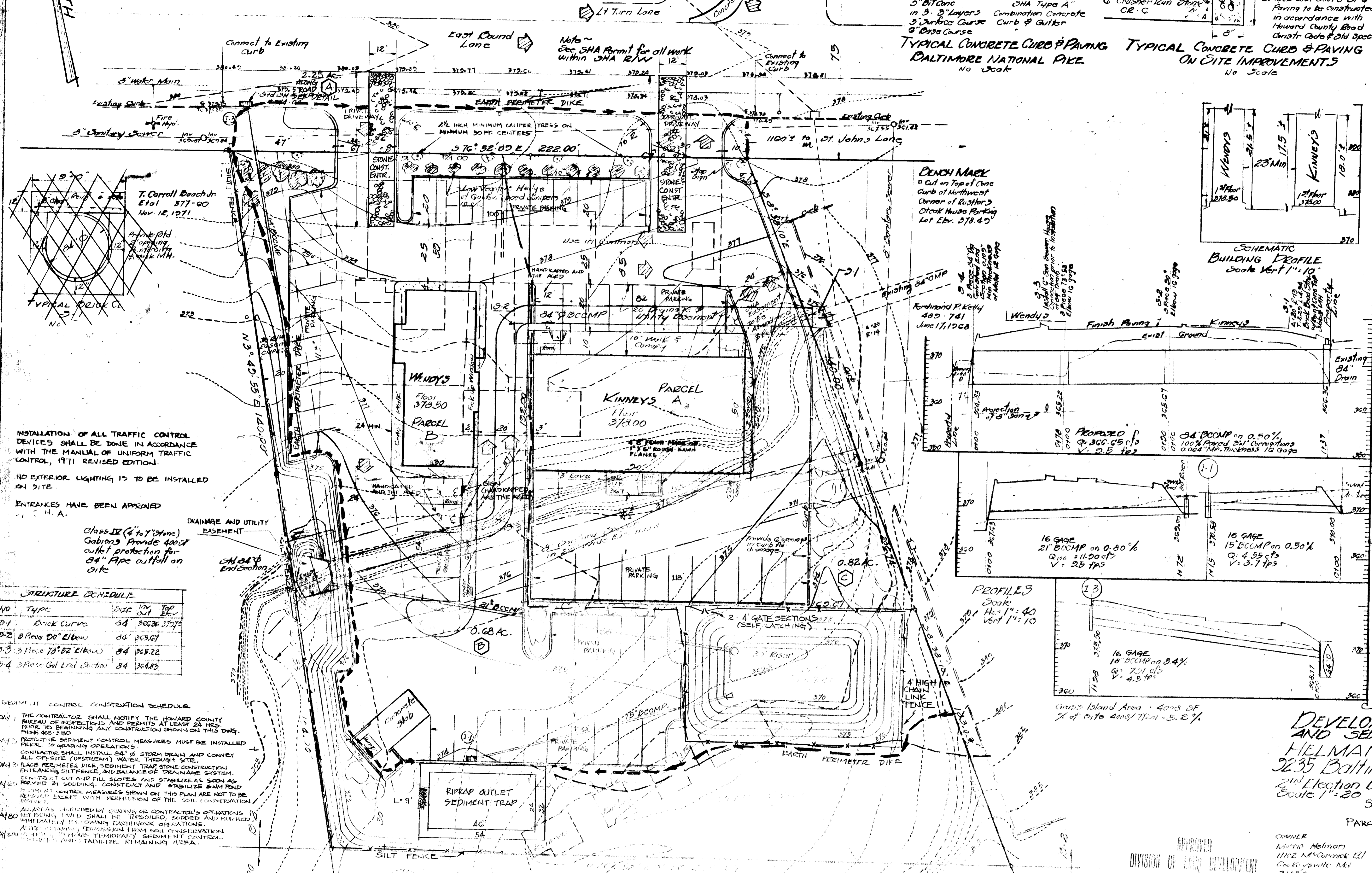
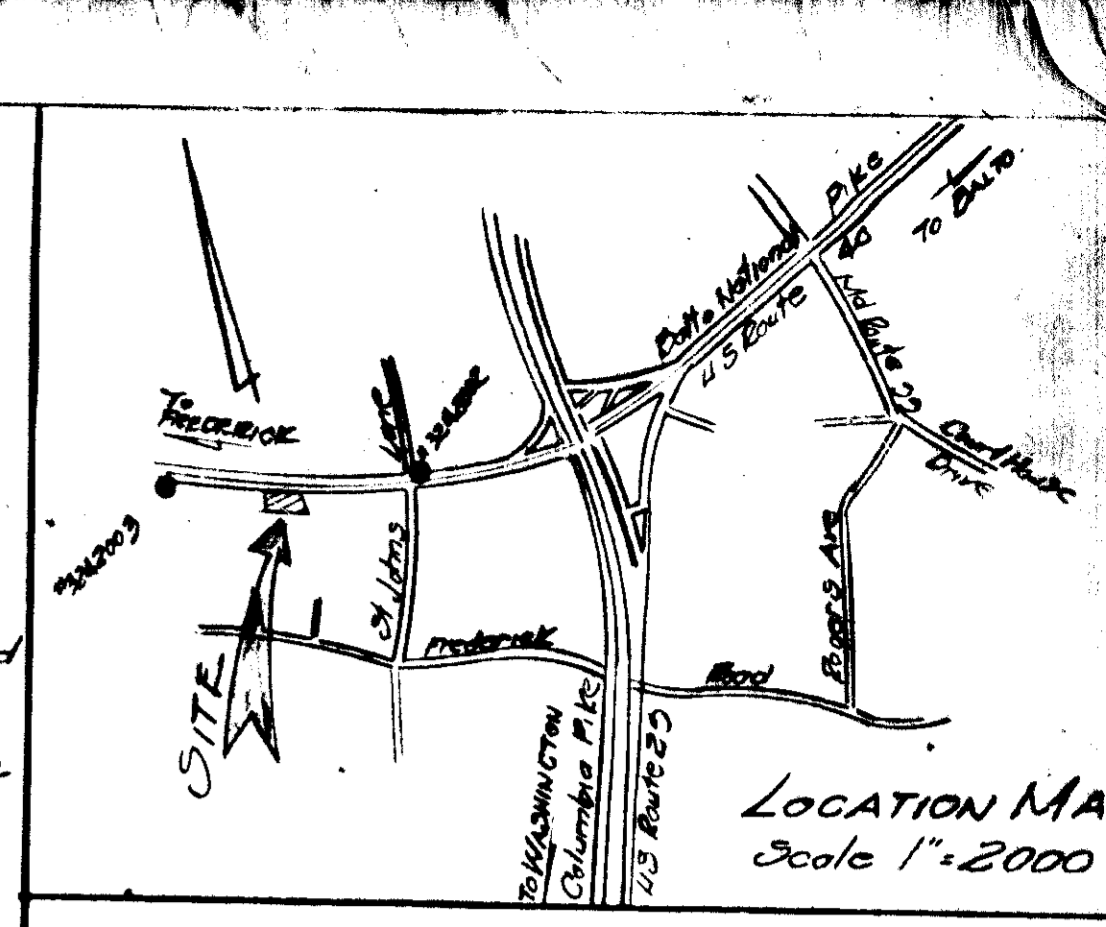
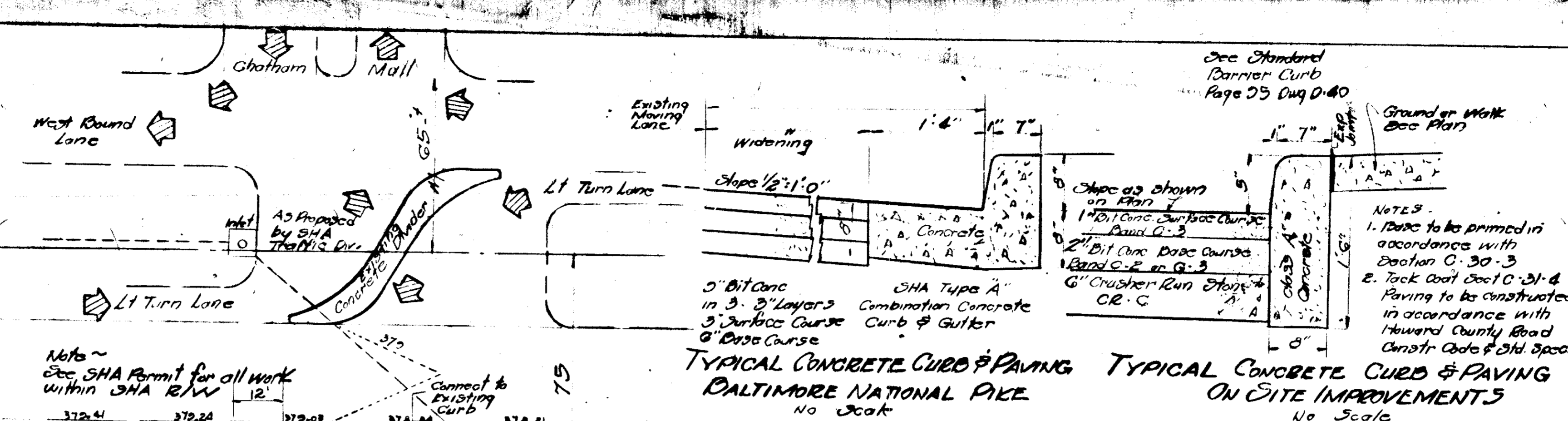
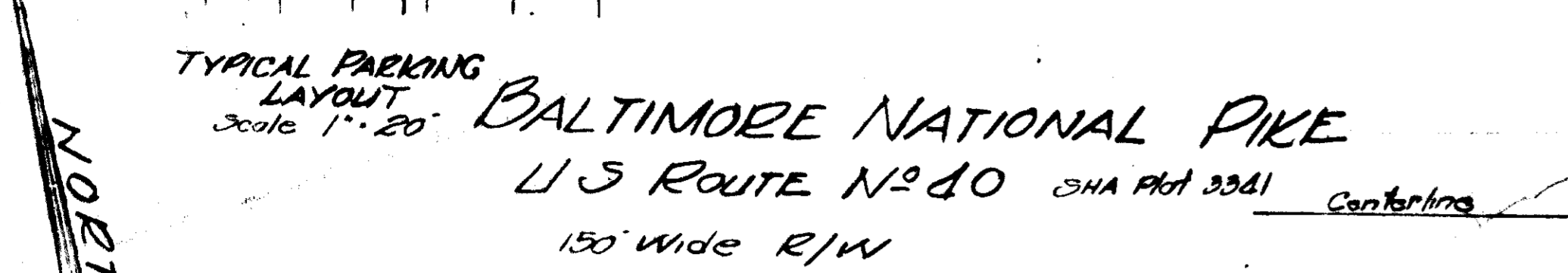


Installation of all traffic control devices shall be in accordance with Manual of Uniform Traffic Control, 1971 revised edition. All work within Baltimore National Pike shall be in accordance with SHA Permit.



INSTALLATION OF ALL TRAFFIC CONTROL DEVICES SHALL BE DONE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL, 1971 REVISED EDITION.

NO EXTERIOR LIGHTING IS TO BE INSTALLED ON SITE.

ENTRANCES HAVE BEEN APPROVED BY SHA.

STRUCTURE SCHEDULE

| NO. | TYPE | SIZE | IN | TOP |
|-----|-------------------------|------|--------|--------|
| B-1 | DRIVE CURVE | 34' | 302.36 | 370.75 |
| B-2 | 2 Pieces 20° Elbow | 34' | 303.67 | |
| B-3 | 3 Piece 79°52' Elbow | 34' | 305.22 | |
| B-4 | 3 Piece Gal End Section | 34' | 304.83 | |

SEWAGE CONTROL CONSTRUCTION SCHEDULE

DAY 1: THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY BUREAU OF INSPECTIONS AND PERMITS AT LEAST 24 HRS. PRIOR TO BEGINNING ANY CONSTRUCTION SHOWN ON THIS DWG. PERMITS SEE 5100.

DAY 2: PROTECTIVE SEDIMENT CONTROL MEASURES MUST BE INSTALLED PRIOR TO GRADING OPERATIONS. CONTRACTOR SHALL INSTALL 24" x 6" STORM DRAINS AND CONVEY ALL OFFSITE (UPSTREAM) WATER THROUGH SITE.

DAY 3: PLACE PERIMETER DIKE, SEDIMENT TRAP, STONE CONSTRUCTION ENTRANCES, SILT FENCE, AND BALANCE OF DRAINAGE SYSTEM. CONTRACT CUT AND FILL SLOPES AND STABILIZE AS SOON AS PROVIDED BY SODDING, CONSTRUCT AND STABILIZE SUMM POND.

DAY 4: INITIAL CONTROL MEASURES SHOWN ON THIS PLAN ARE NOT TO BE REMOVED EXCEPT WITH PERMISSION OF THE SOIL CONSERVATION DISTRICT.

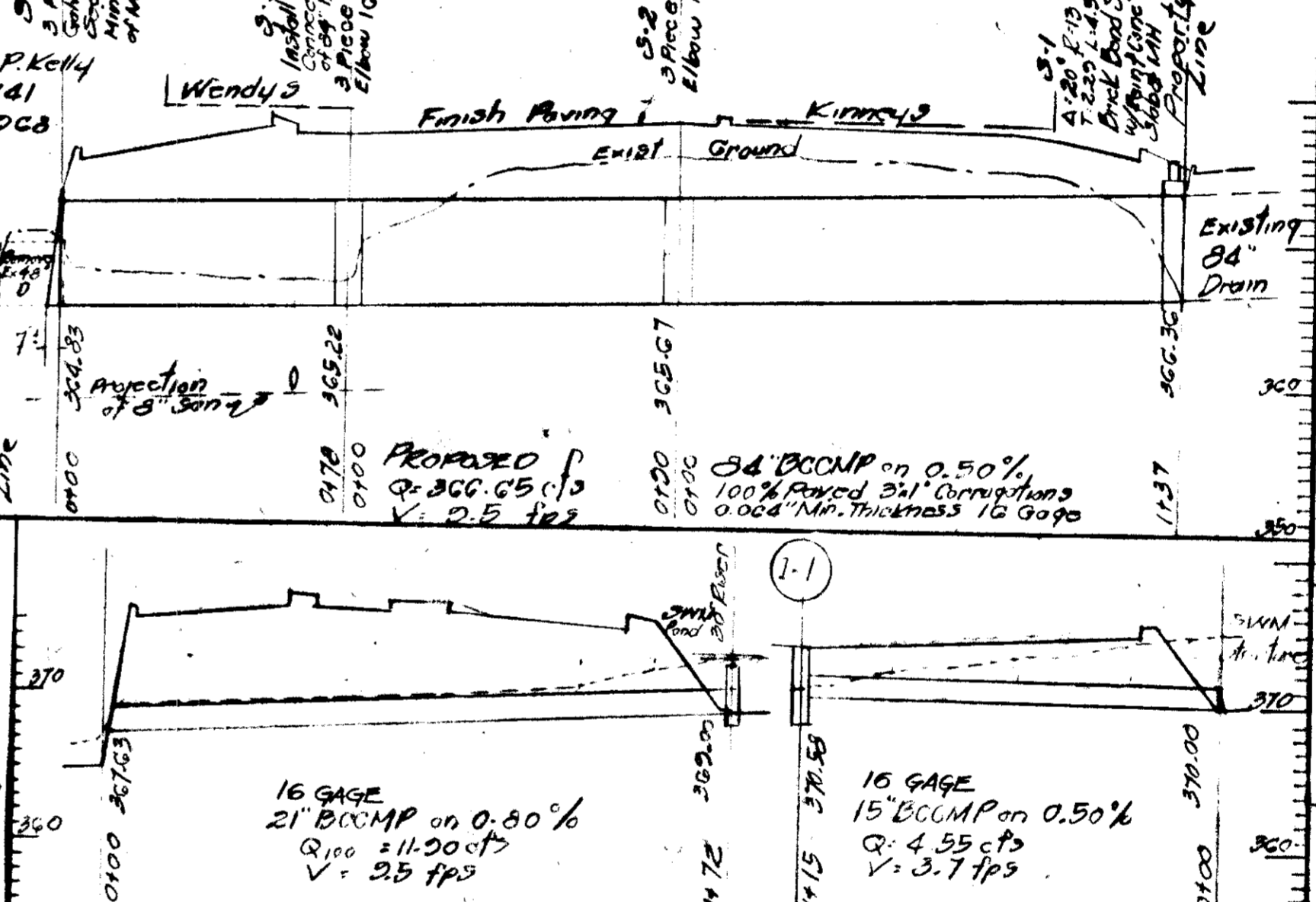
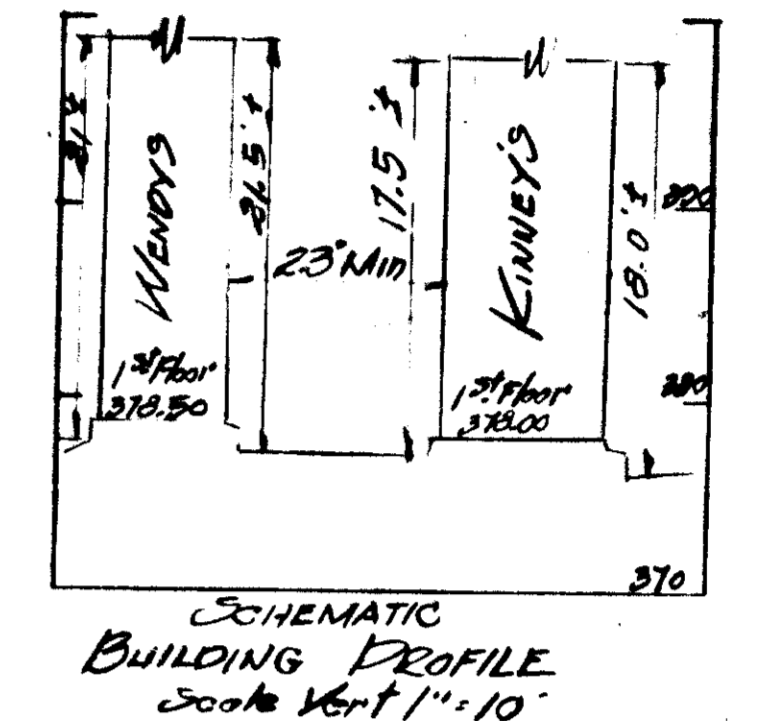
DAY 5: ALL AREAS TO BE GRADDED OR CONTRACTOR'S OPERATIONS NOT BEING LAID SHALL BE PROTECTED, SODDED AND FURNISHED IMMEDIATELY FOLLOWING EARTHWORK OPERATIONS.

DAY 6: ALL STORM DRAINAGE STRUCTURES SHALL BE PROTECTED FROM SOIL CONSERVATION DISTRICT WITH PROTECTIVE SEDIMENT CONTROL MEASURES. ALL AREAS TO BE STABILIZED REMAINING AREA.

SEDIMENT TRAP DATA

| DRAINAGE AREA | REQ'D VOL. | VOL. PROVIDED | AV. DESIGN SIZE | CREST | BOTTOM | OPENING | CREST EL. | BOTTOM EL. | CLEANOUT EL. |
|---------------|------------|---------------|-----------------|-----------|-----------|---------|-----------|------------|--------------|
| 1.5 AC. | 100.5 SY | 103.7 SY | 2' x 50' x 28" | 54" x 32" | 46" x 24" | 9" | 370.5 | 368.5 | 369.5 |

DITCH MARK
Cut on Top of Conc Curb at Northwest Corner of Building's Street House Parking Lot Elev. 378.45



I 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.

David W. Dallas Jr. PE 3579 Oct 20, 79 Date

I certify that all development and/or construction will be done according to this plan of development and plan for Erosion and Sediment Control, and I also authorize periodic on site inspection by the Howard Soil Conservation District or their authorized Agents, as are deemed necessary. Deviations from this plan will not be made without authorization by the Howard Soil Conservation District.

F. Richard Johnson 9/21/79 Date
Reviewed for HOWARD and meets Technical Requirements.

James M. Hulse 2-26-80 Date
Signature
Howards Soil Conservation District

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

APPROVED: William J. Rice 2-26-80 Date
Howard Soil Conservation District

APPROVED: for Public Water & Public Sewerage Systems, HOWARD COUNTY HEALTH DEPARTMENT

John Bowman 3-12-80 Date
Chief, Division of Health Officer

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

William J. Rice 3-13-80 Date
Chief, Division of Land Development

APPROVED: for Public Water, Public Sewerage, and Storm Drainage Systems and Roads.

Henry F. Nunnally 3-11-80 Date
Director

3-11-80 Date
Chief, Bureau of Engineering

GENERAL NOTES

1. PLAT OF HELMAN PROPERTY RECORDED IN PLAT BOOK 4535
2. GROSS AREA 11.21 AC.
3. Zoned: R-2
4. Use: Wendy's Restaurant & Kinneys' Shop
5. Total Number of Lots: Two (INCL 3 HANDICAPPED)
6. Parking Spaces Shown: 304 (20' x 61' Spaces)
7. Parking Spaces Required: 61 (20' x 61' Spaces)
8. Wendy's Shop: 4115 sq ft + Kinneys' Shop: 6175 sq ft
9. Total sq ft of Building: 10290 + 4500 = 14790 sq ft
10. Any damage to County Right of Way or existing paving shall be corrected at the Developer's expense.
11. All material and construction methods shall be in accordance with Howard County Construction Code.

SITE DEVELOPMENT PLAN AND SEDIMENT CONTROL PLAN
HELMAN PROPERTY
3235 Baltimore National Pike
21st Election District Howard County, Md.
Scale 1"=20'

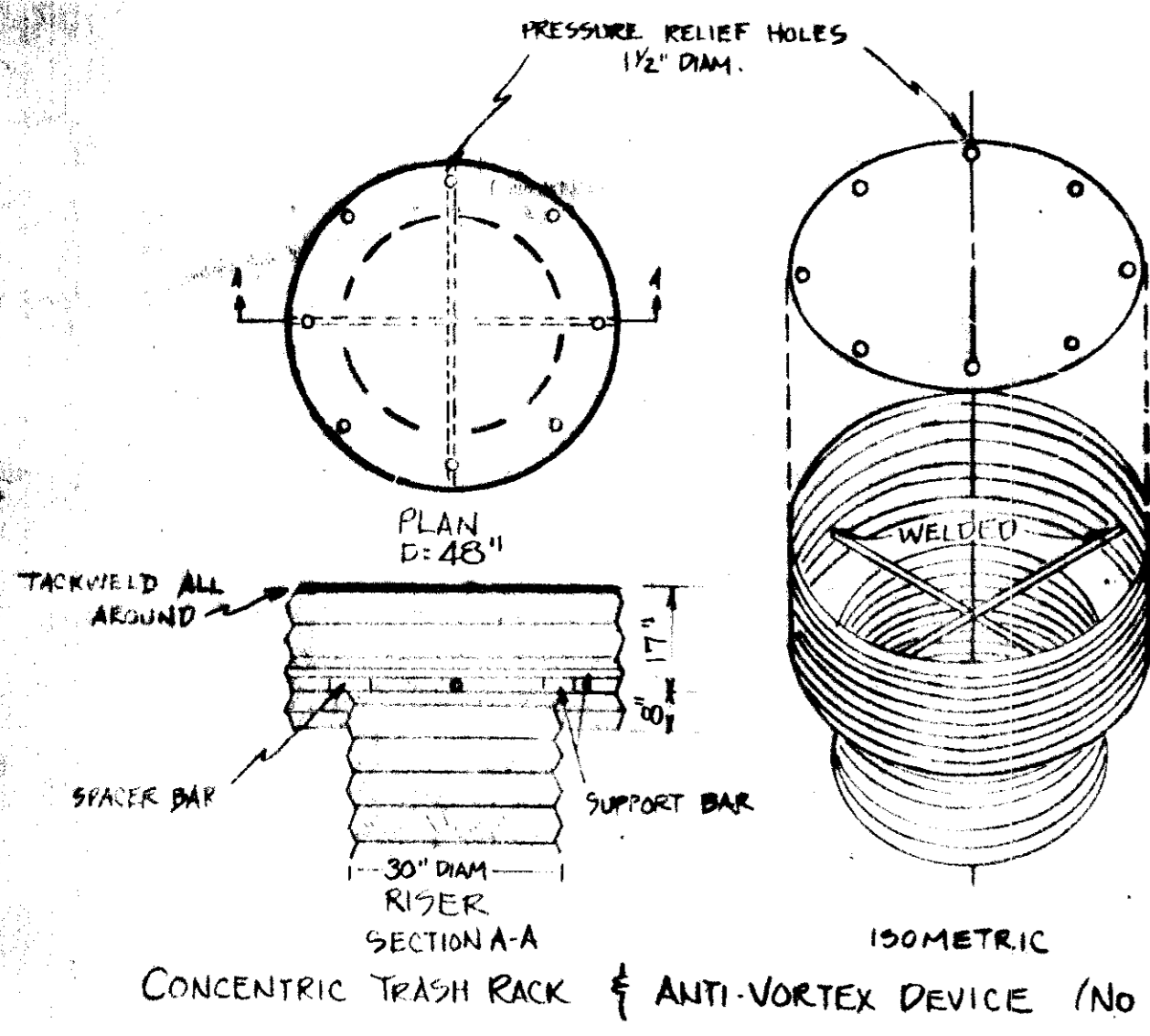
SHEET 2 OF 4
PARCELS A & B

OWNER: Mandy Helman, Wendy's Restaurant, 1102 N. Central Rd, Cockeysville, Md 21030, Phone 667-1300

CONTRACT ENGINEER: Wendy's Restaurant, Kinneys' Shop

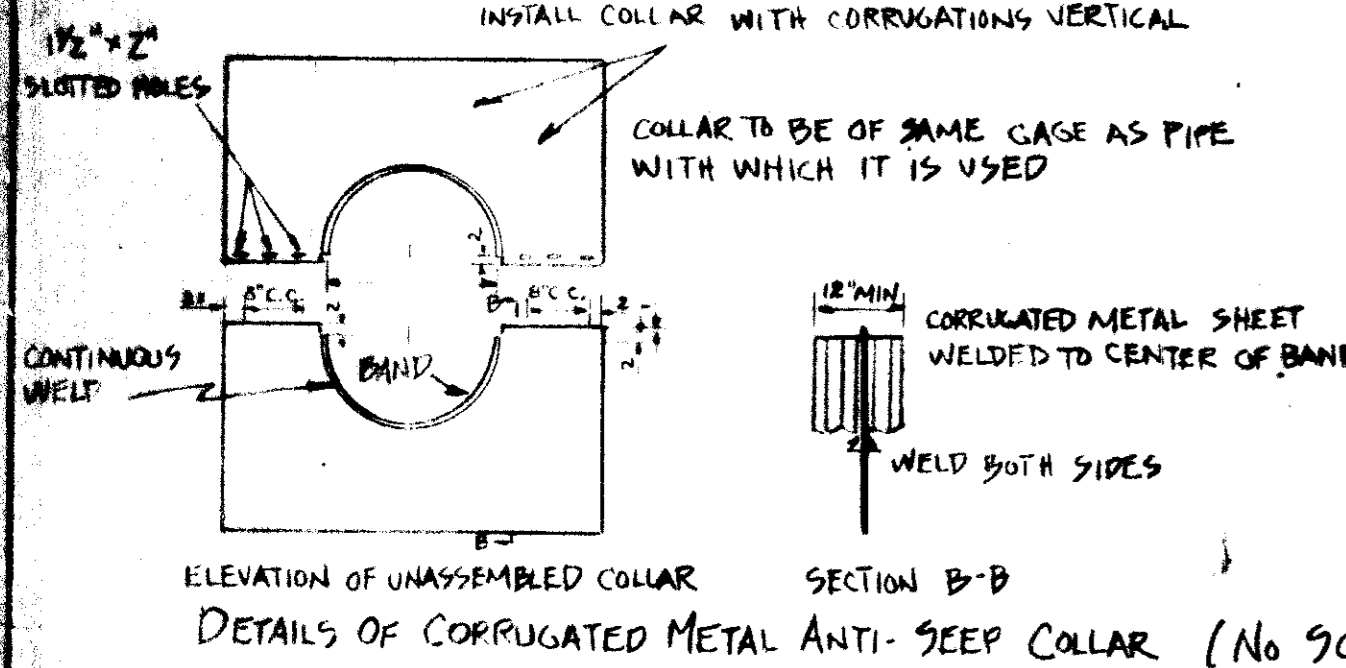
APPROVED: DIVISION OF LAND DEVELOPMENT, HOWARD COUNTY, MARYLAND
DATE: 11-16-79

October 4, 1979
Mark Dallas, PE
July 27, 1979

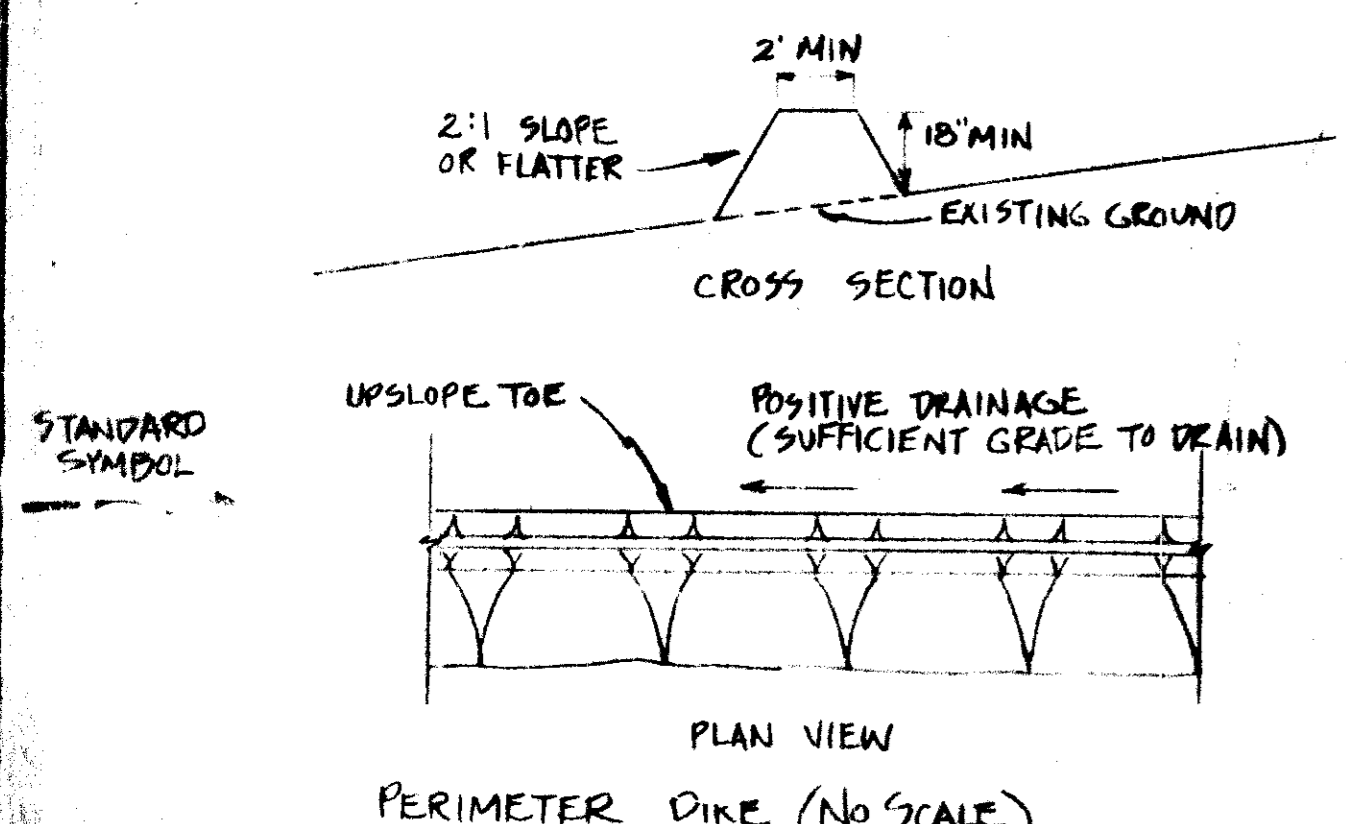


TOP IS GAGE CORRUGATED METAL PRESSURE RELIEF HOLES MAY BE OMITTED, IF ENDS OF CORRUGATIONS ARE LEFT FULLY OPEN WHEN CORRUGATED TOP IS WELDED TO CYLINDER. CYLINDER IS 1/4 GAGE CORRUGATED METAL PIPE.

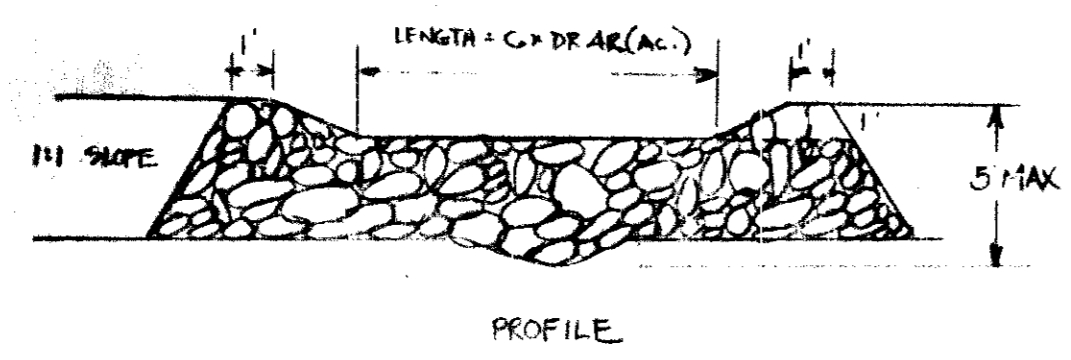
- NOTE:
- THE CYLINDER MUST BE FIRMLY FASTENED TO THE TOP OF THE RISER.



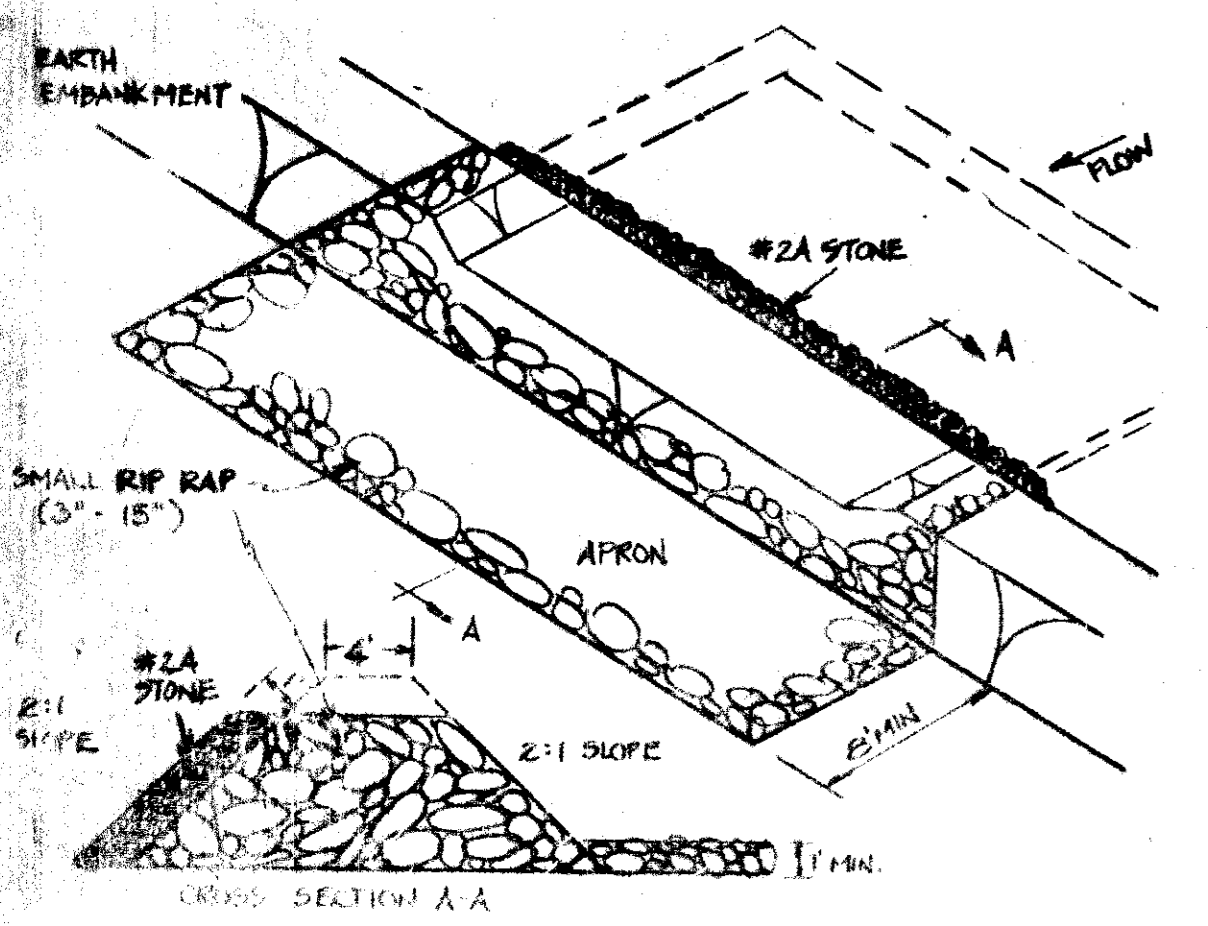
- NOTES FOR COLLARS:
- ALL MATERIALS TO BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIALS SPECIFICATIONS.
 - WHEN SPECIFIED ON THE PLAN, COATING OF COLLARS SHALL BE IN ACCORDANCE WITH CONSTRUCTION MATERIALS SPECIFICATIONS.
 - UNASSEMBLED COLLARS SHALL BE MARKED BY PAINTING OR TACKING TO IDENTIFY MATCHING PAIRS.
 - THE LAP BETWEEN THE TWO HALF SECTIONS AND BETWEEN THE PIPE AND CONNECTING BAND SHALL BE CAULKED WITH ASPHALT MASTIC AT TIME OF INSTALLATION.
 - EACH COLLAR SHALL BE FURNISHED WITH TWO 1/2\"/>



- CONSTRUCTION SPECIFICATIONS FOR PERIMETER DIKE:
- ALL DIKES SHALL BE MACHINE COMPACTED.
 - ALL PERIMETER DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
 - A. DIVERTED RUNOFF FROM A PROTECTED OR STABILIZED UPLAND AREA SHALL OUTLET DIRECTLY INTO 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.
 - STABILIZATION, WHEN REQUIRED, SHALL BE DONE IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS FOR GRASSED WATERWAY. THE MINIMUM AREA TO BE STABILIZED SHALL BE THE CHANNEL FLOW AREA.
 - PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED.

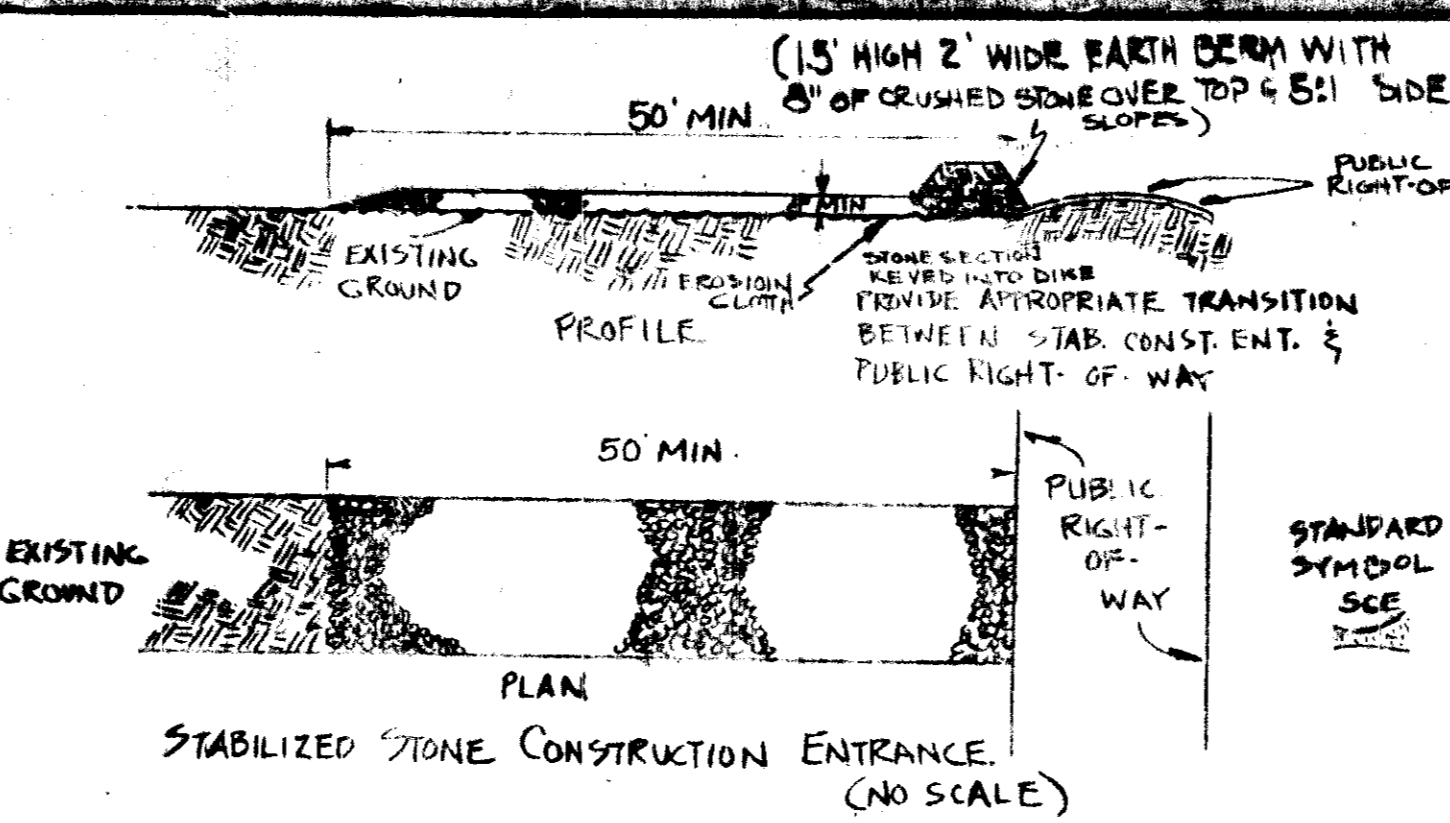


- CONSTRUCTION SPECIFICATIONS - RIP RAP OUTLET SEDIMENT TRAP
- THE CONSTRUCTION SPECIFICATIONS FOR THIS PRACTICE WILL BE THE SAME AS THE STONE OUTLET SEDIMENT TRAP EXCEPT FOR THE FOLLOWING:
- THE STONE USED IN THE OUTLET SHALL BE SMALL RIP RAP 3\"/>

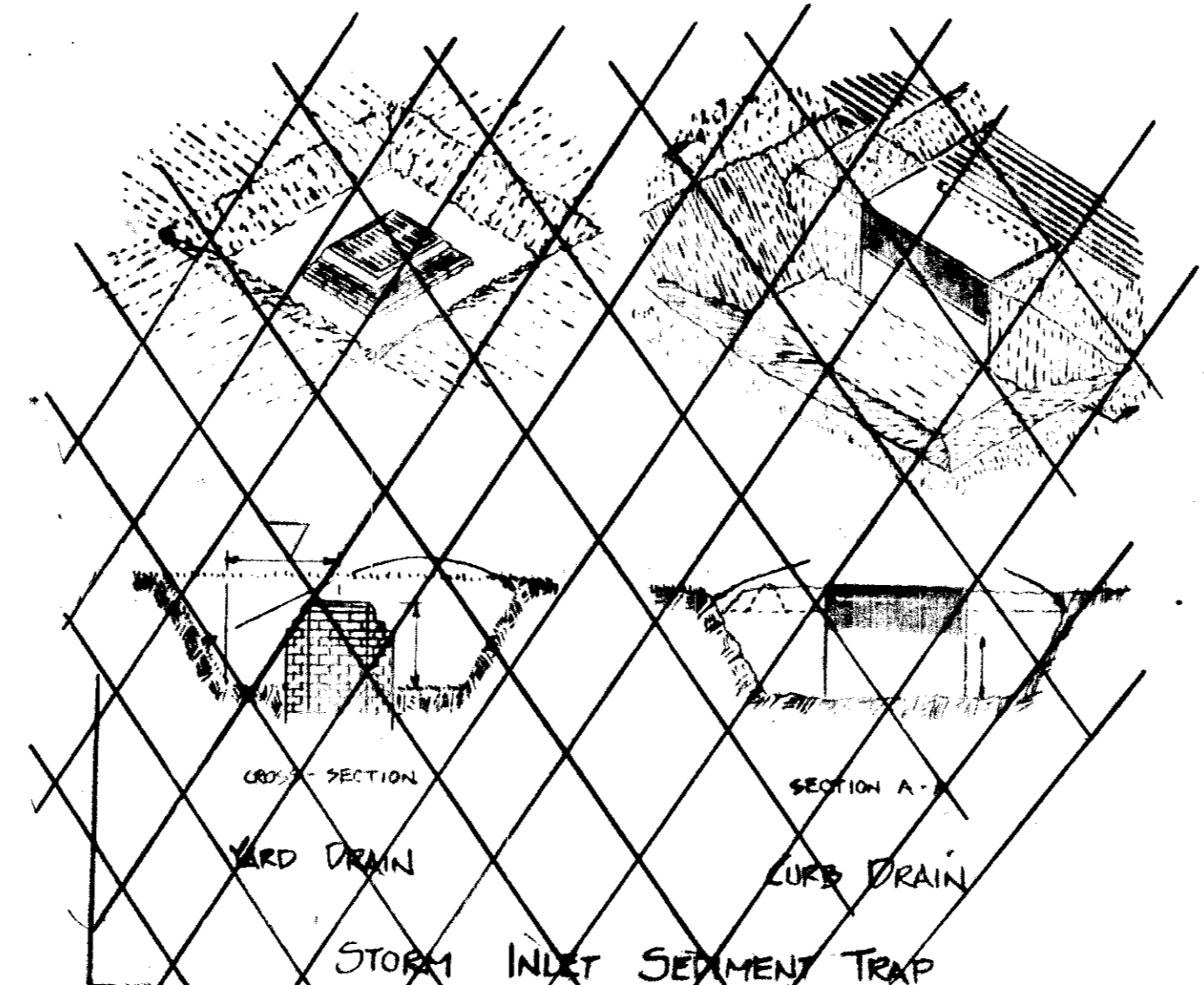


RIP RAP OUTLET SEDIMENT TRAP (NO SCALE)

- CONSTRUCTION SPECIFICATIONS - STRAINING DIKE
- RAILS SHALL BE PLACED IN A ROW WITH ENDS BURIED IN TRENCH.
 - RAILS SHALL BE EMBEDDED IN THE SOIL MINIMUM 4\"/>



- CONSTRUCTION SPECIFICATIONS - STABILIZED CONSTRUCTION ENTRANCE.
- STONE SIZE: USE MSHA NO 2 (2 1/2 TO 1\") USE CRUSHED STONE.
 - LENGTH: AS EFFECTIVE, BUT NOT LESS THAN 50 FEET.
 - THICKNESS: NOT LESS THAN EIGHT (8) INCHES.
 - WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
 - 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 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.
 - 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 FILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS OF WAY MUST BE REMOVED IMMEDIATELY.
 - PLACE GROUND STABILIZATION FABRIC (EROSION CLOTH) UNDER THE 8\"/>



- CONSTRUCTION SPECIFICATIONS - STORM INLET SEDIMENT TRAP
- 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.
 - THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
 - CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION SHALL BE MINIMIZED.
 - THE SEDIMENT TRAP SHALL BE REMOVED AND AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
 - ALL VULNERABLE SLOPES SHALL BE 2:1 OR FLATTER.

ANY DISTURBED AREAS LEFT IDLE FOR MORE THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY SEEDING

TEMPORARY SEEDING SCHEDULE - STDS. & SPECS. 80.01

| SPECIES | SEEDING PER ACRE | RATE LB/1000SF | PLANTING DEPTH | SEEDING DATES |
|-----------------|------------------|----------------|----------------|-----------------------------|
| | | | | 3/1-4/30 5/1-8/14 8/15-11/E |
| PERENNIAL GRASS | 40 LB | 0.92 | 1/2\"/> | |

- SEEDING PREPARATION
- FLAT AREAS AND SLOPES UP TO 3:1 SHALL BE LOOSE AND FRAGILE TO A DEPTH OF AT LEAST 3\"/>

SOIL AMENDMENTS

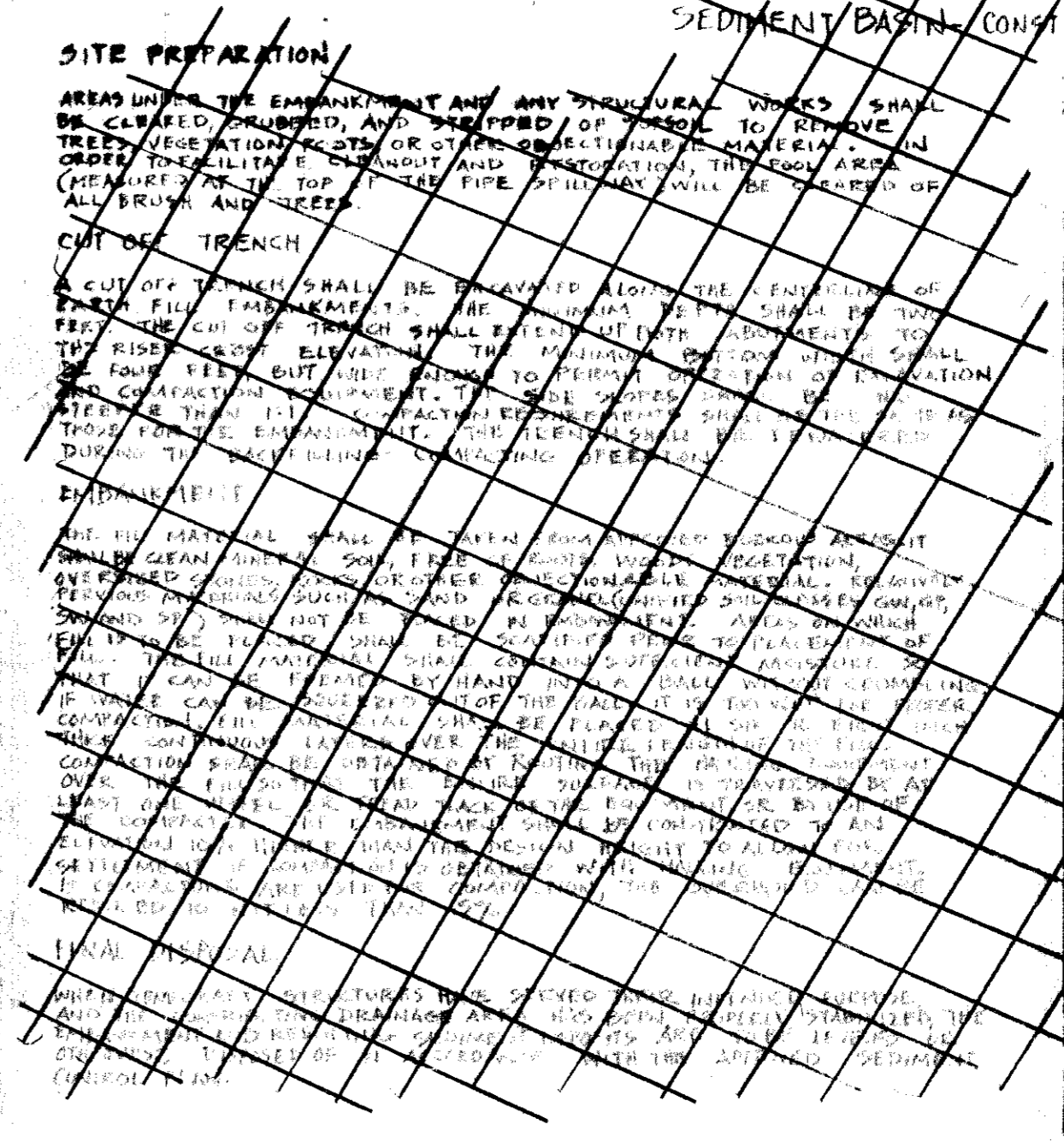
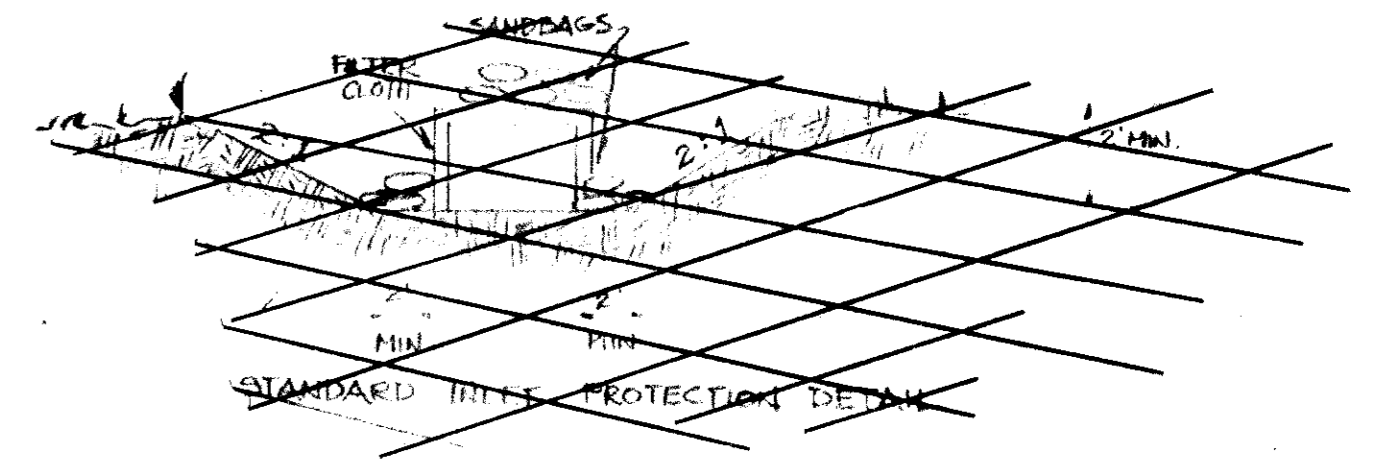
APPLY TWO TONS DOLOMITIC LIMESTONE AND 400 LBS 0-20-20 OR EQUIVALENT PER ACRE BEFORE SEEDING. NARROW STRIP FERTILIZER SHALL BE APPLIED TO A DEPTH OF AT LEAST 3\"/>

MULCHING

STRAW SHALL BE SMALL UNWEIGHTED CLEAN STRAW APPLIED AT THE RATE OF 1 1/2 TO 2 TONS PER ACRE OR TO 20 LBS PER 1000 SQ FT. MULCH MATERIALS SHALL BE RELATIVELY FREE OF ALL KINDS OF WEEDS AND SHALL BE FREE OF PROHIBITED NOxious WEEDS WHICH ARE CANADA THISTLE, JOHNSONGRASS, AND QUACKGRASS.

MULCH ANCHORING

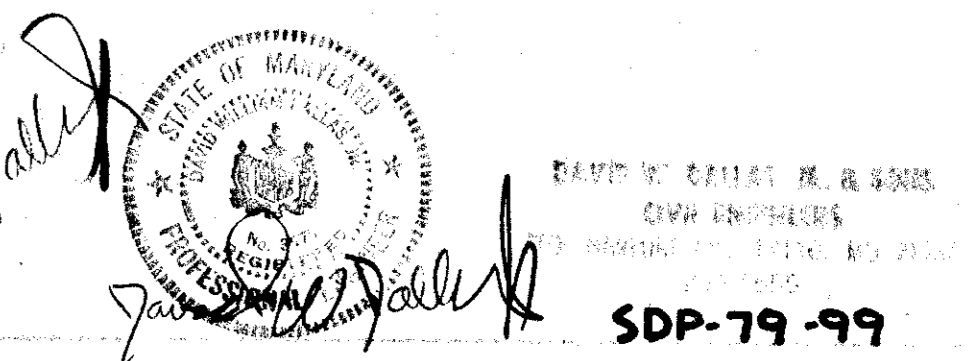
MULCH ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER MULCH PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. LOAD WHICH ANCHORS SHALL BE HEAVIER AT EDGES, WHERE WIND CATCHES MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. REMAINDER OF AREA SHOULD BE UNIFORM IN APPEARANCE. CAUTION SHOULD BE USED WITH ASPHALT IN RESIDENTIAL AND SIMILAR AREAS.

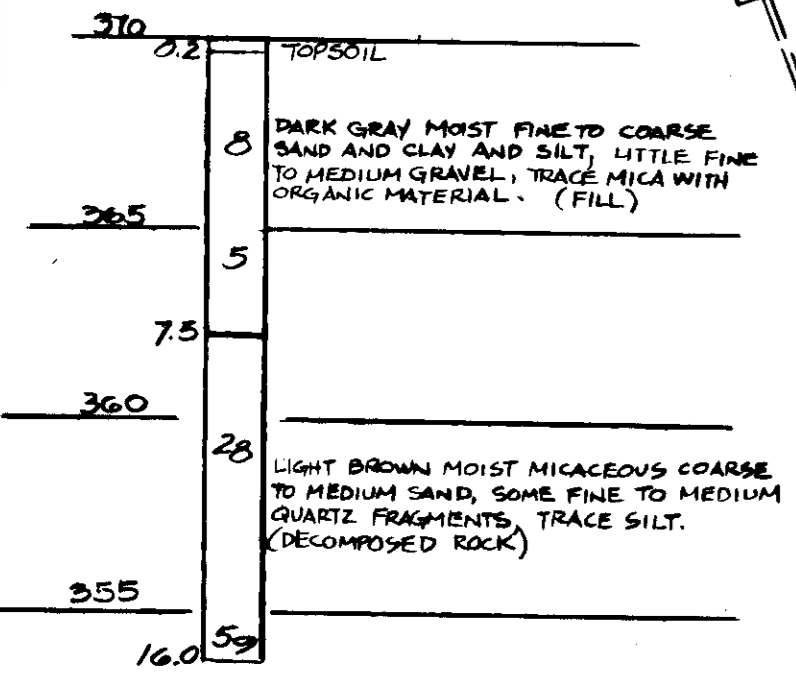
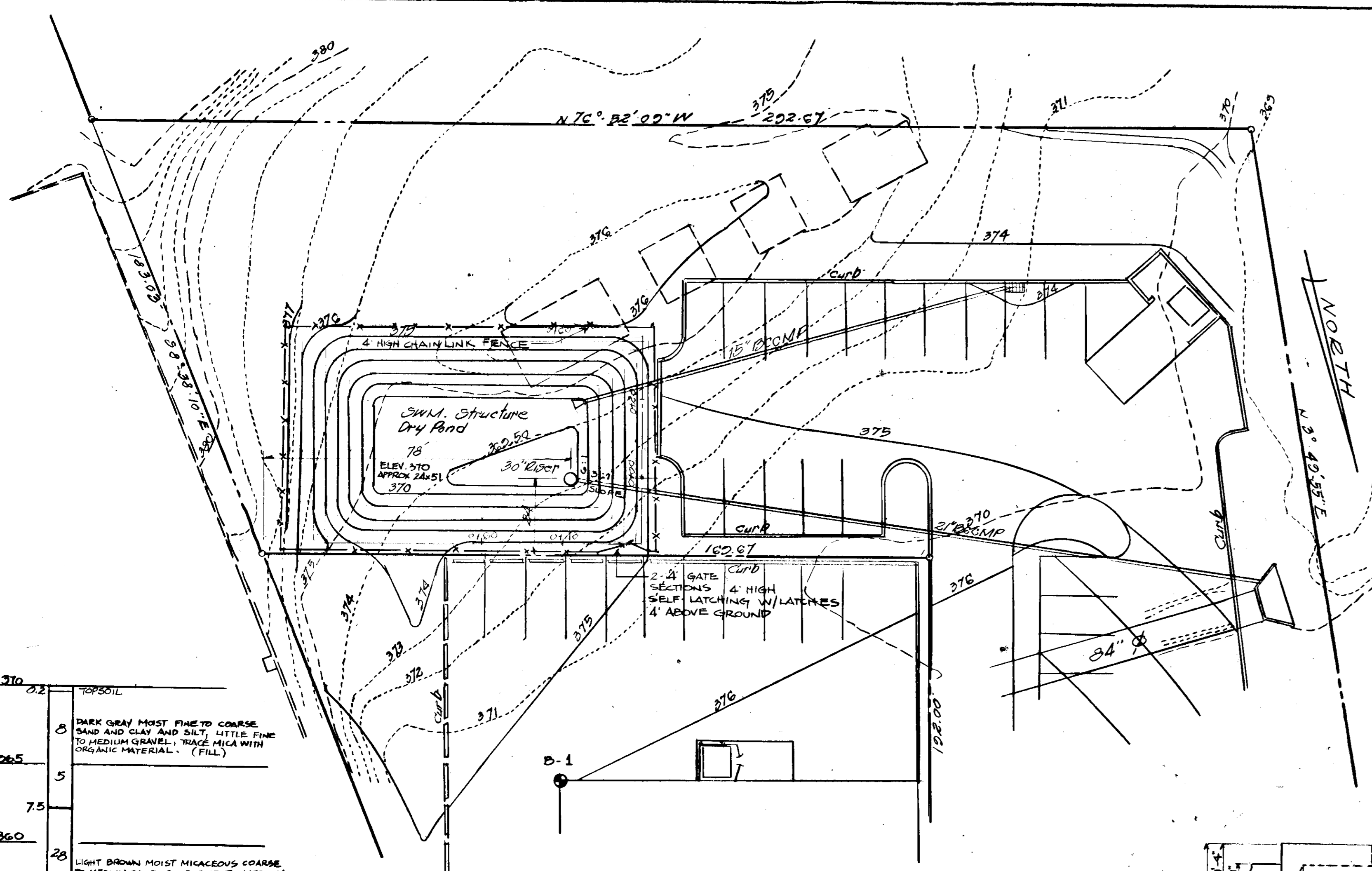


- APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS - HOWARD COUNTY HEALTH DEPARTMENT.
- Jocelyn Byrnes 2-7-80
HEALTH OFFICER DATE
- APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING.
- Donald A. Harris 3-13-80
PLANNING DIRECTOR DATE
- Paul Muechler 3-13-80
CHIEF DIVISION OF LAND DEVELOPMENT DATE
- APPROVED FOR PUBLIC WATER, PUBLIC SEWERAGE, AND STORM DRAINAGE SYSTEMS AND ROADS - HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
- George F. Nemoy 3-11-80
DIRECTOR DATE
- William C. Kelly 3-11-80
CHIEF BUREAU OF ENGINEERING DATE

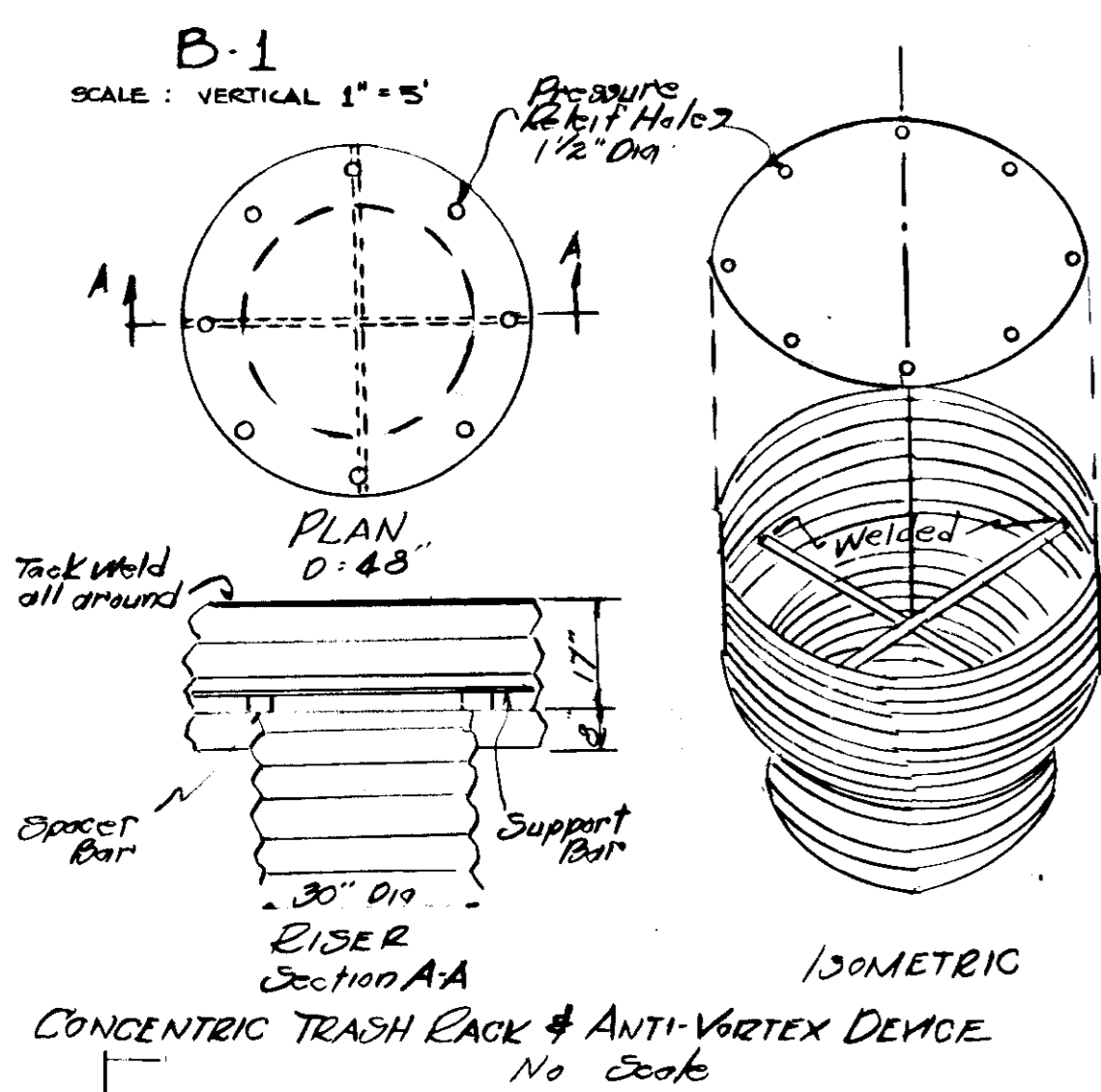
APPROVED
JUVENILE & LAND DEPARTMENT
HOWARD COUNTY, VIRGINIA
DATE 11-16-79

SEDIMENT CONTROL PLAN
FOR
HELMAN PROPERTY
SHEET 3 OF 4
PARCELS A & B

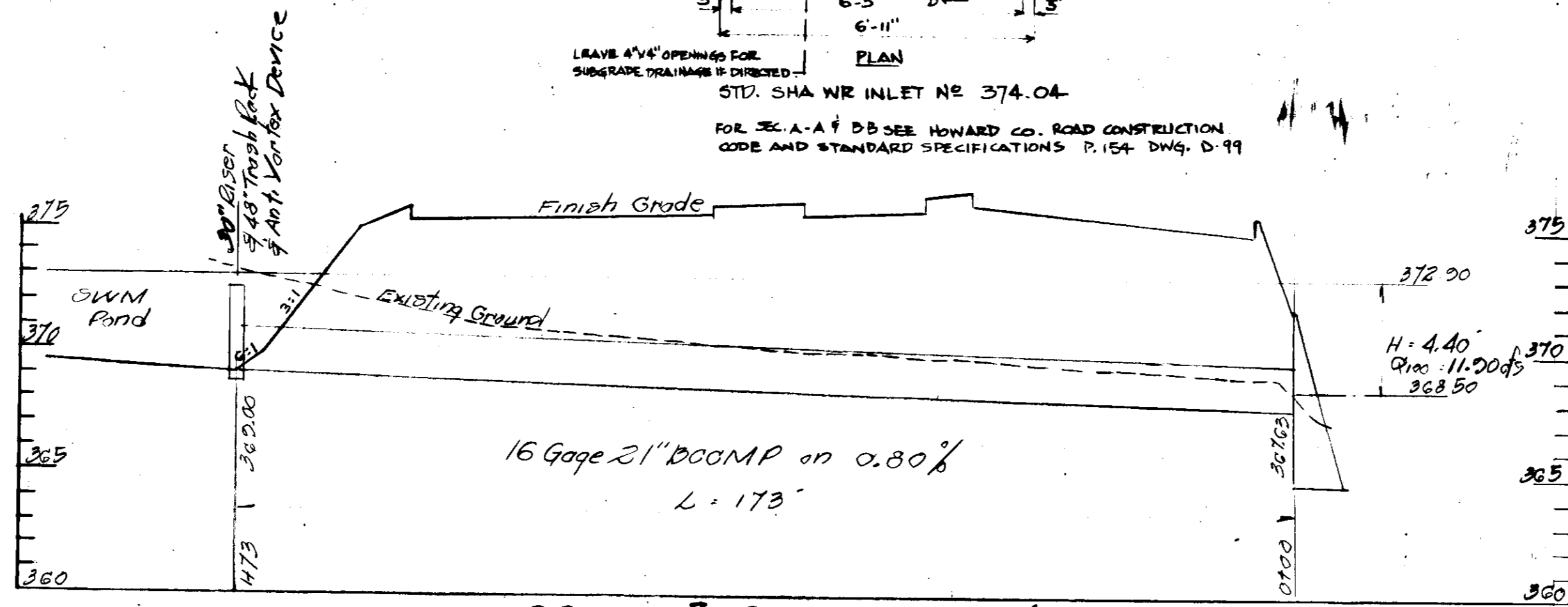




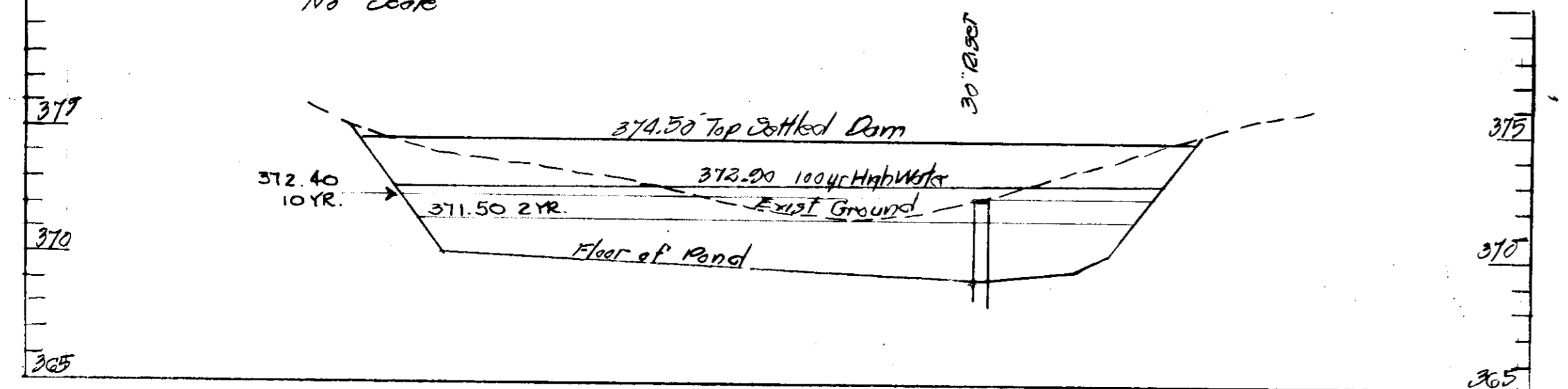
24 HOURS AFTER COMPLETION, WATER AT 2.0' HOLE CAVED AT 4.5'



Top 13 gage corrugated metal. Pressure relief holes may be omitted, if ends of corrugations are left fully open when corrugated top is welded to cylinder. Cylinder is 14 gage corrugated metal pipe. Note - The cylinder must be firmly fastened to the top of the riser.



CROSS SECTION OF DAM AND PROFILE OF PRINCIPAL & EMERGENCY SPILLWAY
Scale: Hor 1"=20' Vert 1"=5'



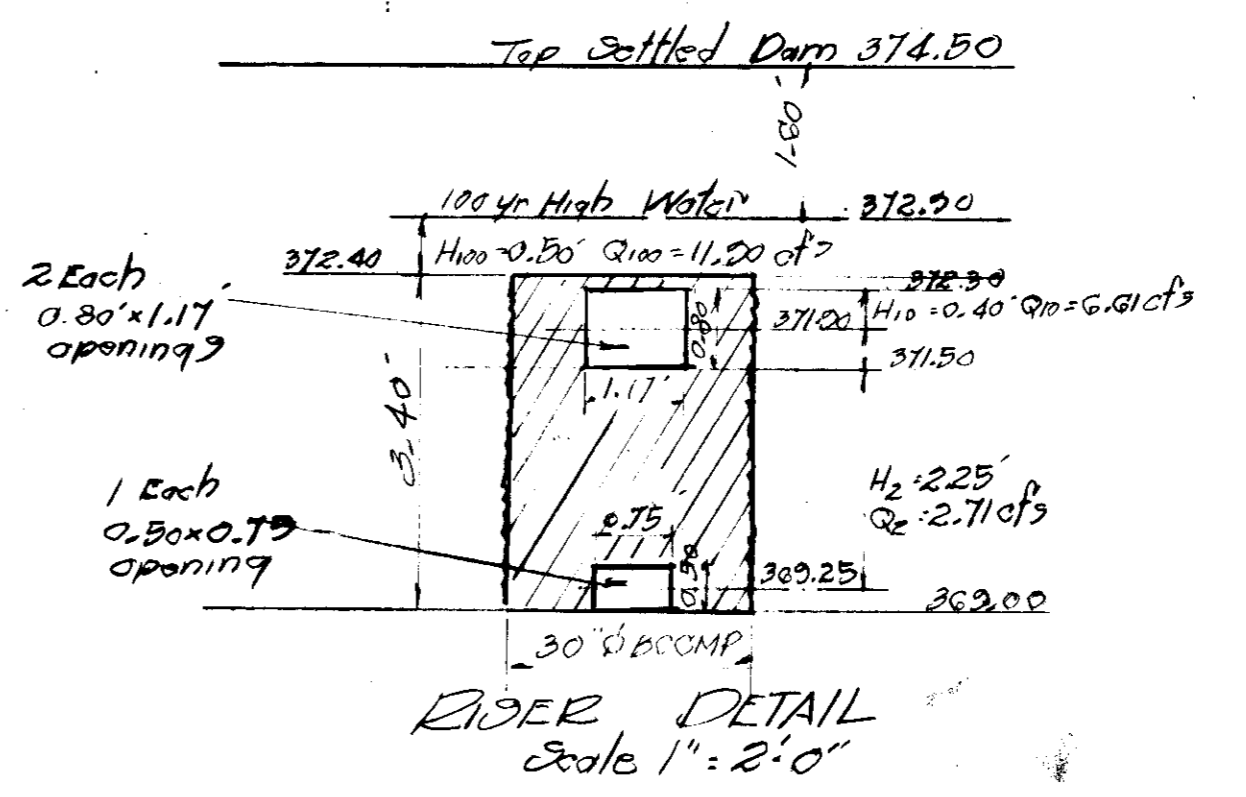
PROFILE ALONG CENTERLINE OF DAM
Scale: Hor 1"=20' Vert 1"=5'

| STORM | REQD STORAGE | ACTUAL STORAGE | MAX RELEASE RATE | ACTUAL RELEASE RATE |
|--------|--------------|----------------|------------------|---------------------|
| 2 yr | 3050 | 3121 | 2.97 | 2.71 |
| 10 yr | 4895 | 5214 | 6.78 | 6.61 |
| 100 yr | 6680 | 6715 | 11.00 | 11.00 |

GENERAL NOTES

- STRUCTURE CLASS A
STORAGE x HEIGHT PRODUCT 0.074 x 3.0 = 0.22
WATERSHED AREA 1.1723 ACRES
HEIGHT OF EMERGENCY SPILLWAY CREST 372.90
NORMAL SURFACE AREA 2.80 ACRES
STRUCTURE LOCATION RURAL URBAN
- CONSTRUCTION SPECIFICATIONS
AREA UNDER EMBANKMENT SHALL BE CLEARED AND GRUBBED TO REMOVE ALL TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIAL AND TOPSOIL STRIPPED AND STOCKPILED.
THE BACKFILL MATERIAL FOR THE CUTOFF TRENCH AND UPSTREAM SIDE OF THE DAM SHALL BE THE MOST IMPERVIOUS MATERIAL AVAILABLE. THE MOVEMENT OF THE HAULING AND SPREADING EQUIPMENT OVER THE FILL SHALL BE CONTROLLED SO THAT THE ENTIRE SURFACE OF EACH MAXIMUM 6" THICKNESS SHALL BE COMPOSTED TO 95% BY ASTM G98 (STANDARD PROCTOR).
- HYDROLOGIC CRITERIA
PRINCIPAL SPILLWAY ROUTING 2 YR FREQUENCY
EMERGENCY SPILLWAY ROUTING 100 YR FREQUENCY
FREEBOARD 2.0 FEET ABOVE EM. SPWY. STORM STORAGE PROVIDED

| | |
|--------|-------|
| 2 YR | 3120 |
| 10 YR | 5214 |
| 2 YR | 2.71 |
| 10 YR | 6.61 |
| 100 YR | 11.00 |



RISER DETAIL
Scale 1"=2'-0"

PLAN CERTIFICATION
I HEREBY CERTIFY THAT THE PLANS AND SPECIFICATIONS FOR THE PROPOSED SWM POND WERE PREPARED BY OR UNDER MY SUPERVISION AND MEET THE MINIMUM STANDARDS OF THE HOWARD CO. SOIL CONSERVATION DISTRICT. I HAVE ALSO INFORMED THE OWNER OF HIS RESPONSIBILITY TO HAVE THE CONSTRUCTION SUPERVISED AND CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER WITHIN THIRTY (30) DAYS OF COMPLETION.

David W. Dallas, Jr.
DAVID W. DALLAS, JR. P.E. # 3575 DATE 9/2/79

LANDOWNER'S CERTIFICATION
I HEREBY CERTIFY THAT ALL WORK WILL BE COMPLETED PURSUANT TO THIS PLAN. I AM ALSO AWARE THAT I MUST HAVE THE CONSTRUCTION SUPERVISED AND CERTIFIED BY A REGISTERED ENGINEER WITHIN THIRTY (30) DAYS OF COMPLETION.

Richard Johnson
RICHARD JOHNSON, AGENT OF OWNER DATE 9/2/79

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

John Byrum
COUNTY HEALTH OFFICER DATE 3-12-80

APPROVED HOWARD COUNTY OFFICE OF PLANNING & ZONING

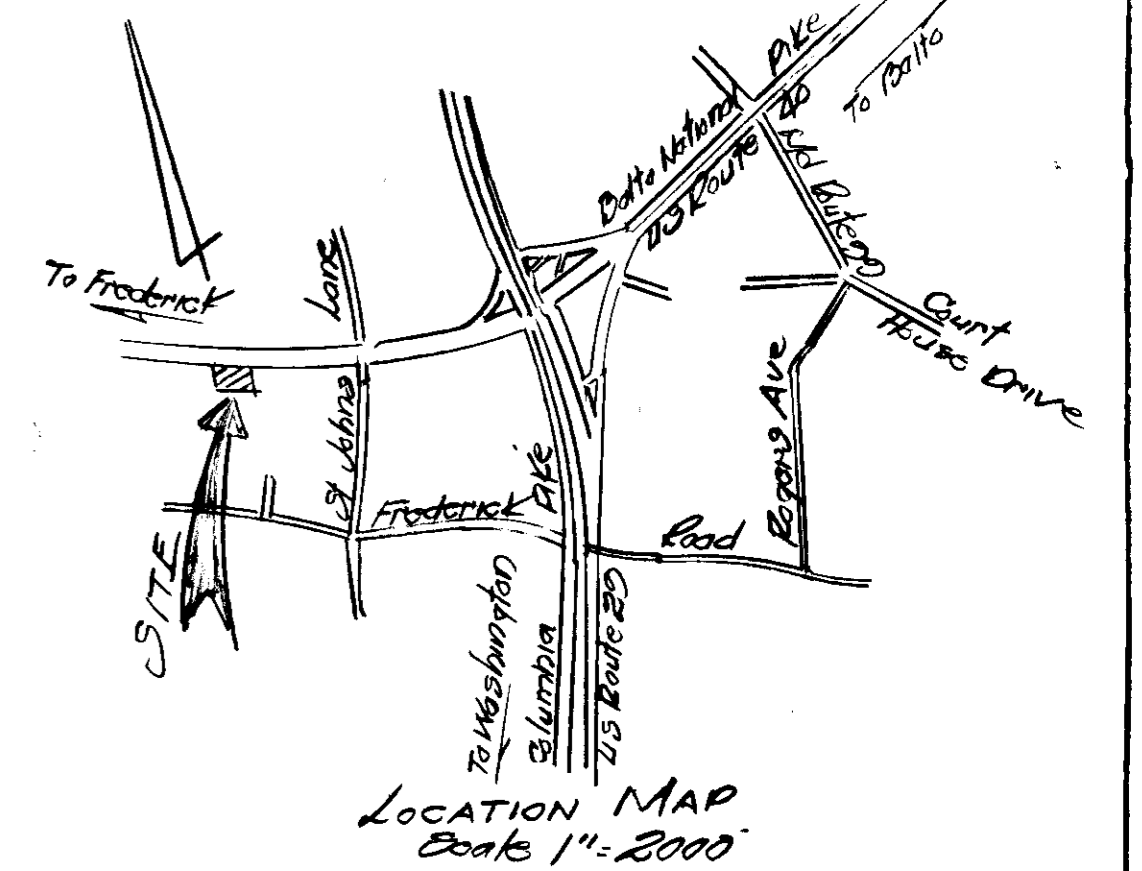
Thomas L. Harris
PLANNING DIRECTOR DATE 3-13-80

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

George F. Nemmy
DIRECTOR DATE 3-13-80

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

William S. Pugh
CHIEF, BUREAU OF ENGINEERING DATE 3-13-80



LOCATION MAP
Scale 1"=2000'

STORM WATER MANAGEMENT PLAN
FOR
HELMAN PROPERTY
9235 BALTIMORE NATIONAL PIKE
2ND ELECTION DISTRICT HOWARD COUNTY, MD
SCALE 1"=20' SHEET 4 OF 4 SEPTEMBER 19, 1979
PARCELS A & B

APPROVED
DIVISION OF LAND DEVELOPMENT
HOWARD COUNTY, MARYLAND
DATE 11-16-79
DWM

David W. Dallas, Jr.
DAVID W. DALLAS, JR. & SONS
CIVIL ENGINEERS
7006 HARBOR BLVD., SUITE 100, MD 21284
SDP-79-99

