

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.

Charles J. Crovo Sr. 6/2/86
 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 ON-SITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.

Chateau Builders Inc. 6/2/86
 CHATEAU BUILDERS INC.

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND METS TECHNICAL REQUIREMENTS.
James M. DeLain 3-18-87
 U.S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
Kolbert J. Zehm 5/10/87
 HOWARD COUNTY SOIL CONSERVATION DISTRICT

STREET LIGHTS
 175 WATT MERCURY VAPOR LAMP MOUNTED ON A 14' GRAY FIBERGLASS POLE TO BE LOCATED AT:
 1. THE INTERSECTION OF CROSS COUNTRY DRIVE AND MAXINE STREET ON RIGHT.
 2. @ STATION 4+40 CROSS COUNTRY DRIVE ON RIGHT.
 3. @ STATION 9+00 SOUTH MEADOW COURT ON LEFT.
 4. @ STATION 4+50 SOUTH MEADOW COURT ON LEFT.

APPROVED DEPARTMENT OF PUBLIC WORKS
William R. Ryan 3-11-87
 CHIEF, BUREAU OF ENGINEERING

APPROVED OFFICE OF PLANNING AND ZONING
John W. MacMahon 3-18-87
 PLANNING AND ZONING ADMINISTRATION

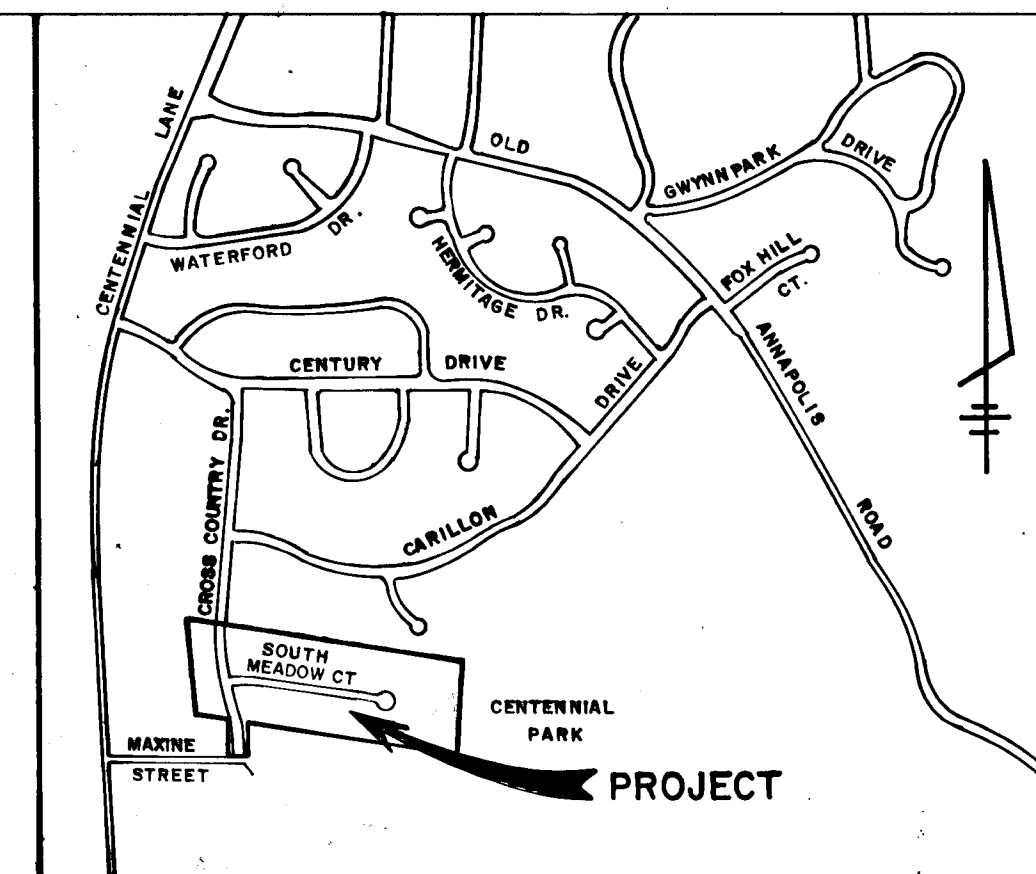
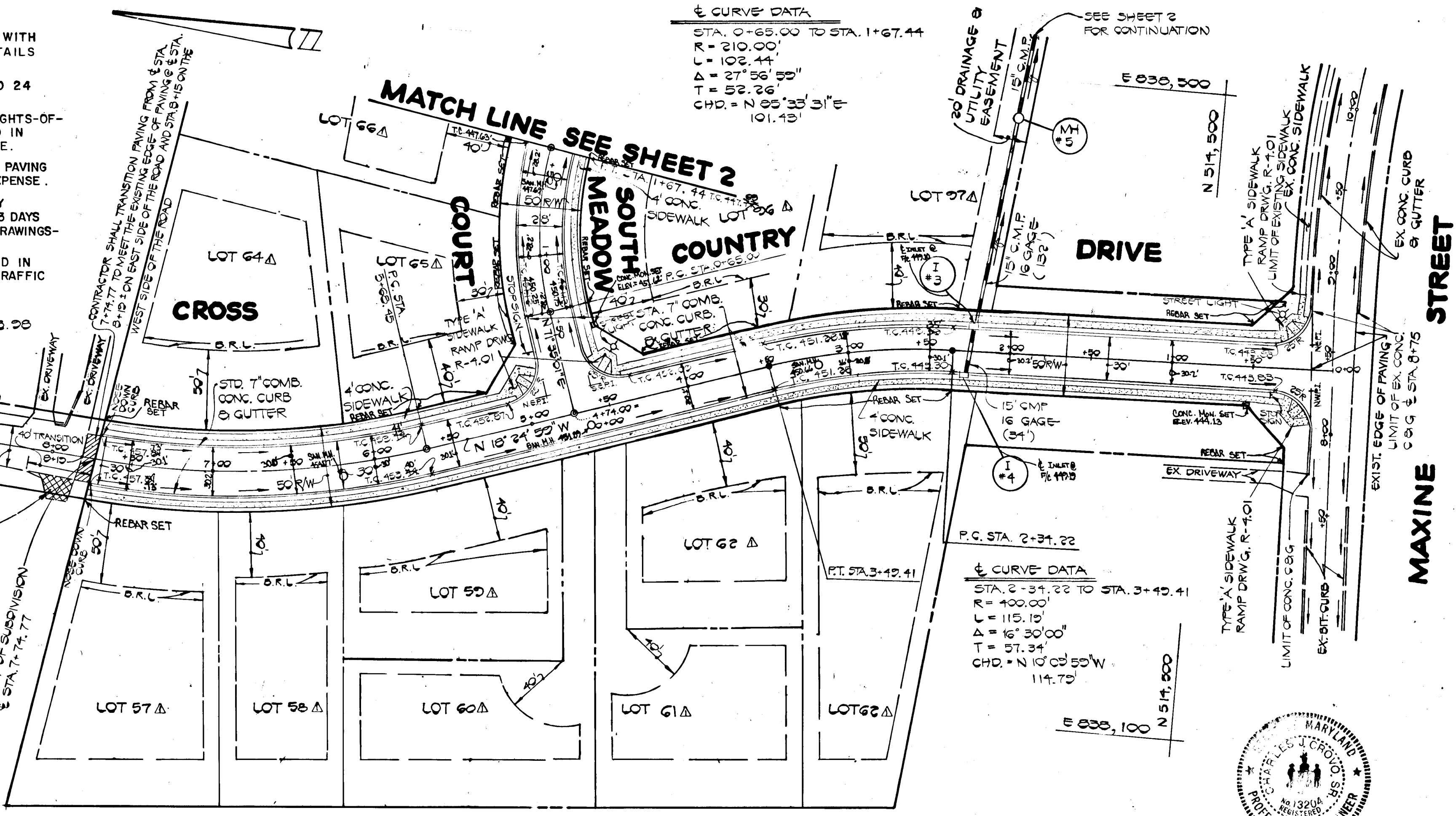
GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH COUNTY STANDARDS, SPECIFICATION AND DETAILS FOR CONSTRUCTION.
2. ALL UTILITY COMPANIES MUST BE NOTIFIED 24 HOURS 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. ALL DAMAGE TO PUBLIC RIGHT-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. TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 1978 EDITION.

CURVE DATA
 STA. 5+67.66 TO STA. 7+73.90
 R = 515.70'
 L = 206.32'
 Δ = 22° 55' 16"
 T = 109.26'
 CHD. = N 06° 57' 21" W 204.05'

CURVE DATA
 STA. 0+65.00 TO STA. 1+67.44
 R = 210.00'
 L = 100.00'
 Δ = 27° 58' 30"
 T = 52.26'
 CHD. = N 05° 33' 31" E 101.19'

CURVE DATA
 STA. 2+39.22 TO STA. 3+49.41
 R = 400.00'
 L = 115.10'
 Δ = 16° 30' 00"
 T = 51.34'
 CHD. = N 10° 08' 50" W 114.70'

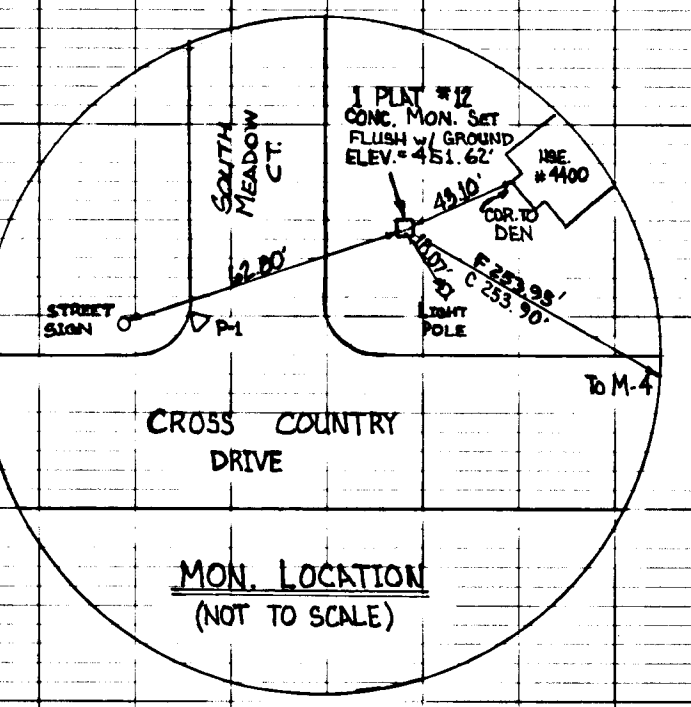


VICINITY MAP
 SCALE: 1"=1200'
BENCH MARK
 BM #1 ELEV. 306.17
 X - CUT RIM SAN MH BETWEEN LOTS 6 & LA BELLE CT. CHATEAU VALLEY SECT #4
 BM #2 ELEV. 444.41
 ROAD SIDE FLANGE BOLT @ F.P. END MAXINE DRIVE

THE WILLOWS SECTION TWO LOTS 1-41
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
CROSS COUNTRY DRIVE PLAN AND PROFILE
 OWNER AND DEVELOPER: CHATEAU BUILDERS, INC. 8100 WOODDED GLEN COURT ELLICOTT CITY, MD. 21043
 SCALE AS SHOWN DATE: DEC. 19, 1986 DWG. NO. 1 OF 6
 DES. R. C. SHUMAKER DRN. J. O'DONNELL CHK. C. J. CROVO SR.
 FISHER, COLLINS AND CARTER, INC. CIVIL ENGINEERS AND LAND SURVEYORS 8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043

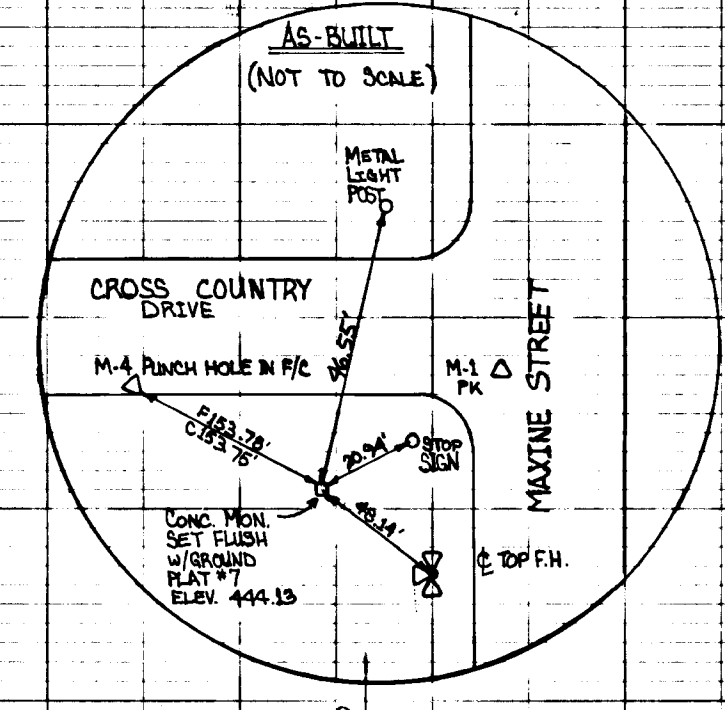
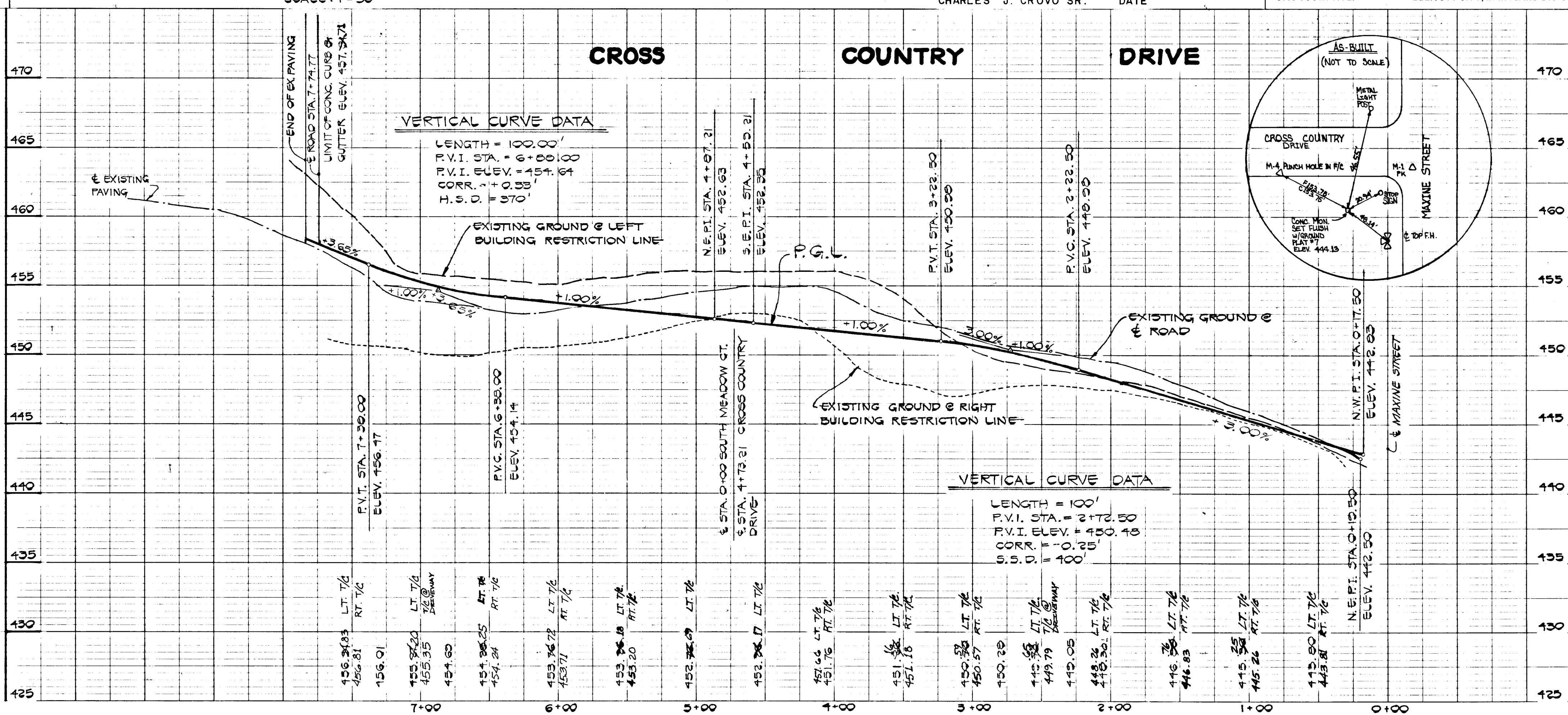
| DATE | BY | NO. | REVISION |
|---------|----|-----|--------------------|
| 6-11-87 | | | REVISE LOT NUMBERS |

THE COORDINATES SHOWN HEREON ARE BASED ON THE MARYLAND STATE GRID SYSTEM AS DERIVED FROM THE FOLLOWING HOWARD COUNTY CONTROL STATIONS:
 3041002 N 51° 26' 15" E 841543.135'
 3041003 N 21° 44' 52" E 841680.288'



AS-BUILT SURVEY CERTIFIED BY CHARLES J. CROVO SR. MD. P.E. NO. 13204 ON 9-9-89.

PLAN
 SCALE: 1"=50'



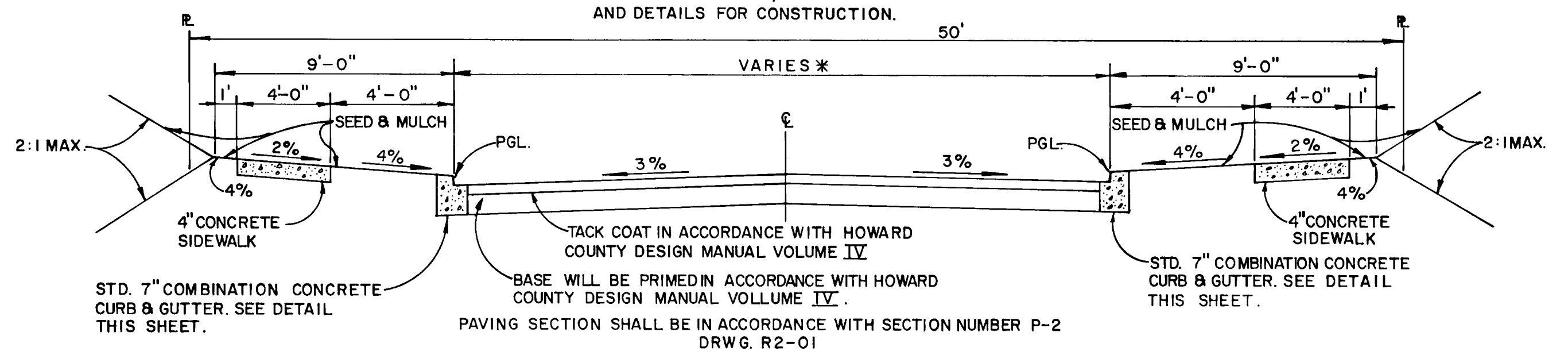
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| | | | PLAN |
| | | | CHECKED |
| | | | NOTED |
| | | | RT. OF WAY CHECKED |

| DATE | BY | NO. | REVISION |
|------|----|-----|--------------------------|
| | | | PROFILE |
| | | | CHECKED |
| | | | NOTED |
| | | | STRUCTURE NOTATIONS CHKD |

1169

TYPICAL ROADWAY SECTION

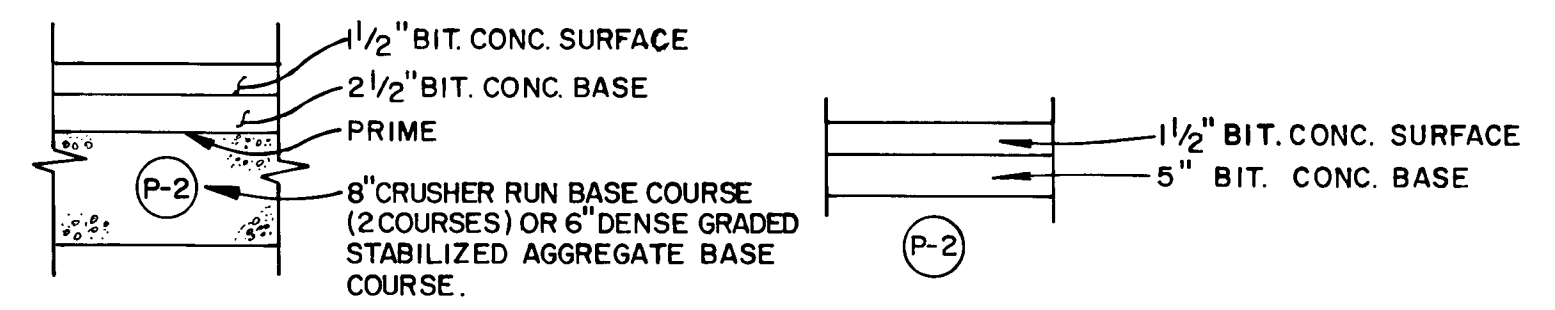
ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION.



| ROAD NAME | CLASSIFICATION | DESIGN SPEED | ZONING | STA. LIMITS | PAVING WIDTH* |
|---------------------|----------------|--------------|--------|------------------|---------------|
| CROSS COUNTRY DRIVE | LOCAL ROAD | 30 MPH. | R-20 | 0+00 TO 7+74.77 | 30' |
| SOUTH MEADOW COURT | CUL-DE-SAC | 30 MPH. | R-20 | 0+00 TO 10+30.66 | 28' |

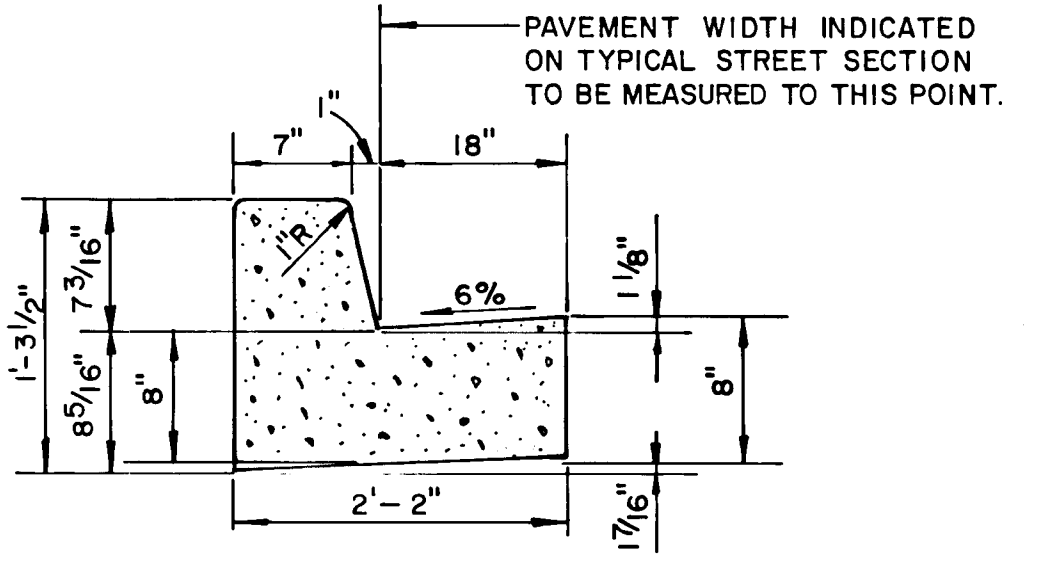
RIP RAP CHANNEL DESIGN DATA

| Struct. | A ¹ | P ¹ | R | R2/3 | S% | S1/2 | n | Qcfs. | Vfps | dft. | Wft. | Rip Rap Size | b in | |
|---------|----------------|----------------|------|------|-------|-------|------|-------|------|------|------|--------------|-------|----|
| | | | | | | | | | | | | d50 | dmax. | |
| S-2 | 6.30 | 8.50 | .741 | .819 | 1.00% | 0.100 | 0.04 | 19.14 | 3.04 | 1.08 | 3.67 | 6" | 9" | 14 |



PAVING SECTION P-2

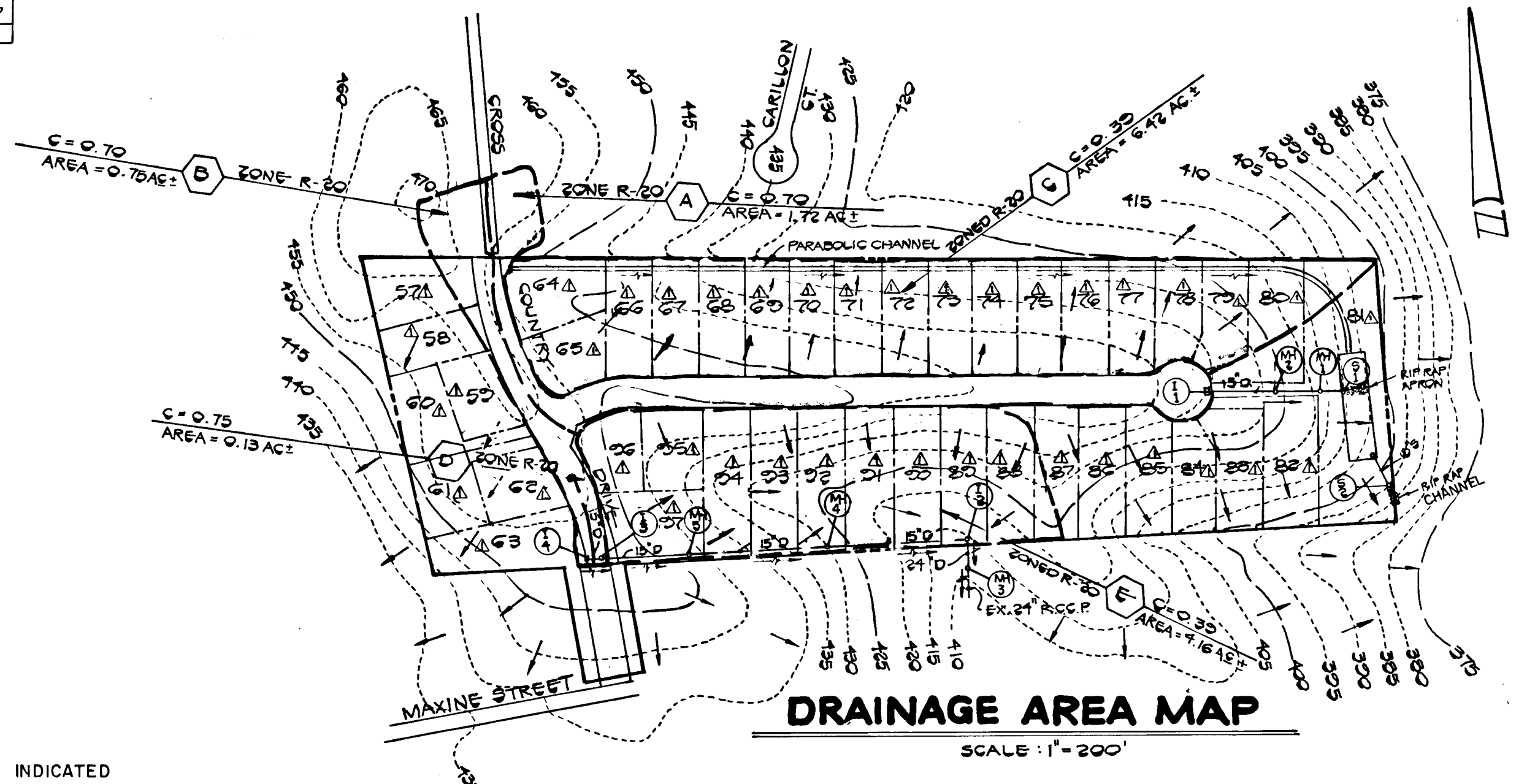
NO SCALE



STANDARD 7" COMB. CONC. CURB & GUTTER

NO SCALE

| DATE | BY | NO. | REVISION | DATE |
|---------|----|-----|----------|------|
| 6-11-87 | | | | |



DRAINAGE AREA MAP

SCALE: 1" = 200'

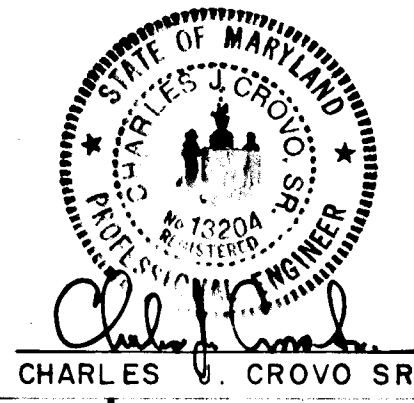
THE WILLOWS SECTION TWO
 LOTS 1-41
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

ROAD SECTION, DETAIL, DRAINAGE AREA MAP AND PARABOLIC CHANNEL PROFILES

OWNER AND DEVELOPER:
 CHATEAU BUILDERS, INC.
 8100 WOODDED GLEN COURT
 ELLICOTT CITY, MD. 21043

SCALE AS SHOWN DATE: DEC. 19, 1986 DWG. NO. 3 OF 6
 DES. R.C. SHUMAKER DRN. J. O'DONNELL CHK. C. J. GROVO SR.

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

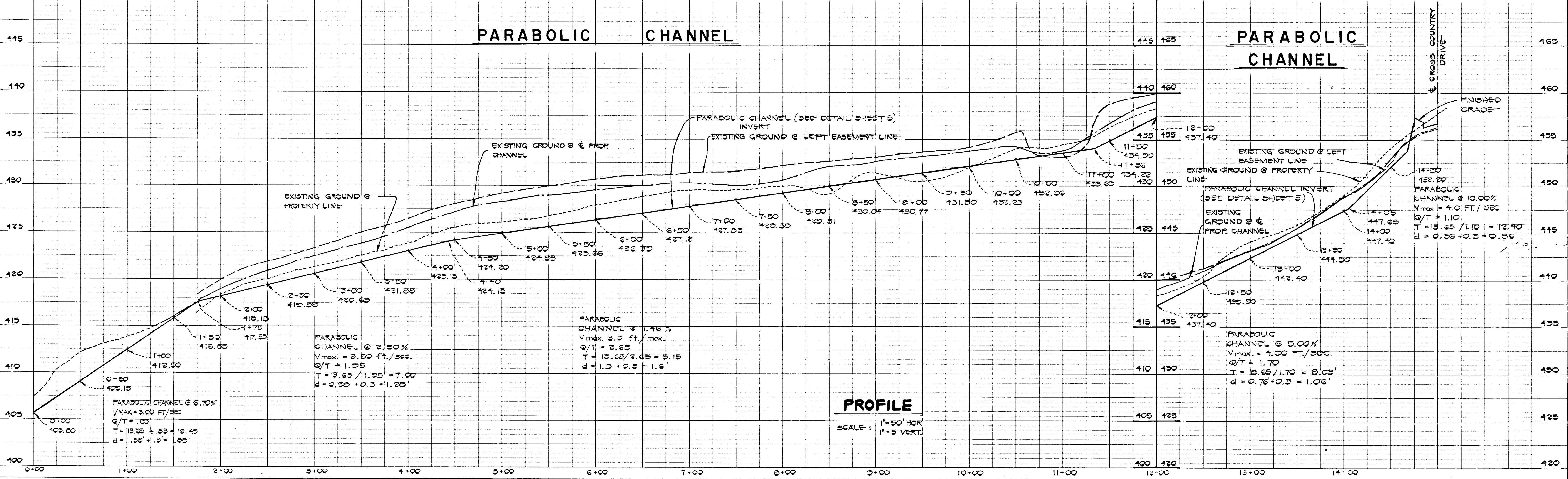


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APPROVED: DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Engineering
 3-19-87

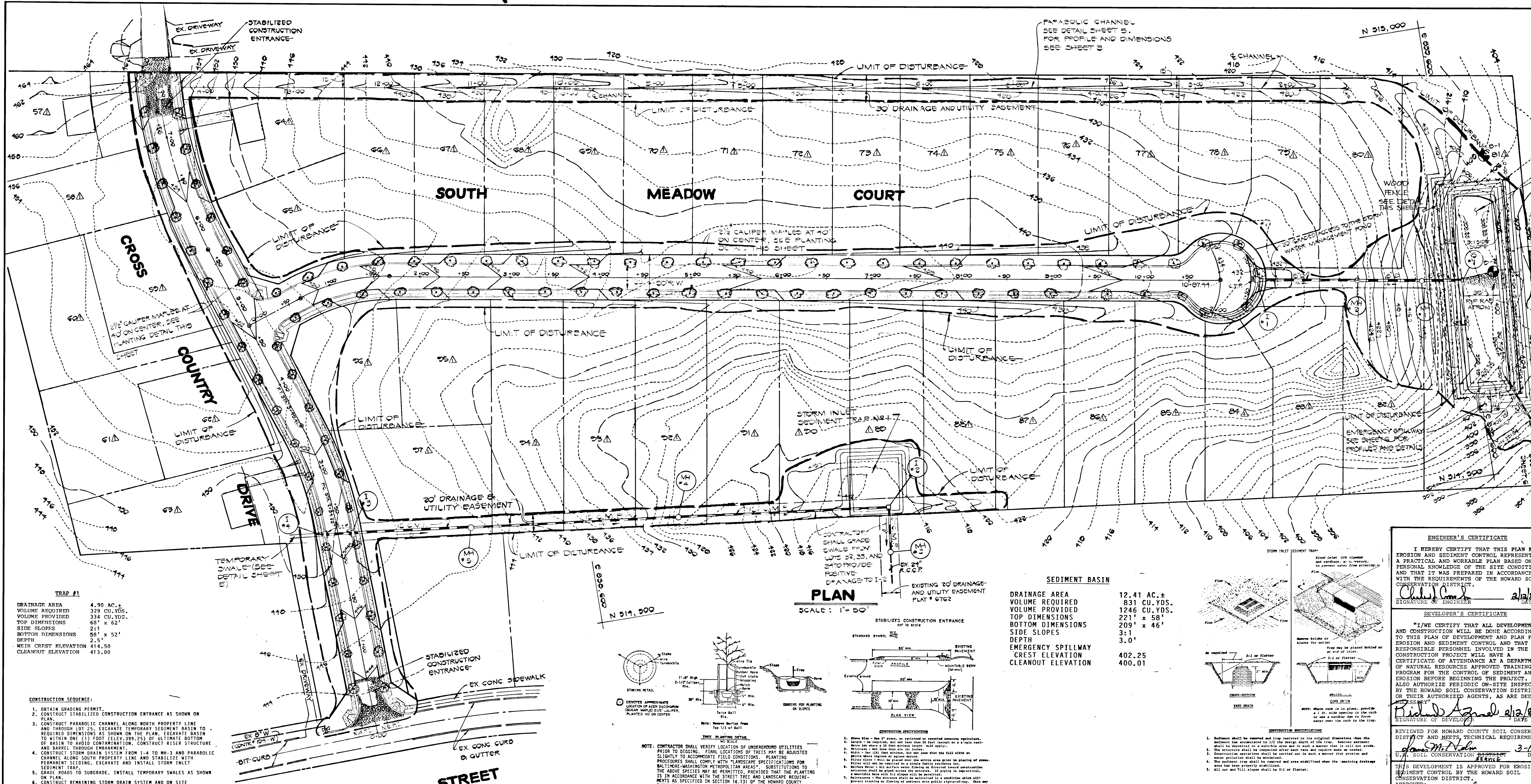
APPROVED: OFFICE OF PLANNING AND ZONING
 3-18-87



PROFILE

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

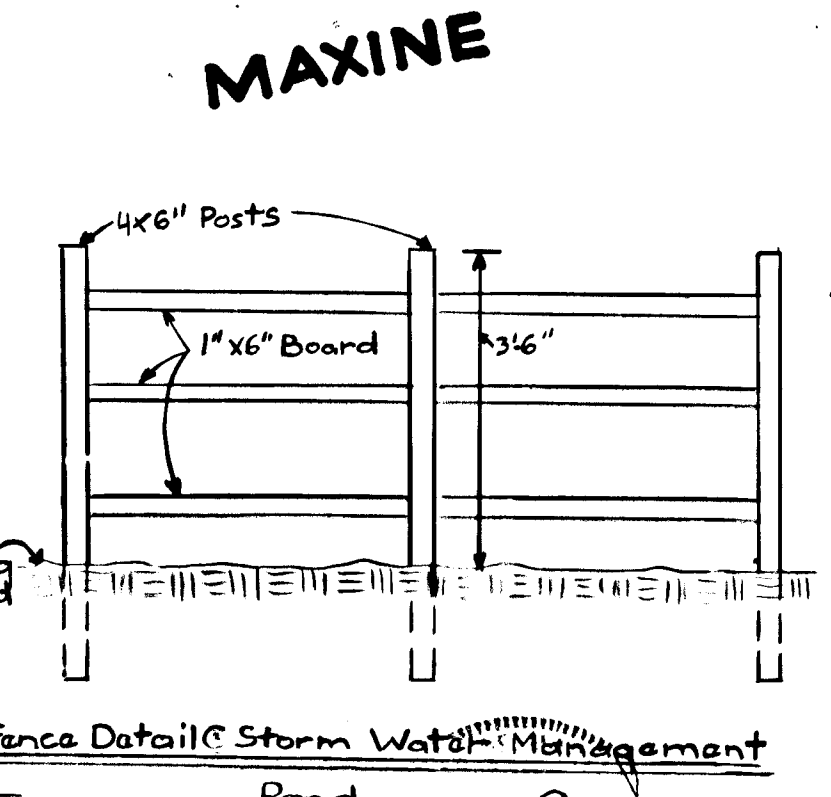
AS-BUILT 9-9-89



TRAP #1

| | |
|----------------------|--------------|
| DRAINAGE AREA | 4.90 AC. ± |
| VOLUME REQUIRED | 329 CU. YDS. |
| VOLUME PROVIDED | 334 CU. YDS. |
| TOP DIMENSIONS | 60' x 52' |
| SIDE SLOPES | 2:1 |
| BOTTOM DIMENSIONS | 58' x 52' |
| DEPTH | 2.5' |
| WEIR CRIST ELEVATION | 414.50 |
| CLEANOUT ELEVATION | 413.00 |

- CONSTRUCTION SEQUENCE:**
- OBTAIN GRADING PERMIT.
 - CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AS SHOWN ON PLAN.
 - CONSTRUCT PARABOLIC CHANNEL ALONG NORTH PROPERTY LINE AND THROUGH LOT 25. EXCAVATE TEMPORARY SEDIMENT BASIN TO REQUIRED DIMENSIONS AS SHOWN ON THE PLAN. EXCAVATE BASIN TO WITHIN ONE (1) FOOT (ELEV. 399.25) OF ULTIMATE BOTTOM OF BASIN TO AVOID CONTAMINATION. CONSTRUCT RISER STRUCTURE AND BARREL THROUGH EMBANKMENT.
 - CONSTRUCT STORM DRAIN SYSTEM FROM I-4 TO MH-3 AND PARABOLIC CHANNEL ALONG SOUTH PROPERTY LINE AND STABILIZE WITH PERMANENT SEEDING. EXCAVATE AND INSTALL STORM INLET SEDIMENT TRAP.
 - GRADE ROADS TO SUBGRADE. INSTALL TEMPORARY SWALES AS SHOWN ON PLAN.
 - CONSTRUCT REMAINING STORM DRAIN SYSTEM AND ON SITE UTILITIES. INSTALL PROTECTION DEVICES.
 - BEGIN BUILDING CONSTRUCTION. CONSTRUCT CURB AND GUTTER AND INSTALL BASE COURSE.
 - SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT TRAP AND TEMPORARY SEDIMENT BASIN WHEN THE CLEANOUT ELEVATION HAS BEEN REACHED.
 - 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.
 - THE SEDIMENT TRAP SHALL BE DETERMINED BY PUMPING. THE SEDIMENT FROM THE BASIN SHALL BE PLACED UP-GRADE FROM THE SEDIMENT BASIN IN SUCH A MANNER AS NOT TO INTERFERE WITH CONSTRUCTION OPERATIONS OR CAUSE EROSION DOWNGRADE FROM THE SEDIMENT BASIN.
 - REMOVE SEDIMENT FROM ROADWAYS AND DRESS STONE CONSTRUCTION ENTRANCE AS REQUIRED.
 - BEGIN CONVERSION OF TEMPORARY SEDIMENT BASIN TO PERMANENT STORM WATER MANAGEMENT INFILTRATION POND. STABILIZE AREAS WITH PERMANENT SEEDING MIXTURE AND STRAW MULCH THAT WILL DRAIN DIRECTLY INTO THE POND. EXCAVATE POND TO ELEV. 398.25. FINE GRADE POND AREA TO REQUIRED DIMENSIONS AND ELEVATIONS. CONSTRUCT EMERGENCY SPILLWAY AND STABILIZE WITH PERMANENT SEEDING MIXTURE.
 - REMOVE INLET PROTECTION DEVICES AND FLUSH STORM DRAIN SYSTEM TO REMOVE ANY TRAPPED SEDIMENT. INSTALL RIP RAP APPROX.
 - REMOVE STONE CONSTRUCTION ENTRANCE AND STRAW BALE DIKE/ SILT FENCE. CLEAN BASE COURSE. APPLY TACK COAT TO BASE COURSE AND LAY SURFACE COURSE.
 - IF DISTURBED AREAS DUE TO REMOVAL OF SEDIMENT CONTROL EXISTING MEASURES SHALL BE GRADED AND STABILIZED WITH PERMANENT SEEDING MIXTURE.



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.

Charles J. Cray, Jr. 3-18-87

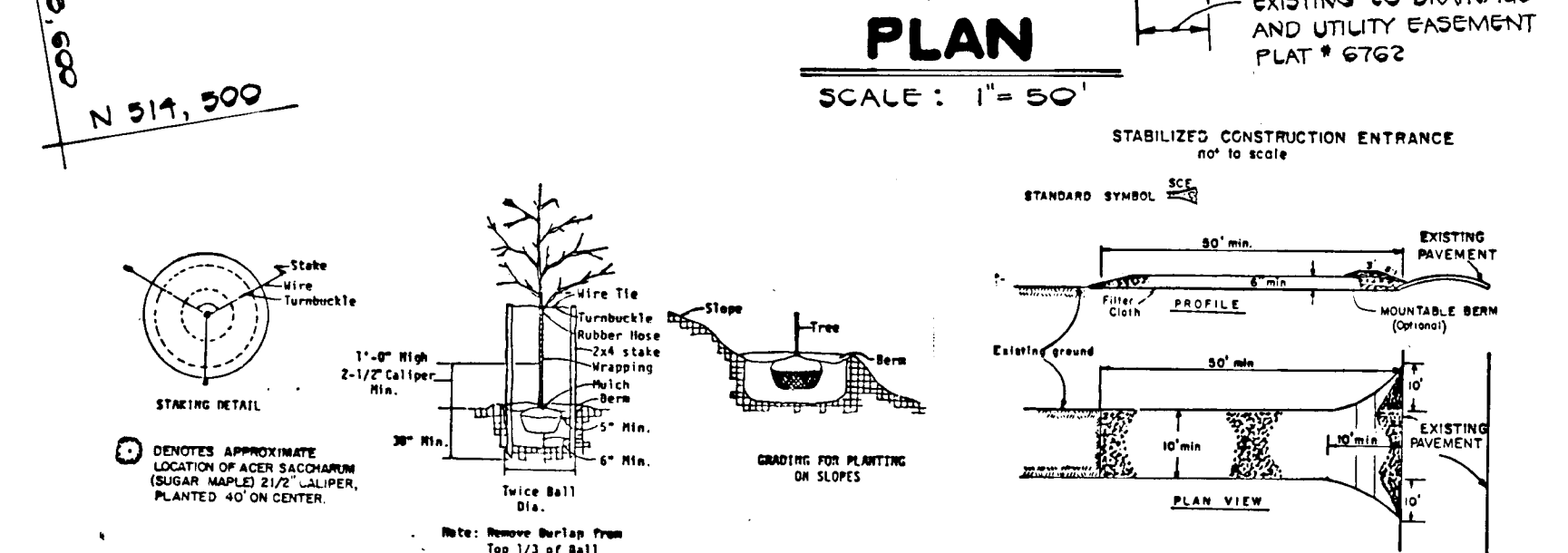
ENGINEER'S CERTIFICATE

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 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.

Charles J. Cray, Jr. 3-18-87

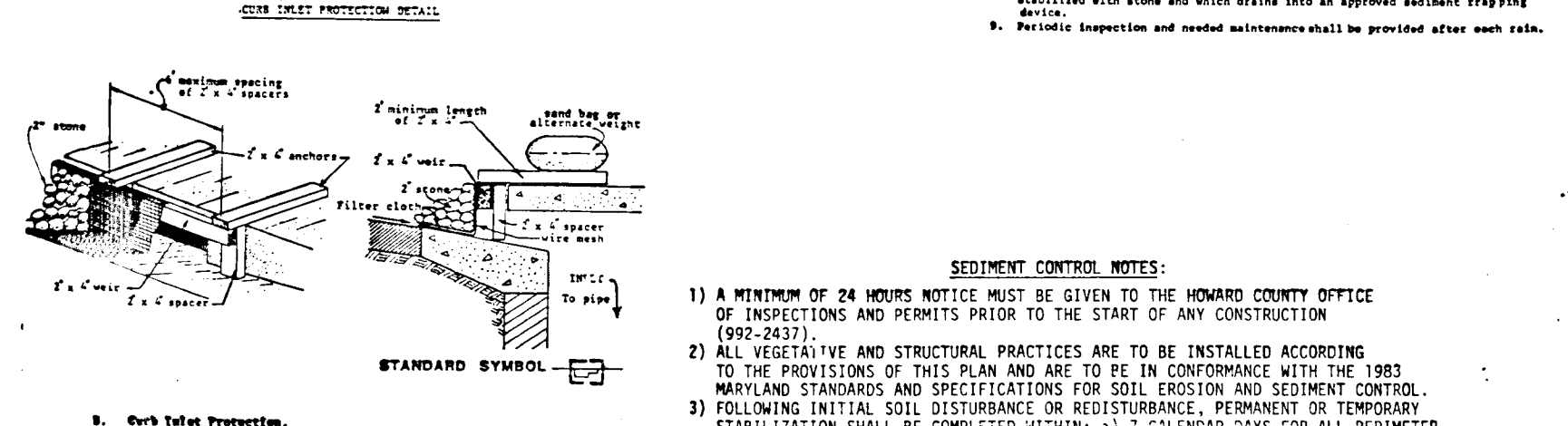
THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION. SOIL EROSION AND SEDIMENT CONTROL.

Robert A. Zelm 3-18-87



CONTRACTOR SPECIFICATIONS

- Storm Basin - The 3" stone, as indicated on typical concrete elevations, shall be in a regular, flat, non-slip pattern on a 1/2" thick concrete base. The stone shall be 30" long and 18" wide. The stone shall be set in a 1/2" thick concrete base. The stone shall be set in a 1/2" thick concrete base.
- Drainage - The drainage system shall be constructed in accordance with the specifications for drainage systems in the 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control.
- Stabilization - The disturbed areas shall be stabilized within the time period specified above in accordance with the 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control.
- Site Analysis - The site analysis shall be completed prior to the start of construction.

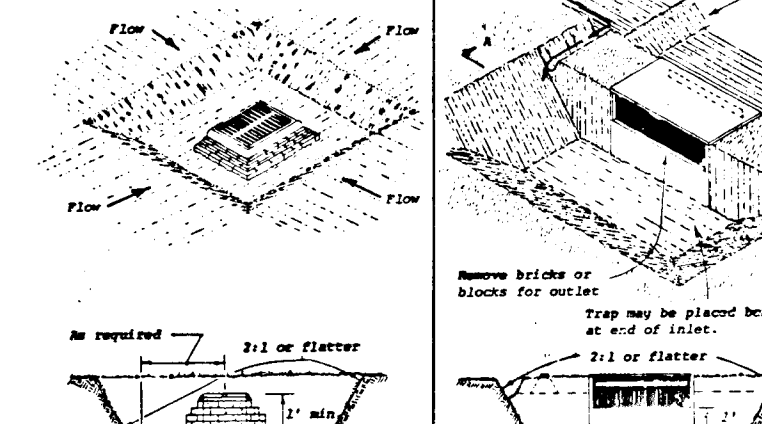


- SEDIMENT CONTROL NOTES:**
- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (992-2433).
 - ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 - FOLLOWING INITIAL SOIL DISTURBANCE OR RESTORATION, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND SLOPES GREATER THAN 3:1; b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
 - 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) 500 (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.
 - ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMANENT RESTORATION OR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
 - SITE ANALYSIS:

| | |
|----------------------------|---------------|
| TOTAL AREA OF SITE | 19.3 ACRES |
| AREA TO BE ROOFED OR PAVED | 5.0 ACRES |
| TOTAL CUT | 10.0 CU. YDS. |
| TOTAL FILL | 10.0 CU. YDS. |
 - OFF-SITE WASTE/BORROW AREA LOCATION
 - ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR INSTALLMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
 - ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DETERMINED BY THE HOWARD COUNTY DPM SEDIMENT CONTROL INSPECTOR.

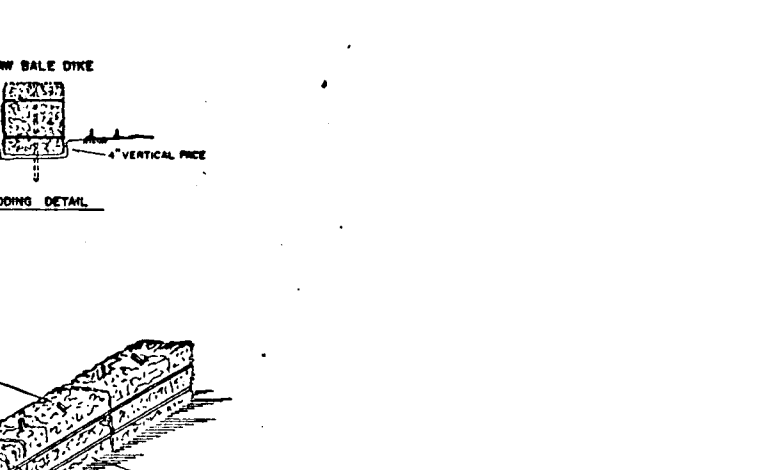
SEDIMENT BASIN

| | |
|--------------------|---------------|
| DRAINAGE AREA | 12.41 AC. ± |
| VOLUME REQUIRED | 831 CU. YDS. |
| VOLUME PROVIDED | 1246 CU. YDS. |
| TOP DIMENSIONS | 221' x 58' |
| SIDE SLOPES | 209' x 46' |
| DEPTH | 3:1 |
| EMERGENCY SPILLWAY | 3:0' |
| CREST ELEVATION | 402.25 |
| CLEANOUT ELEVATION | 400.01 |



CONSTRUCTION SPECIFICATIONS

- Sediment shall be removed and free surface to the original dimensions when the sediment has accumulated to the depth of the trap. Sediment shall be removed to a suitable area and in such a manner that it will not erode. The contractor shall be responsible for the maintenance of the trap.
- Construction operations shall be carried out in such a manner that erosion and water pollution will be minimized.
- The sediment trap shall be removed and area stabilized when the remaining drainage area has been properly stabilized.
- All cut and fill slopes shall be 3:1 or flatter.



CONSTRUCTION SPECIFICATIONS

- Storm water management pond shall be constructed in accordance with the specifications for storm water management ponds in the 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control.
- The storm water management pond shall be constructed in accordance with the specifications for storm water management ponds in the 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control.
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ENGINEER'S CERTIFICATE

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Charles J. Cray, Jr. 3-18-87

DEVELOPER'S CERTIFICATE

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Robert A. Zelm 3-18-87

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

Charles J. Cray, Jr. 3-18-87

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

Robert A. Zelm 3-18-87

APPROVED: DEPARTMENT OF PUBLIC WORKS

Robert A. Zelm 3-18-87

CHIEF, BUREAU OF ENGINEERING

APPROVED: OFFICE OF PLANNING AND ZONING

Charles J. Cray, Jr. 3-18-87

DEPARTMENT OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

AS-BUILT SURVEY CERTIFIED BY CHARLES J. CROY, JR., M.P.E. NO. 15204 ON 9-7-87.

STREET TREE, GRADING AND SEDIMENT CONTROL PLAN

THE WILLOWS

SECTION 2

LOTS 1-41

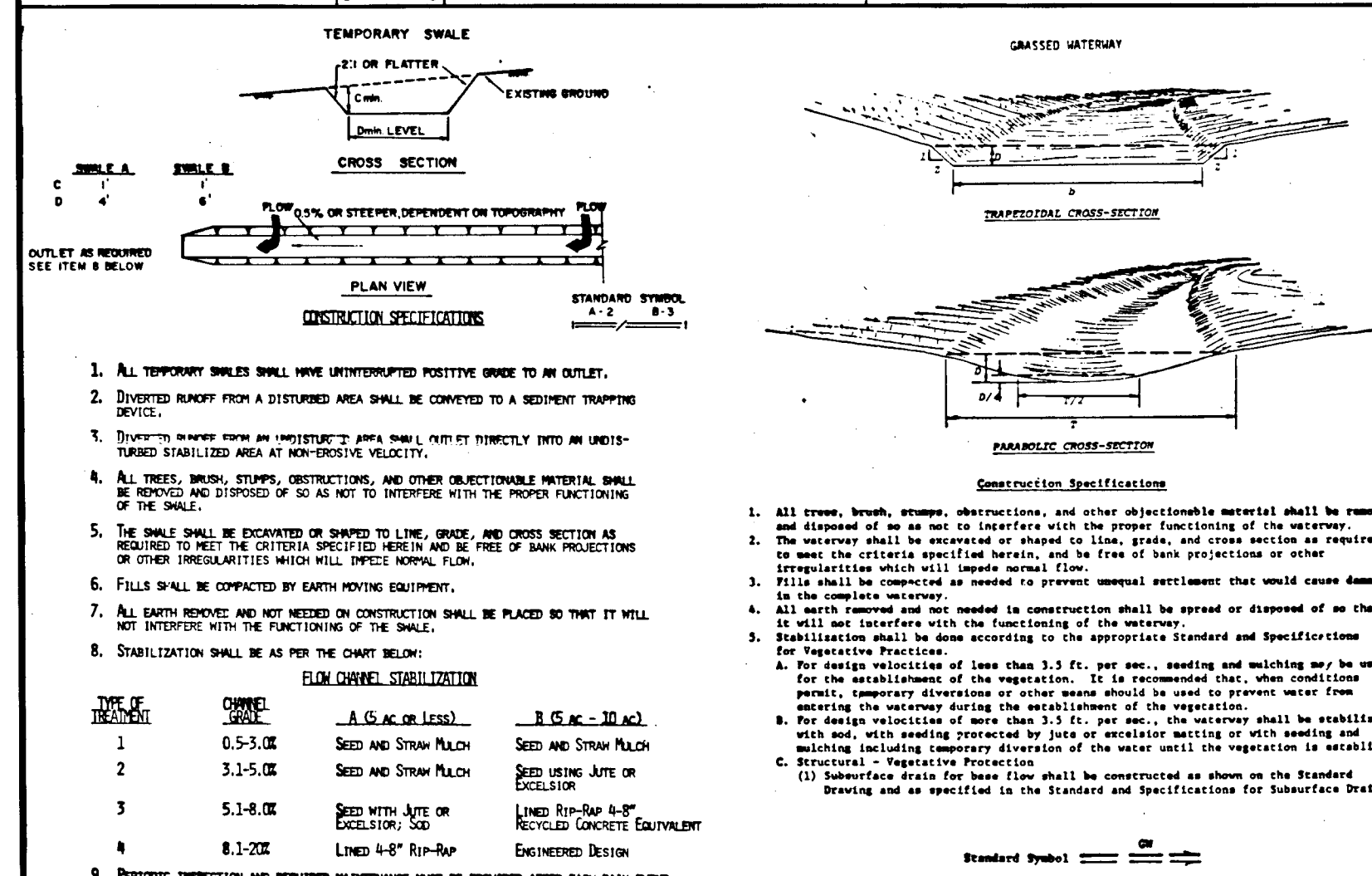
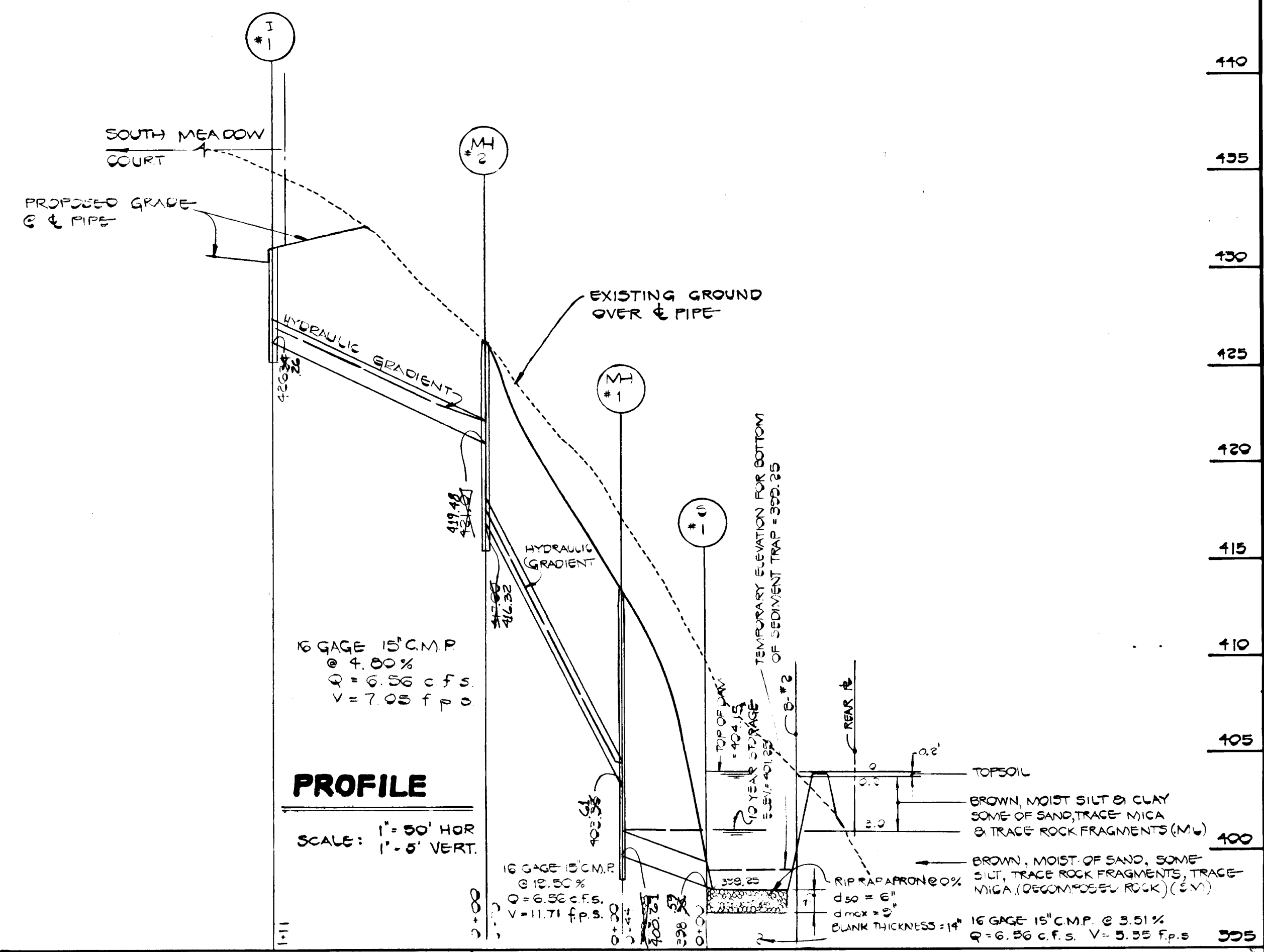
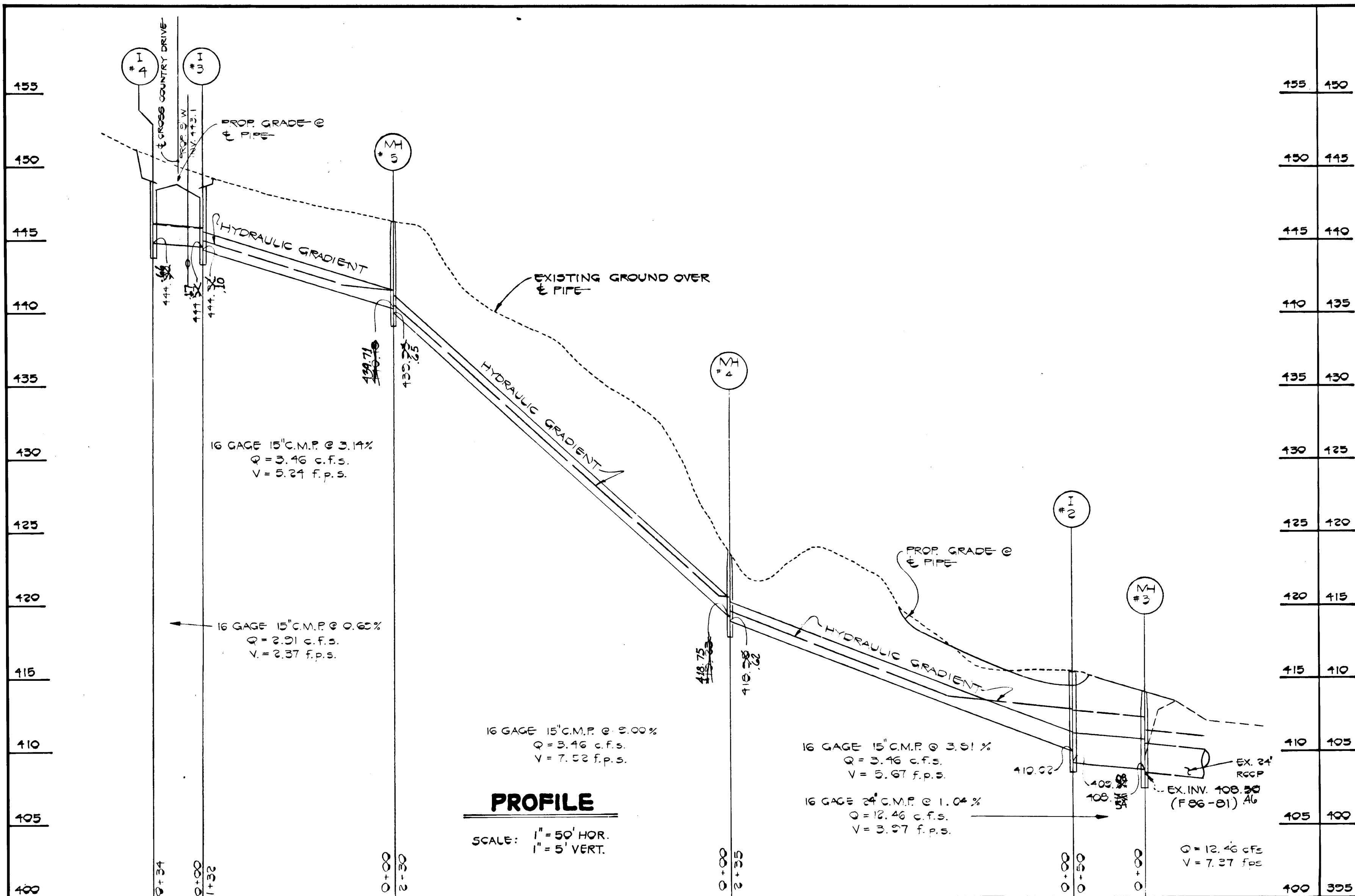
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: 1" = 50'

DECEMBER 10, 1986

SHEET 1 OF 6

A5-BUILT 9-9-89 F-86-220



PERMANENT SEEDING NOTES:
 APPLY TO GRADED OR CLEARED AREA NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE 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.
 SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULE.

SCHEDULE:
 1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 500 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE-INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREA-FORM 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 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 WELL ANCHORED STRAW MULCH 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 HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.

MULCHING: APPLY 14 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 GALLONS PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GAL 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.
 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 25 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 14 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.

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 AT THE TIME OF COMPLETION."
 Richard A. Zindel 2/12/86

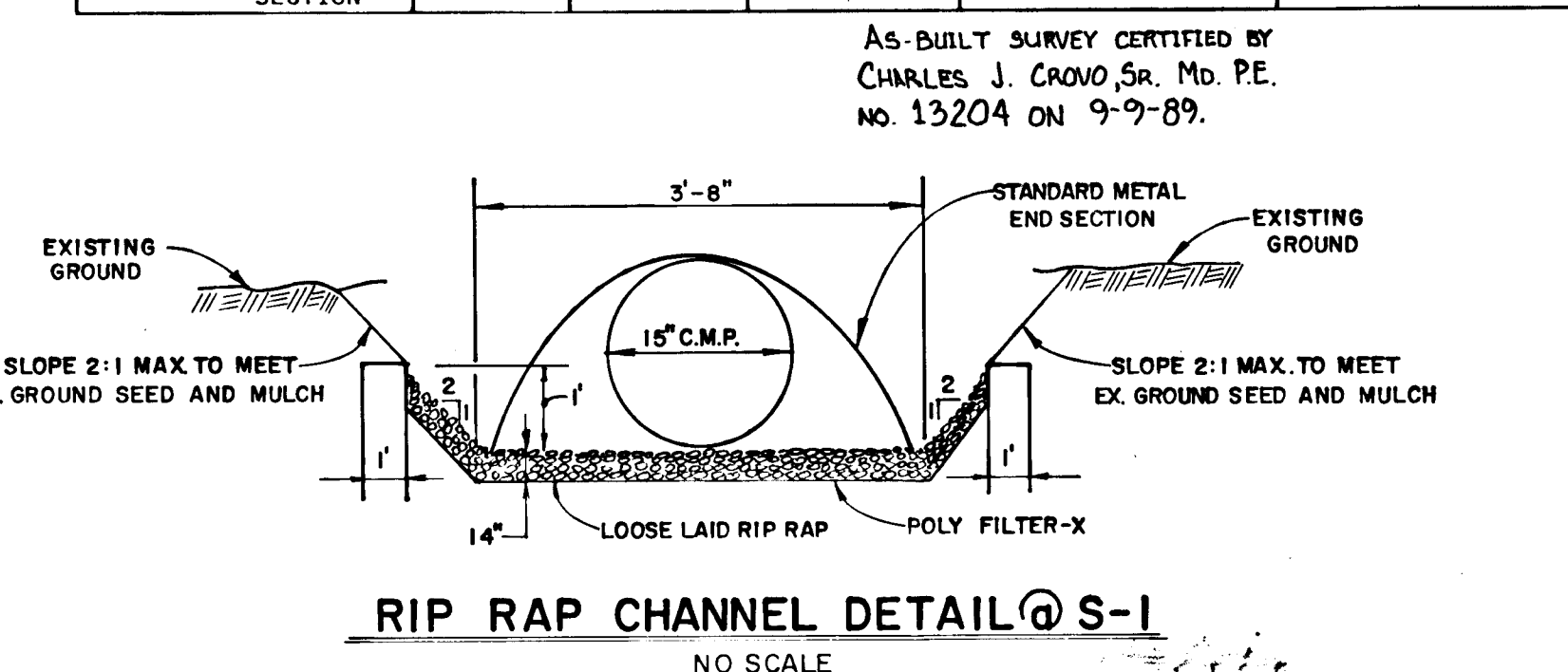
ENGINEER'S CERTIFICATE
 "I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL, REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I 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."
 Charles J. Crow, Jr. 2/12/86

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.
 James M. Helm 3-18-87

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 Robert W. Ziehm 3-18-87

STRUCTURE SCHEDULE

| STRUCTURE | TYPE | INVERT IN | INVERT OUT | TOP ELEV. | ROAD STATION | REMARKS |
|-----------|----------------------------|-----------|------------|-----------|--------------------------------------|-----------------|
| I-1 | A-10 | 400.00 | 400.00 | 431.84 | L.P. STA. 1+27.25 SOUTH MEADOW COURT | DRWG. S.D. 4.02 |
| I-2 | "D" INLET | 440.00 | 440.00 | 415.34 | | DRWG. S.D. 4.11 |
| I-3 | A-5 W/ DEFLECTORS | 444.37 | 444.37 | 449.10 | STA. 2+24.97 CROSS COUNTRY DRIVE | DRWG. S.D. 4.01 |
| I-4 | A-5 W/ DEFLECTORS | 444.80 | 444.80 | 449.17 | STA. 2+29.47 CROSS COUNTRY DRIVE | DRWG. S.D. 4.01 |
| M-1 | STANDARD MANHOLE | 403.96 | 390.88 | 413.60 | | DRWG. G. 5.01 |
| M-2 | STANDARD MANHOLE | 400.61 | 400.61 | 415.11 | | DRWG. G. 5.01 |
| M-3 | SHALLOW MANHOLE | 408.36 | 408.36 | 414.10 | | DRWG. G. 5.05 |
| M-4 | SHALLOW MANHOLE | 418.75 | 418.75 | 423.62 | | DRWG. G. 5.05 |
| M-5 | SHALLOW MANHOLE | 418.75 | 418.75 | 426.46 | | DRWG. G. 5.05 |
| S-1 | STANDARD METAL END SECTION | 398.33 | 398.33 | 399.54 | | DRWG. S.D. 5.61 |



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

CHARLES J. CROW, SR.
 DATE 2/12/86

APPROVED
 OFFICE OF PLANNING AND ZONING
 JOHN W. WOODWARD
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION
 DATE

APPROVED
 DEPARTMENT OF PUBLIC WORKS
 JAMES M. HELM
 CHIEF, BUREAU OF ENGINEERING
 DATE 3-18-87

STORM DRAIN PROFILES AND DETAILS
 THE WILLOWS
 SECTION 2
 LOTS 1-41
 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN SHEET 5 OF 6 DEC. 22, 1986

AS-BUILT 9-9-89. F 86-220

