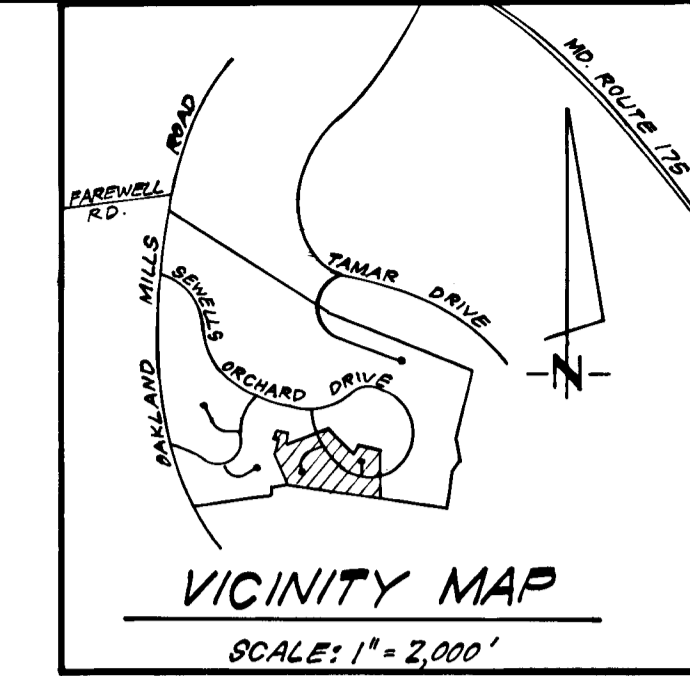


SEWELLS ORCHARD DR.

± CURVE DATA
FROM PC 53+82.36 to PT 56+22.78
R = 325.40'
L = 239.82'
Δ = 42°12'55"
T = 125.65'
Chd. = N30°31'03"W
234.43'



GENERAL NOTES:

- All storm drain and Paving shall be constructed in accordance with the latest details and specifications of Howard County & Md. SHA.
- 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 used for all Storm Drains except where 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 devices, 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 Sidewalk ramps, Ho Co. Std. Type A, R 401 where shown in plan.
- Design Speed: 30 mph; Zoning: RSC
- Stormwater Management provided by Facility in Sewells Orchard, Sect. 3 Area 1, F 84-215.
- Contractor or Developer shall contact the Construction Inspection/Survey Division 24 hours before commencing work at 792-7272.

Reviewed for Howard S.C.D. Name
and meets Technical Requirements
Signature [Signature] Date 10-11-84
U.S. Soil Conservation Service
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
M.K. S.M. Approved Date 10-11-84

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 8-31-84

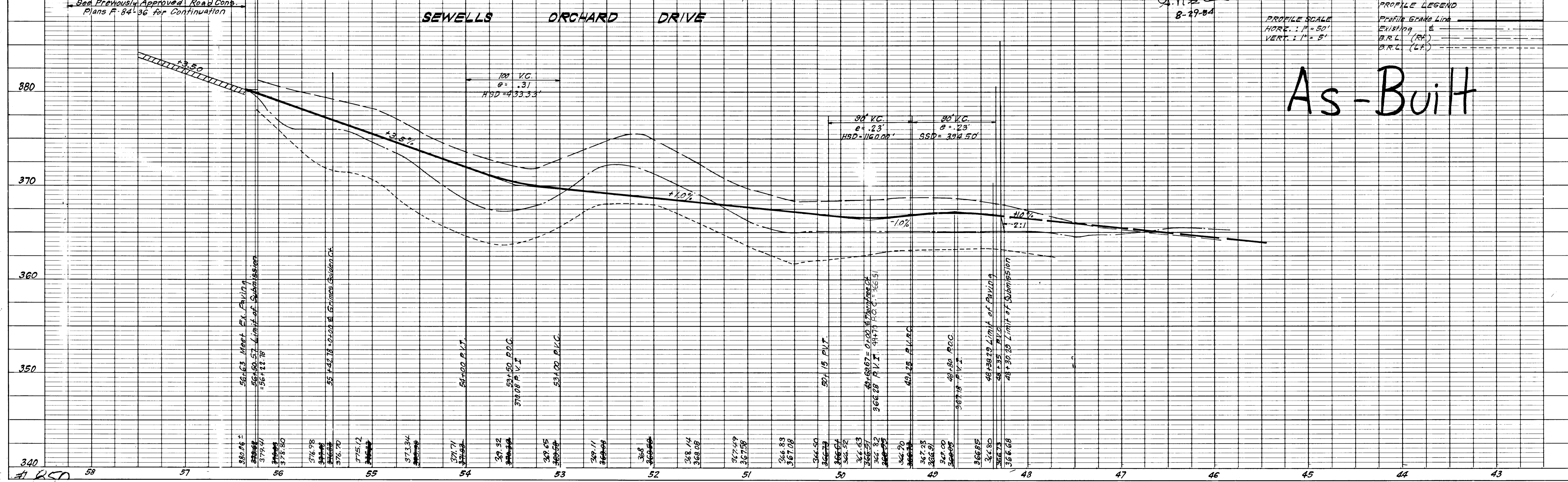
ENGINEER'S CERTIFICATE
I hereby certify that this plan for Erosion and Sediment Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
G. Nelson Clark Date 8-27-84

PLAN VIEW
SCALE: 1" = 50'

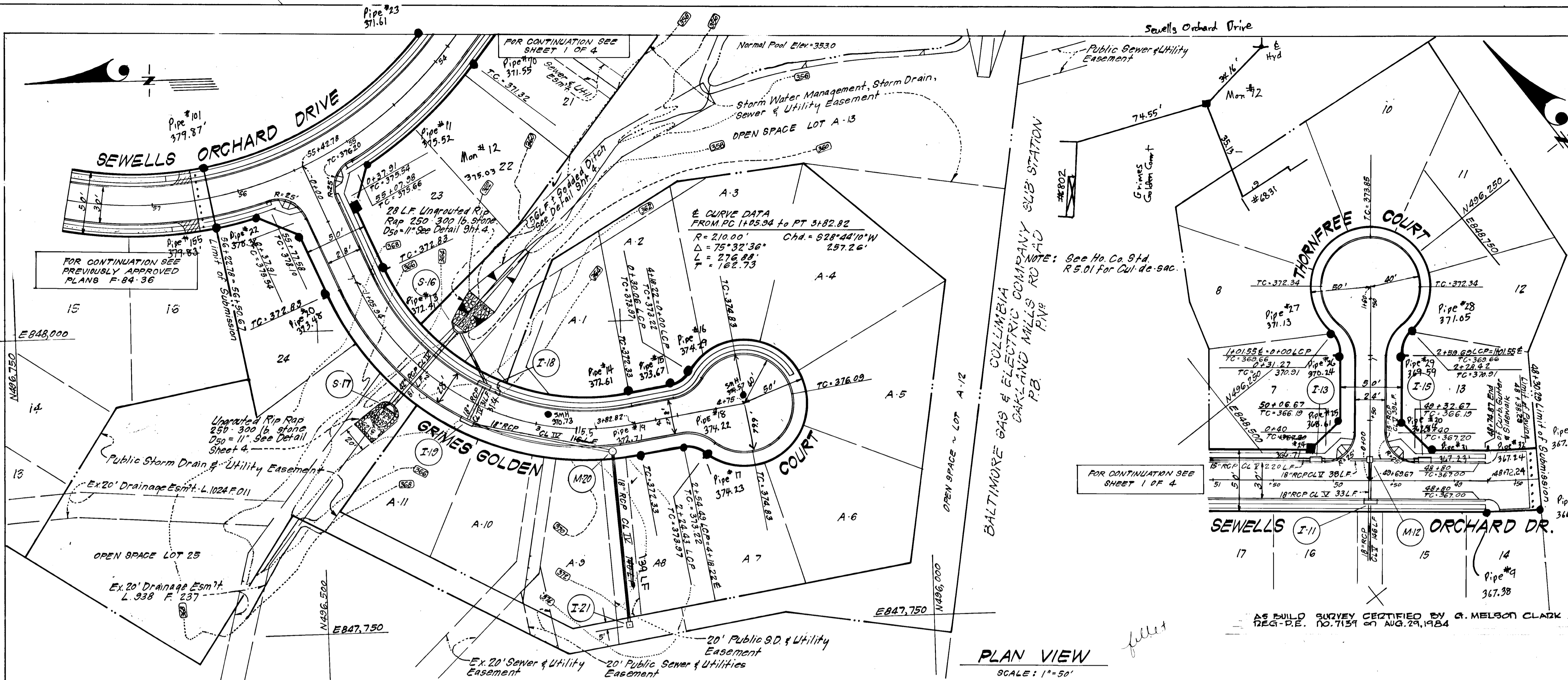
APPROVED: Department of Public Works
Chief, Bureau of Engineering [Signature] Date 10-13-84
APPROVED: Howard County Office of Planning & Zoning
Chief, Division of Land Development & Zoning Administration [Signature] Date 10-11-84

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

DESIGNED J. L. S.	ROAD CONSTRUCTION PLANS SEWELLS ORCHARD DRIVE	SCALE As Shown
DRAWN V. L. B.	SEWELLS ORCHARD	DRAWING 1 OF 4
CHECKED J. L. S.	SECTION 4 AREA 1 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 84-047
DATE Aug. 1984	FOR: Orchard Associates P.O. Box 913 Columbia, Maryland 21044	FILE NO. 84-047-D



As-Built



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."

Howard S. Sackett 8.31.84
 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 8-27-84
 Date

Approved for: *Howard S. Sackett* S.C.D.
 Name
 and meets Technical Requirements
G. Nelson Clark 10-11-84
 Date
 U.S. Soil Conservation Service

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

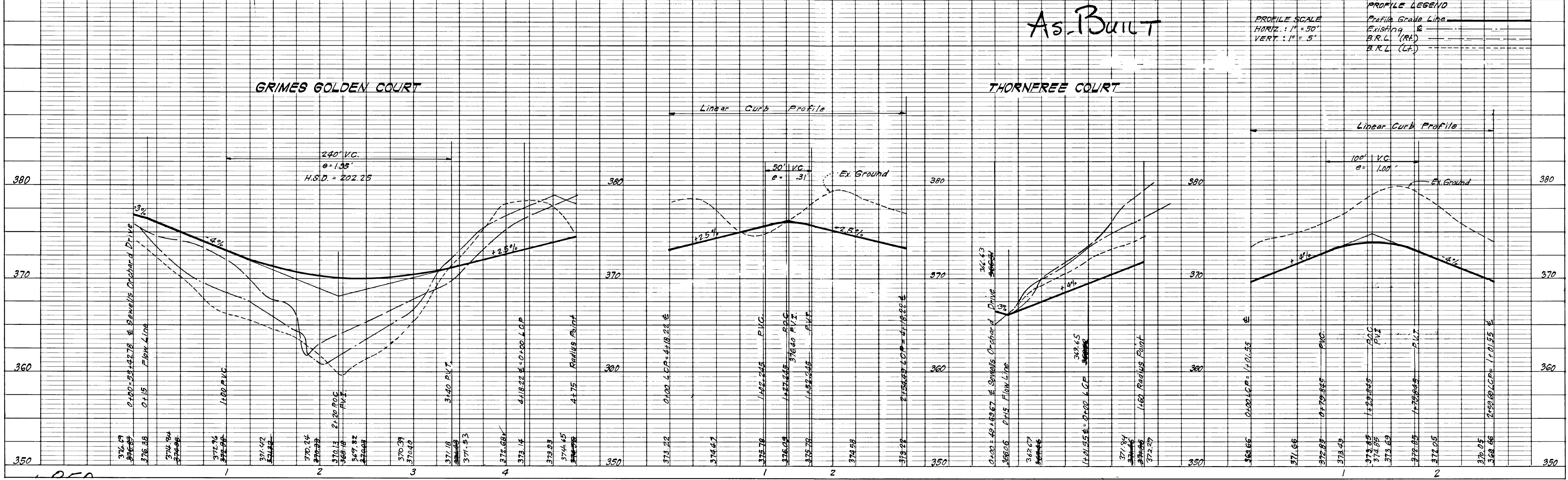
Howard S. Sackett 10/11/84
 Approved Date

APPROVED: Department of Public Works
Judith E. Fife 10-11-84
 Chief, Bureau of Engineering Date

APPROVED: Howard County Office of Planning & Zoning
John W. MacKinnon 10/11/84
 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 GOLDEN GRIMES COURT & THORNFREE COURT	SCALE As Shown
J.L.S.		
DRAWN	SEWELLS ORCHARD	DRAWING 2 OF 4
V.L.B.		
CHECKED	SECTION 4 AREA 1	JOB NO. 84-047
J.L.S.	6TH ELECTION DISTRICT	
DATE	FOR: Orchard Associates P.O. Box 919 Columbia, Maryland 21044	FILE NO. 84-047-D
AUG, 1984		

PLAN VIEW
SCALE: 1"=50'



As-Built

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

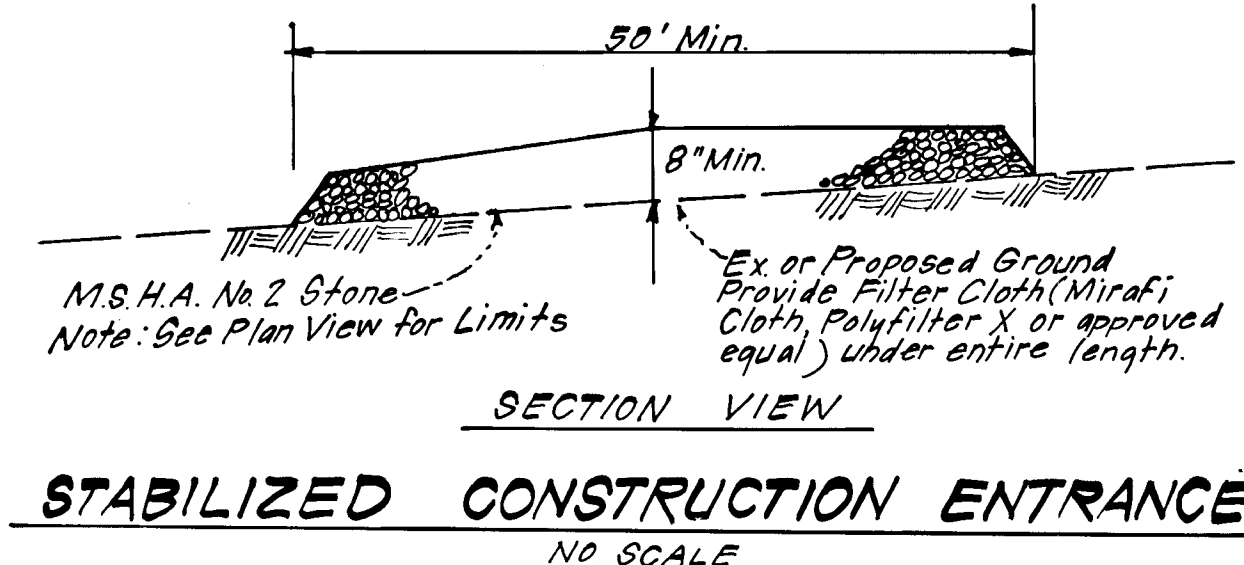
PROFILE LEGEND
 Profile Grade Line
 Existing &
 B.R.L. (RA)
 B.R.L. (LF)

CONSTRUCTION SEQUENCE :

1. Existing Sediment Basin to be in place and functional prior to grading on this site.
 2. Install Stabilized Construction Entrance.
 3. Clear and rough grade site.
 4. Construct storm drainage.
 5. Construct utilities.
 6. Fine grade & construct paving.
 7. Stabilize all disturbed areas on site in accordance with Standards & Specifications.
 8. Convert Sediment basin to Storm Water Management Pond only if all disturbed areas from Sections 3 & 4 have been stabilized. See conversion notes on approved plans for Sewells Orchard Section 3, F-84-215.
- # As per CMAR 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 1 vertical (3:1) and (b) fourteen days as to all other disturbed or graded areas on the project site."

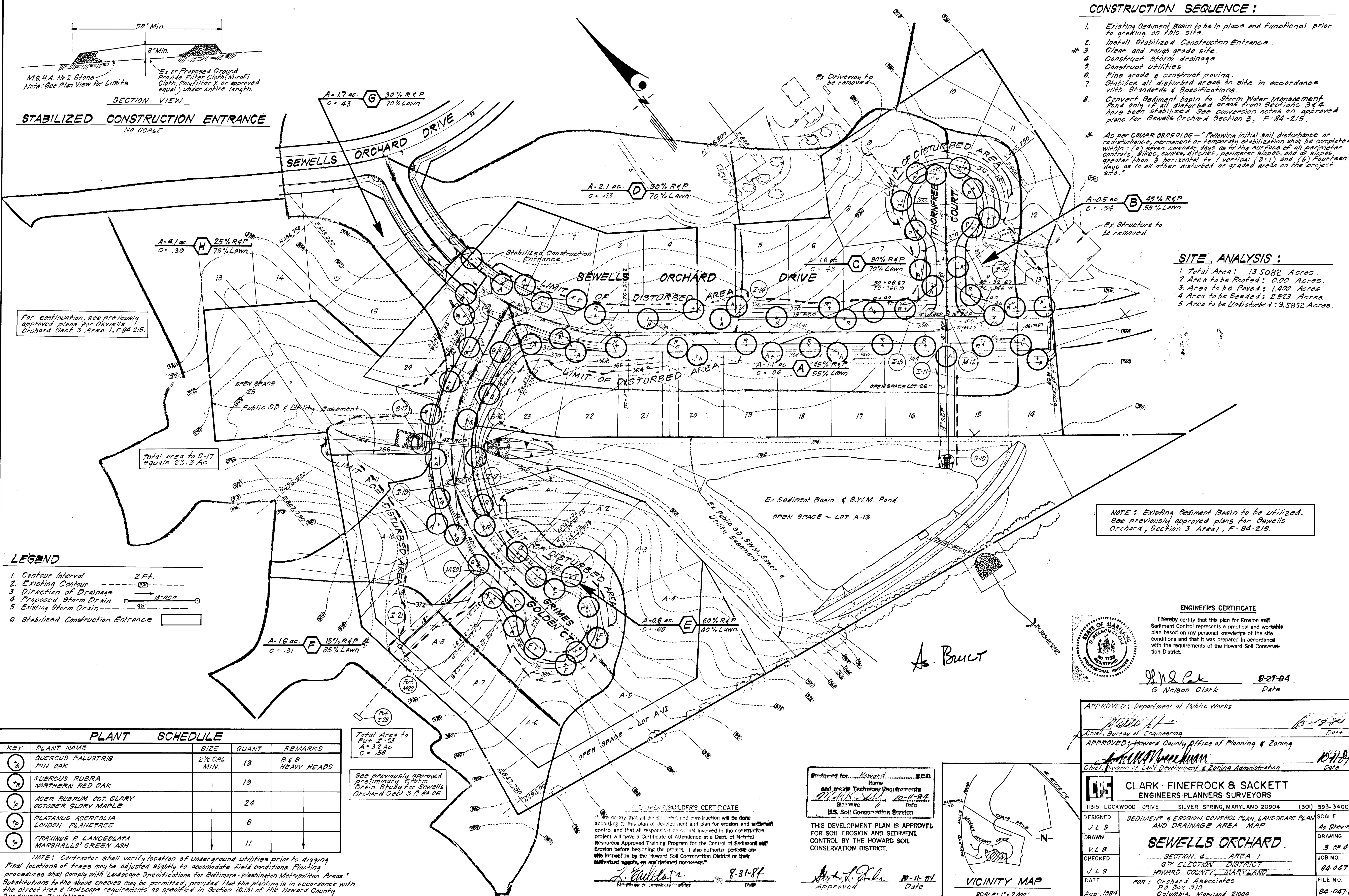
SITE ANALYSIS :

1. Total Area: 13.5082 Acres.
2. Area to be Roofed: 0.00 Acres.
3. Area to be Paved: 1.400 Acres.
4. Area to be Seeded: 2.523 Acres.
5. Area to be Undisturbed: 9.5852 Acres.



STABILIZED CONSTRUCTION ENTRANCE

For continuation, see previously approved plans for Sewells Orchard Sect. 3 Area 1, F-84-215.



- LEGEND**
1. Contour Interval 2 FT.
 2. Existing Contour
 3. Direction of Drainage
 4. Proposed Storm Drain 18" RCP
 5. Existing Storm Drain 42"
 6. Stabilized Construction Entrance

KEY	PLANT NAME	SIZE	QUANT.	REMARKS
1a	QUERCUS PALUSTRIS PIN OAK	2 1/2 CAL. MIN.	13	B & B HEAVY HEADS
1b	QUERCUS RUBRA NORTHERN RED OAK		19	
2a	ACER RUBRUM OCT. GLORY OCTOBER GLORY MAPLE		24	
3a	PLATANUS ACERFOLIA LONDON PLANETREE		8	
4a	FRAXINUS P. LANCEOLATA MARSHALLS' GREEN ASH		11	

NOTE: Contractor shall verify location of underground utilities prior to digging. Final locations of trees may be adjusted slightly to accommodate field conditions. Planting procedures shall comply with "Landscape Specifications for Baltimore-Washington Metropolitan Areas." Substitutions to the above species may be permitted, provided that the planting is in accordance with the street tree & landscape requirements as specified in Section 16.131 of the Howard County Subdivision Regulations.

Total Area to Plot F-23
A = 3.2 Ac.
C = .58

See previously approved Preliminary Storm Drain Study for Sewells Orchard Sect. 3 P-84-06

CONTRACTOR'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, or any other responsible agency.

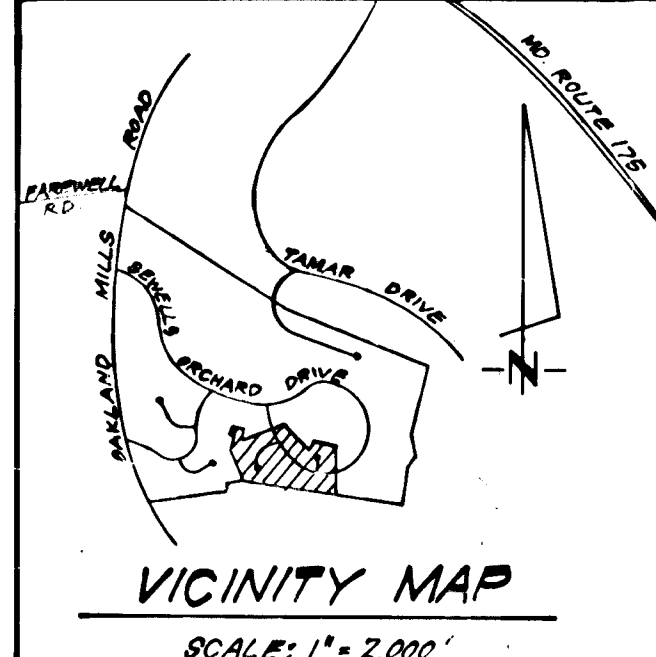
[Signature] 8-31-84

Reviewed for Howard County S.C.D. Name and made Technical Requirements *[Signature]* 10-11-84

U.S. Soil Conservation Service

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

[Signature] 10-11-84



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] 8-27-84
G. Nelson Clark Date

APPROVED: Department of Public Works

[Signature] 8-27-84
Chief, Bureau of Engineering Date

APPROVED: Howard County Office of Planning & Zoning

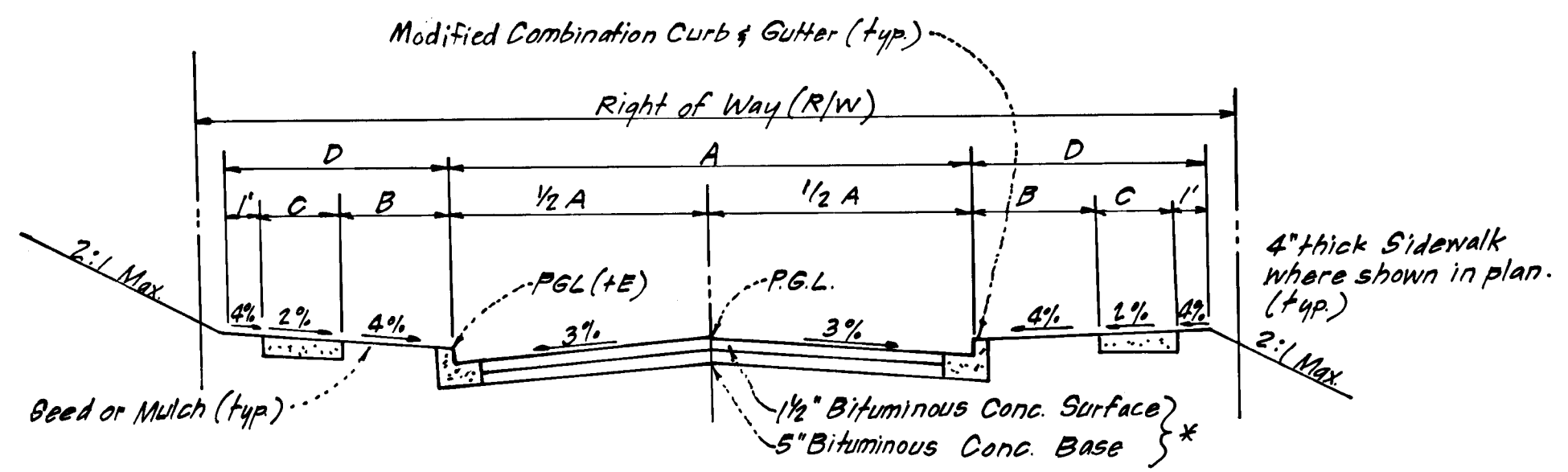
[Signature] 10/1/84
Chief, Division of Land Development & Zoning Administration Date

CLARK, FINEFROCK & SACKETT
ENGINEERS-PLANNERS-SURVEYORS

11315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 (301) 593-3400

DESIGNED: J.L.S. SCALE: As Shown
DRAWN: V.L.B. DRAWING: 3 OF 4
CHECKED: J.L.S. JOB NO.: 84-047
DATE: Aug., 1984 FILE NO.: 84-047D

FOR: Orchard Associates
P.O. Box 919
Columbia, Maryland 21044



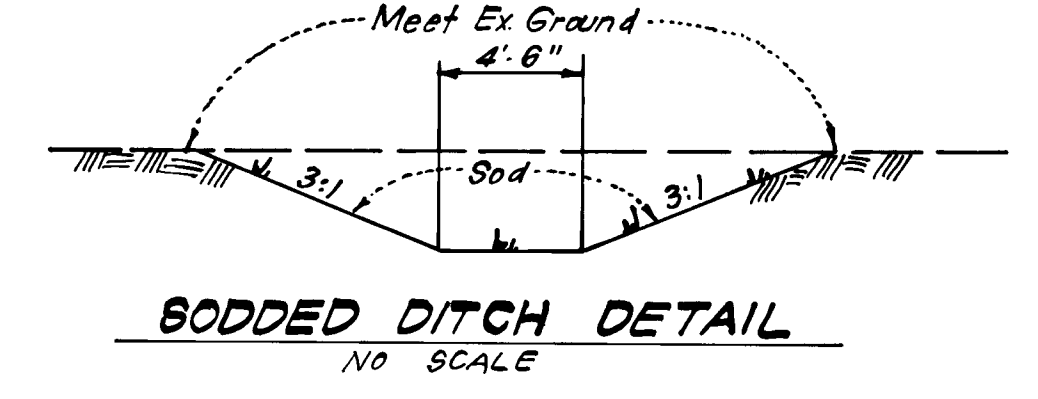
*For Alternate Paving Section - See detail this sheet.
TYPICAL PAVING SECTION - PUBLIC ROADS
 No Scale

STREET NAME & STATION	TYPE OF TRAFFIC	A	B	C	D	R/W	ZONING	DESIGN SPEED	E
Sewells Orchard Drive Sta. 48+30.29 to 56+22.70	Local	30	4'	4'	9'	50'	RSC	30 mph +05	
Grimes Golden Court Sta. 0+00 to 4+75.00	Cul-de-Sac	28	4'	4'	9'	50'	RSC	30 mph -108	
Thornfree Court Sta. 2+00 to 1+60.00	Cul-de-Sac	24	-	-	9'	50'	RSC	30 mph +14	

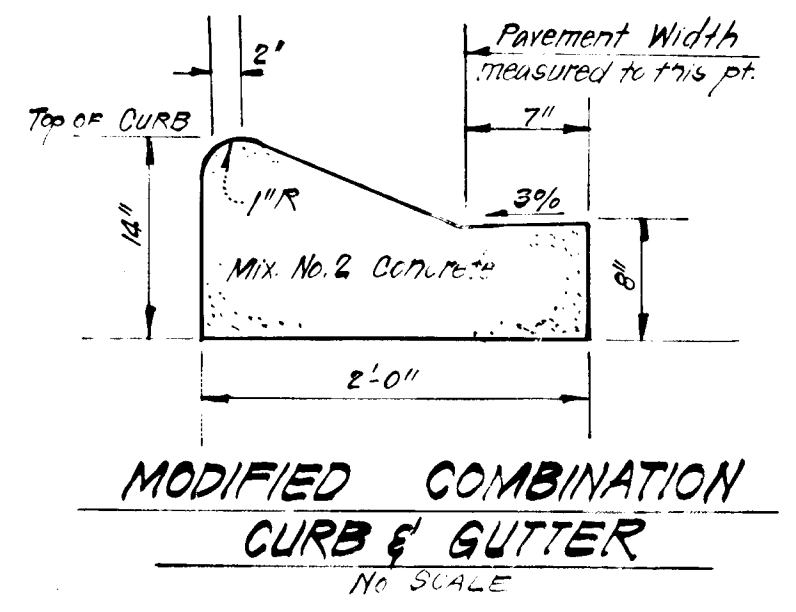
SIZE	TYPE	LENGTH
15"	RCP CL V	289 L.F.
18"	RCP CL V	217 L.F.
18"	RCP CL IV	332 L.F.
42"	RCP CL IV	81 L.F.

NO.	TYPE	INV. IN	INV. OUT	TOP ELEVATION		REMARKS	LOCATION
				UPPER	LOWER		
S-10	"C" Endwall	353.00	353.00	-	-	Ho. Co. Std. SD.5.21 Dia. = 18"	See Plan.
I-11	A-10 Inlet	361.30	360.84	366.55	34.80	Ho. Co. Std. SD.4.02 W=2'-6"	E Inlet Sta. 49+69.06 15' LT.
M-12	Shallow Brick Manhole	361.5	361.15	360.34	30	Ho. Co. Std. G.5.05 48" Sq.	E Str. Sta. 49+69.67 18.5' RT.
I-13	A-10 Inlet	363.54	362.94	366.49	366.90	Ho. Co. Std. SD.4.02 W=2'-6"	E Inlet Sta. 50+15.17 15' RT.
I-14	A-10 Inlet	-	365.53	369.23	369.20	Ho. Co. Std. SD.4.02 W=2'-6"	E Inlet Sta. 52+42.95 15' RT.
I-15	A-10 Inlet	-	362.60	366.97	366.90	Ho. Co. Std. SD.4.02 W=2'-6"	E Inlet Sta. 49+24.17 15' RT.
S-16	A Endwall	358.51	358.51	50	-	Ho. Co. Std. SD.5.11 Dia. = 42"	E Str. Sta. 1+95.00 42' LT.
S-17	A Endwall	359.55	359.55	-	-	Ho. Co. Std. SD.5.11 Dia. = 42"	E Str. Sta. 1+95.00 39' RT.
I-18	A-10 Inlet	362.00	361.90	370.20	370.20	Ho. Co. Std. SD.4.02 W=2'-6"	E Inlet Sta. 2+47.69 14' LT.
I-19	A-10 Inlet	363.19	362.80	370.99	370.119	Ho. Co. Std. SD.4.02 W=2'-6"	E Inlet Sta. 2+47.69 14' RT.
M-20	Brick Manhole	362.65	362.59	372.00	372.05	Ho. Co. Std. G.5.01 48" Sq.	E Str. Sta. 3+62.27 20' RT.
I-21	"D" Inlet	-	362.65	368.69	372.83	Ho. Co. Std. SD.4.11 W=2'-6"	See Plan.

△ All Inverts to be fully developed.
 * See Ho. Co. Std. R.3.06 for curb transition @ "A" Type Inlets.
 # Provide Slots in all sides.
 † Connect Prop. 18" RCP into center of wingwall.



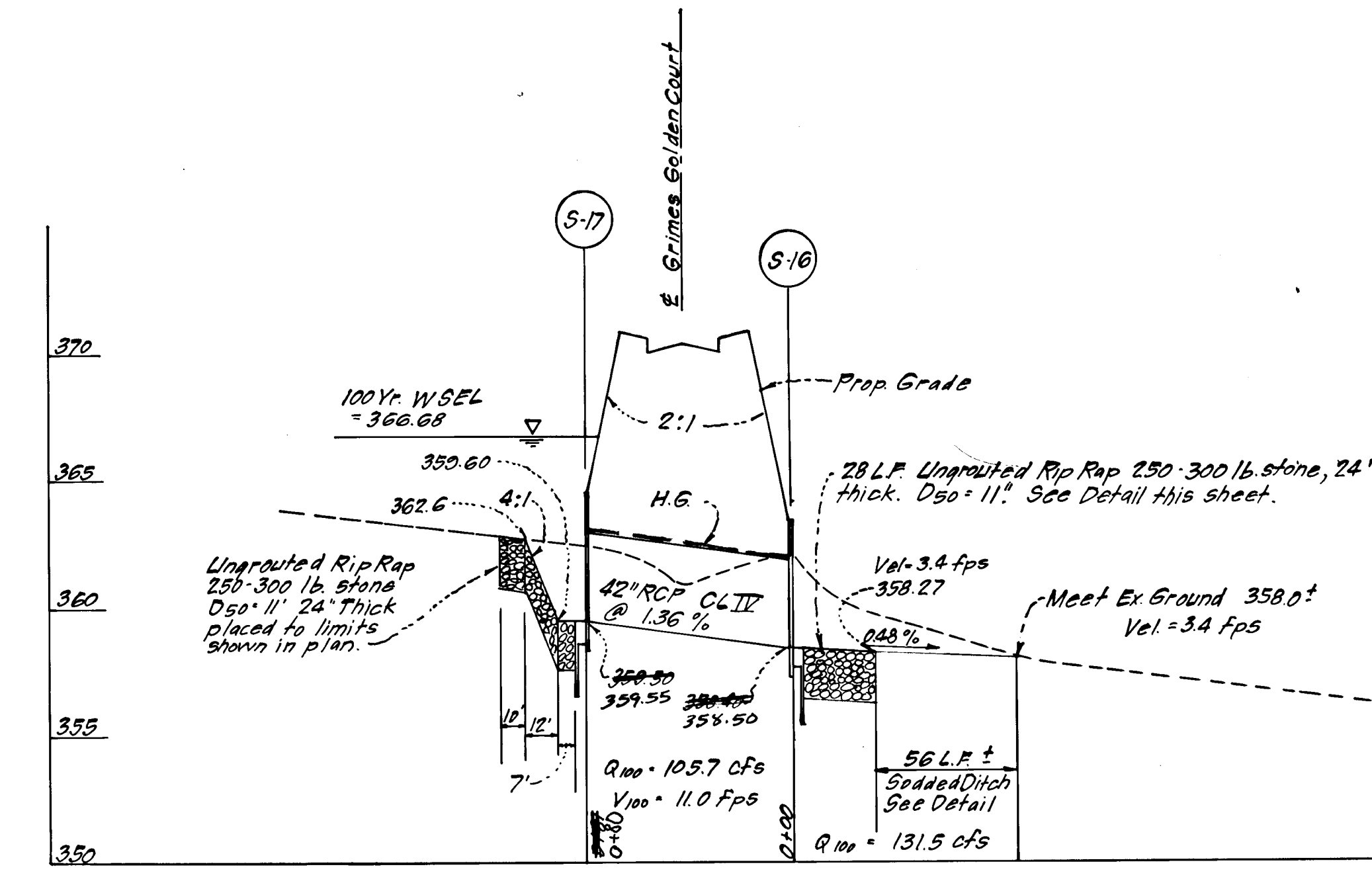
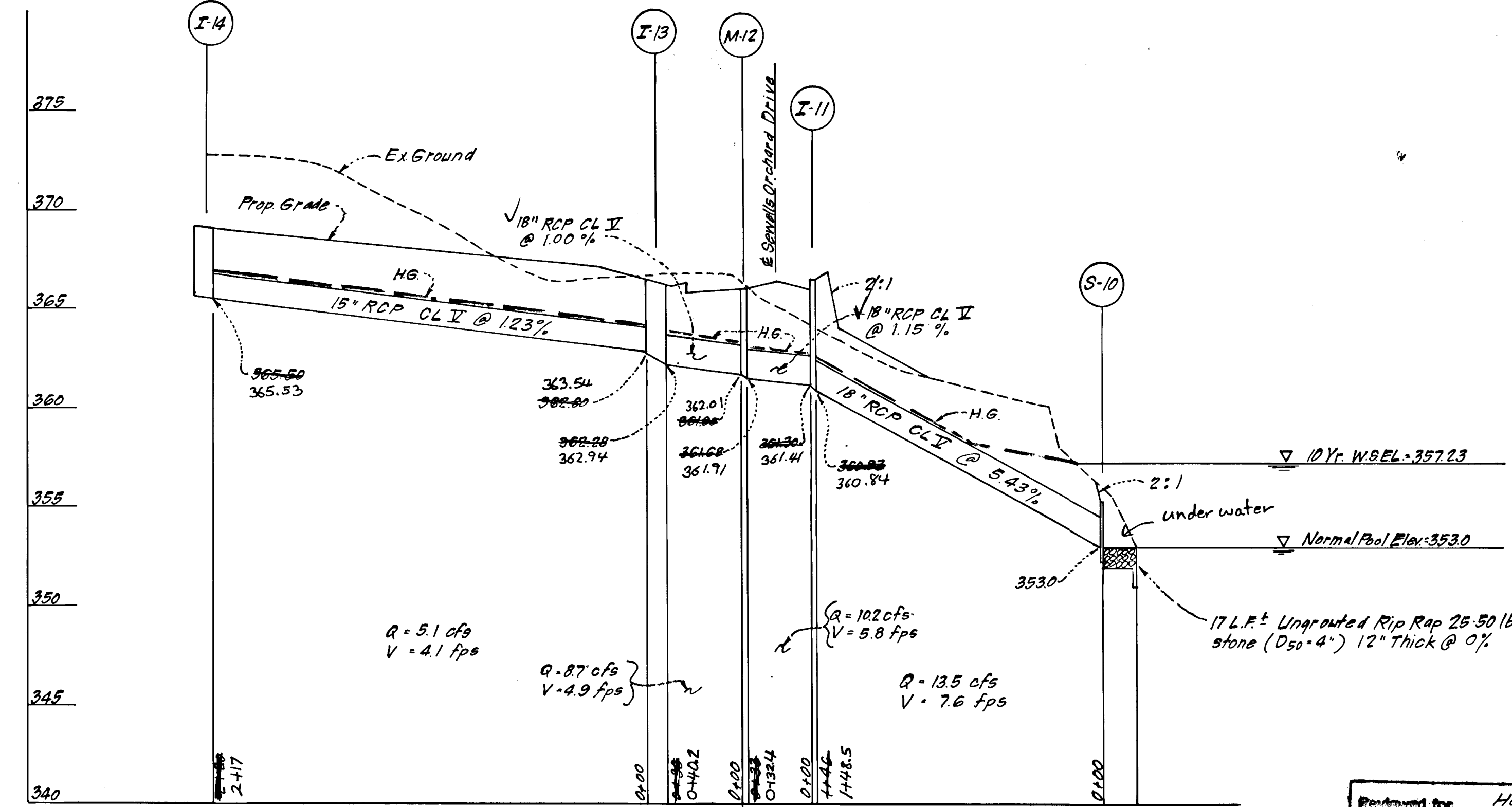
GENERAL SODDING NOTES:
 1. Apply 10-10-10 Fertilizer @ 1000#/acre (25#/1000 sf.)
 2. Apply Ground Agricultural Limestone @ 2000#/acre (50#/1000 sf.)
 3. Incorporate both Lime and Fertilizer into soil by discing. Firm up after incorporation.
 4. Lay sod to a tight fit. Roll to insure contact with underlying soil. Water as necessary for 1st 2 weeks in summer, to ensure establishment.
 5. All sod to be used must be certified by the state of Maryland.
 6. Sod to be pegged and stapled.



MODIFIED COMBINATION CURB & GUTTER
 No Scale

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

ALTERNATE PAVING SECTION FOR PUBLIC ROADS
 No Scale



Reviewed for: Howard S.C.D.
 Name
 and meets Technical Requirements
 Signature _____ Date _____
 U.S. Soil Conservation Service

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

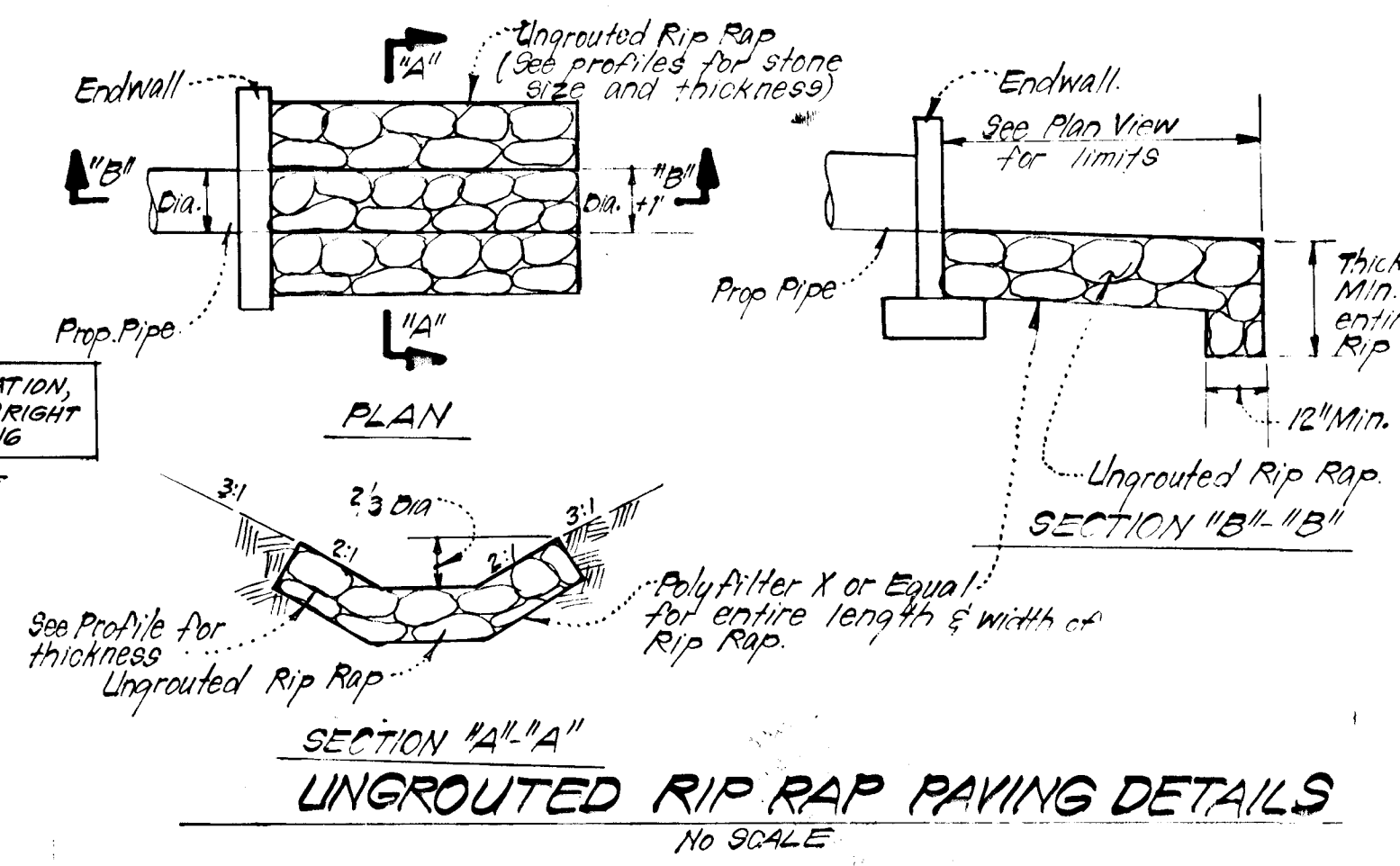
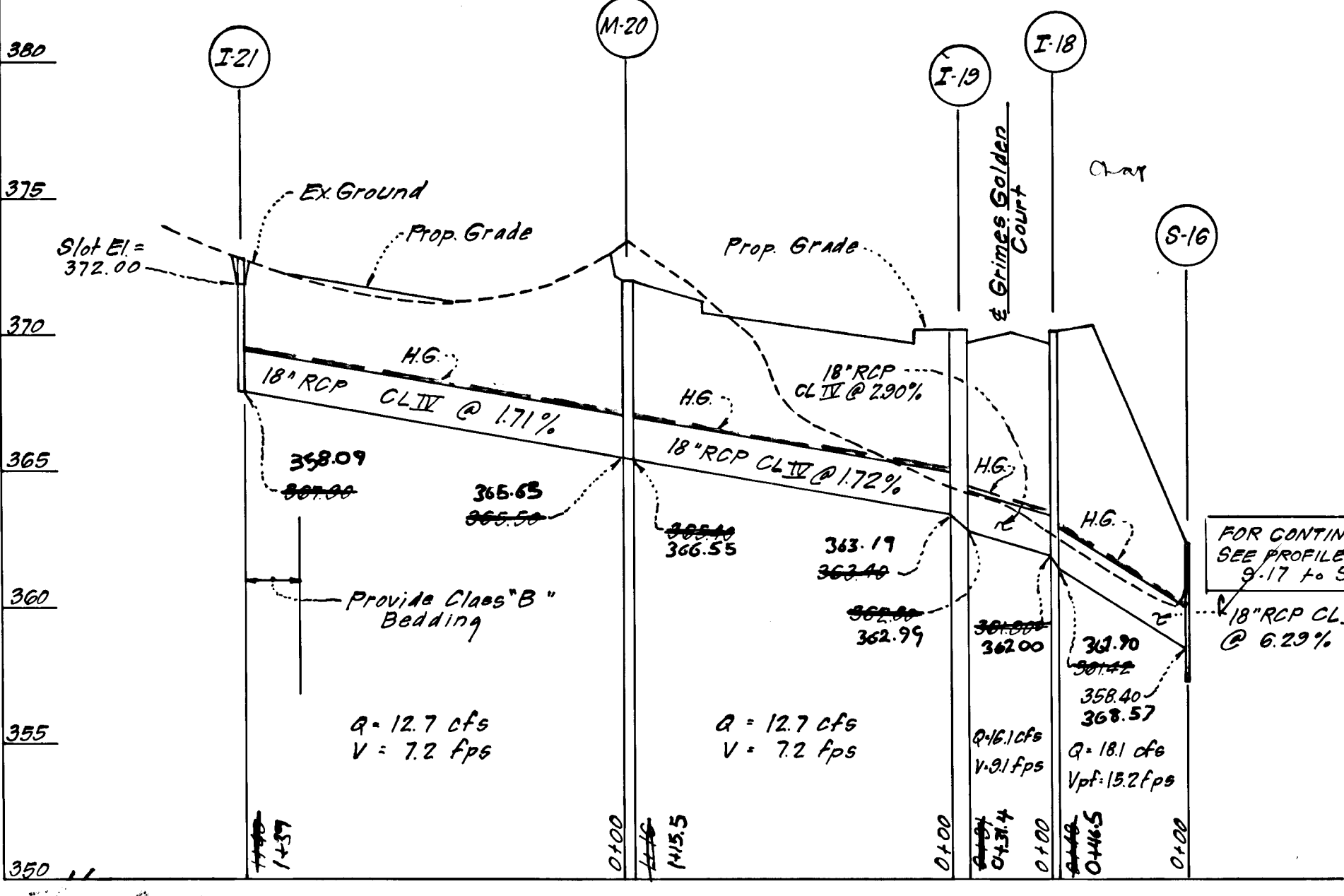
Approved _____ Date _____

AS BUILT SURVEY CERTIFIED BY G. NELSON CLARK
 REG. P.E. NO. 7139 ON AUG. 29, 1984

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 Planning Resources Approved Training Program for the Control of Erosion and Sedimentation 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 _____ Date 8-31-84



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 _____ Date 8-29-84
 G. Nelson Clark



SECTION "A" "A" LINGROUTED RIP RAP PAVING DETAILS
 No Scale

As-Built

APPROVED: Department of Public Works
 Signature _____ Date 10-29-84
 Chief, Bureau of Engineering
 APPROVED: Howard County Office of Planning and Zoning
 Signature _____ Date 10-11-84
 Chief, Division of Land Development & Zoning Administration

CLARK • FINEFROCK & SACKETT		SCALE
ENGINEERS • PLANNERS • SURVEYORS		As Shown
DESIGNED	J.L.S. ROAD CONSTRUCTION PLANS	DRAWING
DRAWN	V.L.B. STORM DRAINAGE PROFILES AND PAVING DETAILS	JOB NO.
CHECKED	V.L.B. SECTION 4 AREA 1	DATE
DATE	J.L.S. 6TH ELECTION DISTRICT	FILE NO.
	FOR: Orchard Associates	
	P.O. Box 919	
	Columbia, Maryland 21044	