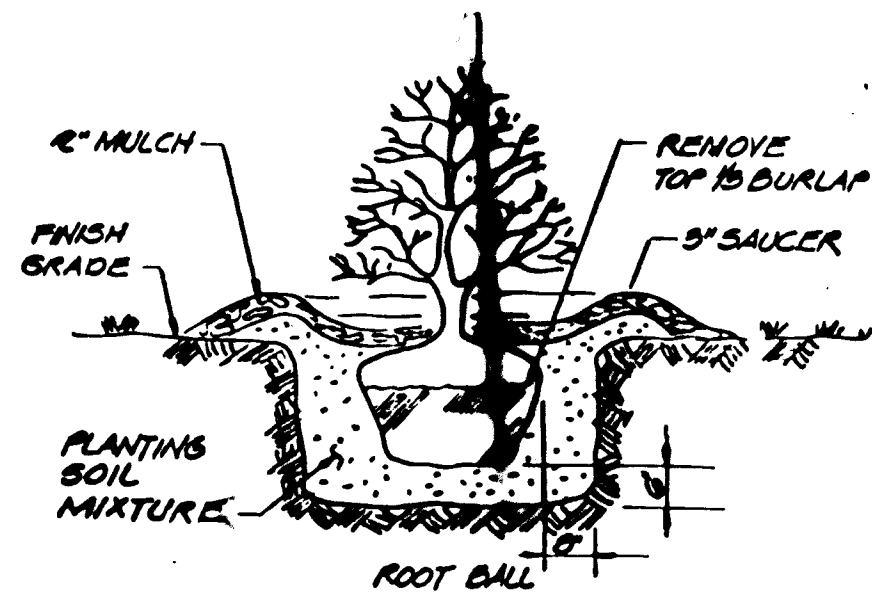


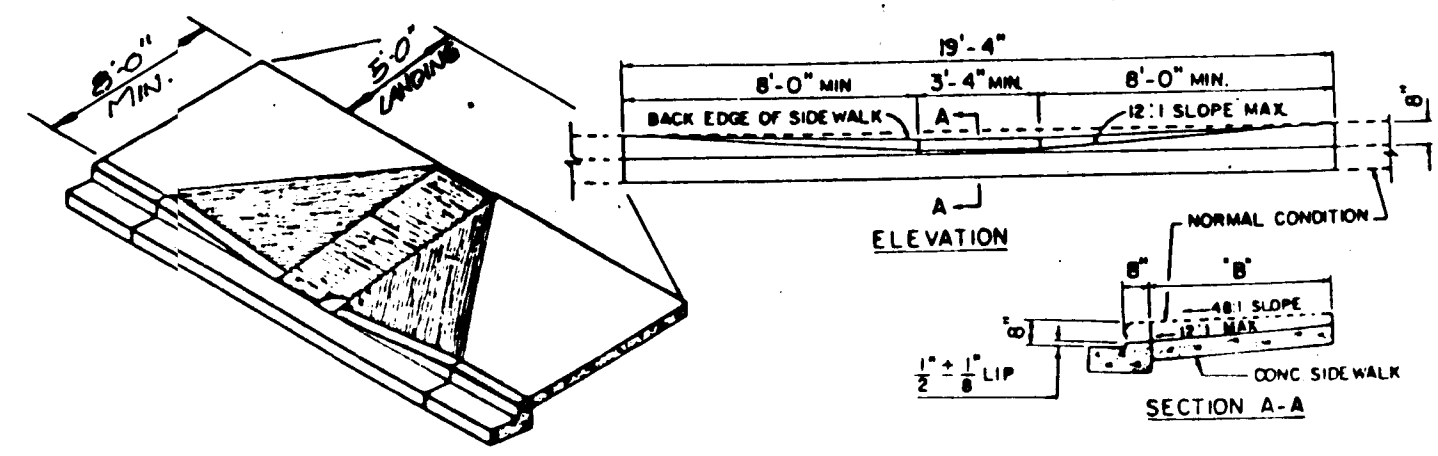
LANDSCAPING DETAIL
NO SCALE

PLANTING SCHEDULE

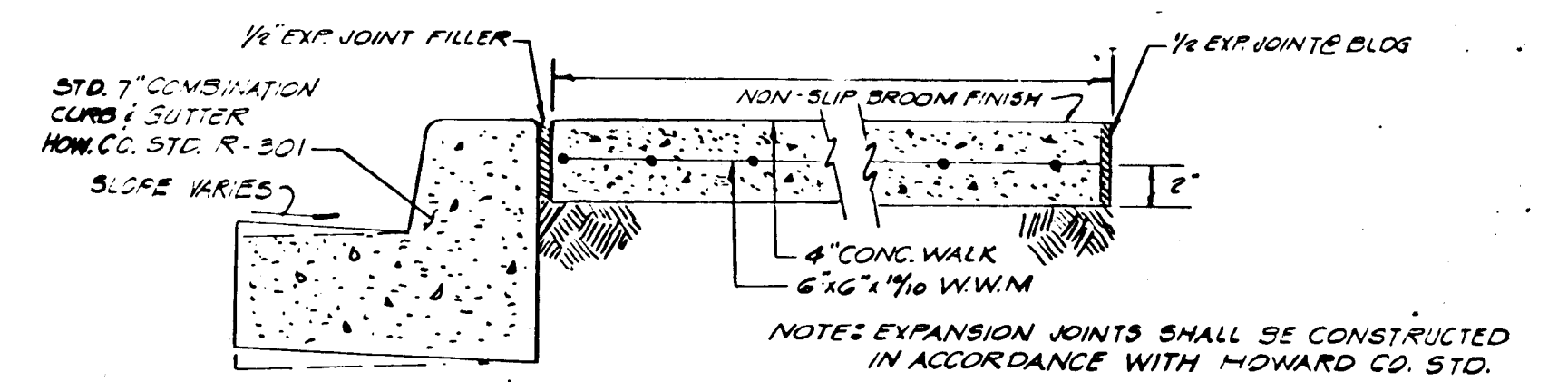
KEY QUANTITY	NAME	SPECIFICATIONS
18	PRINO STRIUS	0-8 4-5'
0	JUNIPER HYFIZER	0-8 10' MIN.



SHRUB PLANTING DETAIL
NO SCALE



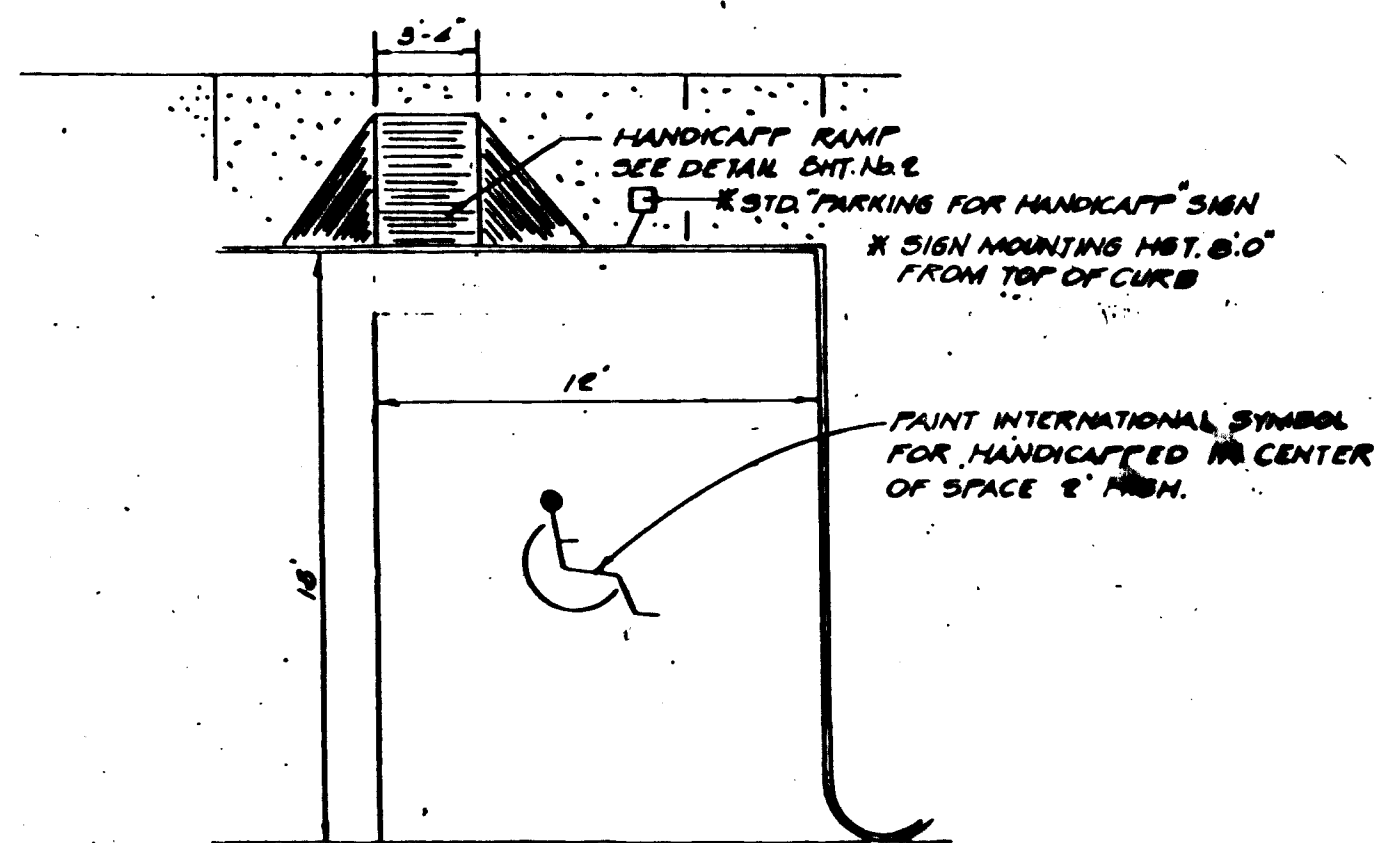
HANDICAPP RAMP DETAIL
NO SCALE



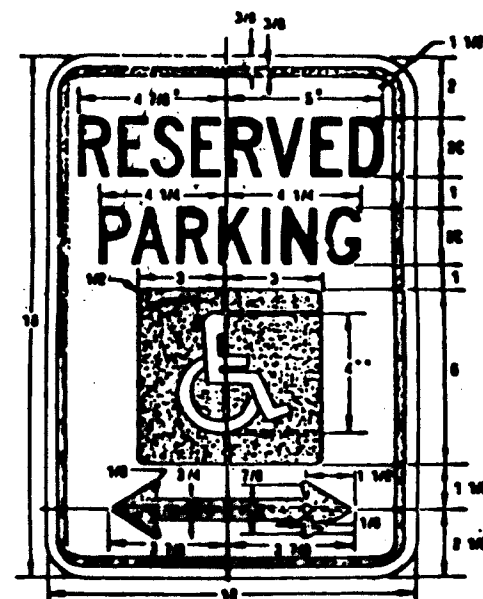
CURB & SIDEWALK DETAIL (TYP)
NO SCALE

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	PAVEMENT MATERIALS	
		FULL DEPTH BIT. CONC. ALTERNATE	SPINULAR BASE ALTERNATE
P-2	RESIDENTIAL ZONES LOCAL, OR. OR. OR. ALLEYS AND PRIVATE ROADS SERVING INDUSTRIAL ZONES WITH NO MORE THAN 10 FEET TRUCK PAV. DWT	1 1/2\"/>	

SITE PAVING DETAIL
NO SCALE

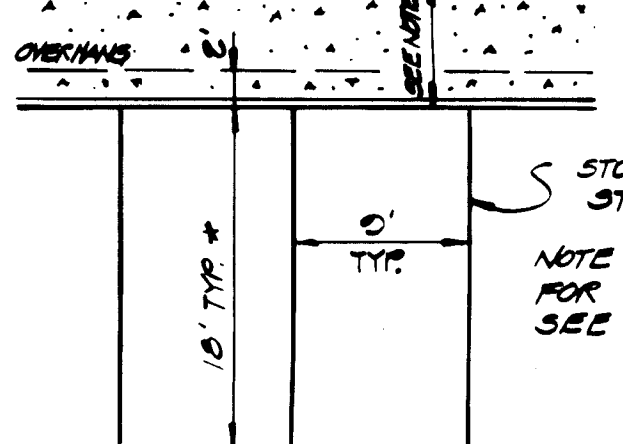


HANDICAPPED PARKING DETAIL
NO SCALE



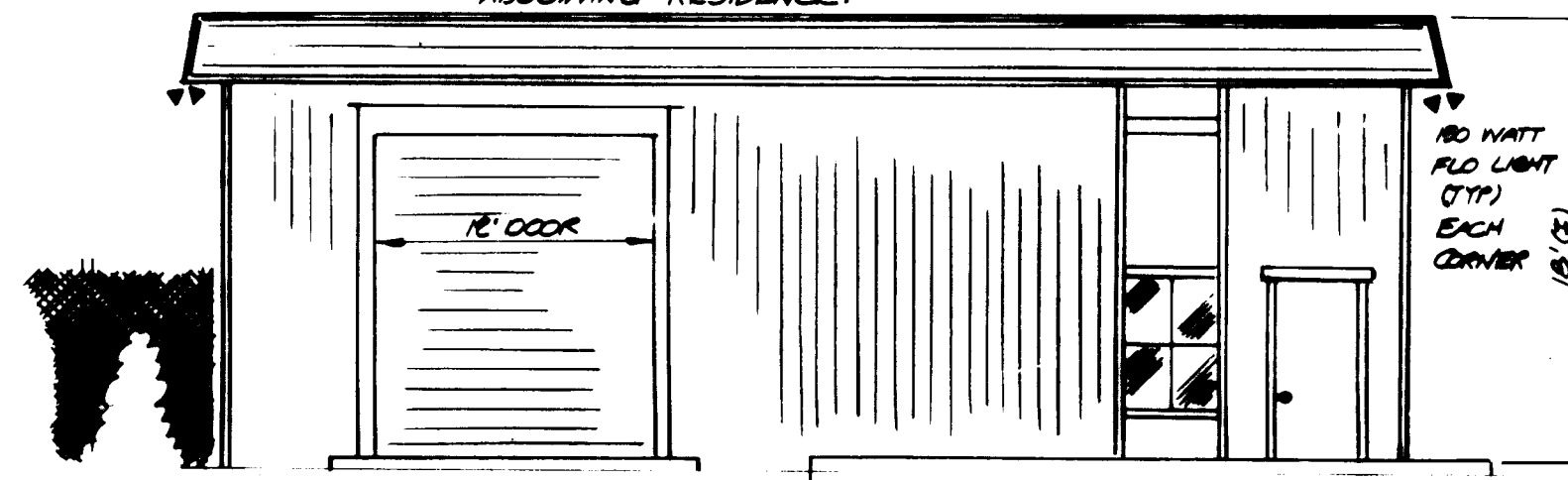
PARKING DETAIL
SCALE 1\"/>

NOTE SPACES WITHOUT OVERHANGS SHALL BE 20' IN DEPTH.

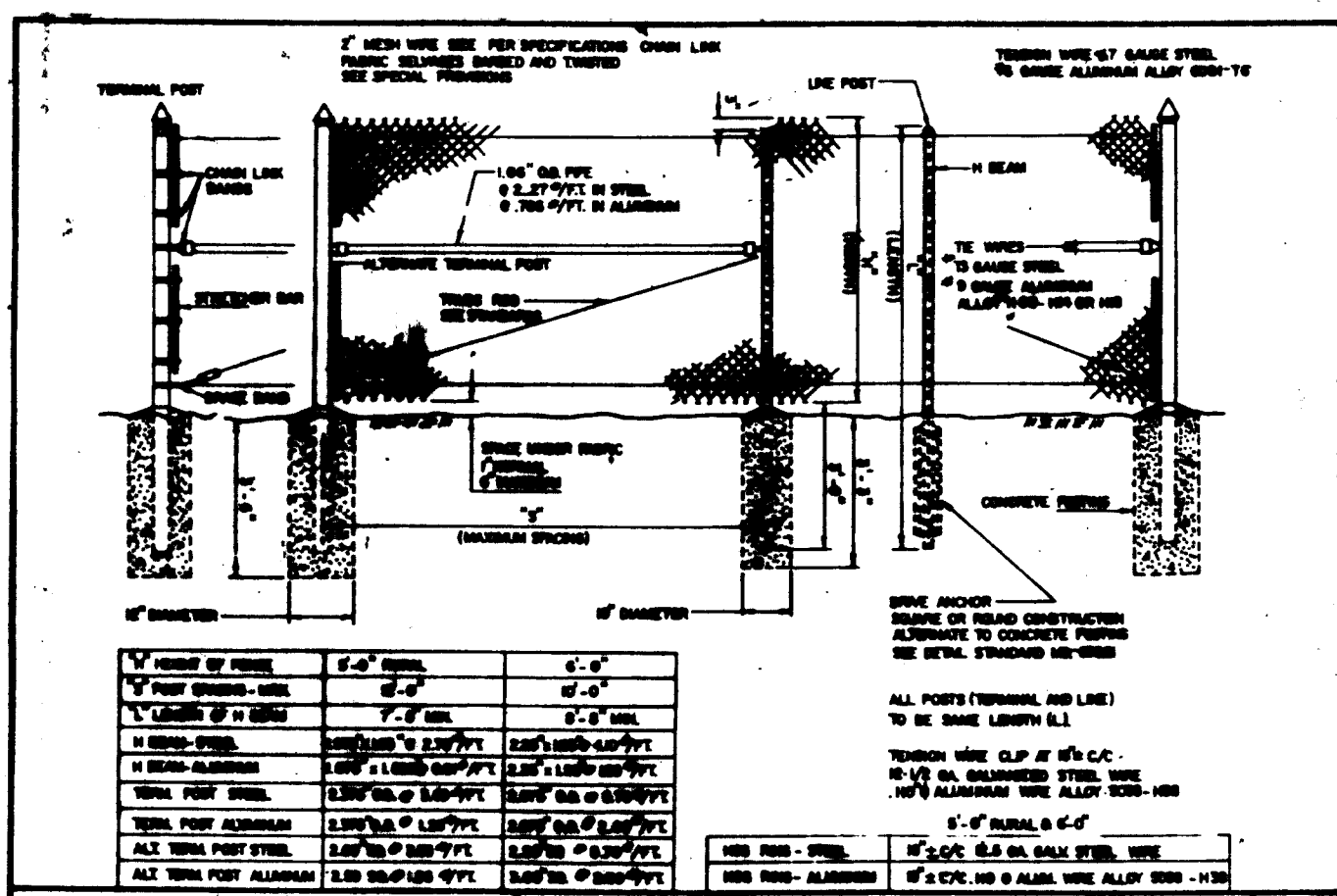


STD 4\"/>

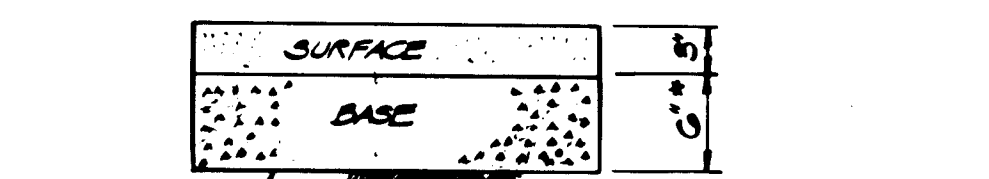
ENTER LIGHTS: LIGHTS SHALL BE GLOBE MOUNTED DIRECTED DOWNWARD & AWAY FROM ADJOINING RESIDENCE.



BUILDING ELEVATION (SCHEMATIC)
SCALE 1/8\"/>



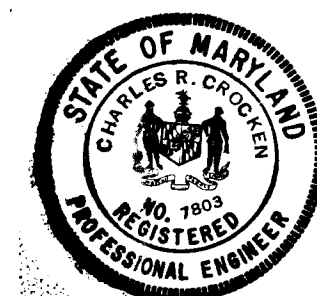
FENCE DETAIL
NO SCALE



APPROVED SUBGRADE SURF = (2) 1 1/2\"/>

ENTRANCE PAVING DETAIL
NO SCALE

APPROVED
DIVISION OF LAND DEVELOPMENT &
ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 6-25-84



Charles R. Crocken
6/22/84

By the Developer:
"I 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."
Date 4/15/84

By the Engineer:
"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."
Date 6/20/84

These plans have been submitted to the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.
Date 6/20/84
These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.
Date 6-28-84

APPROVED: FOR PUBLIC WATER, DRAINAGE SYSTEMS AND ROADS AND STORM
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Director 7-3-84
Chief, Bureau of Engineering 6-23-84
APPROVED: FOR PUBLIC WATER AND SEWAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT
County Health Officer 7-9-84
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Planning Director 7-10-84
Chief, Division of Land Development and Zoning Administration 7-10-84

Revised Per Co. Comments dated 6/1/84
OWNER: WILLIAM C. CARRIG 850 RIDGEVIEW RD DEED REFERENCE ORANGE, CT. 06477 364/116
DEVELOPER: C. RICHARD LEHNERT & SONS CONTRACT 7655 POLANSKI HIGHWAY BUCHAREST, BALTIMORE, MD 21287
PROJECT: SITE PLAN
E. LEHNERT & SONS
AREA: ANNAPOLIS JUNCTION GTR. ELECTION DISTRICT HOWARD COUNTY, MD BLOCK # 4 TAX MAP # 7 PARCEL 100

TITLE: DETAIL SHEET
CHARLES R. CROCKEN AND ASSOCIATES INC.
ONE ENGINEERING AND LAND PLANNING 3097 FINE SPUR ELLICOTT CITY MD 21043 448-9555
DESIGNED BY: C.R.C.
DRAWN BY: C.R.C./G.N.E.
PROJECT NO: 85-0080
DATE: FEBRUARY, 1984
SCALE: AS SHOWN
DRAWING NO 2 OF 4

CONSTRUCTION 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 10 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.

Compaction
The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheep-foot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture so that it can be formed into a ball without crumbling. If water can be squeezed out of the ball, it is too wet to compact properly.

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

REINFORCED CONCRETE PIPE

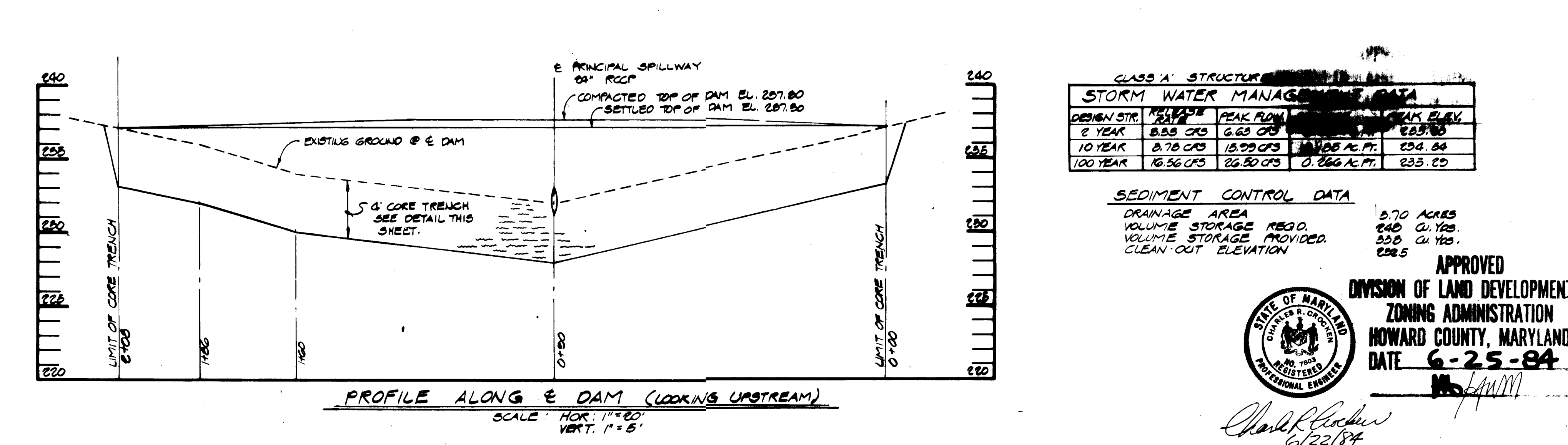
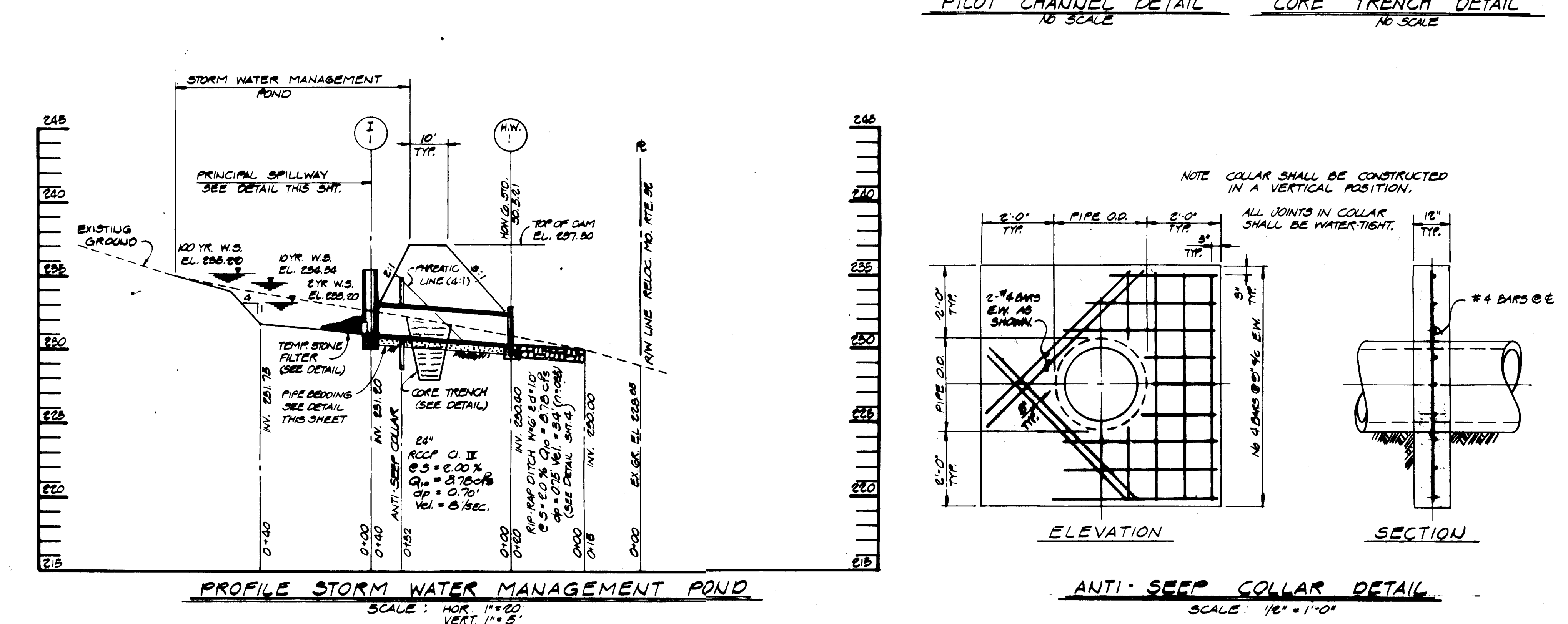
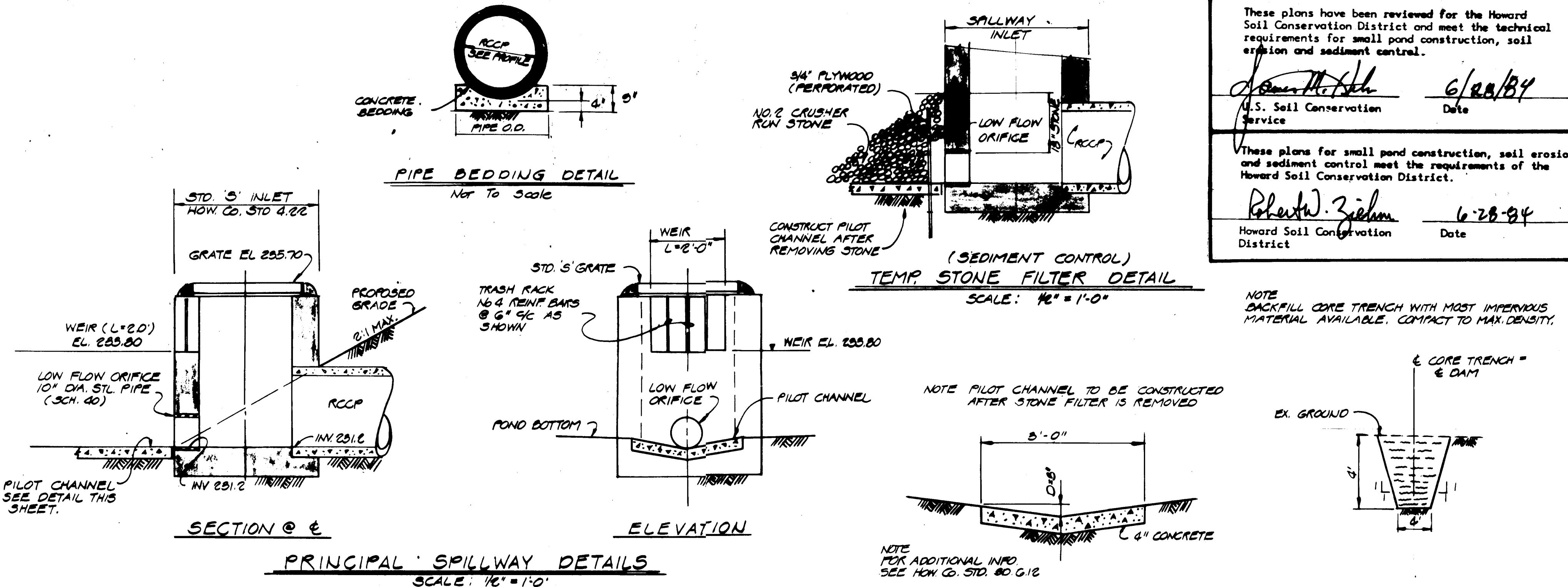
- Materials - Reinforced concrete pipe shall have a rubber gasket joint and shall equal or exceed ASTM Specification C-361. Approved equivalents are MWA Specification C-300, 301, and 302.
- Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its diameter with a minimum thickness of 3". W.S.S.C. low cradle bedding is an approved equivalent.
- Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed on the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe.
- Backfilling shall conform to structural backfill as shown above.
- 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), Class A-1, or P-1.

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.



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 W. Ziehm 6/28/84
U.S. Soil Conservation Service Date

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

Robert W. Ziehm 6-28-84
Howard Soil Conservation District Date

By the Developer:

"I 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 R. Crocken 6/22/84
Date

By the Engineer:

"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 R. Crocken 6/22/84
Date

Charles R. Crocken, P.E. March 23, 1984
Date

APPROVED: FOR PUBLIC WATER, AND STORM DRAINAGE SYSTEMS AND ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Shirley Nunn 7-3-84
Director Date

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT

John P. ... 7-9-84
County Health Officer Date

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

John P. ... 7-10-84
Planning Director Date

William ... 7-10-84
Chief, Division of Land Development and Zoning Administration Date

DATE	NO.	REVISION DESCRIPTION
	1	REVISED PER COMMENTS DATED 5/17/84

OWNER: WILLIAM C. CARRIG
890 RIDGEVIEW RD
ORANGE, CT. 06477

DEED REFERENCE: 364/116

DEVELOPER: C. RICHARD LEHNERT
E. LEHNERT & SONS
7666 POLASKI HIGHWAY
BALTIMORE, MD 21287

PROJECT: SITE DEVELOPMENT PLAN
E. LEHNERT & SONS

AREA: ANNAPOLIS JUNCTION BLOCK #14
6TH ELECTION DISTRICT TRK MAP 67
HOWARD COUNTY, MD. PARCEL 108

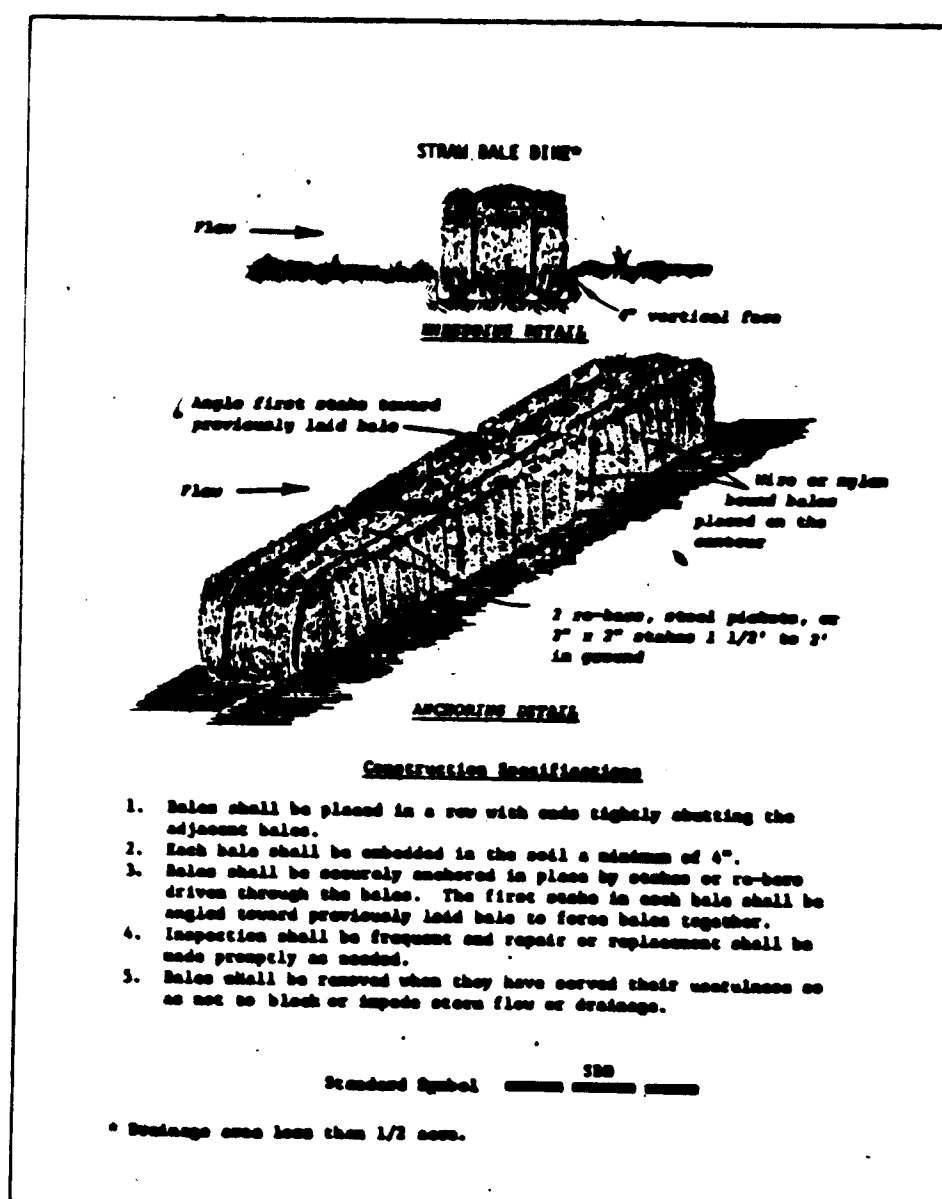
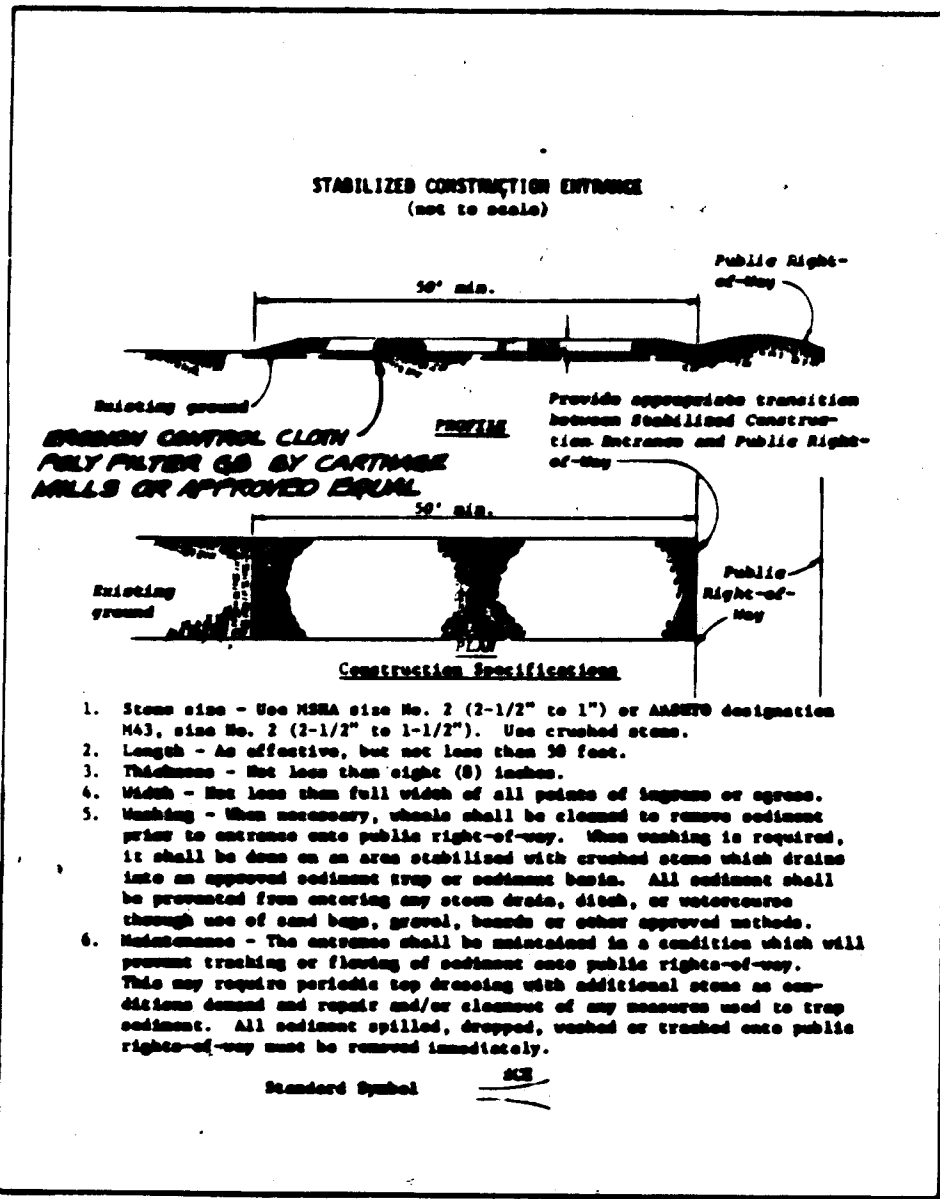
TITLE: STORM WATER MANAGEMENT DETAILS

CHARLES R. CROCKEN
AND ASSOCIATES INC.
CIVIL ENGINEERING AND LAND PLANNING
3697 PARK AVENUE ELLICOTT CITY MD 21043 410-3505

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 6-25-84

Charles R. Crocken 6/22/84

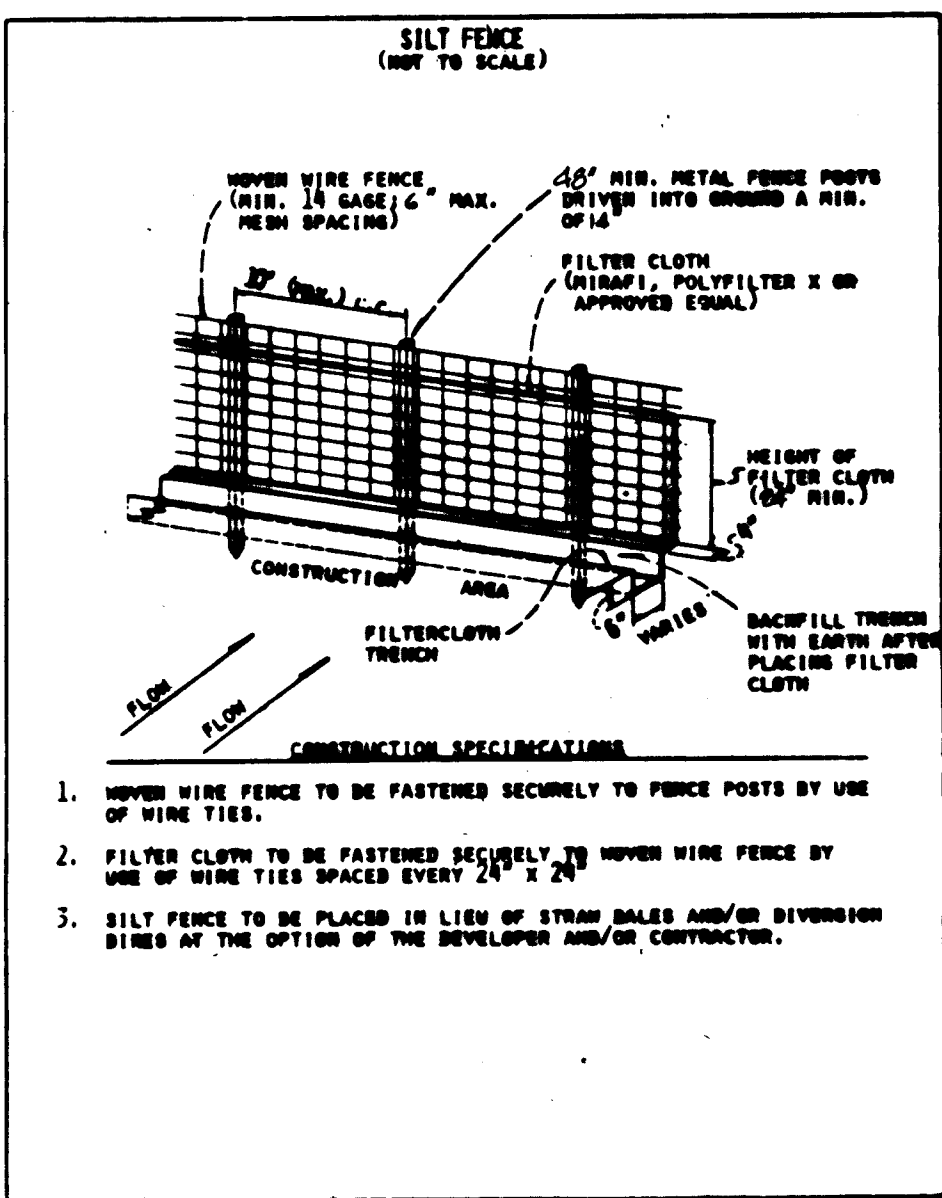
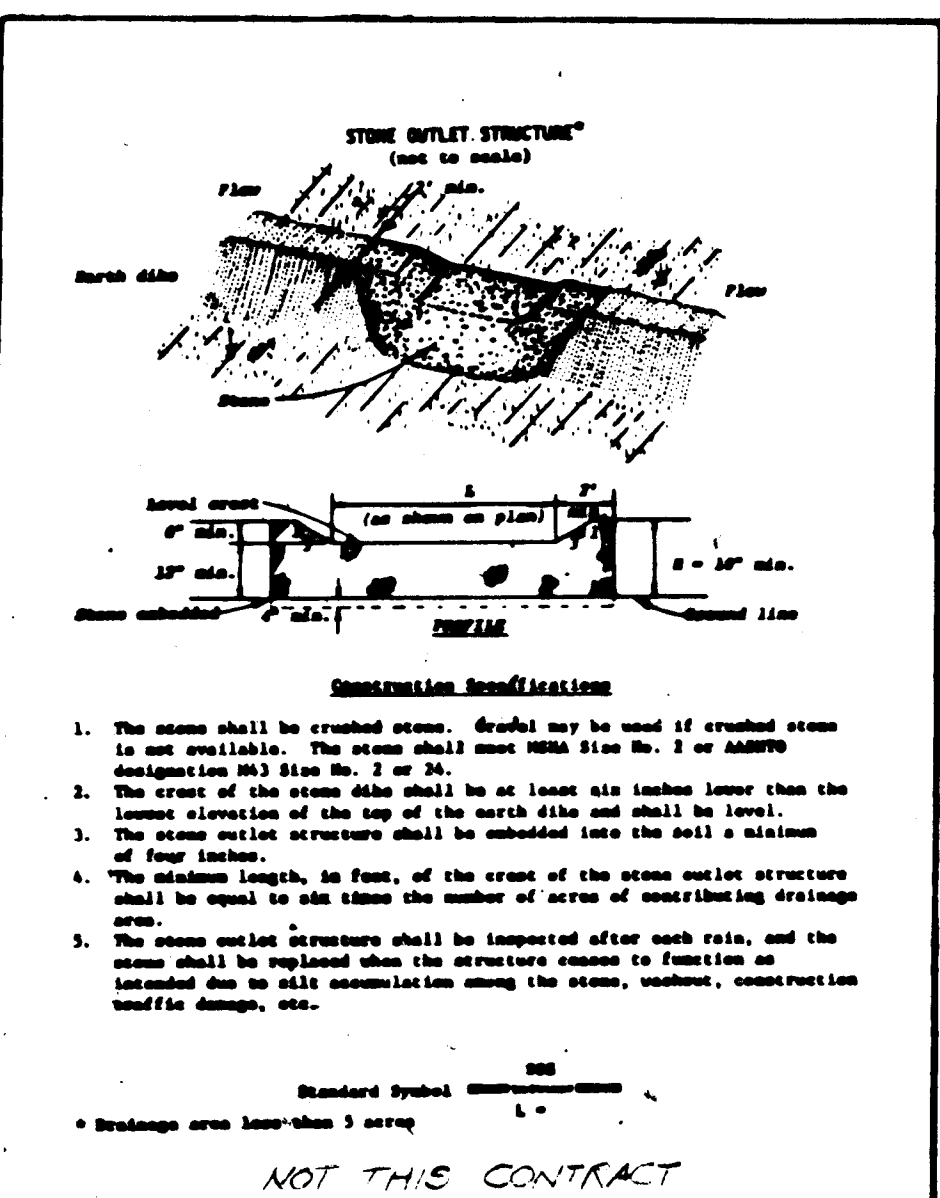
DESIGNED BY: CRC
DRAWN BY: CRC
PROJECT NO:
DATE: MARCH, 1984
SCALE: AS SHOWN



SEDIMENT CONTROL CONSTRUCTION NOTES

GENERAL NOTES

- A MINIMUM 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (922-2486).
- ALL SEDIMENT CONTROL STRUCTURES WILL BE INSTALLED IN ACCORDANCE WITH "THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS" AS PREPARED BY THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE.
- SITE GRADINGS WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
- ALL DISTURBED AREAS ARE TO BE DRESSED AND STABILIZED ACCORDING TO THE TEMPORARY OR PERMANENT SEEDING SCHEDULES AS SOON AS PROPER WEATHER CONDITIONS EXIST FOR THE ESTABLISHMENT OF A PERMANENT VEGETATIVE COVER.
- SEDIMENT WILL BE REMOVED FROM TRAP WHEN THE DEPTH REACHES THE CLEAN OUT ELEVATION SHOWN ON THE PLANS.
- FERTILIZER AND LIME RATES MAY BE CHANGED THROUGH AUTHORIZATION BY THE HOWARD SOIL CONSERVATION DISTRICT IF SOIL TESTS DETERMINE A REDUCTION IN THE SPECIFIED RATES IS JUSTIFIED.
- 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.
- REFERENCES CALLED FOR ON THE SEDIMENT CONTROL CONSTRUCTION PLAN AND DETAILS ARE MADE TO "THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS".



TEMPORARY SEEDING

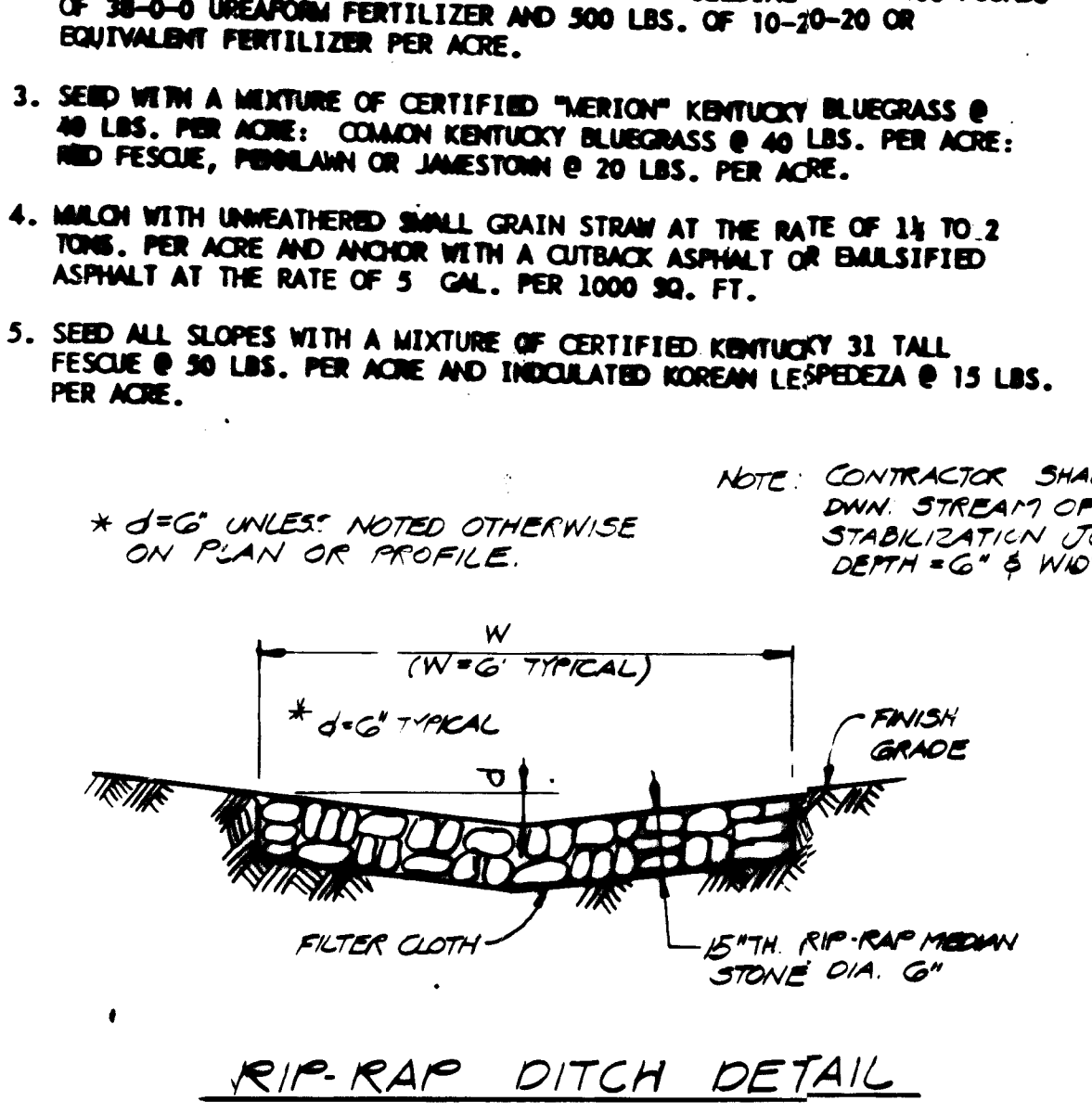
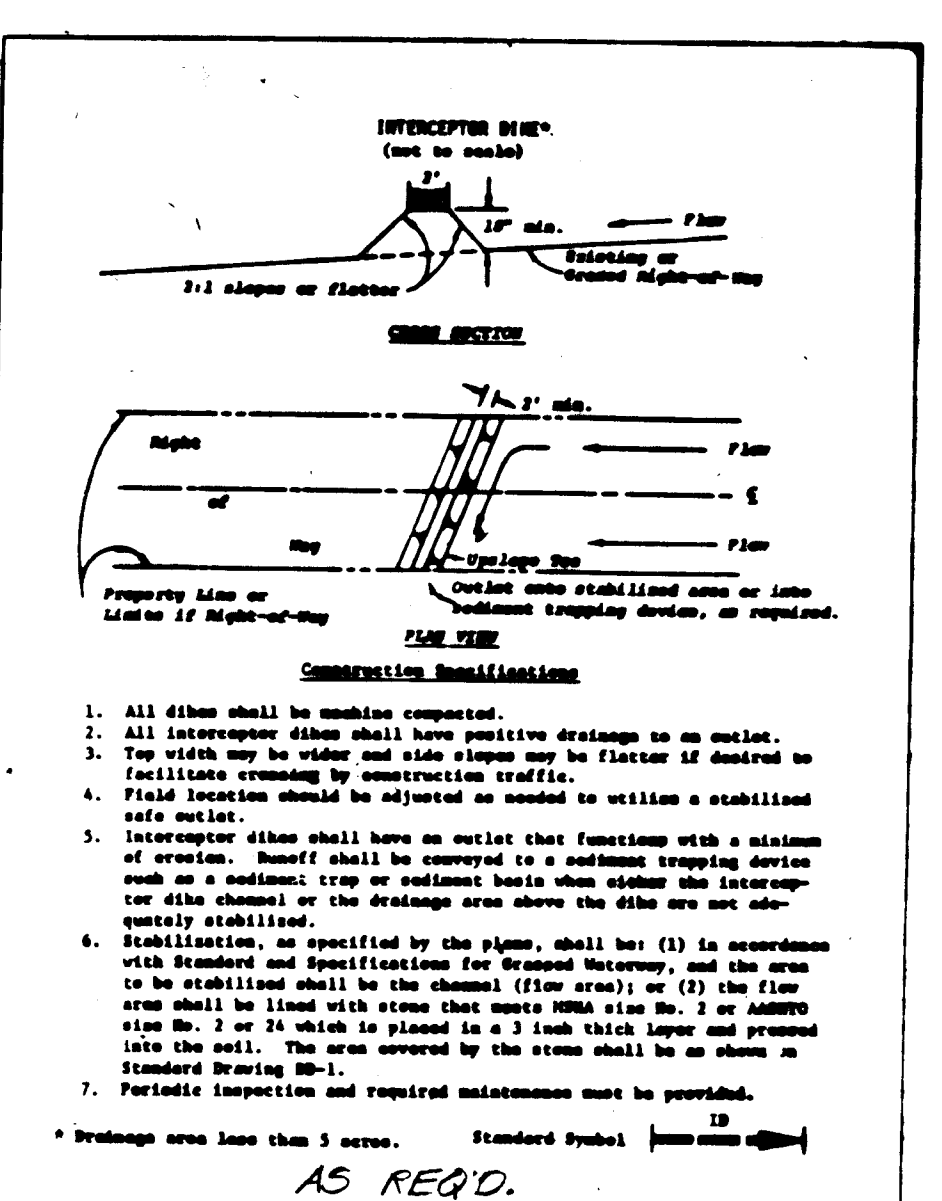
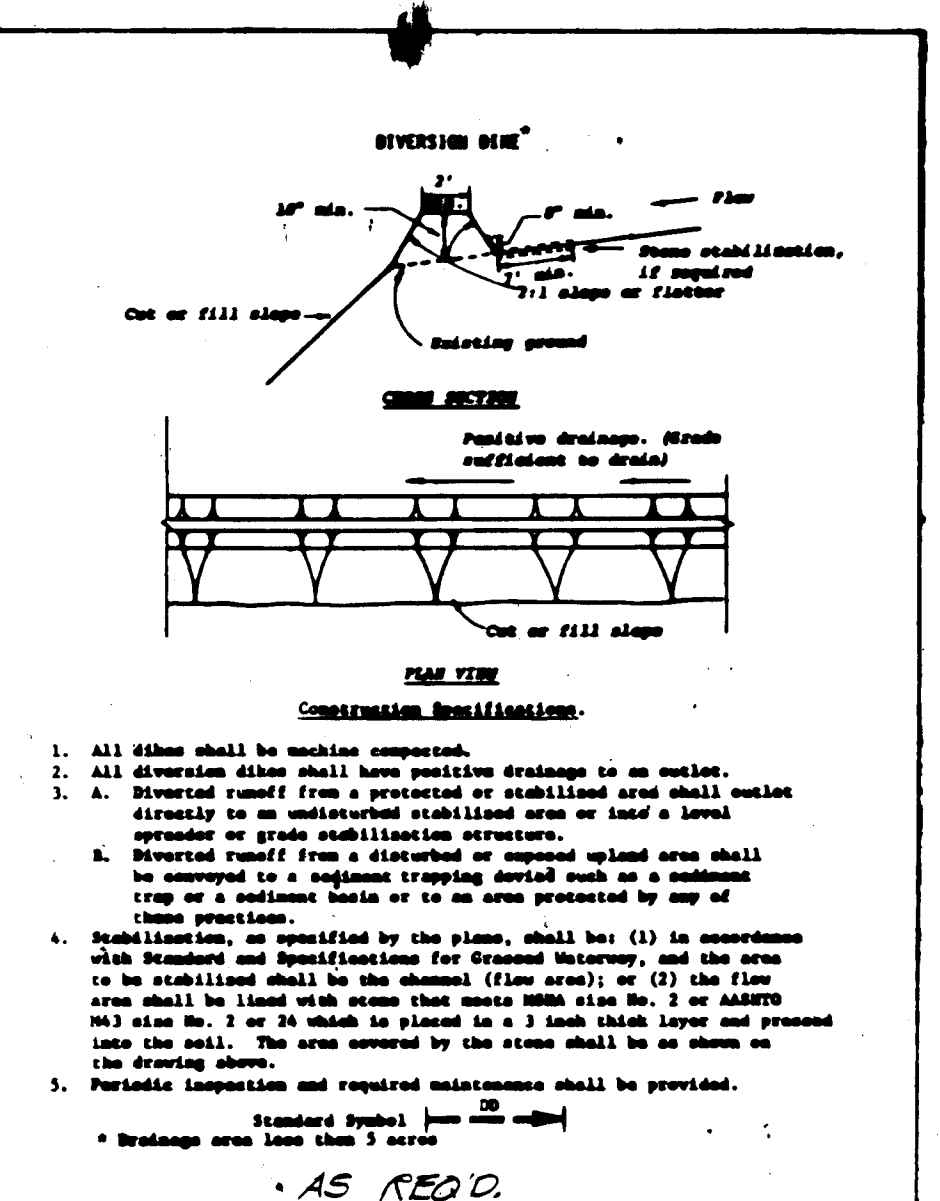
AREA TO BE SEEDING SHALL BE RECENTLY LOOSENEED. IF THE GROUND IS PACKED, CRUSTED OR HARD, THE TOP LAYER OF SOIL SHALL BE LOOSENEED BY DISCING, RACKING OR OTHER ACCEPTABLE MEANS.

- APPLY 10-20-10 FERTILIZER (OR EQUIVALENT) AT THE RATE OF 400 LBS. PER ACRE OR 15 LBS. PER 1000 SQ. FT.
- WHERE SOIL IS KNOWN TO BE HIGHLY ACID, APPLY DOLOMITIC LIMESTONE AT THE RATE OF 1 TON PER ACRE.
- WORK BOTH INTO SOIL AND SEED WITH CYCLONE SEEDER, DRILL, CULTIPAKER SEEDER OR HYDROSEEDER (SLURRY WILL INCLUDE SEED AND FERTILIZER) AT THE RATE OF 40 LBS. PER ACRE OF ITALIAN OR PERENNIAL RYEGRASS.
- MULCH WITH UNWEATHERED SMALL GRAIN STRAW AT THE RATE OF 1 1/2 TO 2 TONS PER ACRE AND ANCHOR WITH A CUTBACK ASPHALT OR EMULSIFIED ASPHALT AT THE RATE OF 5 GAL. PER 1000 SQ. FT.

PERMANENT SEEDING

FINAL STABILIZATION WILL TAKE PLACE AS SOON AS POSSIBLE AS WEATHER CONDITIONS PERMIT, AS FOLLOWS:

- APPLY DOLOMITIC LIMESTONE AT THE RATE OF 2 TONS PER ACRE (ONE TON PER ACRE IF APPLICATION OF TON PER ACRE WAS MADE FOR TEMPORARY SEEDING).
- APPLY 0-20-20 FERTILIZER AT THE RATE OF 400 LBS. PER ACRE. HARROW OR DISC LIME AND 0-20-20 FERTILIZER INTO THE SOIL TO A MINIMUM DEPTH OF 3 LAMS OR HIGH MAINTENANCE AREAS WILL BE DRAGGED AND LEVELED WITH A YORK RAKE. AT THE TIME OF SEEDING APPLY 400 POUNDS OF 30-0-0 UREAFORM FERTILIZER AND 500 LBS. OF 10-20-20 OR EQUIVALENT FERTILIZER PER ACRE.
- SEED WITH A MIXTURE OF CERTIFIED "MERION" KENTUCKY BLUEGRASS @ 40 LBS. PER ACRE; COALEN KENTUCKY BLUEGRASS @ 40 LBS. PER ACRE; RED FESCUE, PEBBLAWN OR JAMESTOWN @ 20 LBS. PER ACRE.
- MULCH WITH UNWEATHERED SMALL GRAIN STRAW AT THE RATE OF 1 1/2 TO 2 TONS PER ACRE AND ANCHOR WITH A CUTBACK ASPHALT OR EMULSIFIED ASPHALT AT THE RATE OF 5 GAL. PER 1000 SQ. FT.
- SEED ALL SLOPES WITH A MIXTURE OF CERTIFIED KENTUCKY 31 TALL FESCUE @ 30 LBS. PER ACRE AND INOCULATED KOREAN LESPEDEZA @ 15 LBS. PER ACRE.



AS REQ'D.

AS REQ'D.

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. Hale 6/28/84
U.S. Soil Conservation Service Date

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

Robert W. Zickman 6-28-84
Howard Soil Conservation District Date

By the Developer:

"I 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 R. Crocken 6/28/84
Date

By the Engineer:

"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 R. Crocken 6/28/84
Date

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- INSTALL STABILIZED CONSTRUCTION ENTRANCE.
- CLEAR AND GRADE FOR SWM POND ONLY.
- CONSTRUCT STORM WATER MANAGEMENT POND WITH TEMPORARY STONE FILTER FOR SEDIMENT CONTROL.
- INSTALL ALL PERIMETER DIKES AND SILT FENCE AS SHOWN ON THE PLANS.
- PERFORM CLEARING AND ROUGH GRADING OPERATION SEED PER TEMPORARY SEEDING NOTES AS REQUIRED.
- CONSTRUCT PROPOSED BUILDING, PAVE SITE, PLACE LANDSCAPING AND SEED REMAINING AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES AS REQUIRED.
- WHEN ENTIRE SITE IS STABILIZED REMOVE ALL TEMPORARY SEDIMENT CONTROL MEASURES INCLUDING TEMPORARY STONE FILTER IN SWM POND.
- SWM POND SHALL BE CLEANED OF ALL SILT AND RESTORED TO LINES AND GRADES SHOWN ON PLAN IN ACCORDANCE WITH POND NOTES.

NOTE: NO STORM DRAINS (EXCEPT FOR POND) SHALL BE INSTALLED UNDER THIS PERMIT. ALL SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED UNTILL SUCH TIME AS ALL GRADING HAS BEEN COMPLETED.

APPROVED: FOR PUBLIC WATER, AND STORM DRAINAGE SYSTEMS AND ROADS

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James F. Neumy 7-3-84
Director Date

William B. Peary 6-29-84
Chief, Bureau of Engineering Date

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS

HOWARD COUNTY HEALTH DEPARTMENT

James B. Peary 7-9-84
County Health Officer Date

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

Thomas L. Harris 7-10-84
Planning Director Date

John W. Madsen 7-10-84
Chief, Division of Land Development and Zoning Administration Date

5/8/84 1 Revised Per G. Comments Dated 5/7/84

DATE	NO.	REVISION DESCRIPTION

OWNER: WILLIAM C. CARRIG 880 RIDGEVIEW RD. DEED REFERENCE ORANGE, CT. 06477 364/116

DEVELOPER: C. RICHARD LEHUERT & SONS
E. LEHUERT & SONS
CONTRACTOR 7055 POLASKI HIGHWAY
POMERUNY BALTIMORE, MD. 21287

PROJECT: SITE DEVELOPMENT PLAN
C. LEHUERT & SONS

AREA: ANNIAPOLIS JUNCTION 6TH ELECTION DISTRICT HOWARD COUNTY, MD. BLOCK # 47 TAX MAP # 47 PARCEL 100

TITLE: **SEDIMENT CONTROL DETAILS**

CHARLES R. CROCKEN
AND ASSOCIATES INC.
CIVIL ENGINEERS AND LAND PLANNERS
5067 PARK AVENUE ELLICOTT CITY MD. 21043 443-8866

DESIGNED BY: CRC
DRAWN BY: CRC
PROJECT NO:
DATE: MARCH, 1984
SCALE: AS SHOWN
DRAWING NO 4 OF 4

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 6-25-84

Charles R. Crocken
6/22/84

STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER