

STREET LIGHT LEGEND

- 175 Watt Mercury Vapor Lamp Post Top Fixture on 14' Ft. Grey Fiberglass Pole.
- 250 Watt Mercury Vapor Lamp Pendant Mounted Fixture on 25 Foot Bronze Aluminum or galvanized steel post.

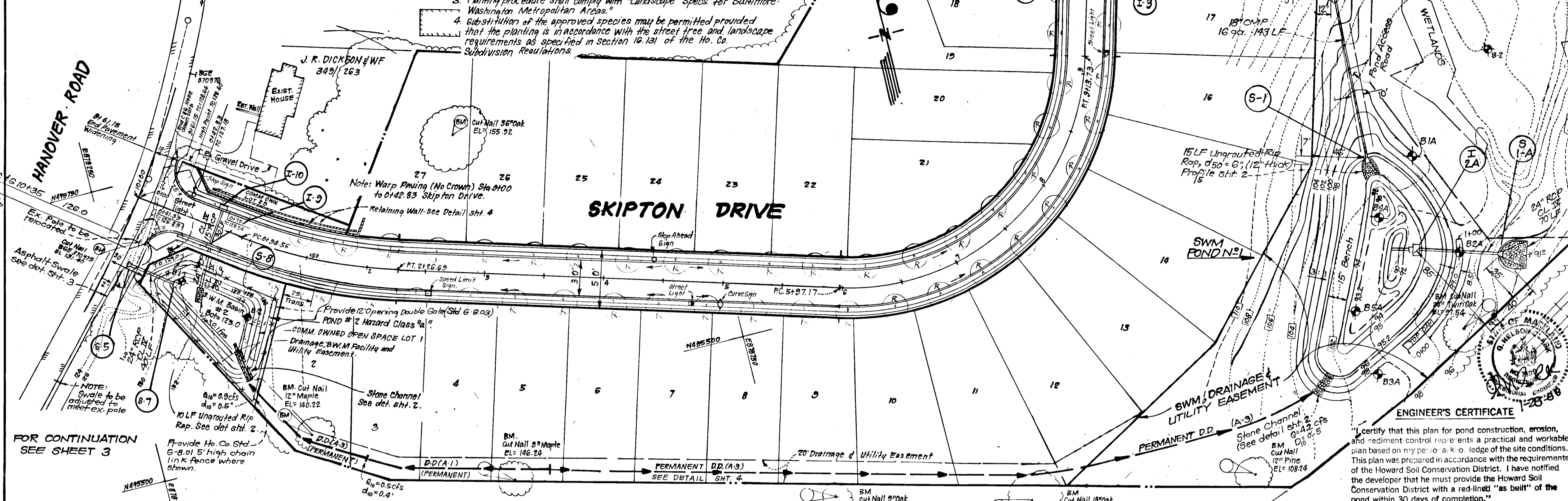
Note: Street lights to be placed 2'-10" behind curb and in accordance w/ Ho. Co. Design Manual Vol. III.

STREET TREE TABLE

SYM	TYPE	SIZE	QUANT	REMARKS
(K)	Acer Rubrum Red Sunset	2 1/2" Cal	48	B & E Heavy Heads
(L)	Red Sunset Maple	2 1/2" Cal	48	B & E Heavy Heads

STREET TREE NOTES:

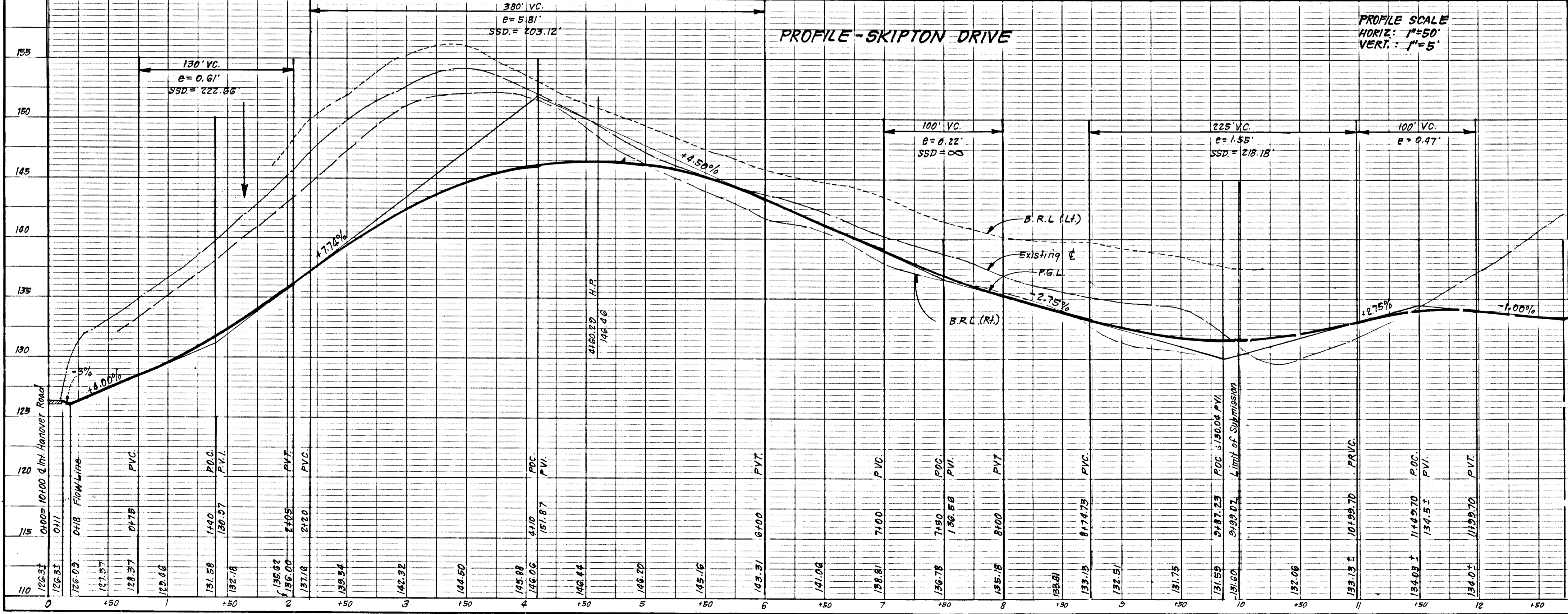
- Contractor shall verify location of underground utilities prior to digging.
- Final location of trees may be adjusted slightly to accommodate final conditions.
- Planting procedure shall comply with "Landscape Specs for Baltimore Washington Metropolitan Areas."
- Substitution of the approved species may be permitted provided that the planting is in accordance with the street tree and landscape requirements as specified in section 16.131 of the Ho. Co. Subdivision Regulations.



CENTERLINE CURVE DATA

STATIONS	RADIUS	Δ	ARC	TAN	CHORD & BEARING
PC: 01+84.56 to PT: 21+26.69	420.00'	18° 55' 36"	132.13'	66.67'	131.53' S 64° 06' 01" E
PC: 51+07.17 to PT: 91+13.73	200.00'	30° 39' 32"	316.46'	202.31'	284.46' N 61° 06' 25" E

ARTHUR W. THOMPSON
300/299
PLAN
SCALE: 1" = 50'



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Paul H. Sporn 12/7/88
Chief, Land Development Division
Francis W. Chelmond 12/7/88
Chief, Bureau of Highways
James S. Gann 12-7-88
Chief, Bureau of Engineering

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

Frank J. Taylor 12-20-88
Chief, Division of Community Planning and Land Development

CLARK - FINEFROCK & SACKETT, INC.
ENGINEERS PLANNERS SURVEYORS
7135 MINSTREL WAY COLUMBIA, MARYLAND 21045 301-381-7500 Bal. 301-521-8100 Wash.

ROAD CONSTRUCTION PLAN
SKIPTON DRIVE

HANOVER WOODS

1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

FOR: BLAKE BUILDERS, INC.
7135 Minstrel Way
Columbia Md. 21045

DESIGNED: MCB
DRAWN: KIW
CHECKED: MCB
DATE: 1-27-88

SCALE: As Shown
DRAWING: 1 of 5
JOB NO: 87-131
FILE NO: 87-131-D

GENERAL NOTES

- All storm drain & paving shall be constructed in accordance with the latest edition and specifications of Howard County & MDSHA.
- Types of storm drainage refer to the Standard Details of Ho. Co. & MDSHA.
- Trench compaction for storm drains within road or street right of way limits shall be in accordance with "Ho. Co. Design Manual Vol. III" Sd. 9.2.81.
- Information concerning underground utilities was obtained from available records, but the contractor must determine the exact location and elevation of mains by digging test pits, by hand, at all utility crossings well in advance of construction.
- All utility companies shall be notified 24 hrs in advance of construction.
- All traffic services, parking and signing to be done in accordance with the "Manual of Uniform Traffic Control Devices, 1983 Edition".
- See and cross vertical curves were designed in accordance with "Ho. Co. Design Manual" Vol. III.
- Provide Conc. Sidewalk Ramps Ho. Co. Std. Type A R-4.0 where shown. Design Speed: 30 mph.
- The contractor or developer shall contact the Construction Inspection/Survey Division 24 hrs in advance of commencement of work Ph. 792-7272.

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

Approved: *R. W. Fuchs* 1/28/88
Howard S.C.D. District 6

Plan Number: 11-28-88
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.

John J. Taylor 11-28-88
U.S. Soil Conservation Service
District 6

Developers Certification:

"We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction of this 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. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

John J. Taylor 28 JAN 1988
Signature of Developer Date

1205
1025

STORM WATER MANAGEMENT NOTES

I. SITE PREPARATION

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas to be covered by the pond or reservoir will be cleared of all cut, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

II. BARTH FILL

Material
The fill material shall be taken from approved designated borrow area or areas. It shall be free of roots, stumps, wood, rubbish, oversize 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 above the design elevation (including freeboard) as shown on the plans.

Placement
Areas on which fill is to be placed shall be specified 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 sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction can be obtained with the equipment used.

Where a minimum required density is specified, each layer of fill shall be compacted as necessary to obtain that density and is to be certified by the Engineer.

Cutoff Trench
Where specified, a cutoff 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 as shown on the drawings, 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 cutoff 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 tamers 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 equipment be driven 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 COMPOUSE

All pipes shall be circular in cross section.

A. Corrugated Metal Pipe

1. **Materials** - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings are commercially available: Nevon, Plastri-Coat, Blac-Klad, and Beth-Co-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.

2. **Materials** - (Aluminized Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274-791 with watertight coupling bands or flanges.

3. **Materials** - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Coupling bands, anti-seep collars, and sections, etc. must be composed of the same material as the pipe. Metals must be insulated from dissimilar material with use of rubber or plastic insulating materials at least 24 mils in thickness. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be less than 9 and greater than 4.

B. Connections

All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Watertight coupling bands or flanges shall be used at all joints. Anti-seep collars shall be connected to the pipe in such a manner as to the completely watertight. Dimple bands are not considered to be watertight.

C. Bedding

The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spotty or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

D. Laying pipe

The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the side.

E. Backfilling

Backfilling shall conform to structural backfill as shown above.

F. Other details

(anti-seep collars, valves, etc.) shall be as shown on the drawings.

REINFORCED CONCRETE PIPE

- Materials - Reinforced concrete pipe shall have a rubber gasket joint and shall equal or exceed ASTM Specification C-301. An approved equivalent is AWWA Specification C-301.
- Bedding - All reinforced concrete pipe conduits shall be laid in concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and on the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3", or as shown on the drawings.
- 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 for 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

1. Materials

- Cement** - Normal Portland cement shall conform to the latest ASTM Specification C-150.
- Water** - The water used in concrete shall be clean, free from oil, acid, alkali, scales, organic matter or other objectionable substances.
- Sand** - The sand used in concrete shall be clean, hard, strong and durable, and shall be well graded with 100 percent passing a one-quarter inch sieve. Limestone sand shall not be used.
- Coarse Aggregate** - The coarse aggregate shall be clean, hard, strong and durable, and free from clay or dirt. It shall be well graded with a maximum size of one and one-half (1-1/2) inches.
- Reinforcing Steel** - The reinforcing steel shall be deformed bars of intermediate grade billet steel or rail steel conforming to ASTM Specification A-615.

2. Design Mix

The concrete shall be mixed in the following proportions, measured by weight. The water-cement ratio shall be 5/12 to 6/5. Gallons of water per 94 pound bag of cement. The proportion of materials for the trial mix shall be 1:2:3-1/2. The combination of aggregates may be adjusted to produce a plastic and workable mix that will not produce harshness in placing or honeycombing in the structure.

3. Mixing

The concrete ingredients shall be mixed in batch mixers until the mixture is homogeneous and of uniform consistency. The mixing of each batch shall continue for not less than one and one-half minutes after all the ingredients, including the full amount of water, are in the mixer. The minimum mixing time is predicted on proper control of the speed of rotation of the mixer and of the introduction of the materials, including water, into the mixer. Water shall be added prior to, during, and following the mixing operations. Excessive overmixing requiring the addition of water to preserve the required concrete consistency shall not be permitted. Truck mixing will be allowed provided that the use of this method shall cause no violation of any applicable provisions of the specifications given here.

4. Forms

The forms shall have sufficient strength and rigidity to hold the concrete and to withstand the necessary pressure, tamping, and work-tight and constructed so that they can be removed without hammering or prying against the concrete.

5. Reinforcing Steel

All reinforcing material shall be free of dirt, rust, scale, oil, paint or any other coatings. The steel shall be accurately placed and securely tied and blocked into position so that no movement of the steel will occur during placement of concrete.

6. Consolidating

Concrete shall be consolidated with internal type mechanical vibrators. Vibration shall be supplemented by spading and hand tamping as necessary to insure smooth and dense concrete along form surfaces, in corners, and around embedded items.

7. Finishing

Defective concrete, honeycombed areas, voids left by the removal of tie rods, ridges on all concrete surfaces permanently exposed to view or exposed to water on the finished structure, shall be repaired immediately after the removal of forms. All voids shall be reseeded and completely filled with dry-patching mortar.

8. Protection and Curing

Exposed surfaces of concrete shall be protected from the direct rays of the sun for at least the first three (3) days. All concrete shall be kept continuously moist for at least ten (10) days after being placed. Moisture may be applied by spraying or sprinkling as necessary to prevent the concrete from drying. Concrete shall not be exposed to freezing during the curing period. Curing compounds may also be used.

9. Placing Temperature

Concrete may not be placed at temperatures below 37° F with the temperature falling, or 34° with the temperature rising.

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, spoil and borrow areas, and borrow shall be stabilized by seeding, liming, fertilizing and mulching (if required) in accordance with the vegetative treatment specifications or as shown on the accompanying drawings.

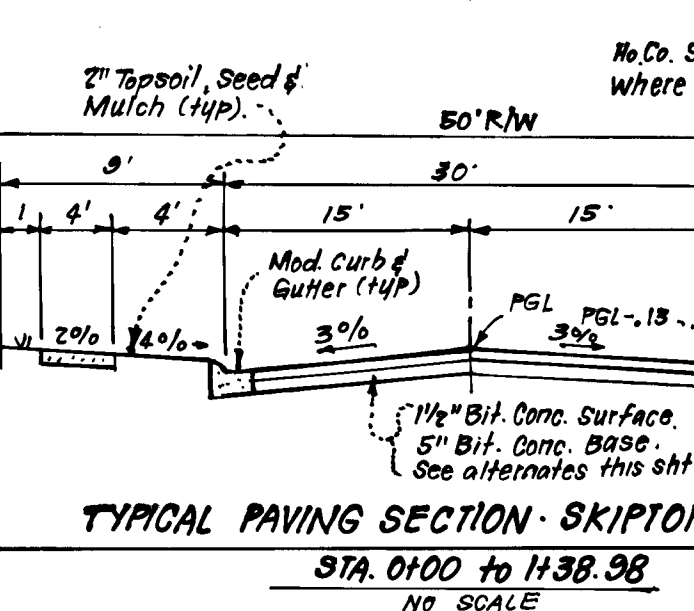
VII. EROSION AND SEDIMENT CONTROL

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

PIPE SCHEDULE

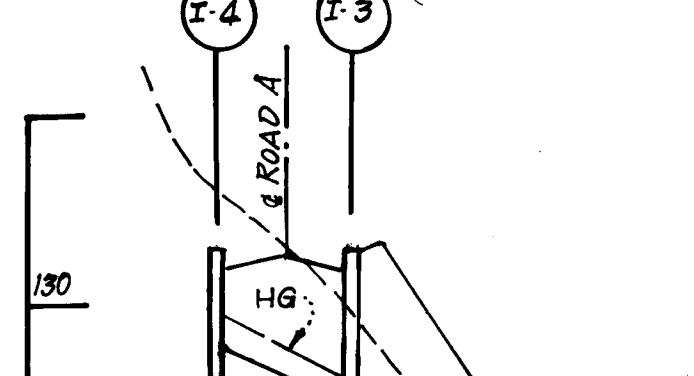
SIZE	TYPE	LENGTH
15"	CMP 16ga	218 LF
15"	RCP CL IV	32 LF
24"	RCP CL IV	142 LF
18"	CMP 16 ga	143 LF

TYPICAL PAVING SECTION - SKIPTON DRIVE



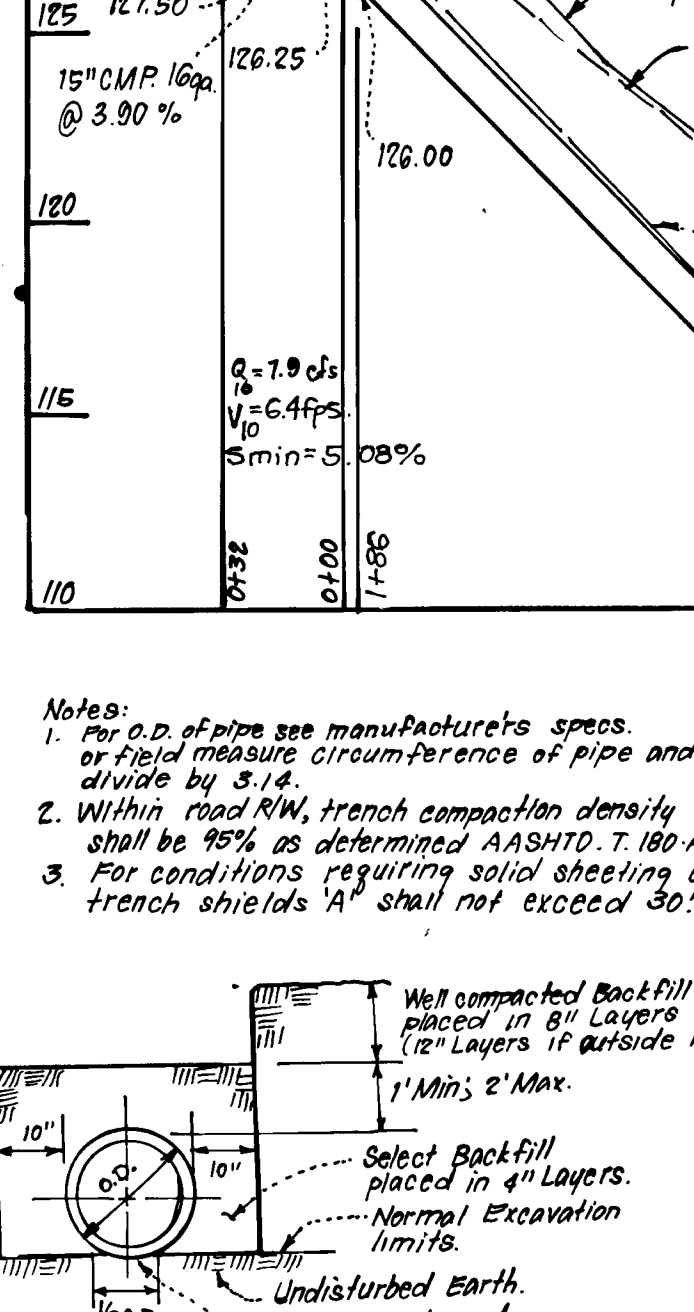
STA. 0100 TO 1138.98 NO SCALE

TRENCH COMPACTION DETAIL



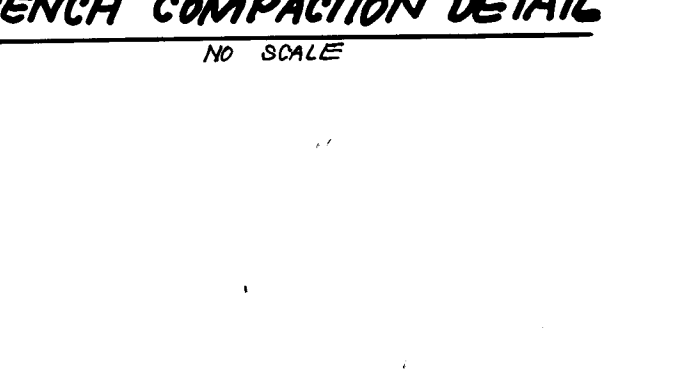
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PROFILE



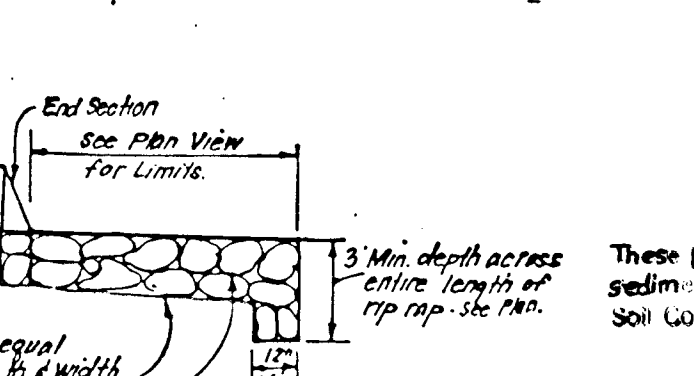
NO SCALE

STONE CHANNEL DETAIL



NO SCALE

LINGROUTED RIPRAP PAVING DETAILS



NO SCALE

STRUCTURE SCHEDULE

NO.	TYPE	INV. IN	INV. OUT	TOP ELEVATION		REMARKS	LOCATION
				UPPER	LOWER		
S-1	Metal End Section	95.17	95.00	112.00		Ho.Co.Std. SD-5.61 18"Ø	See Plan
M-2	Shallow Brick Manhole	107.21	106.71	112.00		" " 6.505 48"Ø	See Plan
I-3	A-10 Inlet	-	127.50	131.49		" " SD 4.02 W=2'6"	inlet Ø=87.23 15.83 Rt
I-4	A-10 Inlet	126.87	126.30	131.49		" " SD 4.02 W=2'6"	" " Lt
S-5	Conc. End Section	122.14	122.00	-		" " SD 5.51 24"Ø	See Plan
S-1A	Conc. End Section	91.0	90.91	-		Ho.Co.Std. 60.5.51 24"Ø	See Plan
I-7	Special Structure	123.0	123.0	128.50		See Detail Sht. 5	
S-8	Conc. End Section	123.05	123.00	-		Ho.Co.Std. SD 5.51 18"Ø	Ø=Ø75 49 Rt
I-9	A-10 Inlet	124.18	123.30	128.40	127.98	" " SD 4.02 W=2'6"	Ø=Ø68 15.83 Rt
I-10	A-5 Inlet w/Inlet	124.5	123.5	128.20	127.98	Ho.Co.Std. SD 4.01 W=2'6"	Ø=Ø68 15.83 Lt
I-2A	Mod. A-5 Inlet	93.0	92.0	98.33		See detail Sht. 5 W=2'6"	See Plan

All inverts to be fully developed.

PROFILE



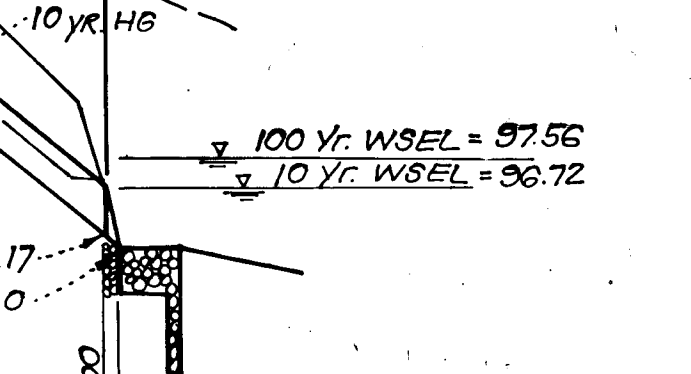
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STONE CHANNEL DETAIL



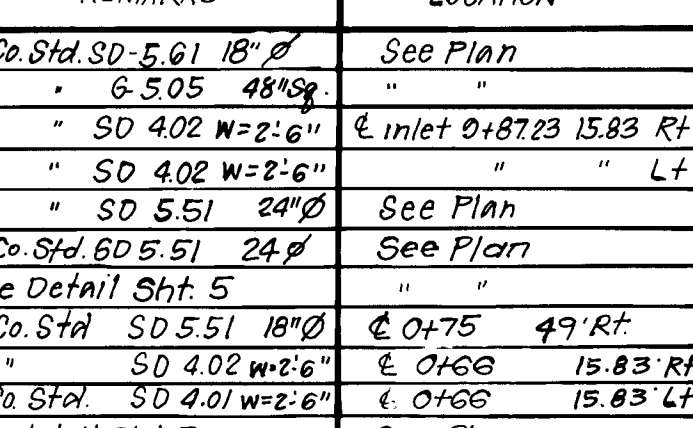
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LINGROUTED RIPRAP PAVING DETAILS



NO SCALE

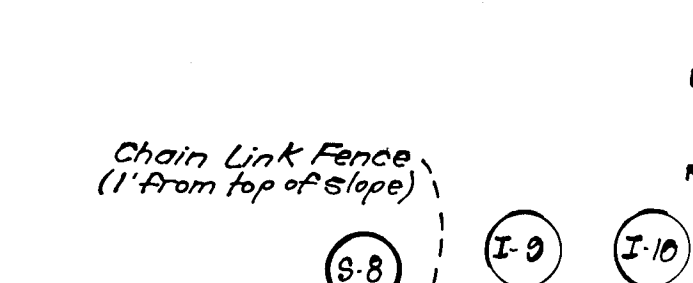
TYPICAL RAVING SECTION - SKIPTON DRIVE



STA. 1138.98 TO 1163.97

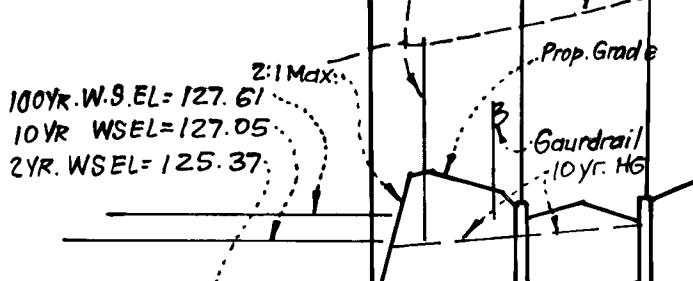
Note: Transition Section from 1138.98 to 1163.98

REVERSE MODIFIED COMBINATION CURB & GUTTER



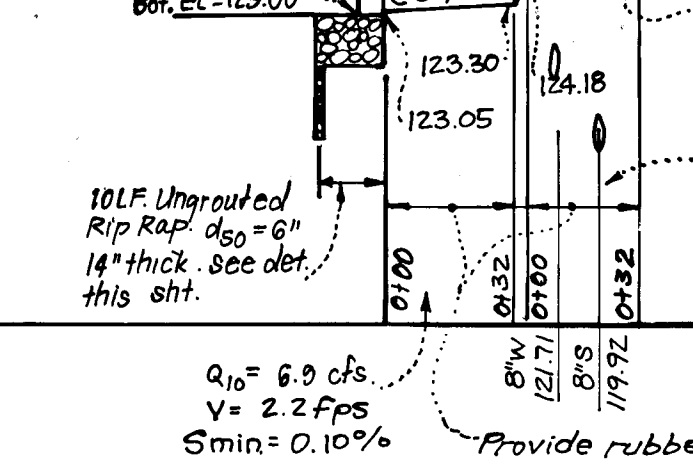
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MODIFIED COMBINATION CURB & GUTTER



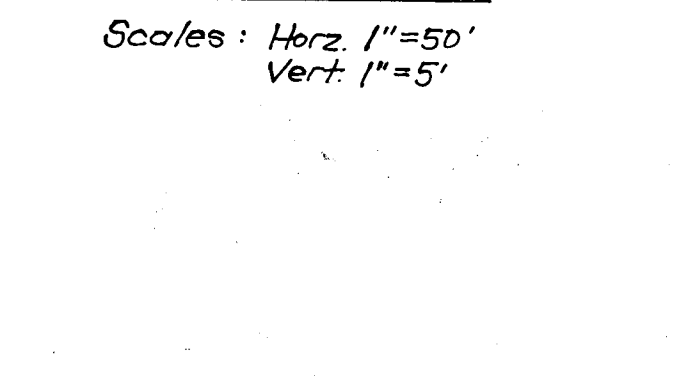
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TYPICAL HALF SECTION



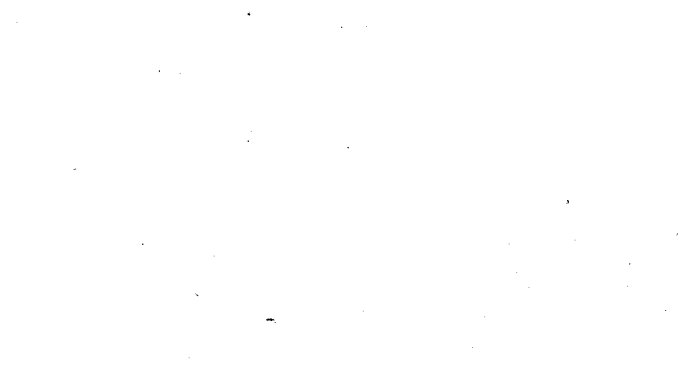
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ALTER ALTERNATE PAVING SECTION FOR PUBLIC ROADS



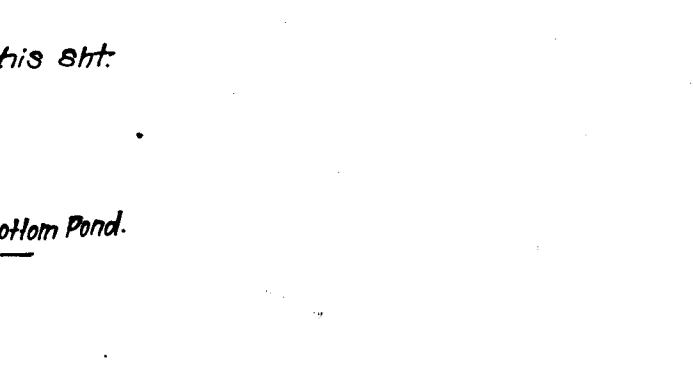
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PROFILE



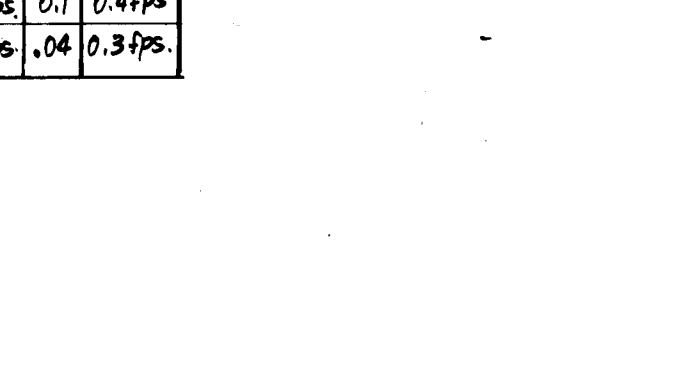
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STONE CHANNEL DETAIL



NO SCALE

LINGROUTED RIPRAP PAVING DETAILS



NO SCALE

REVISIONS

NO.	REVISION	DATE
2	Rev. 24" ASTM C-301 to 24" RCP CL IV	10-31-90
1	Rev. Pipe & Structure Schedule, Profiles & Details	10-23-90

APPROVED

Signature of Engineer: *Howard S. Sackett*
 Title: Chief, Bureau of Engineering
 Date: 12/7/88

APPROVED

Signature of Planner: *James S. Sackett*
 Title: Chief, Division of Community Planning & Land Development
 Date: 12-7-88

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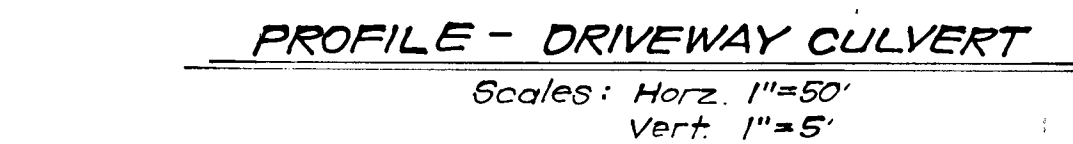
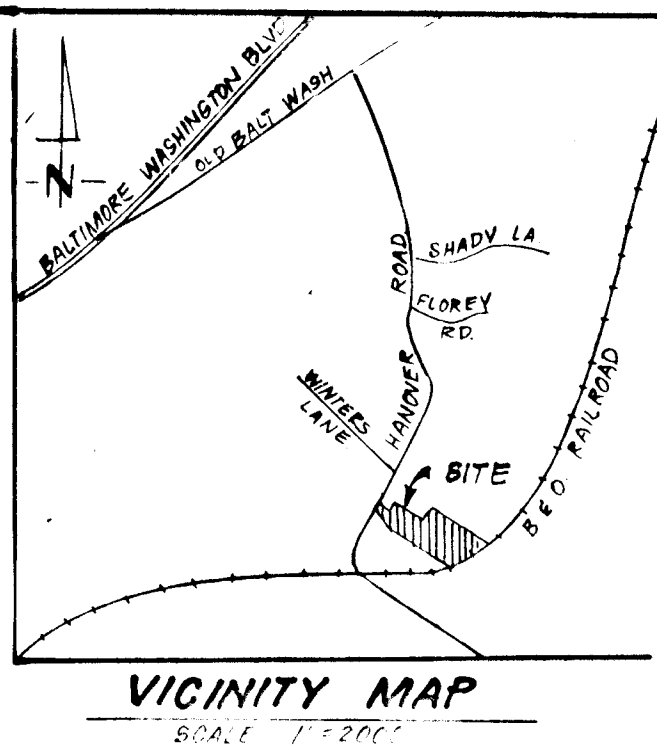
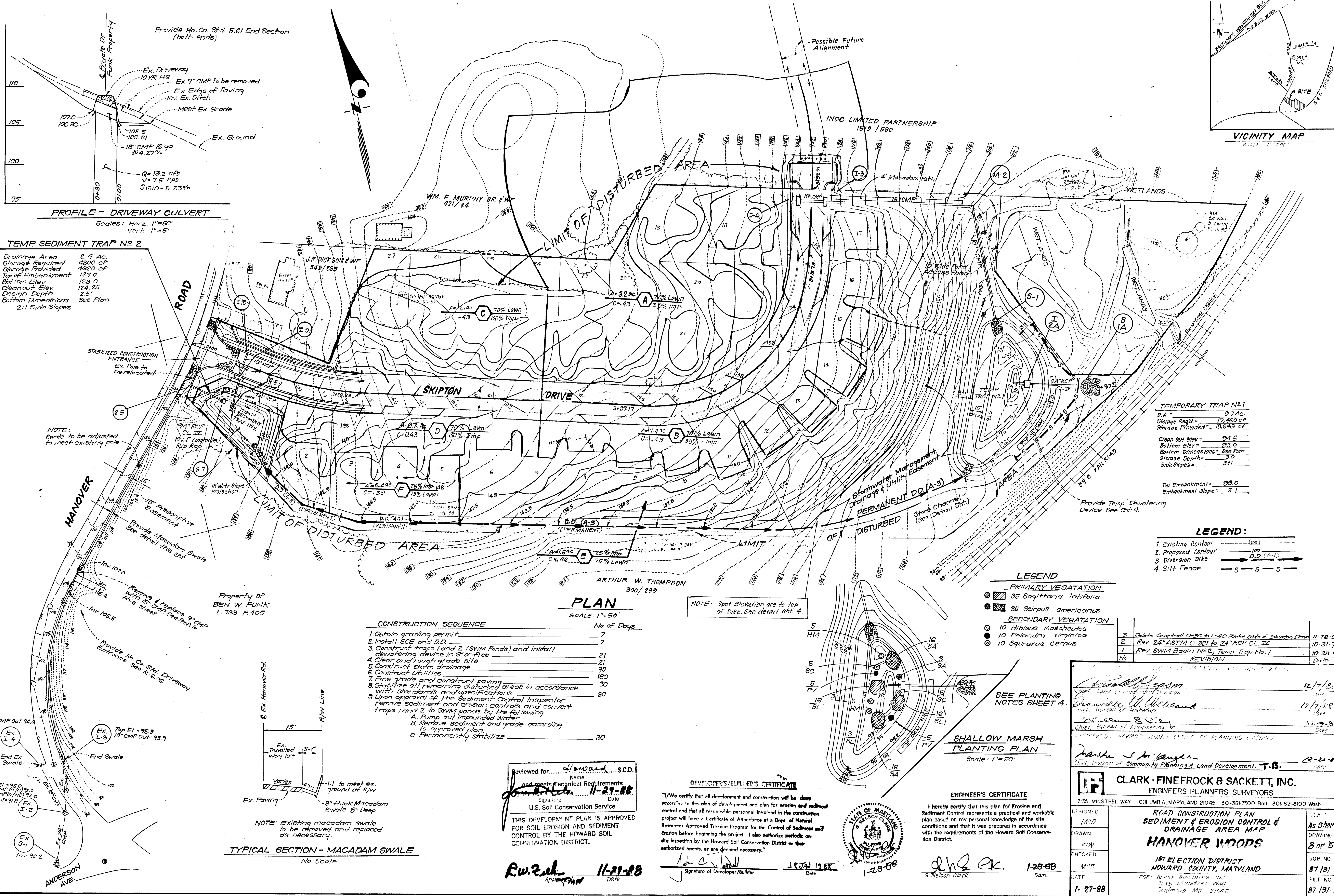
Signature of Engineer: *Howard S. Sackett*
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Signature of Engineer: *Howard S. Sackett*
 Title: Chief, Bureau of Engineering
 Date: 12-7-88



TEMP SEDIMENT TRAP No 2

Drainage Area	2.4 Ac.
Storage Required	4300 CF
Storage Provided	4660 CF
Top of Embankment	127.0
Bottom Elev.	123.0
Cleanout Elev.	124.25
Design Depth	2.5'
Bottom Dimensions	See Plan
Side Slopes	2:1

TEMPORARY TRAP No 1

D.A.	3.7 Ac.
Storage Req'd	17,460 CF
Storage Provided	18,643 CF
Clean Out Elev.	94.5
Bottom Elev.	93.0
Bottom Dimensions	See Plan
Storage Depth	3.0
Side Slopes	3:1
Top Embankment	99.0
Embankment Slope	3:1

LEGEND:

1. Existing Contour	---
2. Proposed Contour	---
3. Diversion Dike	---
4. Silt Fence	---

LEGEND

PRIMARY VEGETATION

- 35 *Sagittaria latifolia*
- 35 *Scirpus americanus*

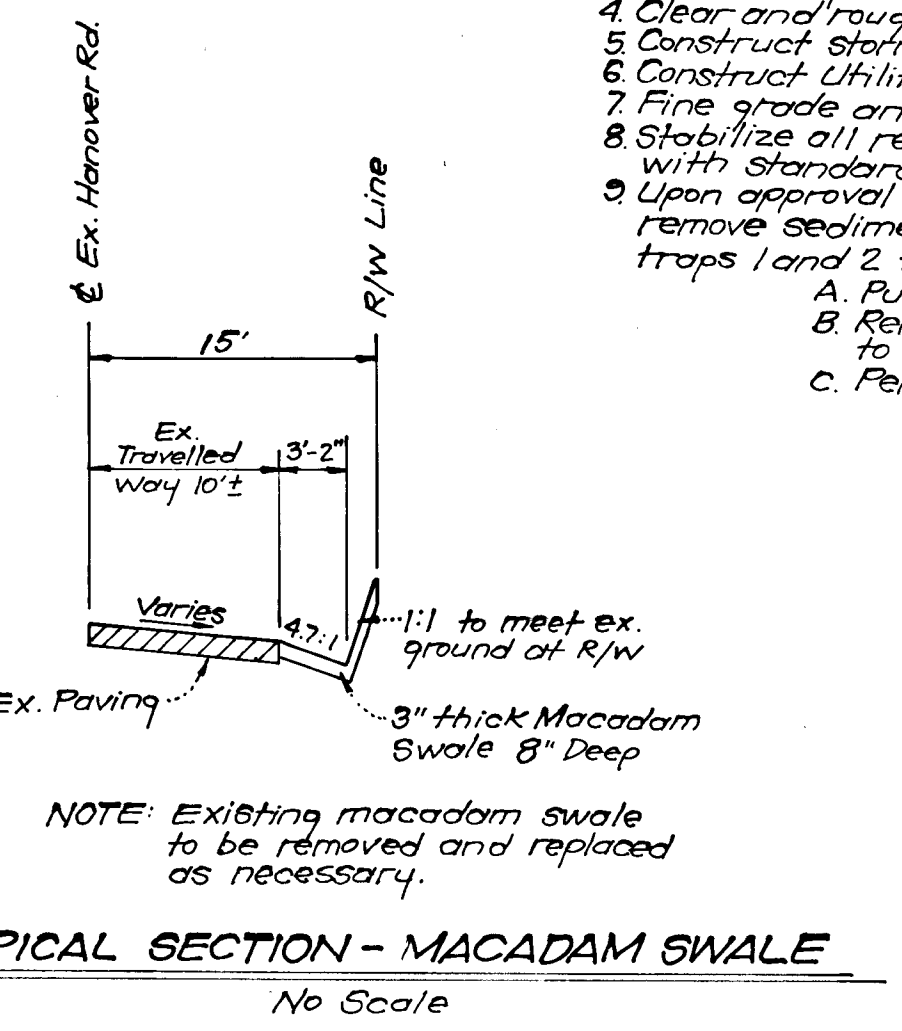
SECONDARY VEGETATION

- 10 *Hibiscus moscheutos*
- 10 *Peltandra virginica*
- 10 *Sagurus cernus*

No.	Revision	Date
1	Delete Guardrail 0+30 to 1+40 Right Side of Supton Drive	11-28-84
2	Rev. 24" ASTM C-361 to 24" RCP CL. III	10-31-90
7	Rev. SWM Basin No. 2, Temp. Trap No. 1	10-23-90

CONSTRUCTION SEQUENCE

No.	Days
1. Obtain grading permit.	7
2. Install SCE and D.D.	7
3. Construct traps 1 and 2 (SWM Ponds) and install dewatering device in 6" surface.	21
4. Clear and rough grade site.	21
5. Construct storm drainage.	90
6. Construct Utilities.	160
7. Fine grade and construct paving.	30
8. Stabilize all remaining disturbed areas in accordance with standards and specifications.	30
9. Upon approval of the Sediment Control Inspector remove sediment and erosion controls and convert traps 1 and 2 to SWM ponds by the following:	
A. Pump out impounded water.	
B. Remove sediment and grade according to approved plan.	
C. Permanently stabilize.	30



Reviewed for S. Howard S.C.D. Name and meets Technical Requirements
[Signature] Date 11-29-88
 U.S. Soil Conservation Service

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

DEVELOPER'S/BUILDER'S CERTIFICATE

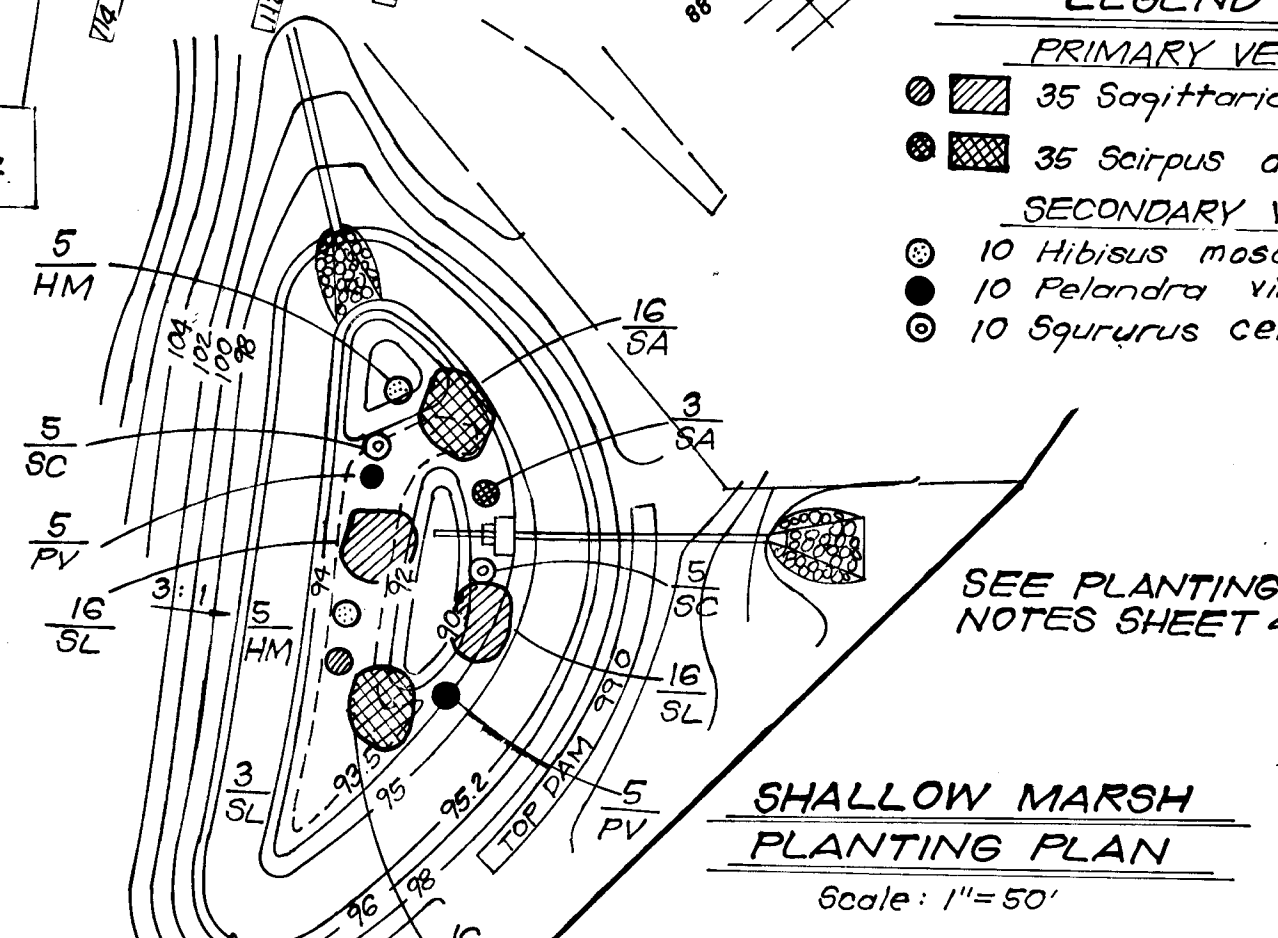
"I/We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Natural Resources Approved Training 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] Date 11-28-88
 Signature of Developer/Builder Date

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] Date 1-28-88
 G. Nelson Clark Date

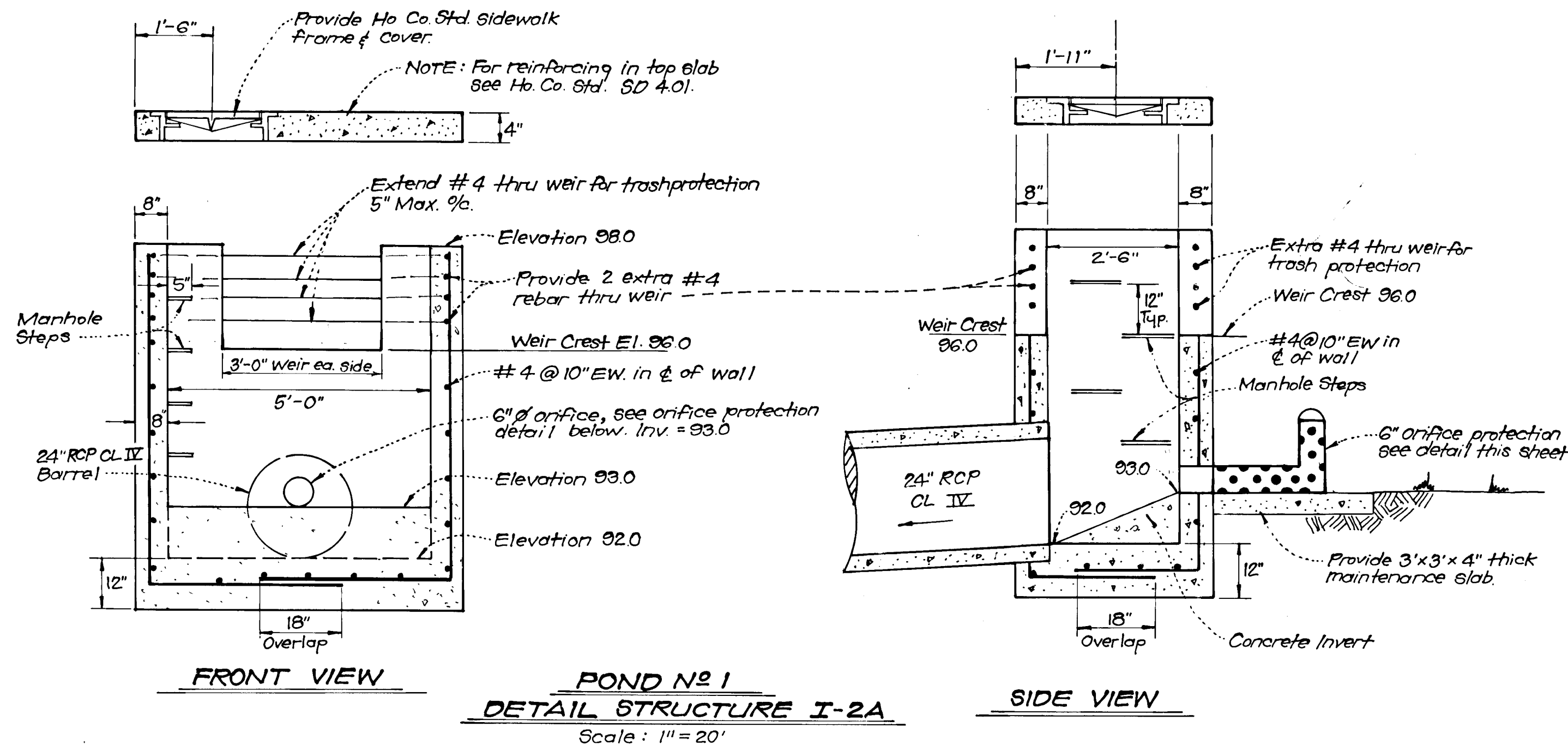


CLARK - FINEFROCK & SACKETT, INC.
 ENGINEERS PLANNERS SURVEYORS
 7135 MINSTREL WAY COLUMBIA, MARYLAND 21045 301-381-7500 Ball 301-621-8100 Wash

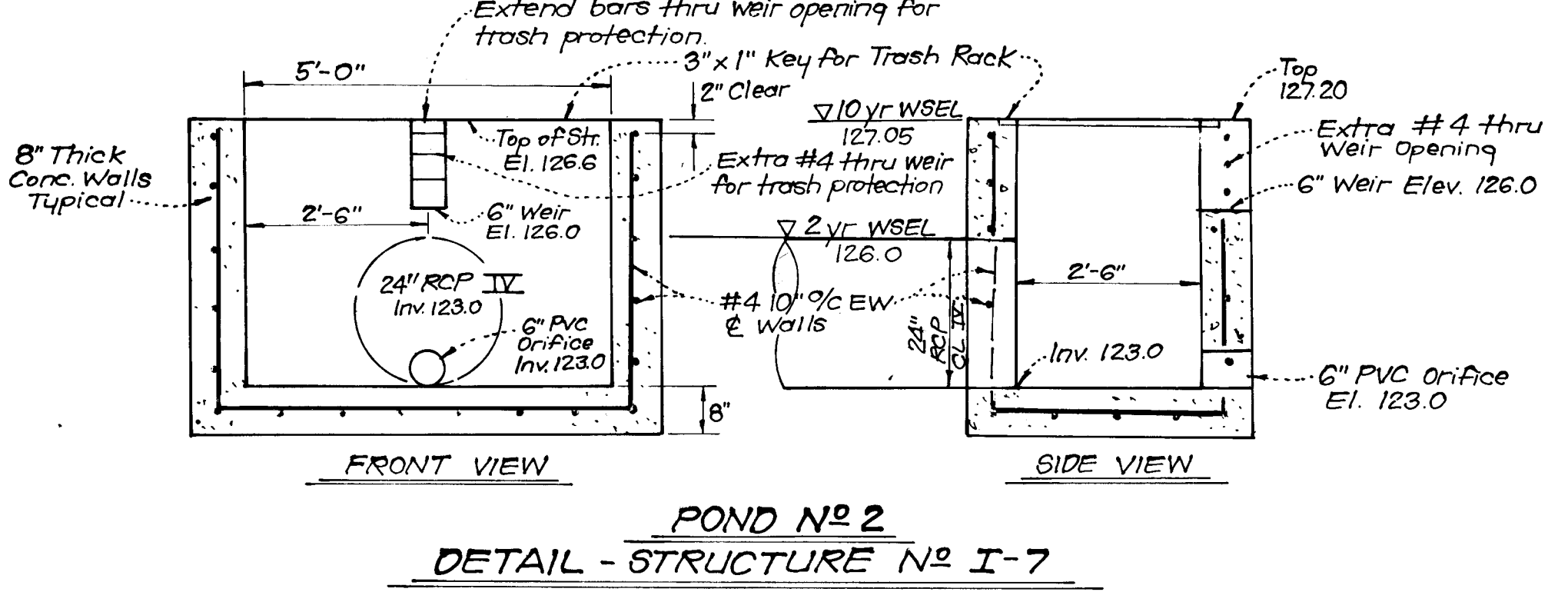
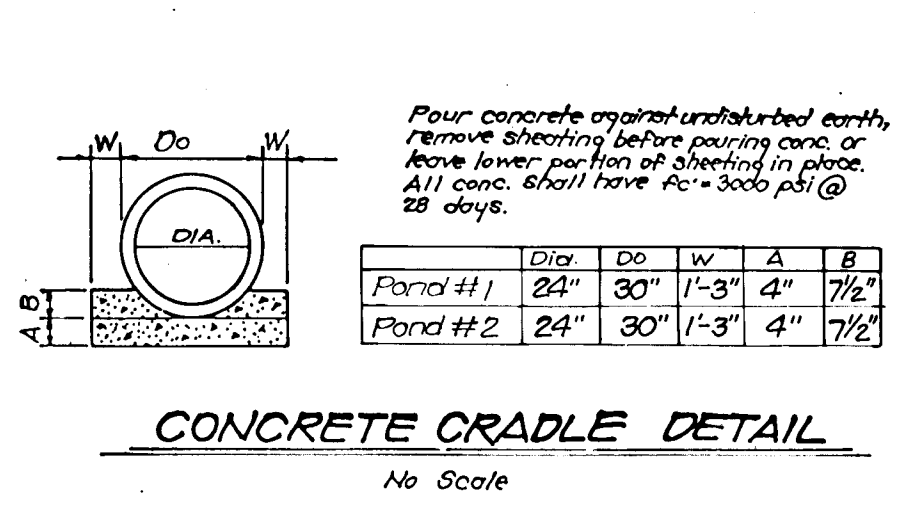
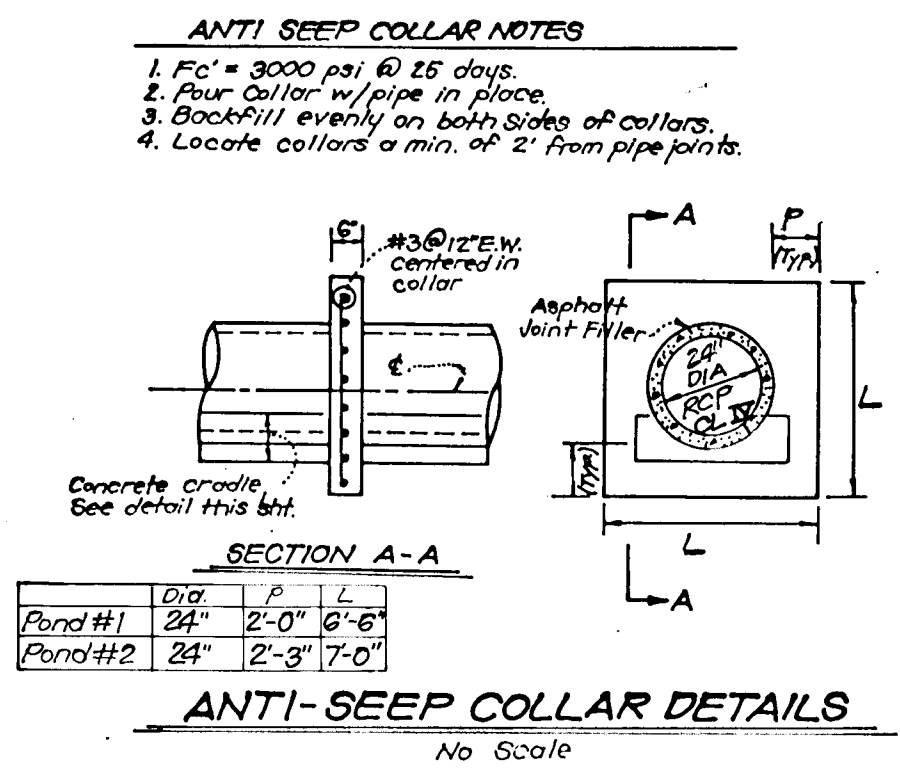
DESIGNED BY M.C.B. SCALE As Shown
 DRAWN BY R.W.N. DRAWING 3 OF 5
 CHECKED BY M.C.B. JOB NO. 87131
 DATE 1-27-88 FILE NO. 87131-D

ROAD CONSTRUCTION PLAN
SEDIMENT & EROSION CONTROL & DRAINAGE AREA MAP
HANOVER WOODS

1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 FOR BLAKE BUILDERS, INC.
 7135 Minstrel Way
 Columbia, Md 21045

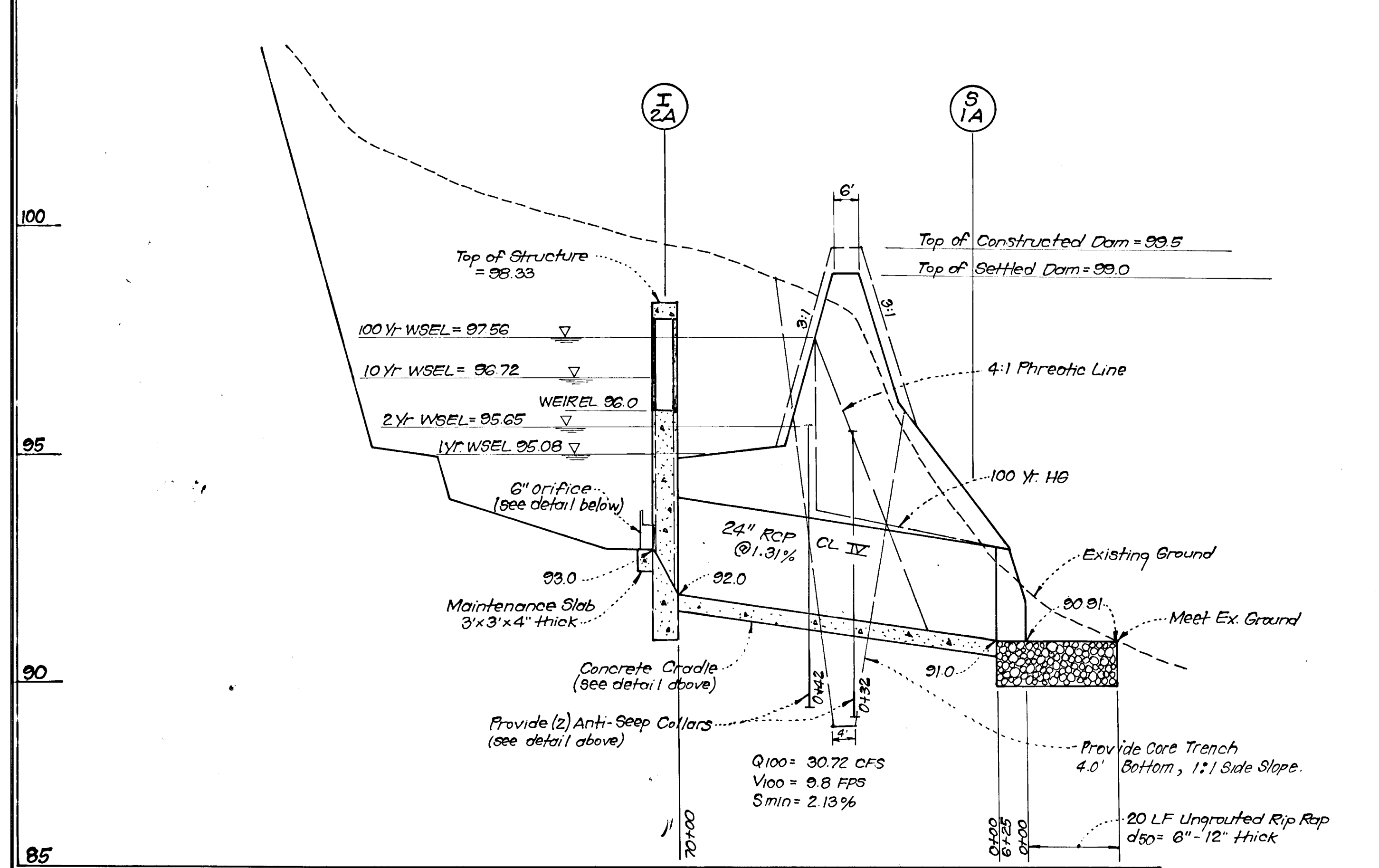


**POND NO 1
DETAIL - STRUCTURE I-2A**
Scale: 1" = 20'

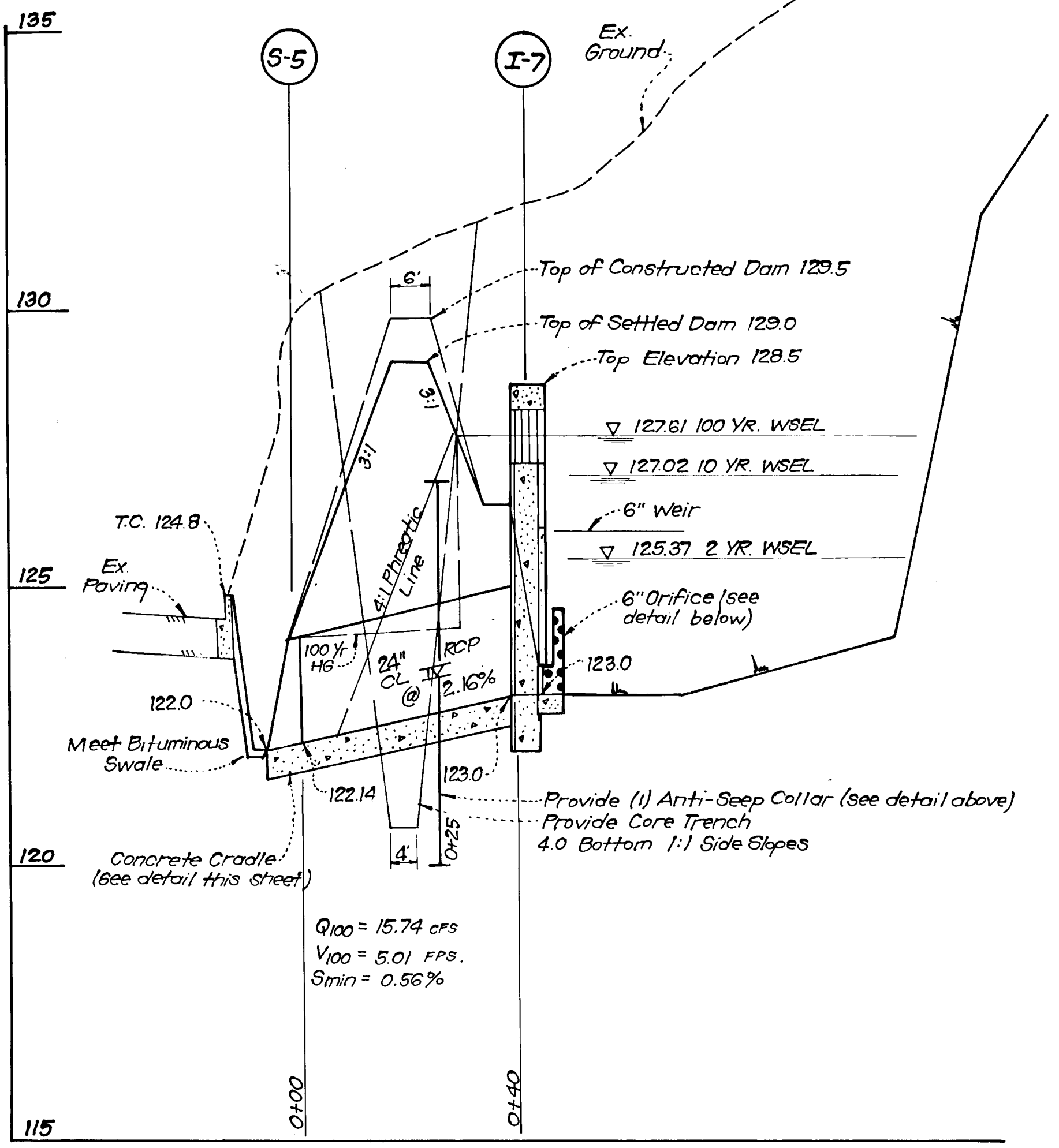


**POND NO 2
DETAIL - STRUCTURE NO I-7**

- STRUCTURE NOTES: (I-7) & (I-2A)**
- fc = 3000 psi @ 28 days SHA Mix Concrete. All concrete for structures to be air entrained.
 - Fy = 60 ksi
 - Do not backfill against structure until it has reached design strength.
 - Chamfer (1"x1") all exposed edges.
 - All exposed steel to be coated with black epoxy coating in accordance w/SHA specs.
 - Structure to be embedded in 6" crushed gravel.
 - Provide manhole steps (epoxy coated) as shown.
 - Reinforcing bars to conform to ASTM A-615 Specs.
 - Reinforcing to be continuous at corners, all lap 1'-4" unless shown otherwise.
 - 24" RCP CL IV shall conform to ASTM C-261 specs.

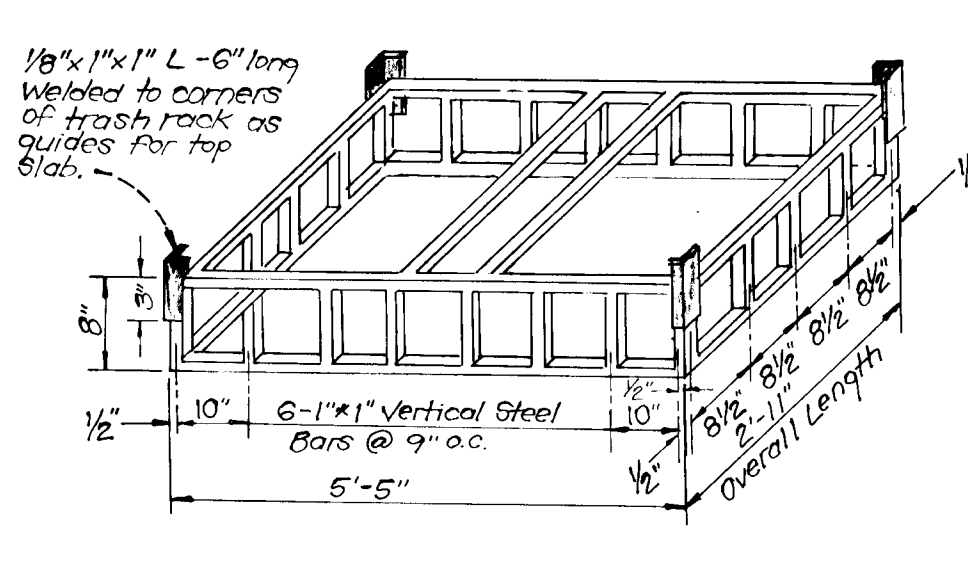


PROFILE THRU SPILLWAY - POND NO 1
Scales: Horiz. 1" = 20'
Vert. 1" = 2'

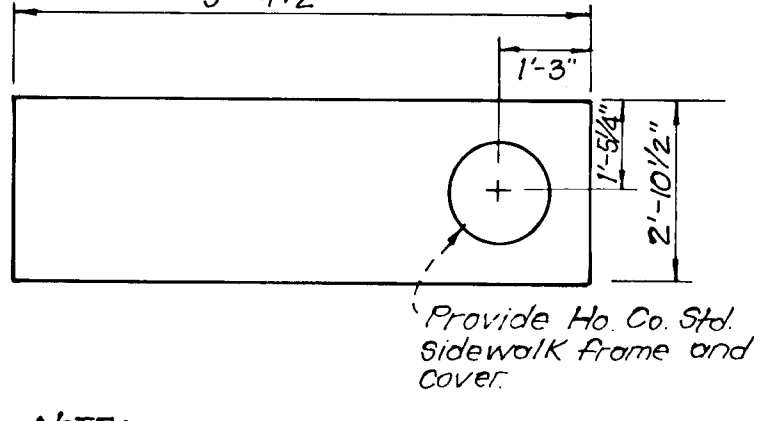


PROFILE THRU SPILLWAY - POND NO 2
Scale: Horiz. 1" = 20'
Vert. 1" = 2'

- NOTES:**
- All steel shall be 1"x1" butt welded to form trash rack.
 - After fabrication the trash rack shall be hot dipped galvanized.

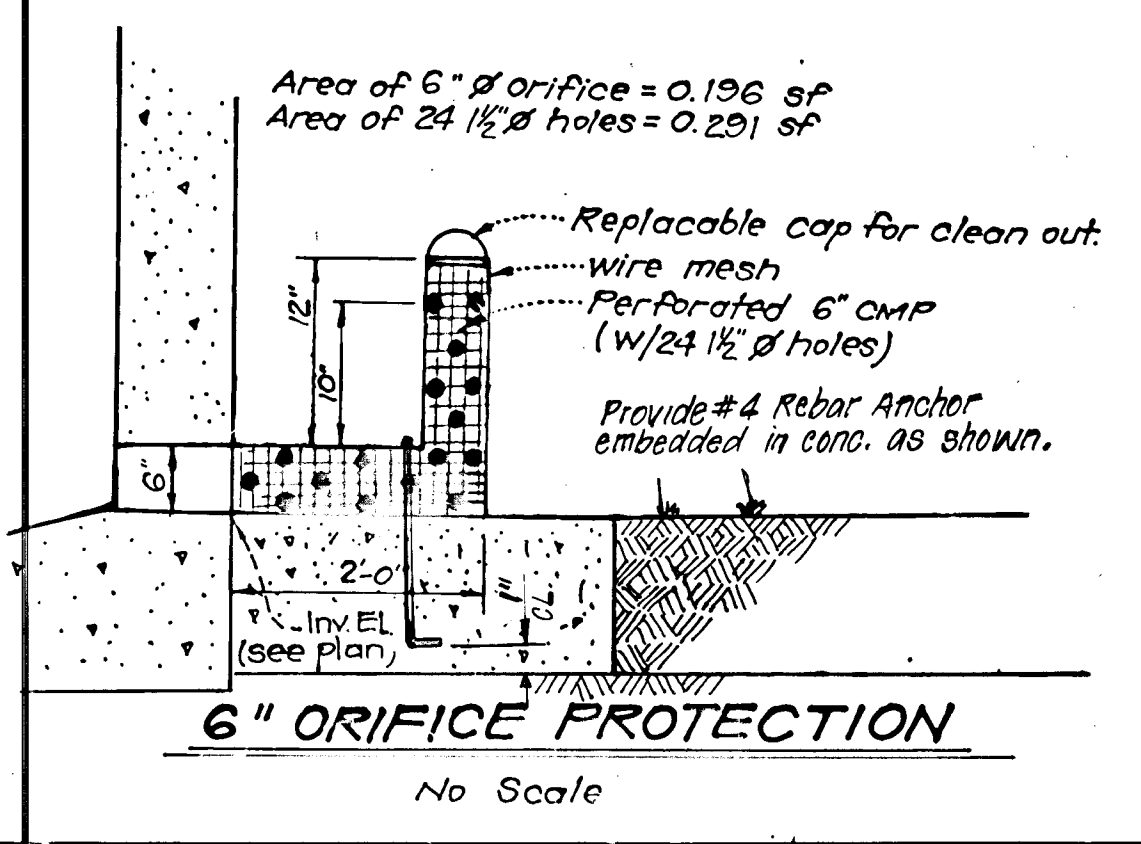


TRASH RACK DETAIL
No Scale



TOP SLAB DETAIL
No Scale

**POND NO 2
DETAIL - STR. NO I-7**



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

Approved: *Robert J. Zick* 10/25/90
Howard S.C.D. (65)

Plan Number **F-88-170**

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.

Approved: *James M. Reilly* 10/25/90
US Soil Conservation Service (65)

Developers Certification:

"We 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 Environment & Planning 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. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

Signature of Developer: *[Signature]* Date: 9-10-90



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 a red lined "as built" of the pond within 30 days of completion."

Signature of Engineer: *[Signature]* Date: 9-10-90

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

Ch. M. [Signature] 10/21/90
CHIEF, LAND DEVELOPMENT DIVISION DATE

Praville W. Weiland
CHIEF, BUREAU OF HIGHWAYS DATE

[Signature] 11-1-90
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING.

[Signature] 11/1/90
CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT DATE

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (301) 381-7500 - BALTO • (301) 621-8100 - WASH.

**ROAD CONSTRUCTION PLAN
STORM DRAIN, STORM WATER MANAGEMENT**

HANOVER WOODS

1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

FOR: **BLAKE BUILDERS, INC.**
PO Box 16
Glenely, Maryland 21737

DESIGNED KIWM	SCALE As Shown
DRAWN BAL	DRAWING 5 OF 5
CHECKED KIWM	JOB NO. 87-131
DATE AUGUST 1990	FILE NO. 87-131D

1395