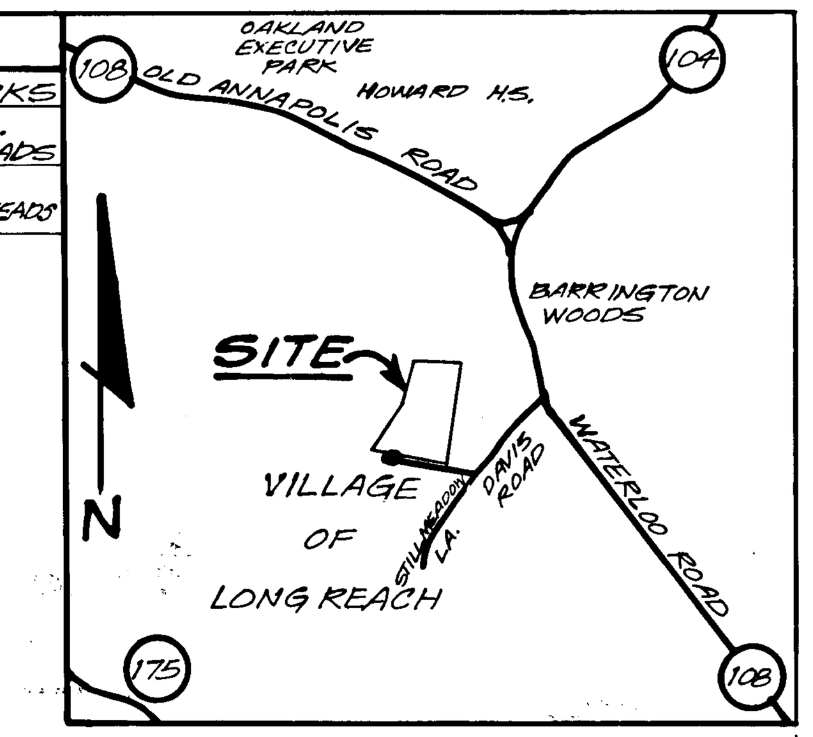
STREET LIGHT SCHEDULE			
LOCATION	LAMP TYPE	MOUNTING	POLE TYPE
ROCKBRIDGE COURT 3+40 25'RT	100 WATT HIGH PRESSURE SODIUM VAPOR	TRADITIONAL (COLONIAL)	14' BLACK FIBERGLASS
DAVIS ROAD 17+20 17'RT	100 WATT HIGH PRESSURE SODIUM VAPOR	TRADITIONAL (COLONIAL)	14' BLACK FIBERGLASS

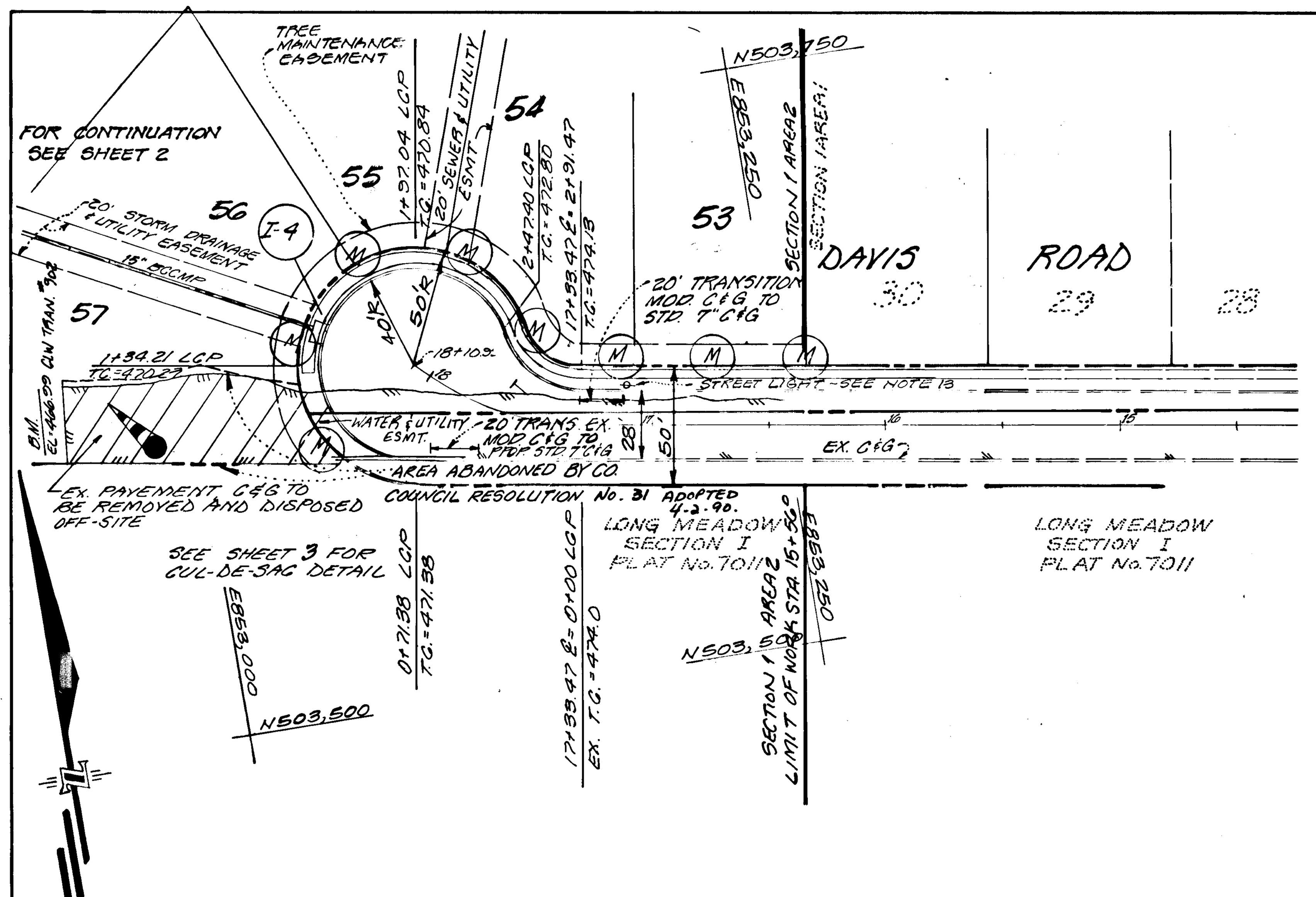
TREE SCHEDULE

KEY	PLANT NAME	SIZE	QUANT.	REMARKS
(M)	ACER RUBBUM SUNSET SUNSET MAPLE	2 1/2" CAL. MIN.	8	B.&B. HEAVY HEADS
(K)	PRUNUS SERRULAZA "KWAZAN" KWAZAN CHERRY	2-2 1/2 CAL. MIN.	27	B&B HEAVY HEADS



TREE PLANTING NOTES:

1. CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND UTILITIES PRIOR TO DIGGING.
2. FINAL LOCATION OF TREES MAY BE ADJUSTED SLIGHTLY TO ACCOMMODATE FIELD CONDITIONS.
3. PLANTING PROCEDURES SHALL COMPLY WITH "LANDSCAPE SPECIFICATIONS FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS."
4. SUBSTITUTIONS TO THE AREA 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 HOWARD COUNTY SUBDIVISION REGULATIONS.



PLAN

SCALE: 1" = 50'

CURB & GUTTER LEGEND

- MOD. COMB. C&G.
- STD. COMB. 7" C&G.

GENERAL NOTES:

1. ALL STORM DRAIN & PAVING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST DETAILS & SPECIFICATIONS OF HOWARD COUNTY & MD. S.H.A.
2. TYPES OF STORM DRAIN STRUCTURES REFER TO THE STANDARD DETAILS OF HOWARD COUNTY & MD. S.H.A.
3. TRENCH COMPACTION FOR STORM DRAINS, WITHIN ROAD OR STREET RIGHT-OF-WAY LIMTS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOL. IV (CLASS "C" TRENCH BEDDING TO BE USED FOR ALL STORM DRAIN, UNLESS SHOWN OTHER WISE, SEE DETAIL SHT.).
4. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS, BY HAND, AT ALL UTILITY CROSSINGS, WELL IN ADVANCE OF CONSTRUCTION.
5. ALL UTILITY COMPANIES SHALL BE NOTIFIED 24 HRS. IN ADVANCE OF CONSTRUCTION.
6. ALL TRAFFIC CONTROL DEVICES, PARKING & SIGNING TO BE DONE IN ACCORDANCE WITH THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" 1988 EDITION.
7. SAG & CREST VERTICAL CURVES WERE DESIGNED IN ACCORDANCE WITH HOWARD CO. DESIGN MANUAL VOL. III
8. PROVIDE CONCRETE SIDEWALK RAMPS, HOWARD CO. STD. TYPE "A," R-4.01 WHERE SHOWN IN PLAN.
9. DESIGN SPEED : SEE CHART SHT 3 .
10. ZONING : R-12
11. CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION/SURVEY DIVISION 24 HRS. BEFORE COMMENCING WORK AT 792-7272.
12. FOR TREE SCHEDULE SEE SHT. 1
13. STREET LIGHTS SHALL BE PROVIDED AT THE LOCATIONS SHOWN IN THE SCHEDULE ON SHT. 1 & IN ACCORDANCE WITH VOL. III OF THE HOWARD CO. DESIGN MANUAL.
14. ALL GRADES SHOWN AS EXISTING AS PER GP-89-13A.
15. MASS GRADING OF SITE AND GRADING WITHIN 25' WETLAND BUFFER ALLOWED BY W.P. 89-178.
16. HOWARD COUNTY BENCHMARKS: #2743011 AT THE INTERSECTION OF ROUTES 108 & 104. #2743006 AT THE INTERSECTION OF ROUTE 108 & DAVIS RD.

C.K. Gutschick

APPROVED: DEPARTMENT OF PUBLIC WORKS

[signature]	9/25/90
CHIEF, LAND DEVELOPMENT DIVISION	DATE
Granville W. Wehland	9/5/90
CHIEF, BUREAU OF HIGHWAYS	DATE
[signature]	9.26.90
CHIEF, BUREAU OF ENGINEERING	DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING.

[signature]	9/28/90
CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT	DATE

GLW GUTSCHICK LITTLE & WEBER, P.A.

ENGINEERS, PLANNERS, SURVEYORS

3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866

TEL.: (301) 421-4024

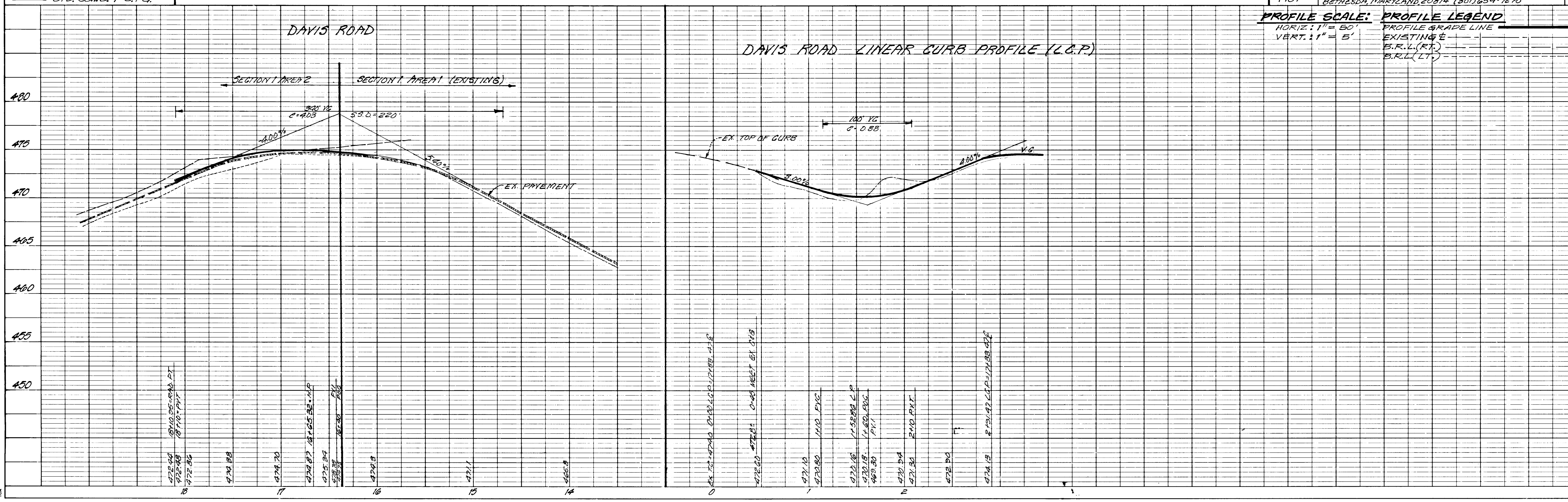
DESIGNED	ROAD CONSTRUCTION PLANS	SCALE
ASC	DAVIS ROAD	AS SHOWN
DRAWN	LONGRIDGE KNOLLS (FORMERLY "ROUND TABLE FARMS")	DRAWING
LH	SECTION ONE AREA TWO	1 OF 6
CHECKED	6th ELECTION DISTRICT	
C.K.G.	HOWARD COUNTY, MARYLAND	
DATE	DEVELOPER & OWNER:	JOB NO.
DEC. 1989	PORTEN-SULLIVAN CORP. 3 BETHESDA METRO CENTER SUITE 900 BETHESDA, MARYLAND 20814 (301) 654-7270	87-052

PROFILE SCALE:

HORIZ: 1" = 50'
VERT.: 1" = 5'

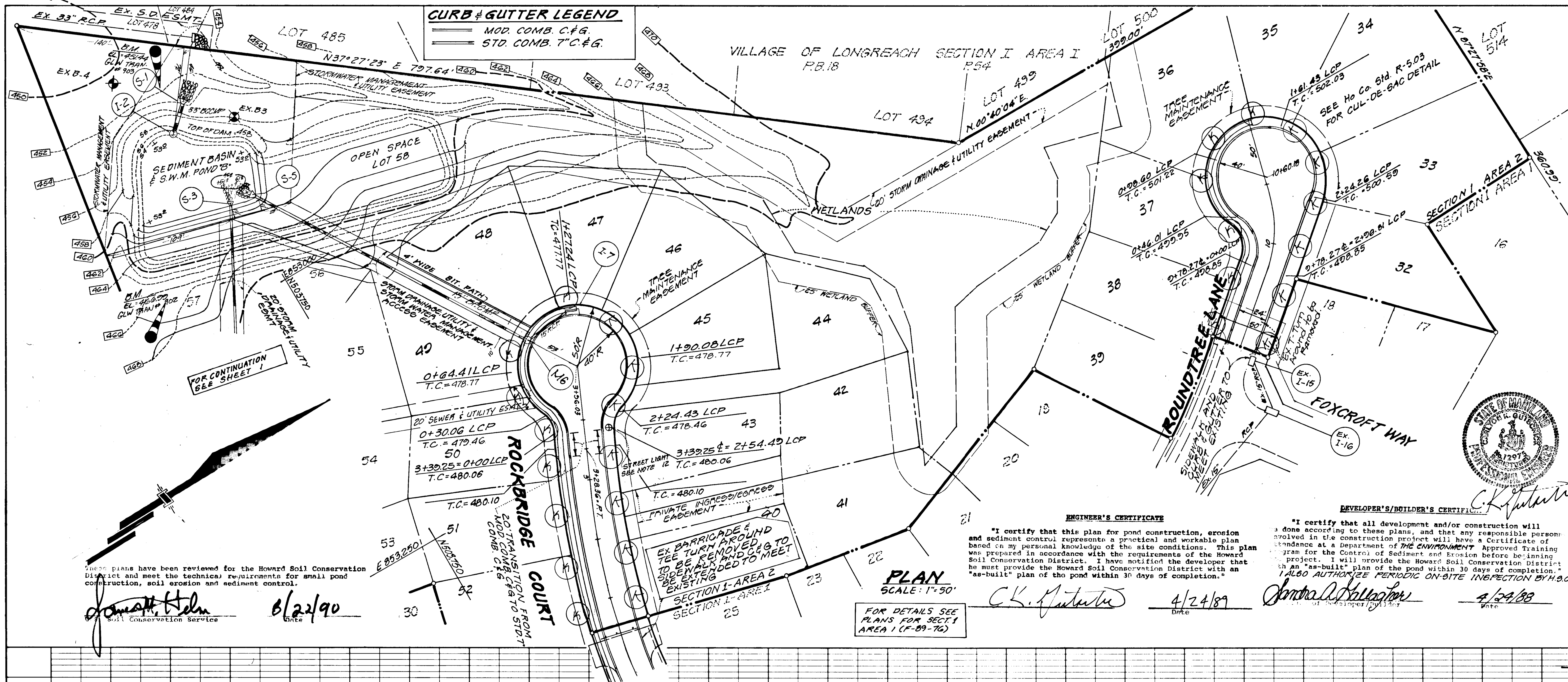
PROFILE LEGEND

- PROFILE GRADE LINE
- EXISTING ℄
- B.R.L. (RT.)
- B.R.L. (LT.)



1596

F-89-124



℄ HORIZONTAL CURVE DATA - ROCKBRIDGE COURT

P.C.= 1+25.47 TO P.T.= 3+28.36
R = 750.00'
L = 202.89'
Δ = 15°00'00"
CHD = N.72°11'25"W 202.32'
T = 98.74'

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.

U.S. Soil Conservation Service — Date 8/22/90

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 an "as-built" plan of the pond within 30 days of completion."

Date 4/24/89

DEVELOPER'S/BUILDER'S CERTIFICATE

"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 THE ENVIRONMENT 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 INSPECTION BY H.S.C.D.

Signature of Developer/Builder — Date 4/24/88

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

Howard Soil Conservation District — Date 8/22/90

APPROVED: DEPARTMENENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 9/25/90

CHIEF, BUREAU OF HIGHWAYS — DATE 9/5/90

CHIEF, BUREAU OF ENGINEERING — DATE 9-26-90

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE 9/28/90

GLW GUTSCHICK LITTLE & WEBER, P.A.

ENGINEERS, PLANNERS, SURVEYORS
3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866
TEL.: (301) 421-4024

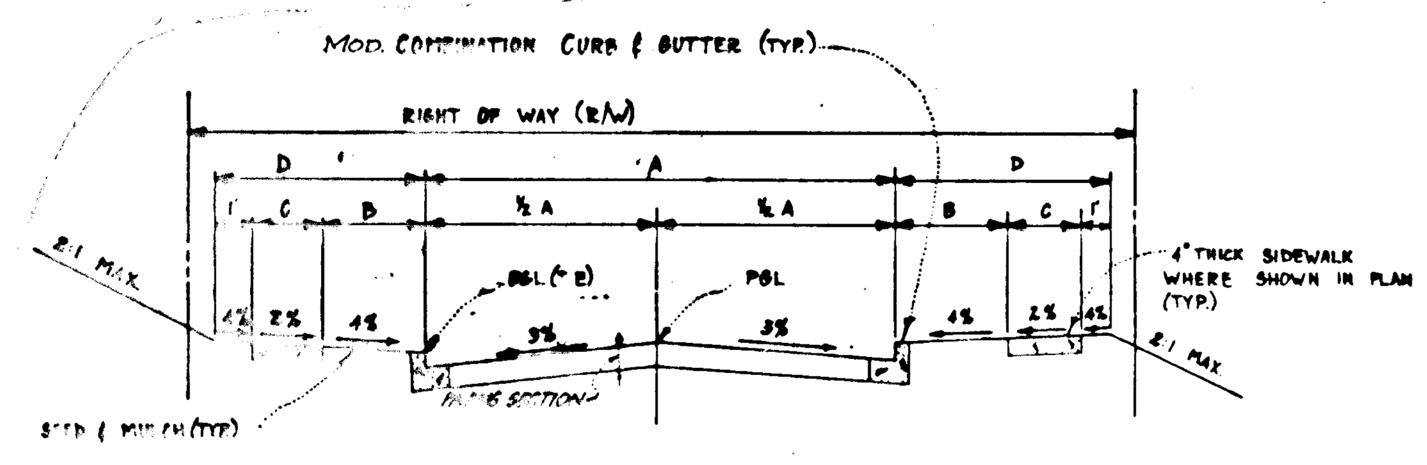
DESIGNED A.S.C.	ROAD CONSTRUCTION PLANS	SCALE AS SHOWN
DRAWN SOLID.	ROCKBRIDGE COURT & ROUNDTREE LANE **LONGRIDGE KNOLLS** (FORMERLY "ROUND TABLE FARM") SECTION ONE AREA TWO 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	DRAWING 2 OF 6
CHECKED		
DATE DEC. 1989	DEVELOPER: PORTEN-SULLIVAN CORP. 3 BETHESDA METRO CENTER SUITE 900 BETHESDA, MARYLAND 20814 (301) 654-7270	JOB NO. 87-052

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

PROFILE LEGEND: PROFILE GRADE LINE; EXISTING ℄; B.R.L. (RT.); B.R.L. (LT.)

1596

F-89-124

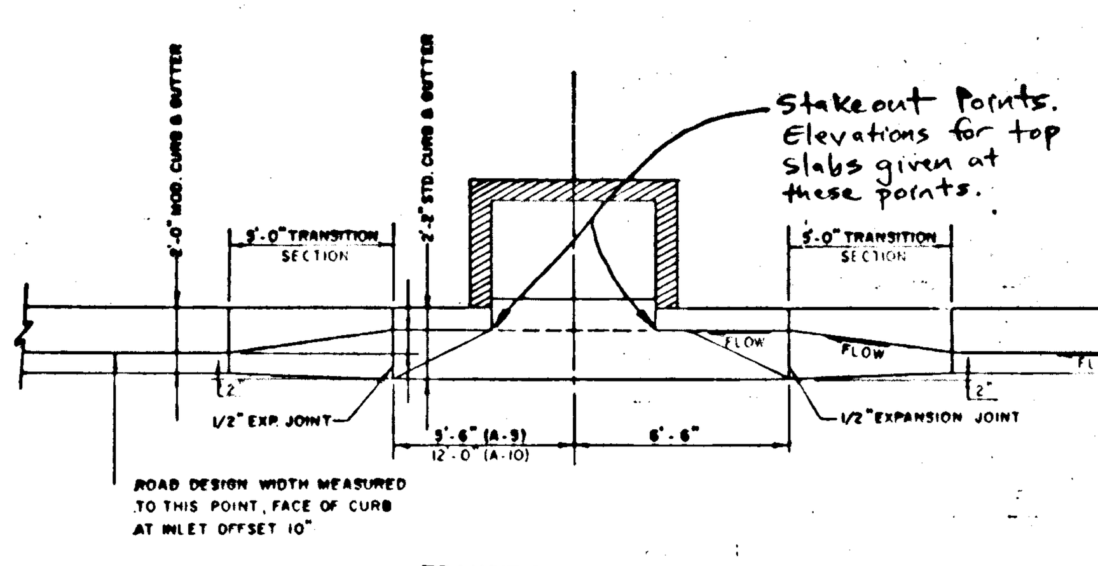


TYPICAL PAVING SECTION - PUBLIC ROADS

NO SCALE

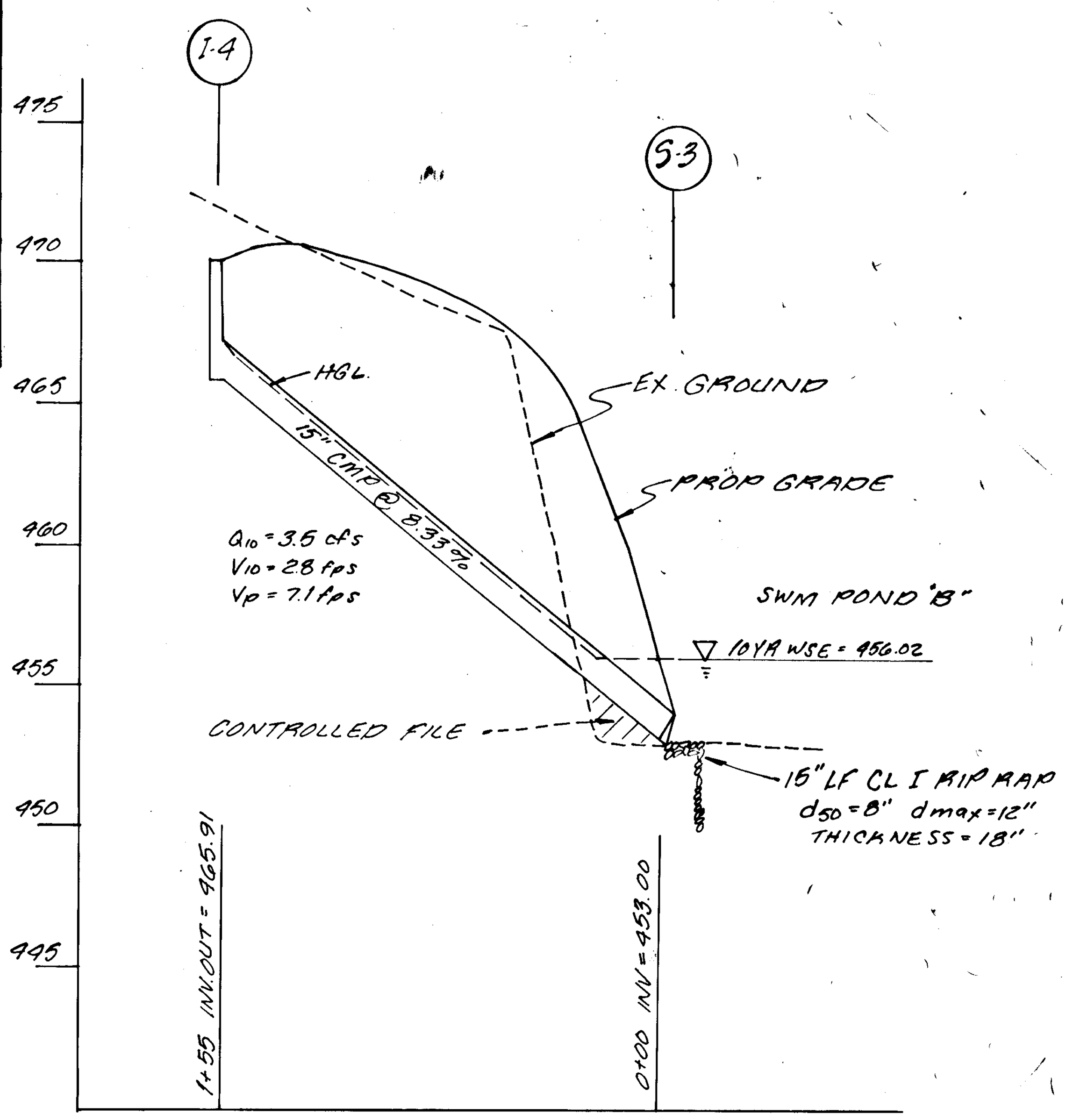
* SEE ALTERNATE PAVING SECTIONS THIS SHEET

STREET NAME & STATION	TYPE OF TRAFFIC	A	B	C	D	R/W	ZONING	E	DESIGN SPEED
DAVIS LANE 1+76.83 TO 18+10.95	CUL-DE-SAC	28'	4'	4'	9'	50'	R-12	0.10	25 MPH
ROUNDTREE LANE 8+53.33 to 10+57.54	CUL-DE-SAC	24'	—	—	10'	50'	R-12	0.04	25MPH
ROCKBRIDGE COURT 0+00 to 3+96.03	CUL-DE-SAC	28'	4'	4'	9'	50'	R-12	0.10	25MPH

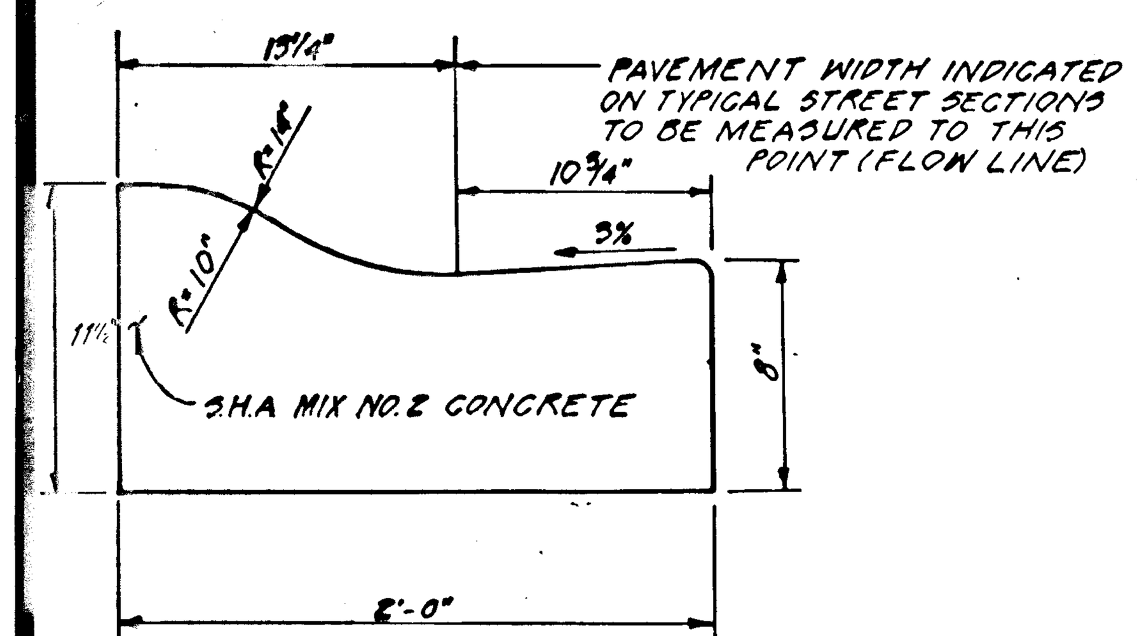


TRANSITION CURB SECTION AT 'A' TYPE INLETS

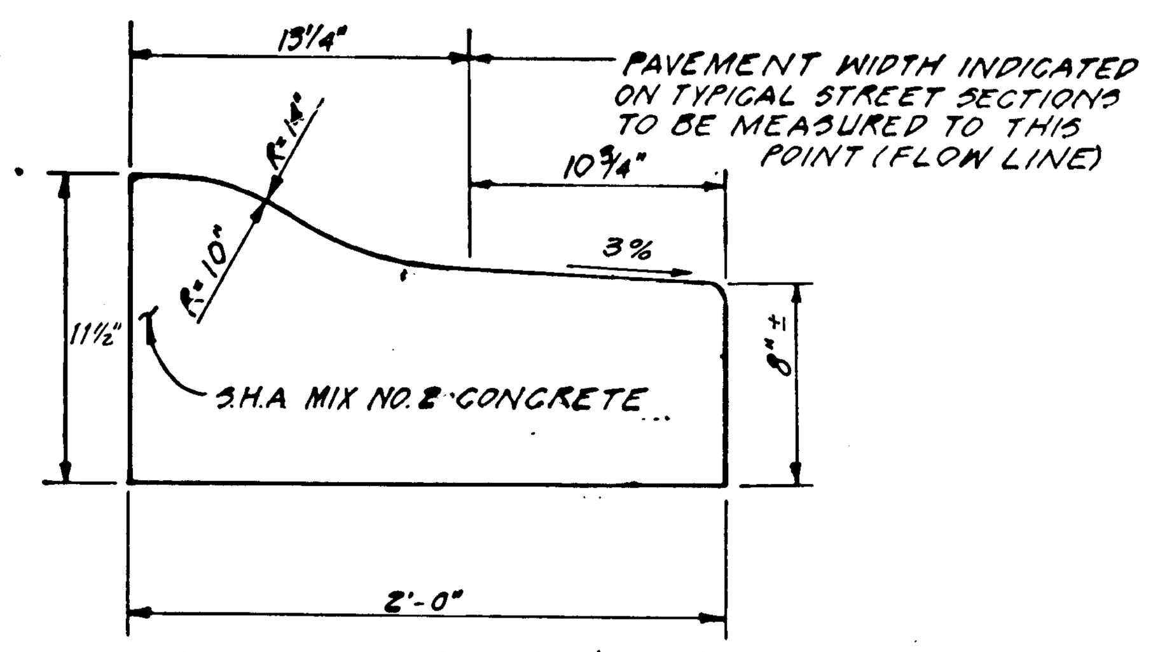
STRUCTURE SCHEDULE						
No.	TYPE	Inv. IN	Inv. OUT	TOP ELEVATION UPPER / LOWER	REMARKS	LOCATION
S-1	ENDWALL	450.50	—	—	HO. CO. STD. 33" ø SD 5.21	SEE PLAN
I-2	POND OUTLET	—	—	—	SEE DET. SHT. 5	
S-3	END SECTION	455.67	—	—	HO. CO. STD. SD. 5.61	
I-4	A-10 INLET	—	469.91	470.16	HO. CO. STD. S.D. 4.02	
S-5	END SECTION	—	—	—	Ho. Co. STD. SD. 5.61	
M-6	MANHOLE	473.14	472.64	478.42	HO. CO. STD. G5.11	
I-7	A-10 INLET	—	473.52	477.77	HO. CO. STD. SD. 4.02	



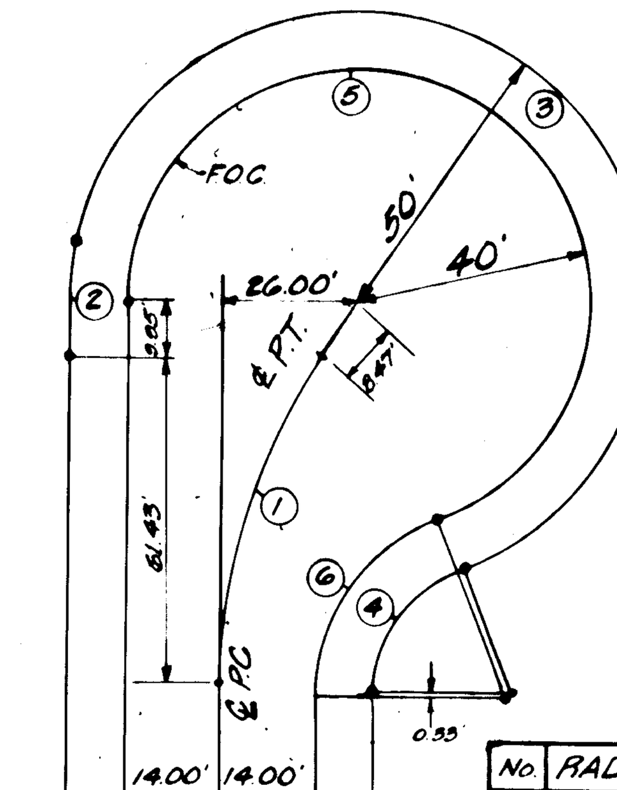
PIPE SCHEDULE		
SIZE	TYPE	LENGTH
15"	16 ga. BCCMP	117 L.F.
15"	R.C.P. CL V	38 L.F.
33"	16GA BCCMP	21 LF



MODIFIED COMB. CURB & GUTTER



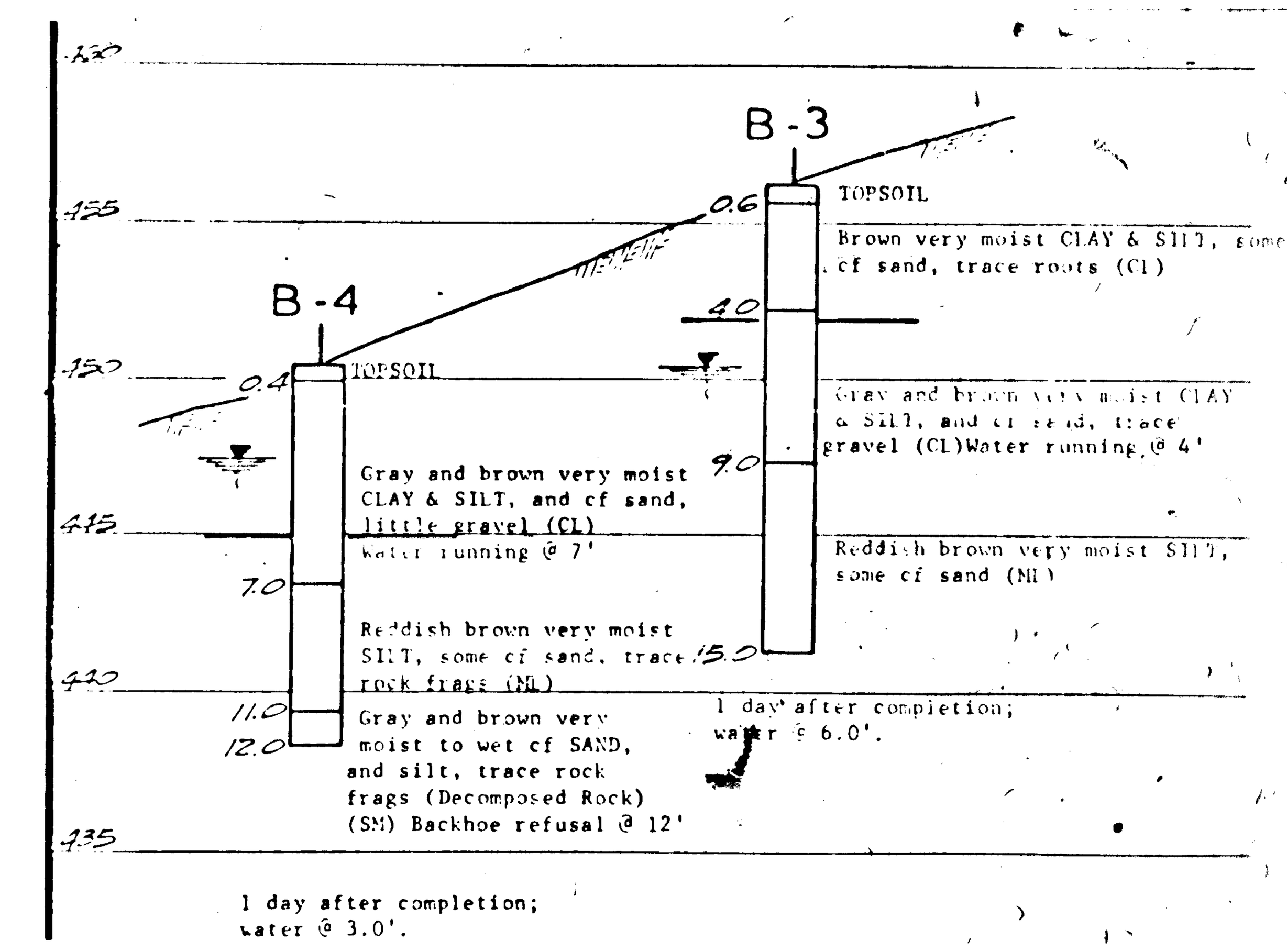
REVERSE MODIFIED COMB. CURB & GUTTER



CURVE DATA					
No.	RADIUS	DELTA	ARC	TANGENT	CHORD
1	109.610	36°04'15"	69.006	35.689	67.872
2	100.00	11°28'50"	20.037	10.052	20.004
3	50.00	239°51'25"	209.315	86.853	86.665
4	25.00	71°20'15"	31.127	17.944	29.155
5	39.999	252°08'28"	176.021	54.911	64.661
6	35.000	72°08'28"	44.068	25.495	41.215

OFFSET CUL-DE-SAC DETAIL

NO SCALE 28' APPROACH



BITUMINOUS CONC. SURFACE	1 1/2"
BITUMINOUS CONC. BASE	2 1/2"
PRIME 8" CRUSHER RUN BASE (PLACED IN 2 COURSES) OR 6" DENSE GRADED STABILIZED AGGREGATE BASE COURSE	8" or 6"

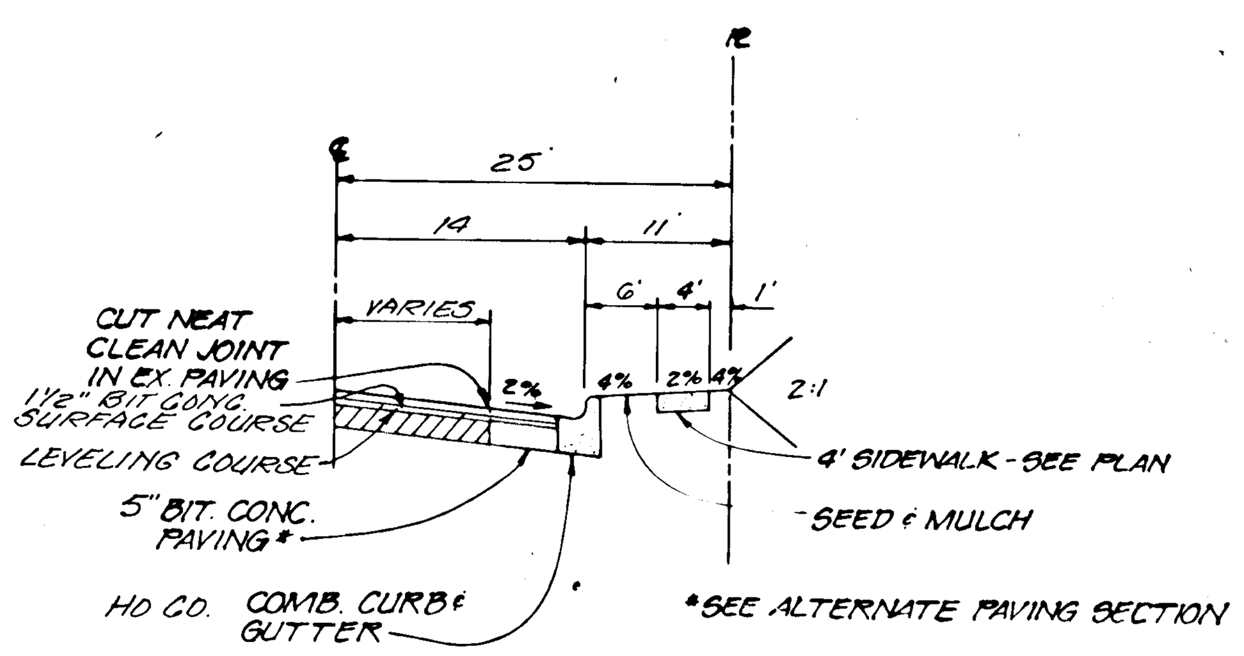
ALTERNATE PAVING SECTION (P-2) FOR PUBLIC ROADS

NO SCALE

BITUMINOUS CONCRETE	1 1/2"
BITUMINOUS CONCRETE BASE	5"

P-2 PAVING SECTION FOR PUBLIC ROADS

NO SCALE



TYPICAL HALF SECTION

DAVIS ROAD

NO SCALE

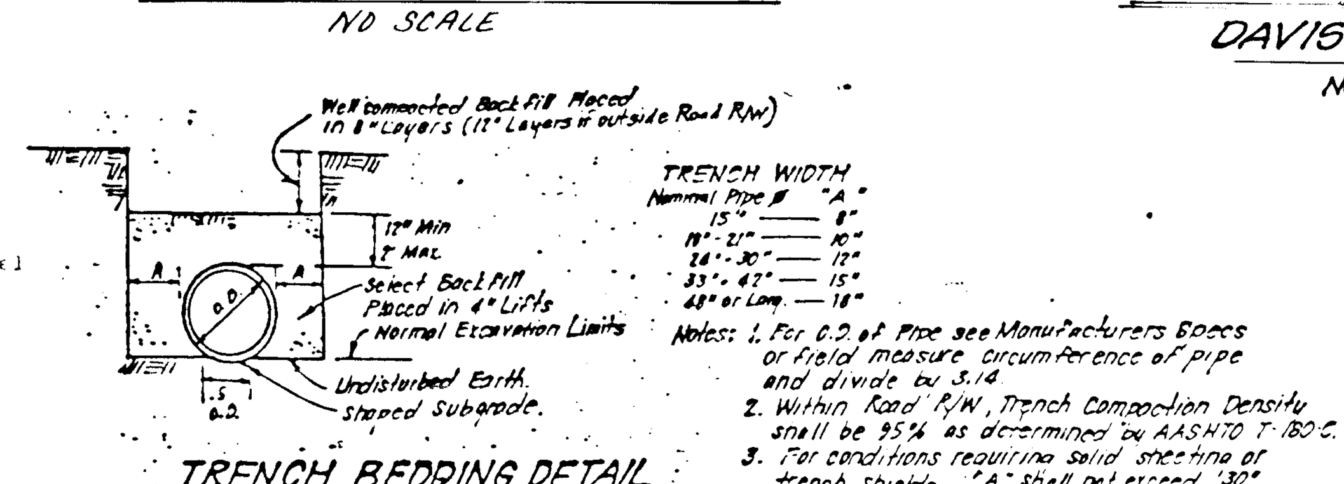
DEVELOPER'S/BUILDER'S CERTIFICATE

"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 the Environment 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 INSPECTION BY H.S.C.D.

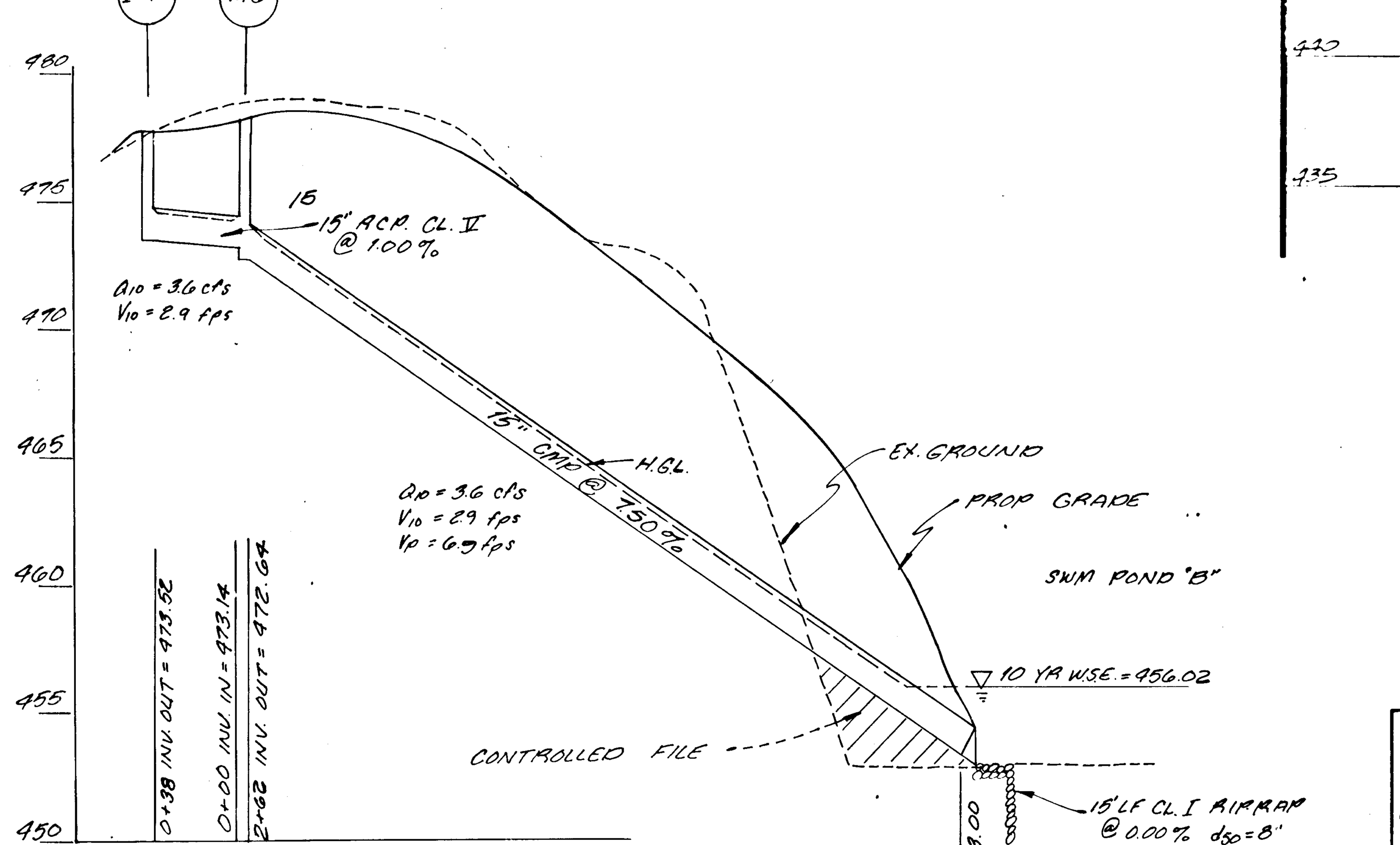
Sandra A. Gallagher 11/23/88

Signature of Developer Date



TRENCH BEDDING DETAIL

NO SCALE

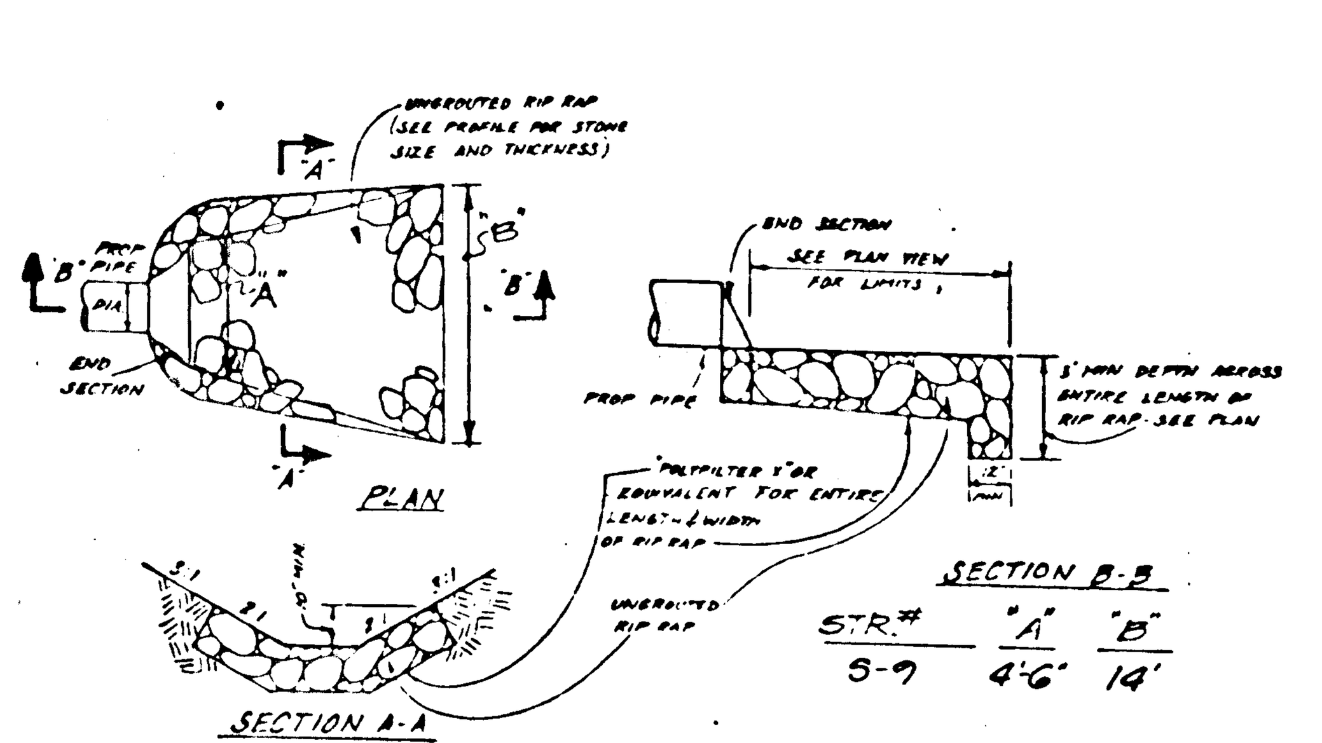


ENGINEER'S CERTIFICATE

"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."

C.K. [signature] 11-23-88

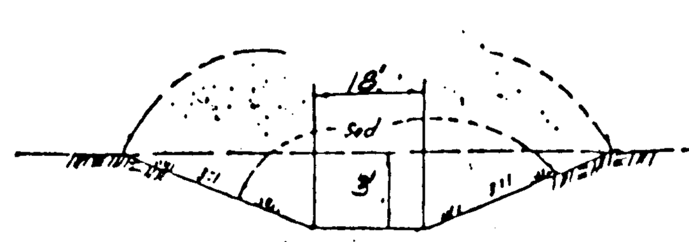
Date



STR.#	"A"	"B"
S-7	4'-6"	14'

UNGROUTED RIP RAP OUTLET PROTECTION DETAILS

NO SCALE



SODDED DITCH DETAIL

NO SCALE

GENERAL SODDING NOTES:

1. Apply 10-10-10 Fertilizer @ 1000#/acre (25#/1000 sf).
2. Apply Ground Agricultural Limestone @ 2000#/acre (50#/1000 sf).
3. Incorporate both Lime and Fertilizer into soil by disking. Firm up after incorporation.
4. Lay sod to a tight fit. Roll to insure contact with underlying soil. Water as necessary for 1st 2 weeks in summer, to ensure establishment.
5. All sod to be used must be certified by the state of Maryland.
6. Sod to be pegged and stapled

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

Robert W. Ziehm 8/22/90

Howard Soil Conservation District

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.

[signature] 8/22/90

APPROVED: DEPARTMENT OF PUBLIC WORKS

[signature] 9/25/90

CHIEF, LAND DEVELOPMENT DIVISION DATE

Granville W. Wehland 9/5/90

CHIEF, BUREAU OF HIGHWAYS DATE

[signature] 9-24-90

CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[signature] 9/24/90

CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT DATE

GLW GUTSCHICK LITTLE & WEBER, P.A.

ENGINEERS, PLANNERS, SURVEYORS

3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD. 20866

TELEPHONE: (301) 421-4024

DES.	DRN.	CHK.

DATE	REVISION	BY	APP'R.

PREPARED FOR:

PORTEN-SULLIVAN CORP.
3 BETHESDA METRO CENTER
SUITE 900 BETHESDA, MARYLAND 20814
(301) 654-7270

STORM DRAIN PROFILES & DETAILS

LONGRIDGE KNOLLS

SECTION ONE AREA TWO

(FORMERLY "ROUND TABLE FARM")

6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE	ZONING	G.L.W. FILE No.
AS SHOWN	—	87-052
DATE	TAX MAP No.	SHEET
DEC. 1989	—	3 OF 6

F-89-124

1576

STORM WATER MANAGEMENT POND NOTES

I. SITE PREPARATION:

A. 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 no steeper than 1:1.

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

C. 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. EARTH FILL

A. MATERIAL: The fill material shall be taken from approved designated borrow area or areas. It shall be free of roots, stumps, wood, rubbish, oversized 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.

B. 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.

* C. 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 so 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.

D. 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 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 be driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of the 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 CONDUITS: (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 Specifications 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 .001 inch (10 mil) on both sides of the pipe. The following coatings are commercially available: Nexon, Plasti-Cote, Blac-Klad, and Beth-Cu-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.
   MATERIALS (Aluminized Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274-79I with watertight coupling bands or flanges.
   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, end sections, etc. must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials 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.
2. 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 be completely watertight. Dimple bands are not considered to be 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.

B. REINFORCED CONCRETE PIPE

1. MATERIALS: Reinforced concrete pipe shall have a rubber gasket joint and shall equal or exceed ASTM Specification C-361. An approved equivalent is AWWA Specification C-301.
2. BEDDING: All reinforced concrete pipe conduits shall be laid in a concrete bedding for there 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 outside diameter with a minimum thickness of 3", or as shown on the drawings.
3. 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.
4. Backfilling shall conform to structural backfill as shown above.
5. Other details (anti-seep collars, valves, etc.) shall be shown on the drawings.

C. For pipes of other materials, specific specifications shall be shown on the drawings.

V. CONCRETE

A. MATERIALS

1. CEMENT - Normal Portland cement shall conform to latest ASTM Specification C-150.
2. WATER - The water used in concrete shall be clean, free from oil, acid, alkali, scales, organic matter or other objectionable substances.
3. SAND - The sand used in concrete shall be clean, hard, strong, and durable, and shall be well graded with 100% passing a one quarter inch sieve. Limestone sand shall not be used.
4. COARSE AGGREGATE - The coarse aggregate shall be clean, hard, strong and durable, and free from clay and dirt. It shall be well graded with a maximum size of one-and-one-half (1½) inches.
5. REINFORCING STEEL - The reinforcing steel shall be deformed bars of intermediate grade billet steel or rail steel conforming to ASTM Specification A-615.

B. DESIGN MIX - The concrete shall be mixed in the following proportions, measured by weight. The water-cement ratio shall be 5½ to 6 U.S. Gals of water/94-pound bag of cement. The proportion of materials for the trial mix shall be 1 2 3½. The combination of the aggregates may be adjusted to produce a plastic and workable mix that will not produce harshness in placing or honeycombing in the structure.

C. MIXING - The concrete ingredients shall be mixed in batch mixers until the mixture is homogeneous and of uniform consistancy. The mixing of each batch shall continue for not less than one and one-half minutes after all the ingredients, except 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 mixture and of the introduction of the materials including water, into the mixer. Water shall be added prior to, during, and following the mixer-charging operations. Excessive overmixing requiring the addition of water to preserve 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.

D. FORMS - The forms shall have sufficient strength and rigidity to hold the concrete and to withstand the necessary pressure, tamping and vibration without deflection from the prescribed lines. They should be mortar-tight and constructed so they can be removed without hammering or prying against the concrete. The inside of the forms will be oiled with a non staining mineral oil or thoroughly wetted before concrete is placed. Forms may be removed 24 hours after the placement of concrete. All wire ties and other devices used shall be recessed from the surface of the concrete.

E. 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.

F. CONSOLIDATION - 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.

G. FINISHING - Defective concrete, honeycombed areas, voids left by 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 reamed and completely filled with dry patching mortar.

H. PROTECTION AND CURING - Exposed surfaces of concrete shall be protected from the direct rays of the sun for at least 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 compound may also be used.

I. PLACING TEMPERATURE - Concrete may not be placed at temperature below 37°F with the temperature falling, or 34°F with the temperature rising.

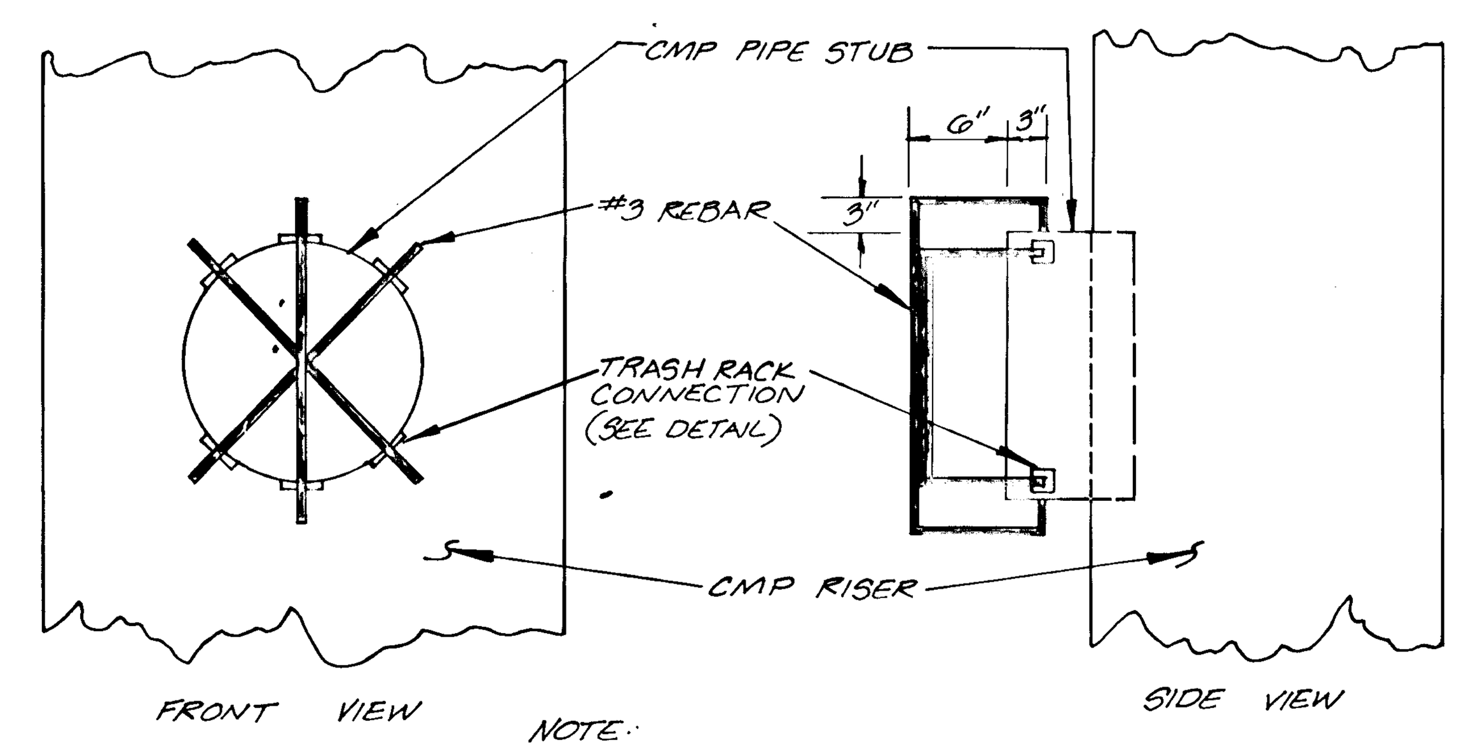
VI. STABILIZATION

All borrow areas shall be graded to provide drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms 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

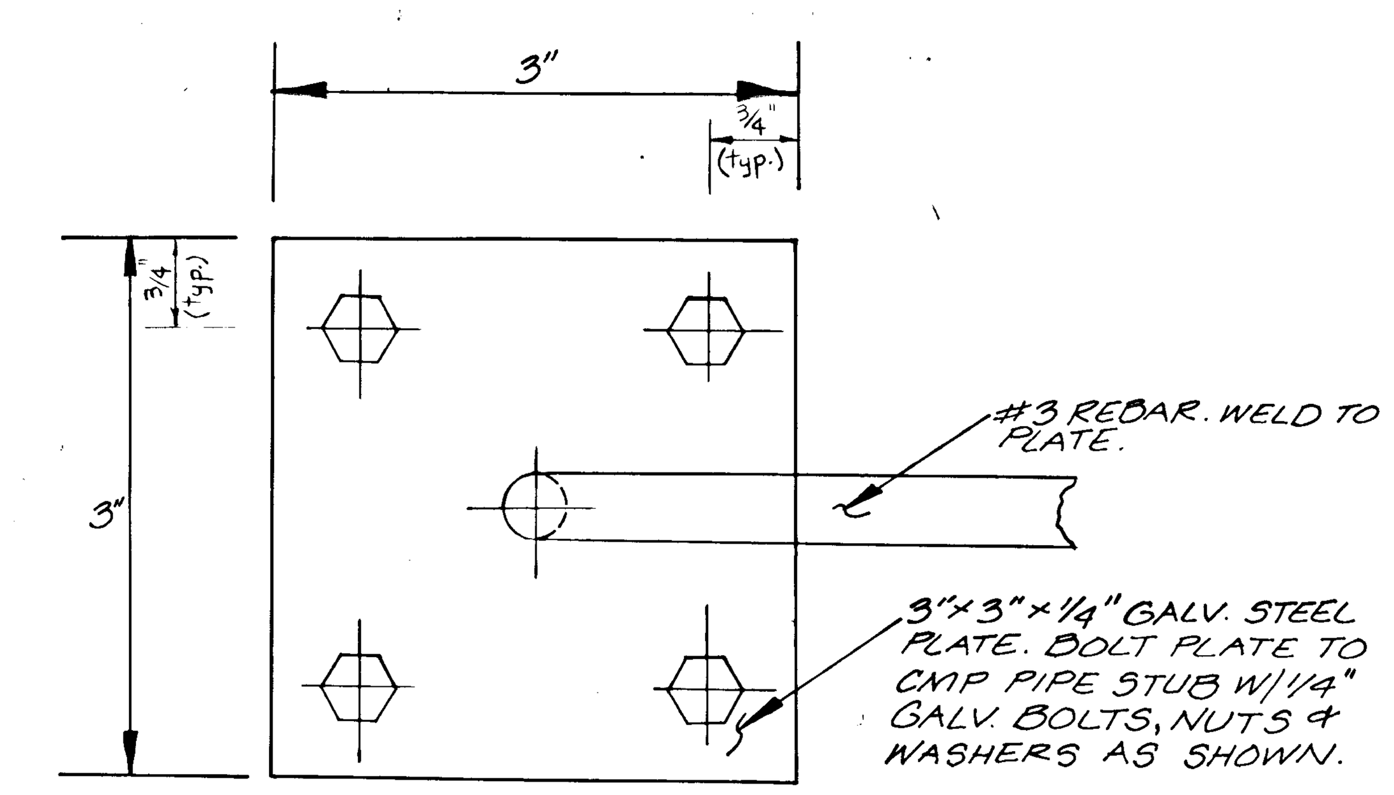
Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction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

* It is recommended that the Storm Water Management Pond Dike Embankment and Core be constructed in 8" thick layers, each compacted to a minimum of 95% of the maximum dry density determined by the standard moisture density relationship test (ASTM D-1557).

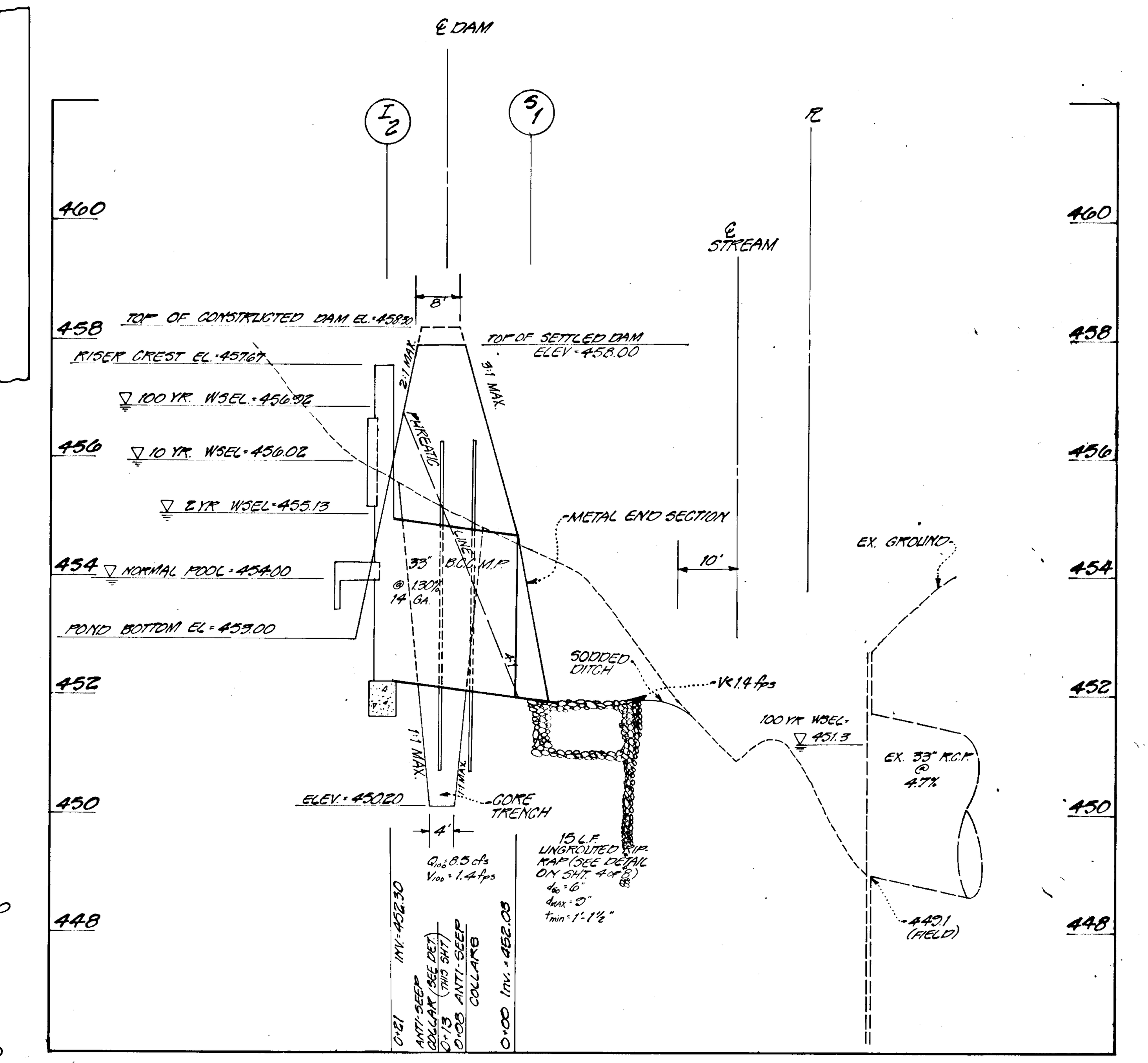


NOTE: ALL METAL SURFACES TO BE PAINTED W/ RUST-PROOF PAINT AFTER FABRICATION.

REBAR TRASH RACK
N.T.S.



DETAIL
TRASH RACK CONNECTION
N.T.S.



PROFILE THRU PRINCIPAL SPILLWAY
POND "B"
SCALE: 1" = 20' HORIZ. 1" = 2' VERT.

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."

C.K. Gutschick (signature) 9/8/88
Date

DEVELOPER'S/BUILDER'S CERTIFICATE

"I certify that all development and/or construction will be done according to these plans, and that any responsible involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved 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 inspection by H.S.C.D.

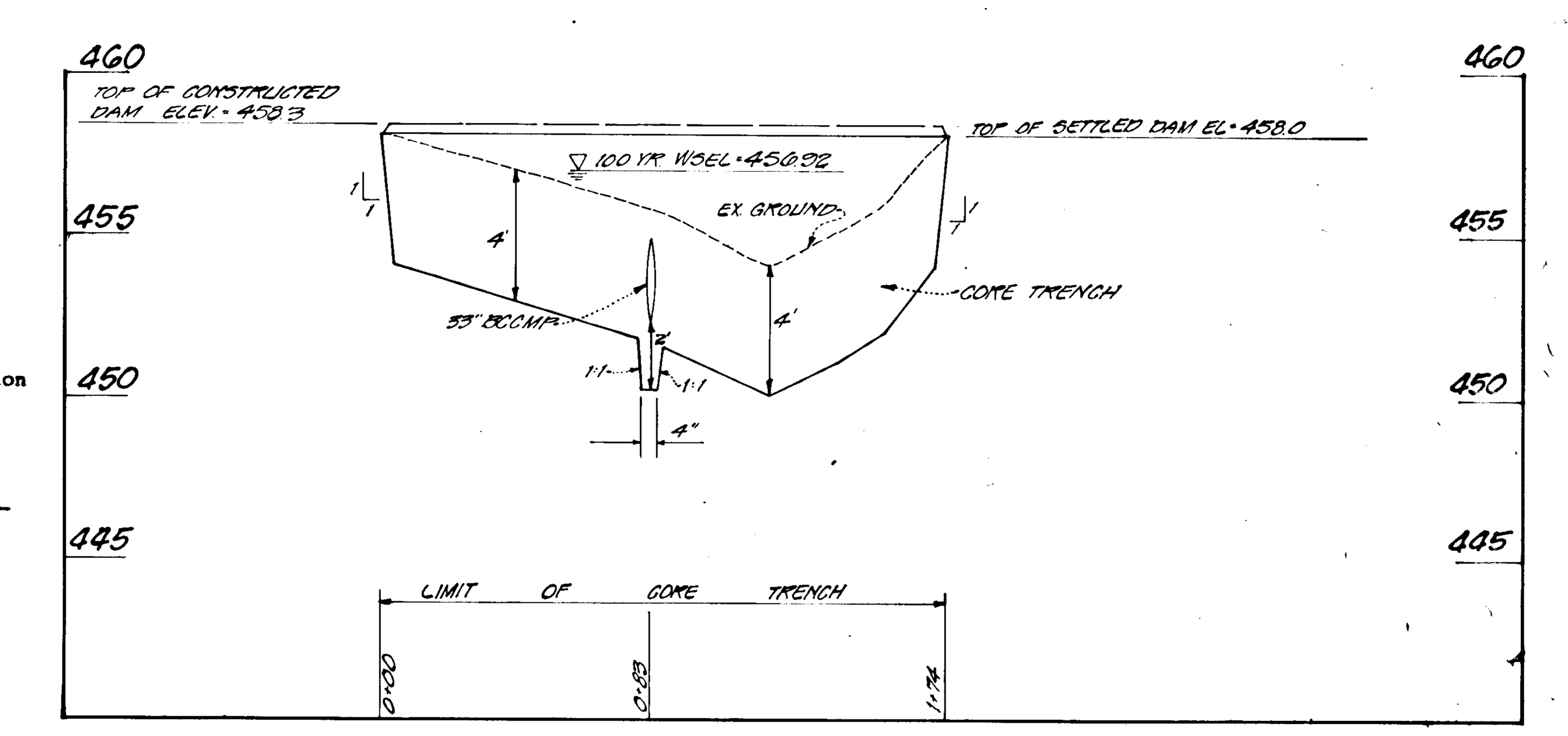
Sandra A. Gallagher (signature) 9/8/88
Signature of Developer/Builder — Date

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

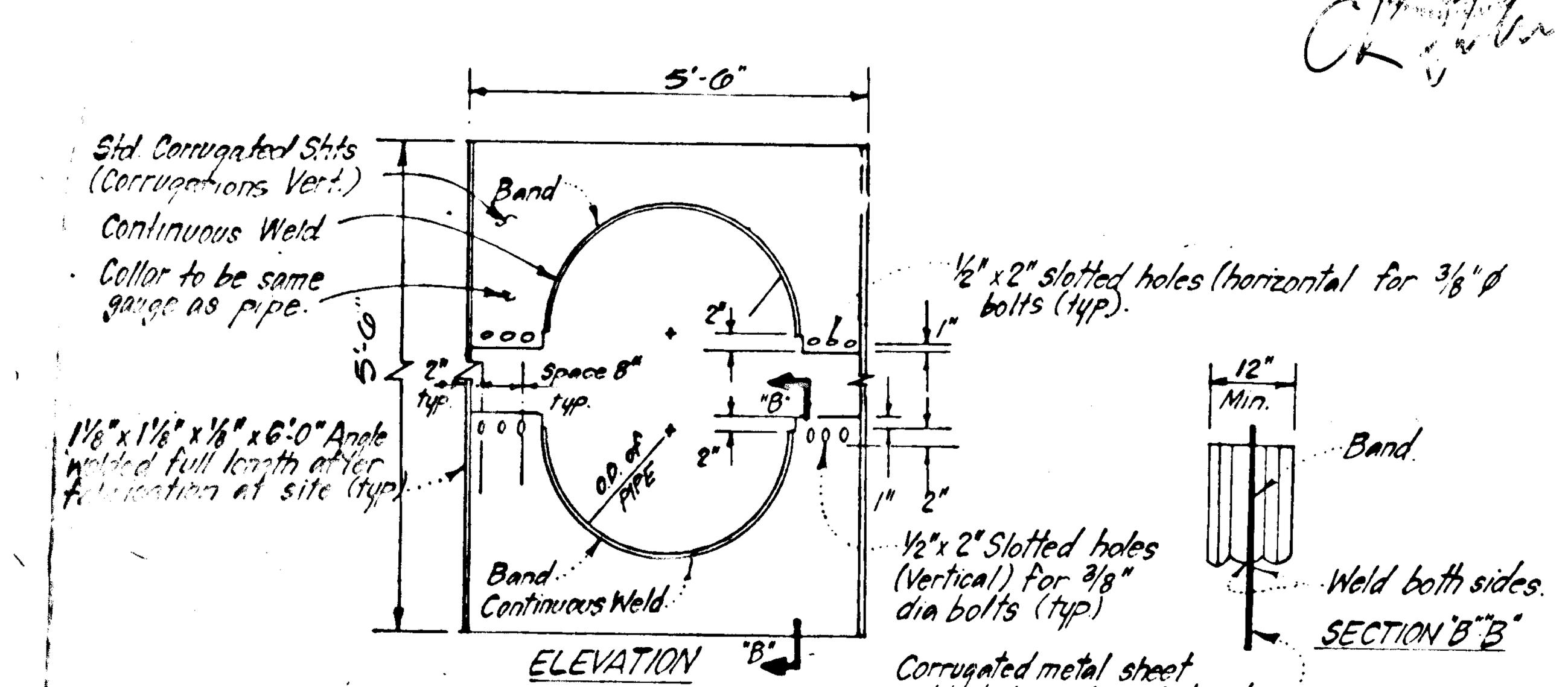
Robert W. Zichner (signature) 8/22/90
Howard Soil Conservation District — Date

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.

(signature) 8/22/90
Soil Conservation Service — Date

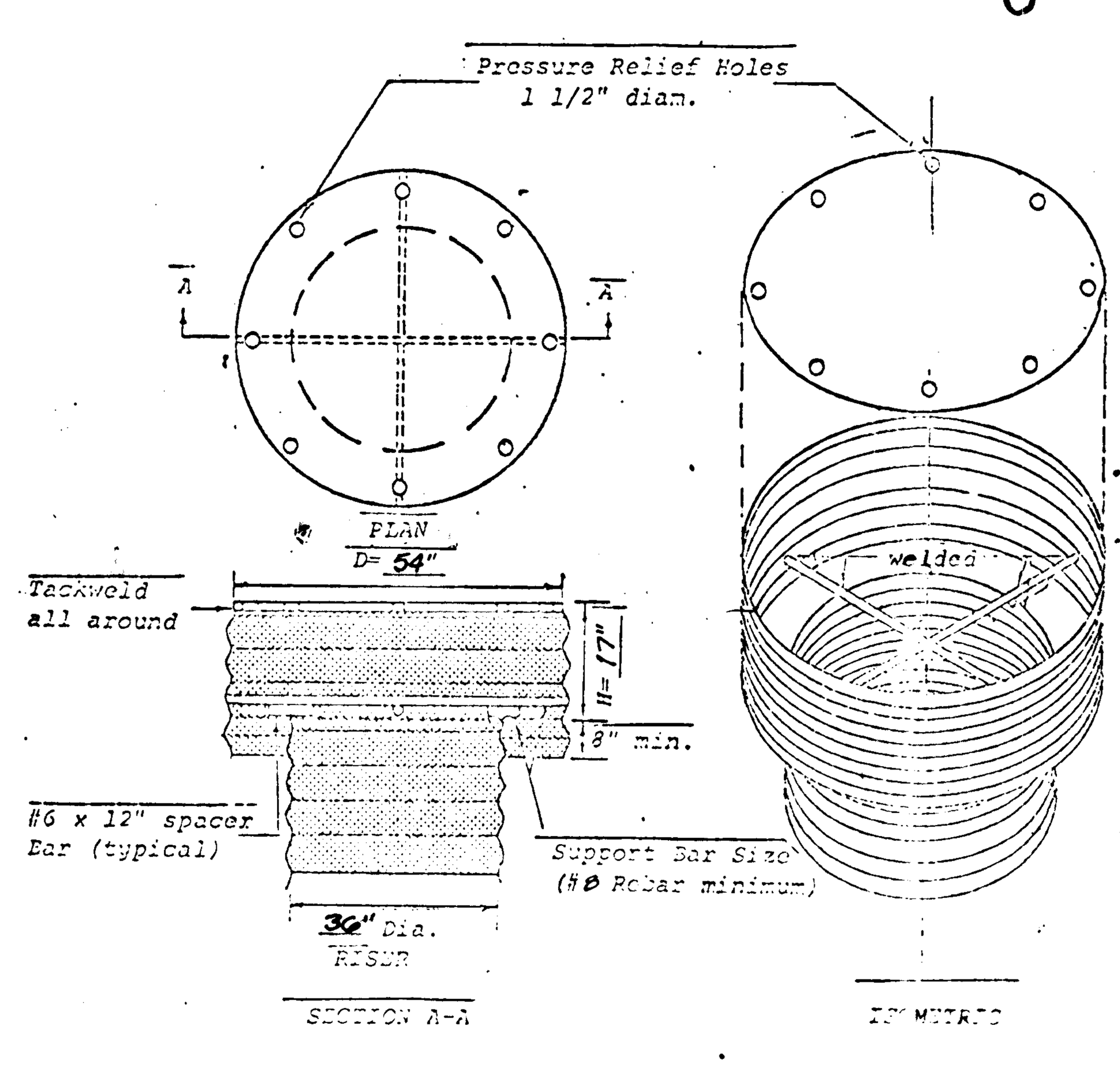


PROFILE THRU ℄ OF DAM
LOOKING UPSTREAM
SCALE: 1" = 50' HORIZ. 1" = 5' VERT.



NOTES:
1. All materials to be in accordance with construction material specifications.
2. When specified on the plans, coating of collars shall be in accordance with contr. material specs.
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 connection band shall be caulked with asphalt mastic at time of installation.
5. Each collar shall be furnished with two ½" diameter rods w/std. tank lugs for connecting collars to pipe.

CORRUGATED METAL ANTI-SEEP COLLAR DETAILS
NO SCALE

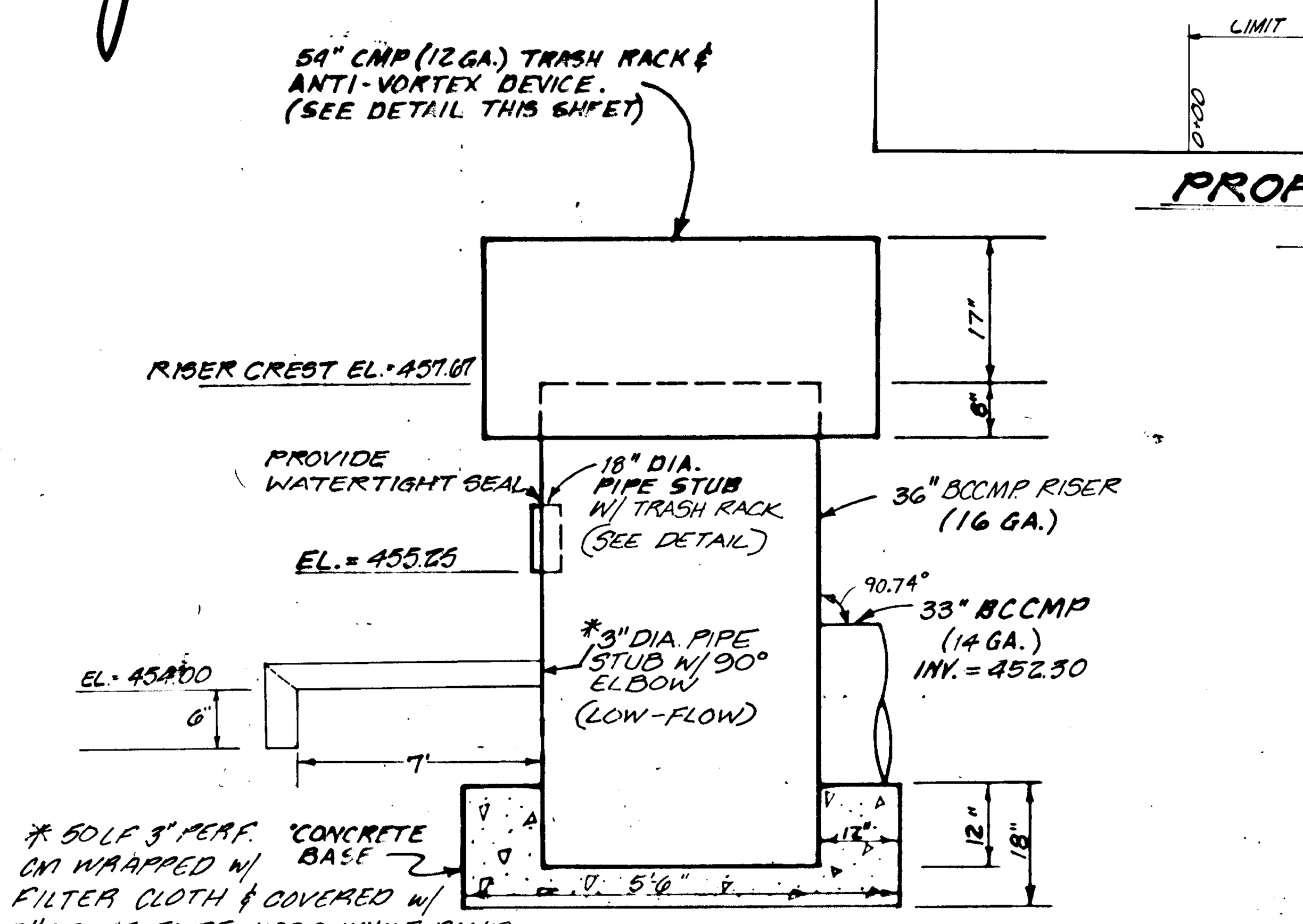


Top is 12 gage corrugated metal or 1/8" steel plate. Pressure relief holes may be ommitted, if ends of corrugations are left fully open when corrugated top is welded to cylinder.

Cylinder is 12 gage corrugated metal pipe or fabricated from 1/8" steel plate.

Notes:
1) The cylinder must be firmly fastened to the top of the riser.
2) Support bars are welded to the top of the riser or attached by straps bolted to top of riser.

CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE
(not to scale)



* SOLF 3" PERF. CM WRAPPED W/ FILTER CLOTH & COVERED W/ 2" STONE TO BE USED WHILE POND FUNCTIONS AS A SEDIMENT BASIN.

DETAIL
STORM WATER MANAGEMENT STRUCTURE I-2
NO SCALE

APPROVED: DEPARTMENT OF PUBLIC WORKS

(signature) 9/25/90
CHIEF, LAND DEVELOPMENT DIVISION

Granville W. Wehland (signature) 9/5/90
CHIEF, BUREAU OF HIGHWAYS

(signature)
CHIEF, BUREAU OF ENGINEERING

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING

(signature) 3/21/90
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

GUTSCHICK LITTLE & WEBER, P.A. ENGINEERS, PLANNERS, SURVEYORS — NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD. 20866 — (301) 421-4024	DES. JdE	DRN. AB	CHK.

DATE	REVISION	BY	APP'R.

PREPARED FOR:
DEVELOPER:
PORTEN-SULLIVAN CORP.
3 BETHESDA METRO CENTER
SUITE 700 BETHESDA, MARYLAND 20814

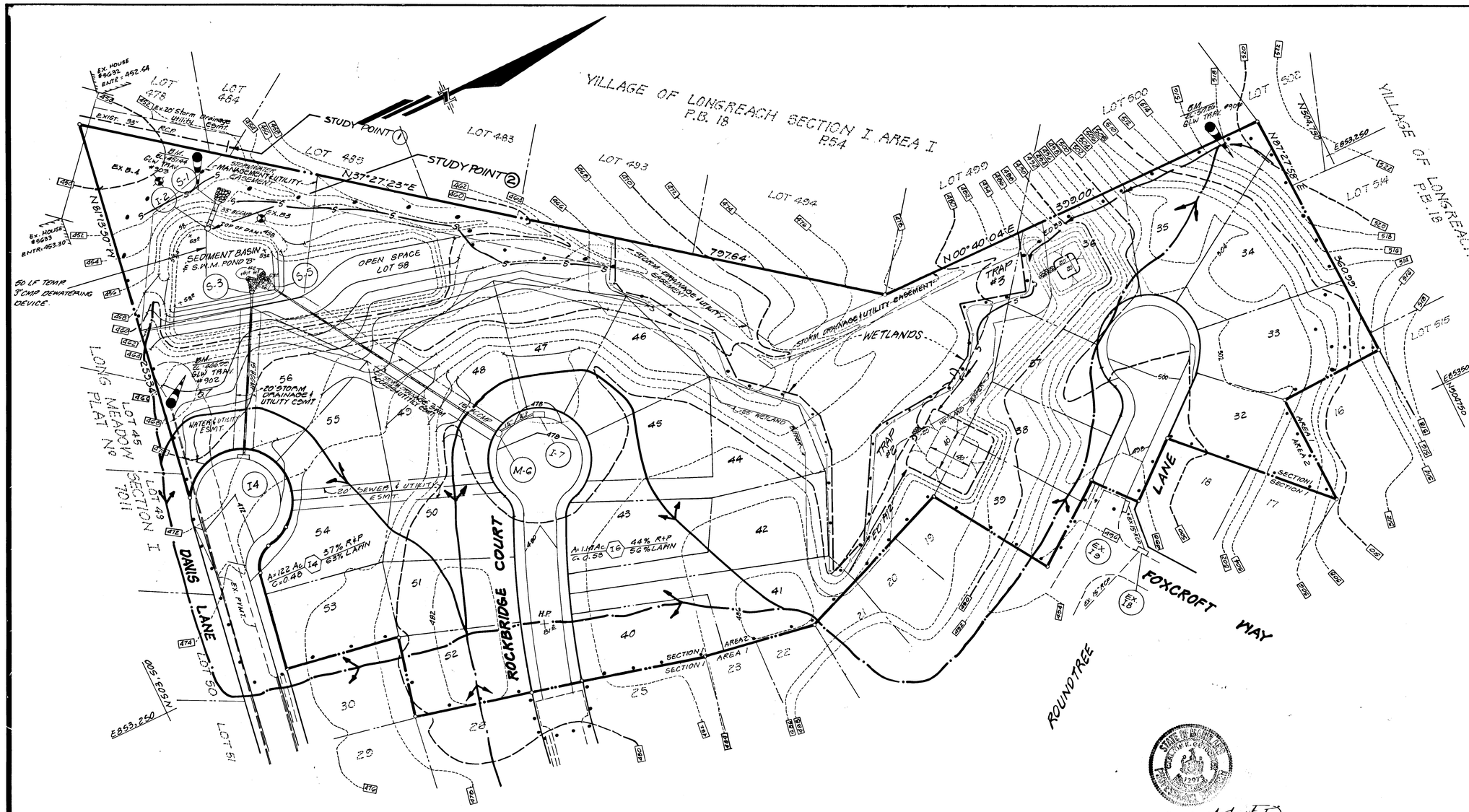
STORM WATER MANAGEMENT DETAILS & NOTES

LONGRIDGE KNOLLS
SECTION ONE - AREA TWO
POND "B"
6th ELECTION DISTRICT (FORMERLY ROUND TABLE FARM) HOWARD COUNTY, MARYLAND

SCALE	ZONING
AS SHOWN	R-12
DATE DEC. 1989	

F-89-124

1526



C. K. Gutschick

EX. SEDIMENT TRAP No. 3

STONE OUTLET SEDIMENT TRAP
DRAINAGE AREA = 0.6 Ac. 0.6 Ac.
(PRE-DEVELOPMENT) (POST-DEVELOPMENT)
STORAGE REQUIRED = 0.6 (1800) = 10,800 cu. ft.
STORAGE DEPTH = 3'
CLEANOUT ELEVATION = 477.5
OUTLET ELEVATION = 482.0
BOTTOM ELEVATION = 479.0
SIDE SLOPES = 2:1
SURFACE AREA @ ELEVATION 481.0 (L.O.S.) = 1024 ☐'
SURFACE AREA @ ELEVATION 479.0 (BOTTOM) = 400 ☐'
VOLUME PROVIDED = $\frac{1024 + 400}{2}$ x 3 = 2,136 cu. ft.
L.O.S. = LIMIT OF STORAGE

EX. SEDIMENT TRAP No. 2

RIP RAP OUTLET SEDIMENT TRAP
DRAINAGE AREA = 1.5 AC. 1.5 AC.
(PRE-DEVELOPMENT) (POST-DEVELOPMENT)
STORAGE REQUIRED = 1.5 x (1800) = 2700 C.U.FT.
STORAGE DEPTH = 4
CLEANOUT ELEVATION = 782
OUTLET ELEVATION = 792
BOTTOM ELEVATION = 742
SIDE SLOPES = 2:1
SURFACE AREA @ ELEVATION 782 (½ L.O.S.) = 3136 ☐'
SURFACE AREA @ ELEVATION 742 (BOTTOM) = 1600 ☐'
VOLUME PROVIDED = $\frac{3136 + 1600}{2}$ x 4 = 9472 CU.FT.
L.O.S. = LIMIT OF STORAGE

EX. SEDIMENT BASIN NO. "B"

RIP RAP OUTLET SEDIMENT TRAP
DRAINAGE AREA = 4.9 AC. 3.9 AC.
(PRE-DEVELOPMENT) (PRE-DEVELOPMENT)
STORAGE REQUIRED = 4.5 x (1800) = 8820 CU.FT.
STORAGE DEPTH = 2.25
CLEANOUT ELEVATION = 454.0
OUTLET ELEVATION = 455.25
BOTTOM ELEVATION = 453.0
SIDE SLOPES = 2:1
SURFACE AREA @ ELEVATION 455.25 (½ L.O.S.) = 5922 ☐'
SURFACE AREA @ ELEVATION 453 (BOTTOM) = 5126 ☐'
VOLUME PROVIDED = $\frac{5922 + 5726}{2}$ x 2.25 = 12,929 CU. FT.
L.O.S. = LIMIT OF STORAGE

Notes:

1. Grading indicated within buildable lots is temporary for the purpose of road construction and installation of sediment traps. The final site grading for the lots will be shown in compliance with the minimum R-12 zoning lot size requirement on the site development plan.
2. Stabilized construction entrance is located as on G.P. 89-13A & F-89-76.
3. WP-89-178 approved on 7-24-89 to allow grading within the 25' wetland buffer.

LEGEND

- LIMIT OF DISTURBANCE
- EX. DRAINAGE DIVIDE
- E.D. B/3 EARTH DIKE
- S — S SILT FENCE
- SNOW FENCE
- PROP. DRAINAGE DIVIDE

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.

U.S. Soil Conservation Service — Date 8/22/90

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

Howard Soil Conservation District — Date 9/24/90

DEVELOPER'S/BUILDER'S CERTIFICATE

"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 THE ENVIRONMENT 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 INSPECTION BY H.S.C.D.

Signature of Developer/Builder — Date 4/24/89

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."

C. K. Gutschick — Date 4/24/89

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 9/27/90

CHIEF, BUREAU OF HIGHWAYS — DATE 9/5/90

CHIEF, BUREAU OF ENGINEERING — DATE 9-26-90

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT — DATE 9/27/90

1596

GUTSCHICK LITTLE & WEBER, P.A.
ENGINEERS, PLANNERS, SURVEYORS
3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866
TELEPHONE (301) 421-4024

DES.	DRN.	CHK.

DATE	REVISION	BY	APP'R.

PREPARED FOR:
PORTEN-SULLIVAN CORP.
3 BETHESDA METRO CENTER
SUITE 300
BETHESDA, MARYLAND 20814
(301) 654-7270

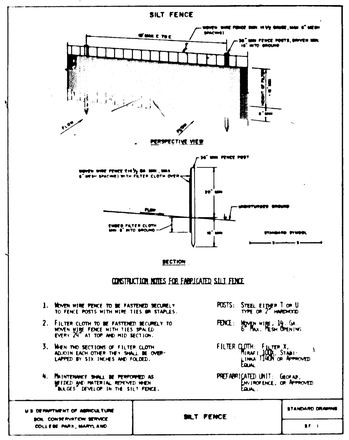
DRAINAGE AREA MAP - SEDIMENT CONTROL PLAN

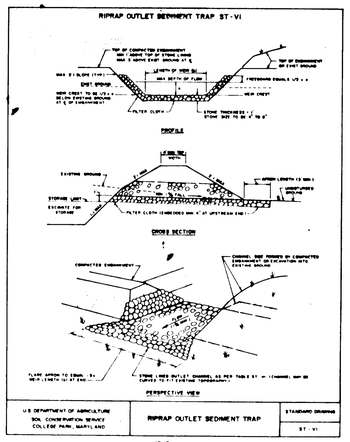
LONGRIDGE KNOLLS

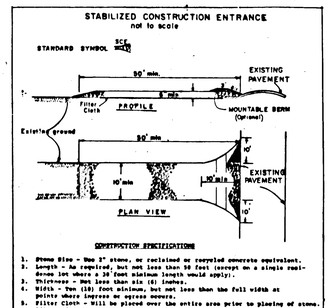
SECTION ONE AREA TWO
LIBER 1162 FOLIO 683
6TH ELECTION DISTRICT (FORMERLY "ROUND TABLE FARM") HOWARD COUNTY, MARYLAND

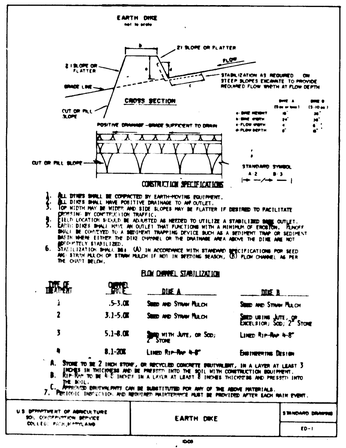
SCALE	ZONING	G.L.W. FILE No.
1" = 50'	R-12	87-052
DATE	TAX MAP No.	SHEET
DEC. 1989	36 PARCEL 5	5 OF 6

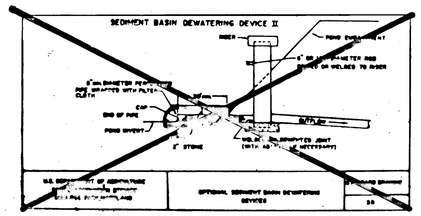
F-89-124











Maryland SCS/WRA April 1983

CONSTRUCTION SPECIFICATIONS FOR ST-VI

1. The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. The fill material for the embankment shall be free of roots or other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. Maximum height of embankment shall be five (5) feet, measured at centerline of embankment.
3. All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.
4. Elevation of the top of any dike directing water into trap must equal or exceed the height of embankment.
5. Storage area provided shall be figured by computing the volume available behind the outlet channel up to an elevation of one (1) foot below the level weir crest.
6. Filter cloth shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Sections of fabric must overlap at least one (1) foot with section nearest the entrance placed on top. Fabric shall be embedded at least six (6) inches into existing ground at entrance of outlet channel.
7. Stone used in the outlet channel shall be four (4) to eight(8) inches (riprap). To provide a filtering effect, a layer of filter cloth shall be embedded one (1) foot back into the upstream face of the outlet stone or a one (1) foot thick layer of two (2) inch or finer aggregate shall be placed on the upstream face of the outlet.
8. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
9. The structure shall be inspected after each rain and repaired as needed.
10. Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
11. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.
12. Drainage area for this practice is limited to 15 acres or less.

16.14

CONSTRUCTION SEQUENCE

1. ARRANGE PRE-CONSTRUCTION MEETING WITH THE SEDIMENT CONTROL INSPECTOR.
2. OBTAIN A GRADING PERMIT
3. CLEAR AREAS NECESSARY FOR INSTALLATION OF SEDIMENT CONTROL MEASURES.
4. INSTALL SEDIMENT CONTROL MEASURES. INSPECT AND PERFORM ANY NECESSARY MAINTENANCE TO THE SNOW FENCE AROUND THE WETLANDS.
5. CLEAR GRUB AND ROUGH GRADE THE REMAINDER OF THE SITE.
6. INSTALL UTILITIES.
7. INSTALL BASE PAVING AND C & G.
8. STABILIZE ALL DISTURBED AREA IN ACCORDANCE WITH STANDARDS AND SPECIFICATION.
9. RETAIN SEDIMENT CONTROL MEASURES FOR USE DURING FINAL SITE PLAN CONSTRUCTIONS.
10. UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR REMOVE SEDIMENT AND EROSION CONTROL MEASURES AND STABILIZE.
11. REMOVE THE TEMPORARY DEWATERING DEVICE AND REPLACE WITH THE PERMANENT 3" LOW FLOW PIPE. CLEAN OUT THE SEDIMENT BASIN AND REGRADE AS NECESSARY TO COMPLETE CONSTRUCTION OF THE STORMWATER MANAGEMENT POND AND SHALLOW MARSH AREA. (SEE FINAL GRADING ON SHEET 5)

SHALLOW MARSH PLANTING PLAN

SCALE: 1"=50'

SEDIMENT CONTROL NOTES

1. A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
2. 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.
3. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes and perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSIONS AND SEDIMENT CONTROL for permanent seedings (Sec. 51) sod (Sec 54), temporary seedings (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.
6. 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.
7. Site Analysis:
   - Total Area of Site: 9.5 Acres
   - Area Disturbed: 8.0 Acres
   - Area to be roofed or paved 1.5 Acres
   - Area to be vegetatively stabilized ? Acres
   - Total Cut 0 Cu. Yds.
   - Total Fill 0 Cu. Yds.
   - Offsite waste/borrow area location
8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
9. Additional sediment control must be provided, if deemed necessary by the Howard County DPW sediment control inspector.
10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
11. If houses are to be constructed on an "As-Sold" basis, at random, Single Lot Sediment Control as shown below shall be implemented.
12. All pipes to be blocked at the end of each day (see detail below).
13. The total amount of straw bale dikes/silt fences equals ______ L.F.

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. *Unless previously loosened.*
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 2-1/2 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 1-1/2 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.

MARSH GRADING AND PLANTING NOTES:

1. This detail shows the work to be done below the permanent pool elevations.
2. The excavation shown below permanent pool may be limited by existing rock. If rock is encountered, the proposed excavation shall be modified to avoid rock excavation.
3. If an area to be planted is bare rock after excavation, those plants shall be placed in an approved alternate location.
4. Areas designated by ▨ shall be planted with one of the three species from the list below. Areas designated by ▨ shall be planted with one of the other two species. For both species, plants shall be placed in a grid pattern, three feet apart. In addition to the major planting areas, locations designated by ⊖ shall be planted with a clump of at least two individual plants. Each clump shall contain only one species but both species shall have approximately the same number of clumps. The additional clumps represent a coverage of approximately 40 clumps per acre of wetland.
   - a. Sagittaria latifolia (duck potato);
   - b. Scirpus americanus (common three square);
   - c. Scirpus validus (softstem bulrush).
5. In addition to the areas and species designated above, three of the species from the list below are to be selected and planted in clumps of five individuals at locations designated by ☒. Each clump shall be planted within six feet of the edge and be monospecific, with the number of clumps being divided as evenly as possible between the three species selected. This coverage is approximately 50 individuals per acre of wetland.
   - a. Acorus calamus (sweet flag);
   - b. Leersia oryzoides (rice cutgrass);
   - c. Peltandra virginica (arrow-arum);
   - d. Pontederia cordata (pickerel weed);
   - e. Saururus cernuus (lizards tail).
6. If, due to time of year or availability constraints, planting can not be accomplished after grading operations are completed, the area below ELEVATION 472.00 shall be temporarily seeded with annual rye grass and the straw-mulched. Final planting according to the plan shall be accomplished as soon as constraints are gone.
7. Plant Material - Plants shall be obtained from Environmental Concern, Inc., St. Michaels, Maryland or from an alternate source approved by HOWARD COUNTY. Plants shall be in peat pots if possible. Bare root plants are an acceptable alternate. In either case, nursery instruction shall be followed for the proper time of year for planting.
8. Care of Delivered Plant Material - Once at the site, plants shall be cared for properly. While awaiting planting, they must be kept out of direct sunlight. Potted plants must be kept moist and bare rooted plants must be kept in their moisture retaining bags or in their water filled tubs, depending on how they were shipped from the nursery. All plants are to be planted as quickly as possible after delivery.
9. Site Preparation - If the site has been recently graded, no further preparation is necessary. If the soil is packed or if a good stand of grass (from temporary seeding) is present, the areas to be planted shall be loosened to a depth of six (6) inches by disking.
10. Planting

    Peat-Pot Plants - Dig hole just wide enough to accept the pot and deep enough so that the grade around the plant is the same as the level of soil in the pot. The pot is to be torn in several places, inserted into the hole and then hand tamped.

    Bare-Root Plants - Dig hole wide enough to accommodate the spread-out roots. Hole should be deep enough so that the point where the stem becomes a root is at grade. The resultant arrangement must be a spread out, shallow root system.

    Post-Planting - If bare-root plants are used, the planted area must be flooded within 24 hours of planting. If only potted plants are used, the time can be lengthened to 72 hours. If these time frames can not be met, the plants must be kept wet by artificial means.

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

Robert W. Ziehm 8/22/90
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.

8/22/90

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 an "as-built" plan of the pond within 30 days of completion."

C.K. Gutschick 11-23-88
Date

DEVELOPER'S/BUILDER'S CERTIFICATE

"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 The Environment 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 INSPECTION BY H.S.C.D.

Sandra A. Hallagher 11/28/88

Maryland SCS/WRA April 1983

5. The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening.
6. Form the wire mesh and filter cloth to the concrete gutter and against the face of curb on both sides of the inlet. Place clean 2" stone over the wire mesh and filter fabric in such a manner as to prevent water from entering the inlet under or around the filter cloth.
7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
8. Assure that storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow into inlet.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas 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. *Unless Previously loosened.*
Soil Amendments: In lieu of soil test recommendations, use one of the following schedules

1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square feet) and 600 lbs per acre 10-10-10 fertilizer (14 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 ureaform 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 the 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.

Mulching - Apply 1-1/2 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 gallons per acre (8 gal/1000 sq ft) for anchoring.

Maintenance - Inspect all seeded areas and make needed repairs, replacements and reseedings.

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION	9/25/90 DATE
Granville W. Wehland CHIEF, BUREAU OF HIGHWAYS	9/5/90 DATE
CHIEF, BUREAU OF ENGINEERING	9-26-90 DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVEL.	9/28/9. DATE LS

GLW GUTSCHICK LITTLE & WEBER, P.A.
ENGINEERS, PLANNERS, SURVEYORS
3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD 20866
TELEPHONE (301) 421-4024

DES.	DRN.	CHK.

DATE	REVISION	BY	APP'R.

PREPARED FOR
PORTEN SULLIVAN CORP.
3 BETHESDA METRO CENTER
BETHESDA MARYLAND 20814
(301) 654--7270

SEDIMENT AND EROSION CONTROL DETAILS

LONGRIDGE KNOLLS - SECTION 1 AREA 2
LIBER 1162 FOLIO 683
6TH ELECTION DISTRICT (FORMERLY "ROUND TABLE FARM") HOWARD COUNTY, MARYLAND

SCALE	ZONING	G.L.W. FILE No.
—	R-12	87-052
DATE	TAX MAP No.	SHEET
DEC. 1989	36 PARCEL 5	6 OF 6

F-89-124