

SURVEYOR'S CERTIFICATE
 THESE PLANS FOR EROSION AND SEDIMENT CONTROL REPRESENT 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. 8/24/84
 CHARLES J. CROVO, SR. DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
Robert W. Ziehm 8-10-84
 HOWARD SOIL CONSERVATION DISTRICT DATE

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ONSITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.
James V. Roberts 8/24/84
 JAMES V. ROBERTS DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.
J. Helms 8-10-84
 U.S. SOIL CONSERVATION SERVICE DATE

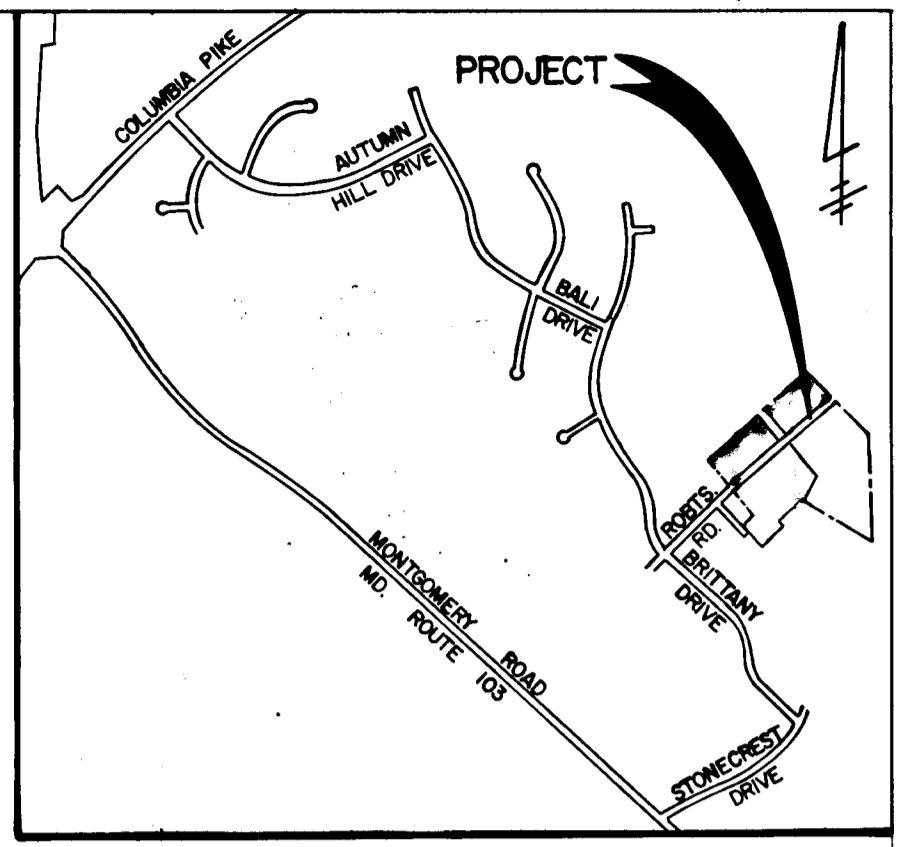
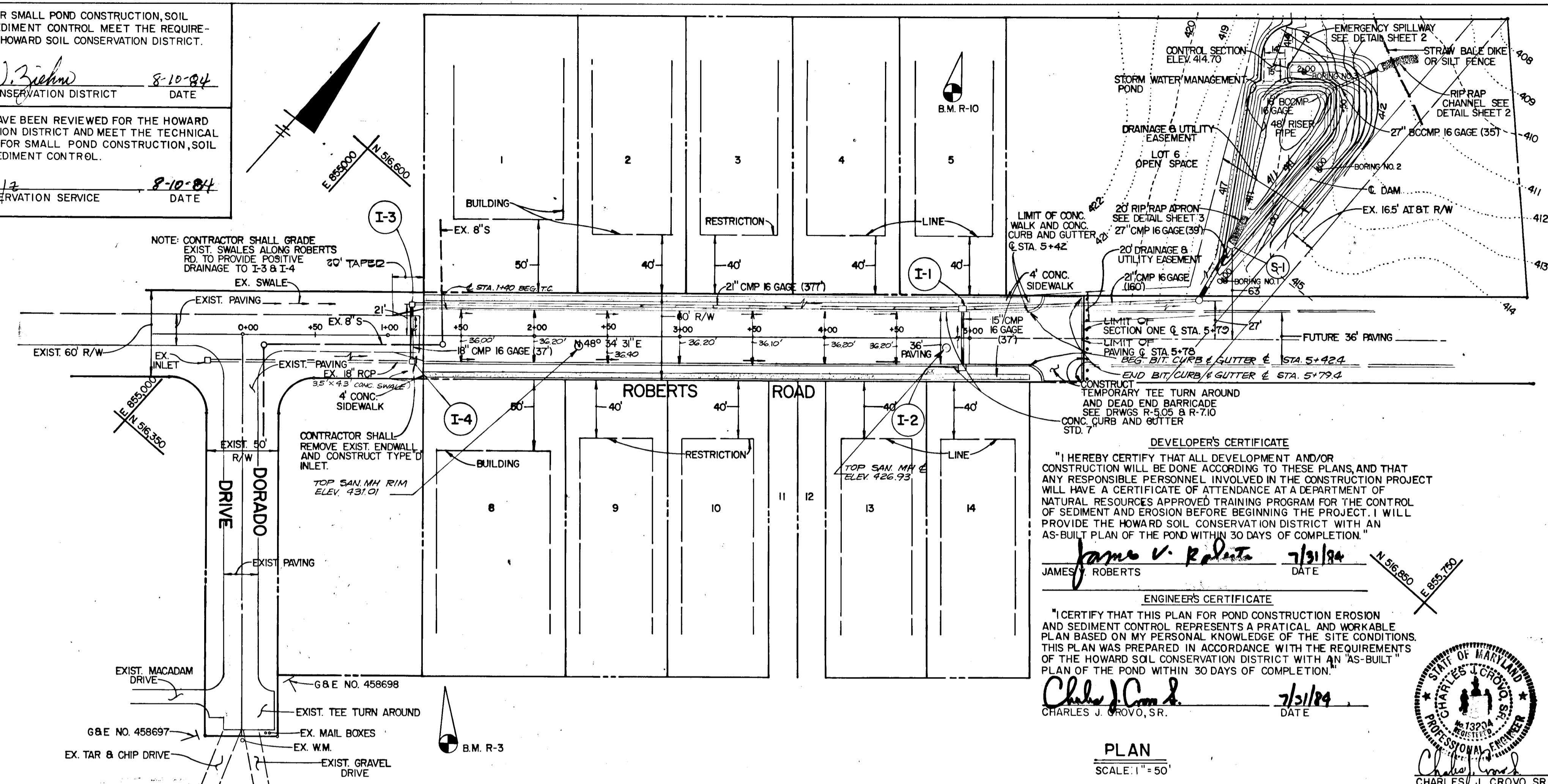
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
J. Helms 8-10-84
 U.S. SOIL CONSERVATION SERVICE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Robert W. Ziehm 8-10-84
 HOWARD SOIL CONSERVATION DISTRICT DATE

- GENERAL NOTES**
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH HOWARD COUNTY STANDARDS, SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
 - ALL UTILITY COMPANIES MUST BE NOTIFIED 24 HRS. IN ADVANCE OF ANY CONSTRUCTION.
 - STORM DRAINAGE TRENCHES WITHIN ROAD RIGHTS-OF-WAYS SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
 - ANY DAMAGE TO PUBLIC RIGHTS-OF-WAYS OR PAVING WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
 - CONTRACTOR TO NOTIFY THE HOWARD COUNTY INSPECTION AND SURVEY DIVISION AT LEAST 3 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS - TELEPHONE: 792-7272

APPROVED
 DEPARTMENT OF PUBLIC WORKS
William E. P. Ryan 8-22-84
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED
 OFFICE OF PLANNING AND ZONING
Lucia F. Dumas 8-13-84
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE



BENCH MARKS

| | | |
|-----------|---|--------------|
| B.M. R-3 | IRON PIPE SET 18' EAST FROM REAR PROPERTY CORNER OF LOT 8 | ELEV. 438.36 |
| B.M. R-10 | IRON PIPE SET 200' NORTHWEST FROM STA. 4+94 ROBERTS | ELEV. 426.82 |

ANGELA VALLEY SECTION ONE
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 ROBERTS ROAD
 PLAN, PROFILE, AND STORM WATER MANAGEMENT POND
 OWNER AND DEVELOPER
 JAMES V. ROBERTS
 4413 DORADO DRIVE
 ELLICOTT CITY, MARYLAND 21043

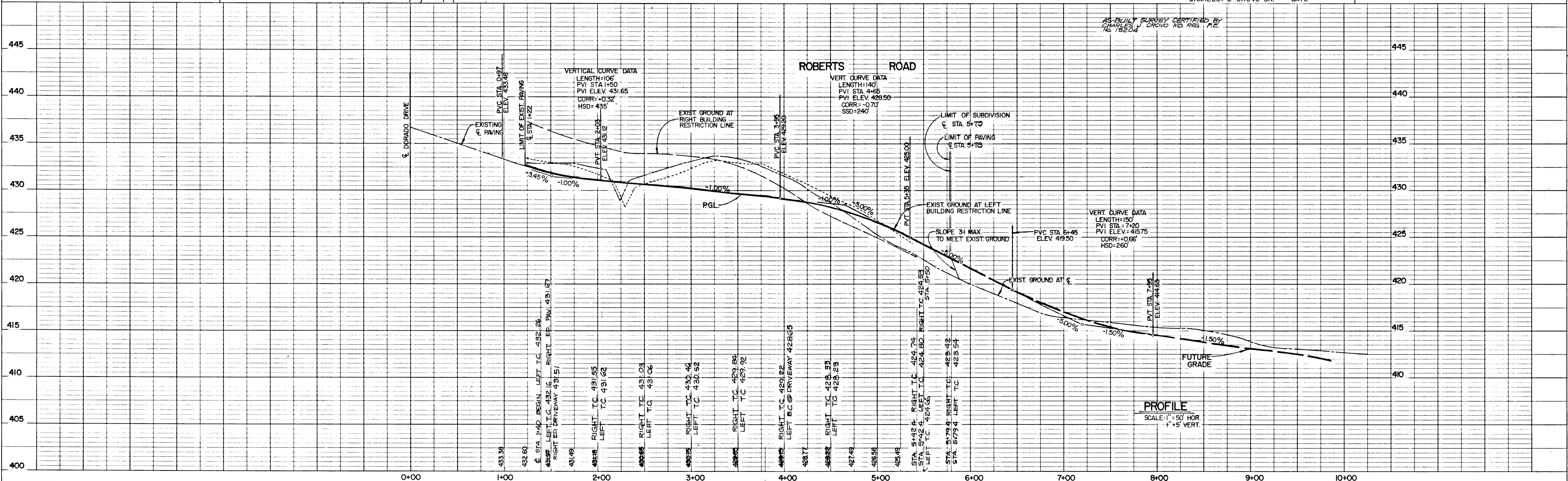
SCALE AS SHOWN DATE JUNE 15, 1984 DWG. NO. 1 OF 4
 DES. C. CROVO DRN. A. BOGDAN CHK. R. CARTER

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

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.
James V. Roberts 7/31/84
 JAMES V. ROBERTS 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 WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.
Charles J. Crovo, Sr. 7/31/84
 CHARLES J. CROVO, SR. DATE

PLAN
 SCALE: 1" = 50'



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

| | | |
|------|----|-----|
| DATE | BY | NO. |
| | | |
| | | |

| | | |
|------|----|-----|
| DATE | BY | NO. |
| | | |
| | | |

POND SPECIFICATIONS

I. SITE PREPARATION
Areas under the embankment and structural works shall be cleared, grubbed and the topsoil stripped to remove all trees, vegetation, roots or other objectionable material. To facilitate clean out and restoration, it is recommended that the permanent pool area be cleared of all brush and trees.

II. EARTH FILL
Material
The fill material shall be taken from approved designated borrow area or areas. It shall be free from roots, stumps, wood, rubbish, over-size stones, frozen or other objectionable materials. The embankment shall be constructed to an elevation which provides for anticipated settlement to the design elevation. The fill height all along the length of the embankment shall be increased at least 5 percent above the design elevation (including freeboard) unless otherwise shown on the plans.

Placement
Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in 8-inch maximum thickness (before compaction) layers which are to be continuous over the entire length of the fill. The most porous borrow material shall be placed in the downstream portions of the embankment.

Core Trench
Where specified, a core trench shall be excavated along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill material for the core trench shall be the most impervious material available and shall be compacted with equipment or rollers to assure maximum density and minimum permeability.

III. STRUCTURAL BACKFILL
Backfill material shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall the contractor drive equipment over any part of a concrete structure or pipe unless there is a compacted fill of twenty-four inches or greater over the structure or pipe.

IV. PIPE CONDUITS
A. CORRUGATED METAL PIPE
1. **Materials - METAL PIPE** - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211, with watertight coupling bands.
2. **Connections** - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the control structure shall be mortared all around. Watertight coupling bands shall be used at all joints. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight.
3. **Bedding** - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
4. **Laying pipe** - The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the sides.
5. **Backfilling** shall conform to structural backfill as shown above.
6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

V. CONCRETE
Concrete shall meet minimum requirements set forth in Maryland State Highway Administration Specifications for Materials, Highways, Bridges, and Incidental Structures, Article 20.07 (Portland Cement Concrete Mixtures), Mix No. 3.

VI. STABILIZATION
All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway and borrow areas shall be stabilized by seeding and applying straw mulch in accordance with Standards and Specifications for Soil Erosion and Sediment Control in Urbanizing Areas immediately after finish grading.

All exposed areas of the embankment and pond shall be stabilized by:
a. Spreading 4" topsoil
b. Working in 1 ton of ground limestone and 1,000 pounds of 10-10-10 fertilizer per acre.
c. Seed with 40 lbs./acre of "Kentucky 31" tall fescue, and 15 lbs./acre of Crownvetch inoculated.
d. Mulch with 1-1/2 tons straw per acre.
e. Tie down mulch with emulsified asphalt @ 348 gallons/acre.

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

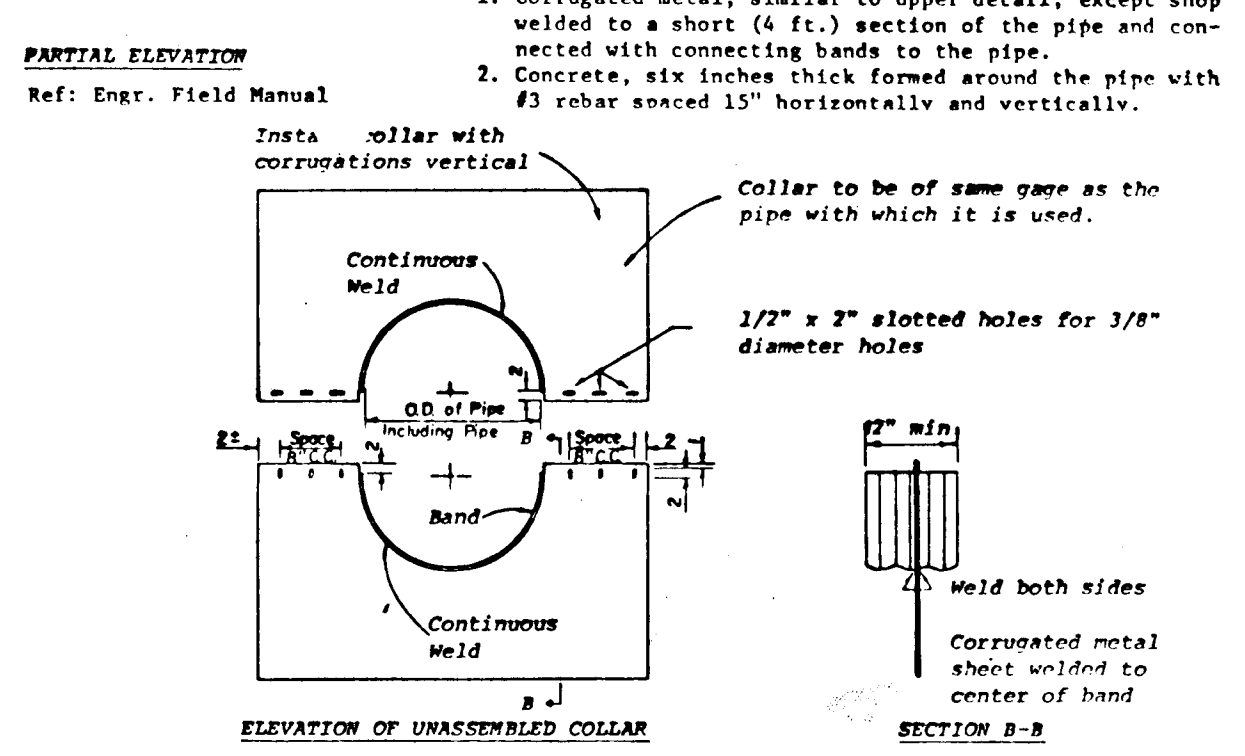
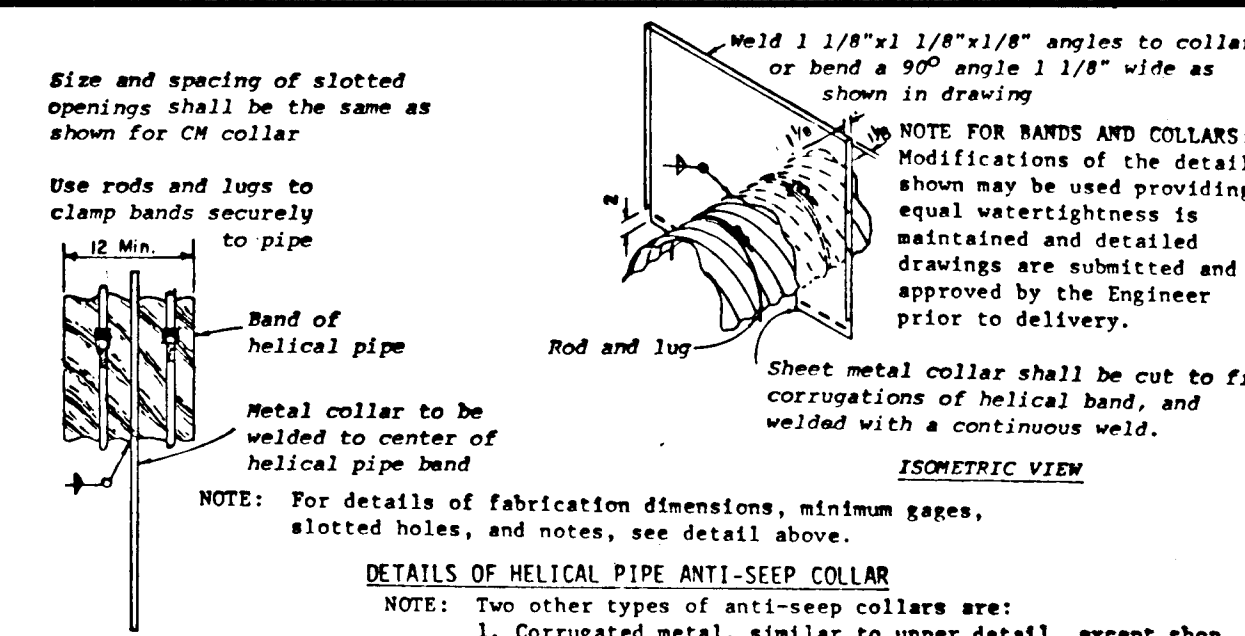
Robert W. Ziehm 8-10-84
Howard Soil Conservation District Date

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

J. Helms 8-10-84
U.S. Soil Conservation Service Date

APPROVED:
DEPARTMENT OF PUBLIC WORKS
William B. Roy 8-22-84
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED:
OFFICE OF PLANNING AND ZONING
James J. Danner 8-13-84
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

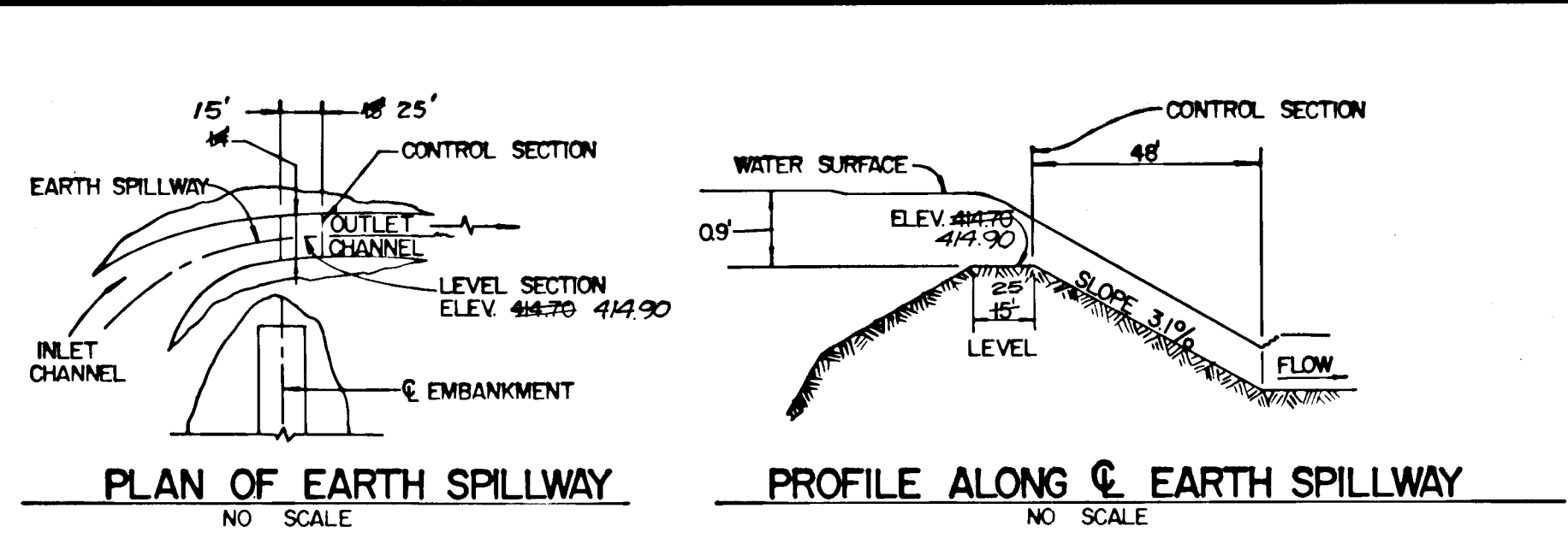


NOTES FOR COLLARS:
1. All materials to be in accordance with construction and construction material specifications.
2. When specified on the plans, coating of collars shall be in accordance with construction and construction material specifications.
3. Unassembled collars shall be marked by painting or tagging to identify matching pairs.
4. The lap between the two half sections and between the pipe and connecting band shall be caulked with asphalt mastic at time of installation.
5. Each collar shall be furnished with two 1/2" diameter rods with standard tank lugs for connecting collars to pipe.

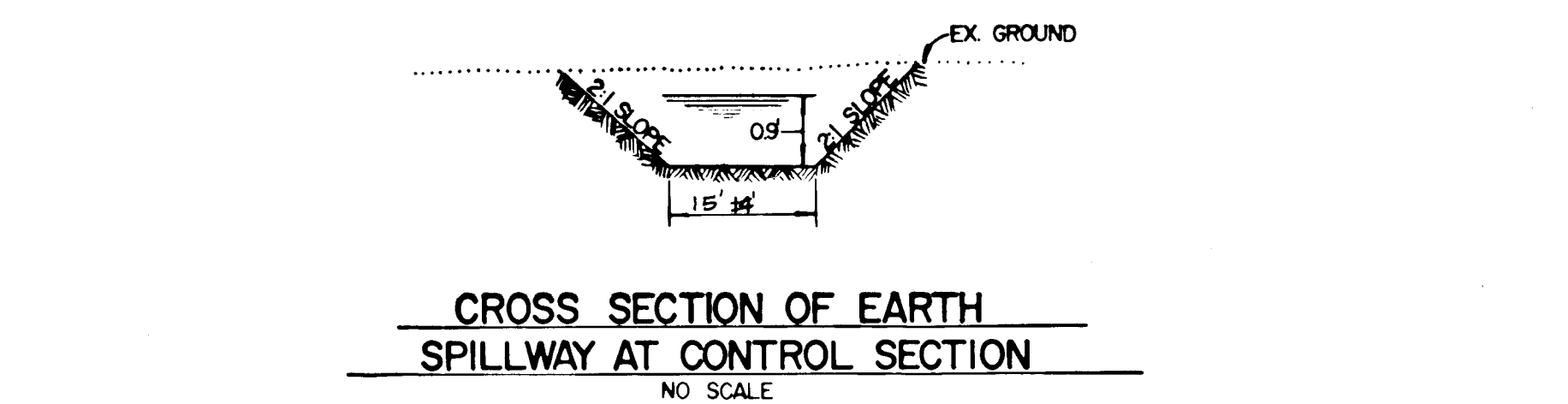
CORRUGATED METAL ANTI-SEEP COLLAR DETAIL
NOT TO SCALE

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."
James V. Roberts 6/26/84
JAMES V. ROBERTS DATE

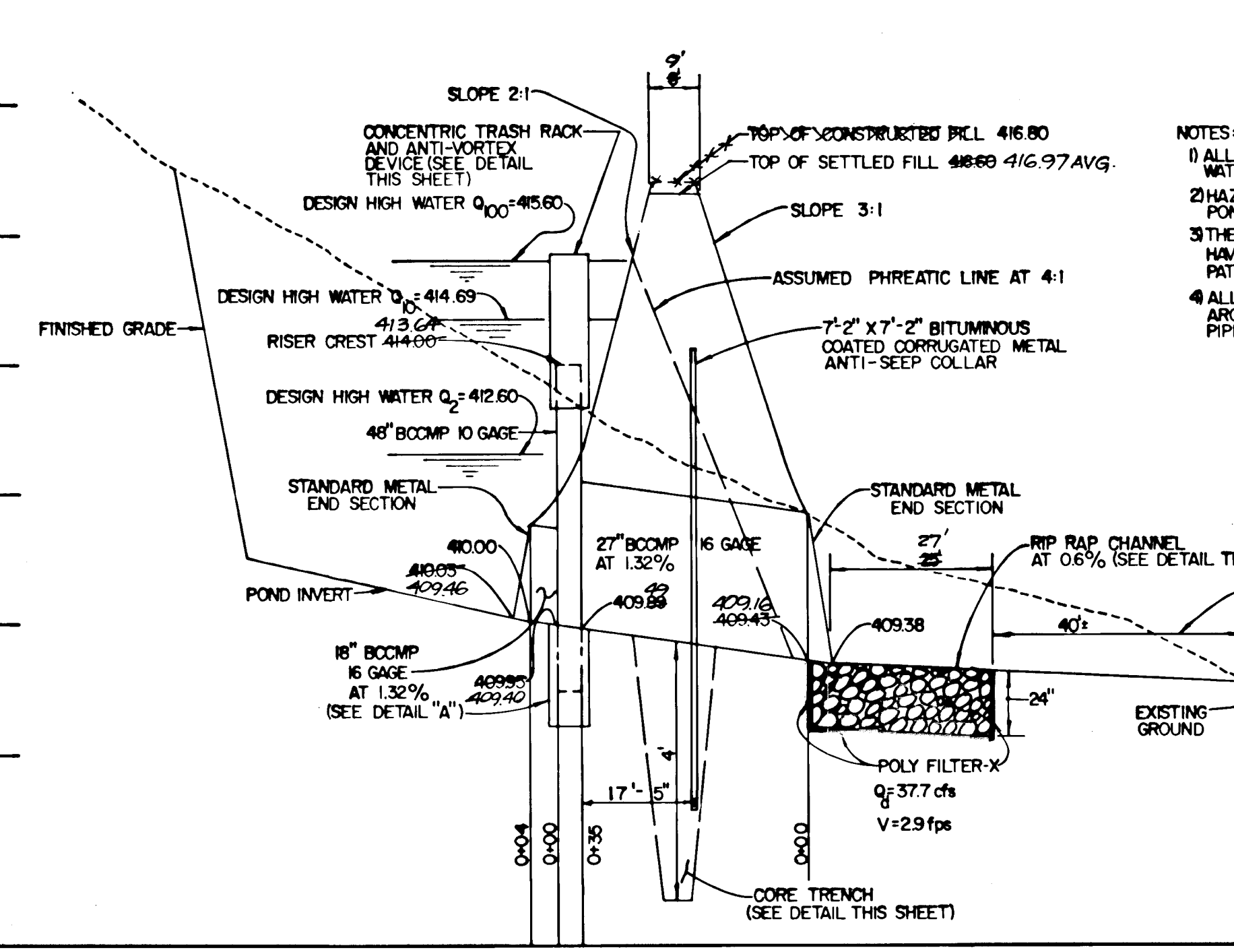
ENGINEER'S CERTIFICATE
"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE 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."
Charles J. Grovo 6/26/84
CHARLES J. GROVO SR. DATE



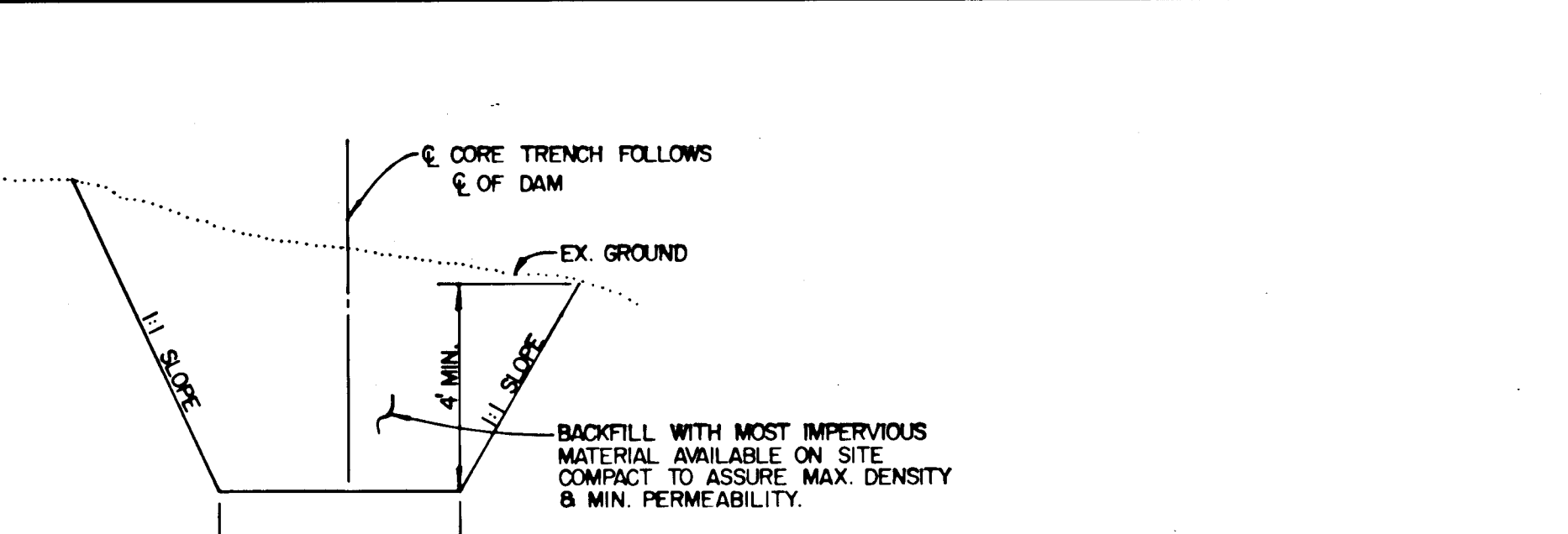
EMERGENCY SPILLWAY DETAILS



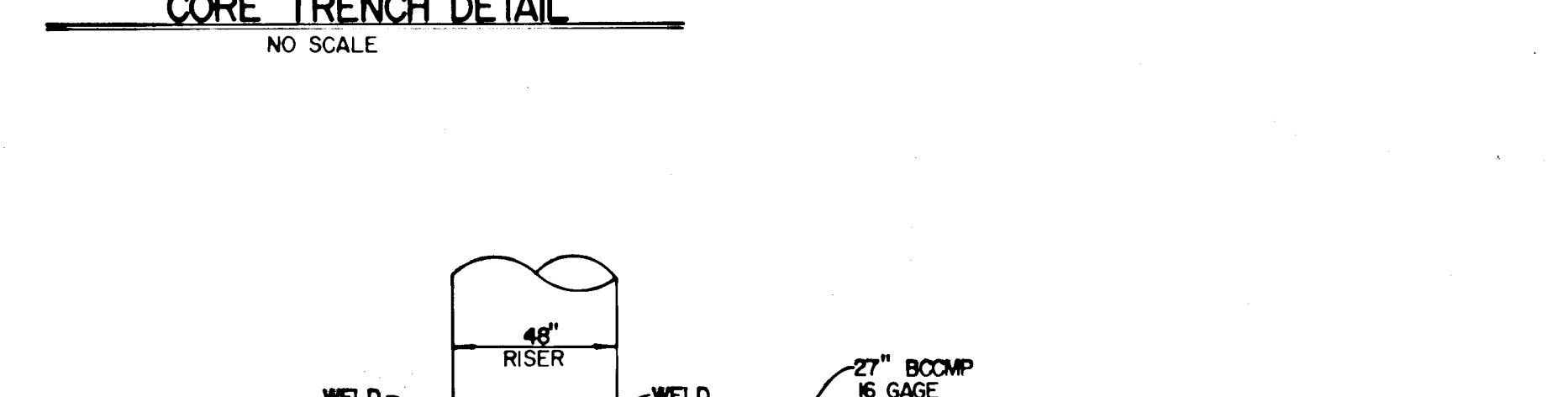
CROSS SECTION OF EARTH SPILLWAY AT CONTROL SECTION
NO SCALE



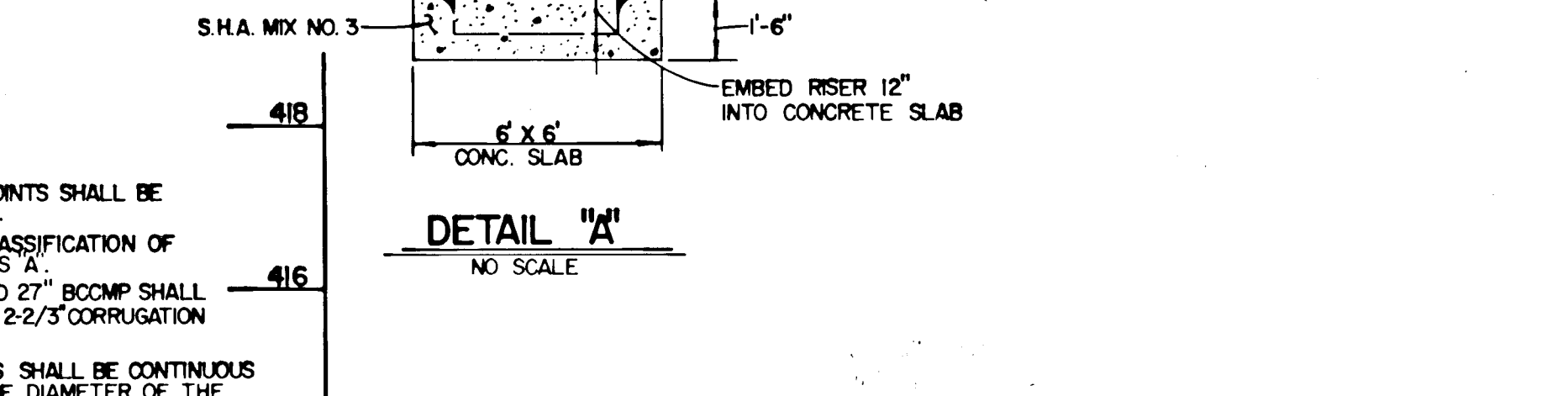
STORM WATER MANAGEMENT POND PROFILE
SCALE: 1"=20' HOR. 1"=2' VERT.



CORE TRENCH DETAIL
NO SCALE



DETAIL "A"
NO SCALE



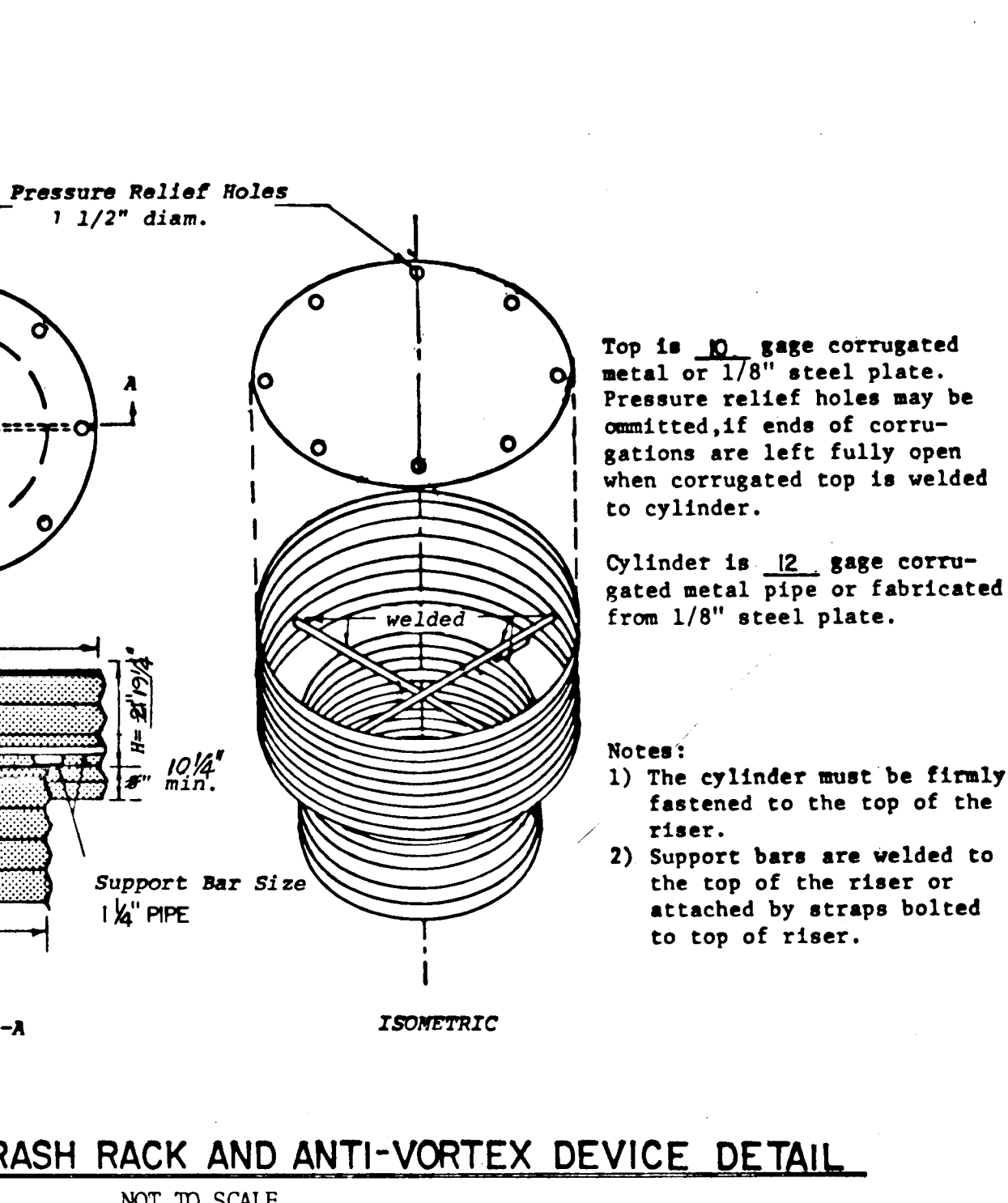
RIP RAP CHANNEL DETAIL
NO SCALE

RIP RAP CHANNEL DESIGN DATA

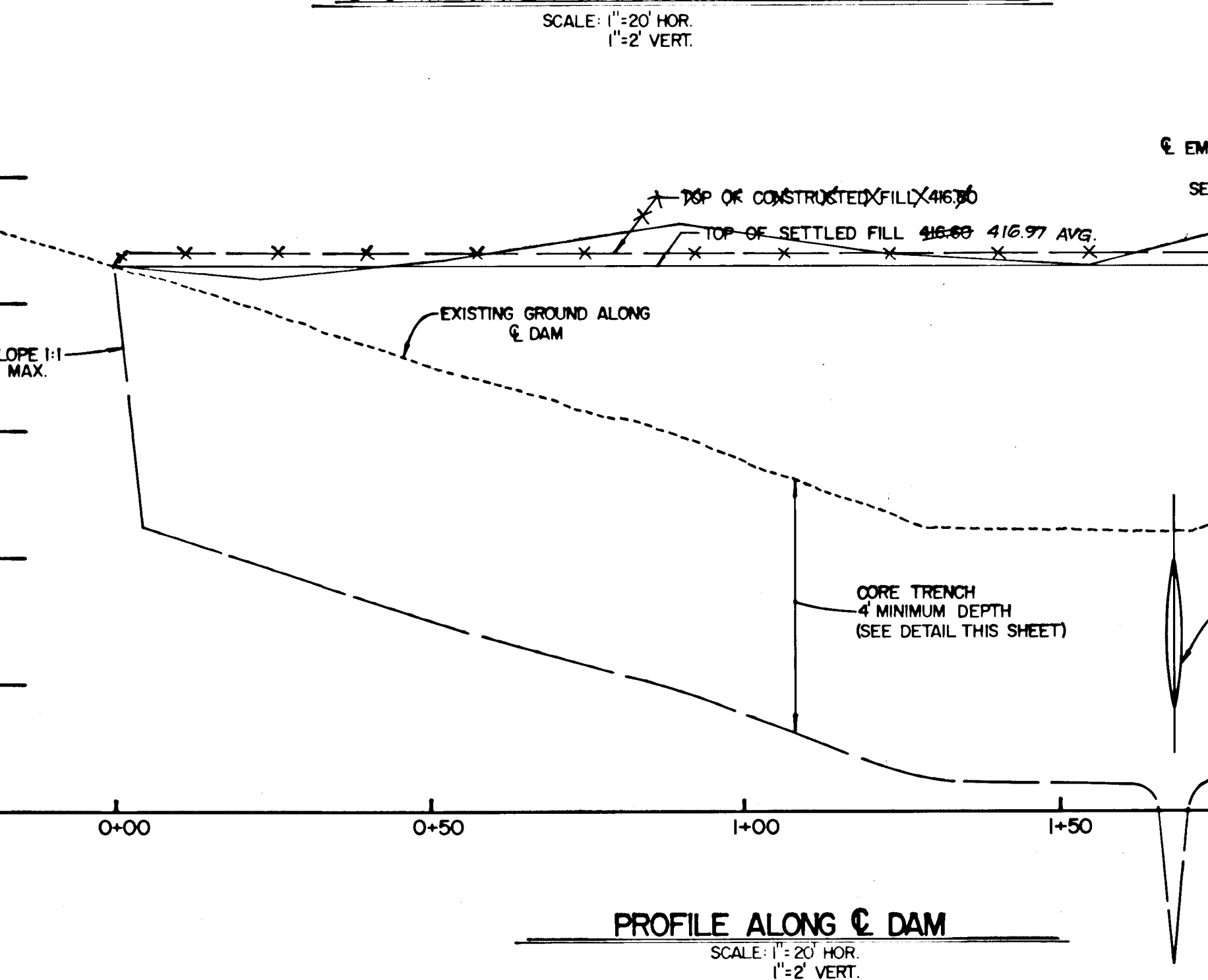
| | |
|-----------|-------------------|
| A=13.02' | S=0.6% |
| P=12.76' | S/2=0.077 |
| R=1020 | n=0.04 |
| R2/3=1013 | WATER DEPTH=1.40' |

V=1.486 X 1.013 X 0.077=2.9 fps
Q=13.02' X 2.9 fps=37.7 cfs

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



CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE DETAIL
NOT TO SCALE



PROFILE ALONG CENTERLINE OF DAM
SCALE: 1"=20' HOR. 1"=2' VERT.

AS-BUILT SURVEY AND STORM WATER MANAGEMENT POND CONSTRUCTION, CERTIFIED BY CHARLES J. GROVO MD. REG. P.E. No. 13204 ON JUNE 9, 1986

OWNER & DEVELOPER
JAMES V. ROBERTS
4413 DORADO DRIVE
ELLICOTT CITY, MARYLAND 21043

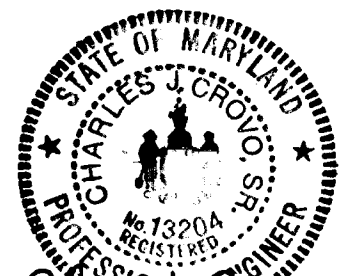
STORM WATER MANAGEMENT POND PROFILES AND DETAILS
ANGELA VALLEY
SECTION ONE

2 ND ELECTION DISTRICT HOWARD COUNTY, MD
SCALE AS SHOWN JUNE 15, 1984
SHEET 2 OF 4

Charles J. Grovo 6/26/84
CHARLES J. GROVO, SR. DATE

#1085

| | |
|-----------|--|
| DATE | |
| BY | |
| PLANNED | |
| ALIGNED | |
| CHECKED | |
| NO. | |
| PLAN | |
| NOTE BOOK | |
| NO. | |



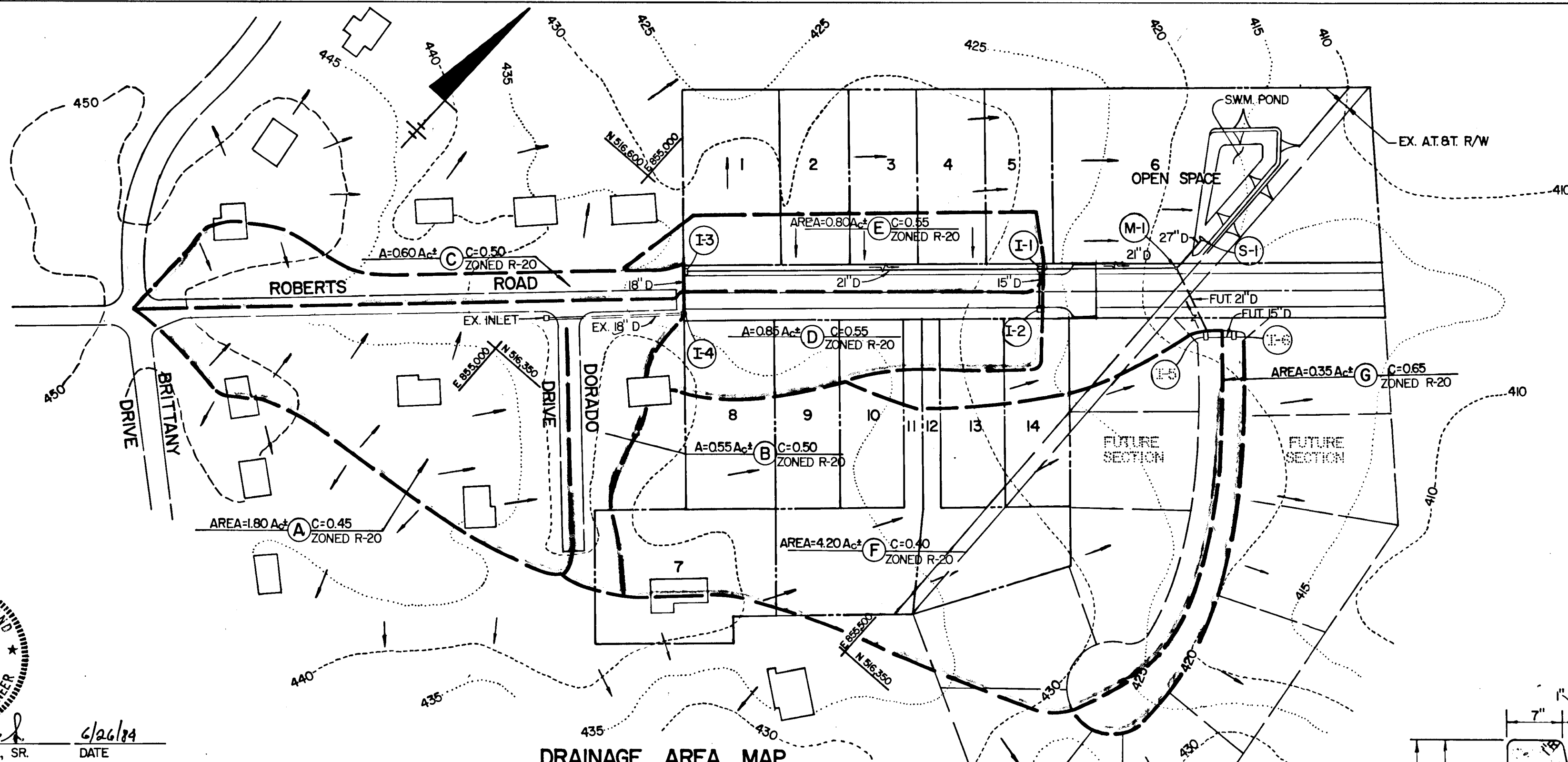
CHARLES S. CROVO, SR.
DATE 6/26/84

APPROVED DEPARTMENT OF PUBLIC WORKS

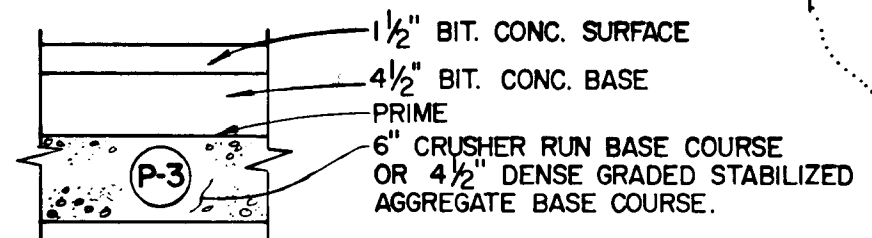
APPROVED OFFICE OF PLANNING AND ZONING

APPROVED CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

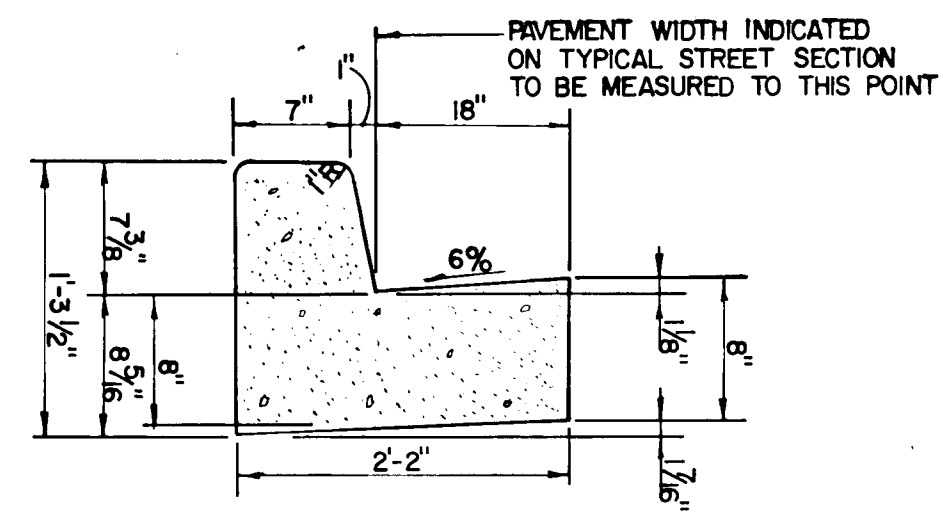
*INLETS I-3 AND I-4 SHALL HAVE OPENINGS ON THE EAST AND WEST SIDES.



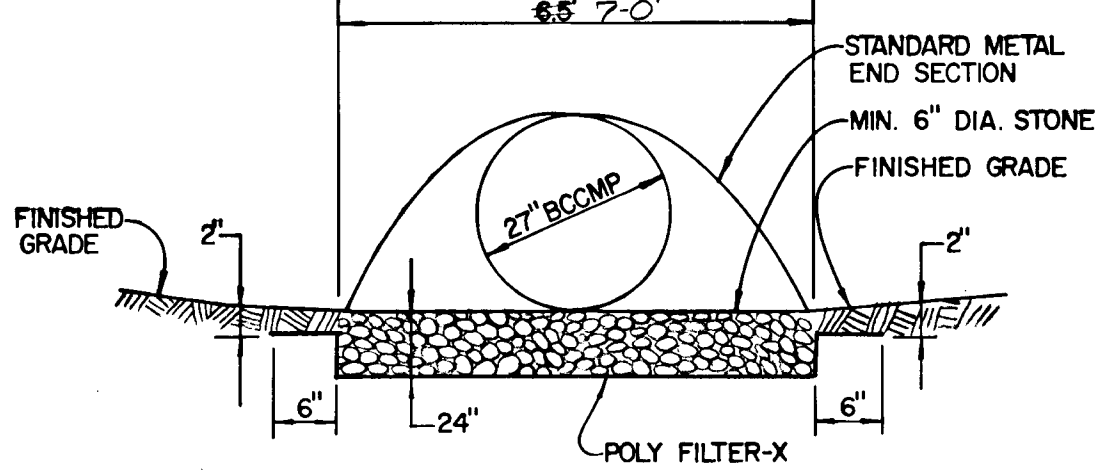
DRAINAGE AREA MAP
SCALE: 1" = 100'



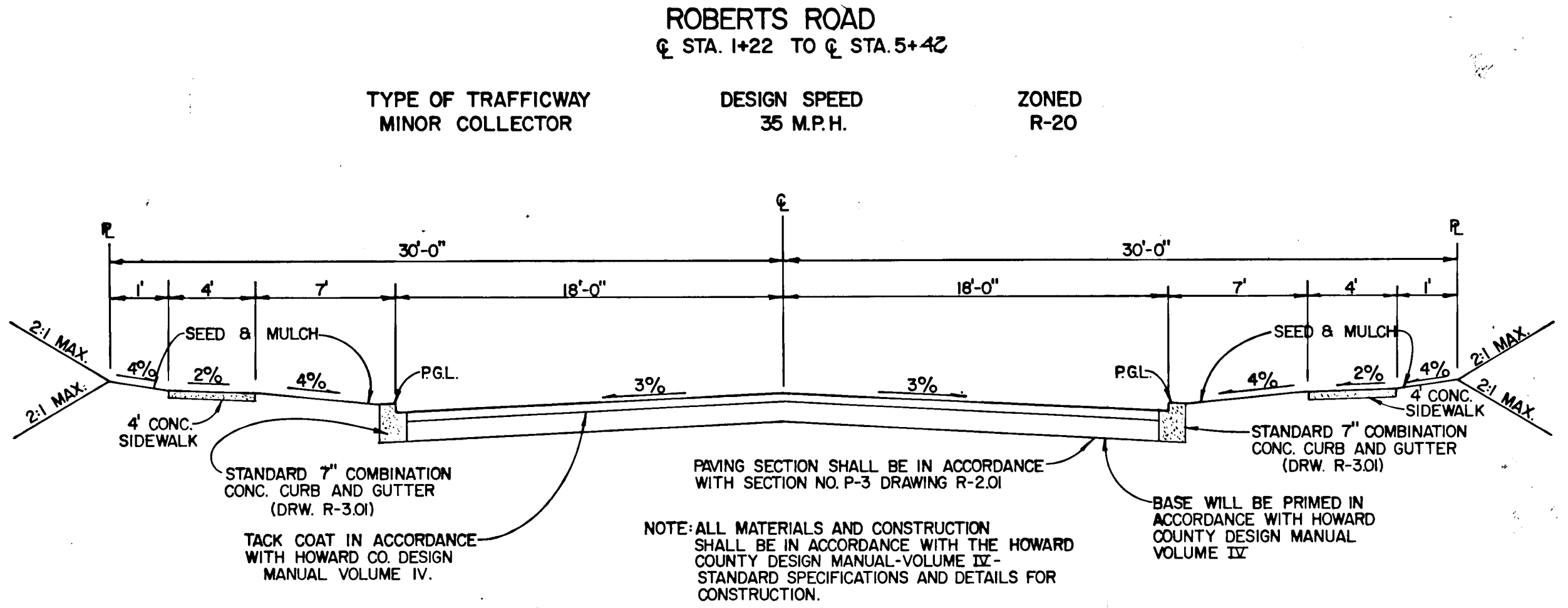
PAVING SECTION P-3
NO SCALE



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



RIP RAP APRON
DETAIL AT S-1
NO SCALE

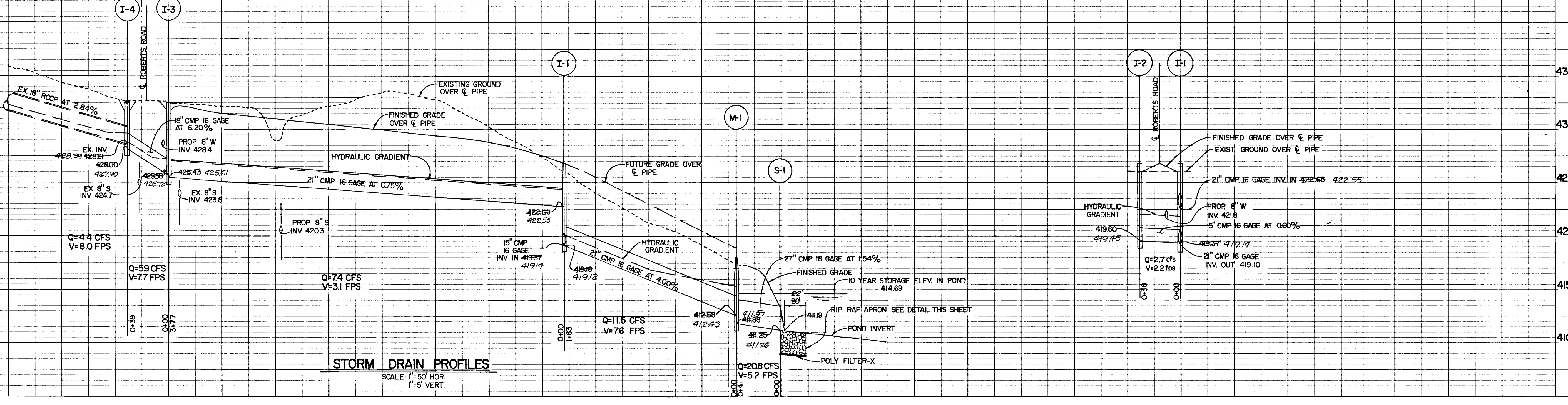


TYPICAL SECTION
NO SCALE

ANGELA VALLEY
SECTION ONE
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
ROAD SECTIONS, DETAILS, &
DRAINAGE AREA MAP
AND STORM DRAIN PROFILES
OWNER AND DEVELOPER
JAMES ROBERTS
4413 DORADO DRIVE
ELLCOTT CITY, MARYLAND 21043
SCALE AS SHOWN DATE JUNE 15, 1984 DWG. NO. 3 OF 4
DES. C. CROVO DRN. A. BOGDAN CHK. R. CARTER
FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
8388 COURT AVE. ELLICOTT CITY, MARYLAND 21043

| | |
|-----------|--|
| DATE | |
| BY | |
| PLANNED | |
| ALIGNED | |
| CHECKED | |
| NO. | |
| PROFILE | |
| NOTE BOOK | |
| NO. | |

| STRUCTURE | | SCHEDULE | | | | | | | | | | | | | | | | | |
|-----------|----------------------------|-----------|------------|---------|---------------|--------------------------|---------|----------|---------|---------------|--|--|--|--|--|--|--|--|--|
| NO. | TYPE | INVERT IN | INVERT OUT | STATION | TOP ELEVATION | REMARKS | INV. IN | INV. OUT | STATION | TOP ELEVATION | | | | | | | | | |
| I-1 | A-5 WITH DEFLECTORS | 422.80 | 419.40 | 4+95 | 426.77 | DRWGS. SD 401 AND SD 483 | 422.55 | 419.12 | 4+94.4' | 426.78 | | | | | | | | | |
| I-2 | A-5 WITH DEFLECTORS | - | 419.60 | 4+95 | 426.77 | DRWGS. SD 401 AND SD 483 | - | 419.45 | 4+94.4' | 426.76 | | | | | | | | | |
| I-3 | "d" | 425.98 | 425.43 | 1+17 | 432.50* | DRWG. SD 4.11 | 425.72 | 425.61 | 1+30.6' | 432.24 | | | | | | | | | |
| I-4 | "d" | 428.87 | 428.00 | 1+17 | 432.50* | DRWG. SD 4.11 | 428.37 | 427.90 | 1+28 | 432.54 | | | | | | | | | |
| M-1 | STANDARD MANHOLE | 412.98 | 411.88 | 6+80 | 418.00 | DRWG. G 5.01 | 412.43 | 411.97 | 6+58.2 | 417.72 | | | | | | | | | |
| S-1 | STANDARD METAL END SECTION | - | 411.25 | 6+80 | 413.50 | DRWG. SD 5.61 | - | 411.25 | 6+59.2 | 413.51 | | | | | | | | | |

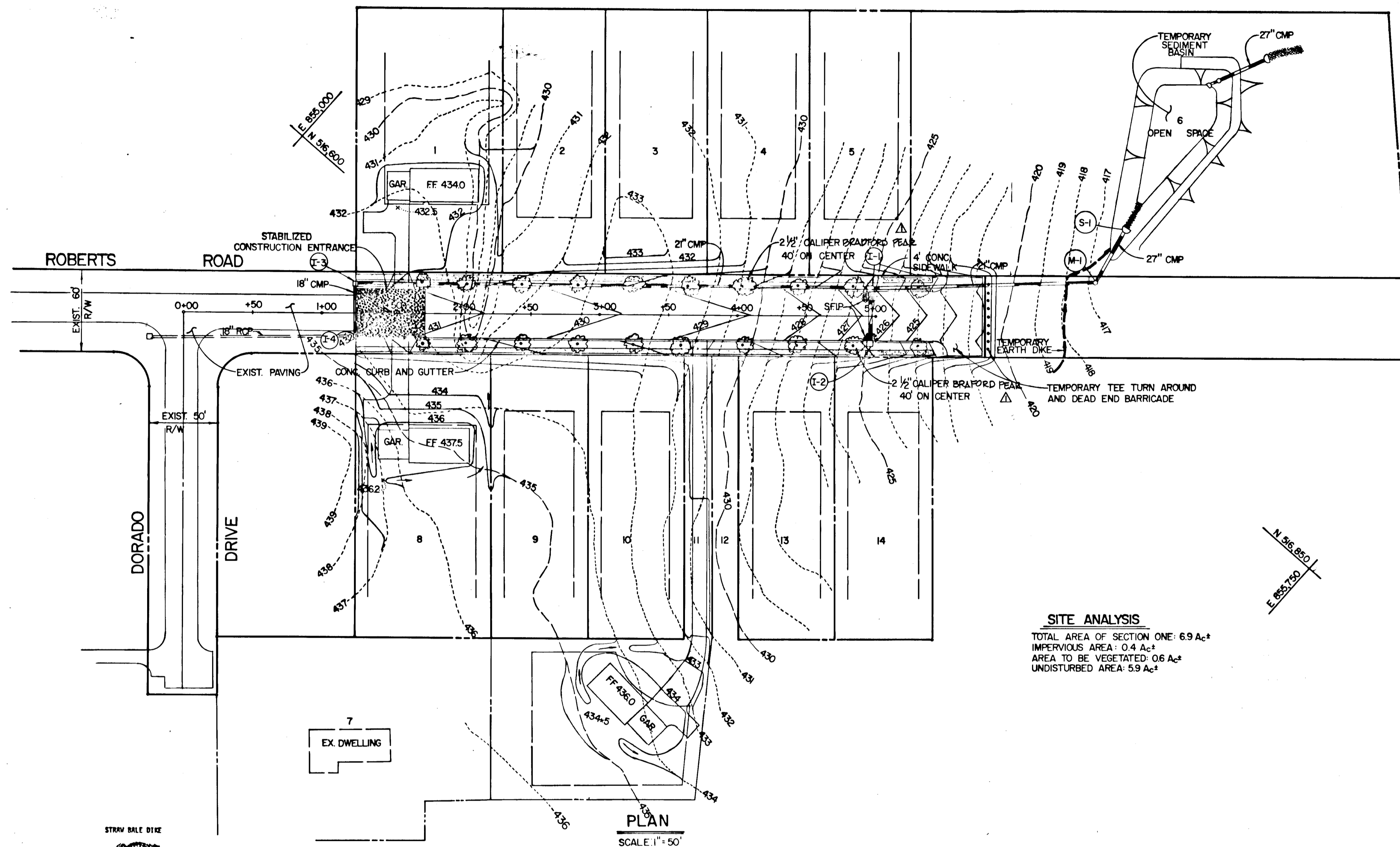


STORM DRAIN PROFILES
SCALE: 1" = 50' HOR. 1" = 5' VERT.

1085

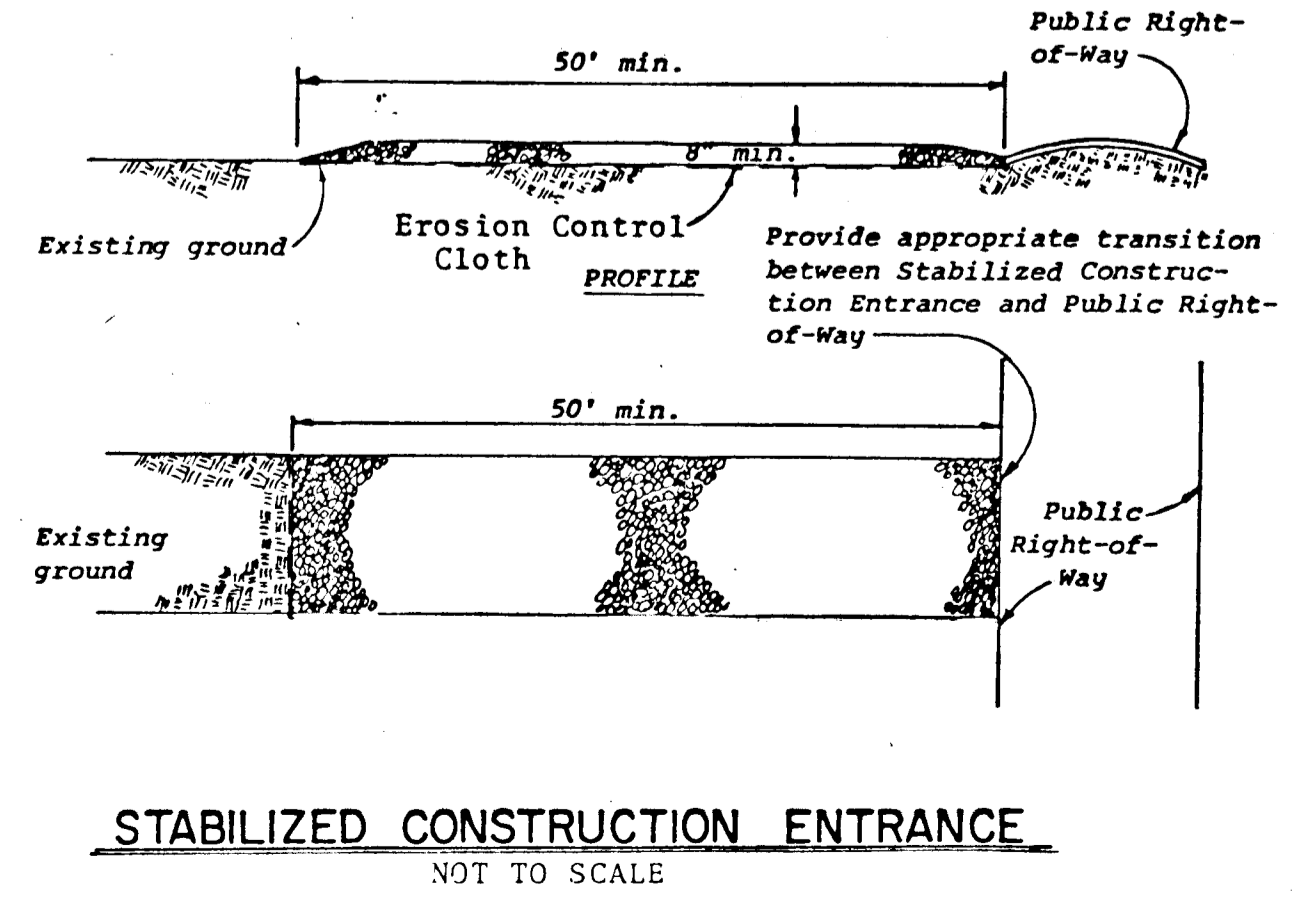
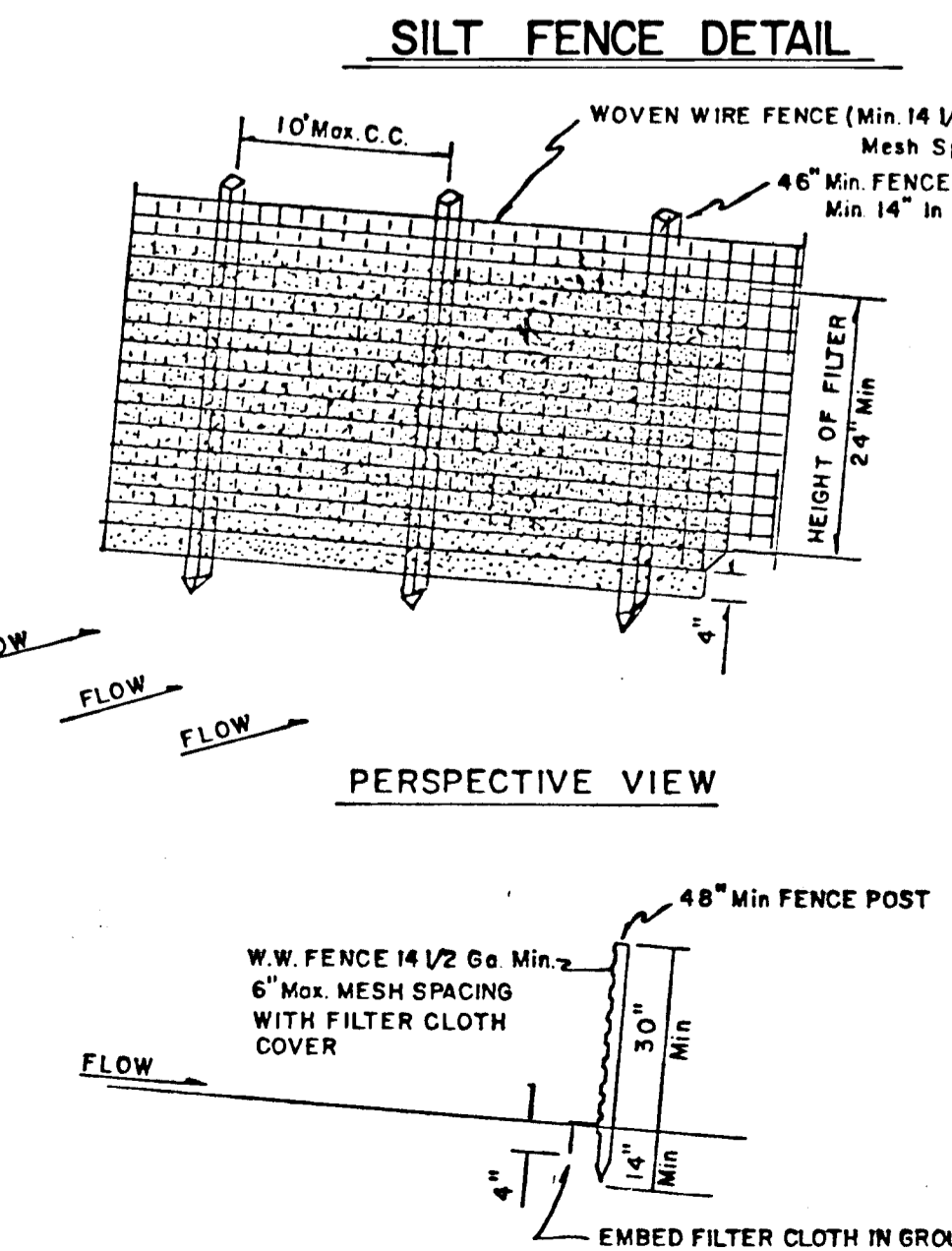
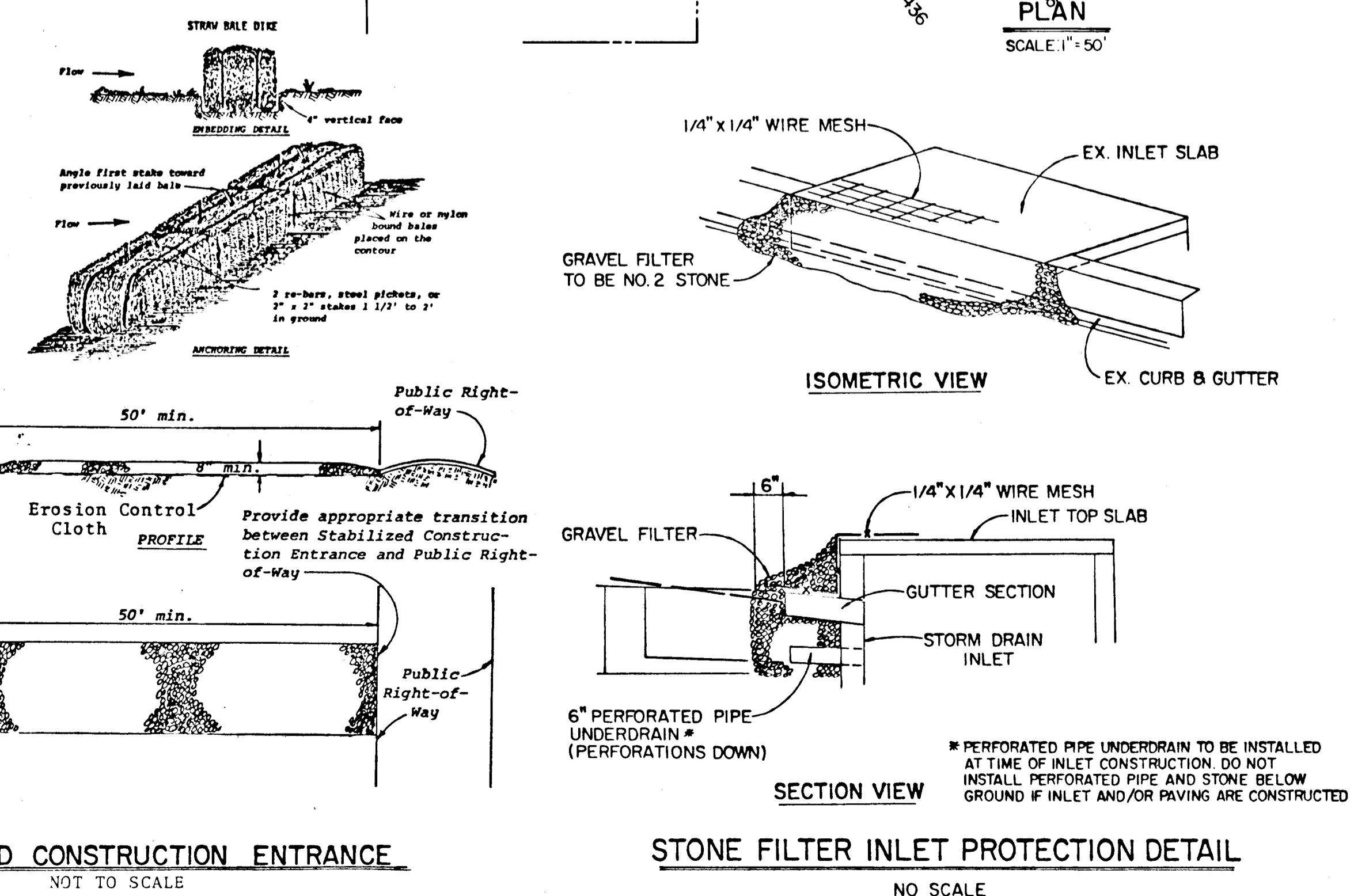
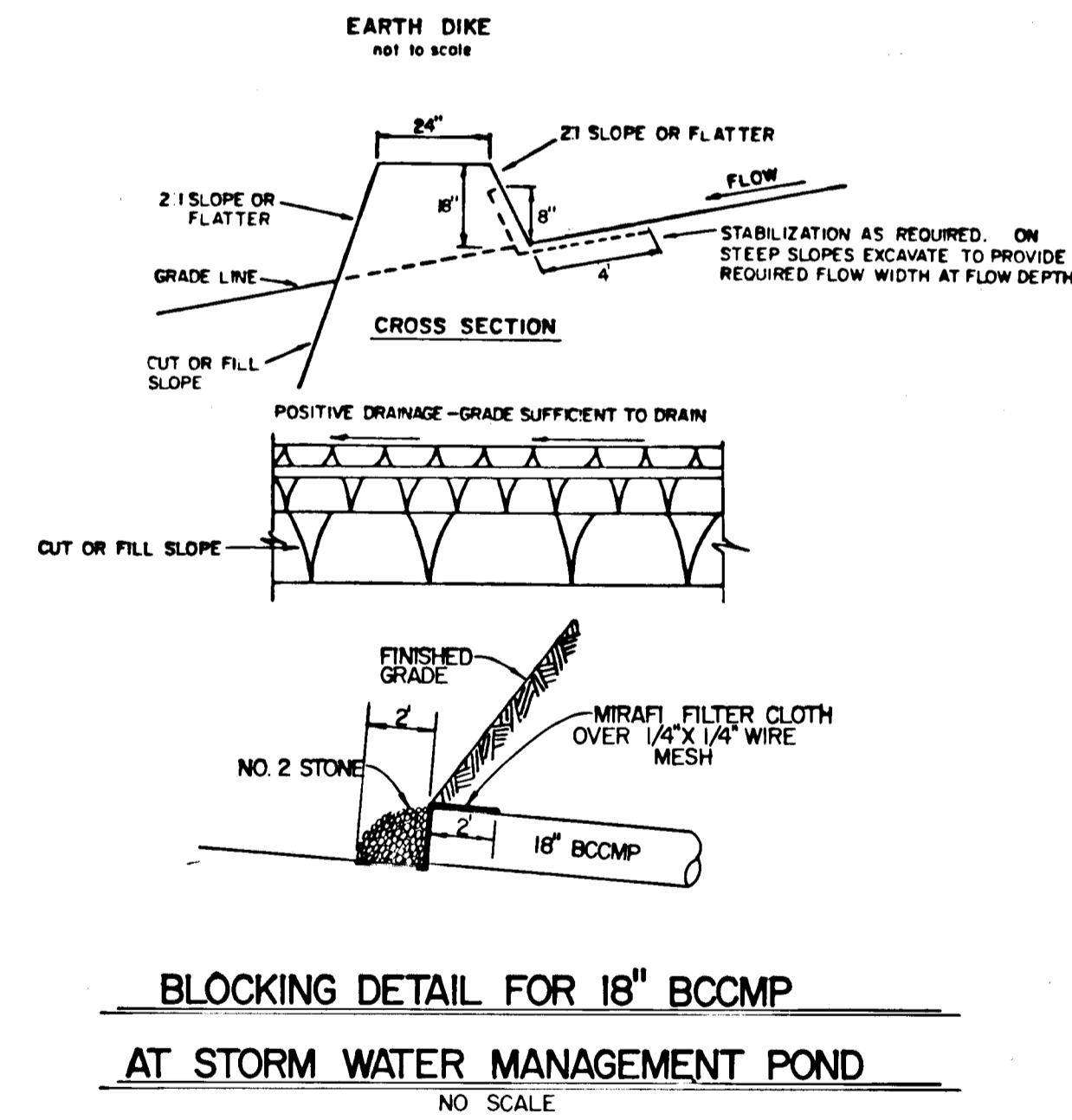
CONSTRUCTION SEQUENCE:

- OBTAIN GRADING PERMIT.
- CONSTRUCT STONE CONSTRUCTION ENTRANCE AS SHOWN ON PLAN AND INSTALL STRAW BALE DIKE.
- CONSTRUCT STORM WATER MANAGEMENT POND AND STABILIZE USING TEMPORARY SEEDING.
- THE 18" BCCMP SHALL BE BLOCKED IN ACCORDANCE WITH THE DETAIL ON THIS SHEET. THE PIPE SHALL REMAIN BLOCKED UNTIL SUCH TIME WHEN THE SEDIMENT BASIN TRANSITIONS TO FUNCTION AS A STORM WATER MANAGEMENT POND.
- CONSTRUCT TEMPORARY DIVERSION DIKE ACROSS THE FUTURE ROAD R/W DOWN GRADE FROM THE TEE TURN AROUND TO DIRECT SEDIMENT - LADENED RUNOFF INTO THE SEDIMENT BASIN UNTIL THE AREA UPGRADE IS STABILIZED.
- GRADE ROAD TO SUBGRADE STABILIZING SLOPE AREAS BETWEEN EXISTING GROUND AND BACK OF CURB USING PERMANENT SEEDING.
- CONSTRUCT STORM DRAIN SYSTEM.
- INSTALL STONE FILTER INLET PROTECTION DEVICES AT INLETS I-1 AND I-2.
- CONSTRUCT CONCRETE CURB AND LAY BASE COURSE.
- UPON STABILIZATION OF GRADED AREAS, INLETS SHALL BE OPENED AND ALL ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE STORM DRAIN SYSTEM.
- DURING CONSTRUCTION, SEDIMENT SHALL BE REMOVED FROM THE STORM WATER MANAGEMENT POND WHEN THE CLEANOUT ELEVATION 413.00 HAS BEEN REACHED.
- DURING CONSTRUCTION AND AFTER EACH RAINFALL, THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN HEREON.
- REMOVE STONE CONSTRUCTION ENTRANCE.
- CLEAN BASE COURSE, APPLY TACK COAT TO BASE COURSE, LAY SURFACE COURSE AND INSTALL CONCRETE SIDEWALK. STABILIZE ALL SHOULDERS USING PERMANENT SEEDING.
- THE SEDIMENT BASIN SHALL BE DEWATERED BY PUMPING. THE SEDIMENT FROM THE STORM WATER MANAGEMENT POND SHALL BE SPREAD ON LOT 6 AND STABILIZED WITH PERMANENT SEEDING.
- THE STORM WATER MANAGEMENT POND SHALL BE GRADED IN ACCORDANCE WITH SHEET ONE AND STABILIZED IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATIONS IN THE SEDIMENT CONTROL NOTES. INSTALL RIP RAP APRONS.
- ALL DISTURBED AREAS SHALL BE GRADED AND STABILIZED BY PERMANENT SEEDING.
- *AS PER COMAR 08.05.01.06 FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN (a) SEVEN CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) AND (b) FOURTEEN DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE."



SITE ANALYSIS
 TOTAL AREA OF SECTION ONE: 6.9 Ac±
 IMPERVIOUS AREA: 0.4 Ac±
 AREA TO BE VEGETATED: 0.6 Ac±
 UNDISTURBED AREA: 5.9 Ac±

- SEDIMENT CONTROL NOTES**
- 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."
 - 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).
 - 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.
 - 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).
 - ALL GRADED AREAS NOT TO BE SODDED SHALL BE STABILIZED BY SEEDING AND MULCHING IN ACCORDANCE WITH THE FOLLOWING:
 - SITE PREPARATION
 - HARROW OR DISC IN AREAS PROPOSED TO BE SEEDING THE FOLLOWING MATERIALS
 - PRYERIZED LIMESTONE AT 2 TONS/ACRE.
 - CONVERTICAL FERTILIZER 10-10-10 AT 3/4 TONS/ACRE.
 - SUPER PHOSPHATE AT 600 LBS./ACRE.
 - SEEDING
 - SOW THE FOLLOWING SEED MIXTURE AT THE RATE OF 200 LBS./ACRE WITH A MECHANICAL SPREADER.
 - TEMPORARY: ITALIAN OR PERENNIAL RYE GRASS.
 - PERMANENT: 40% MARION BLUE GRASS, 40% DAKOTA BLUE GRASS AND 20% PENN LANN CREEPING FESCUE.
 - THE SEEDING AREA SHALL THEN BE RAKED WITH A YORK RATE (A MINIMUM OF 2 PASSES) COVERED AND COMPACTED WITH CULTIPACKER OR OTHER APPROVED METHOD.
 - MULCHING
 - SEEDING AREAS SHALL BE UNIFORMLY MULCHED IMMEDIATELY AFTER SEEDING WITH UNWEATHERED SMALL GRAIN STRAW AT THE RATE OF 1 1/2-2 TONS/ACRE.
 - TIE MULCH DOWN WITH LIQUID ASPHALT AT 0.1 GAL./S.Y. OR EMULSIFIED ASPHALT AT 0.04 GAL./S.Y. OR MULCH NETTING.
 - A GRADING PLAN MUST BE DEVELOPED BY THE BUILDER AND APPROVED BEFORE BEGINNING CONSTRUCTION OF DWELLINGS.



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

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. Collins, Sr. 6/26/84 DATE

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
 James Roberts 8/22/84 DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
 J. Helm 8-10-84 DATE
 U.S. SOIL CONSERVATION SERVICE

APPROVED: DEPARTMENT OF PUBLIC WORKS.
 Approved: [Signature] 8-10-84 DATE
 DISTRICT HOWARD SOIL CONSERVATION DISTRICT

APPROVED: OFFICE OF PLANNING AND ZONING
 Approved: [Signature] 8-22-84 DATE
 CHIEF, BUREAU OF ENGINEERING

APPROVED: [Signature] 8-13-84 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

| DATE | REVISION | BY |
|---------|---------------------------------------|--------|
| 10-9-85 | CALIFER MAPLE TO CALIFER BEADFOR FEAR | O.V.P. |

OWNER AND DEVELOPER
 JAMES ROBERTS
 4413 DORADO DRIVE
 ELLICOTT CITY, MARYLAND 21043

STREET TREE GRADING AND SEDIMENT CONTROL PLAN
 ANGELA VALLEY
 SECTION ONE
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE: 1" = 50' JUNE 15, 1984 SHEET 4 OF 4

