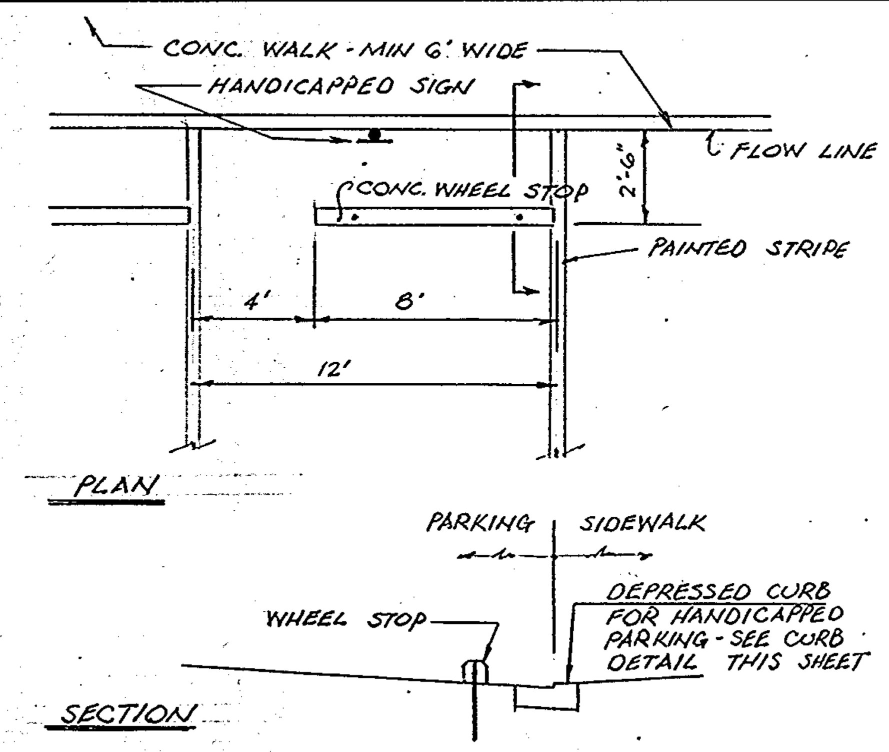
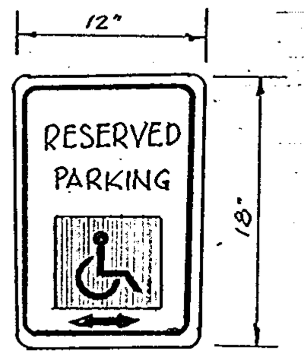
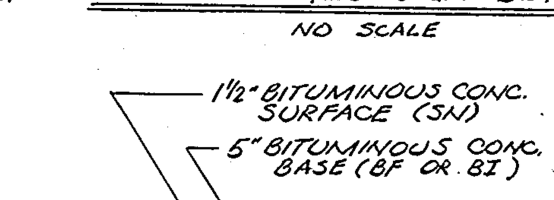


H.C. PARKING SPACE DETAIL
NO SCALE



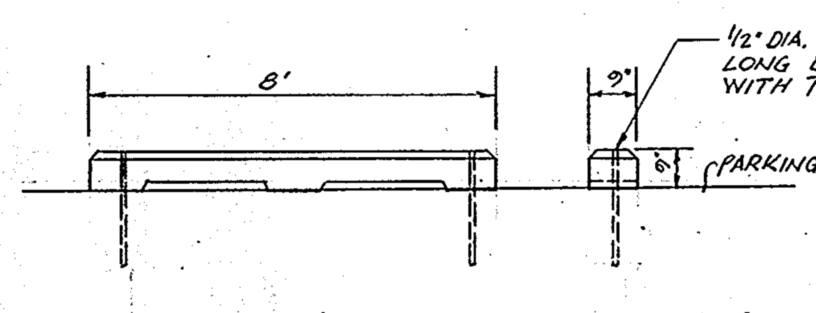
NOTES:
1. SIGN SHALL BE MOUNTED ON POSTS 8' ABOVE GRADE AT EACH PARKING SPACE RESERVED FOR HANDICAPPED.
2. SIGN SHALL MEET M.D.O.T STD. R-7.8

HANDICAPPED SIGN DETAIL
NO SCALE

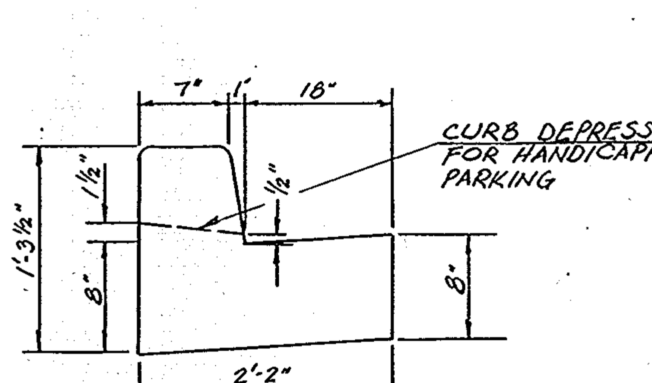


NOTE: THIS SECTION OR THE GRANULAR BASE ALTERNATE FOR SECTION "P-2" SHALL BE USED FOR ON-SITE PAVING - SEE DRWG. R-2.01

- TYPICAL SECTION -
SITE PAVING
NO SCALE

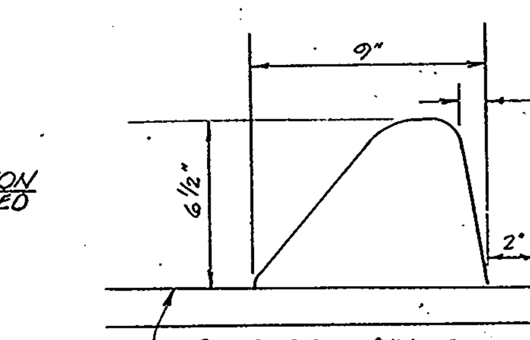


PRE-CAST CONCRETE WHEELSTOP DETAIL
NO SCALE



NOTE: FOR COMPLETE DIMENSIONS SEE DRWG # R 3.01

CONCRETE CURB AND GUTTER DETAIL
NO SCALE

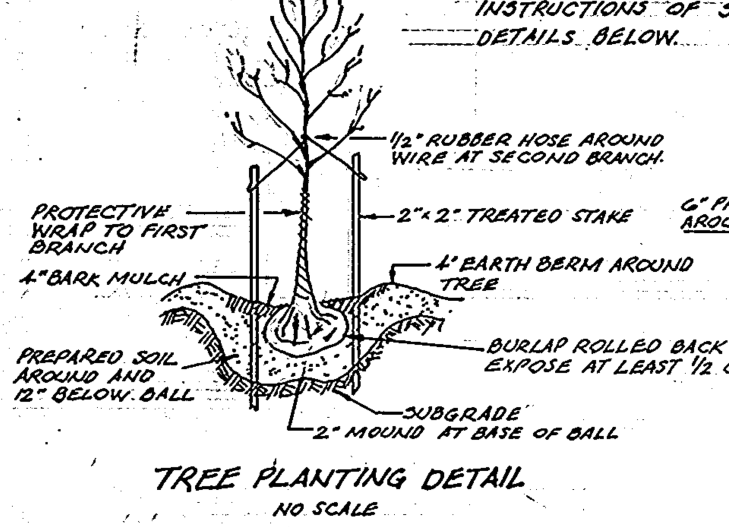


NOTE: FOR COMPLETE DIMENSIONS SEE DRW'G. # R 3.03

BITUMINOUS CURB DETAIL
NO SCALE

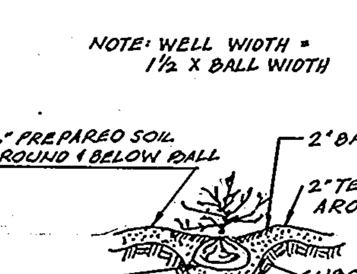
Symbol	Quant.	Botanical Name	Common Name	Size	Spacing	Remarks
	5	ACER RUBRUM	RED MAPLE	2½" CAL.	30' o/c	B&B
	3	PRUNUS NEWPORT	NEWPORT PLUM	6'-8'	As Shown	B&B
	18	AZALEA	HENO CRIMSON AZALEA	15"-18"	3'-4'	Cont.
	38	JUNIPERUS HORIZONTALIS	CREEPING JUNIPER	18"-24"	3'-4'	Cont.
	200±	VINCA MINOR	PERRIWINKLE	-	12"-18"	-

TREES AND SHRUBS SHALL BE PLANTED FOLLOWING INSTRUCTIONS OF SUPPLYING NURSURY AND THE DETAILS BELOW.

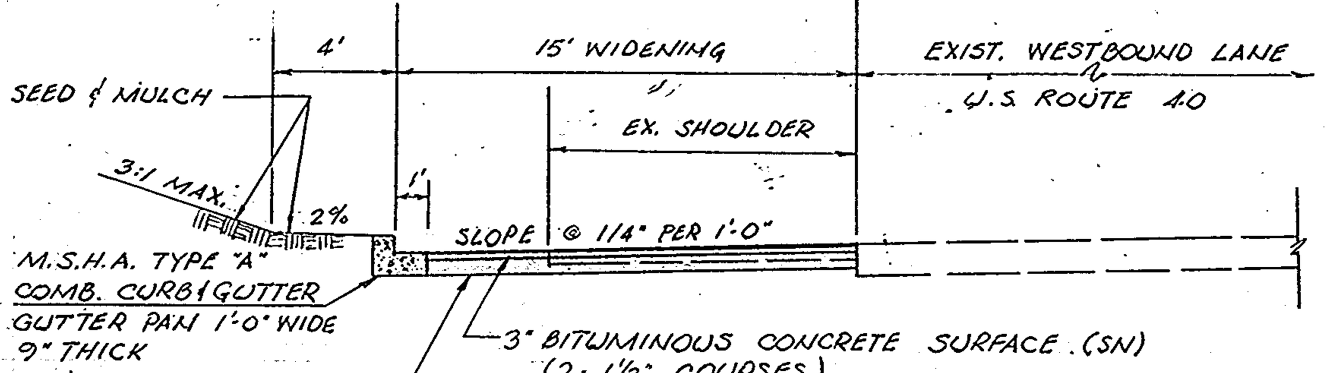


TREE PLANTING DETAIL
NO SCALE

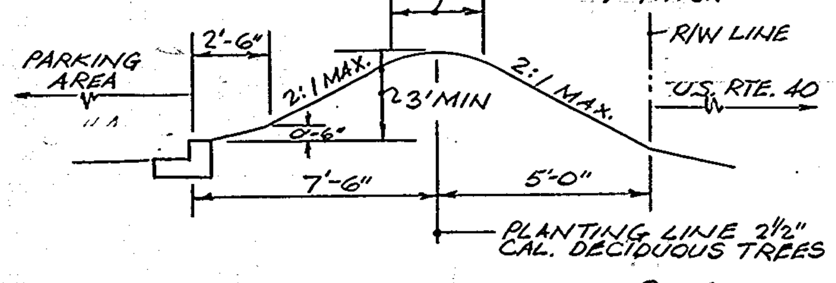
NOTE: WELL WIDTH = 1½ X BALL WIDTH



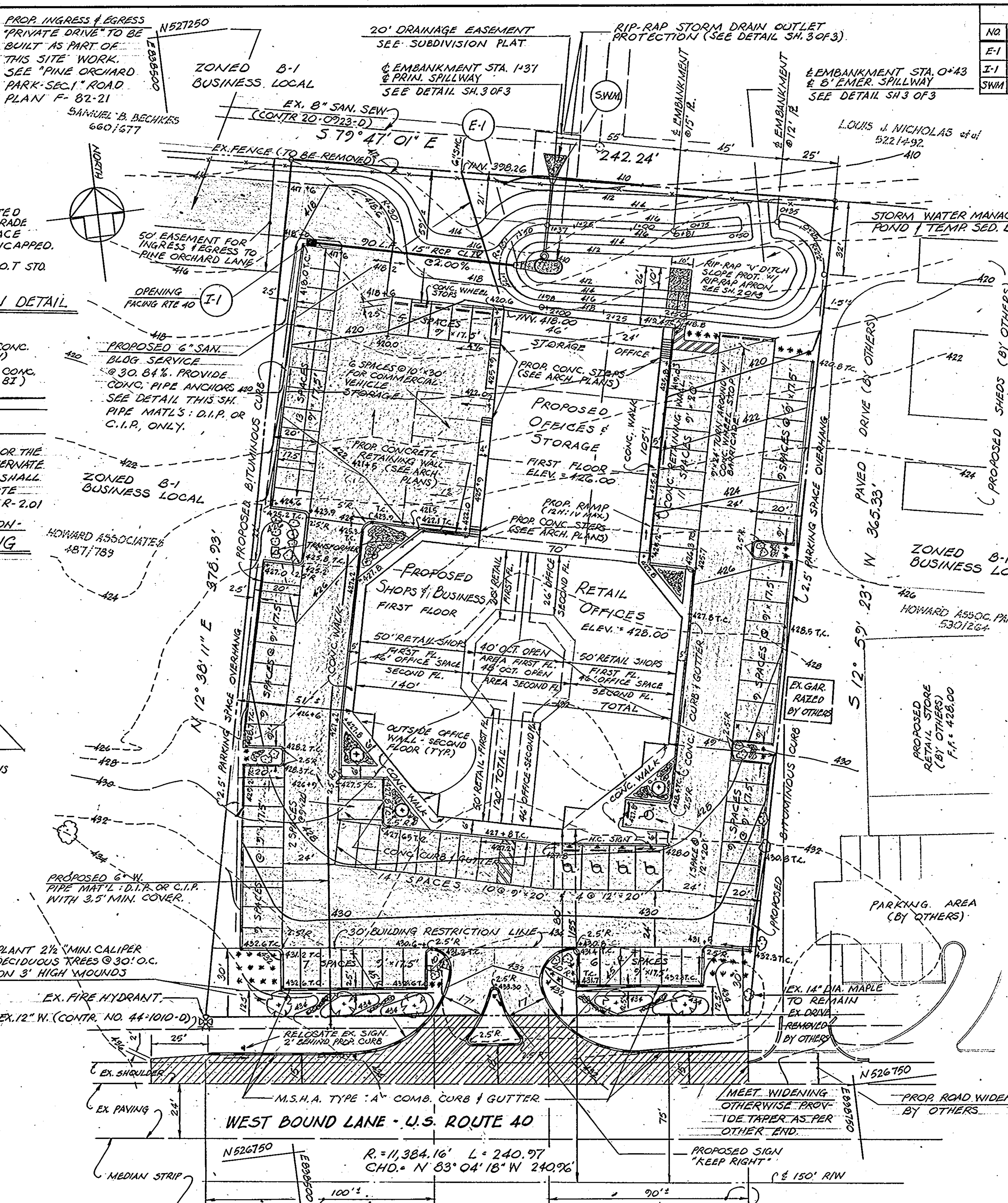
SHRUB PLANTING DETAIL
NO SCALE



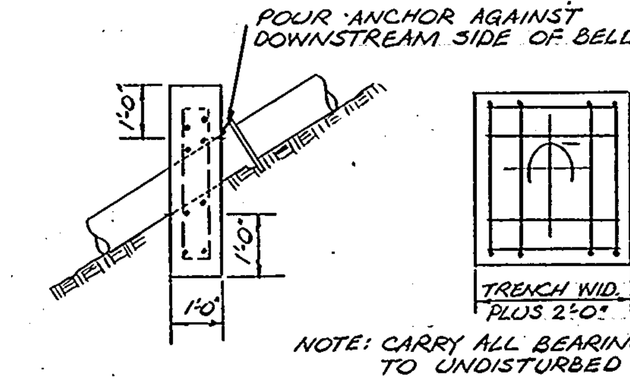
TYPICAL SECTION
U.S. ROUTE 40 WIDENING
SCALE: 1" = 5'



DETAIL - EARTH MOUNDING @ RTE 40
- NO SCALE -



PLAN
SCALE: 1" = 30'



PROVIDE 2 ANCHORS @ 18'± SPACING ON PIPE JOINTS

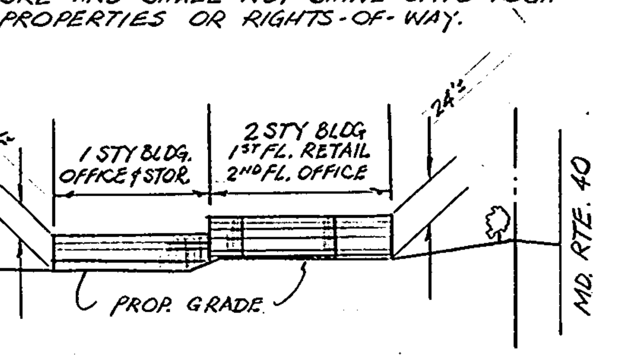
NOTE: CARRY ALL BEARING SURFACES TO UNDISTURBED SOIL.

FOR CONC. AND REINF. DETAILS SEE DRWG. # S-3.13

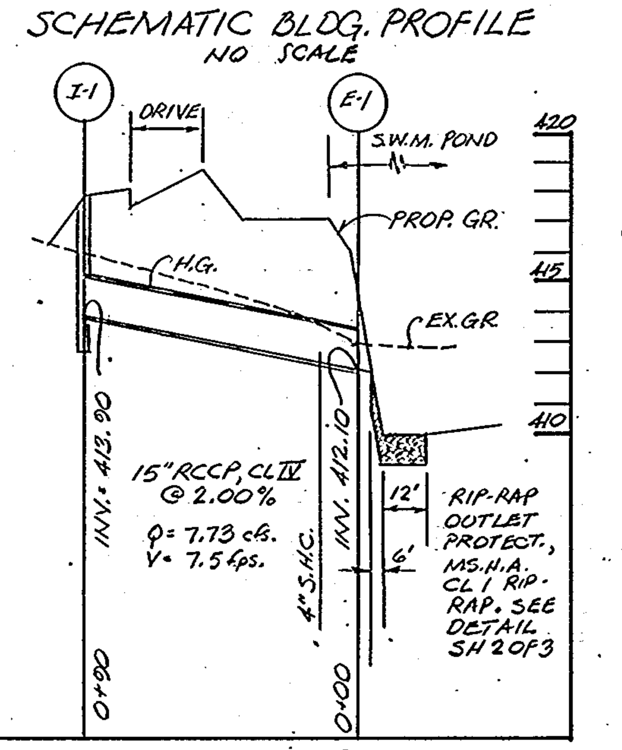
CONCRETE PIPE ANCHOR
NO SCALE

STRUCTURE SCHEDULE			
NO.	TOP ELEV.	INV. ELEV.	STD. SPEC. REFERENCE NO.
E-1	-	412.10	R.C.P. END SECTION DRWG. # S.D. 5.52
I-1	417.90	413.90	TYPE A-5 INLET DRWG. # S.D. 4.01
SWM	-	409.50	C.M.P. END SECTION DRWG. # S.D. 5.61

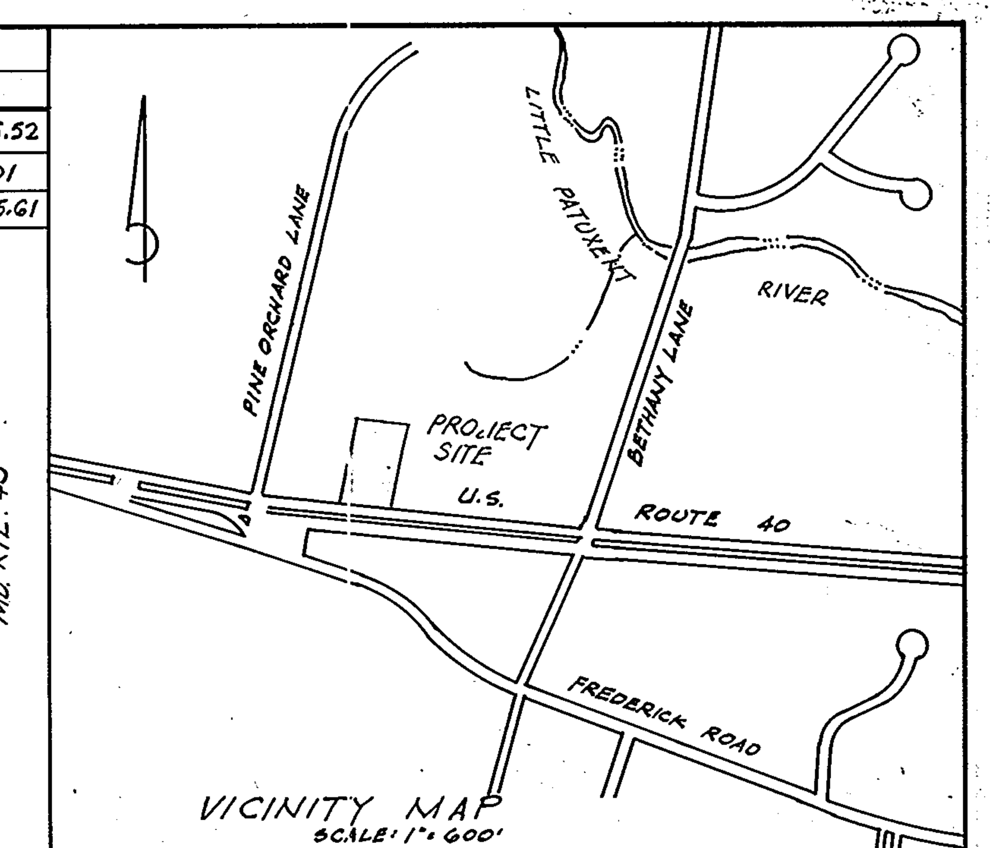
NOTE: SITE LIGHTING SHALL BE DIRECTIONAL IN NATURE AND SHALL NOT SHINE ONTO ADJACENT PROPERTIES OR RIGHTS-OF-WAY.



SCHEMATIC BLDG. PROFILE
NO SCALE



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



VICINITY MAP
SCALE: 1" = 600'

NOTE:
ANY INCREASE IN THE NUMBER OF OFFICE EMPLOYEES OR RETAIL AREAS SHALL REQUIRE APPROVAL OF THE OFFICE OF PLANNING AND ZONING.

LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED SPOT ELEV. (T.C. = TOP CURB)
- PROPOSED BIT. CONC. PAVING
- PROPOSED BIT. CONC. PAVING (M.S.H.A. TYPICAL SECTION)
- PROPOSED BIT. CONC. CURB OR CONC. CURB & GUTTER (AS LABLED)
- PROP. M.S.H.A. CONC. CURB & GUTTER - TYPE "A"
- PROPOSED UTILITY (WATER, SEWER, OR, STORM DRAIN, AS LABLED)
- PROPOSED 2½" MIN. CALIPER DECIDUOUS TREE.
- PROPOSED GROUND COVER PLANTS
- PROPOSED DECIDUOUS SHRUBS
- PROPOSED EVERGREEN SHRUBS
- BIT. CONC. PAVING STRIPED FOR PEDESTRIAN USE.

GENERAL NOTES:

1. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL VOL. IV "STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION" (EFF. 7-1-81) EXCEPT AS NOTED HEREON.
2. REFERENCE TO "DRWG NO." ON THESE SHEETS PERTAINS TO STANDARD DETAILS IN THE DESIGN MANUAL VOL 4.
3. BEARINGS AND DISTANCES SHOWN HEREON ARE REFERRED TO THE MARYLAND STATE GRID SYSTEM AND HAVE BEEN TAKEN FROM THE REFERENCED SUBDIVISION PLAT.
4. ELEVATIONS SHOWN HEREON ARE BASED ON THE HOWARD COUNTY DATUM.
5. REFER TO ARCHITECTURAL PLANS FOR RETAINING WALL AND CONCRETE STEP DETAILS.
6. ALL TRAFFIC CONTROL SIGNS PROPOSED HEREON SHALL CONFORM TO THE UNIFORM CODE FOR TRAFFIC CONTROL DEVICES AS ADOPTED BY THE MD. D.O.T.

SITE ANALYSIS:

1. PROPOSED USE - RETAIL SHOPS & BUSINESS OFFICES
2. ZONE - B-1
3. TOTAL AREA OF SITE - 2.060 AC.±
4. TOTAL AREA OF PARKING LOT - 1.36 AC.±
   LANDSCAPED AREAS REQ. (.05 x 1.36 x 43560) = 2966 S.F.±
   LANDSCAPED AREAS PROVIDED - 2975 S.F.±
5. TOTAL OPEN SPACE REQ. (20% OF 2.06 AC.) - 0.41 AC.±
   TOTAL OPEN SPACE PROVIDED (18,686 S.F) - 0.43 AC (21%)±
6. STRUCTURAL LOT COVERAGE - 20%
7. TOTAL IMPERVIOUS AREA - 1.63 AC.±
8. TOTAL REVEGITATED AREA - 0.43 AC.±
9. FLOOR AREA ANALYSIS:

	RETAIL	RET. STOR.	OFFICE	OFF. STOR.	TOTAL
REAR BLD.	none	none	2520	4830	7350
FRONT 1ST	10800	none	none	none	10800
FRONT 2ND	none	none	10800	none	10800
TOTAL	10800 S.F.	none	13320 S.F.	4830 S.F.	

10. PARKING ANALYSIS:
    REQ.: RETAIL @ 1 PER 200 S.F. (10800/200) - 54
    OFFICE @ 7 PER 10 EMPLOYEES (.7 x 71) - 50
    TOTAL 104
    PROVIDED (MAX. NO. OF OFFICE EMPL. = 71) - 104

ENGINEERS CERTIFICATION
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, AND EROSION 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 H.S.C.D. WITH AN "AS BUILT" PLAN OF THE POND WITHIN 30 DAYS OF ITS COMPLETION.
Richard J. Truelove December 2, 1981
RICHARD TRUELOVE REG NO 10800 DATE

DEVELOPERS CERTIFICATION:
I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE WITH 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" SURVEY OF THE POND WITHIN 30 DAYS OF COMPLETION.
Angelo Amabile DEC. 22, '81
ANGELO AMABILE DATE

HOWARD SOIL CONSERVATION DISTRICT
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
Robert W. Zelhar / WTR 1-5-82

U.S. SOIL CONSERVATION SERVICE
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. Holm 1-5-82

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Thomas G. Harris Jr. 1-8-82
PLANNING DIRECTOR DATE
1-8-82
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
George F. Nunnery 12-30-81
DIRECTOR DATE
William E. Riley 12/30/81
CHIEF, BUREAU OF ENGINEERING DATE
12-29-81

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
1-7-82
COUNTY HEALTH OFFICER DATE

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 11-13-81

SITE PLAN AND DETAILS
BETHANY-40 MALL
PINE ORCHARD PARK - SEC 1 : PARCEL "C"
PLAT REF: No 5032
TAX MAP 24 PARCEL 11
2ND ELECTION DISTRICT
SCALE: AS SHOWN
DEED REF. 487/789
HOWARD CO., MD.
OCTOBER 20, 1981
REV. NOV. 5, 1981, NOV 23, 1981

DEVELOPER:
ANGELO AMABILE
1718 M. BELMONT AVE.
BALTIMORE MD. 21207
265-1440

OWNER:
HOWARD ASSOCIATES
% DALE MAISEL
12789 FOLLY QUARTER RD.
ELLICOTT CITY MD 21043

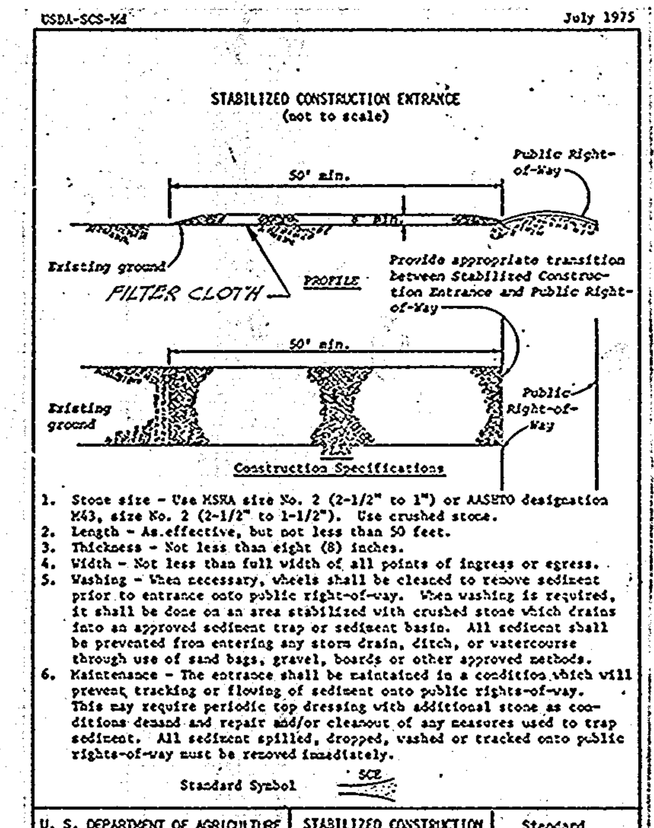
APR ASSOCIATES INC.
SURVEYORS AND ENGINEERS
7427 HARFORD RD.
BALTIMORE MD. 21234
444-4312
206 E. MAIN ST.
ELKTON MD. 21921
398-7766

STATE OF MARYLAND
RICHARD JOHN TRUELOVE
NO. 10800
REGISTERED PROFESSIONAL ENGINEER
Richard J. Truelove

FINAL NOV 23, 1981	
DESIGNED BY	
DRAWN BY	R. Truelove
PROJECT NO.	
DATE :	
SCALE :	
SHEET NO. 1 OF 3	

SDP-82-30

USDA-SCS-Md July 1975


STABILIZED CONSTRUCTION ENTRANCE
(not to scale)

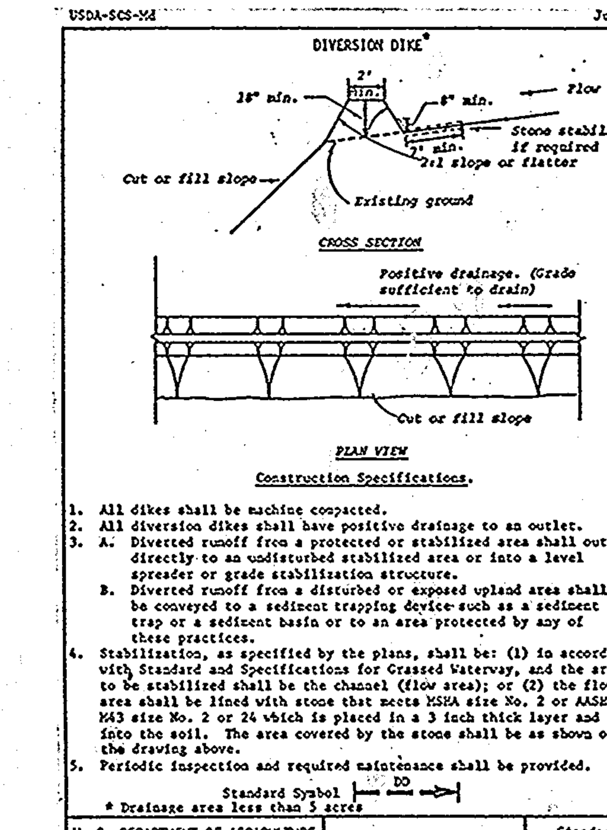
Construction Specifications

1. Stone size - Use MSHA size No. 2 (2-1/2" to 1") or AASHTO designation M43, size No. 2 (2-1/2" to 1-1/2"). Use crushed stone.
2. Length - As effective, but not less than 50 feet.
3. Thickness - Not less than eight (8) inches.
4. Width - Not less than full width of all points of ingress or egress.
5. Washing - When necessary, wheels shall be cleaned to remove sediment prior to entrance onto public right-of-way. When washing is required, it shall be done on an area stabilized with crushed stone which drains into an approved sediment trap or sediment basin. All sediment shall be prevented from entering any storm drain, ditch, or watercourse through use of sand bags, gravel, boards or other approved methods.
6. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.

Standard Symbol SCE

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE College Park, Md.	STABILIZED CONSTRUCTION ENTRANCE	Standard Drawing SCE-1

USDA-SCS-Md July 1975


DIVERSION DIKE*

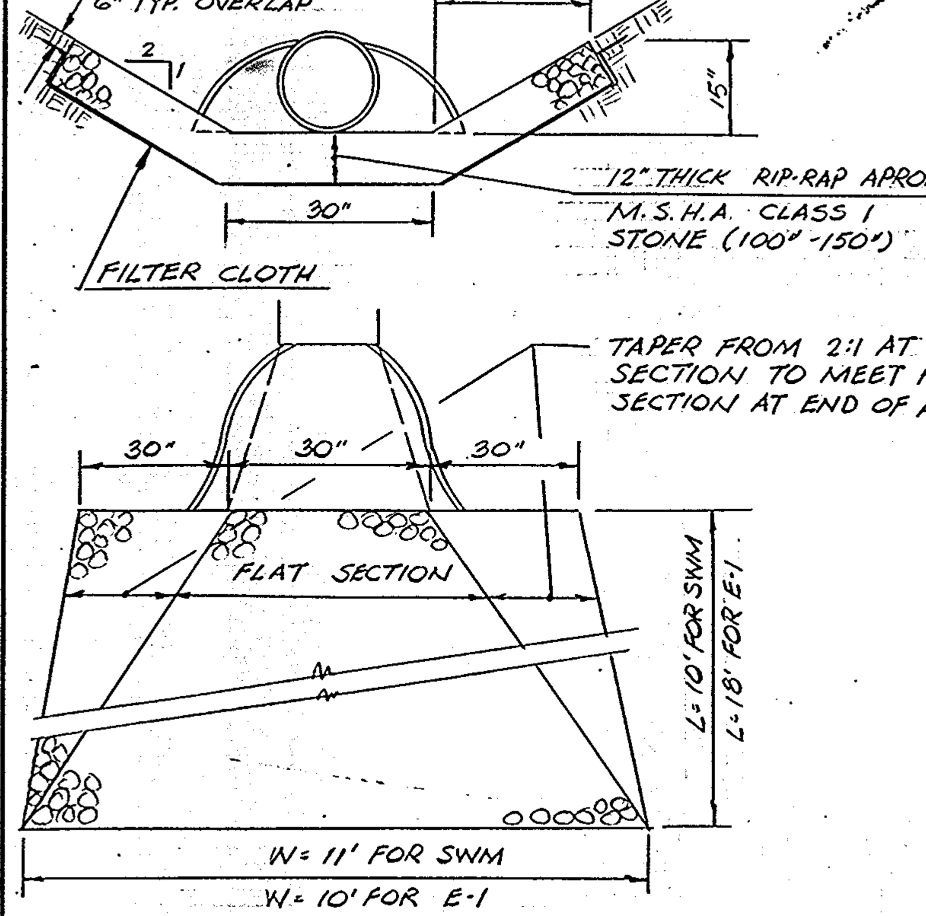
Construction Specifications.

1. All dikes shall be machine compacted.
2. All diversion dikes shall have positive drainage to an outlet.
3. A. Diverted runoff from a protected or stabilized area shall outlet directly to an undisturbed stabilized area or into a level spreader or grade stabilization structure.
   B. Diverted runoff from a disturbed or exposed upland area shall be conveyed to a sediment trapping device such as a sediment trap or a sediment basin or to an area protected by any of these practices.
4. Stabilization, as specified by the plans, shall be: (1) in accordance with Standard and Specifications for Grassed Waterway, and the area to be stabilized shall be the channel (flow area); or (2) the flow area shall be lined with stone that meets MSHA size No. 2 or AASHTO M43 size No. 2 or 24 which is placed in a 3 inch thick layer and pressed into the soil. The area covered by the stone shall be as shown on the drawing above.
5. Periodic inspection and required maintenance shall be provided.

Standard Symbol DD

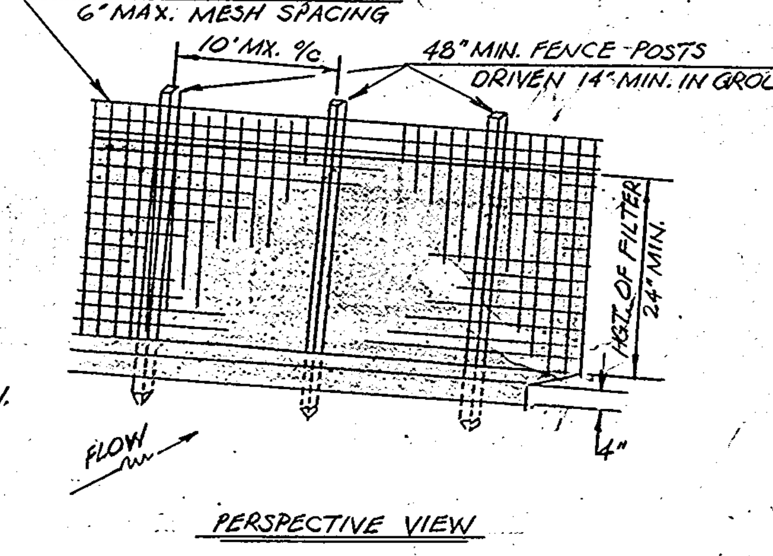
* Drainage area less than 5 acres

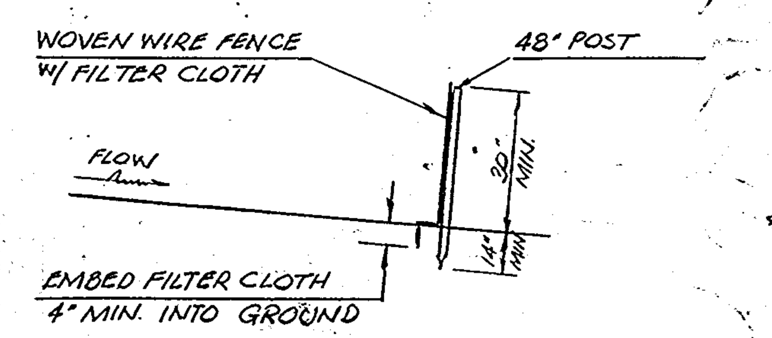
U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE College Park, Md.	DIVERSION DIKE	Standard Drawing DD-1



RIP-RAP APRON OUTLET PROTECTION

NO SCALE





SECTION

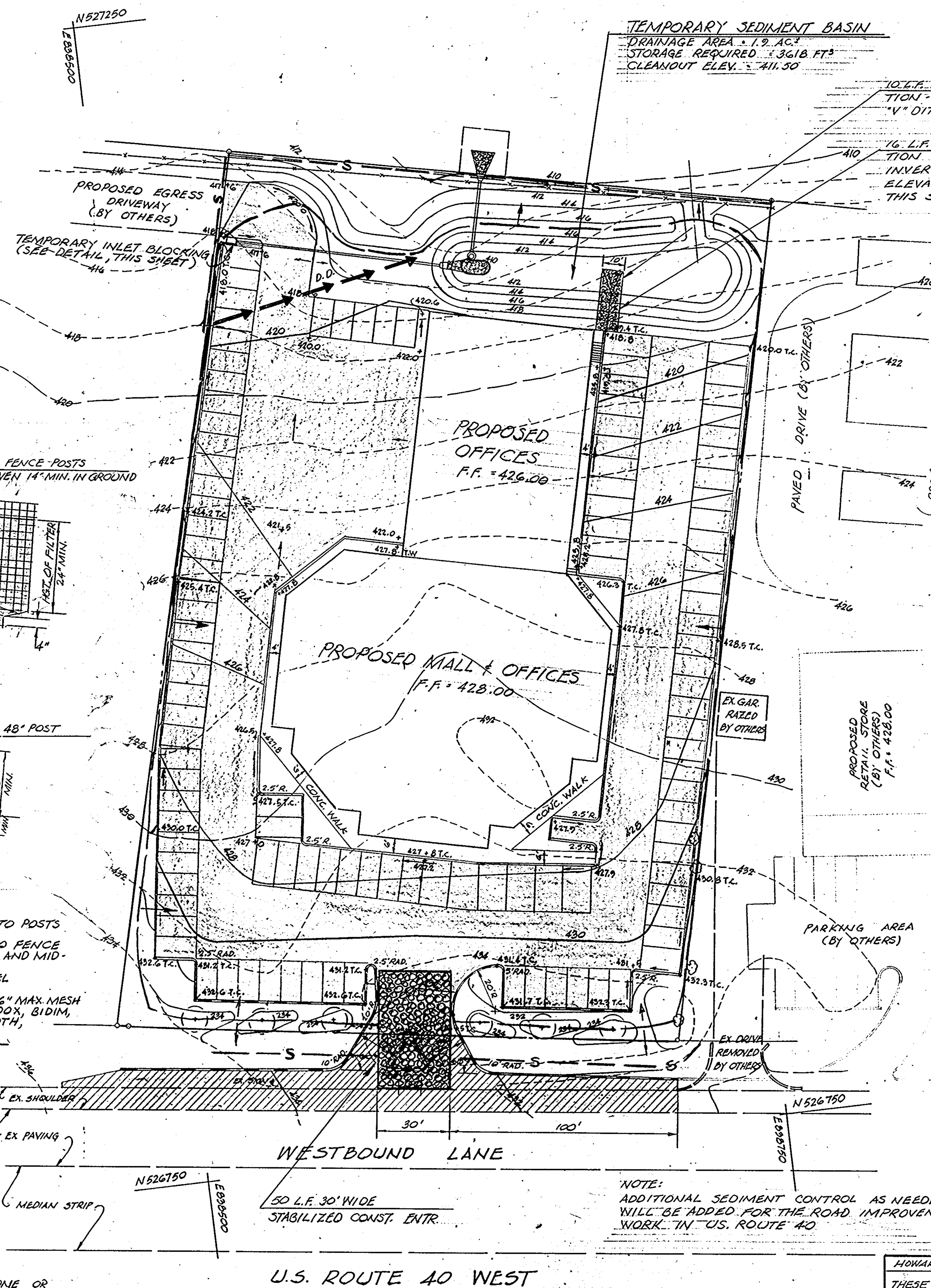
CONSTRUCTION NOTES:

1. SECURELY FASTEN FENCE TO POSTS WITH WIRE OR STAPLES.
2. CLOTH TO BE FASTENED TO FENCE EVERY 24" AT TOP, BOTTOM, AND MID-POINT WITH WIRE TIES.
3. POSTS: "T" OR "U" TYPE STEEL
   2" SQ. HARDWOOD
4. FENCE: W.W.F. 14 1/2 GA. 6"x6" MAX. MESH
5. CLOTH: FILTER-X, MIRAFI-100X, BIDIM, LAUREL EROSION CLOTH,

STD. SYMBOL —S—

SILT FENCE DETAIL

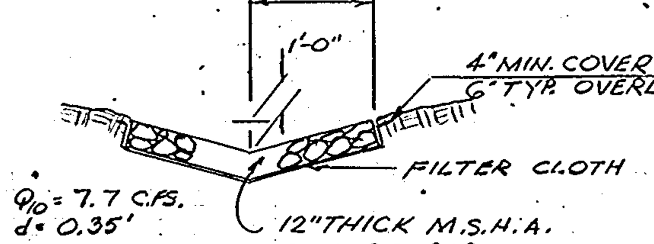
NO SCALE



NOTE:
ADDITIONAL SEDIMENT CONTROL AS NEEDED WILL BE ADDED FOR THE ROAD IMPROVEMENT WORK IN US. ROUTE 40

SEQUENCE OF OPERATIONS

1. THE CONTRACTOR SHALL NOTIFY THE HOWARD CO. OFFICE OF INSPECTION & PERMITS (992-2436) AT LEAST 3 DAYS PRIOR TO BEGINNING ANY WORK SHOWN HEREON.
2. CLEAR AND GRUB FOR SEDIMENT CONTROL DEVICES ONLY.
3. INSTALL SEDIMENT CONTROL DEVICES & GRADE FOR TEMPORARY SEDIMENT BASIN ONLY. INSTALL BARREL AND RISER. BLOCK LOW FLOW ORIFICE. MARK CLEANOUT ELEVATION ON RISER.
4. STABILIZE SEDIMENT BASIN WITH TEMPORARY SEEDING.
5. CLEAR, GRUB, & GRADE SITE. MAINTAIN DIVERSION DIKE TO INSURE SEDIMENT IS DIRECTED INTO SEDIMENT BASIN.
6. CLEAN OUT SEDIMENT BASIN WHEN SEDIMENT REACHES CLEANOUT ELEVATION BY PUMPING CLEAR WATER OVER THE EMBANKMENT. REMOVE SILT & SPREAD ON SITE TO DRY OR REMOVE IN AN APPROVED MANNER.
7. CONSTRUCT UTILITIES, STORM DRAIN, AND BUILDING. BLOCK INLET AS PER DETAIL THIS SHEET.
8. FINE GRADE SITE, PLACE PAVING AND STABILIZE LAWN AREAS WITH PERMANENT SEEDING.
9. WHEN ENTIRE SITE IS STABILIZED NOTIFY THE SEDIMENT CONTROL OFFICER FOR PERMISSION TO REMOVE THE SEDIMENT CONTROL DEVICES.
10. CLEAN OUT SEDIMENT BASIN IN ACCORDANCE WITH NOTE 6. STABILIZE SEDIMENT BASIN WITH PERMANENT SEEDING AND REMOVE LOW FLOW ORIFICE BLOCKING. REMOVE SEDIMENT CONTROL DEVICES.



Q_{10} = 7.7 C.F.S.
d = 0.35'
a = 0.49 S.F.
p = 2.89'
r = 0.1698
S = 2.0
V = 18 F.P.S.

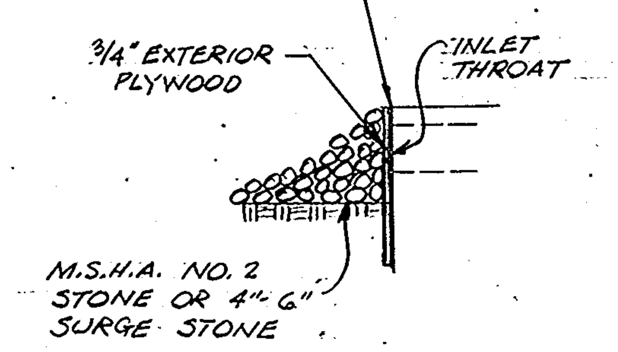
"V" DITCH SLOPE PROT.
NO SCALE

SITE ANALYSIS:

IMPERVIOUS AREA	= 1.63 AC.±
REVEGETATED AREA	= 0.43 AC.±
TOTAL SITE AREA	= 2.06 AC.±

SEDIMENT CONTROL NOTES

1. All work shall be accomplished in accordance with Soil Conservation Services's "Standards and Specifications for Soil Erosion and Sediment Control in Developing Areas", July, 1975, and this plan of Sediment Control approved by the Howard County Soil Conservation District and the Department of Public Works.
2. During the layout of the sediment control measures shown hereon, minor field adjustments can and will be made to insure the arrest and control of any sediment before it leaves the construction site. These said changes require prior approval of the Sediment Control Inspector and the Soil Conservation District.
3. At the end of each working day, all sediment control measures will be inspected and left in an operational condition.
4. No sediment control measures may be removed without permission of the Sediment Control Inspector.
5. All 2:1 slopes are to be stabilized immediately after grading operations with sod.
6. Any disturbed area left idle for more than 30 days will be stabilized according to the temporary seeding notes shown hereon.
7. Any changes to the grading proposed on these plans will require that they be resubmitted to the Soil Conservation District.



INLET BLOCKING DETAIL
NO SCALE

APPROVED
DIVISION OF LAND DEVELOPMENT &
ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 11-13-81
AWM

NOTE: THIS PLAN IS FOR SEDIMENT CONTROL ONLY. GRADES & ELEVATIONS SHOWN ON SHEET 1 OF 3 CONTROL IN THE EVENT OF A DISCREPANCY WITH THIS SHEET

SEEDING SPECIFICATIONS

PERMANENT SEEDING

All disturbed areas shall be stabilized as follows:

Seedbed Preparation: Loosen upper 3 inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq. ft.) and 600 lbs. per acre 0-20-20 fertilizer (14 lbs./1000 sq. ft.). Harrow or disc lime and fertilizer into upper three inches of soil. At time of seeding, apply 400 lbs. per acre (9.2 lbs./1000 sq. ft.) of 38-0-0 ureaform fertilizer and 500 lbs. per acre (11.5 lbs./1000 sq. ft.) of 10-20-20 fertilizer.

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs. per acre Kentucky 31 Tall Fescue (1.4 lbs./1000 sq. ft.) For the period May 1 thru July 31, seed with 60 lbs. per acre Kentucky 31 Tall Fescue (1.4 lbs./1000 sq. ft.) and 2 lbs. per acre of weeping lovegrass (.05 lbs./1000 sq. ft.). 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. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well anchored straw.

Seeding For Storm Water Management Ponds Only: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 87 lbs. per acre Kentucky 31 Tall Fescue (1.4 lbs per 1000 sq. ft.) For the period May 1 thru July 31, seed with 87 lbs. per acre Kentucky 31 Tall Fescue (1.4 lbs./1000 sq. ft.) and 2 lbs. per acre weeping lovegrass (.05 lbs./1000 sq. ft.). 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 87 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well anchored straw. All Kentucky 31 Tall Fescue shall be inoculated with Crown Vetch at 22 lbs. per acre (0.5 lbs./1000 sq. ft.).

Mulching: Apply 1.5 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 200 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 reseeding.

TEMPORARY SEEDING

Seedbed Preparation: Loosen upper 3 inches of soil by discing, raking or other acceptable means before seeding.

Soil Amendments: Apply 600 lbs. per acre of 10-20-10 fertilizer (15 lbs./1000 sq. ft.).

Seeding: For periods March 1 thru April 30, and from August 15 thru November 15, seed with 2.5 bushels per acre 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.).

Mulching: Apply 1.5 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 200 gallons per acre (5gal./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.

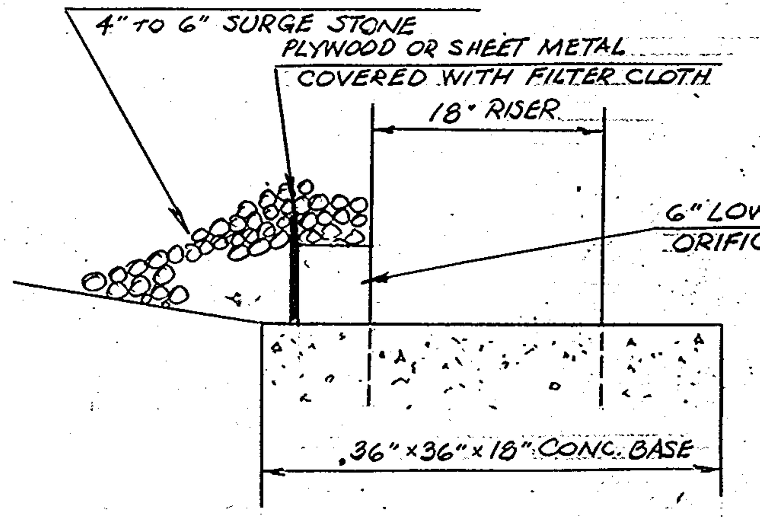
SODDING:

SEEDBED PREPARATION: PREPARE IN ACCORDANCE WITH PERMANENT SEEDING REQUIREMENTS.

SOIL AMENDMENTS: APPLY 100 LBS./1000 S.F. GROUND LIMESTONE AND 30 LBS./1000 S.F. OF 5-10-5 FERTILIZER. WATER SOIL THOROUGHLY.

SOD INSTALLATION: LAY WITH LONG EDGES PARALLEL TO THE CONTOUR AND STAGGER JOINTS, SECURE BY TAMPING AND PEGGING. WATER THOROUGHLY.

MAINTENANCE: WATER NEW SOD DAILY FOR FIRST WEEK AFTER INSTALLATION.



LOW FLOW ORIFICE BLOCKING DETAIL

NO SCALE

ENGINEERS CERTIFICATION
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION AND EROSION 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 H.S.C.D. WITH AN "AS BUILT" PLAN OF THE POND WITHIN 30 DAYS OF ITS COMPLETION.
Richard J. Truelove Dec. 2, 1981
RICHARD TRUELOVE Reg. No. 10800 DATE

DEVELOPER CERTIFICATION:
I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE WITH 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" SURVEY OF THE POND WITHIN 30 DAYS OF COMPLETION.
Angelo Amabile Dec. 22, 81
ANGELO AMABILE - VENUS CONST. CO. DATE

HOWARD SOIL CONSERVATION DISTRICT	U.S. SOIL CONSERVATION SERVICE
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. Robert N. Zehm / WR 1-5-82	THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL. James M. Helm 1-5-82

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEM, HOWARD COUNTY HEALTH DEPARTMENT Joseph Bynes — COUNTY HEALTH OFFICER — 1-7-82 DATE	APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING Thomas G. Harris Jr. — PLANNING DIRECTOR — 1-8-82 DATE CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — 1-8-82 DATE	APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS. HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS George F. Nemeyer — DIRECTOR — 12-30-81 DATE William E. Riley — CHIEF, BUREAU OF ENGINEERING — 12-30-81 DATE

SEDIMENT CONTROL PLAN & DETAILS
BETHANY - 40 MALL
PINE ORCHARD PARK-SEC. I PARCEL "C"
PLAT REF: Nº 5032
2ND ELECTION DISTRICT — HOWARD CO., MD.
SCALE: AS SHOWN — OCTOBER 20, 1981
TAX MAP 24 PARCEL 11 — DEED REF. 487/789

DEVELOPER:
ANGELO AMABILE
1718 N. BELMONT AVE.
BALTIMORE MD. 21207
265-1440

REVISIONS:
FINAL NOV 23, 1981

apr associates, inc.
surveyors-engineers
204-206 E. MAIN STREET, ELKTON, MD. 21921, PHONE: 398-7166
7427 HARFORD ROAD, BALTIMORE, MD. 21234, PHONE: 444-4312

DESIGNED BY	
DRAWN BY	R. Truelove
PROJECT NO.	
DATE :	
SCALE :	
SHEET	NO. 2 OF 3

SDP-82-30

POND 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. Areas within the pond shall be cleared of all brush and trees, unless otherwise noted on plans.

II. EARTH FILL

Material

The fill material shall be taken from the approved designated borrow areas. It shall be free from stumps, roots, wood, rubbish, oversize stones, frozen or other objectionable materials. The embankment shall be constructed to the elevation specified which provides for anticipated settlement to the design elevation.

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 layers (before compaction) 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

Fill material shall be compacted to 95% of AASHTO T-99 density with a sheepsfoot, rubber tired or vibratory roller.

Core Trench

As 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 excavation equipment used, with the minimum width being 4-feet. The minimum depth shall be 4-feet. 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 ~~(Unified Classification System CL or SC)~~ and shall be compacted to 95% of AASHTO T-99 density.

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 4-inches in thickness and compacted by hand tampers to 95% of AASHTO T-99 density. 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 4-feet, measured horizontally, to any part of a structure. Under no circumstances shall the contractor drive equipment over any part of a pipe or structure unless there is a compacted fill of at least 2-feet over the pipe or structure.

IV. PIPE CONDUITS

Corrugated Metal Pipe

1. Materials (steel pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated, conforming 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.

2. Connections - All connections with pipes shall be completely watertight. The low flow pipe and barrel shall be continuously welded to the riser. Watertight coupling bands with rubber gaskets shall be used at all joints. Anti-seep collars shall also be connected to the pipe in such a manner as to be completely watertight.

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

4. Laying Pipe - The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the sides.

5. Backfilling shall conform to structural backfill as shown above.

6. Appurtenances - Other details (anti-seep collars, trash racks, riser assembly, etc.) shall be as specified on the plans. These items shall be shop fabricated and bituminous coated after welding.

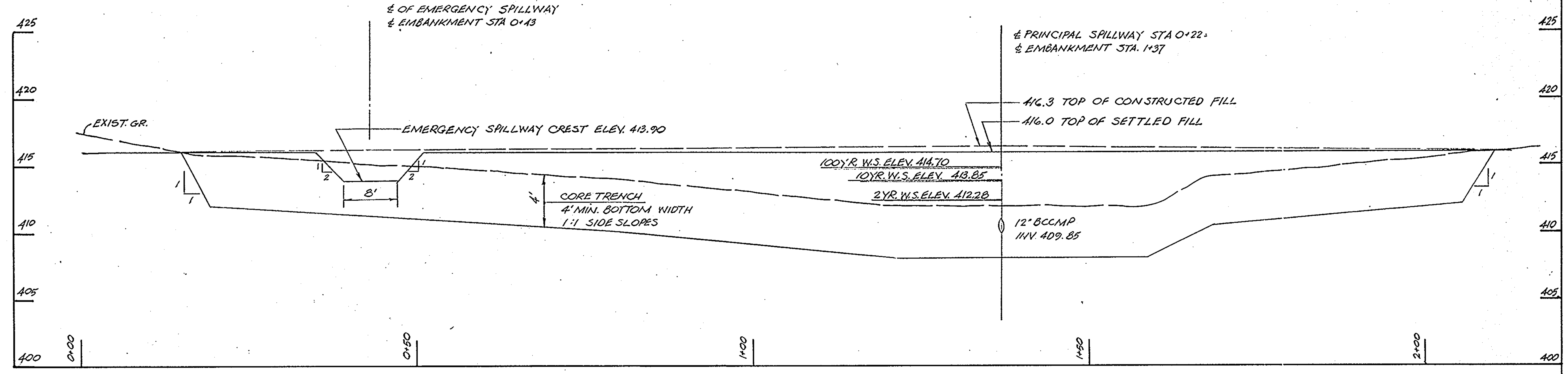
V. CONCRETE

Concrete shall meet minimum requirements set forth in Maryland State Highway Administration Specifications for Materials, Highways, Bridges and Incidental Structures, Article 20.07 (Portland Cement Concrete Mixtures), Mix No. 1.

VI. STABILIZATION

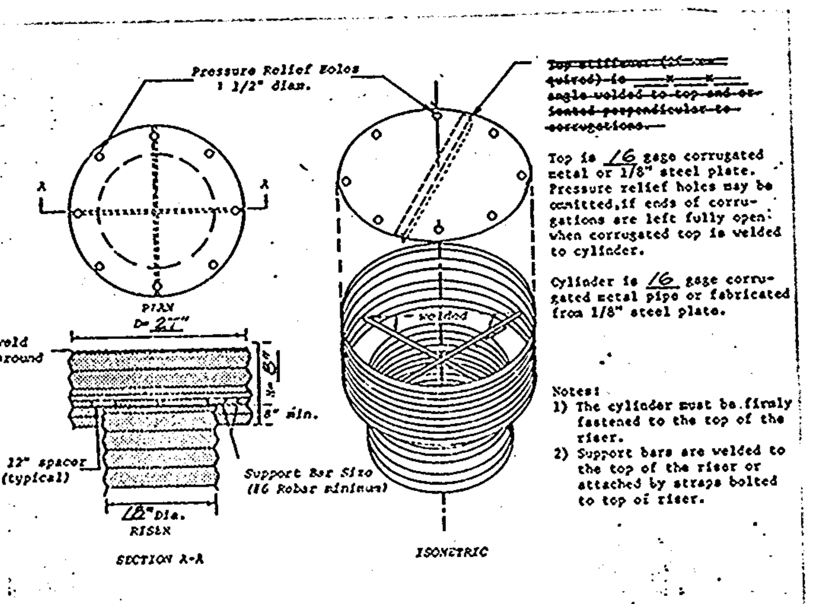
All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, earth spillway, pond area and borrow areas shall be stabilized by seeding and applying straw mulch in accordance with the "Standards and Specifications for Soil Erosion and Sediment Control in Urbanizing Areas" immediately after finish grading. The embankment, earth spillway and pond area shall receive the following permanent seed mixture:

Fertilizer:	10-10-10	@ 11.5 lbs/1000 sq ft
Seed:	Crownvetch, inoculated	@ 0.46 lbs/1000 sq ft
	'Kentucky 31' Tall Fescue	@ 0.92 lbs/1000 sq ft
Mulch:	Straw	@ 70-90 lbs/1000 sq ft
Asphalt Tie-down:	Slopes	@ 8 gal/1000 sq ft
	Flat areas	@ 5 gal/1000 sq ft

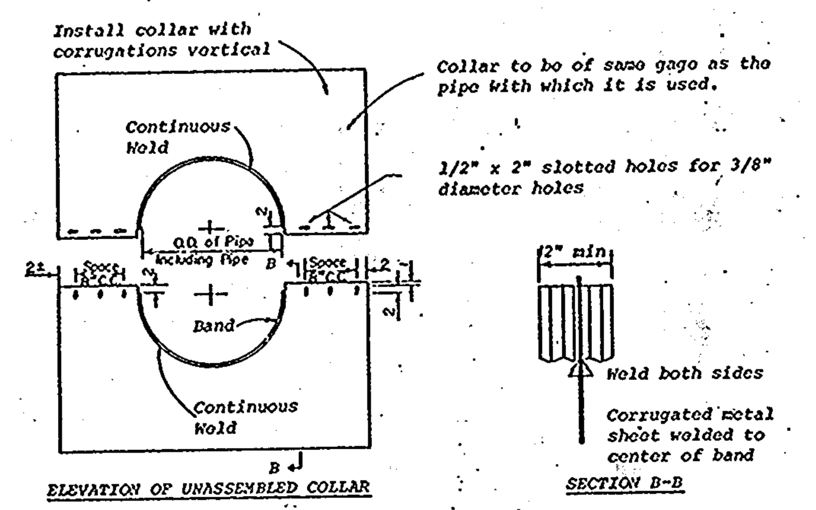


PROFILE ALONG EMBANKMENT ℄ LOOKING UPSTREAM

SCALE: HORZ: 1" = 10'
VERT: 1" = 5'

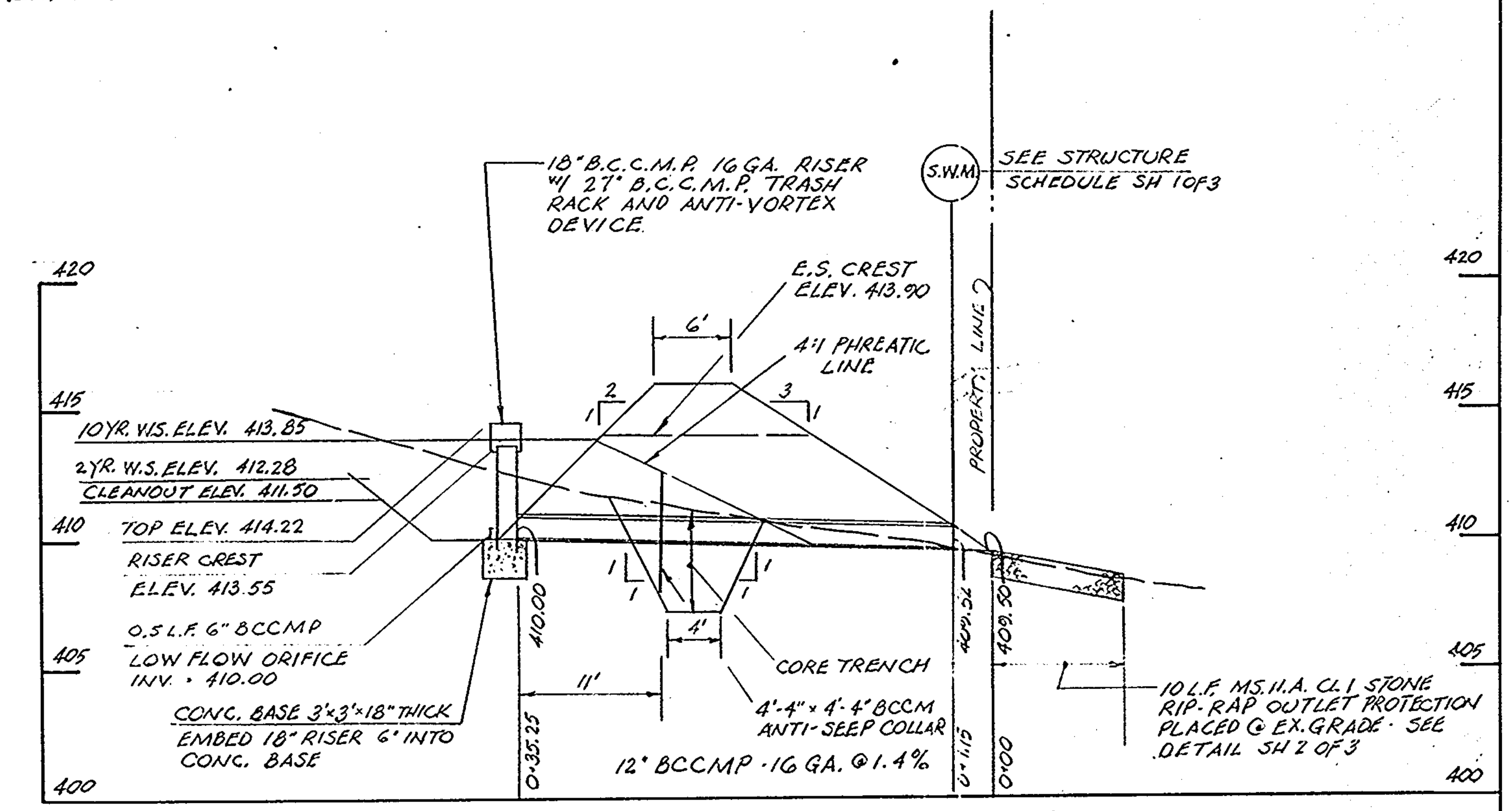


CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE
(not to scale)



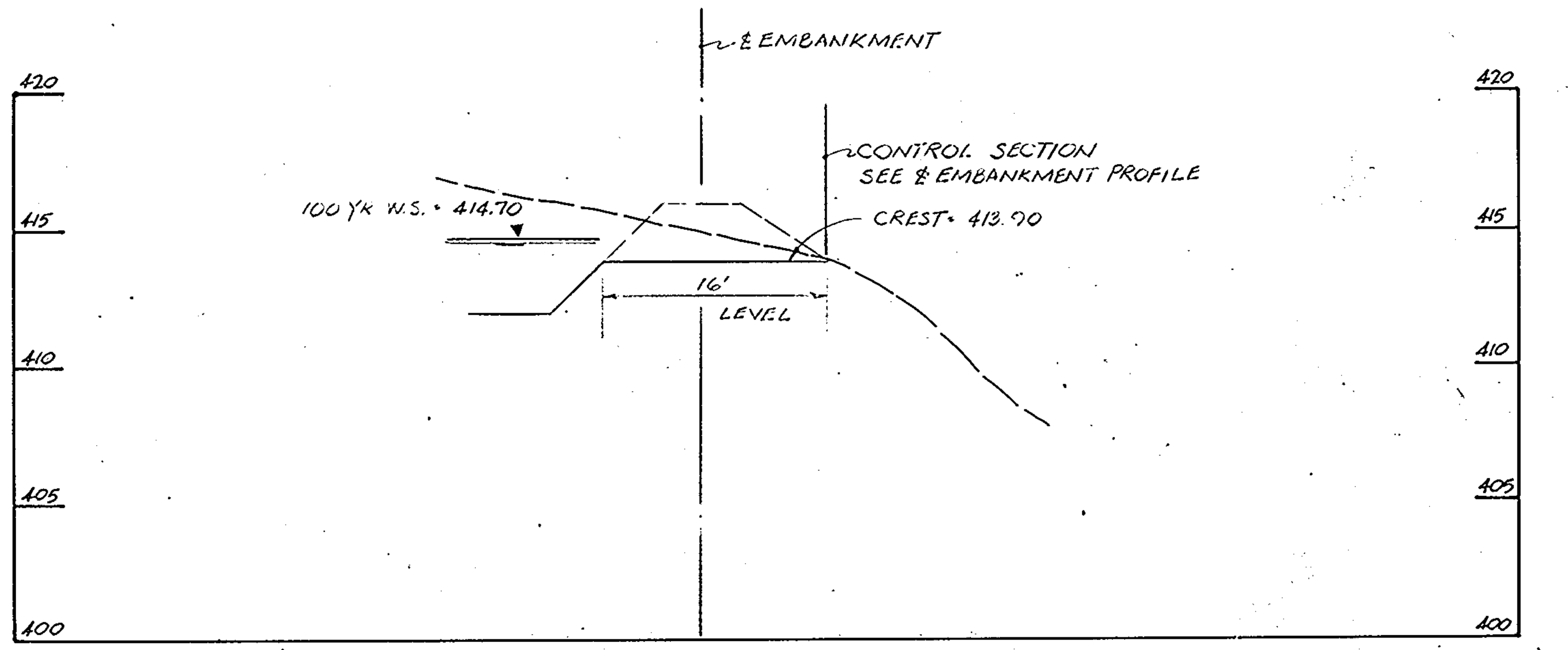
NOTES FOR COLLARS:
1. All materials to be in accordance with construction and construction material specifications.
2. When specified on the plans, coating of collars shall be in accordance with construction and construction material specifications.
3. Unassembled collars shall be marked by painting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

DETAILS OF CORRUGATED METAL ANTI-SEEP COLLAR



PRINCIPLE SPILLWAY CROSS-SECTION

SCALE: HORZ: 1" = 10'
VERT: 1" = 5'



EMERGENCY SPILLWAY PROFILE

SCALE HORZ: 1" = 10'
VERT: 1" = 5'

APPROVED
DIVISION OF LAND DEVELOPMENT &
ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 11-13-81

HOWARD SOIL CONSERVATION DISTRICT

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Robert W. [signature] 1-5-82

U.S. SOIL CONSERVATION SERVICE

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. [signature] 1-5-82

DEVELOPERS CERTIFICATION:
I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE WITH 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" SURVEY OF THE POND WITHIN 30 DAYS OF COMPLETION.

[signature] DEC. 22, 81
ANGELO AMABILE — DATE

ENGINEERS CERTIFICATION
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONNAL 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 H.S.C.D. WITH AN "AS BUILT" PLAN OF THE POND WITHIN 30 DAYS OF ITS COMPLETION.

Richard J. Truelove [signature] Dec. 2, 1981
RICHARD J. TRUELOVE REG. NO. 10800 — DATE

APPROVED:
FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEM, HOWARD COUNTY HEALTH DEPARTMENT.

[signature]
COUNTY HEALTH OFFICER — DATE

APPROVED:
HOWARD COUNTY OFFICE OF PLANNING AND ZONING

Thomas G. Harris [signature] 1-8-82
PLANNING DIRECTOR — DATE

[signature] 1-8-82
CHEIF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION. — DATE

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

George F. Nemeyer [signature] 12-30-81
DIRECTOR — DATE

William E. Riley [signature] 12-30-81
CHIEF, BUREAU OF ENGINEERING — DATE

STATE OF MARYLAND — RICHARD JOHN TRUELOVE — NO 10800 REGISTERED — PROFESSIONAL ENGINEER

STORM WATER MANAGEMENT DETAILS

BETHANY - 40 MALL
PINE ORCHARD PARK SEC. 1, PARCEL "C"
PLAT REF: Nº 5032

2ND ELECTION DISTRICT — HOWARD COUNTY, MD.
SCALE: AS SHOWN — OCTOBER 20, 1981
TAX MAP 24 PAR 11 — DEED REF. 487/789

apr associates, inc.
surveyors-engineers
204-206 E. MAIN STREET, ELKTON, MD. 21921, PHONE: 398-7766
7427 HARFORD ROAD, BALTIMORE, MD. 21234, PHONE: 444-4312

DESIGN:
DRAWN:
CHECKED: R. Truelove

REVISIONS:
NOV. 23, 1981

SDP-82-30