

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Small 8/16/88
 CHIEF, LAND DEVELOPMENT DIVISION DATE
Charles Strickland 8-1-88
 CHIEF, BUREAU OF HIGHWAYS DATE
William E. Reed 8-19-88
 CHIEF, BUREAU OF ENGINEERING DATE
 APPROVED: OFFICE OF PLANNING AND ZONING
Martha S. Inyang 8-23-88
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE
 LKS

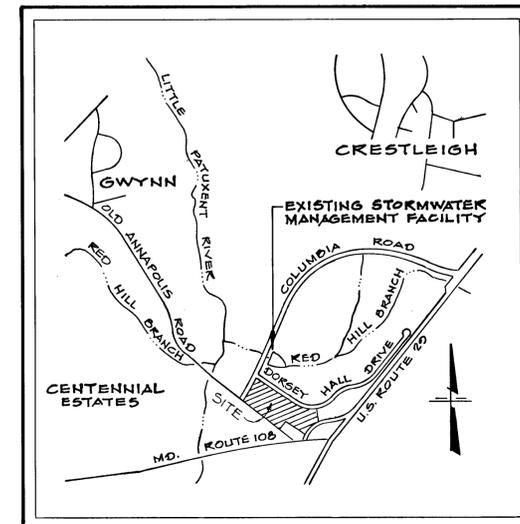
DORSEY HALL

HOWARD COUNTY, MARYLAND
 2ND ELECTION DISTRICT

STORM DRAIN CONSTRUCTION PLANS SECTION 2 AREA 4

GENERAL NOTES

1. ALL WORK TO BE DONE IN ACCORDANCE WITH HOWARD COUNTY STANDARDS, SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
2. ALL UTILITY COMPANIES MUST BE NOTIFIED 24 HOURS IN ADVANCE OF ANY CONSTRUCTION.
3. ALL INLETS SHALL BE HOWARD COUNTY STANDARD UNLESS OTHERWISE SHOWN. ALL "A" INLETS SHALL BE DEPRESSED.
4. STORM DRAIN TRENCHES WITHIN ROAD RIGHTS-OF-WAYS SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS, SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
5. ANY DAMAGE TO PUBLIC RIGHTS-OF-WAYS OR PAVING WILL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
6. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
7. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES WHERE DIRECTED BY THE ENGINEER A MINIMUM OF TWO WEEKS IN ADVANCE OF ANY CONSTRUCTION.
8. CONTRACTOR TO NOTIFY THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS AT LEAST 3 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS. TELEPHONE 002-2436
9. STORMWATER MANAGEMENT FOR THIS SUBDIVISION HAS BEEN PROVIDED UNDER DORSEY HALL SECTION 2 AREA 1, F85-16.



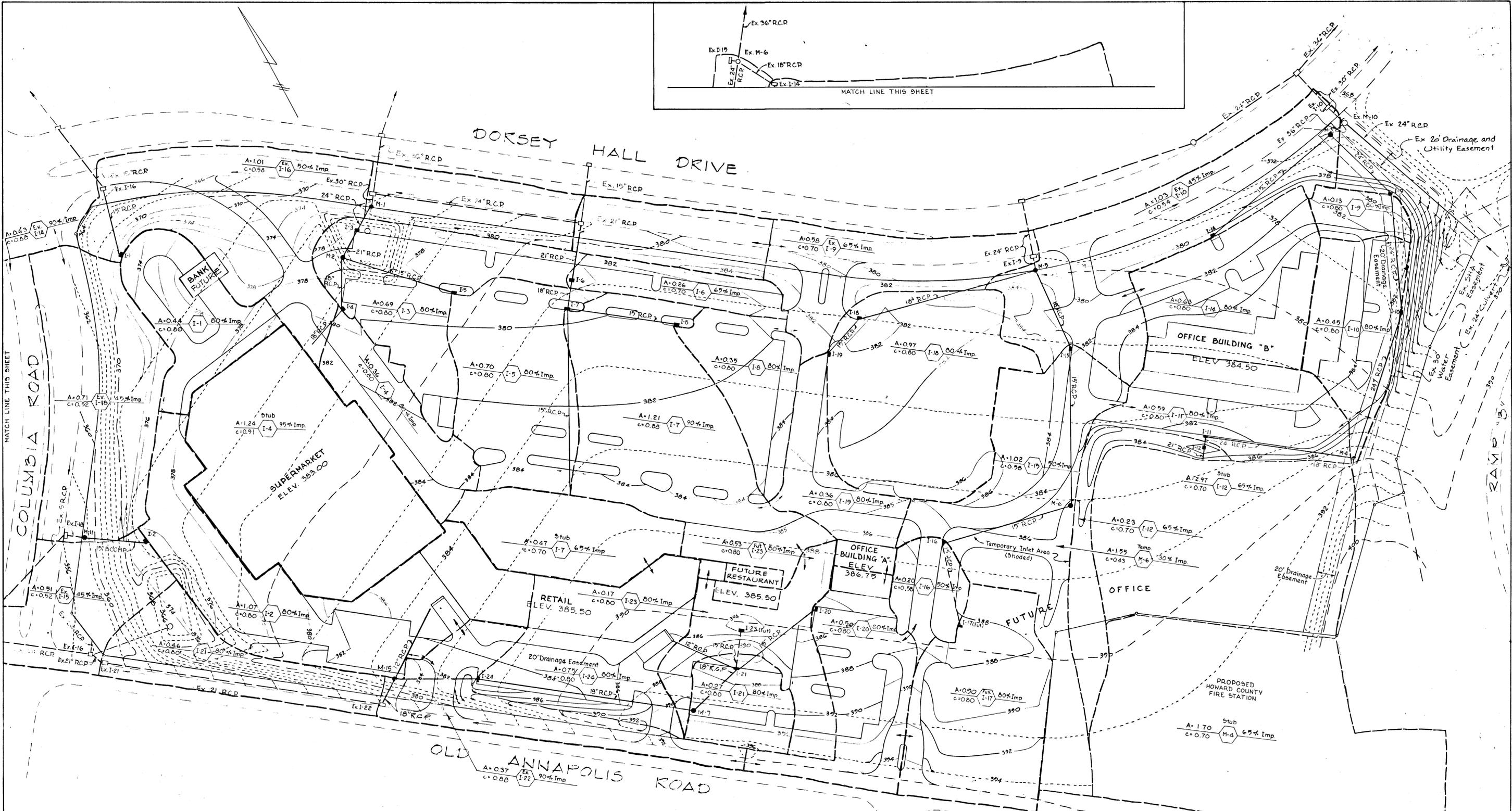
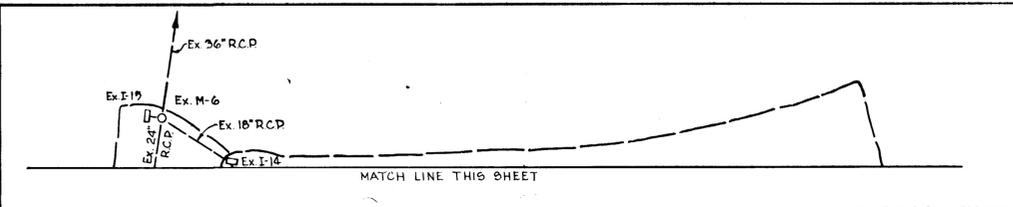
VICINITY MAP
 SCALE: 1" = 2000'

SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	STORM DRAIN PLAN
3	DRAINAGE AREA MAP
4	STORM DRAIN PROFILES AND DETAILS
5	SEDIMENT CONTROL
6	SEDIMENT CONTROL DETAILS

REFERENCE: SDP-88-192

7/20/88	1	As per Planning and Zoning, D.P.W. and S.C.S. Comments
REV. DATE	REV. NO.	REVISION DESCRIPTION
DORSEY HALL 2ND. ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER THE HOWARD RESEARCH AND DEVELOPMENT LAND COMPANY		
PROJECT AREA:		SECTION 2 AREA 4 PARCEL "L"
PROJECT TITLE:		TITLE SHEET
SCALE: AS SHOWN TAX MAP 30 DATE:		
WHITMAN, REQUARDT AND ASSOCIATES Engineers 2315 Saint Paul Street Baltimore, Maryland 21218		
 KENNETH A. McCORD REGISTERED ENGINEER NO. 1974		

771



FOR PRIVATE DRAIN INFORMATION, SEE
SDP-88-192

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Paul D. Spinn 8/18/88
 CHIEF, LAND DEVELOPMENT DIVISION DATE
Charles H. Hunsbaker, Acting for G.W. 8/18/88
 CHIEF, BUREAU OF HIGHWAYS DATE
W. S. ... 8-19-88
 CHIEF, BUREAU OF ENGINEERING DATE
 APPROVED: OFFICE OF PLANNING AND ZONING
Mark S. ... 8-23-88
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE
 LKS



OWNER AND DEVELOPER
 THE HOWARD RESEARCH AND DEVELOPMENT LAND COMPANY
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND -- 21043

WHITMAN, REQUARDT AND ASSOCIATES
 - ENGINEERS -
 2315 SAINT PAUL STREET
 BALTIMORE, MARYLAND-21218

Kenneth A. McCord
 KENNETH A. MCCORD, P.E. NO. 1974

7/20/88	1	As per Planning and Zoning, D.P.W. and S.O.S. Comments
REV. DATE	REV. NO.	REVISION DESCRIPTION
DORSEY HALL 2ND. ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
PROJECT AREA: SECTION 2 AREA 4 PARCEL "L"		
PROJECT TITLE: DRAINAGE AREA MAP		
SCALE: 1" = 50' TAX MAP 30 DATE: 4/26/88 SHEET 3 OF 6		

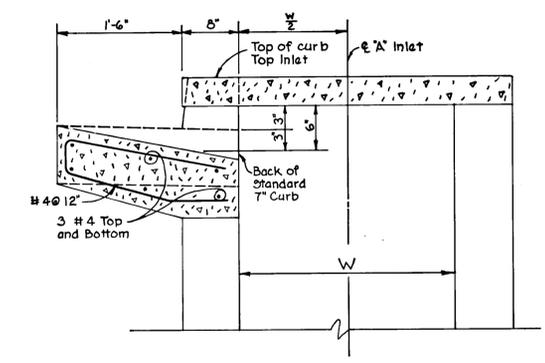
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Small 8/10/88
 CHIEF, LAND DEVELOPMENT DIVISION DATE

Paul 8/15/88
 CHIEF, BUREAU OF HIGHWAYS DATE

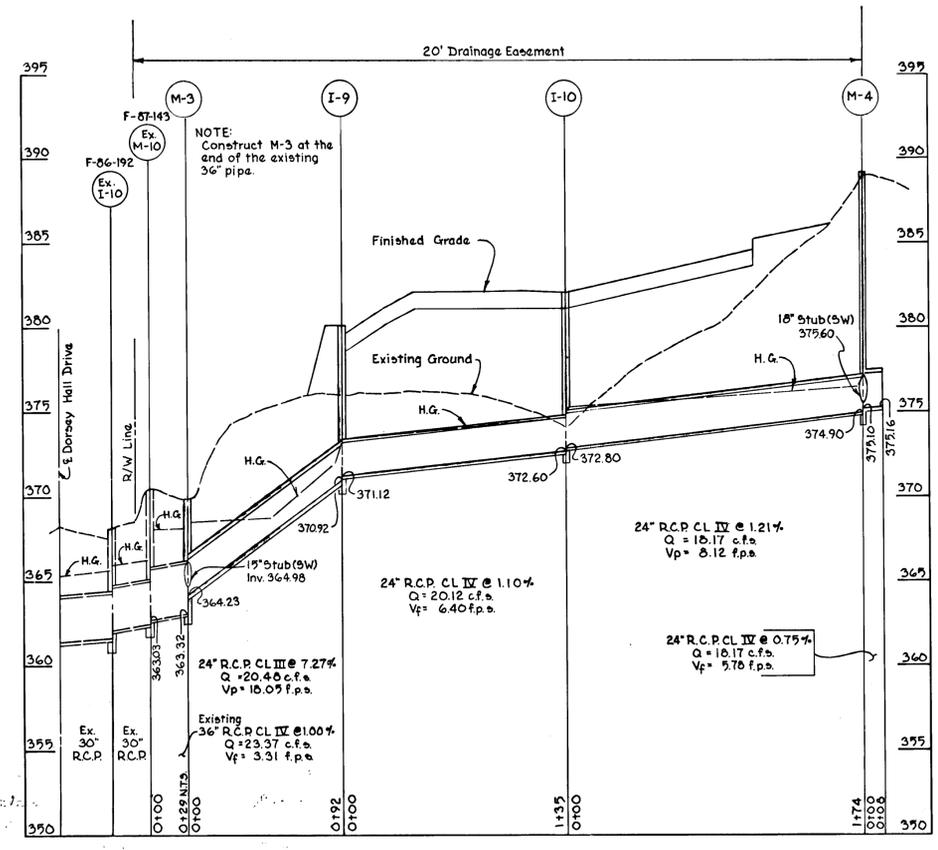
Robert 8-11-88
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: OFFICE OF PLANNING AND ZONING
Mark 8-23-88
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE



'A' INLET STANDARD CURB
 No Scale

NOTE:
 The type of bedding used for storm drain pipe shall be Class C, shaped subgrade. If rock is encountered, the trench invert should be over excavated 6", and the over excavation of 6" refilled with granular material.

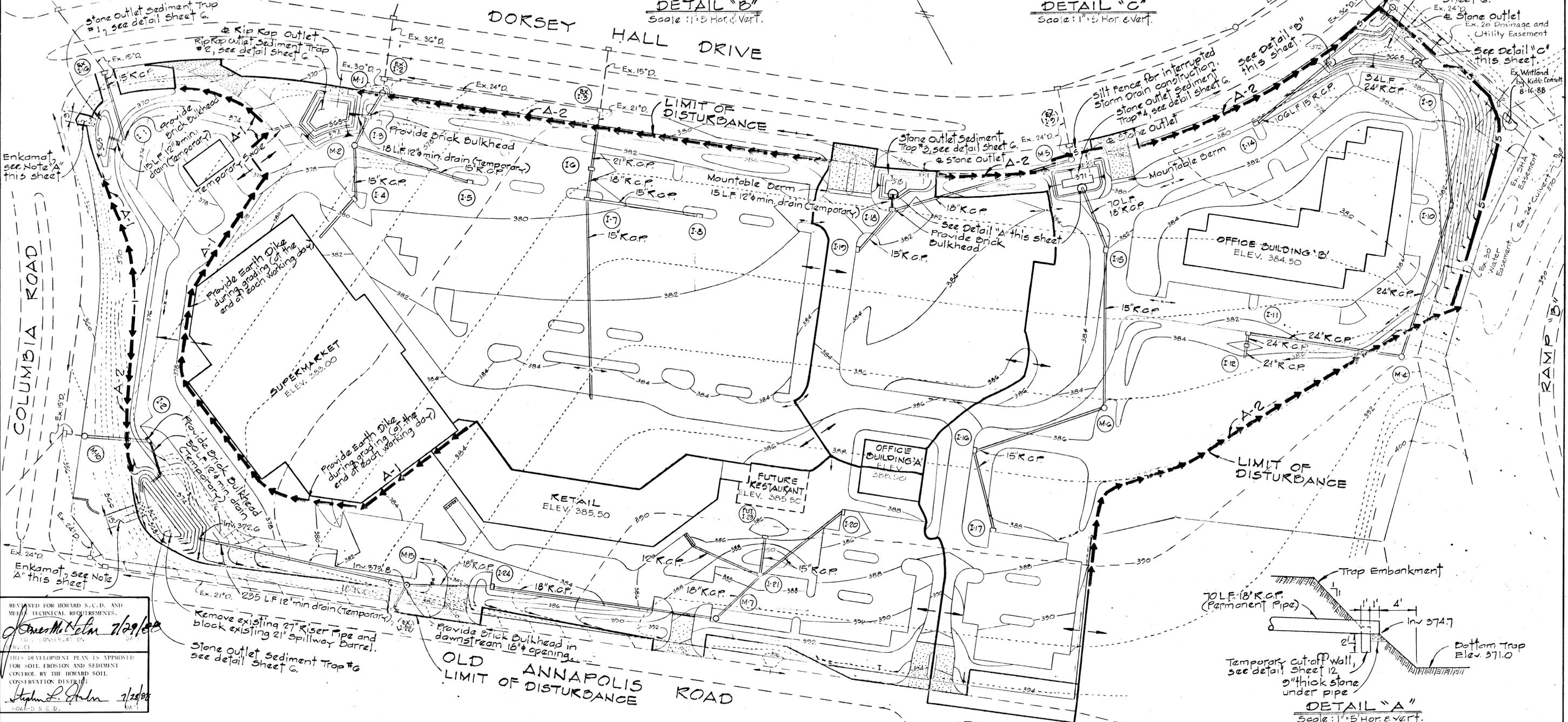


PROFILES
 Scale: Horz: 1" = 50'
 Vert: 1" = 5'

7/20/88	1	As per Planning and Zoning, D.P.W. and S.C.S. Comments
REV. DATE	REV. NO.	REVISION DESCRIPTION
DORSEY HALL 2ND. ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER THE HOWARD RESEARCH AND DEVELOPMENT LAND COMPANY		
PROJECT AREA: SECTION 2 AREA 4 PARCEL "L"		
PROJECT TITLE: STORM DRAIN PROFILES AND DETAILS		
SCALE: AS SHOWN TAX MAP 30 DATE:		
WHITMAN, REOUARDT AND ASSOCIATES Engineers 2315 Saint Paul Street Baltimore, Maryland 21218		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD REGISTERED ENGINEER NO. 1974		

BY THE DEVELOPER:
 "I WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, 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 ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
Gregory R. Kler
 4-25-88
 DATE

BY THE ENGINEER:
 "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."
Hemmett McLeod
 4-25-88
 DATE



REVIEWED FOR HOWARD S.C.D. AND M.D. TECHNICAL REQUIREMENTS.
James McCallum 7/29/88
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL, EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Stephen L. Johnson 7/29/88
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

Remove existing 27" Riser Pipe and block existing 21" Spillway Barrel.
 Provide Brick Bulkhead in downstream 18" opening.
 Provide Earth Dike during grading at the end of each working day.

Note "A" Provide Enkamot down existing slope at trap outlets. (Traps 1 and 6)

PLAN Scale: 1" = 50'
 Note: Stabilized Construction Entrance to be placed at all entrances, see detail on sheet G.

SEDIMENT TRAP DESIGN DATA									
TRAP NO.	TYPE	DRAINAGE AREA	VOLUME REQUIRED	VOLUME AVAILABLE	TOP BERM ELEV.	WEIR CREST ELEV.	WEIR LENGTH	STORAGE ELEV.	BOTTOM ELEV.
1	STV	1.1	73.7 CY.	79 CY.	370.0	368.0	5'	368.0	368.0
2	"	5.4	361.8 CY.	368 CY.	378.0	370.5	12'	370.0	368.0
3	"	1.3	87.1 CY.	100 CY.	381.0	380.0	5'	379.0	378.0
4	"	3.1	207.7 CY.	211 CY.	381.0	380.0	12'	379.0	371.0
5	"	2.7	180.9 CY.	210 CY.	372.0	371.0	11'	370.0	366.5
6	"	2.6	174.2 CY.	190 CY.	368.0	367.0	11'	366.0	362.0

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Donald Johnson 8/16/88
 CHIEF, LAND DEVELOPMENT DIVISION
Charles Amos 8/15/88
 CHIEF, BUREAU OF HIGHWAYS
Gregory R. Kler 8-19-88
 CHIEF, BUREAU OF ENGINEERING
 APPROVED: OFFICE OF PLANNING AND ZONING
Charles S. DeCamp 8-19-88
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT



OWNER AND DEVELOPER
 THE HOWARD RESEARCH AND DEVELOPMENT LAND COMPANY
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21043
 WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS
 2315 SAINT PAUL STREET
 BALTIMORE, MARYLAND 21218
Hemmett McLeod
 JENNETH A. M. CORD, P.E., NO. 1974

7/20/88	1	As per Planning and Zoning, DPW, and S.C.D. Comments
REV. DATE	REV. NO.	REVISION DESCRIPTION
DORSEY HALL 2ND. ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
PROJECT AREA: SECTION 2 AREA 4 PARCEL "L"		
PROJECT TITLE: SEDIMENT CONTROL PLAN		
SCALE: AS SHOWN TAX MAP 30 DATE:		

SEDIMENT CONTROL NOTES

- 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)
- 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.
- 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, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- 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.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION 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.
- 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
- Site Analysis:
Total Area of Site 18.5 Acres
Area Disturbed 10.2 Acres
Area to be roofed or paved 10.0 Acres
Area to be vegetatively stabilized 8.5 Acres
Total Cut 29,000 Cu. yds
Total Fill 29,000 Cu. yds
Offsite waste/borrow area location _____
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County DPW sediment control inspector.
- 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.

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, if not previously loosened.

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules

- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) 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).
- 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.

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, if not previously loosened.

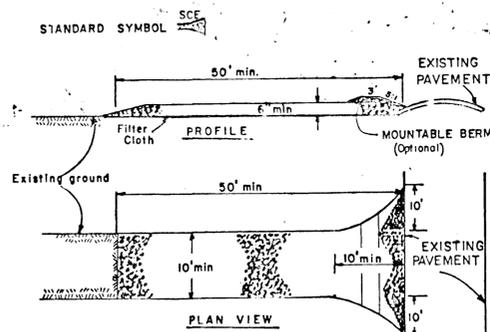
Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer. (14 lbs/1000 sq ft)

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.

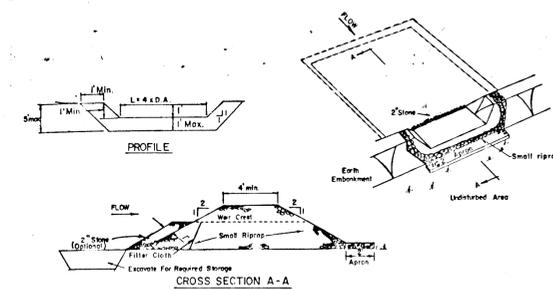
STABILIZED CONSTRUCTION ENTRANCE
not to scale



CONSTRUCTION SPECIFICATIONS

- Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
- Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
- Thickness - Not less than six (6) inches.
- Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
- Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
- Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
- 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, cropped, washed or tracked onto public rights-of-way must be removed immediately.
- Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
- Periodic inspection and needed maintenance shall be provided after each rain.

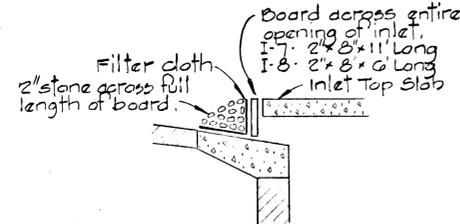
STONE OUTLET SEDIMENT TRAP



OPTION: A one foot layer of 2" stone may be placed on the upstream side of the riprap in place of the embedded filter cloth.

CONSTRUCTION SPECIFICATIONS FOR ST-VI

- Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
- The fill material for the embankment shall be free of roots and other woody vegetation as well as oversized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
- All cut and fill slopes shall be 2:1 or flatter.
- The stone used in the outlet shall be small riprap 4"-8" along with a 1' thickness of 2" aggregate placed on the up-grade side on the small riprap embedded filter cloth in the riprap.
- 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.
- 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 is minimized.
- The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.



BLOCKED INLET
DETAIL
NO SCALE

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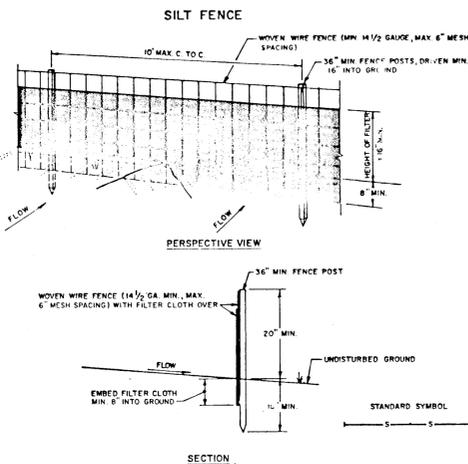
8/18/88
CHIEF, LAND DEVELOPMENT DIVISION
DATE
8/5/88
DATE
8-11-88
DATE
APPROVED: OFFICE OF PLANNING AND ZONING
DATE
1-23-88
DATE
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
LKS

OWNER AND DEVELOPER
THE HOWARD RESEARCH AND DEVELOPMENT LAND COMPANY
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21043
WHITMAN, ROBERTS AND ASSOCIATES ENGINEERS
2315 SAINT PAUL STREET
BALTIMORE, MARYLAND 21218
Kenneth A. M. Cord, P.E., No. 1974



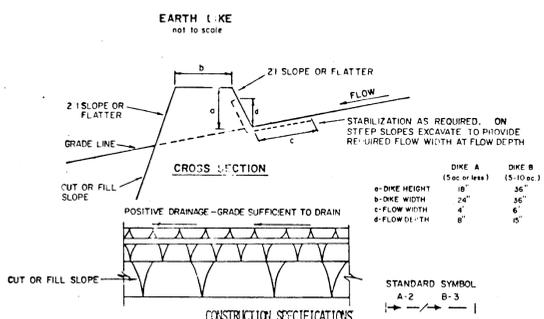
SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- INSTALL SIX STABILIZED CONSTRUCTION ENTRANCES.
- CONSTRUCT SEDIMENT TRAPS 1 THRU 6, EARTH DIKES, SILT FENCE AND TEMPORARY SWALE.
- STABILIZE EARTH DIKES WITH TEMPORARY SEEDING, SEE SPECIFICATIONS ON THIS SHEET.
- ROUGH GRADE ENTIRE SITE.
- CONSTRUCT ALL UTILITIES EXCEPT STORM DRAIN PIPES AND STRUCTURE WITHIN TRAPS 4 AND 5.
- Block inlets I, J and I.B. Place straw bales around I.G.
- BEGIN BUILDING CONSTRUCTION.
- FINE GRADE ROADS, CONSTRUCT CURB AND GUTTER, SIDEWALKS AND SEED DISTURBED AREAS WITH PERMANENT SEEDING, SEE SPECIFICATIONS THIS SHEET.
- PAVE ROADS
- AFTER GRASS IS ESTABLISHED IN THE CONTRIBUTING DRAINAGE AREAS AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR THE INTERRUPTED STORM DRAINS MAY BE COMPLETED, THEN ALL SEDIMENT CONTROL FACILITIES MAY BE REMOVED.
- STABILIZE "SEDIMENT TRAP REMOVAL AREAS" WITH PERMANENT SEEDING, SEE SPECIFICATIONS THIS SHEET.



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

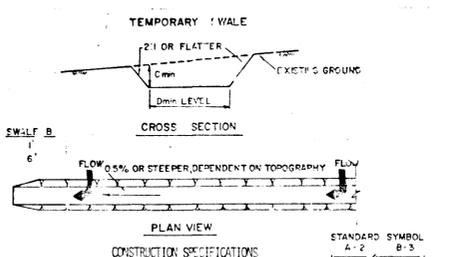
- Woven wire fence to be fastened securely to fence posts with wire ties or staples.
- Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" at top and mid section.
- When two sections of filter cloth adjoin each other they shall be overlapped by six inches and folded.
- Maintenance shall be performed as needed and material removed when "bulges" develop in the silt fence.



- All dikes shall be compacted by earth-moving equipment.
- All dikes shall have positive drainage to an outlet.
- Top width may be wider and side slopes may be flatter if desired to facilitate crossing by construction traffic.
- Field location should be adjusted as needed to utilize a stabilized safe outlet.
- Earth dikes shall have an outlet that functions with a minimum of erosion. Floods shall be conveyed to a sediment trapping device such as a sediment trap or sediment basin where either the dike channel or the drainage area above the dike are not subsequently stabilized.
- Stabilization shall be: (A) in accordance with standard specifications for seed and straw mulch or straw mulch if not in seeding season, (B) flow channel as per the chart below.

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELLENT SOIL; 2" STONE
3	5.1-8.0%	SEED WITH JUTE, OR SOIL; STONE	LINED RIP-RAP 4-8"
4	8.1-20%	LINED RIP-RAP 4-8"	ENGINEERING DESIGN

A. Stone to be 2 inch stone, or recycled concrete equivalent, in a layer at least 3 inches in thickness and be pressed into the soil with construction equipment.
B. Rip-rap to be 4-8 inches in a layer at least 8 inches thickness and pressed into the soil.
C. Approved equivalents can be substituted for any of the above materials.
7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

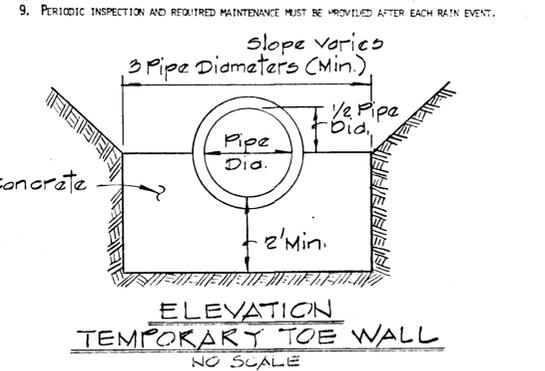
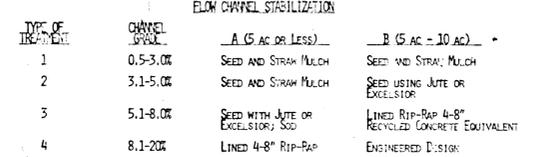


OUTLET AS REQUIRED SEE ITEM 8 BELOW

- All temporary swales shall have uninterrupted positive grade to an outlet.
- Diverted runoff from a disturbed area shall be conveyed to a sediment trapping device.
- Diverted runoff from an undisturbed area shall outlet directly into an undisturbed stabilized area at non-erosive velocity.
- All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the swale.
- The swale shall be excavated or shaped to line, grade, and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
- Fills shall be compacted by earth moving equipment.
- All earth removed and not needed on construction shall be placed so that it will not interfere with the functioning of the swale.
- Stabilization shall be as per the chart below:

TYPE OF TREATMENT	CHANNEL GRADE	A (5 AC OR LESS)	B (5 AC - 10 AC)
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE OR EXCELLENT SOIL
3	5.1-8.0%	SEED WITH JUTE OR EXCELLENT SOIL	LINED RIP-RAP 4-8"
4	8.1-20%	LINED 4-8" RIP-RAP	ENGINEERED DESIGN

9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.



771

By the Developer:
"I/We certify that all development and construction will be done according to this plan, 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 also authorize periodic on-site inspection by the Howard Soil Conservation District."
Gregory R. Klar 4-25-88 Date

Reviewed for HOWARD S.C.D. and meet Technical Requirements
James M. Sch 7/29/88 Date
S. Soil Conservation Service
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
Stephen L. Fisher 7/28/88 Date
Howard S.C.D.

By the Engineer:
"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."
Kenneth A. M. Cord 4-25-88 Date

REV. DATE	REV. NO.	REVISION DESCRIPTION
7/20/88	1	As per Planning and Zoning, D.P.W. and S.C.D. comments
DORSEY HALL 2ND. ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
PROJECT AREA: SECTION 2 AREA 4 PARCEL "L"		
PROJECT TITLE: SEDIMENT CONTROL DETAILS		
SCALE: AS SHOWN TAX MAP 30 DATE:		