NO. 2 OF 7
DES. C.CROVO	DRN. E.N.THUKU	CHK. R.B.CARTER

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



PROFILE		BY	DATE
NOTE BOOK NO.	SURVEYED. PLOTTED. GRADES CHECKED. B.M. & TIES. STRUCTURE NOTATNS CHKD		

#1094

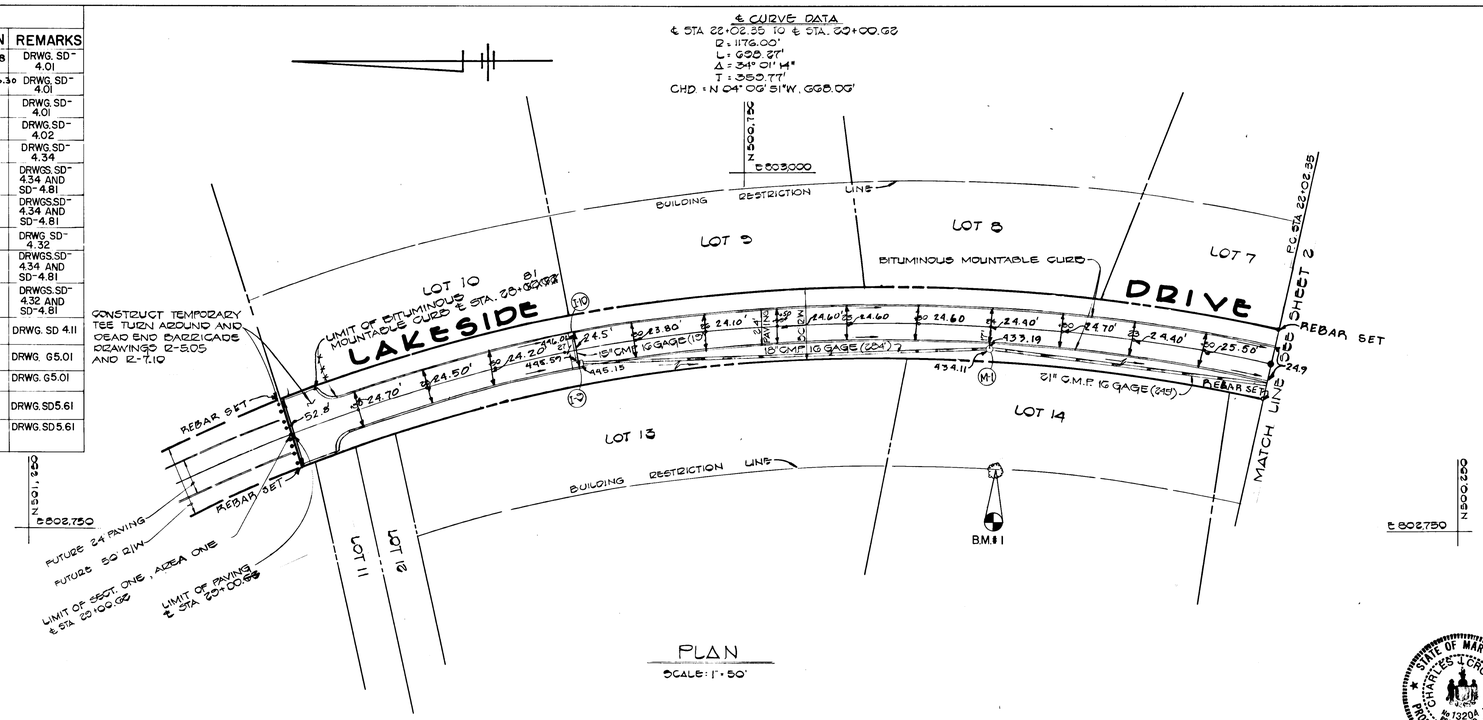
AS-BUILT 7-15-86

F85-32

STRUCTURE SCHEDULE

NO.	TYPE	INVERT IN	INVERT OUT	TOP ELEVATION	℄ STATION	REMARKS
I-1	A-5	~~379.54~~ 378.49	~~379.50~~ 379.64	~~384.38~~ 384.49	~~1+97~~ 1+98	DRWG. SD-4.01
I-2	A-5	~~380.06~~ 380.15	~~379.90~~ 380.05	~~384.38~~ 384.43	~~1+97~~ 1+96.30	DRWG. SD-4.01
I-3	A-5	~~389.45~~ 389.06	~~388.95~~ 388.96	~~394.10~~ 393.87	10+65	DRWG. SD-4.01
I-4	A-10	------	~~390.15~~ 389.97	~~394.10~~ 393.89	10+65	DRWG. SD-4.02
I-5	DOUBLE "S" COMB.	~~406.00~~ 406.22	~~404.83~~ 405.22	~~411.30~~ 412.24	~~17+94.36~~ 17+93.60	DRWG. SD-4.34
I-6	DOUBLE "S" COMB. DEPRESSED	------	~~406.45~~ 407.57	~~411.30~~ 412.24	~~17+44.36~~ 17+93.60	DRWGS. SD-4.34 AND SD-4.81
I-7	DOUBLE "S" COMB. DEPRESSED	~~427.29~~ 427.07	~~426.00~~ 425.92	~~432.23~~ 431.92	21+50	DRWGS. SD-4.34 AND SD-4.81
I-8	"S" COMB.	-------	427.48 426.94	432.23 431.90	21+50	DRWG. SD-4.32
I-9	DOUBLE "S" COMB. DEPRESSED	~~444.66~~ 445.59	~~444.04~~ 445.15	~~448.95~~ 449.82	~~26+94.09~~ 26+93.30	DRWGS. SD-4.34 AND SD-4.81
I-10	"S" COMB. DEPRESSED	-------	~~445.00~~ 446.01	~~448.95~~ 449.80	~~26+94.09~~ 26+95.50	DRWGS. SD-4.32 AND SD-4.81
✳ I-11	"D" INLET GRATE	------	382.96	387.37	0+50 NICHOLS DR.	DRWG. SD 4.11
M-1	STANDARD MANHOLE	~~433.30~~ 434.11	~~433.17~~ 433.19	~~439.18~~ 439.55	24+00	DRWG. G5.01
M-2	SHALLOW MANHOLE	~~382.60~~ 382.37	~~382.35~~ 382.27	~~387.00~~ 387.12	0+50	DRWG. G5.01
S-1	STANDARD METAL END SECTION	------	~~388.73~~ 388.76	~~390.73~~ 390.76	------	DRWG. SD5.61
S-2	STANDARD METAL END SECTION	------	~~403.11~~ 403.25	~~405.61~~ 405.75	------	DRWG. SD5.61

✳ INLET I-11 TO HAVE ONE OPENING ON NORTHEAST SIDE.



PLAN
SCALE: 1" = 50'

APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING — DATE 9-17-84

APPROVED
OFFICE OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 9-11-84

STATE OF MARYLAND — CHARLES J. CROVO — No. 13208 — PROFESSIONAL ENGINEER
CHARLES J. CROVO SR. DATE 8/1/84

BRIGHTON PINES
SECTION 1 AREA 1
5TH. ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

LAKESIDE DRIVE
PLAN AND PROFILE

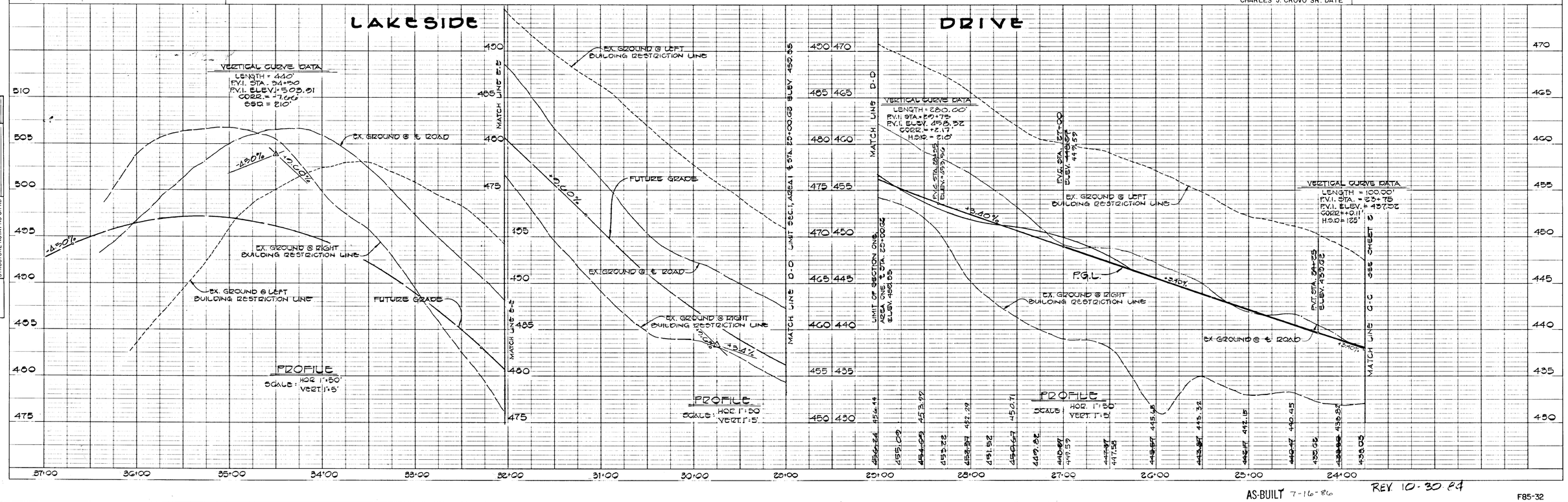
OWNER AND DEVELOPER
HIGHLAND DEVELOPMENT CORPORATION
9966 ROUTE 99
ELLICOTT CITY, MARYLAND 21043

SCALE AS SHOWN	DATE JULY 31, 1984	DWG. NO. 3 OF 7
DES. C.CROVO	DRN. E.N.THUKU	CHK. R.B.CARTER

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

PLAN — NOTE BOOK NO. — SURVEYED — PLOTTED — R/W & EASEMENT CHECKED — R/W OF WAY CHECKED — BY — DATE

PROFILE — NOTE BOOK NO. — SURVEYED — PLOTTED — GRADES CHECKED — BASE & SUPER — STRUCTURE NOTATIONS CHKD — BY — DATE



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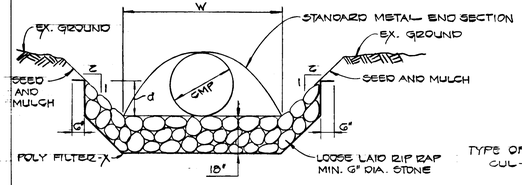
AS-BUILT 7-16-86

REV. 10-30-84

F85-32

LAKESIDE DRIVE



RIP RAP CHANNEL DETAIL

NO SCALE

TYPE OF TRAFFICWAY
CUL-DE-SAC

DESIGN SPEED
30 M.P.H.

ZONED
R

RIP RAP CHANNEL DESIGN DATA @ S-2

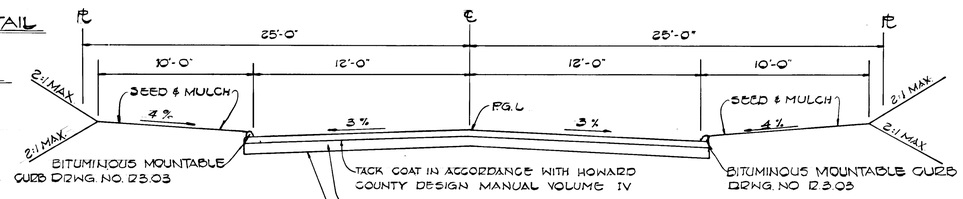
A = 8.67 ft²
P = 11.34'
R = 0.7646
R⅔ = 0.8362
S = 1.00%
S½ = 0.1000
n = 0.04
W = 7'
d = 1.0'
WATER DEPTH = 0.97'

V = 1.486/0.04 x 0.8362 x 0.1000 = 3.1 fps
Q = 8.67 ft² x 3.1 fps = 26.9 cfs

RIP RAP CHANNEL DESIGN DATA @ S-1

A = 4.72 ft²
P = 8.67'
R = 0.5444
R⅔ = 0.6667
S = 1.00%
S½ = 0.1000
W = 5'-8"
d = 1.0'
n = 0.04
WATER DEPTH = 0.67'

V = 1.486/0.04 x 0.6667 x 0.1000 = 2.48 fps
Q = 4.72 ft² x 2.48 fps = 11.7 cfs

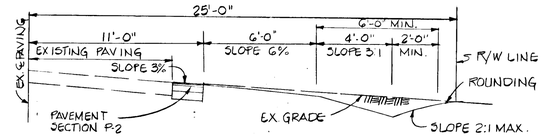


NOTE: ALL MATERIAL AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECS. AND DETAILS FOR CONSTRUCTION

TYPICAL ROADWAY SECTION

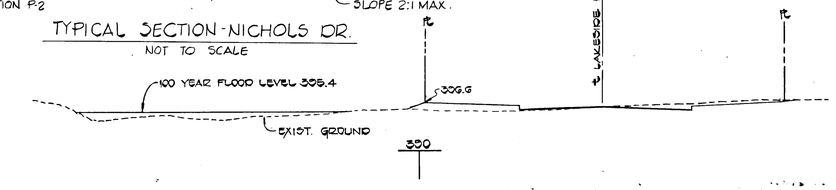
NO SCALE

LAKESIDE DRIVE - STA 0+00 TO STA. 28+66.66



TYPICAL SECTION - NICHOLS DR.

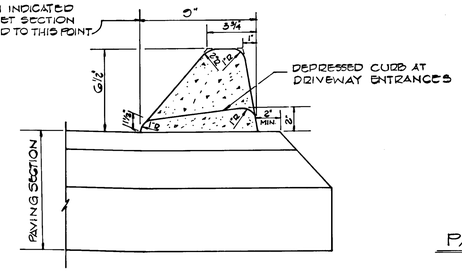
NOT TO SCALE



ROAD SECTION @ ℄ STA. 13+00

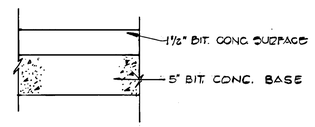
SCALE: 1" = 10' HOR.
1" = 10' VERT.

PAVEMENT WIDTH INDICATED ON TYPICAL STREET SECTION TO BE MEASURED TO THIS POINT



STANDARD BITUMINOUS CURB

NO SCALE



PAVING SECTION P-2

NO SCALE

APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING — DATE 9-17-84

APPROVED
OFFICE OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 9-14-84

STATE OF MARYLAND — CHARLES J. CROVO — No. 13204 — REGISTERED PROFESSIONAL ENGINEER
CHARLES J. CROVO SR. — DATE 8/1/84

REVISION BLOCK		
DATE	DESCRIPTION	BY
8/5/85	REVISE PAVING SECTION	R.A.I.

BRIGHTON PINES
SECTION I AREA I
5TH. ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

ROAD SECTIONS, DETAILS, AND STORM DRAIN PROFILES

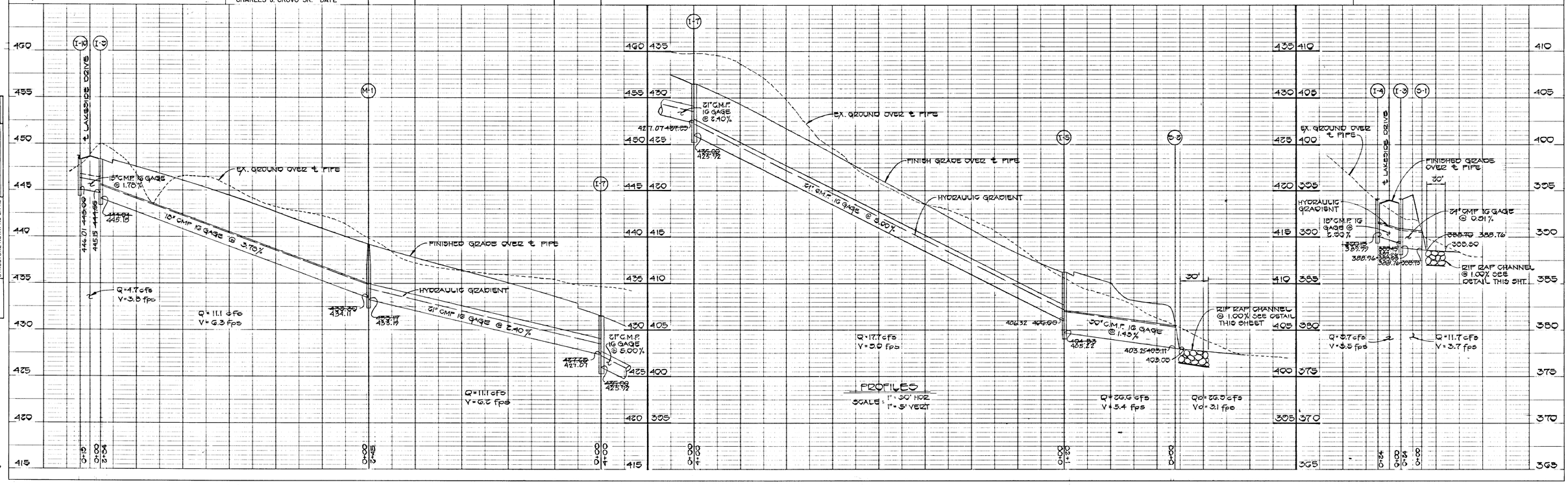
OWNER AND DEVELOPER
HIGHLAND DEVELOPMENT CORPORATION
9966 ROUTE 99
ELLICOTT CITY, MARYLAND 21043

SCALE AS SHOWN	DATE JULY 31, 1984	DWG. NO 4 OF 7
DES. C. CROVO	DRN. E.N. THUKU	CHK. R.B. CARTER

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

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

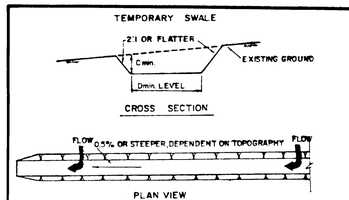
PROFILE — NOTE BOOK NO. — SURVEYED, PLOTTED, GRADES CHECKED, BLDG. LOCATED, STRUCTURE NOTATNS CHKD — BY — DATE

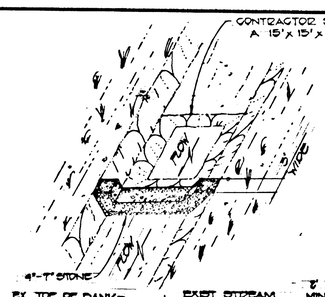


#1094

AS-BUILT 7-16-86

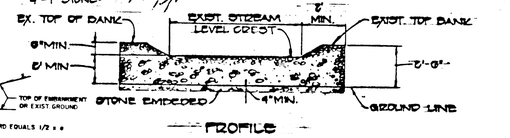
F85-32





CONSTRUCTION SEQUENCE:

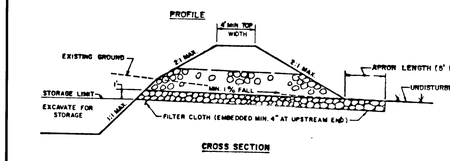
1. OBTAIN GRADING PERMIT.
2. CONSTRUCT STONE CONSTRUCTION ENTRANCE AS SHOWN ON PLAN.
3. CONSTRUCT STONE OUTLET STRUCTURE IN STREAM AND EXCAVATE SEDIMENT TRAPS TO REQUIRED DIMENSIONS AS SHOWN ON PLAN. USE EXCAVATED MATERIAL TO CONSTRUCT EARTH DIKE. STABILIZE TRAPS AND DIKES WITH TEMPORARY SEED MIXTURE AND STRAW MULCH.
4. INSTALL SILT FENCE OR STRAW BALE DIKE AS SHOWN ON PLAN.
5. GRADE ROADS TO SUBGRADE STABILIZING SLOPE AREAS BETWEEN EXISTING GROUND AND BACK OF CURB USING PERMANENT SEEDING.
6. CONSTRUCT STORM DRAIN SYSTEM.
7. INSTALL INLET PROTECTION DEVICES AT ALL STORM DRAIN INLETS.
8. LAY BASE COURSE.
9. UPON STABILIZATION OF GRADED AREAS, INLETS SHALL BE OPENED AND ALL ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE STORM DRAIN SYSTEM. INSTALL RIP-RAP APRONS.
10. DURING CONSTRUCTION, SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT TRAPS WHEN THE CLEANOUT ELEVATION HAS BEEN REACHED.
11. DURING CONSTRUCTION AND AFTER EACH RAINFALL, THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON.
12. REMOVE STONE CONSTRUCTION ENTRANCE.
13. CLEAN BASE COURSE, APPLY TACK COAT TO BASE COURSE, LAY SURFACE COURSE. STABILIZE ALL SHOULDERS USING PERMANENT SEEDING.
14. THE SEDIMENT TRAPS SHALL BE DEWATERED BY PUMPING.
15. **FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1; b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.**

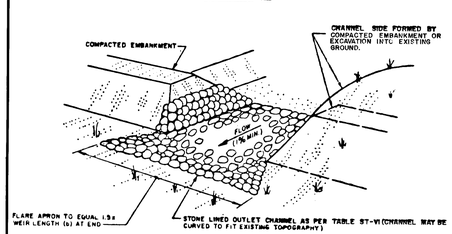


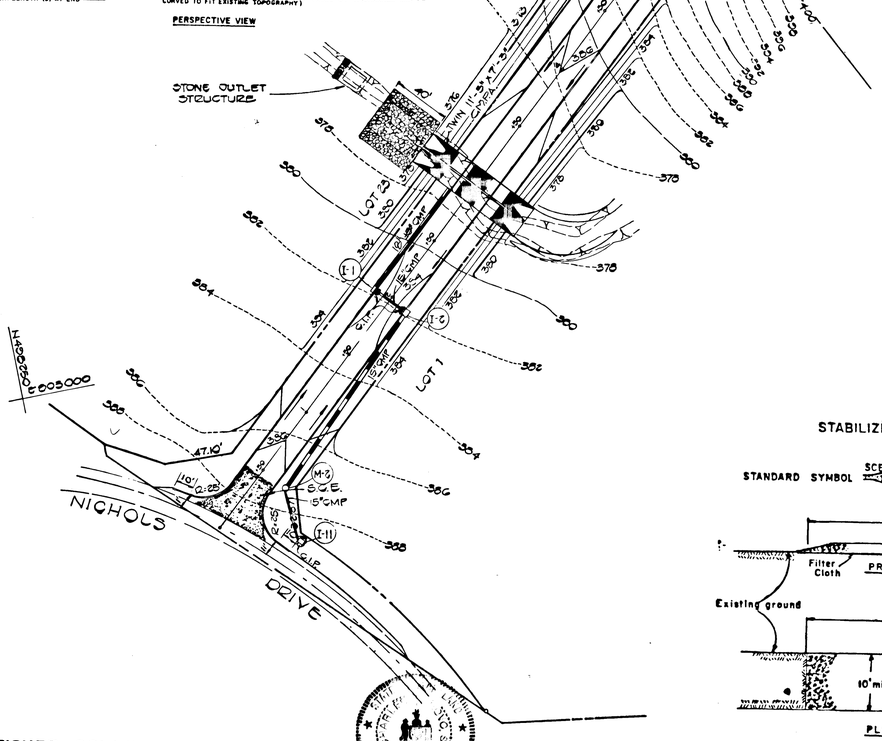
STONE OUTLET STRUCTURE DETAIL
NO SCALE

NOTE: CONTRACTOR SHALL ASSURE THAT OVERFLOW FROM TRAP #1 DOES NOT ENTER TRAP #2. OVERFLOW TO BE DIRECTED INTO NATURAL SWALE.

SEDIMENT TRAP #2 SEE DETAIL THIS SHEET

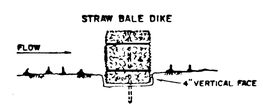


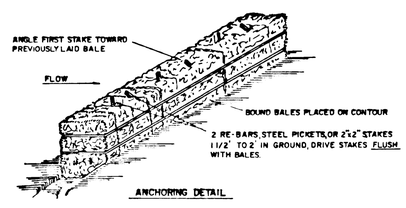




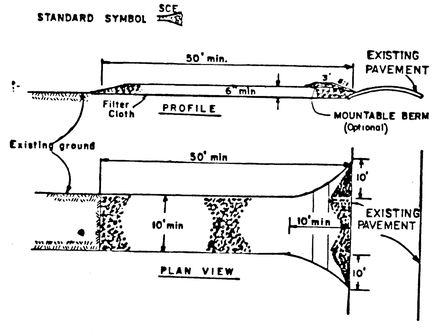
PLAN
SCALE: 1" = 50'

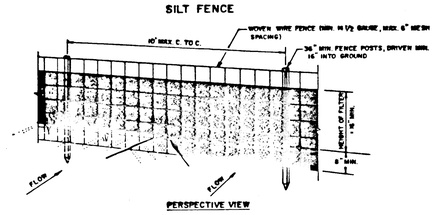
SEDIMENT TRAP DATA:										
TRAP #	DRAINAGE AREA	STORAGE REQUIRED	STORAGE PROVIDED	"b"	BOTTOM OF TRAP ELEV.	TOP DIMENSIONS	BOTTOM DIMENSIONS	"a"	CLEANOUT ELEV.	WEIR CREST
1	11.35 AC.±	20,430 CU. FT.	20,445 CU. FT.	14.0'	398.5	85' x 86'	79' x 80'	2'	400.0	402.5
2	4.75 AC.±	8,550 CU. FT.	8,613 CU. FT.	12.0'	384.0	57' x 56'	51' x 50'	1.5'	385.5	388.0

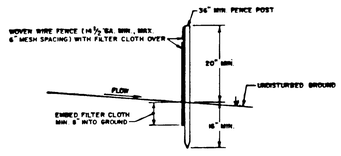




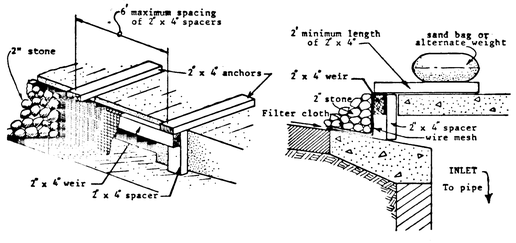
STABILIZED CONSTRUCTION ENTRANCE
not to scale







CURB INLET PROTECTION DETAIL



SITE ANALYSIS

TOTAL NUMBER OF LOTS	23
TOTAL AREA OF LOTS	75.5 Ac±
TOTAL AREA TO BE DISTURBED	3.057 Ac±
TOTAL IMPERVIOUS AREA	1.609 Ac±
TOTAL AREA TO BE REVEGETATED	1.748 Ac±

OWNER AND DEVELOPER
HIGHLAND DEVELOPMENT CORPORATION
8066 ROUTE 99
ELLICOTT CITY, MARYLAND 21043

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 9/1/84

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER — DATE 9/12/84

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S. SOIL CONSERVATION SERVICE — DATE 9-14-84

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

DISTRICT — DATE 9/14/84
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS.

CHIEF, BUREAU OF ENGINEERING — DATE 9-17-84

APPROVED: OFFICE OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 9/14/84

SEDIMENT CONTROL NOTES

1. SPECIFICATIONS FOR THE SEDIMENT CONTROL DETAILS INCLUDED IN THE U.S.D.A. SOIL CONSERVATION SERVICE "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS."
2. THE DEVELOPER SHALL NOTIFY THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS AT LEAST 24 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION SHOWN HEREON (992-2433).
3. SEDIMENT CONTROL STRUCTURES TO BE CONSTRUCTED PRIOR TO ANY ON-SITE GRADING OR DISTURBANCE TO ANY EXISTING SURFACE MATERIAL, AND ARE TO BE STABILIZED AS SOON AS CONSTRUCTED.
4. ALL SEDIMENT CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS (992-2433).
5. ALL GRADED AREAS NOT TO BE SODDED SHALL BE STABILIZED BY SEEDING AND MULCHING IN ACCORDANCE WITH THE FOLLOWING:
   1. SITE PREPARATION
      A. HARROW OR DISC IN AREAS PROPOSED TO BE SEEDED THE FOLLOWING MATERIALS
         1) PULVERIZED LIMESTONE AT 2 TONS/ACRE.
         2) COMMERICAL FERTILIZER 10-10-10 AT 3/4 TONS/ACRE.
         3) SUPER PHOSPHATE AT 600 LBS./ ACRE.
   2. SEEDING
      A. SOW THE FOLLOWING SEED MIXTURE AT THE RATE OF 200 LBS./ACRE WITH A MECHANICAL SPREADER.
         1) TEMPORARY: ITALIAN OR PERENNIAL RYE GRASS.
         2) PERMANENT: 40% MARION BLUE GRASS, 40% DAKOTA BLUE GRASS AND 20% PENN LAWN CREEPING FESCUE.
      B. THE SEEDED AREA SHALL THEN BE RAKED WITH A YORK RATE (A MINIMUM OF 2 PASSES) COVERED AND COMPACTED WITH CULTIPACKER OR OTHER APPROVED METHOD.
   3. MULCHING
      A. SEEDED AREAS SHALL BE UNIFORMLY MULCHED IMMEDIATELY AFTER SEEDING WITH UNWEATHERED SMALL GRAIN STRAW AT THE RATE OF 1 1/2-2 TONS/ACRE.
      B. TIE MULCH DOWN WITH LIQUID ASPHALT AT 0.1 GAL./S.Y. OR EMULSIFIED ASPHALT AT 0.04 GAL./S.Y. OR MULCH NETTING.

GRADING AND SEDIMENT CONTROL PLAN
BRIGHTON PINES
SECTION ONE AREA ONE

FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SHEET 5 OF 7

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

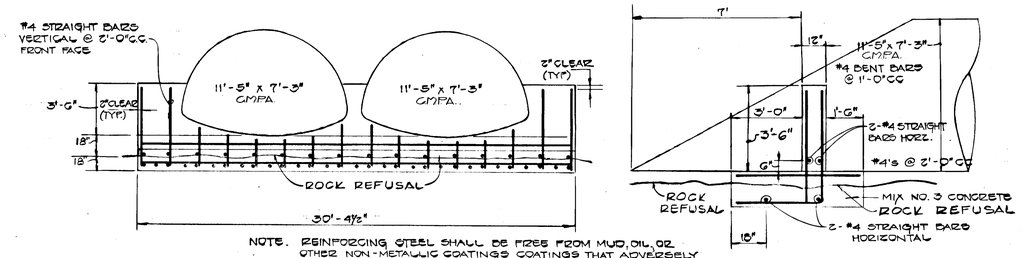
CHARLES J. CROVO SR. — DATE 8/1/84

#1094

AS-BUILT 7-16-86

F85-32

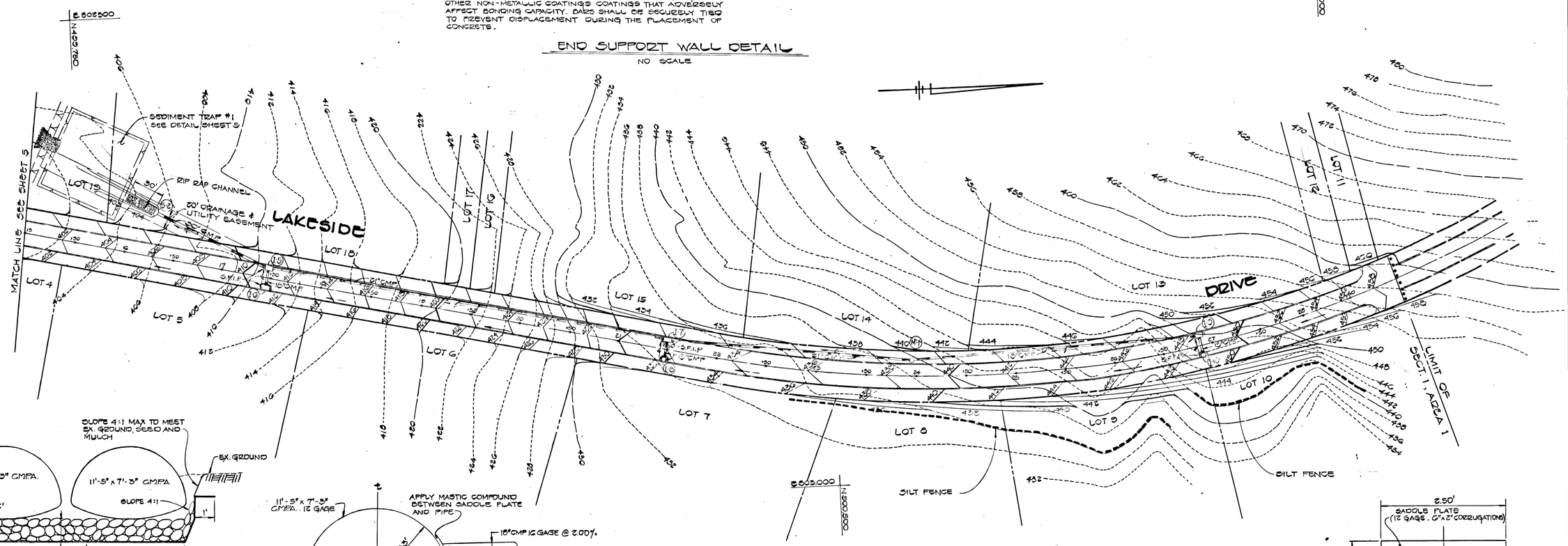
APPROVED: DEPARTMENT OF PUBLIC WORKS	
CHIEF BUREAU OF ENGINEERING	DATE 9-17-84
APPROVED: OFFICE OF PLANNING AND ZONING	
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION	DATE 9-14-84



NOTE. REINFORCING STEEL SHALL BE FREE FROM MUD, OIL, OR OTHER NON-METALLIC COATINGS COATINGS THAT ADVERSELY AFFECT BONDING CAPACITY. BARS SHALL BE SECURELY TIED TO PREVENT DISPLACEMENT DURING THE PLACEMENT OF CONCRETE.

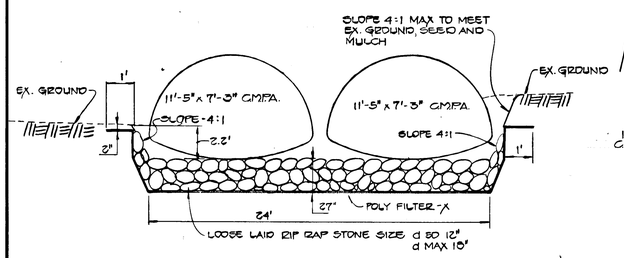
END SUPPORT WALL DETAIL

NO SCALE



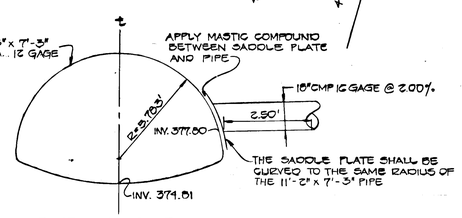
PLAN

SCALE: 1" = 50'



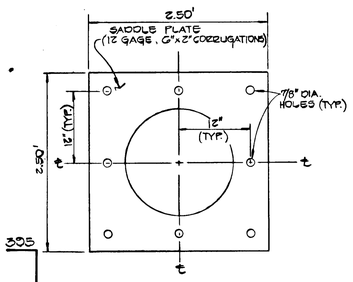
RIP RAP CHANNEL DETAIL

NO SCALE

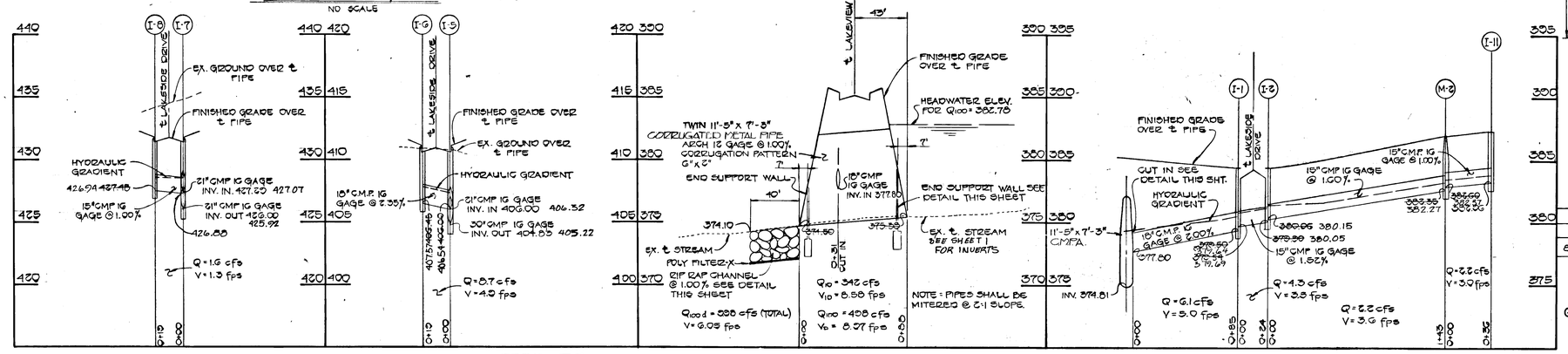


CUT IN DETAIL

NO SCALE



NOTES
1) THE SADDLE PLATE SHALL BE FASTENED TO THE 11'-5" x 7'-3" CMPA. WITH GALVANIZED 3/4" DIAMETER BOLTS.
2) THE 18" CMP SHALL BE FASTENED TO THE SADDLE PLATE WITH A CONTINUOUS WELD AROUND THE DIAMETER OF THE PIPE.



PROFILES

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

REVISION BLOCK		
DATE	DESCRIPTION	BY
8/5/85	REVISE SUPPORT WALL DETAIL	R.A.I.

STATE OF MARYLAND — CHARLES J. CROVO — No. 13204 — PROFESSIONAL ENGINEER

Charles J. Crovo Sr. 8/15/84
CHARLES J. CROVO SR. DATE

#1094

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OWNER AND DEVELOPER
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8266 ROUTE 99
ELLICOTT CITY, MARYLAND 21043

GRADING, STORM DRAIN PROFILES AND SEDIMENT CONTROL PLAN
BRIGHTON PINES
SECTION ONE, AREA ONE

FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

REV 10-30-84

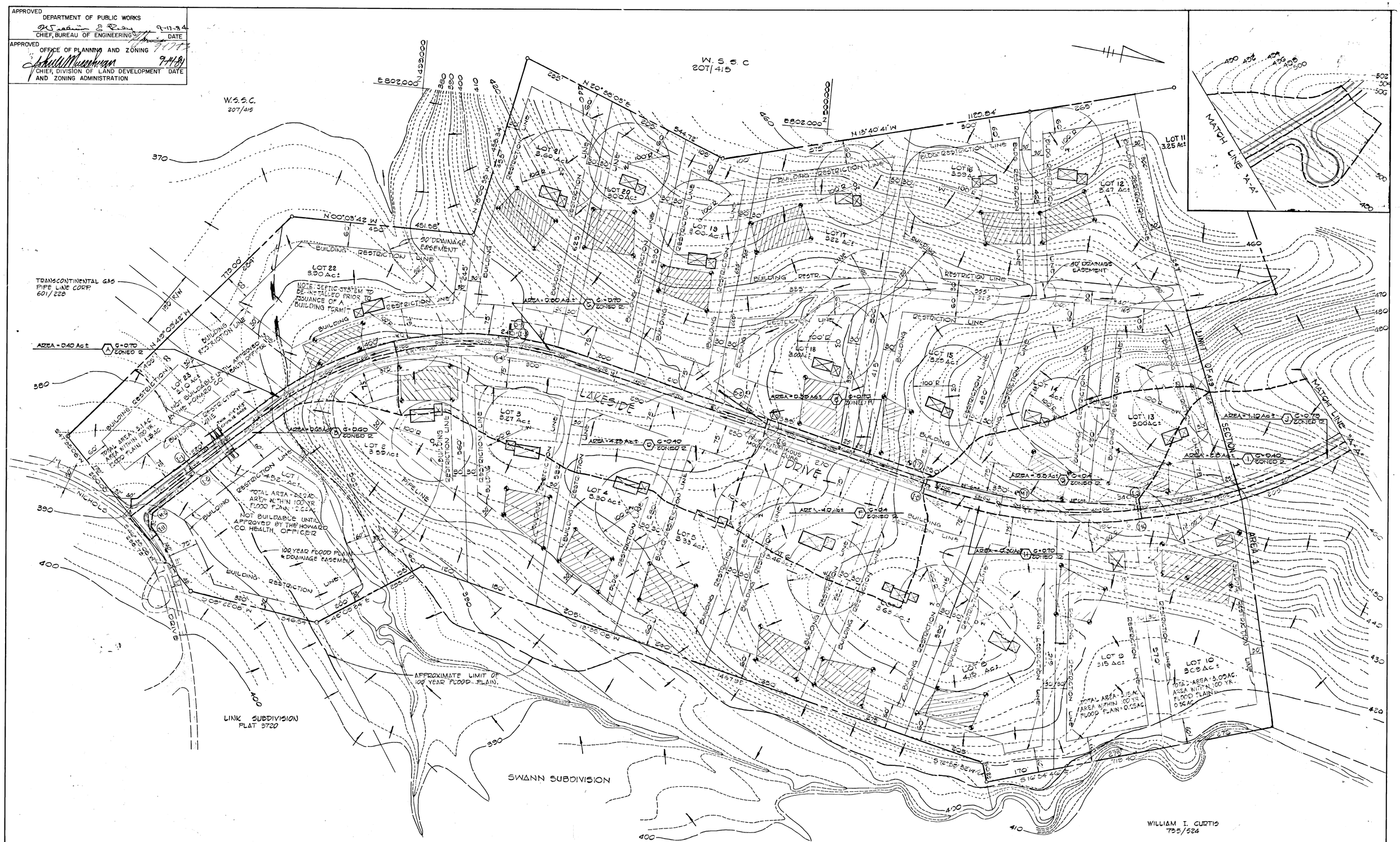
SHEET 6 OF 7

AS-BUILT 7-16-86

F85-32

APPROVED
DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF ENGINEERING — DATE 9-11-84

APPROVED
OFFICE OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 9-14-84



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9966 ROUTE 99
ELLICOTT CITY, MARYLAND 21043

STATE OF MARYLAND — CHARLES W. CROSS — PROFESSIONAL ENGINEER

#1094

DRAINAGE AREA MAP
BRIGHTON PINES

SECTION 1, AREA 1

5TH ELECT DIST HOWARD CO MD
TAX MAP 34 PARCEL 110
FEBRUARY 1984 SCALE 1" = 100

F85-32 SHEET 7 OF