

- GENERAL NOTES**
- All storm drain and paving shall be constructed in accordance with the latest details and specifications of Howard County & MDSA.
  - Types of Storm Drain structures refer to the Standard Details of Howard County & Maryland State Highway Administration.
  - Trench compaction for storm drains within Road or Street rights of way limits shall be in accordance with Howard Co. Design Manual Vol. II, Class "C" trench bedding to be utilized for all storm drains unless shown otherwise.
  - 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.
  - All utility companies shall be notified 24 hrs. in advance of construction.
  - All traffic control services, parking, and signing to be done in accordance with the Manual of Uniform Traffic Control Devices, 1971 Edition.
  - Sag and Crest Vertical curves were designed in accordance with "A Policy on Geometric Design of Rural Highways," 1965, by AASHTO.
  - Provide Concrete Side walk ramps Ho. Co. Std. Type A, R-401 where shown in plan.
  - Design Speed: 30 mph; Zoning: RSC.
  - Contractor or Developer shall contact the Construction Inspection/Survey Division 24 hrs. before commencing work at 792-7272.
  - Provide street lights where shown in plan. All lights to have 14' Pole, 175 Wg. Lamp, except @ intersection of Yorkshire Drive and Wigglesworth Ct. where a 25' pole and 250 W-400 Wg. Lamp is required. See pgs. 4A-36 of Ho. Co. Design Manual Vol. II.

**DEVELOPER'S/BUILDER'S CERTIFICATE**

"I/we certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as is deemed necessary."

Signature: *John Nelson* Date: 9/26/84  
 Signature of Developer/Builder

**APPROVED: DEPARTMENT OF PUBLIC WORKS**  
 Date: 1-9-85

**APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING**  
 Date: 12/4/84

**U.S. SOIL CONSERVATION SERVICE**  
 Name: *Howard Co. S.C.D.*  
 Signature: *John M. Nelson* Date: 12-13-84  
 U.S. Soil Conservation Service

**ENGINEER'S CERTIFICATE**

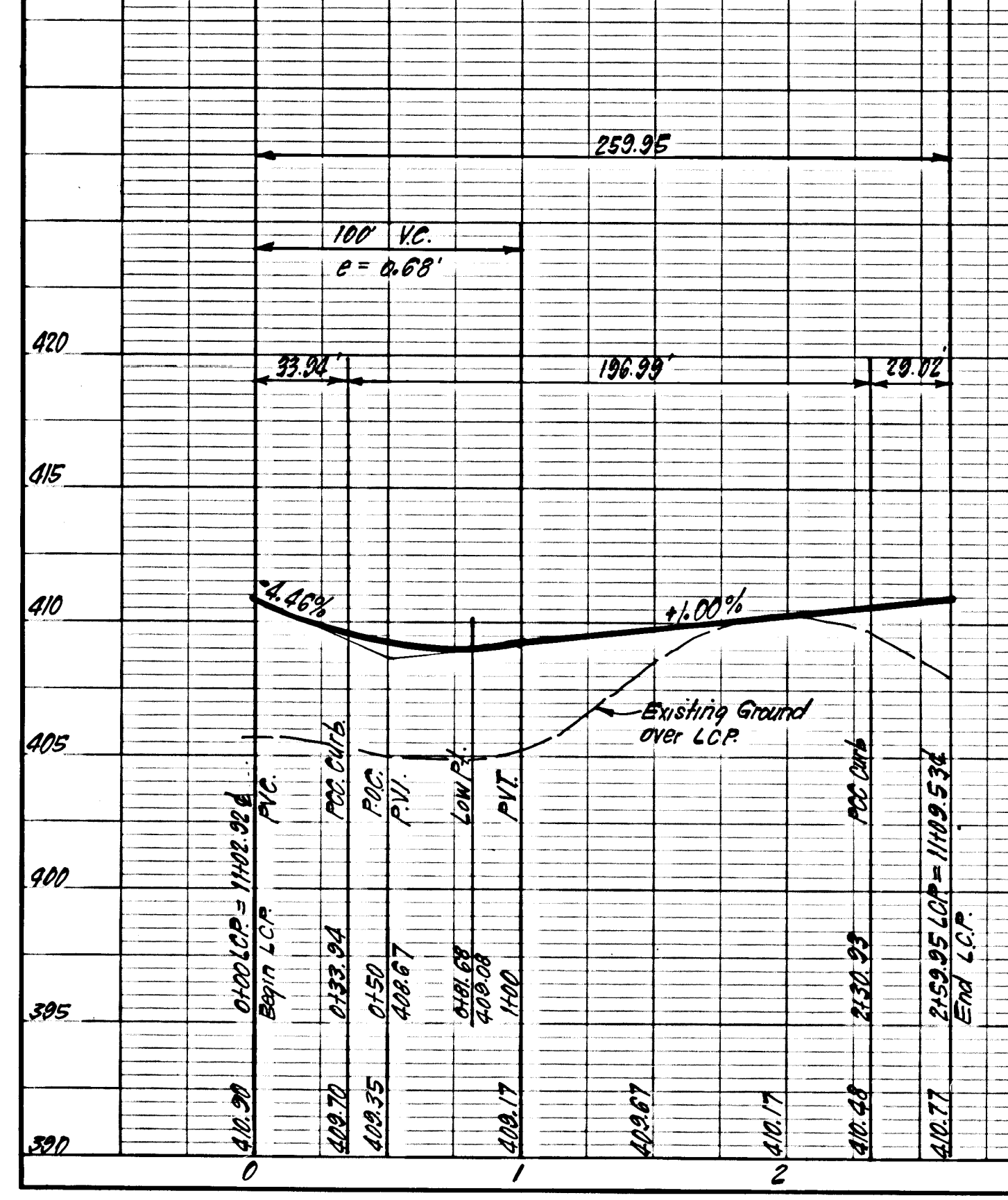
I hereby certify that this plan for Erosion and Sediment Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Signature: *John Nelson* Date: 9-25-84  
 Signature of Engineer

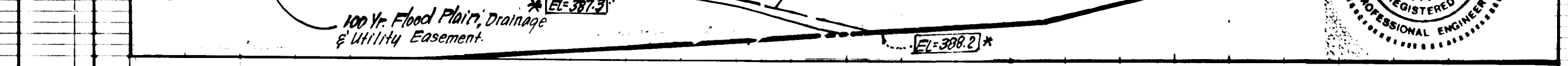
**CLARK FINEFROCK & SACKETT**  
 ENGINEERS PLANNERS SURVEYORS  
 11315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 (301) 593-3400

DESIGNED VLS EP	ROAD CONSTRUCTION PLANS BATES DRIVE	SCALE AS SHOWN
DRAWN		DRAWING 1056
R/W		JOB NO. 83-116
CHECKED EP		FILE NO. 83-116-D
DATE 12-10-84	FOR: DELTA CORPORATION 101 Chesnut St. #125 Gaithersburg, Md. 20877	

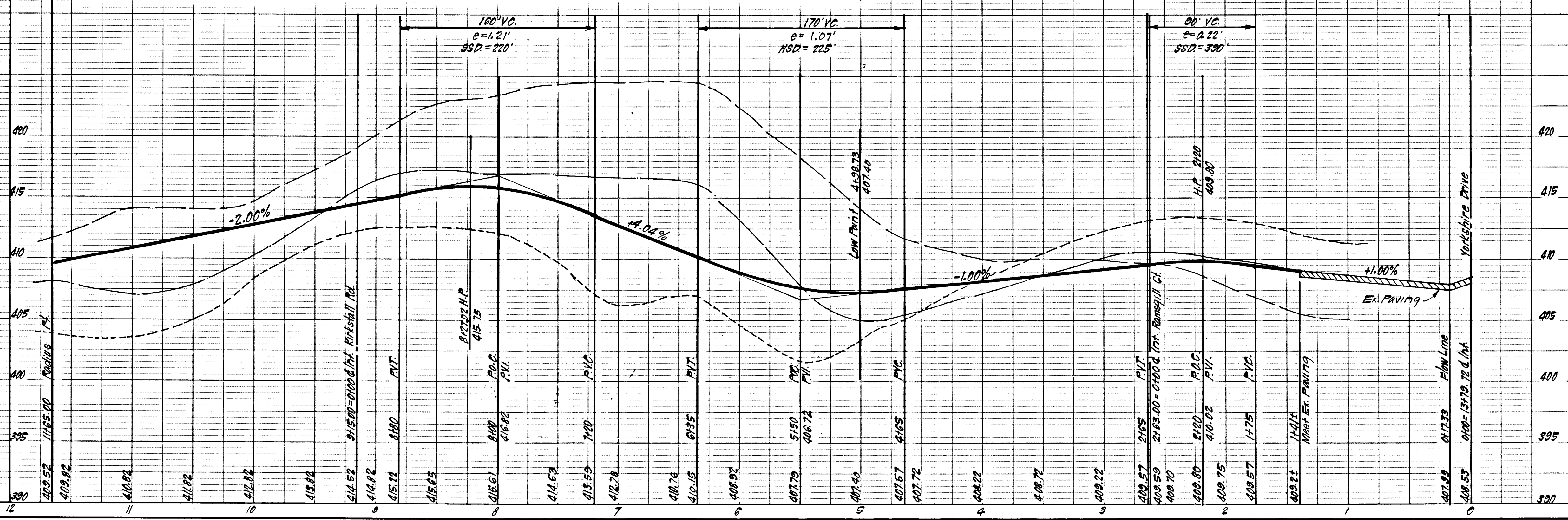
**LINEAR CURB PROFILE - BATES DRIVE**



**PLAN**  
 SCALE: 1"=50'



**PROFILE - BATES DRIVE**

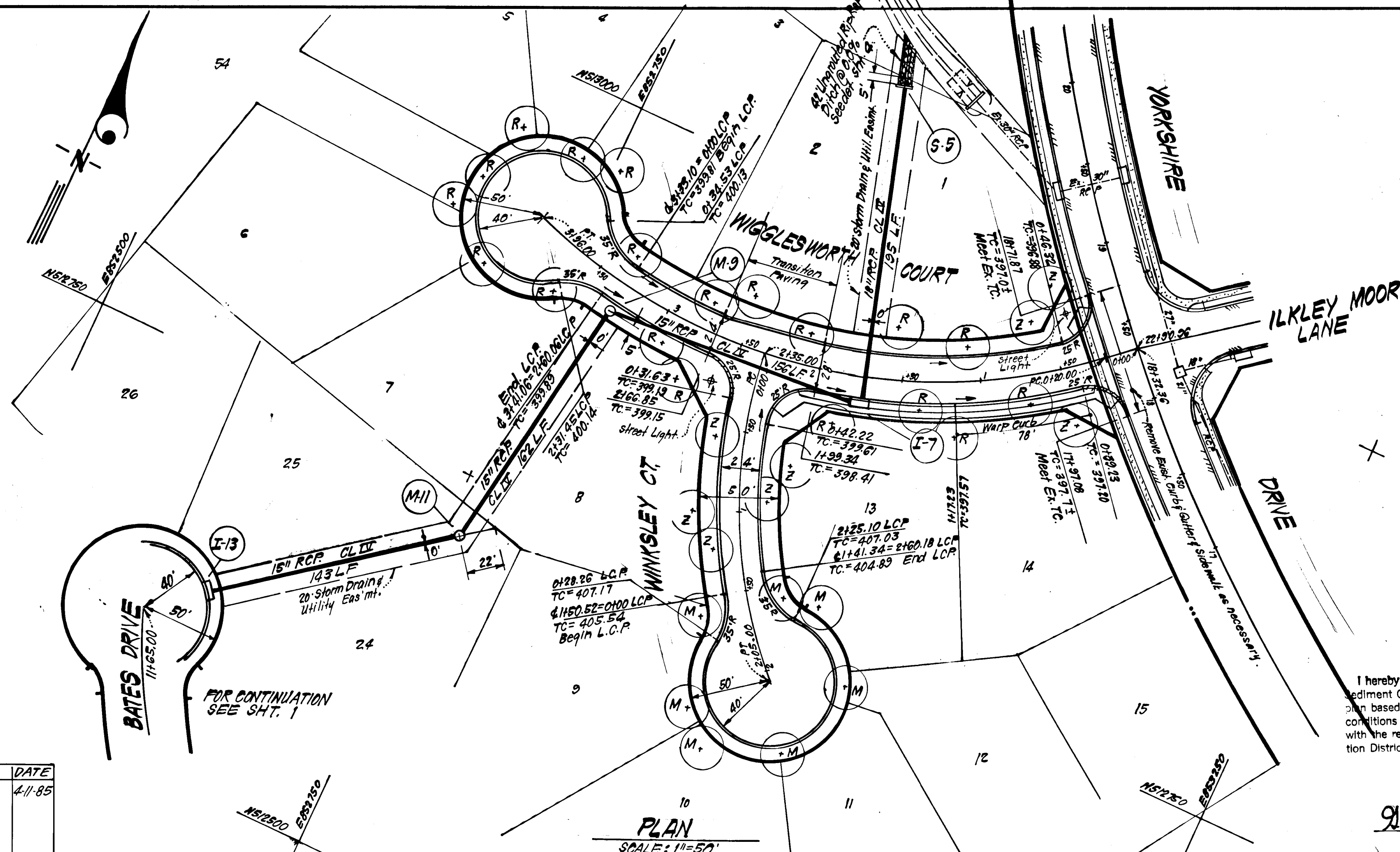


F-85-52



@ CURVE DATA  
 PC: 0+00.00 TO PT: 3+00.00  
 R = 350.00'  
 $\Delta = 61^{\circ}33'07''$   
 A = 376.00'  
 T = 208.44'  
 CHD =  $S 78^{\circ}46'33'' W$   
 358.18'

@ CURVE DATA  
 PC: 0+00 TO PT: 2+05.00  
 R = 305.00'  
 $\Delta = 38^{\circ}30'36''$   
 A = 205.00'  
 T = 106.54'  
 CHD =  $S 26^{\circ}13'33'' E$   
 201.16'

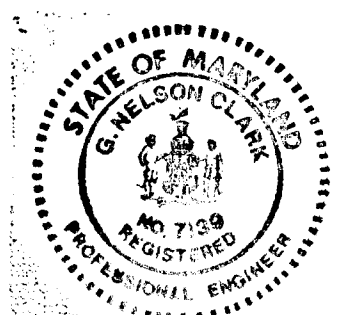


NO.	REVISION	DATE
1	Revised Lot numbers.	4-11-85

Reviewed for: Howard Soil Conservation District  
 Name: Howard Soil Conservation District  
 and meets Technical Requirements  
 Signature: [Signature] Date: 12-13-84  
 U.S. Soil Conservation Service

**DEVELOPER'S/BUILDER'S CERTIFICATE**  
 "I/We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."  
 Signature of Developer/Builder: [Signature] Date: 12/13/84

Approved: [Signature] 12/13/84  
 Date

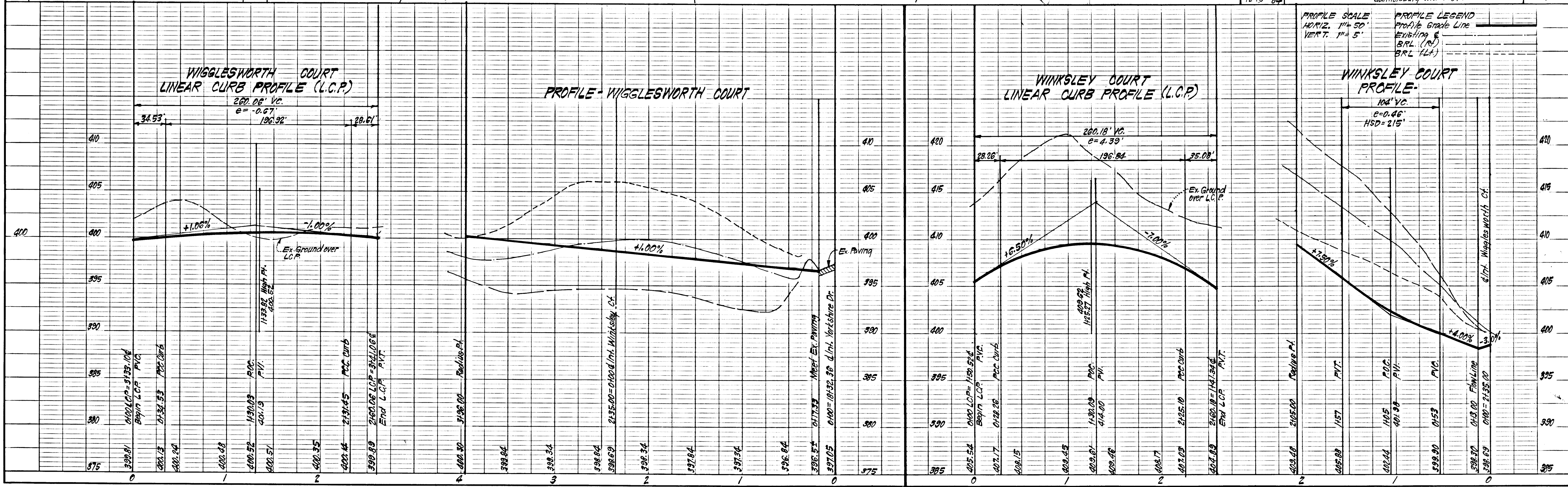


**ENGINEER'S CERTIFICATE**  
 I hereby certify that this plan for Erosion and Sediment Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.  
 G. Nelson Clark 12-25-84  
 Date

APPROVED: DEPARTMENT OF PUBLIC WORKS  
[Signature] 1-9-85  
 Chief, Bureau of Engineering  
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
[Signature] 12-14-84  
 Chief, Division of Land Development & Zoning Administration

**CLARK FINEFROCK & SACKETT**  
 ENGINEERS PLANNERS SURVEYORS  
 11315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 (301) 593-3400

DESIGNED	ROAD CONSTRUCTION PLANS WIGGLESWORTH COURT & WINKLESLEY COURT	SCALE	AS SHOWN
DRAWN		DRAWING	2 OF 6
CHECKED		JOB NO.	83-116
DATE	FOR: DELTA CORPORATION 101 Chestnut St. #125 Gaithersburg, Md 20877	FILE NO.	83-116-D



820

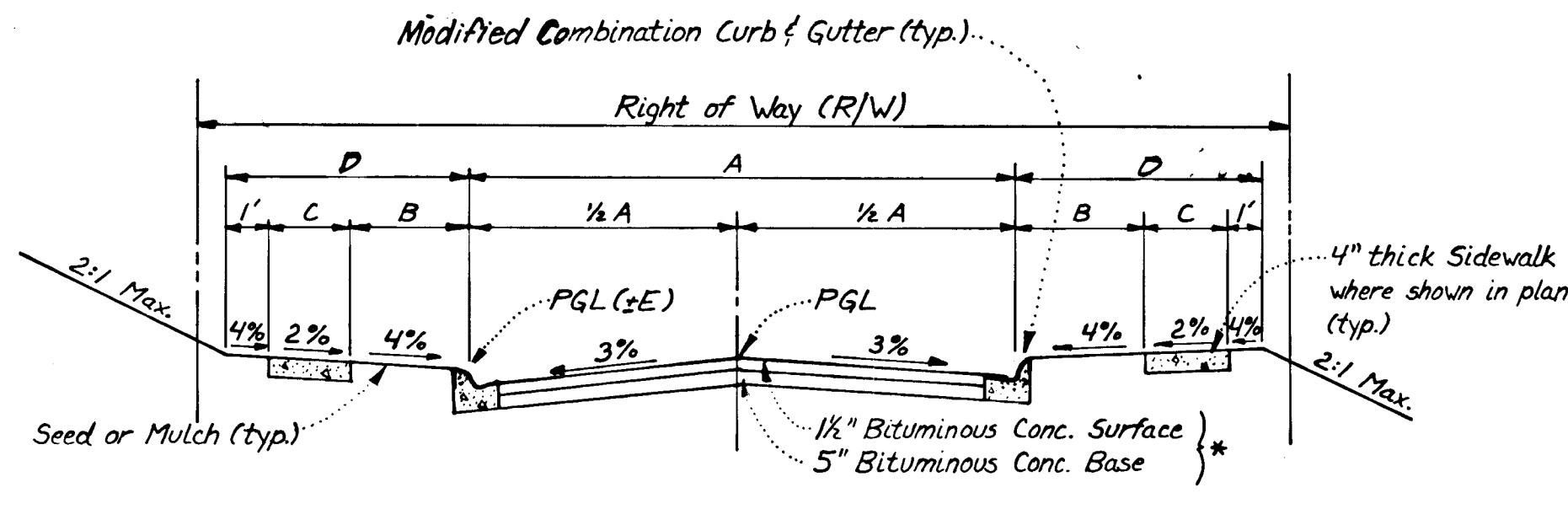
F-85-52

83-116-D  
Brampton Hills



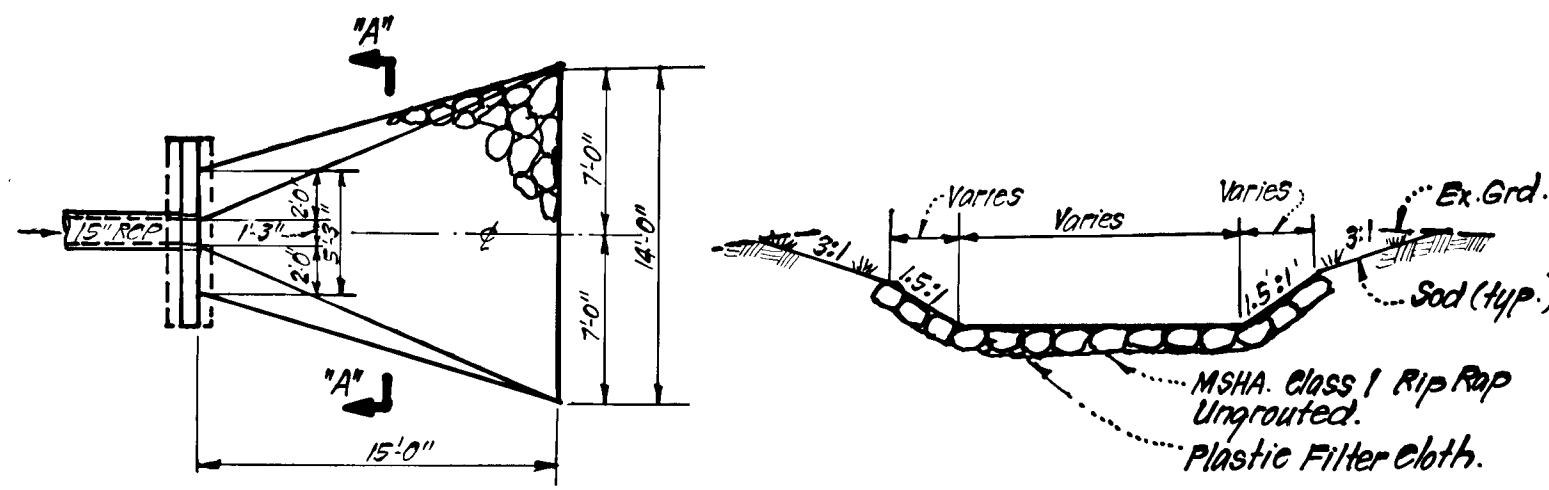






TYPICAL PAVING SECTION - PUBLIC ROADS

\*For Alternate Paving Section - See det. this sht.

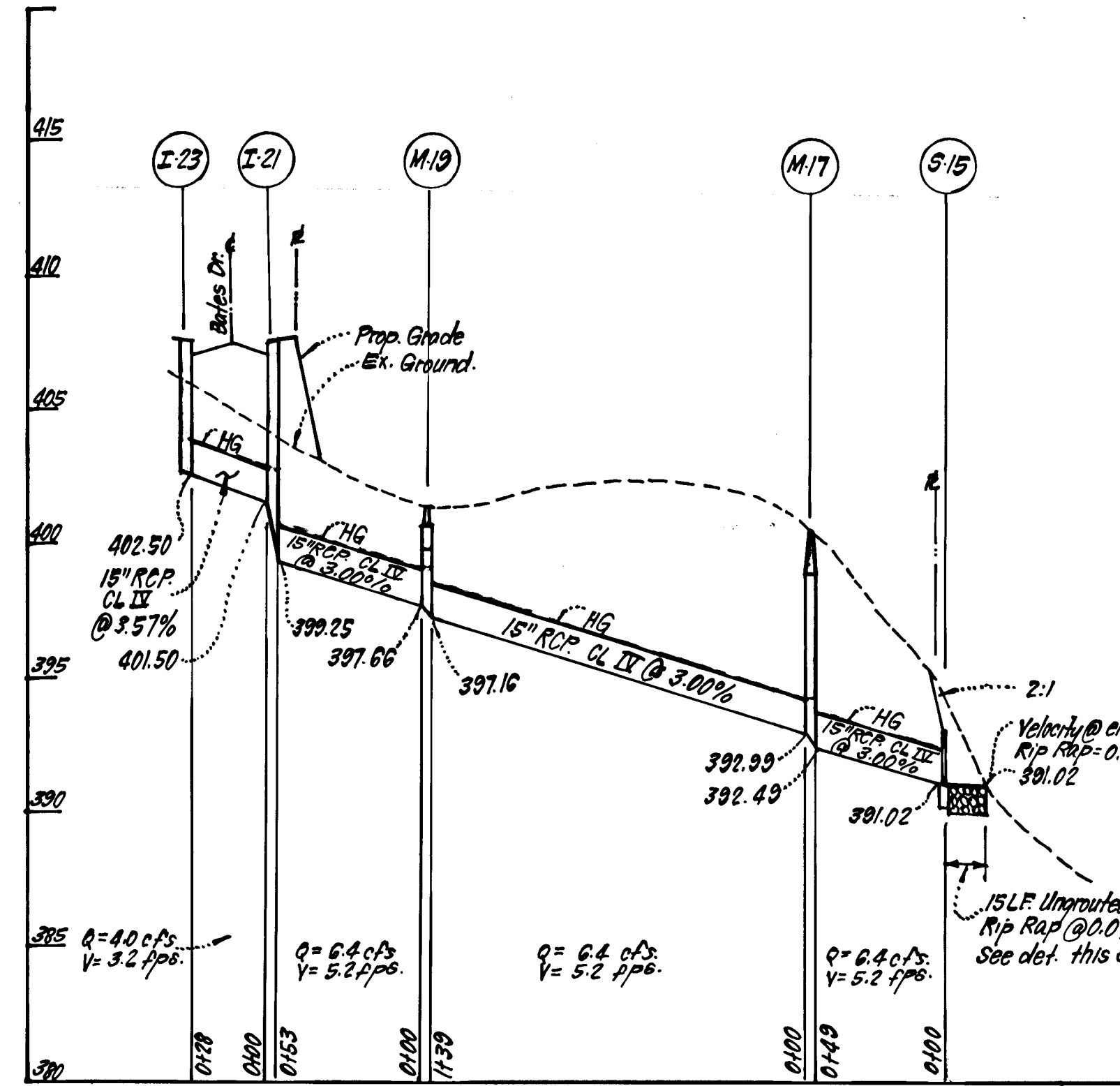
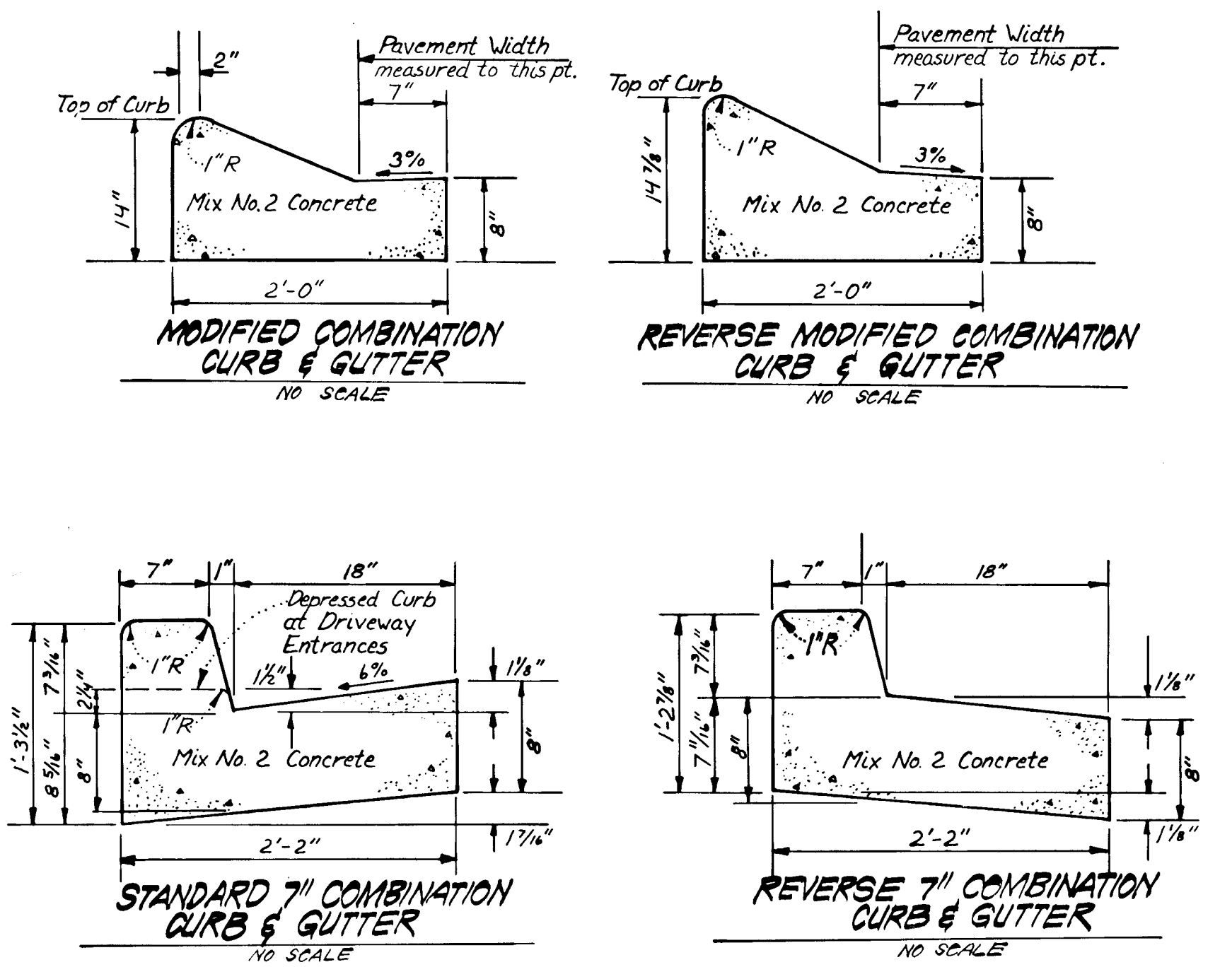


DETAIL - OUTLET DITCH @ S-15

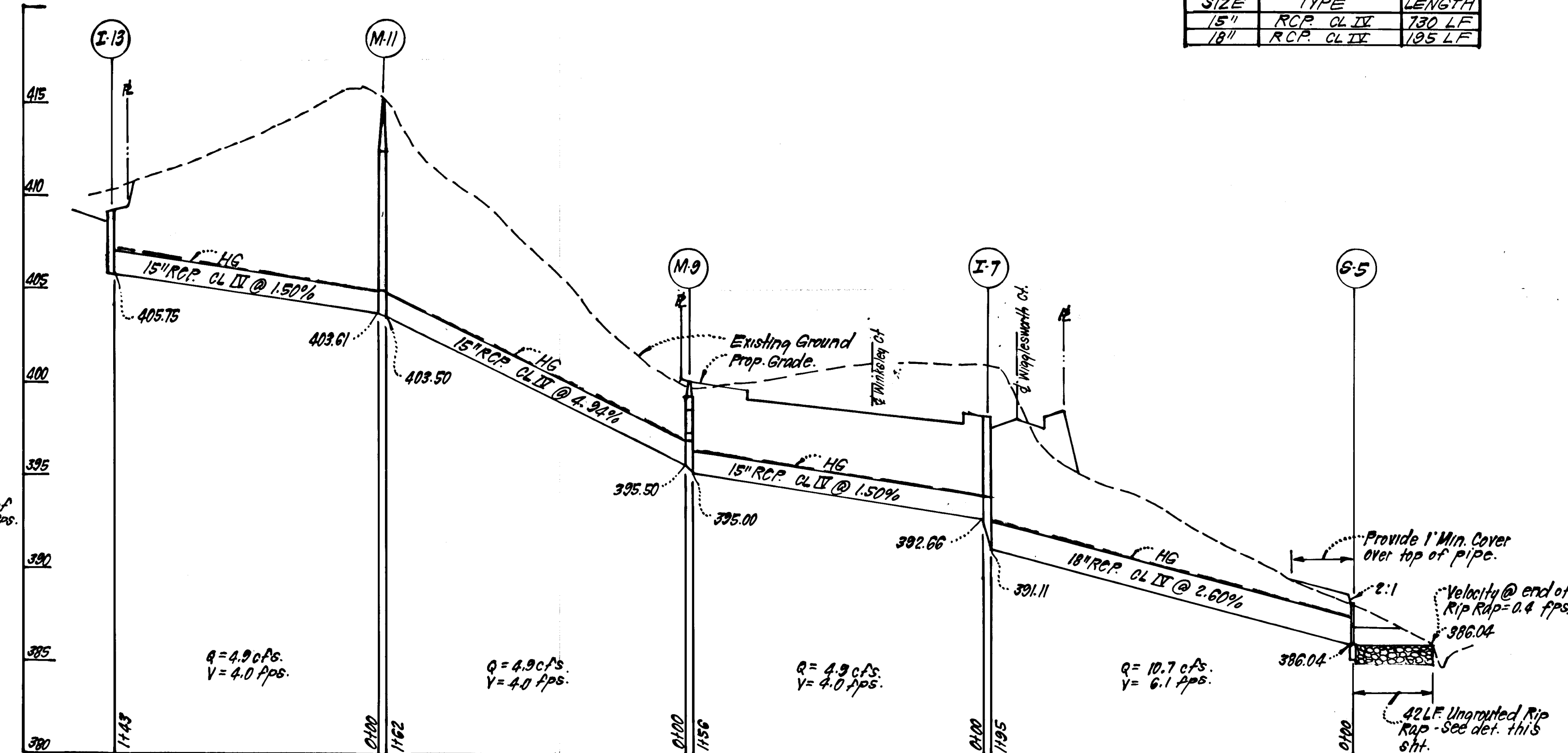
No.	TYPE	INV. IN		TOP ELEVATION		LOCATION	REMARKS
		MIN.	MAX.	UPPER	LOWER		
S-5	Type "C" Endwall	396.04	-	-	-	See Plan	Ho. Co. Sht. SD. 5-21 18" Dia.
I-7	A-10 Inlet	392.66	391.11	398.08	398.20	"	" " SD. 4-02 W=2'-6"
M-9	Shallow Manhole	395.50	395.00	400.01	-	"	" " G-5.05 48" Sp.
M-11	Std. 4'-0" Precast Manhole	403.61	403.51	415.00	-	"	" " G-5.12
I-13	A-10 Inlet	-	405.75	409.08	409.08	"	" " SD. 4-02 W=2'-6"
S-15	Type "C" Endwall	391.02	-	-	-	"	" " SD. 5-21 15" Dia.
M-17	Std. 4'-0" Precast Manhole	392.99	392.49	400.50	-	"	" " G-5.12
M-19	Shallow Manhole	397.66	397.16	401.40	-	"	" " G-5.05 48" Sp.
I-21	A-5 Inlet	401.50	398.25	407.44	407.44	@ 5102 Bates Dr.	" " SD. 4-01 W=2'-6"
I-23	A-5 Inlet	-	402.50	407.44	407.44	@ 5102 Bates Dr.	" " SD. 4-01 W=2'-6"

All Inlets to be fully developed.

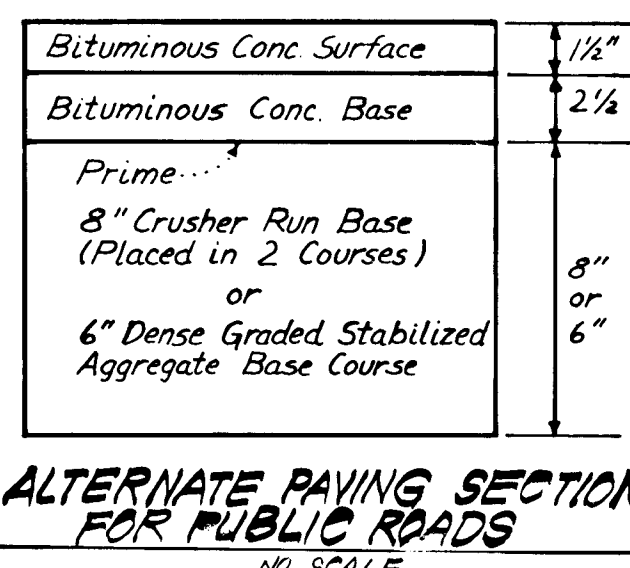
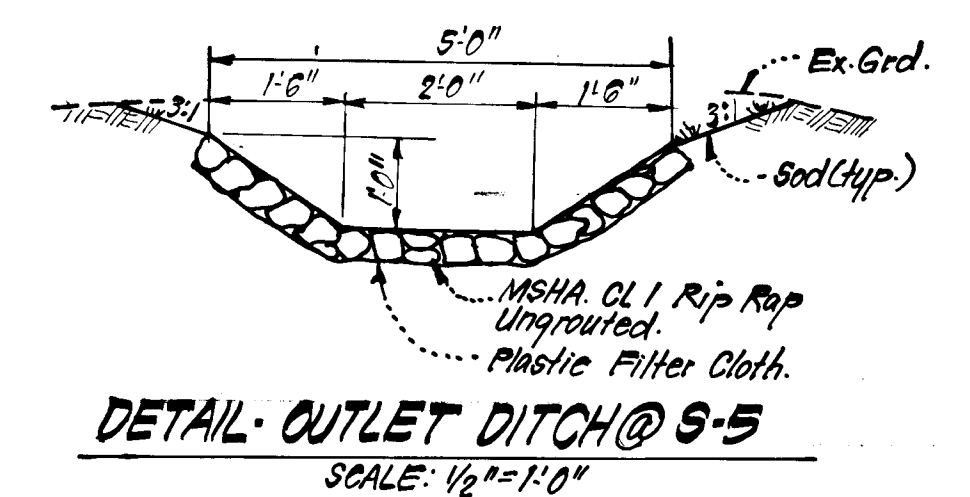
STREET NAME & STATION	TYPE OF TRAFFIC	A	B	C	D	R/W	ZONING	DESIGN SPEED	E
Bates Drive 1+41.00 - 8+80.26	LOCAL	30'	4'	4'	9'	50'	R-20	30	1.05
Bates Drive 8+53.86 - 11+02.92	CUL-DE-SAC	24'	-	-	10'	50'	"	"	1.14
RANSALL CT. 0+00 - 2+20.00	" " "	28'	4'	4'	9'	50'	"	"	1.08
KIRKSTALL RD. 0+00 - 3+06.84	LOCAL	30'	4'	4'	9'	50'	"	"	1.05
WIGGLESWORTH 0+00 - 1+09.34	LOCAL	28'	4'	4'	9'	50'	"	"	1.08
WIGGLESWORTH 2+06.85 - 3+33.10	CUL-DE-SAC	24'	-	-	10'	50'	"	"	1.14
WINKLEY CT. 0+00 - 1+41.34	" " "	24'	-	-	10'	50'	"	"	1.14



STORM DRAINAGE PROFILES  
SCALE: HORIZ. 1"=50'  
VERT. 1"=5'



SIZE	TYPE	LENGTH
15"	RCP CL IV	730 LF
18"	RCP CL IV	105 LF

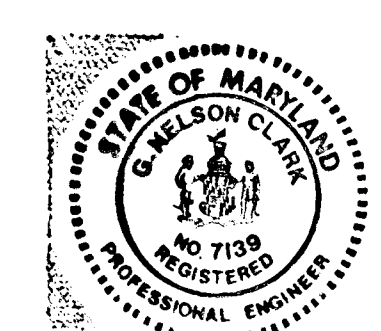


Reviewed for HOWARD SCD  
Name: Howard SCD  
Signature: [Signature]  
Date: 12-13-84  
U.S. Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
Signature: [Signature]  
Date: 12/16/84

DEVELOPER'S/BUILDER'S CERTIFICATE  
I hereby certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

ENGINEER'S CERTIFICATE  
I hereby certify that this plan for Erosion and Sediment Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.  
Signature: G. Nelson Clark  
Date: 1-25-85



APPROVED: DEPARTMENT OF PUBLIC WORKS  
Chief, Bureau of Engineering: [Signature] 1-2-85  
APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
Chief, Division of Land Development & Zoning Administration: [Signature] 12-14-84

**CLARK · FINEFROCK & SACKETT**  
ENGINEERS · PLANNERS · SURVEYORS  
11315 LOCKWOOD DRIVE • SILVER SPRING, MARYLAND 20904 • (301) 593-3400

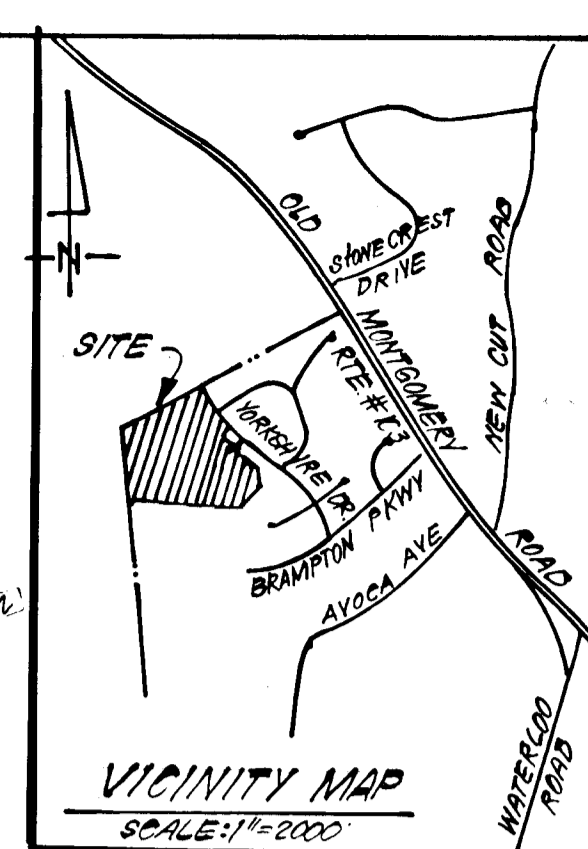
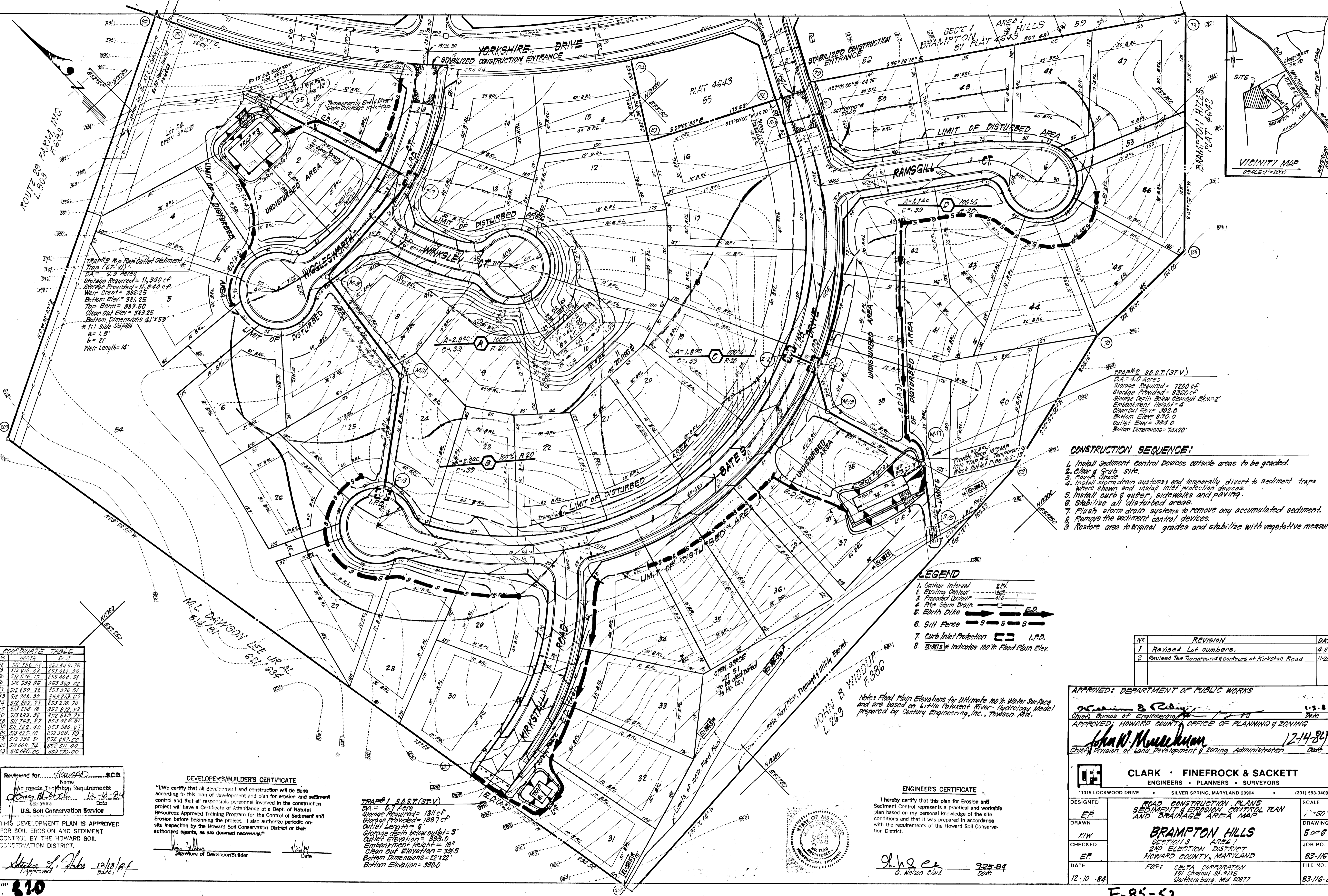
DESIGNED: ROAD CONSTRUCTION PLANS  
DRAWN: STORM DRAIN & PAVING DETAILS  
CHECKED: K/W  
DATE: 12-10-84

SCALE: As Shown  
DRAWING: 4 OF 6  
JOB NO.: 83-116  
FILE NO.: 83-116-D

FOR: CELTA CORPORATION  
101 Chestnut St. #125  
Gaithersburg, Md 20877

820





TRAP #3 Rip Rap Outlet Sediment Trap (ST-VI)  
 P.A. = 6.3 Acres  
 Storage Required = 11,340 c.f.  
 Storage Provided = 11,340 c.f.  
 Weir Crest = 386.25  
 Bottom Elev = 381.25  
 Top Berm = 389.50  
 Clean Out Elev = 383.25  
 Bottom Dimensions 41' x 59'  
 \* 1:1 Side Slopes  
 a = 1.5  
 b = 21  
 Weir Length = 14'

TRAP #2 S.O.S.T. (ST-V)  
 P.A. = 4.0 Acres  
 Storage Required = 7200 c.f.  
 Storage Provided = 8360 c.f.  
 Storage Depth Below Cleanout Elev = 2'  
 Embankment Height = 4'  
 Cleanout Elev = 393.0  
 Bottom Elev = 393.0  
 Outlet Elev = 394.0  
 Bottom Dimensions = 74 x 20'

- CONSTRUCTION SEQUENCE:**
1. Install sediment control devices outside areas to be graded.
  2. Clear & Grub site.
  3. Rough Grade.
  4. Install storm drain systems, and temporarily divert to sediment traps where shown and install inlet protection devices.
  5. Install curb & gutter, sidewalks and paving.
  6. Stabilize all disturbed areas.
  7. Flush storm drain systems to remove any accumulated sediment.
  8. Remove the sediment control devices.
  9. Restore area to original grades and stabilize with vegetative measures.

- LEGEND**
1. Contour Interval 2 Ft.
  2. Existing Contour 100
  3. Proposed Contour 100
  4. Prop Storm Drain
  5. Earth Dike
  6. Silt Fence
  7. Curb Inlet Protection CS I.P.D.
  8. \* Indicates 100 Yr Flood Plain Elev.

NO.	EASTING	NORTHING
56	512 336.34	853 226.75
57	512 616.63	853 224.90
58	512 576.15	853 404.58
59	512 536.85	853 360.02
60	512 630.72	853 376.01
61	512 709.90	853 219.62
62	512 802.25	853 218.70
63	512 558.78	852 872.32
64	512 283.96	852 858.73
65	511 743.97	853 936.31
66	511 722.40	853 080.67
67	512 025.18	852 329.79
68	512 298.37	852 457.50
69	512 008.72	852 511.40
70	512 060.00	853 270.00

Reviewed for HOWARD COUNTY SCD  
 Name: Howard County SCD  
 Signature: [Signature]  
 Date: 12-13-84  
 U.S. Soil Conservation Service  
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 Approved: [Signature] 12/13/84 Date

**DEVELOPER'S/BUILDER'S CERTIFICATE**  
 "I/We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."  
 Signature of Developer/Builder: [Signature]  
 Date: 12/14/84

TRAP #1 S.O.S.T. (ST-V)  
 P.A. = 0.1 Acre  
 Storage Required = 131 c.f.  
 Storage Provided = 1387 c.f.  
 Outlet Length = 6'  
 Storage depth below outlet = 3'  
 Outlet Elevation = 393.0  
 Embankment Height = 18"  
 Clean out Elevation = 391.5  
 Bottom Dimensions = 22' x 22'  
 Bottom Elevation = 390.0

Note: Flood Plain Elevations for Ultimate 100 Yr Water Surface and are based on Little Patuxent River Hydrology Model prepared by Century Engineering, Inc., Towson, Md.  
 JOHN B. WIDDUP F.S.S.  
 L. 223

**ENGINEER'S CERTIFICATE**  
 I hereby certify that this plan for Erosion and Sediment Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.  
 G. Nelson Clark 9-25-84 Date

NO.	REVISION	DATE
1	Revised Lot numbers.	4-11-85
2	Revised Tee Turnaround & contours at Kirkstall Road	11-20-85

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 [Signature] 1-3-85  
 Chief, Bureau of Engineering  
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
 [Signature] 12-14-84  
 Chief, Division of Land Development & Zoning Administration

**CLARK • FINEFROCK & SACKETT**  
 ENGINEERS • PLANNERS • SURVEYORS  
 11315 LOCKWOOD DRIVE • SILVER SPRING, MARYLAND 20904 • (301) 593-3400

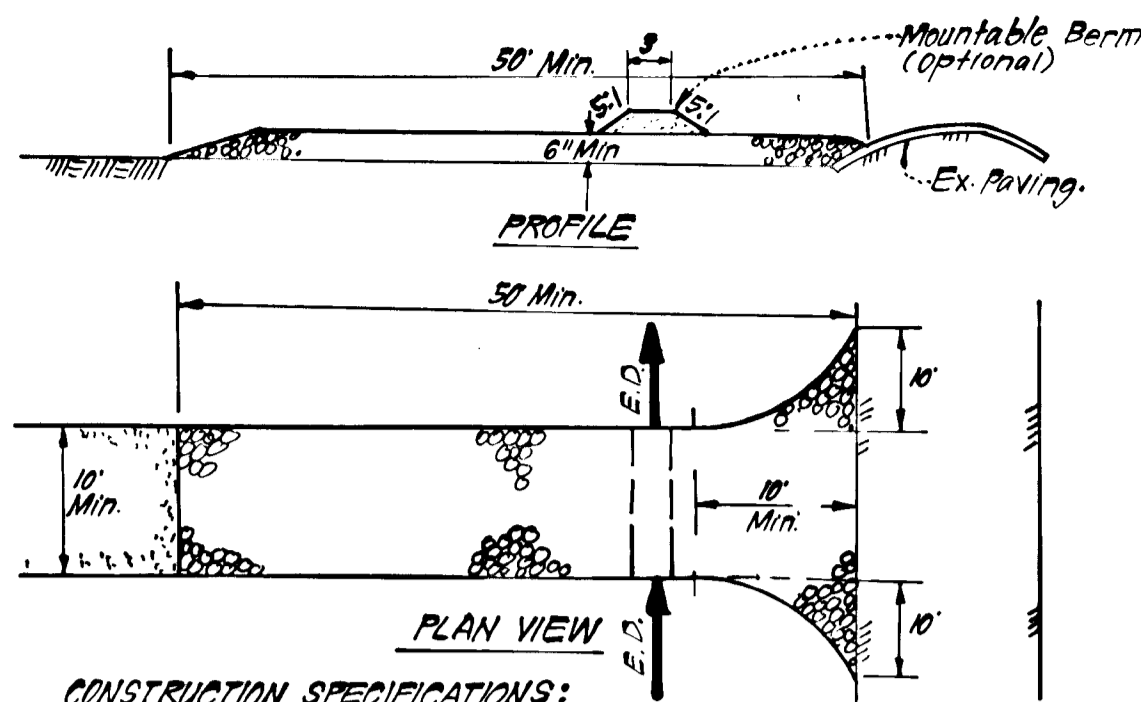
DESIGNED	EP	SCALE	1" = 50'
DRAWN	KIW	DRAWING	5 OF 6
CHECKED	EP	JOB NO.	83-116
DATE	12-10-84	FILE NO.	83-116-D

FOR: DELTA CORPORATION  
 101 Chesnut St. #125  
 Gaithersburg, Md 20877



**GENERAL NOTES**

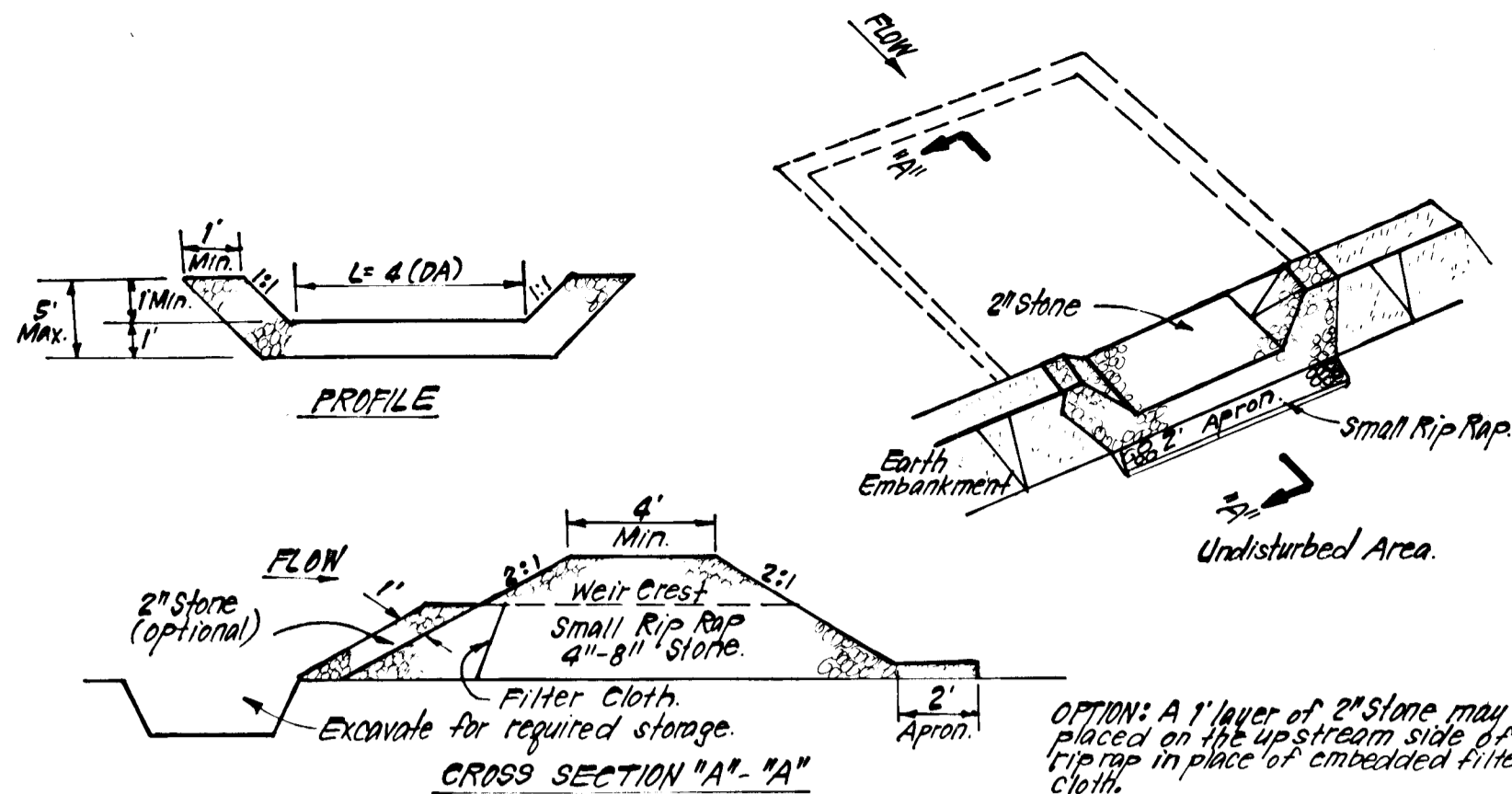
1. Grading Permits shall be obtained prior to installation of sediment control.
2. All Sediment Control Measures will be installed and stabilized according to this plan prior to any other grading, clearing or disturbance of existing surface of site.
3. Notify the Bureau of Inspections and Permits at least 24 hours before starting any work.
4. All Sediment Control Practices to conform to the "Standards and Specs. for Soil Erosion and Sediment Control in Developing Areas", and shall be adjusted to meet actual field conditions.
5. All structural Sediment Control Measures are to remain in place until permission for their removal has been obtained from the Bureau of Inspections and Permits.
6. On site inspection and maintenance of all sediment control measures including clean-out of Sediment Traps and Dikes, and proper establishment of all planned vegetative measures will be the responsibility of the developer or his representative on the site, on a continuing day to day basis.
7. It will be the developer's responsibility to provide additional Sediment & Erosion Control Devices to protect Stabilized areas during construction.
8. The contractor shall keep all public roads free of sediment deposits left from traffic leaving construction site.
9. Approval of this plan is conditional upon the approval of Sediment Control Plan for the off-site waste or borrow area prior to the import of any borrow or export of waste to or from this site.
10. See Pages 51.01 - 51.08 of the Maryland State & Specs. for Soil Erosion and Sediment Control for Permanent Seeding and Pages 50.01 - 50.05 for Temporary Seeding.
11. As per C.D.M.A.R. 08.05.01.06 - "Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: (a) seven calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to one vertical (3:1) and (b) fourteen days as to all other disturbed or graded areas on the project site."
12. All Pipes to be blocked at the end of each day (See detail below).
13. The total amount of ~~Stem-Bale Dikes~~ / Silt Fence shown = 2300 LF.
14. **SITE ANALYSIS:**
  - A Total Area: 25.67 Acres
  - B Area to be Roofed: None Acres
  - C Area to be Paved: 1.77 Acres
  - D Area to be Seeded: 4.01 Acres
  - E Area Undisturbed: 19.89 Acres
16. All sediment traps shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chap. 12, of The Ho & Design Manual for Storm Drainage.
17. Cut = 14,540 Cy  
Fill = 4,880 Cy



**CONSTRUCTION SPECIFICATIONS:**

1. Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 feet (except on a single residence lot) where a 130' min length would apply.
3. Thickness - Not less than 6".
4. Width - Top, not min, but not less than the full width at point where ingress of debris occur.
5. 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.
6. Surface Water - All surface water flowing or directed toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or lowering of sediment on any public rights of way. This may require periodic dressing with additional stone as conditions demand. Sediment spilled, dropped, washed or tracked onto public rights of way must be removed immediately.
8. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights of way. Washing shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

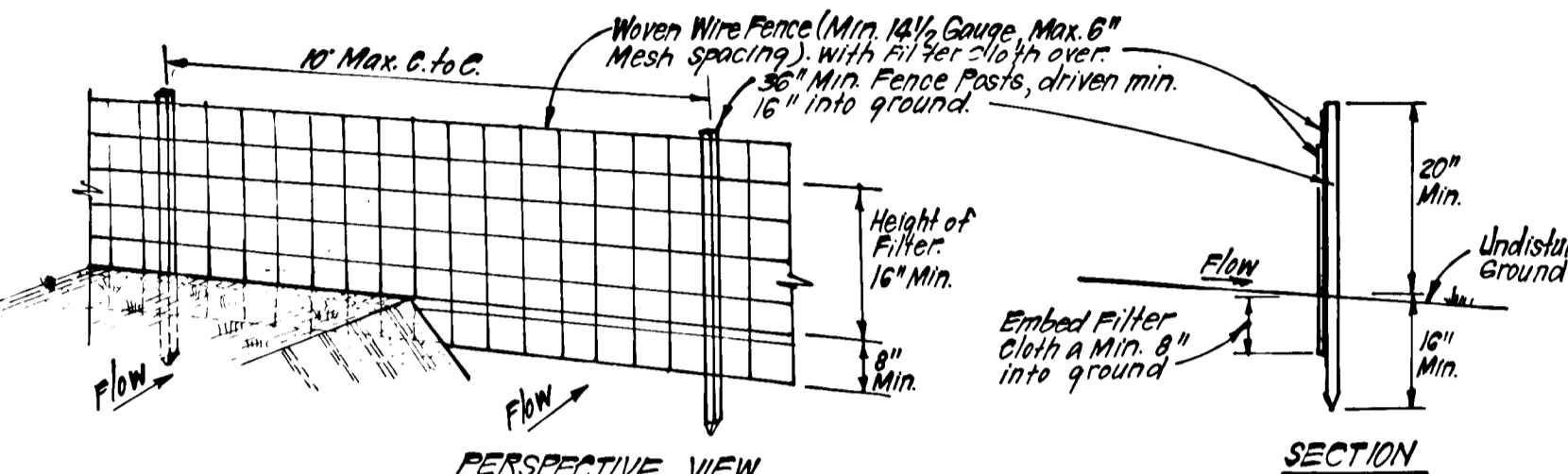
**STABILIZED CONSTRUCTION ENTRANCE (S.C.E.)**  
NO SCALE



**CONSTRUCTION SPECIFICATIONS:**

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The trap area shall be cleared.
2. The fill material for the embankment shall be free of roots and 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.
3. All cut and fill slopes shall be 2:1 or flatter.
4. The stone used in the outlet shall be small rip-rap 4"-8" along with 1" thickness of 2" aggregate placed on the up-grade side on the small rip-rap or embedded filter cloth in the rip-rap.
5. 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.
6. The structure shall be inspected after each rain and repairs made as needed.
7. Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
8. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

**STONE OUTLET SEDIMENT TRAP (S.O.ST.) ST.V.**  
NO SCALE

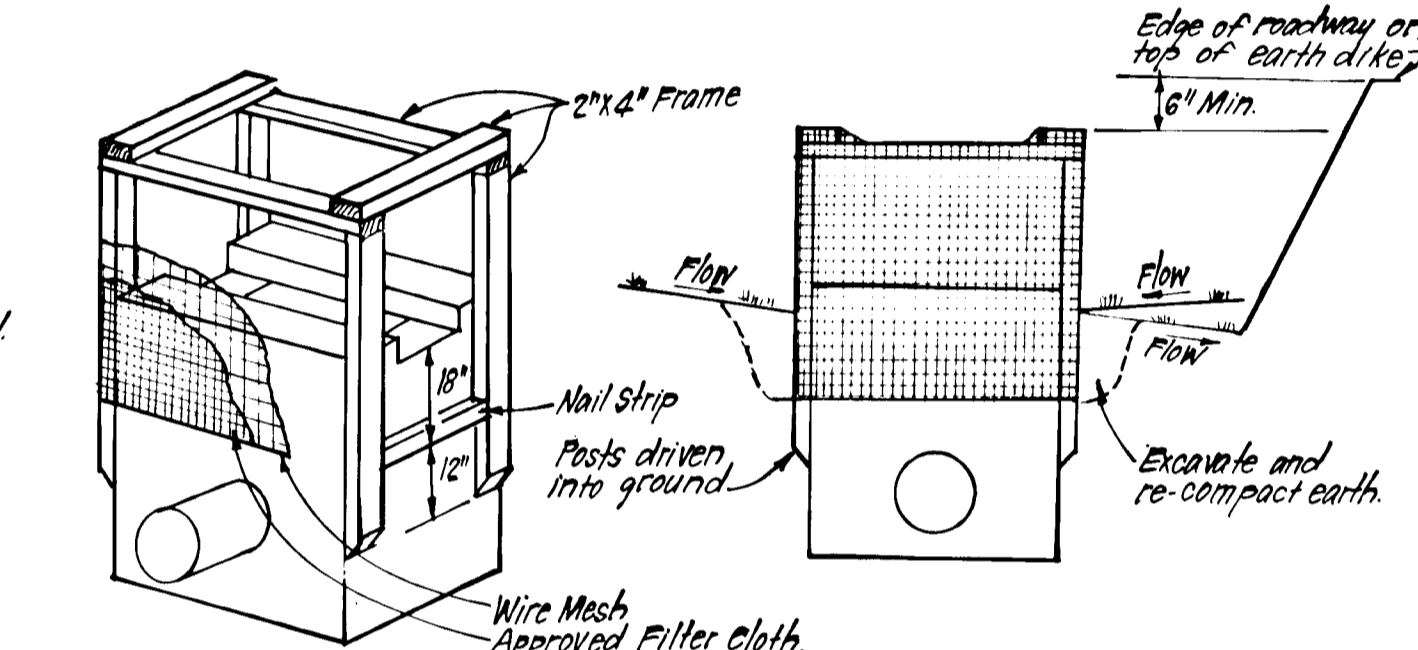


**CONSTRUCTION SPECIFICATIONS:**

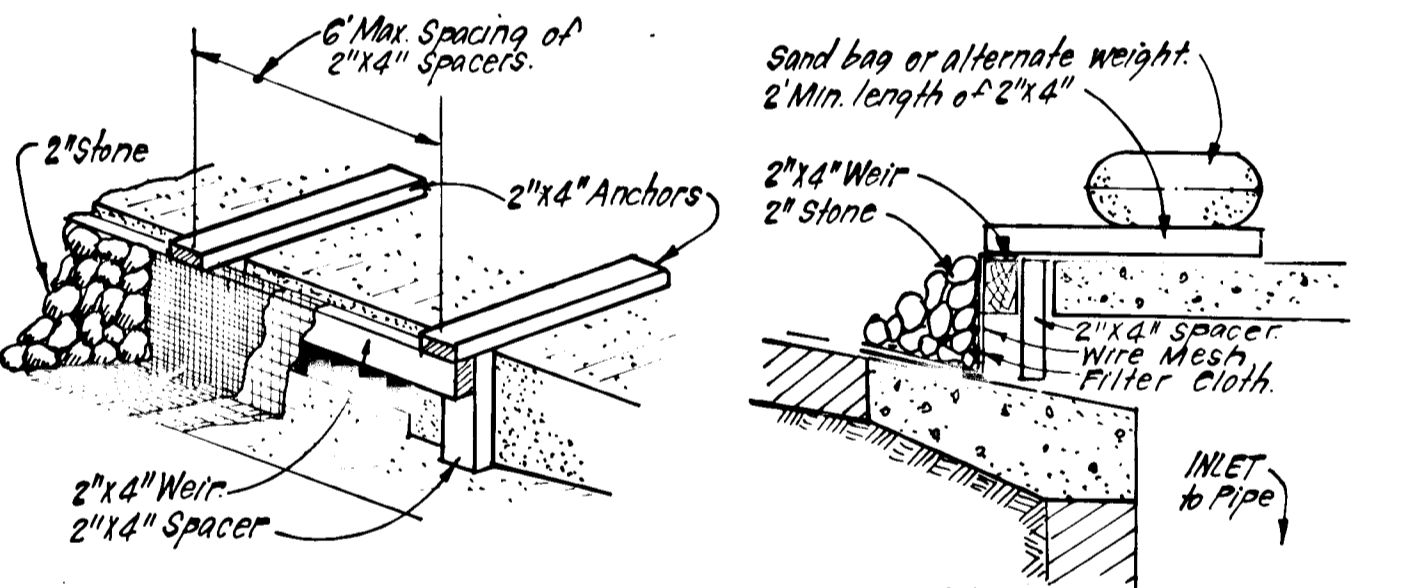
1. Woven wire fence to be fastened securely to fence posts with wire ties or staples.
2. Filter cloth to be fastened to woven wire fence with ties spaced every 24" at top and mid section.
3. When 2 sections of filter cloth adjoin each other they shall be overlapped by 6" and stapled.
4. Maintenance shall be performed as needed and material removed when "bulges" develop in Silt Fence.

**SILT FENCE DETAIL (S)**  
NO SCALE

POSTS: Steel either T or U Type or 2" x 4" Heavywood  
FENCE: Woven Wire, 14 1/2 Gauge  
FILTER CLOTH: Filter Cloth, Miraflex 100X, Stabilinka, T140N or Approved equal  
PREFABRICATED UNIT: Geofab, Envirofence, or Approved equal



**SWALE INLET PROTECTION DETAIL**



**CURB INLET PROTECTION DETAIL**

**CONSTRUCTION SPECIFICATIONS:**  
MATERIALS:  
A. Wooden frame is to be constructed of 2"x4" construction grade lumber.  
B. 2"x4" Weir is to be constructed of 2"x4" construction grade lumber.  
C. Filter cloth must be of a type approved for this project resistant to sunlight with sieve size, E15, 40-85, to allow sufficient passage of water and removal of sediment.  
D. Stone is to be 2" in size and clean, since fines would clog the cloth.

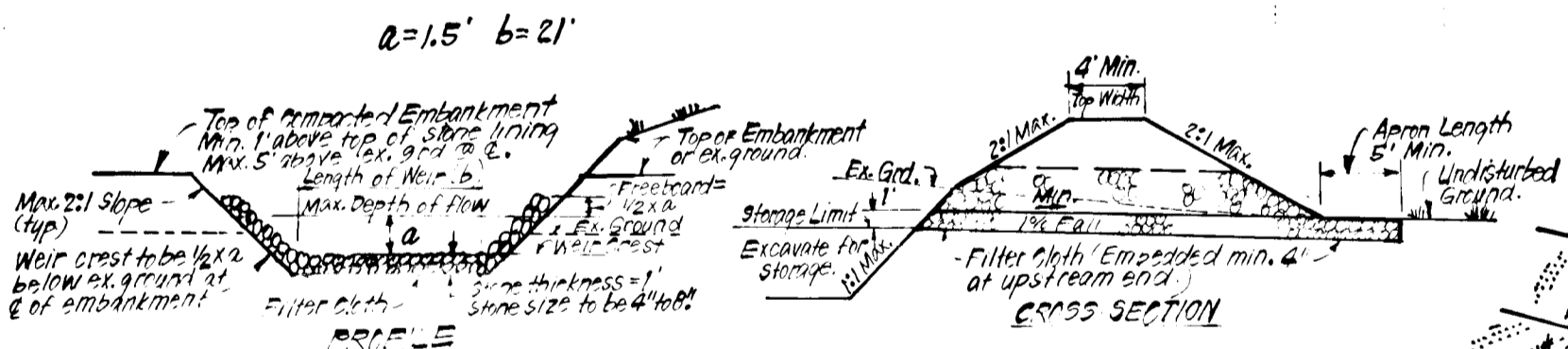
**II. PROCEDURE: SWALE, DITCHLINE OR YARD INLET PROTECTION**

1. Excavate completely around inlet to a depth of 18" below notch elevation.
2. Drive 2x4 post 1" into ground at four corners of inlet. Place nail strips between posts around inlet. Assemble top portion of 2x4 frame using overlap joint shown. Top of frame (weir) must be on heavy side of roadway adjacent to inlet.
3. Stretch wire mesh tightly around frame and fasten securely. Ends must meet at post.
4. Stretch filter cloth tightly over wire mesh, the cloth must extend from top of frame to 18" below inlet notch elev. Fasten securely to frame. Ends must meet at post, be overlapped and folded, then fastened down.
5. Backfill around inlet in compacted 6" layers until layer of earth is even with notch elevation on ends and top elevation on sides.
6. If the inlet is not in a low point, construct a compacted earth dike in the ditch line below the top of this earth dike is to be at least 6" higher than the top of frame (weir).
7. The structure must be inspected frequently and filter fabric replaced when clogged.

**II. PROCEDURE: CURB INLET PROTECTION**

1. Attach a continuous piece of wire mesh (30" min. width by throat length plus 4") to the 2x4 weir (measuring throat length plus 2") as shown on std. drawing.
2. Place a piece of approved filter cloth (40-85 sieve) of the same dimensions as the wire mesh over the wire mesh and securely attach to the 2"x4" weir.
3. Securely nail the 2"x4" weir to 3/4" long vertical spacers to be located between the weir and inlet face (max 6" apart).
4. Place the assembly against the inlet throat and nail (min 2" lengths of 2"x4" to the top of the weir at spacer locations. These 2"x4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
5. The assembly shall be placed so that the end spacers are a min 1" beyond both ends of throat opening.
6. From 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 to inlet.

**INLET PROTECTION DETAIL (I.P.D.)**  
NO SCALE



**RIPRAP OUTLET SEDIMENT TRAP - ST-VI**  
NO SCALE

**DEVELOPER'S/SUBMITTER'S CERTIFICATE**

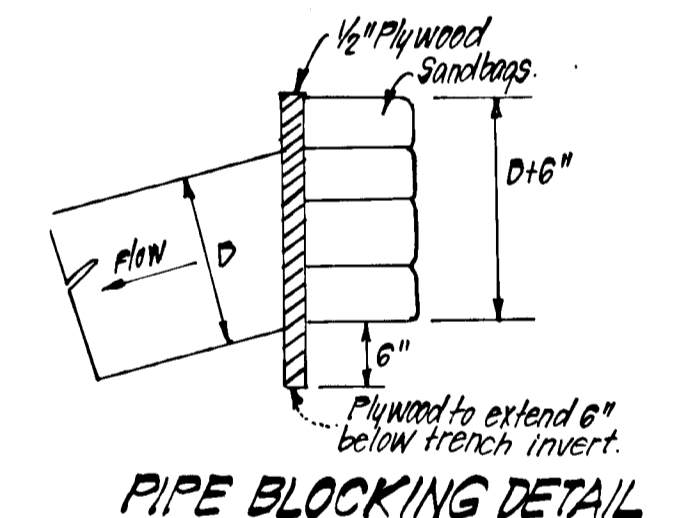
"I/We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic off-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."

**ENGINEER'S CERTIFICATE**

"I hereby certify that this plan for Erosion and Sediment Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."



G. Nelson Clark  
12-10-84



**PIPE BLOCKING DETAIL**  
NO SCALE

**CONSTRUCTION SPECIFICATIONS:**

1. All dikes shall be compacted by earth-moving equipment.
2. All dikes shall have positive drainage to an outlet.
3. Top width may be wider and side slopes may be flatter if desired, to facilitate crossing by construction traffic.
4. Field location should be adjusted as needed to utilize a stabilized area outlet.
5. Earth dikes shall have an outlet that functions with a minimum of erosion. Runoff 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 adequately stabilized.
6. 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 chart below.

**FLOW CHANNEL STABILIZATION**

TYPE OF TREATMENT	CHANNEL SLOPE	DIKE A	DIKE B
1	0.5 - 5.0%	Seed & Straw Mulch	Seed or Straw Mulch
2	3:1 - 5:0%	Seed & Straw Mulch	Seed, White or Excelsior's Seed, 2" Stone
3	5:1 - 8:0%	Seed, White or Soil; 2" Stone	Lined Rip Rap 4"-8" Stone
4	8:1 - 20:0%	Lined Rip Rap 4"-8" Stone	Engineering Design

A. Stone to be 2" Stone, or recycled concrete equivalent, in a layer at least 3" thick and be pressed into soil with construction equipment.  
B. Rip Rap to be 4"-8" in a layer at least 8" thick, pressed into 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.

**EARTH DIKE DETAIL (E.D.)**  
NO SCALE

Reviewed for HOWARD S.C.D. and meets Technical Requirements  
Signature: [Signature]  
Date: 12-13-84  
U.S. Soil Conservation Service

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

Approved: [Signature]  
Date: 12/13/84

APPROVED: DEPARTMENT OF PUBLIC WORKS

Checked by: [Signature]  
Date: 12-13-84  
Checked by: [Signature]  
Date: 12/14/84  
Checked by: [Signature]  
Date: [Blank]

**CLARK • FINEFROCK & SACKETT**  
ENGINEERS • PLANNERS • SURVEYORS  
1131F LOCKWOOD DRIVE • SILVER SPRING, MARYLAND 20904 • (301) 593-3400

DESIGNED	ROAD CONSTRUCTION PLANS	SCALE
EP	SEDIMENT & EROSION CONTROL DETAILS	AS SHOWN
DRAWN		DRAWING
KIW	<b>BRAMPTON HILLS</b>	60'x6'
CHECKED	SECTION 3 AREA 1	JOB NO.
JLS	5TH ELECTION DISTRICT	83-116
DATE	HOWARD COUNTY, MARYLAND	FILE NO.
	FOR: DELTA CORPORATION	83-116-D
	101 CHESTNUT ST. #25	
	GAITHERSBURG MD 20877	