

- GENERAL NOTES:**
- All Construction shall be in accordance with the latest details and Specifications of Howard County & Md. S.H.A.
 - 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 right of way limits shall be in accordance with Howard Co. Design Manual Vol. II.
 - 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.
 - Sign and Crest Vertical Curves were designed in accordance with HA Policy on Geometric Design of Rural Highways, 1965, by AASHTO.
 - Provide Concrete Side Walk Ramps in Curbs, where shown in plan. (Max. 12:1 Slope) See Ho. Co. Std. Side Walk Ramps, Type A, R-4.01.
 - Design Speeds: 60' R/W = 35 mph; 50' R/W = 30 mph.
 - Class C Trench Bedding to be used for all Storm Drain Construction unless otherwise shown.
- NOTE:** All Coordinates shown HEREON ARE BASED ON THE MARYLAND GRID SYSTEM, HOWARD COUNTY GEODETIC CONTROL # 229001 # 231005

APPROVED: Department of Public Works

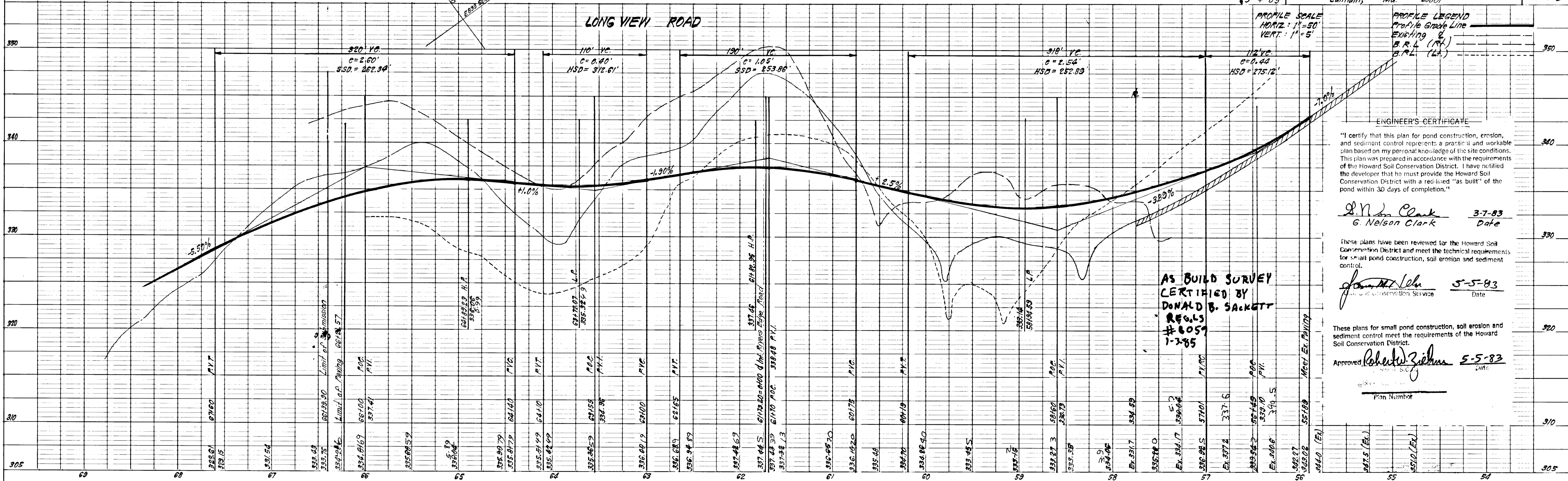
Q. Nelson Clark 5-10-83
Chief, Bureau of Engineering Date

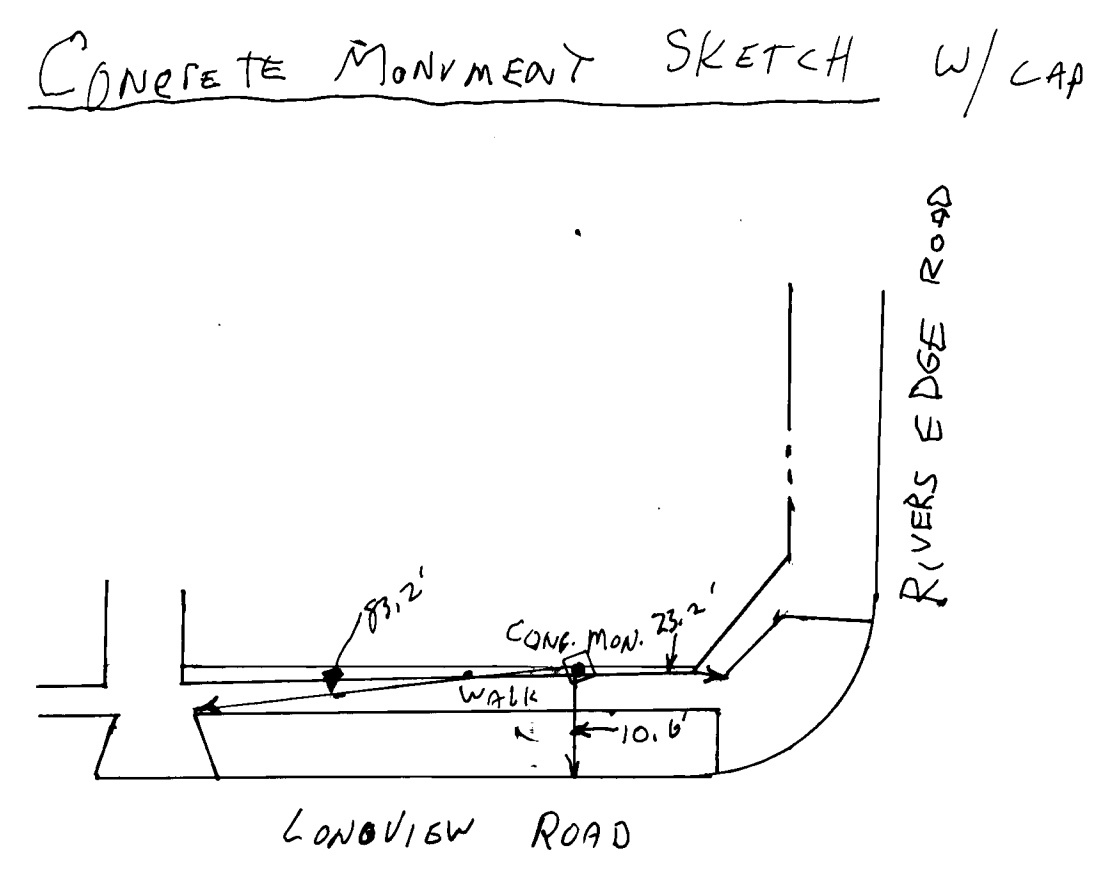
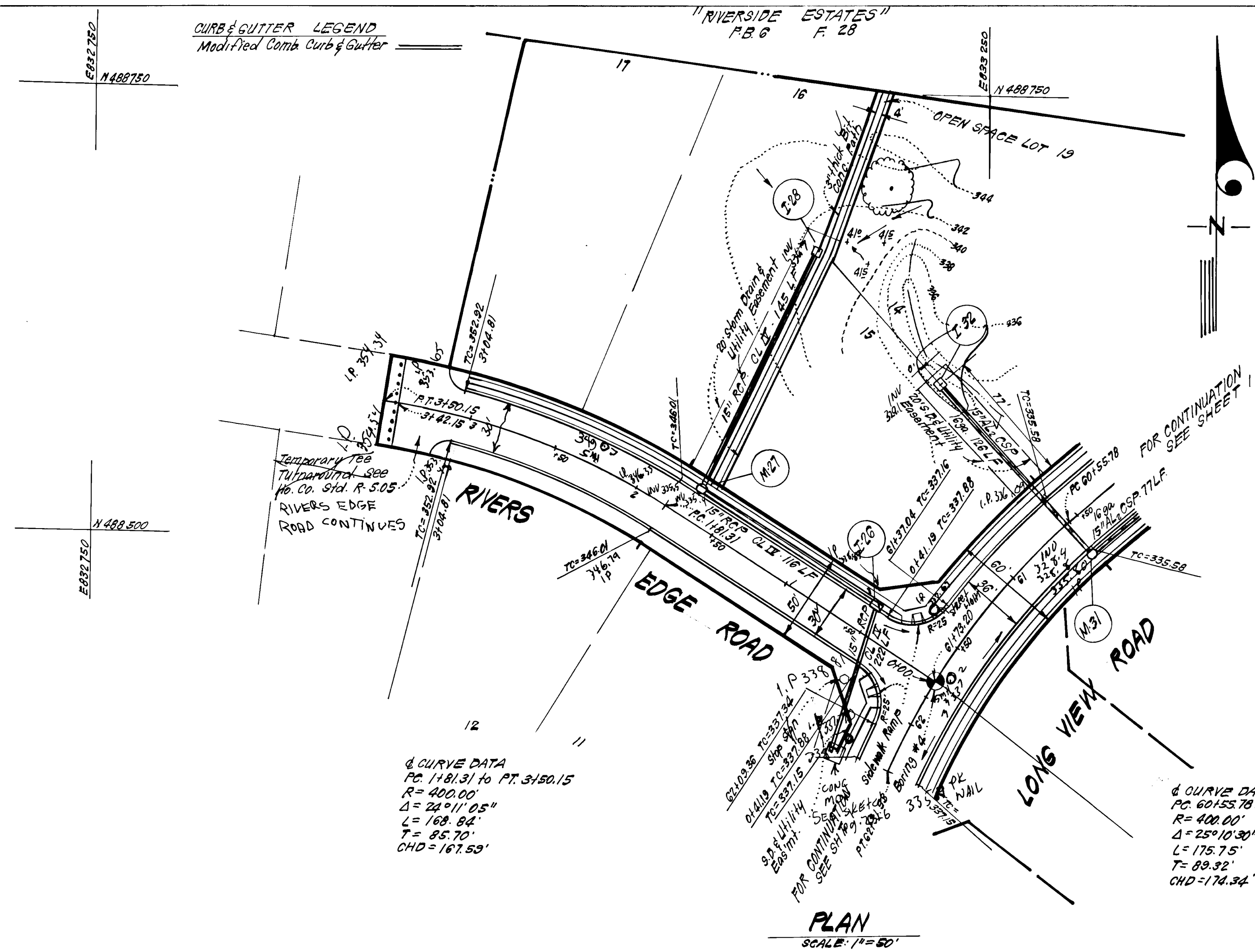
APPROVED: Howard County Office of Planning & Zoning

Q. Nelson Clark 5-6-83
Chief, Division of Land Development & Zoning Administration Date

CLARK FINEFROCK & SACKETT
ENGINEERS PLANNERS SURVEYORS
11315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 (301) 593.3400

DESIGNED	JLS	ROAD CONSTRUCTION PLANS	SCALE
DRAWN	VLS	LONG VIEW ROAD	AS SHOWN
CHECKED	K/W	RIVERSIDE	DRAWING
DATE	3-4-83	SECTION 1 AREA 1	10F.6
		5TH ELECTION DISTRICT	JOB NO.
		HOWARD COUNTY, MARYLAND	82-027
		FOR: STANLEY HALLE COMMUNITIES, INC.	FILE NO.
		3300 Annapolis Road	82-027-D
		Lanham, Md. 20801	





APPROVED: Department of Public Works

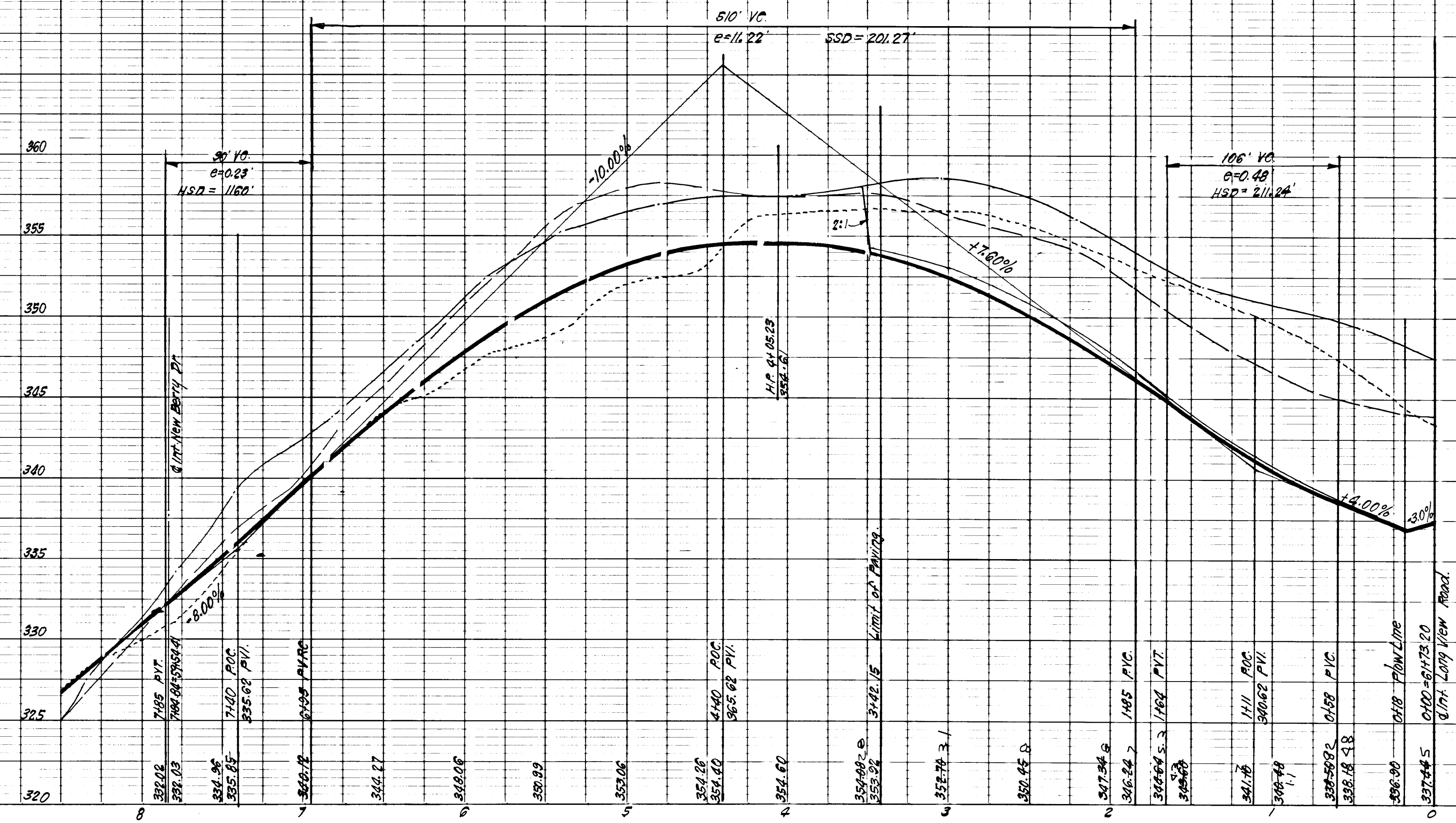
William E. Ryan 5-10-83
Chief, Bureau of Engineering Date

APPROVED: Howard County Office of Planning & Zoning

William E. Ryan 5-1-83
Chief, Division of Land Development & Zoning Administration Date

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

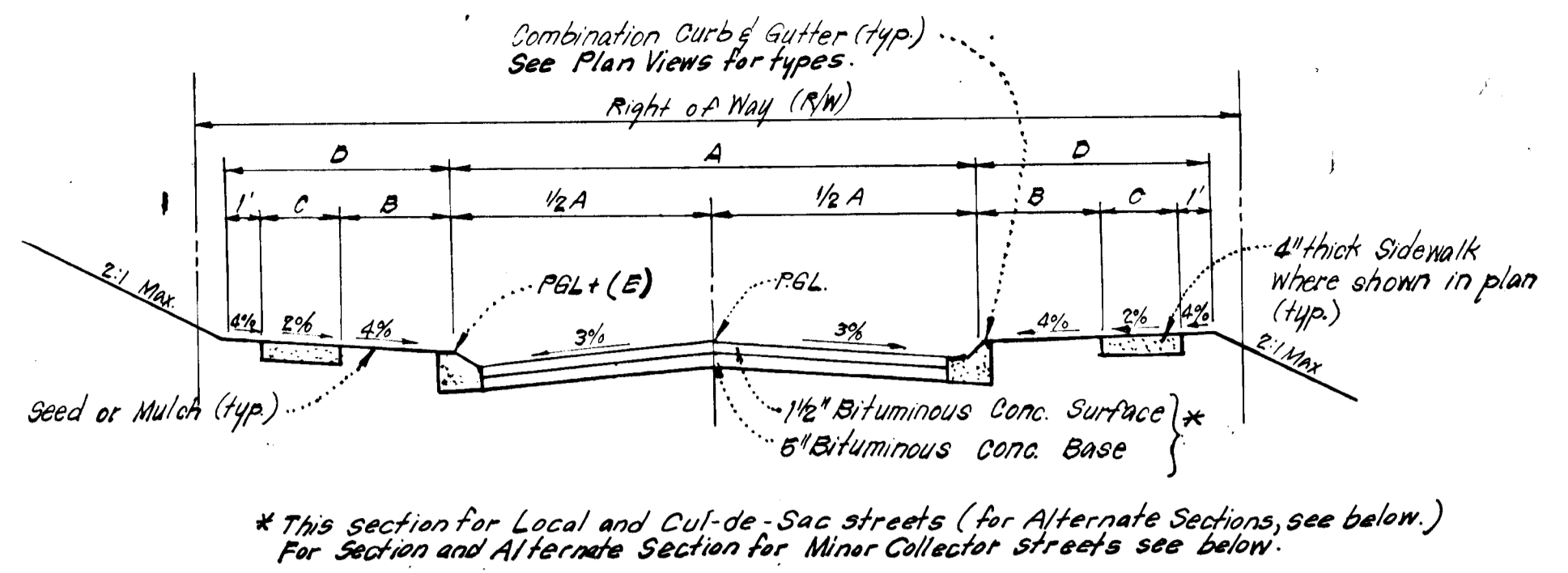
DESIGNED	ROAD CONSTRUCTION PLANS	SCALE
JLS	RIVERS EDGE ROAD	AS SHOWN
DRAWN	RIVERSIDE	DRAWING
KJW	SECTION 1 AREA 1	2 OF 6
CHECKED	5TH ELECTION DISTRICT	JOB NO.
JLS	HOWARD COUNTY, MARYLAND	#2027
DATE	FOR: STANLEY HALL COMMUNITIES, INC.	FILE NO.
4-13-83	3800 ANNAPOLIS ROAD Lanham, Md 20801	#2027-D



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

PROFILE LEGEND
Prop'd Grade Line
Existing G.
B.R.L. (Rt.)
B.R.L. (Lft.)

AS BUILT SURVEY
CERTIFIED BY
DONALD B. SACKETT
#6059
1-3-85



TYPICAL PAVING SECTION - PUBLIC ROADS

NO SCALE

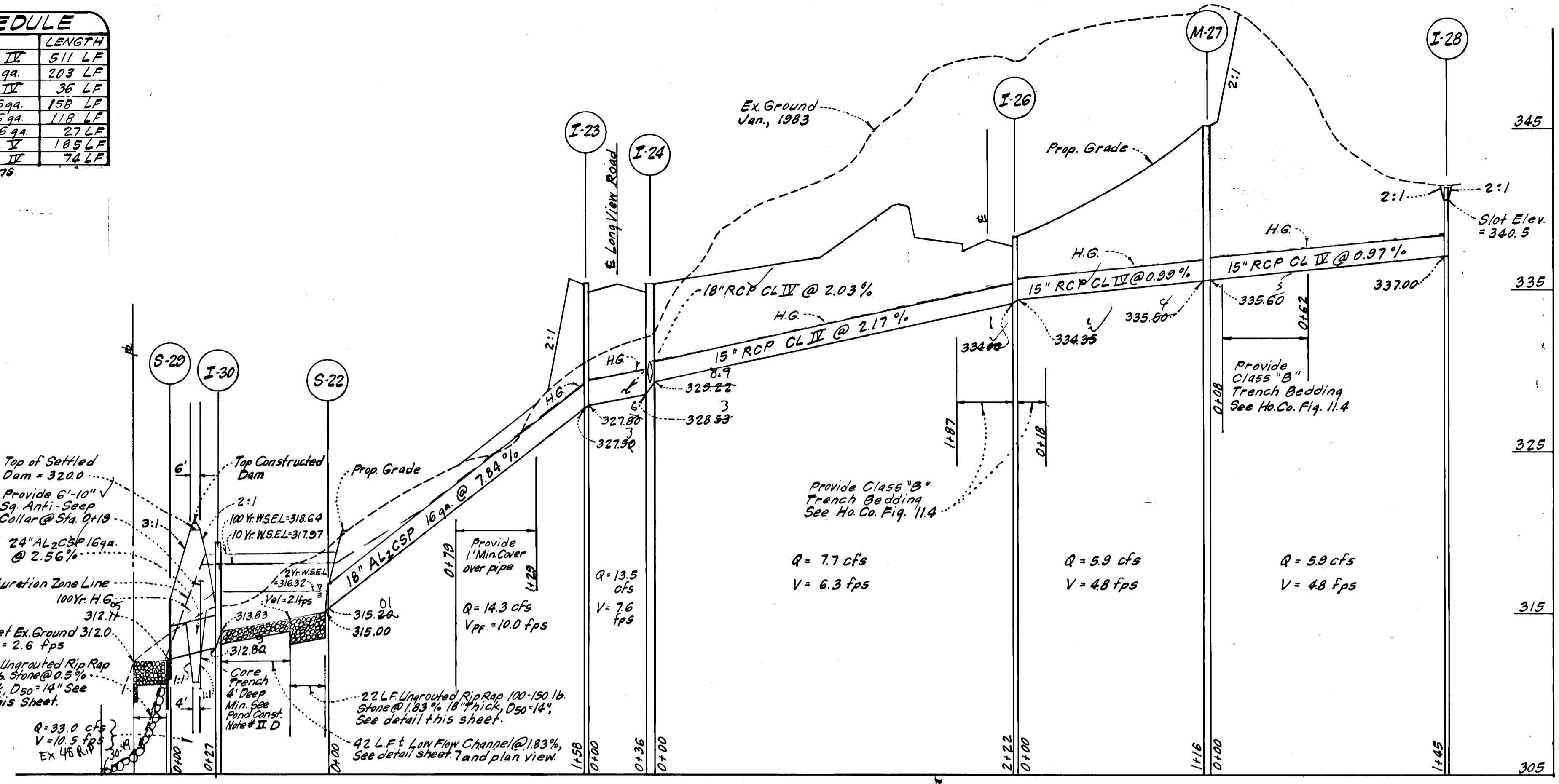
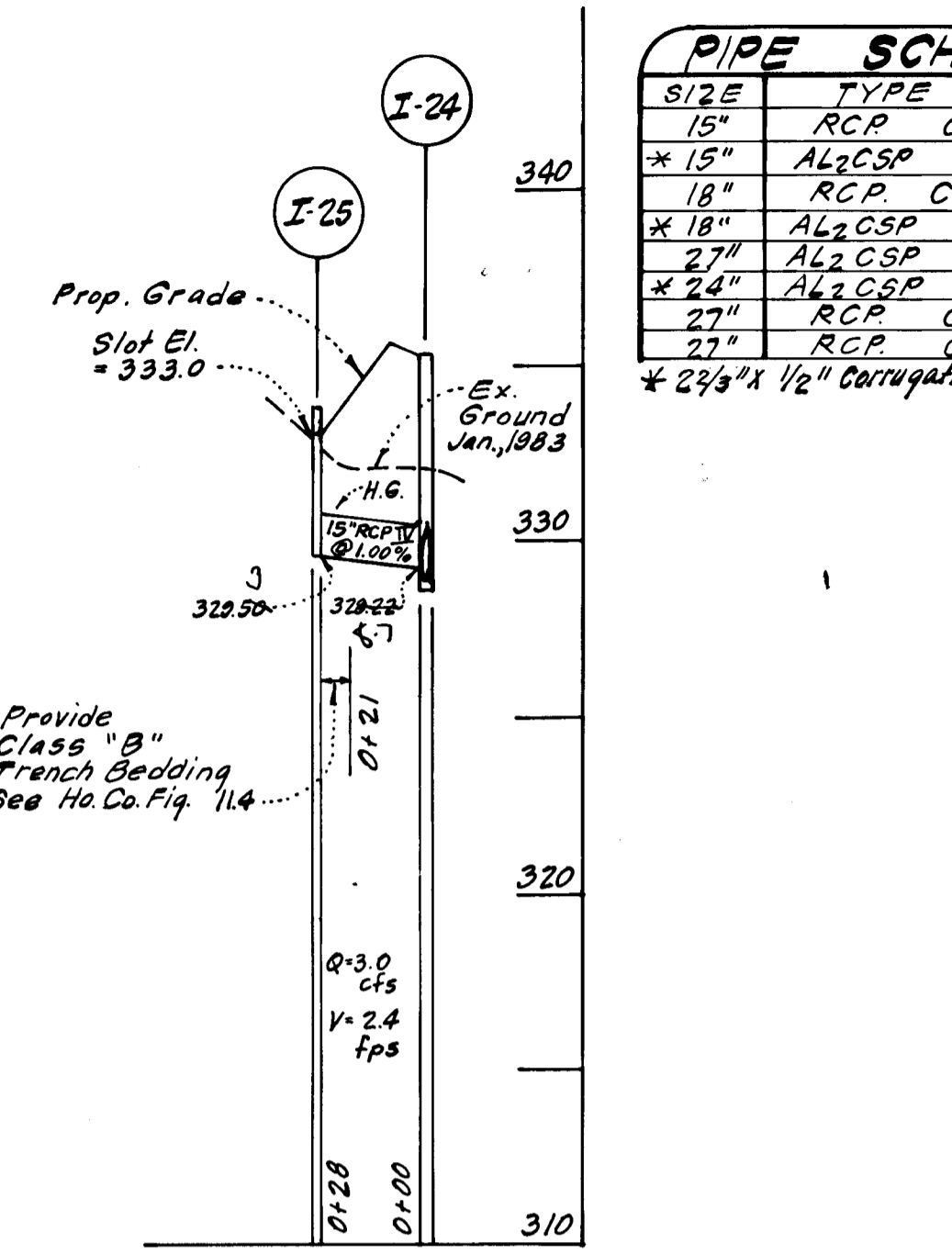
STREET NAME & STATION	ROADWAY CLASSIFICATION	A	B	C	D	R/W	ZONING	DESIGN SPEED	E
Long View Road 55189 to 65121.57*	Minor Collector	36'	6'	4'	12'	60'	R-20	35 MPH	104
Rivers Edge Road 0100 to 3142.15	Local	30'	4'	4'	9'	50'	R-20	30 MPH	105

* Transition Paving Sta 55189 to 57175

PIPE SCHEDULE

SIZE	TYPE	LENGTH
15"	RCP CL IV	511 LF
* 15"	AL ₂ CSP 16ga	203 LF
18"	RCP CL IV	36 LF
* 18"	AL ₂ CSP 16ga	159 LF
27"	AL ₂ CSP 16ga	118 LF
* 27"	AL ₂ CSP 16ga	27 LF
27"	RCP CL V	185 LF
27"	RCP CL IV	74 LF

* 2 1/2" x 1/2" Corrugations



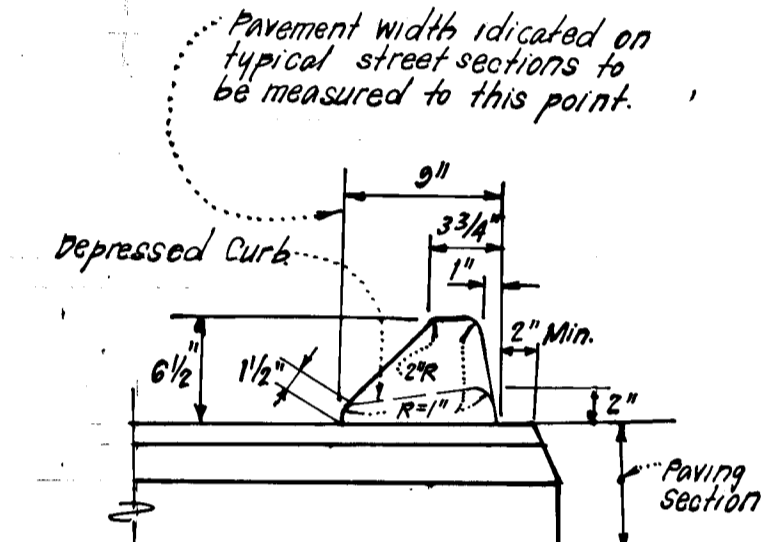
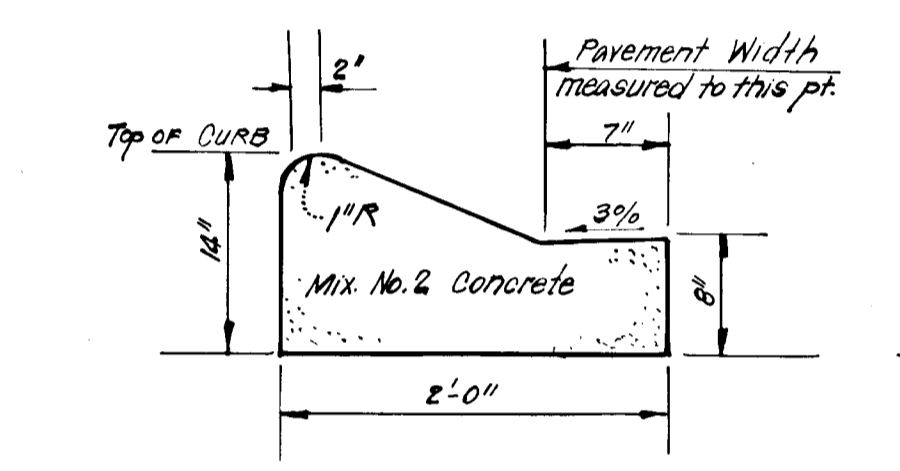
STORM DRAINAGE PROFILES

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

ALTERNATE PAVING SECTION FOR PUBLIC ROADS (MINOR COLLECTOR)

Bituminous Conc. Surface	1 1/2"
Bituminous Conc. Base	4 1/2"
Prime	
6" Crusher Run Base Course	
or	
4 1/2" Dense Graded Sub Aggregate Base Course	6" or 4 1/2"

ALTERNATE PAVING SECTION FOR PUBLIC ROADS (LOCAL AND CUL-DE-SAC)



Bituminous Conc. Surface	1 1/2"
Bituminous Conc. Base	2 1/2"
Prime	
8" Crusher Run Base (Placed in 2 Courses)	
or	
6" Dense Graded Stabilized Aggregate Base Course	8" or 6"

ALTERNATE PAVING SECTION FOR PUBLIC ROADS (LOCAL AND CUL-DE-SAC)

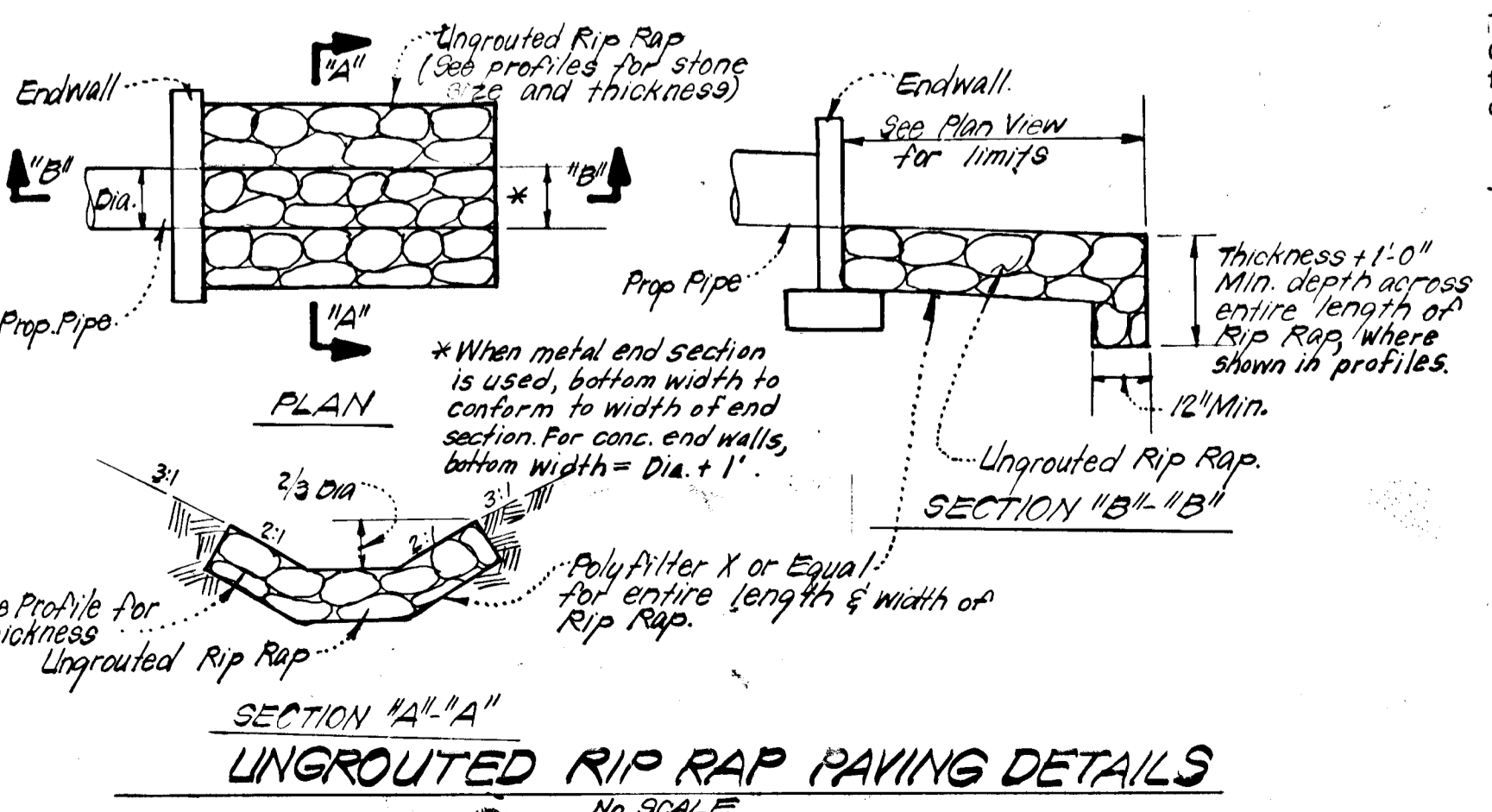
PAVING SECTION FOR PUBLIC ROADS (MINOR COLLECTOR)

Bituminous Conc. Surface	1 1/2"
Bituminous Conc. Base	1 1/2"
Bituminous Conc. Base	5"

STRUCTURE SCHEDULE

No.	TYPE	INV. IN	INV. OUT	TOP ELEVATION		REMARKS	LOCATION
				UPPER	LOWER		
S-14	Metal End Section	316.19	316.00	-	-	1/4" Rd. SD 5.61 D=27"	See Plan
M-15	Brick Manhole	318.00	317.70	326.00	326.00	" 6.501 48" Rd	See Plan
M-16	Brick Manhole	326.10	325.00	333.88	333.88	" 6.501 48" Rd	6 Str. Sta. 59175.78 L.V.R. 22' L.F.
I-17	A-10 Inlet	327.25	326.73	333.10	333.10	" SD 4.02 W=3'6"	4 Str. Sta. 58124.52 L.V.R. 18' L.F.
I-18	A-10 Inlet	327.80	327.59	333.10	333.10	" SD 4.02 W=4'0"	4 Str. Sta. 58194.59 L.V.R. 18' L.F.
I-19	C Inlet	329.10	328.85	333.83	333.83	" SD 4.11 4'0" Rd	See Plan
S-22	Metal End Section	315.20	315.00	-	-	" SD 5.61 D=18"	See Plan
I-23	A-10 Inlet	327.80	327.59	335.28	335.28	" SD 4.02 W=3'6"	4 Str. Sta. 63172.07 L.V.R. 18' L.F.
I-24	A-10 Inlet	327.80	327.59	335.28	335.28	" SD 4.02 W=2'6"	4 Str. Sta. 63172.07 L.V.R. 18' L.F.
I-25	C Inlet	329.10	328.85	333.83	333.83	" SD 4.11 4'0" Rd	See Plan
I-26	A-5 Inlet w/ Deflectors	334.35	334.04	338.34	338.10	" SD 4.01 W=2'6"	4 Str. Sta. 61929.89 R.E.R. 15' L.F.
M-27	Brick Manhole	335.60	335.50	345.11	345.11	" 6.611 48" Rd	4 Str. Sta. 1149 R.E.R. 17.5' L.F.
S-28	C Inlet	332.11	332.00	341.33	341.33	" SD 4.11 2'6" Rd	See Plan
S-29	A Endwall	312.11	312.11	319.33	319.33	" SD 5.11 D=24"	See Plan
I-30	Special	313.83	312.80	319.33	319.33	See det. sh. 4	See Plan
M-31	Brick Manhole	328.50	328.50	335.75	335.75	1/4" Rd. SD 6.501 48" Rd	6 Str. Sta. 60162.30 L.V.R. 22' L.F.
I-32	C Inlet	330.50	330.50	334.83	334.83	" SD 4.11 2'6" Rd	See Plan

* See Ho. Co. Std. SD 4.83 for Inlet Deflectors.
† See Ho. Co. Std. SD 5.62 for type of Connection.
Modify Str. to 4'-0" square.
Δ All Inverts to be fully developed.



AS BUILT SURVEY CERTIFIED BY DONALD B SACKETT REG. L.S. # 6059 1-3-85

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

Approved: *Howard S. Clark* Date

Plan Number

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.

Stanley S. Halle 5-5-83
U.S. Soil Conservation Service Date

DEVELOPER'S CERTIFICATE

"I certify that all development and/or construction will be done according to these plans of development, pond construction and erosion and sediment control. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary. Deviation from this plan will not be made unless authorized by the Howard Soil Conservation District. I will provide the Howard Soil Conservation District with a red-lined 'as built' of the pond within 30 days of completion."

Stanley S. Halle 3-7-83
Date

ENGINEER'S CERTIFICATE

"I certify that this plan for pond construction, erosion, and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with a red-lined 'as built' of the pond within 30 days of completion."

G. Nelson Clark 3-7-83
Date

APPROVED: Department of Public Works
Howard S. Clark 5-10-83
Chief Bureau of Engineering

APPROVED: Howard County Office of Planning and Zoning
Howard S. Clark 5-10-83
Chief Division of Land Development & Zoning Administration

CLARK · FINEFROCK & SACKETT
ENGINEERS · PLANNERS · SURVEYORS

11315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 (301) 593-1400

DESIGNED	ROAD CONSTRUCTION PLANS	SCALE
J.L.S.	STORM DRAINAGE AND PAVING DETAILS	As Shown
DRAWN	DRAWING	SCALE
K.I.W.	RIVERSIDE	3 of 6
V.L.B.	SECTION 1 AREA 1	JOB NO.
CHECKED	JOB NO.	DATE
J.L.S.	5TH ELECTION DISTRICT	82-027
J.L.S.	HOWARD COUNTY, MARYLAND	FILE NO.
DATE	FOR: STANLEY HALLE COMMUNITIES, INC.	DATE
4-13-83	9300 Annapolis Road Lanham, Maryland 20801	82-027-D

5-20-88 AS BUILT

STORM WATER MANAGEMENT POND NOTES

I. SITE PREPARATION:

- A. Areas designated for the borrow areas, embankment, and structural walls shall be cleared, grubbed and stripped to top soil. All trees, vegetation, roots, and other objectionable material shall be removed.
- B. Areas to be covered by pond or reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface.
- C. All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified a sufficient quantity of top soil will be stockpiled in a suitable location for use on the embankment and other designated areas.

II. EARTH FILL:

- A. MATERIAL: The fill material shall be taken from approved designated borrow area or areas. It shall be free of roots, stumps, wood rubbish, over-size stones, frozen or other objectionable materials. The embankment shall be constructed to an elevation which provides for anticipated settlement to the design elevation. The fill height all along the length of the embankment shall be increased above the design elevation (including free board) as shown on the plans.
- B. PLACEMENT: Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in 8" max. thickness (before compaction) layers which are to be continuous over the entire length of the fill. The most porous borrow material shall be placed in the downstream portions of the embankment.
- C. COMPACTION: The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber-tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction can be obtained with the equipment used. Where a minimum required density is specified, each layer of fill shall be compacted as necessary to obtain that density and is to be certified by the engineer.
- D. CUT-OFF TRENCH: Where specified, a cut-off trench shall be excavated along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be as shown on the drawings, with a minimum width being four feet. The depth shall be at least four feet or as shown on the plans. The side slopes of the trench shall be 1:1 or flatter. The backfill material for the cut-off trench shall be the most impervious material available onsite and shall be compacted with equipment or rollers to assure maximum density and minimum permeability.

III. STRUCTURAL BACKFILL:

- A. Backfill material shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe unless there is a compacted fill of twenty-four inches or greater over the structure or pipe.

IV. CORRUGATED METAL PIPE: (All Pipes to be Circular in Cross Section)

- A. MATERIALS: Aluminumized (Steel) Pipe This pipe and its appurtenances shall be Aluminumized Steel (ALACSP) with 25% paved (over) and shall conform to the requirements of AASHTO Specifications M-274-701 with Watertight coupling bands or flanges.
- B. CONNECTIONS: All connections with pipes must be completely watertight. The drain pipe or barrel connection to riser shall be welded all around when the pipe and riser are metal. Watertight coupling bands or flanges shall be used at joints. Anti-seep collars shall be connected to the pipe in such a manner to be completely watertight. Dimple bands are not considered watertight.
- C. BEDDING: The pipe shall be firmly and uniformly bedded through out 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.
- D. LAINING PIPES: The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the sides.
- E. Backfilling shall conform to structural backfill as shown above.
- F. Other details (Anti-seep collars, valves, etc.) shall be as shown on the drawings.

V. CONCRETE:

- A. MATERIALS:
 - a. Cement: Normal Portland Cement shall conform to the latest ASTM Spec. C-150.
 - b. Water: The water used in concrete shall be clean free from oil, acid, alkali, scales, organic matter or other objectionable substances.
 - c. Sand: The sand used in concrete shall be clean, hard, strong and durable, and shall be well graded with 100 percent passing a one-quarter inch sieve. Lime-stone sand shall not be used.
 - d. Coarse Aggregate: The coarse aggregate shall be clean, hard, strong and durable, and free from clay or dirt. It shall be well graded with a maximum size of one and one half (1 1/2) inches.
 - e. Reinforcing Steel: The reinforcing steel shall be deformed bars of intermediate grade billet steel or rail steel conforming to ASTM Specification A-615.

B. DESIGN MIX:

The concrete shall be mixed in the following proportions, measured by weight. The water cement ratio shall be 5/8; 6 U.S. gallons of water per 94 pound bag of cement. The proportion of materials for the trial mix shall be 1:2:3 1/2. The combination of aggregates may be adjusted to produce a plastic and workable mix that will not produce harshness in placing or honeycombing in the structure.

C. MIXING:

The concrete ingredients shall be mixed in batch mixers until the mixture is homogeneous and of uniform consistency. The mixing of each batch shall continue for not less than 1 1/2 minutes after all the ingredients, except the full amount of water, are in the mixer. The minimum mixing time is predicated on proper control of the speed of rotation of the mixer and of the introduction of the materials, including water, into the mixer. Water shall be added prior to, during, and following the mixer charging operations. Excessive overmixing requiring the addition of water to preserve the required concrete consistency shall not be permitted. Truck mixing will be allowed provided that the use of this method shall cause no violation of any applicable provisions of the specs. given here.

D. FORMS:

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

E. REINFORCING STEEL:

All reinforcing material shall be free of dirt, rust, scale, oil, paint or any other coatings. The steel shall be accurately placed and securely tied and blocked into position so that no movement of the steel will occur during placement of concrete.

F. CONSOLIDATING:

Concrete shall be consolidated with internal type mechanical vibrators. Vibration shall be supplemented by spreading and hand tamping as necessary to insure smooth and dense concrete along form surfaces, in corners, and around embedded items.

G. FINISHING:

Defective concrete, honey combed areas, voids left by the removal of tie rods, ridges on all concrete surfaces permanently exposed to view or exposed to water on the finished structure, shall be repaired immediately after the removal of forms. All voids shall be reamed and completely filled with dry-patching mortar.

H. PROTECTION AND CURING:

Exposed surfaces of concrete shall be protected from the direct rays of the sun for at least the first 3 days. All concrete shall be kept continuously moist for at least ten (10) days after being placed. Moisture may be applied by spraying or sprinkling as necessary to prevent the concrete from drying. Concrete shall not be exposed to freezing during the curing period. Curing compounds may also be used.

I. PLACING TEMPERATURE:

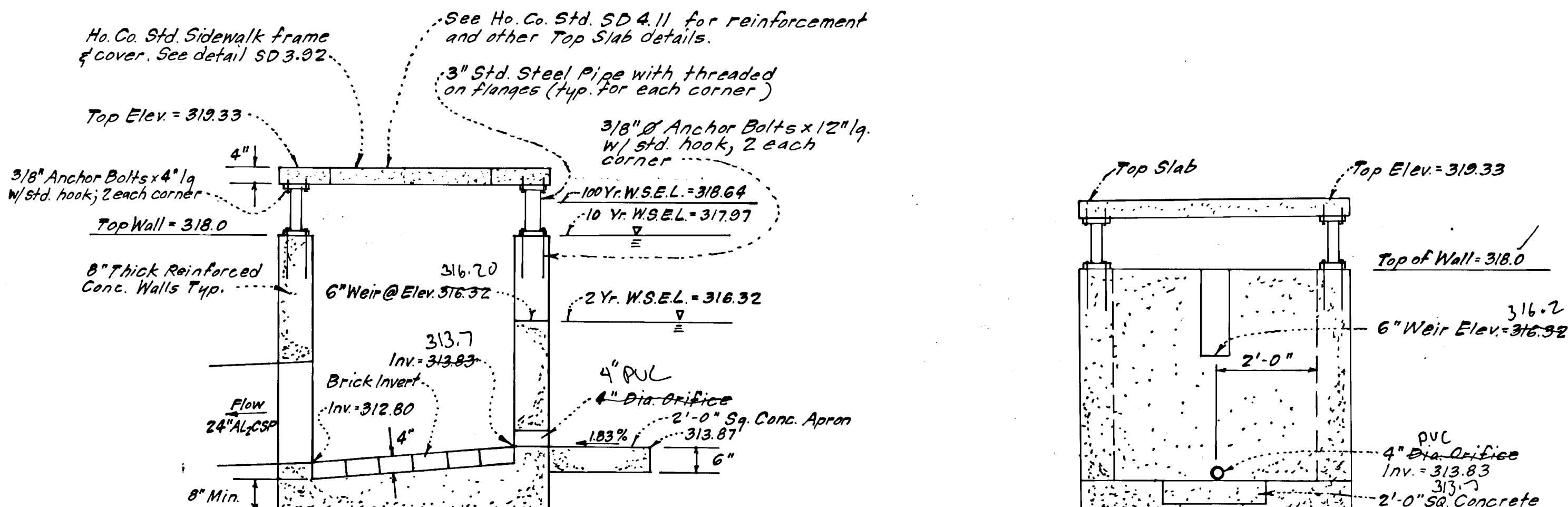
Concrete may not be placed at temperatures below 37°F with the temperature falling, or 34°F with the temperature rising.

II. STABILIZATION:

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching, (if required) in accordance with the vegetative treatment specifications or as shown on the accompanying drawings.

III. EROSION AND SEDIMENT CONTROL

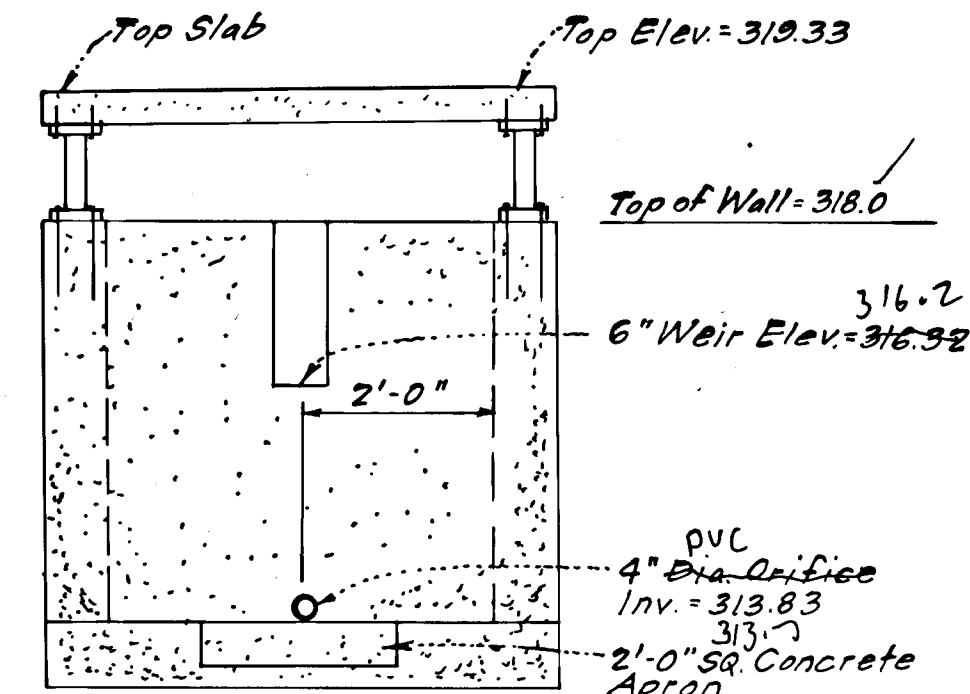
Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction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



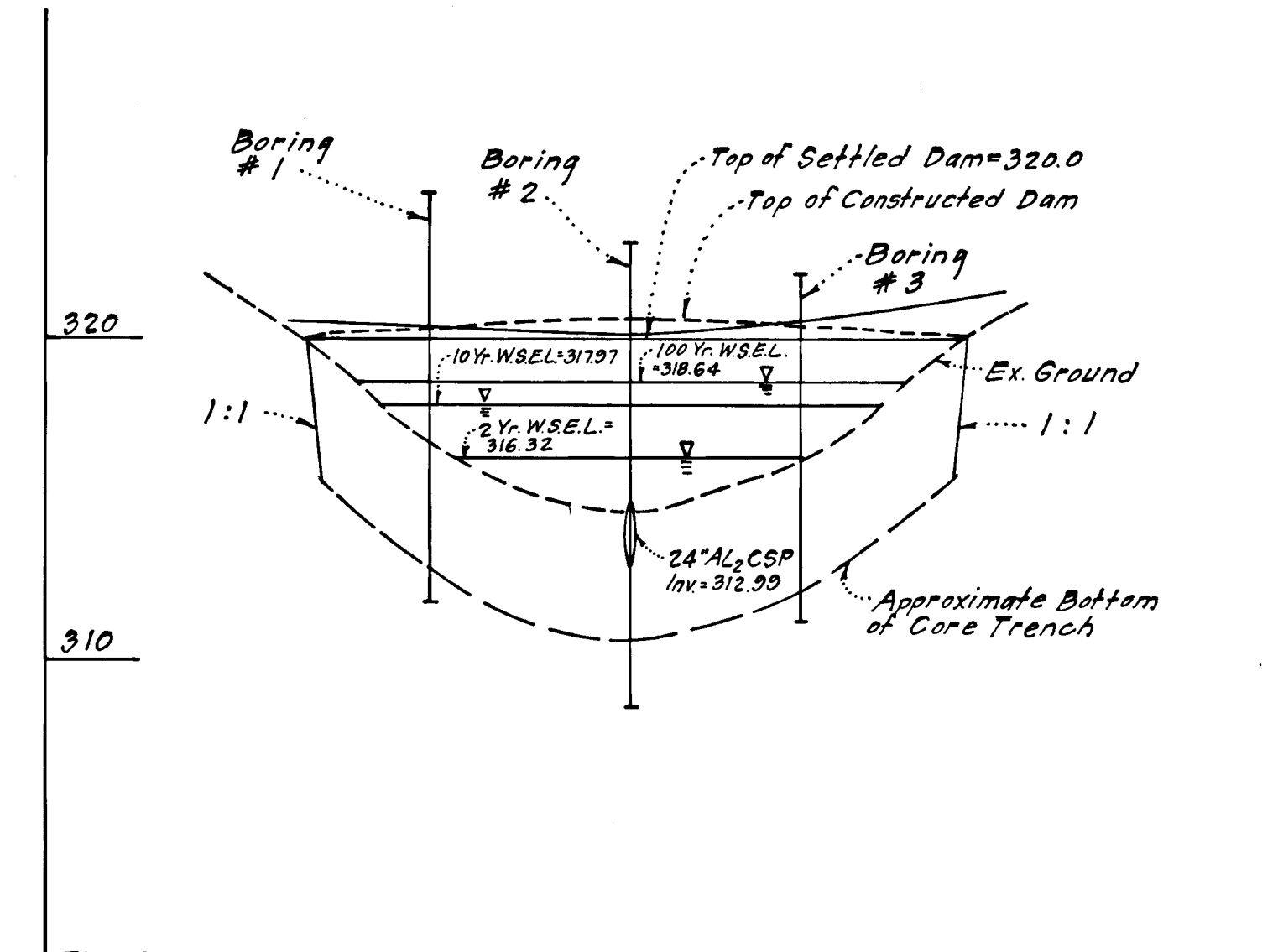
- NOTES:**
1. For Wall Reinforcing see Ho. Co. Std. SD 4.02.
 2. Base shall be Class "A" Concrete.
 3. 6" Weir, 4" Orifice, and Concrete Apron to be centered in Structure Wall.

STRUCTURE I-30

No Scale



ELEVATION

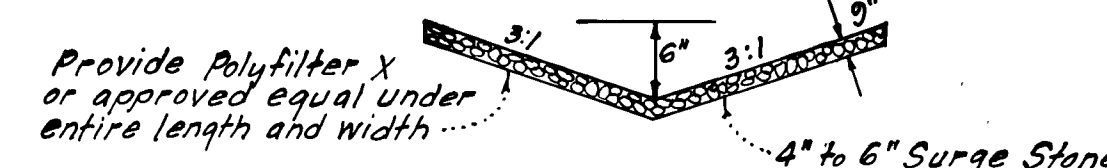


PROFILE ALONG CENTERLINE OF DAM

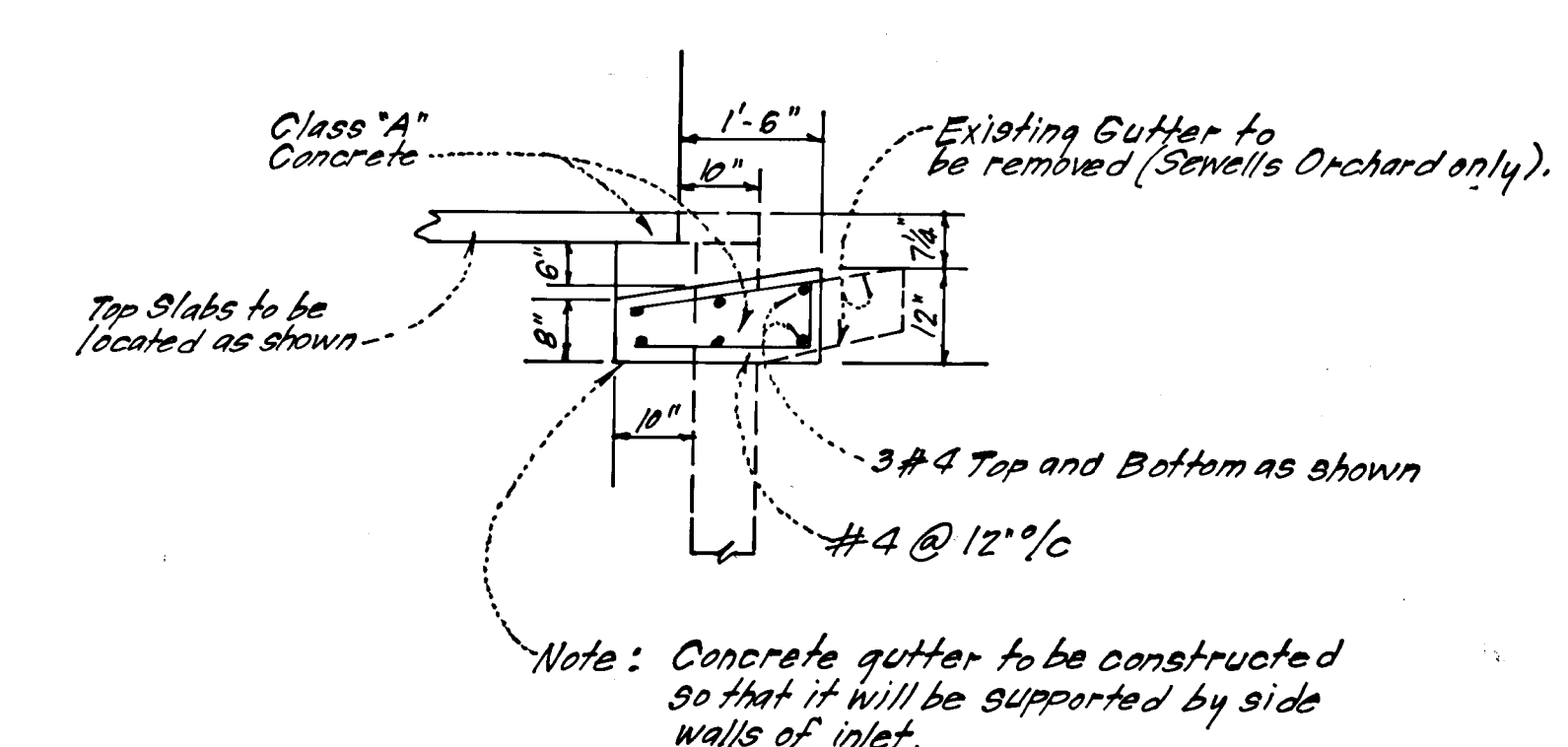
Scale: Hor. 1" = 50'
Vert. 1" = 5'

LOW FLOW CHANNEL DETAIL

No Scale



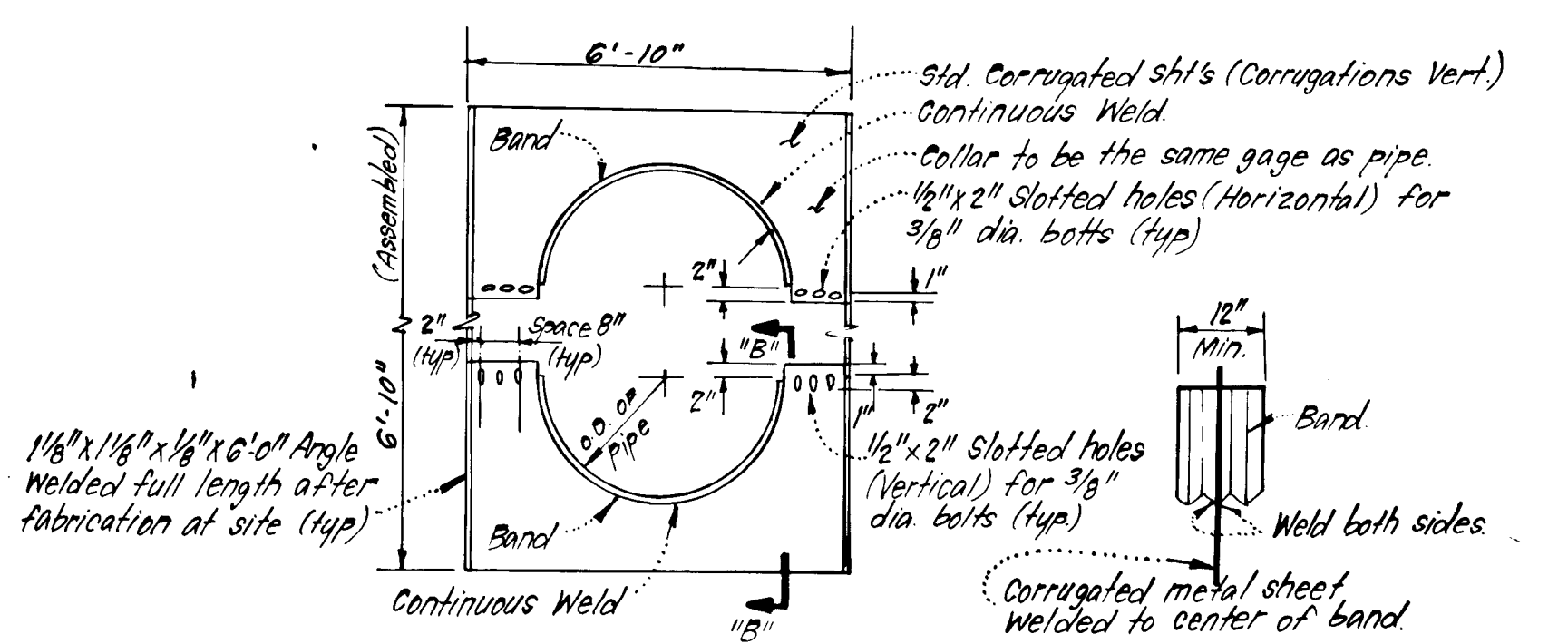
NOTE: Transition low flow Channel to meet Rip Rap and Str. I-30. See Plan View.



INLET MODIFICATION DETAIL

STR. I-17, I-18, I-23, I-24 & I-26
(No Scale)

**AS BUILT SURVEY
CERTIFIED BY
DONALD B. SACKETT
REG. L.S.
#6059
1-3-85**



ELEVATION

SECTION "A" "B"

- NOTES:**
1. All materials to be in accordance with construction and Construction Material Specification.
 2. When specified on the plans, coating of collars shall be in accordance with Constr. & Constr. Material Specs.
 3. Unassembled collars shall be marked by painting or tagging to identify matching pairs.
 4. The lap between the two half sections and between the pipe and connection band shall be caulked with asphalt mastic at time of installation.
 5. Each collar shall be furnished with the 1/2" dia. rods with std. tank lugs for connecting collars to pipe.

CORRUGATED METAL ANTI-SEEP COLLAR DETAILS

No Scale

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. Allen 5-5-83
US Soil Conservation Service Date

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.
Approved: *Rhett D. Zich* 5-5-83
Howard S.C.D. Date

DEVELOPER'S CERTIFICATE

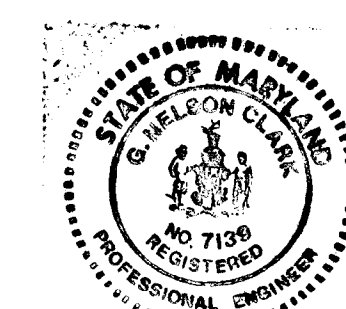
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Stanley S. Halle 2/20/83
Signature of Developer Date

ENGINEER'S CERTIFICATE

"I certify that this plan for pond construction, erosion and sediment control complies with all applicable laws and regulations based on my personal site inspection of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with a red-lined "as built" of the pond within 30 days of completion."

G. Nelson Clark 3-7-83
Signature Date



NR	REVISION	DATE
1	Added Inlet Modification Detail.	10-24-83

APPROVED: Department of Public Works
Richard S. Roberts 5-16-83
Chief, Bureau of Engineering Date
APPROVED: Howard County Office of Planning and Zoning
William W. ... 5-1-83
Chief, Division of Land Development & Zoning Administration Date

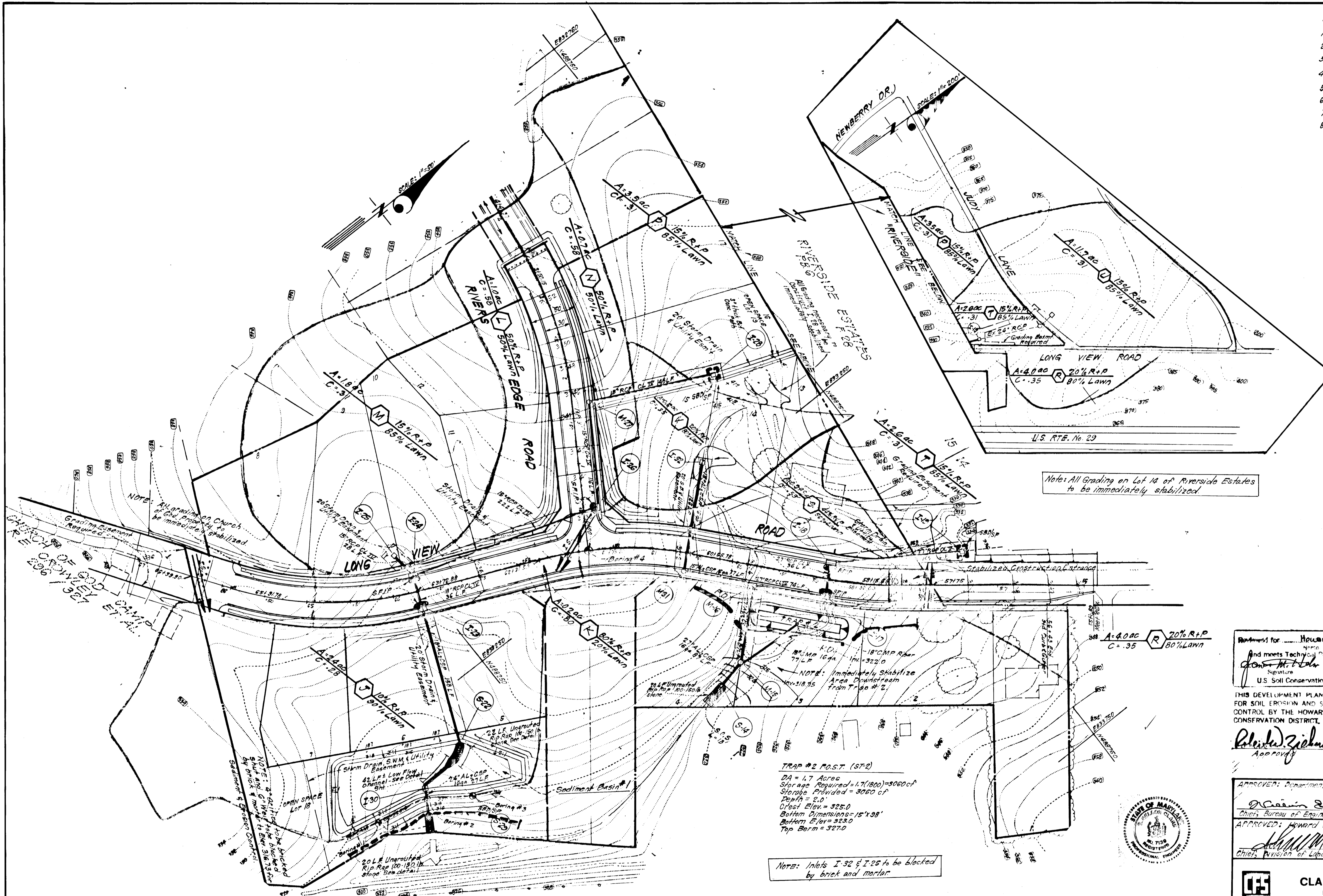
CLARK • FINEFROCK & SACKETT
ENGINEERS • PLANNERS • SURVEYORS
11315 LOCKWOOD DRIVE • SILVER SPRING, MARYLAND 20904 • (301) 593-3400

DESIGNED J.L.S.	ROAD CONSTRUCTION PLANS AND STORM WATER MANAGEMENT DETAILS	SCALE As Shown
DRAWN V.L.B.		DRAWING 4 of 6
CHECKED J.L.S.	RIVERSIDE SECTION 1 AREA 1 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 82-027
DATE 4-13-83	FOR: STANLEY HALLE COMMUNITIES, INC. 9300 Annapolis Road Lanham, Maryland 20801	FILE NO. 82-027-D

#981

LEGEND:

- 1. Existing Contour
- 2. Proposed Contour
- 3. Proposed Storm Drain
- 4. Perimeter Dike
- 5. Straw Bale Dike or Silt Fence
- 6. Interceptor Swale
- 7. Stone Filter Inlet Protection
- 8. Sediment Trap



Note: All Grading on Lot 14 of Riverside Estates to be immediately stabilized.

NOTE: All grading on Church of God Property to be immediately stabilized.

NOTE: Immediately Stabilize Area Downstream from Trap #2.

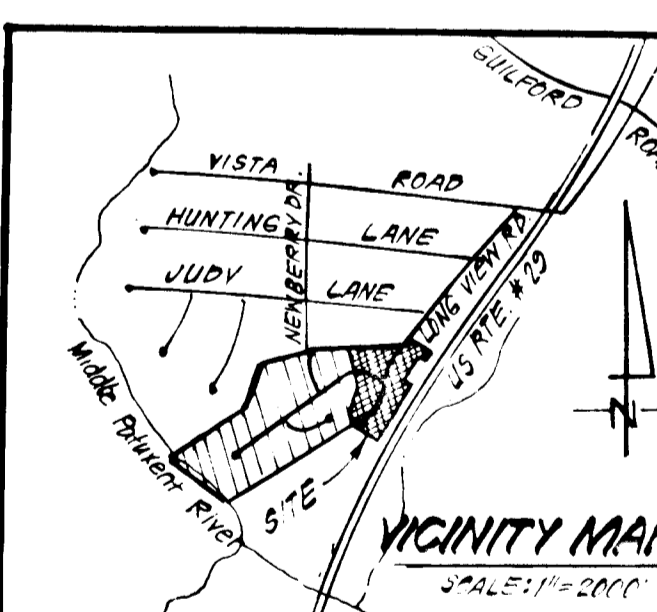
TRAP #2 P.O.S.T. (SFT)
 DA = 1.7 Acres
 Storage Required = 1,700,000 = 3060 cft
 Storage Provided = 3060 cft
 Depth = 2.0'
 Crest Elev = 325.0'
 Bottom Dimensions = 15' x 30'
 Bottom Elev = 323.0'
 Top Berm = 327.0'

Note: Inlets I-32 & I-25 to be blocked by brick and mortar.

Reviewed for Howard SCL
 and meets Technical Requirements
 Date 5-5-83
 Signature
 U.S. Soil Conservation Service

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

Approved: 5-5-83
 Date



APPROVED: Department of Public Works

Approved: 5-10-83
 Date

APPROVED: Howard County Office of Planning and Zoning
 Date 5-6-83



DEVELOPER'S CERTIFICATE
 "I/We certify that all development and construction will be in accordance with 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: Stanley S. Halle
 Date: 4/10/83

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: 4-12-83

CLARK • FINEFROCK & SACKETT ENGINEERS • PLANNERS • SURVEYORS 11315 LOCKWOOD DRIVE • SILVER SPRING, MARYLAND 20904 • (301) 593-3400		
DESIGNED JLS	ROAD CONSTRUCTION PLANS SEDIMENTATION, EROSION CONTROL PLAN AND DRAINAGE AREA MAP RIVERSIDE SECTION 1 AREA 1 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND FOR: STANLEY HALLE COMMUNITIES, INC. 9300 ANNAPOLIS ROAD LANHAM, MD. 20801	SCALE 1/4" = 50'
DRAWN V.L.B. K.I.W.		DRAWING 5 of 6
CHECKED JLS		JOB NO. 82-027
DATE 4-15-83		FILE NO. 82-027 D

17981

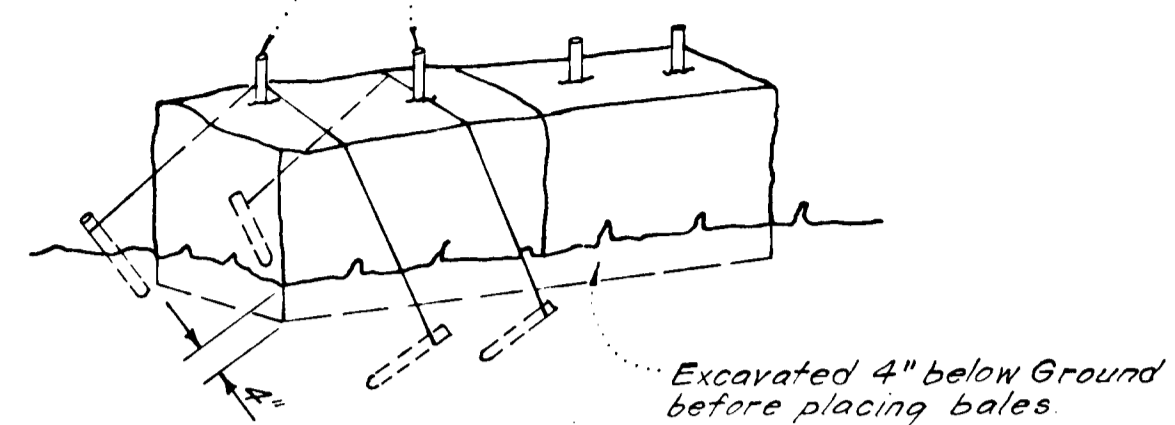
GENERAL NOTES

- Grading Permits shall be obtained prior to installation of Sediment Control & Grading.
- All Sediment and Erosion Control Measures will be installed and stabilized according to this plan prior to any other grading, clearing or disturbance of the existing surface of the site. See note #6 for stabilization except that the seed mixture will be annual rye applied at a rate of 14 lbs/1000 sf.
- Notify the Bureau of Inspections and Permits at least 24 hrs. before starting any work.
- All Sediment Control Practices to conform to the "Standards and Specifications for Soil Erosion and Sediment Control in Developing Areas" and shall be adjusted to meet actual field conditions.
- Stabilization of Disturbed ground to be done as soon after construction as possible.
- All disturbed area to be stabilized in accordance with the following Specifications:
 - Seed - certified 85% germination applied at the rate of 3 lbs/1000 sf. Mixture - 40% Kentucky Blue, 20% chewing Fescue, 20% Kentucky 31 and 20% annual rye.
 - Fertilizer - 10-10-10 applied at a rate of 23 lbs/1000 sf. Ground Agricultural Lime or Dolomitic Lime applied at a rate of 90 lbs/1000 sf.
 - Mulch - Weed free grain straw applied at a rate of 70-90 lbs/1000 sf. Mulch shall be secured to the ground by any approved method i.e.; asphalt tacks, chemical binder etc.
 - All Sod used shall be Maryland State Certified.
- 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.
- 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.
- It will be the developer's responsibility to provide additional Sediment & Erosion Control Devices to protect stabilized areas during construction.
- The Contractor shall keep all public roads free of sediment deposits left from traffic leaving construction site.
- 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.
- All pipes to be blocked at the end of each day. See detail this sheet.
- Total Amount of Straw Bales or Silt Fence shown = 285 L.F.
- SITE ANALYSIS:

A. Total Area:	10.902 Acres
B. Area to be Roofed:	0.000 Acres
C. Area to be Paved:	1.220 Acres
D. Area to be Seeded:	2.710 Acres
E. Area Undisturbed:	6.972 Acres
- CONSTRUCTION SEQUENCE:

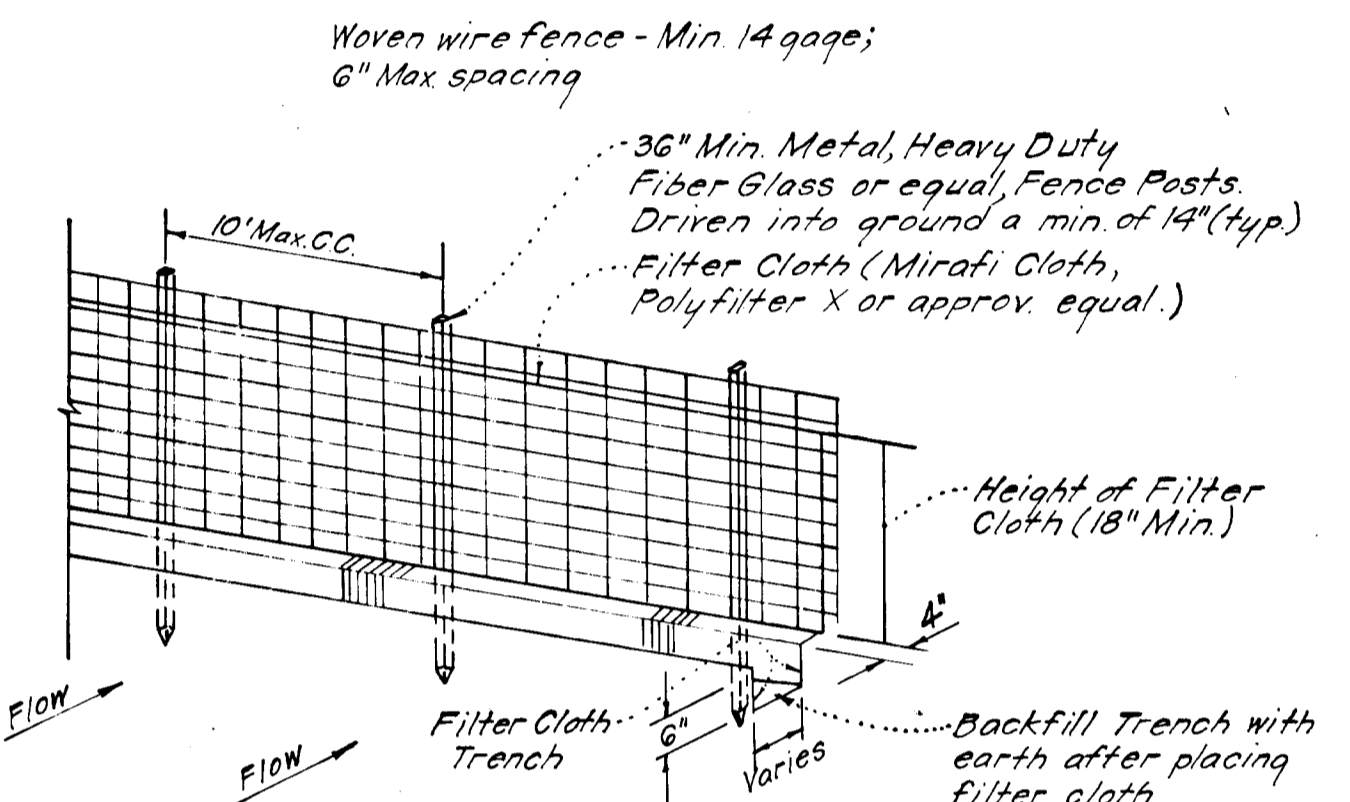
- CONSTRUCTION SEQUENCE:**
- Construct Storm Drainage I-19 to S-14. Immediately stabilize area graded on Lot 14 of Riverside Estates. Block Inlets and Construct S.O.S. Downstream from S-14.
 - Construct Trap #2, Stabilized Construction Entrance, and S.W.M./Sediment Basin #1 and I.S. at West end of Long View Road.
 - Rough Grade Long View Road Sta. 57+75 to 66+39.90 and Riverside Edge Road and Install remaining I.S.
 - Construct remainder of Storm Drainage and Block Inlets.
 - Construct Utilities.
 - Final grade and construct paving, sidewalk and curb & gutter and remove existing paving and construct proposed paving for Long View Road Sta. 57+75 to 55+89.
 - Remove sediment & erosion control measures after all areas draining to them have been stabilized and convert Sediment Basin #1 to S.W.M. Pond in accordance with the following:
 - Dewater and clean out sediment basin to conform with grading shown on the SWM Plans.
 - Immediately stabilize pond area after cleanout.
 - Construct Ripe Rip and Low Flow Channel and remove brick and mortar used for blocking.

All bales shall be tied with non-weathering materials, i.e. wire, nylon.



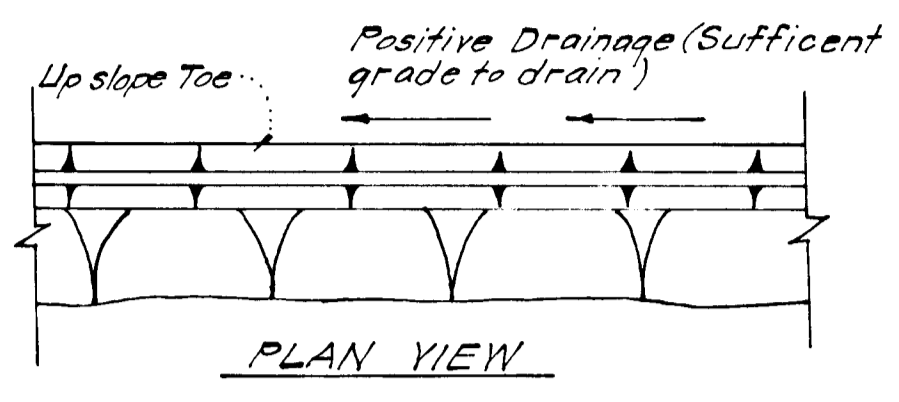
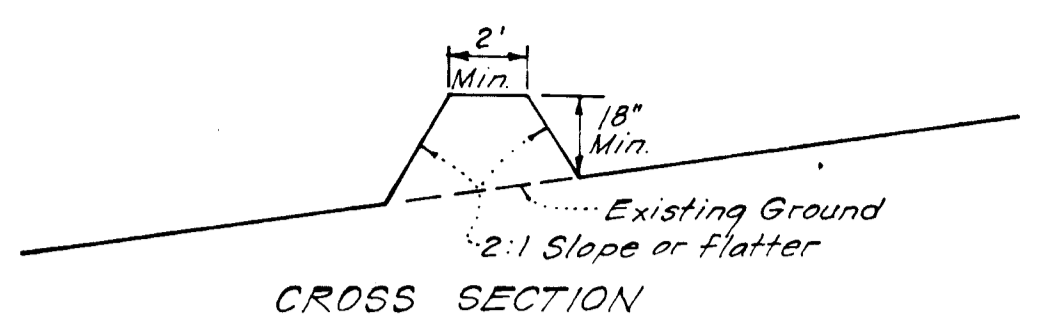
Note: In lieu of the use of rebar each straw bale may be fastened to ground with pegs (4 per bale and wire or nylon as shown above.)

STRAW BALE DIKE DETAIL (S.B.D.)
No SCALE

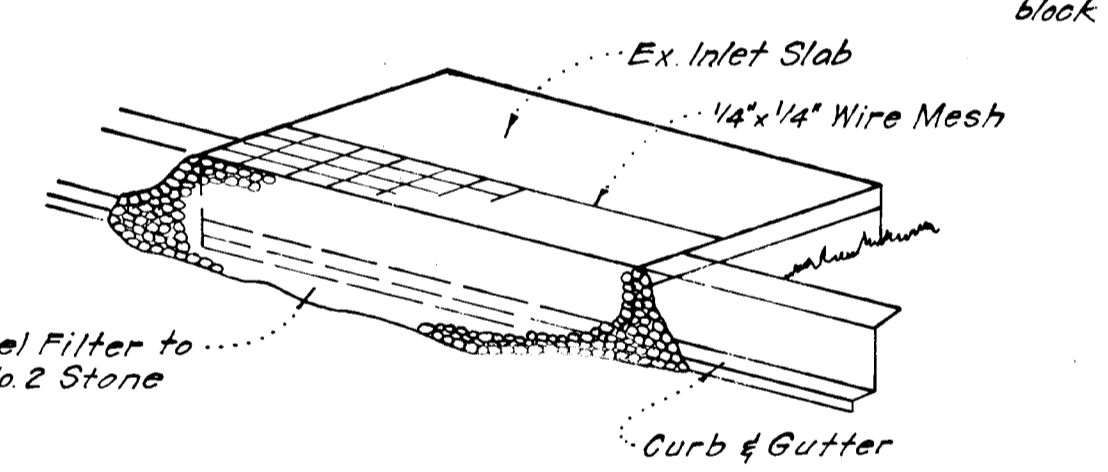


Notes:
1. Woven Wire Fence to be fastened securely to fence posts by use of wire ties.
2. Filter Cloth to be fastened securely to Woven Wire, by use of wire ties spaced every 24"x24".

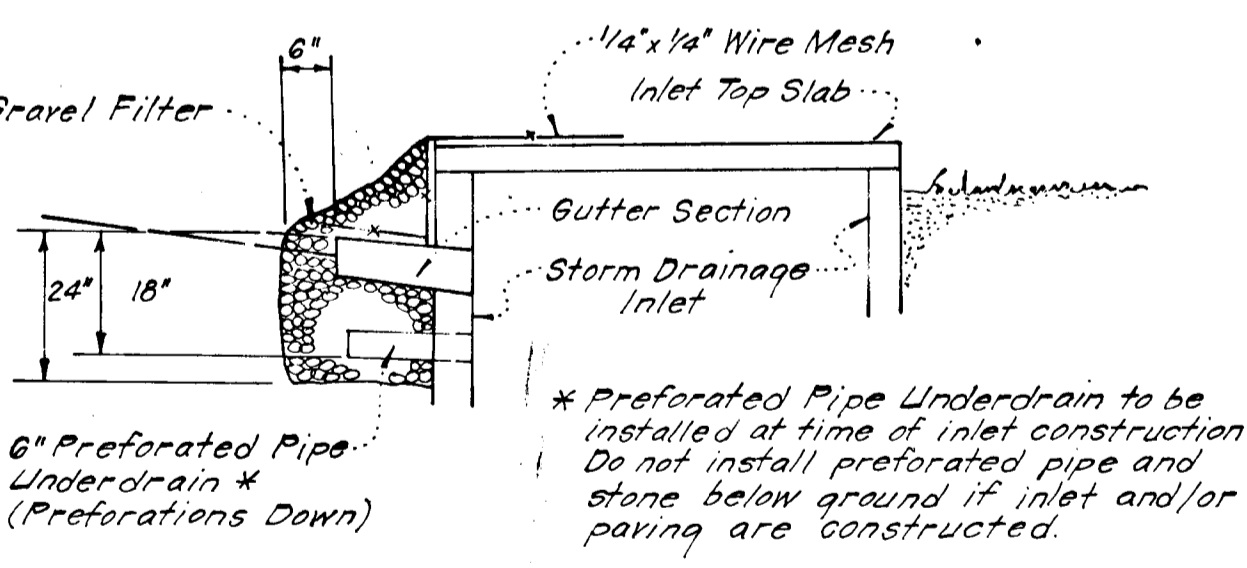
SILT FENCE DETAIL (S.F.)
No SCALE



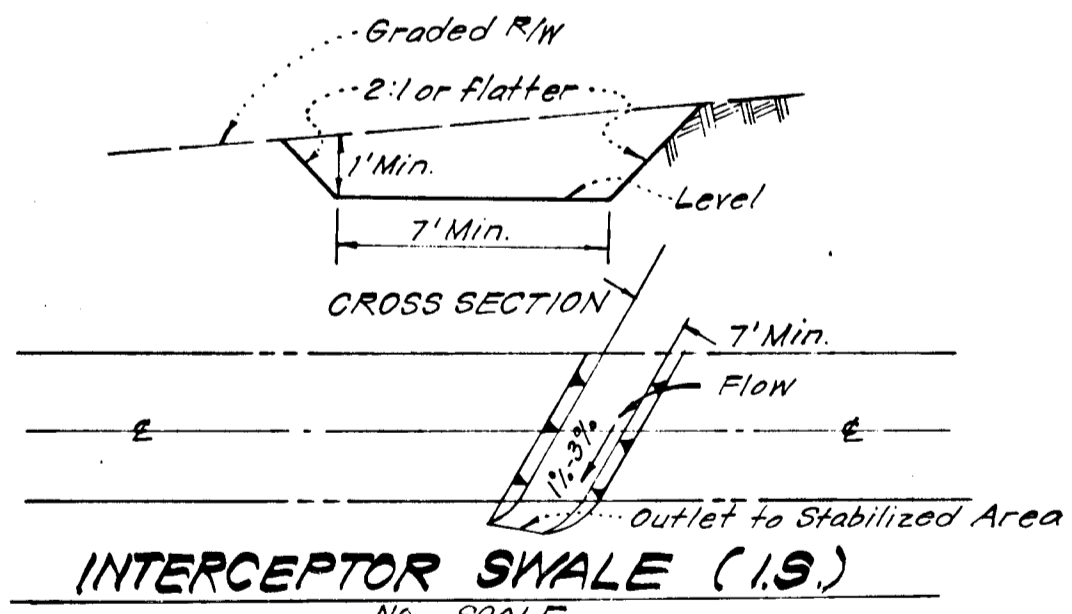
PERIMETER DIKE (P.D.)
No SCALE



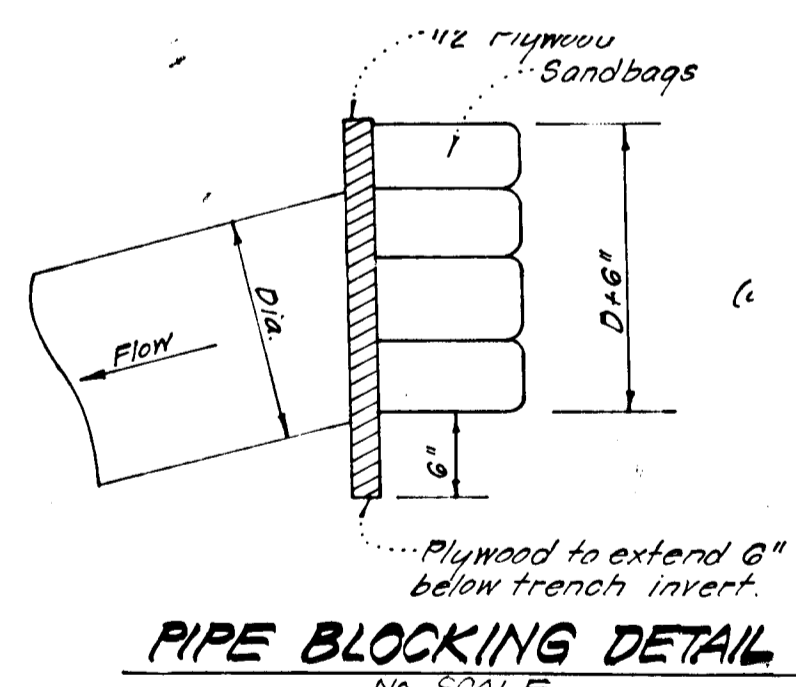
ISOMETRIC VIEW



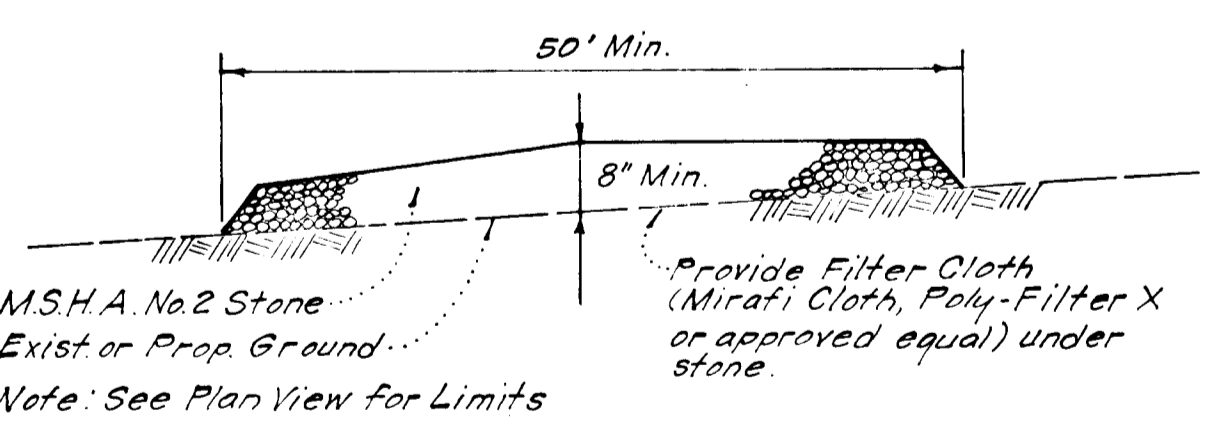
SECTION VIEW
STONE FILTER INLET PROTECTION (S.F.I.P.)
No SCALE



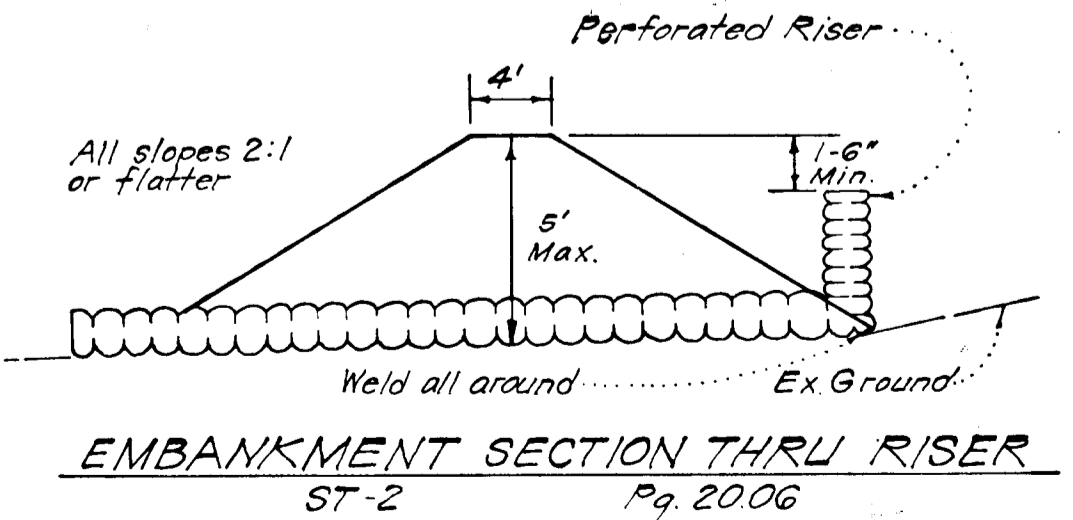
INTERCEPTOR SHALE (I.S.)
No SCALE



PIPE BLOCKING DETAIL
No SCALE



SECTION VIEW
STABILIZED CONSTRUCTION ENTRANCE
No SCALE



EMBANKMENT SECTION THRU RISER
ST-2 Pg. 2006
PIPE OUTLET SEDIMENT TRAP (P.O.S.T.)
No SCALE

Reviewed for... Howe... S.C.D.
Name
and meets Technical Requirements
Stanley S. Halle 5-5-83
Signature Date
U.S. Soil Conservation Service
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Colin J. Zehm 5-5-83
Approved 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."
Stanley S. Halle 4/18/83
Signature of Developer/Builder Date
Stanley S. Halle

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 4-12-83
Date



APPROVED: Department of Public Works
G. Nelson Clark 5-10-83
Chief, Bureau of Engineering Date
APPROVED: Howard County Office of Planning and Zoning
Stanley S. Halle 5-6-83
Chief, Division of Land Development & Zoning Administration Date

CLARK • FINEFROCK & SACKETT
ENGINEERS • PLANNERS • SURVEYORS
13315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 101-543-3414

ROAD CONSTRUCTION PLANS
SEDIMENT & EROSION CONTROL DETAILS
RIVERSIDE

DESIGNED	JLS	SCALE	As Shown
DRAWN	R/W	DRAWING	60" x 6"
CHECKED	JLS	JOB NO.	82-027
DATE	4-13-83	FILE NO.	82-027-D

FOR: STANLEY HALLE COMMUNITIES, INC.
574 ELECTION DISTRICT
3300 Annapolis Road
Lanham, Md 20681