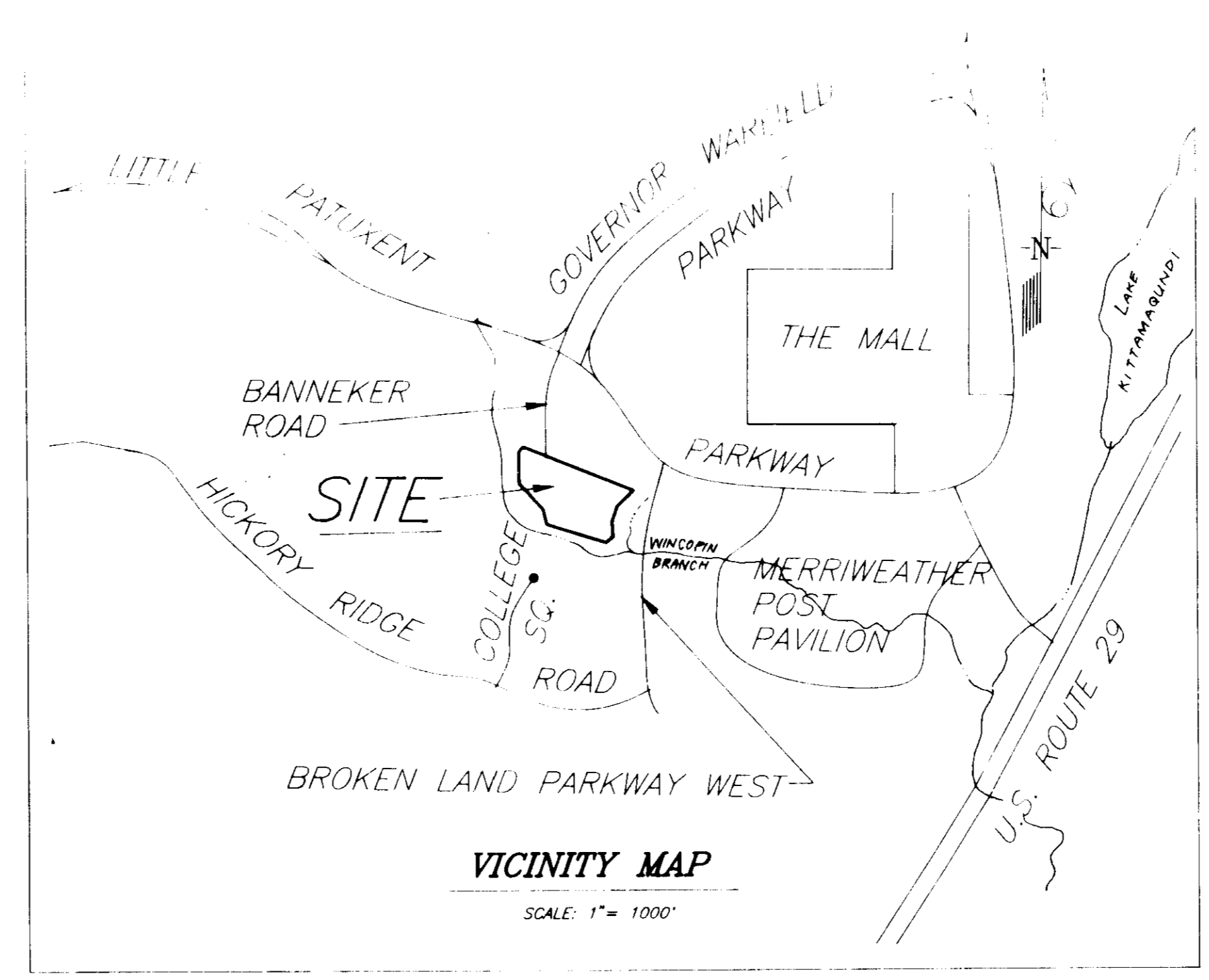


DESCRIPTION	SHEET NO.
COVER SHEET	1
SITE DEVELOPMENT PLAN	2
SITE DEVELOPMENT PLAN	3
OIL GRIT SEPARATOR DETAILS	4
STORM DRAIN PROFILES	5
PAVING SECTION AND DETAILS	6
DRAINAGE AREA MAP	7
STREET GRADES	8
WATER AND SEWER PROFILES	9
WATER AND SEWER PROFILES	10
SEDIMENT AND EROSION CONTROL PLAN	11
SEDIMENT AND EROSION CONTROL PLAN	12
SEDIMENT AND EROSION CONTROL DETAILS	13
LANDSCAPE PLAN	14
LANDSCAPE PLAN	15



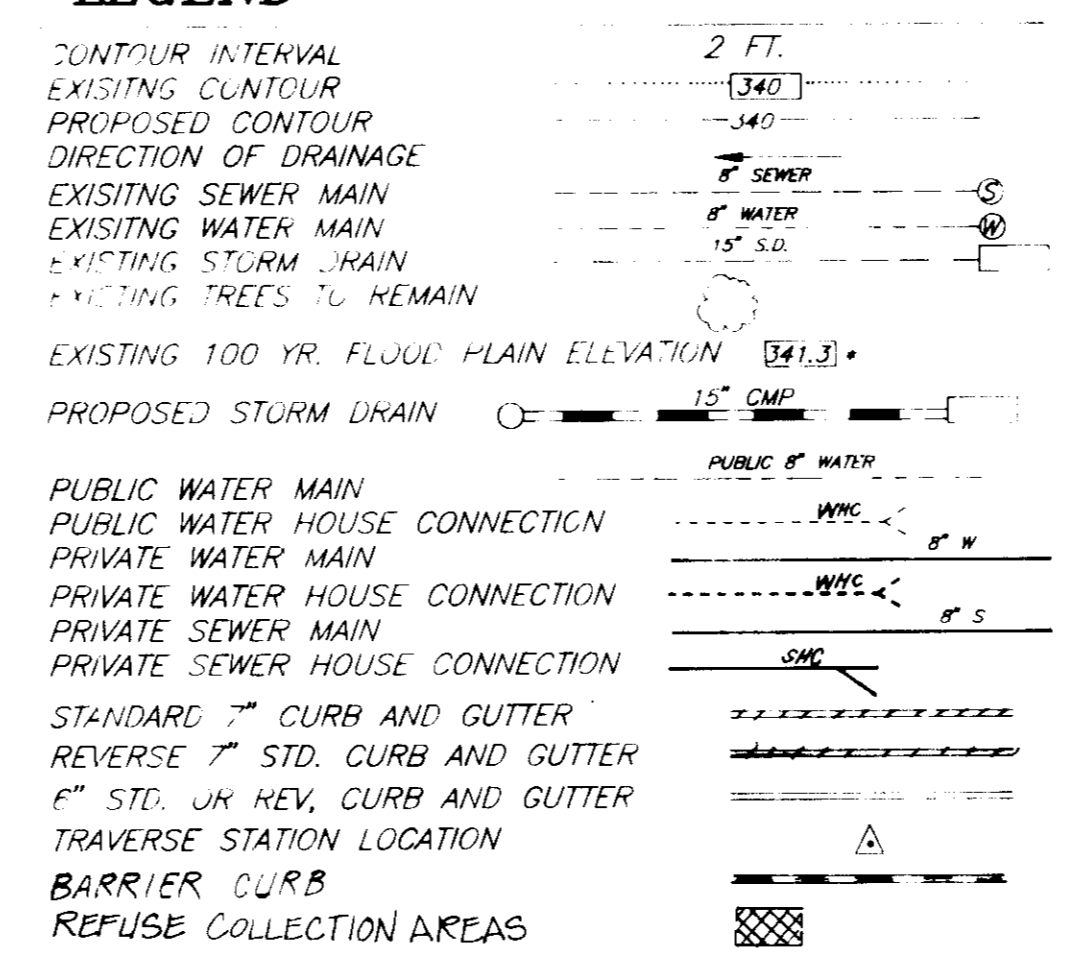
GENERAL NOTES:

- The land included in this plan is zoned R-2 and is subject to comprehensive zoning laws.
- The coordinates shown herein are based upon Howard County General Control Station 2640001 and 2640002 which are based upon the Maryland State Plane Coordinate System.
- Topography shown is a combination of field run survey prepared by Clark Finerock and Sackett, Inc. in July 1991 and Aerial topography provided by The Howard Research and Development Corporation.
- The minimum building setback restrictions from the property lines and the right-of-ways of any public road or street to be in accordance with the Final Development Plan-Phase 61-A-1.
- This plan is subject to a waiver of:
 - Section 16.120, preliminary plan, WP-92-46 (approved 10-31-91).
 - Section 16.129.2, certain sidewalk locations, WP-92-46 (approved 10-31-91).
- All private courts are to be privately owned and maintained.
- Any damage to county owned rights-of-way to be corrected at the developer's expense.
- The area included in this submission is located on Tax Map No. 36, Parcel No. 81.
- Wetland limits and buffer are shown per Plat 9749, prepared by Fisher Collins and Carter, Inc. and recorded Jan. 3, 1991.
- 100 Yr. Flood Plain limits and elevations as per Plat 9749.
- Recording reference: Plat No. 9749
- All materials and construction is to be in accordance with the Howard County Road Construction Codes and Specifications.
- Trench bedding for storm drain structures shall be in accordance with Howard County Standard G2.01, Class "C" Bedding.
- Information concerning underground utilities was obtained from available records, but the contractor must determine the exact location by digging test pits, by hand, at all crossings well in advance of construction.
- The contractor or developer agrees to work with the Dept. of Licenses and Permits to resolve any problem with roof water discharge.
- Grading, Clearing and Removal of Vegetation is prohibited within the 25' foot wetlands buffer and 75' foot stream buffer.
- Private sewer service is to be utilized. Both private and public water is to be utilized. See sheets 6 and 7 for private water and sewer information. See Contract No. 24-3162-D for the public water.
- Installation of traffic control devices shall be in accordance with the latest edition of the "Manual of Uniform Traffic Control".
- Contact "MISS UTILITY" at 559-0100 at least 24 hours before beginning construction.
- The contractor or developer shall contact the Construction Inspection Division 24 hours in advance of work at 992-2417 or 792-7272.
- Storm water management is being provided off-site for quantity control, ref. F-85-131
- Storm water quality control is provided by this plan with the utilization of both oil grit separators and vegetative buffer strips. For details of the oil grit separators see detail sheet 12. For details of the vegetative buffer strips see the Standards and Specifications for Infiltration Practices, Section 3-7. See the plan for limits of filter strips shown thus:
 - Buffer strips can be used for sheet flow only.
 - A min. of 20 foot must be used.
- See Howard County File Nos. f-85-131, S-92-05, WF-92-46, Plat 9749, and Contract No. 24-3162-D, 10-30-94
- Bench March shown thus \triangle , see sheets 2 and 3 of 15 for locations and elevations.

SITE ANALYSIS:

1. Zoning:	New Town Apartments
2. Number of Units Permitted:	100 (PER FDP-61-A-1)
3. Number of Units Proposed:	100
4. Unit Type Proposed:	Condominium Townhouses (50 Conventional, 50 Back to Back)
5. Parking Spaces Required:	200 (2 PER UNIT)
6. Parking Spaces Proposed:	210
7. Area Tabulation:	
Total Area of the Parcel:	8.152 acres
Public Roadway Dedication:	2.78 acres
Private Drives and Parking:	0
Condominium open space:	6.132 acres (includes drives & parking)
8. Building Coverage Permitted:	3.26 acres (40%)
9. Building Coverage Proposed:	2.02 acres (25%)
10. Unit Floor Space: (Section 110.02.C.)	
A. Highest Minimum Required is:	800 sf.
B. Typical unit floor space provided exceeds:	1000 sf.

LEGEND



ADDRESS CHART	
UNIT NO.	STREET ADDRESS
1	6000 Laurel Wreath Way
2	6004
3	6008
4	6012
5	6016
6	6020
7	6024
8	6028
9	6032
10	6036
11	6040
12	6044
13	6048
14	6052
15	6056
16	6060
17	6064
18	6068
19	6072
20	6076
21	6080
22	6084
23	6088
24	6092
25	6096
26	6014 Shepherd Square
27	6018
28	6022
29	6026
30	6030
31	6034
32	6038
33	6038 Weekend Way
34	6042
35	6046
36	6050
37	6054
38	6058
39	6062
40	6066
41	6070
42	6074
43	6078
44	6082
45	6086 Same Song Square
46	6090
47	6094
48	6098
49	6102
50	6106
51	6009 Same Song Square
52	6013
53	6017
54	6021
55	6025
56	6029 Cloudy April Way
57	6033
58	6037
59	6041
60	6045
61	6049
62	6053
63	6057
64	6061
65	6065
66	6069
67	6073
68	6077
69	6081
70	6085 Thoroughbred Way
71	6089
72	6093
73	6097
74	6101
75	6105
76	6109
77	6113
78	6117
79	6121
80	6125
81	6129
82	6133
83	6137
84	6141 Shepherd Square
85	6145
86	6149
87	6153
88	6157
89	6161
90	6165
91	6169
92	6173
93	6177
94	6181
95	6185
96	6189
97	6193
98	6197
99	6201
100	6205

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

James P. ... 6-1-92
DATE

APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING

Richard ... 6/8/92
DATE

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

James ... 5-27-92
DATE

CHIEF BUREAU OF ENGINEERING

DATE: March 3, 1992

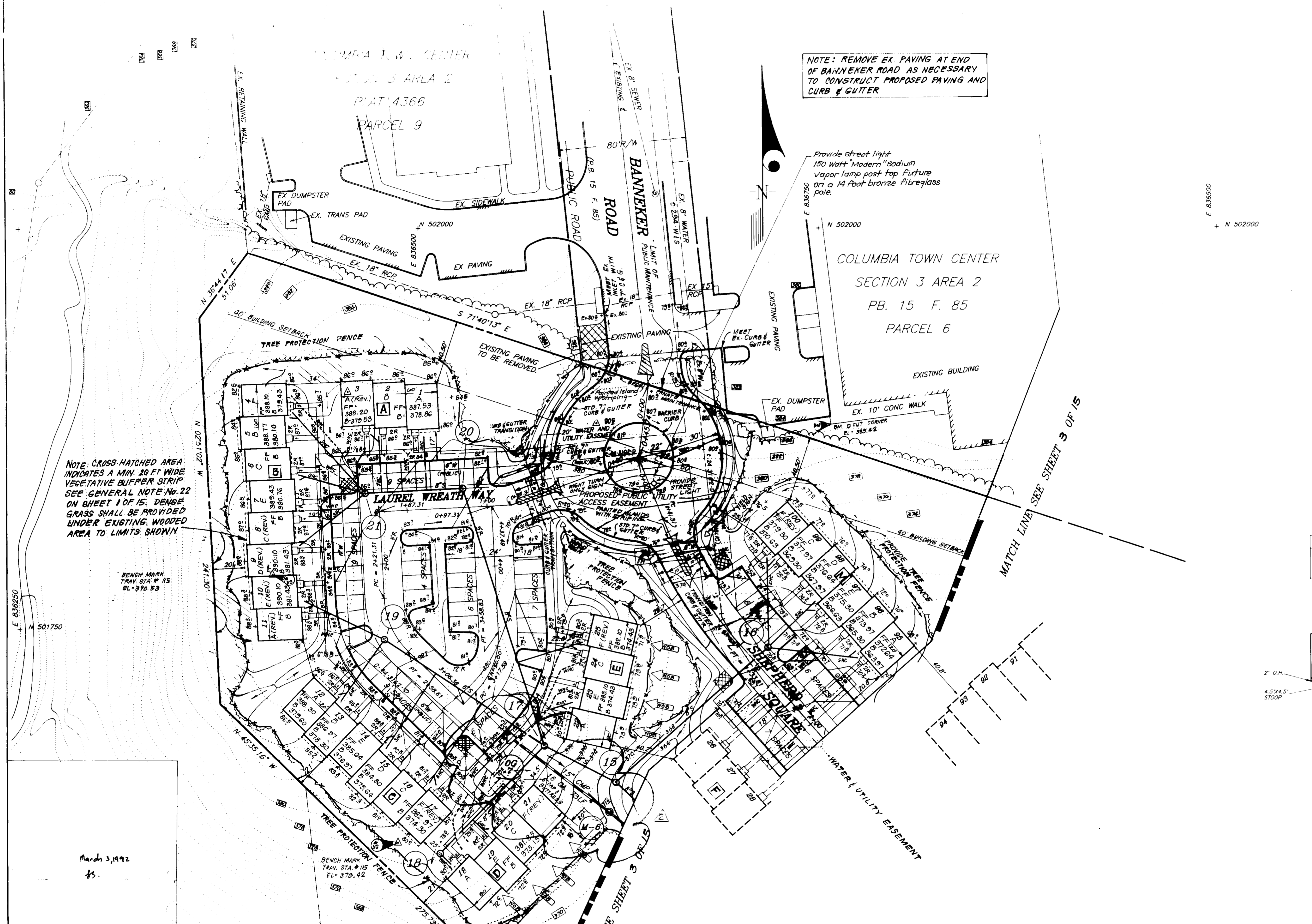
1 Add note N^o 24

REVISIONS

4-3-92 Date

SUBDIVISION NAME COLUMBIA TOWN CENTER		SECTION/AREA 3/2	LOTS/PARCELS PARCEL A
PLAT NO. 9749	BLOCK NO. 1	ZONE N.T.	TAX MAP NO. 36
ELECTION DISTRICT FIFTH		CENSUS TRACT 574	SEWER CODE 6056
WATER CODE E-28		SEWER CODE S221000	

CLARK • FINEFROCK & SACKETT, INC. ENGINEERS • PLANNERS • SURVEYORS		SCALE As Shown
DESIGNED JME KIWM	SITE DEVELOPMENT PLAN COVER SHEET PARCEL A COLUMBIA TOWN CENTER SECTION 3 AREA 2	DRAWING 10F15
DRAWN KIWM		JOB NO. 91-061
CHECKED VLS	FIFTH ELECTION DISTRICT HOWARD COUNTY MARYLAND	FILE NO. 91-061-X
DATE JAN 1992	OWNER THE RYLAND GROUP, INC. 7130 WINSTREL WAY SUITE 215 COLUMBIA MARYLAND 21046	

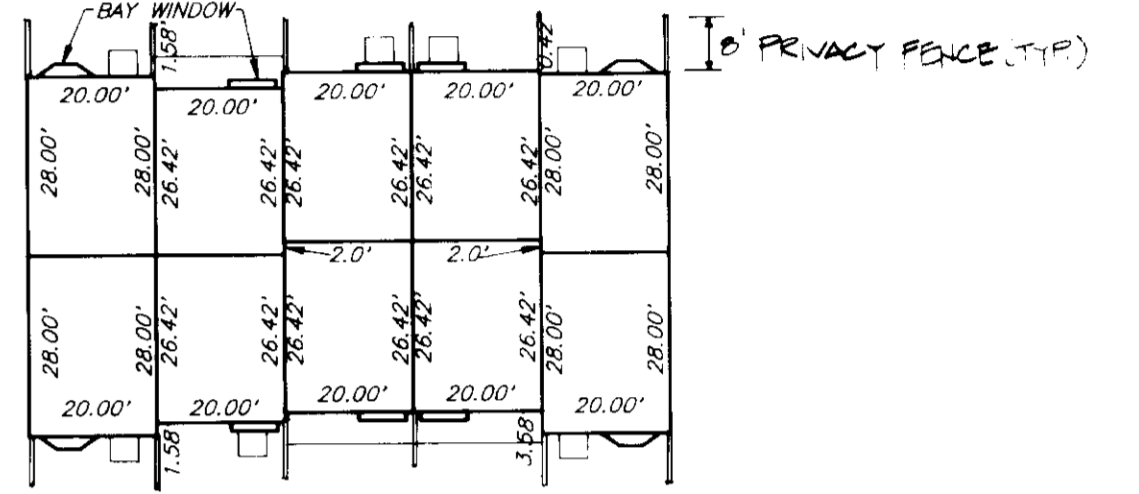
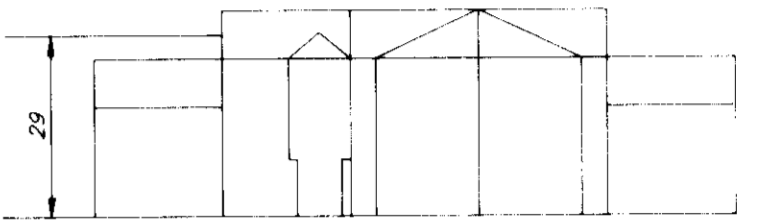


NOTE: REMOVE EX. PAVING AT END OF BANNEKER ROAD AS NECESSARY TO CONSTRUCT PROPOSED PAVING AND CURB & GUTTER

Provide street light
150 Watt "Modern" sodium
Vapor-lamp post top fixture
on a 14 foot bronze fiberglass
pole.

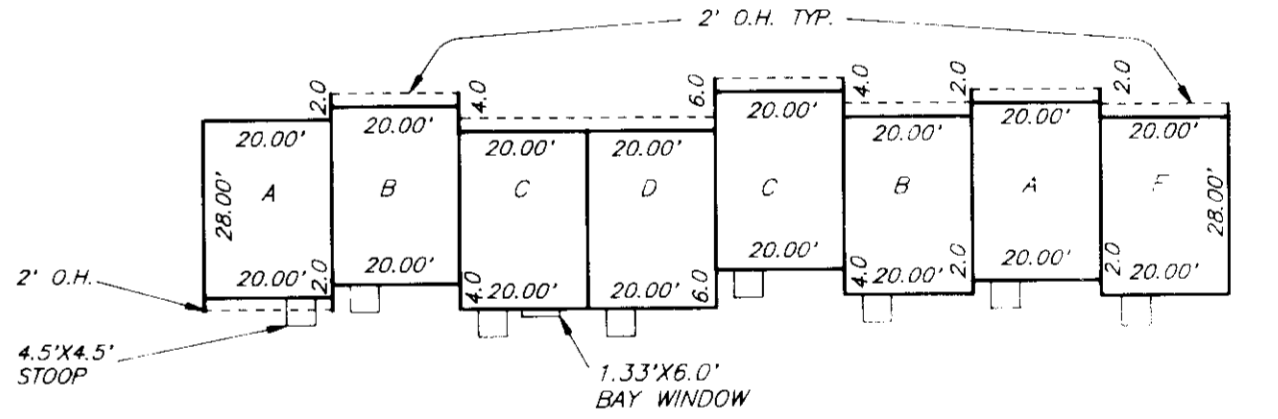
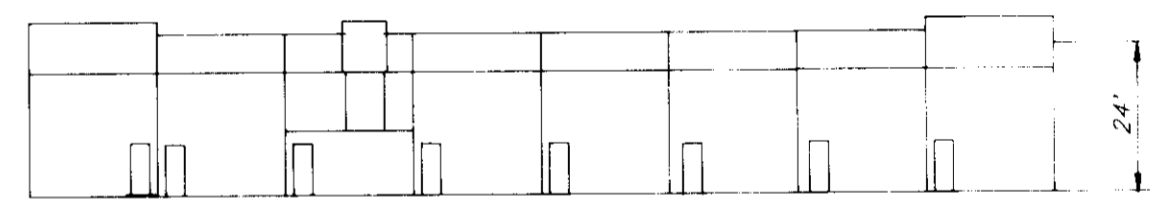
COLUMBIA TOWN CENTER
SECTION 3 AREA 2
PB. 15 F. 85
PARCEL 6

NOTE: CROSS-HATCHED AREA INDICATES A MIN. 20 FT WIDE VEGETATIVE BUFFER STRIP. SEE GENERAL NOTE NO. 22 ON SHEET 1 OF 15. DENSE GRASS SHALL BE PROVIDED UNDER EXISTING WOODED AREA TO LIMITS SHOWN.



TYPICAL HOUSES

SCALE: 1"=30'



TYPICAL HOUSES

SCALE: 1"=30'

March 3, 1992
H.S.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
HOWARD COUNTY HEALTH DEPARTMENT
[Signature] 6/1/92
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
[Signature] 6/8/92
DIRECTOR DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
[Signature] 4/5/92
CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[Signature] 3/27/92
DIRECTOR DATE

[Signature] 4-3-92
CHIEF BUREAU ENGINEERING DATE

NO.	REVISIONS	DATE
2	Rev. Config. of O.G. #7 & Related Storm Drain	6-16-92
1	Rev. Banneker Rd. Island and Street Light Type	4-9-92
1		

SUBDIVISION NAME COLUMBIA TOWN CENTER	SECTION/AREA 3, 2	LOTS/PARCELS 14/4
PLAT NO. 5710	BLOCK NO. 1	ZONE N.T.
TAX MAP NO. 5714	ELECTION DIST. 5714	CENSUS TRACT 6056
WATER CODE E-28	SEWER CODE 5521000	

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA, MD 21045 • TEL: 410-271-1100 • FAX: 410-271-1101

DESIGNED JME	SITE DEVELOPMENT PLAN PARCEL A COLUMBIA TOWN CENTER SECTION 3 AREA 2 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE 1"=30'
DRAWN KIMM		DRAWING 20 OF 15
CHECKED JMS		JOB NO 91-061
DATE JAN 1992		FILE NO 91-061-X
OWNER: THE EYLAND GROUP, INC. DEVELOPER: 7135 MINSTREL WAY SUITE 215 COLUMBIA, MARYLAND 21045		



NOTE: THE CROSS HATCHED AREA INDICATES A 20 FT. WIDE VEGETATIVE BUFFER STRIP TO BE PROVIDED. SEE GENERAL NOTE No. 22 ON SHEET 10F/15

LOT 1
OPEN SPACE
COLUMBIA TOWN CENTER
PLAT 9749

NO	REVISIONS	Date
2	Rev location of public water and sewer main, 06-1b; added sewer line and easement in plan view	10.6.92
1	Rev Contig. of O.G. Separators & Related Storm Drain	7.12.92

SUBDIVISION NAME COLUMBIA TOWN CENTER PLAT NO 9749 WATER LOSS E-28 55-1000	6056
--	------

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

James W. Boyd 6-1-92
COUNTY HEALTH OFFICER

APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING
Richard Blood 6/8/92
DATE

APPROVED HOWARD COUNTY DEPT. OF COMMUNITY PLANNING AND LAND DEVELOPMENT
Richard Blood 6/5/92
DATE

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
James A. ... 5/27/92
DATE

DIRECTOR
... 4-3-92
DATE

CHIEF BUREAU OF ENGINEERING

March 5, 1992

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURV.

SUBDIVISION NAME
COLUMBIA TOWN CENTER
PARCEL A

COLUMBIA TOWN CENTER
SECTION 3 AREA 2
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

DATE
JAN 1992

SCALE
1" = 30'

DRAWING
30F/5

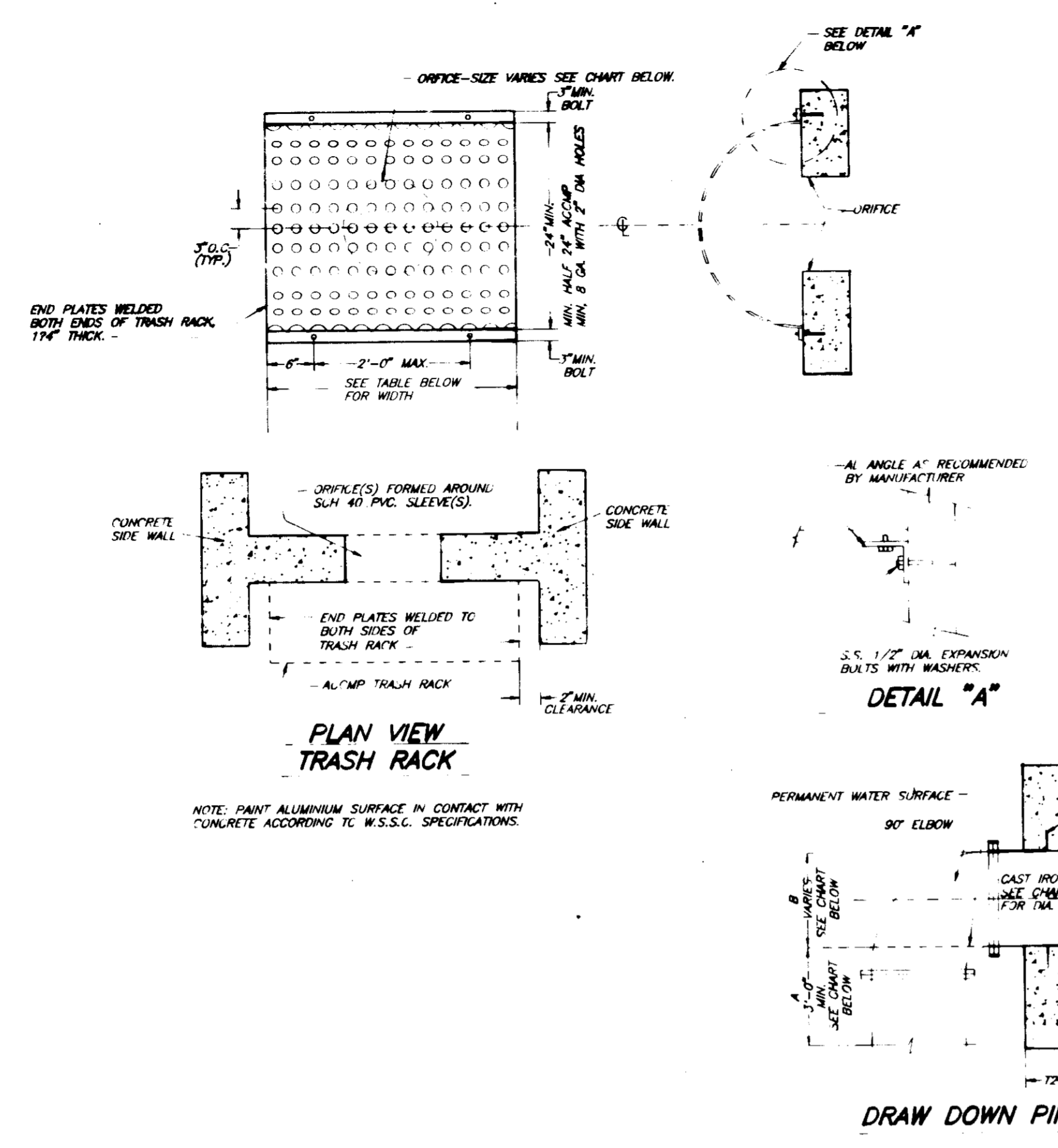
JOB NO.
9106

DATE
9.06.92

**OIL AND GRIT SEPARATOR NOTES
 WATER QUALITY STRUCTURES**

- DESIGN AND GENERAL NOTES**
- Use poured-in place concrete for the entire structure.
 - Refer to Maryland State Highway Administration for materials and methods of construction.
 - Wall thickness shall be as follows: Depth = H
 Minimum 8 inches thick for the first 8'-0" of depth, 12 inch thick walls between 8'-0" and 12'-0" of depth and 16 inch thick walls for depth greater than 12'-0".
 - $f_c = 4000$ psi at 28 days.
 - All reinforcing steel to be ASTM A615, GR.60.
 - For details concerning throat openings, refer to Ho. Co. STD. SD/4-02 or 4-01.
- | Throat Length | No. of Pipe Supports |
|---------------|----------------------|
| 5' | 0 |
| 10' | 1 |
- pipe supports to be spaced at 5'-0" O.C.

- CONSTRUCTION NOTES**
- Silt and debris shall not be allowed to enter the structures until contributing drainage areas have been permanently stabilized.
 - All openings to structures shall be protected with the appropriate sediment control measures during construction.
- MAINTENANCE NOTES (WATER QUALITY STRUCTURE WASTE)**
- Water Quality Structures will require periodic cleaning. Owners of these facilities will have to clean them as needed or on a frequency that the County determines is appropriate. Owners of Water Quality Structures will be notified by the County of the frequency of maintenance.
 - Maintenance of these facilities will consist of cleaning out the Separator and disposal of the waste and the repair of the facility as needed. Periodic inspection of these facilities will be made by the County Stormwater Management group.
 - The disposal of the liquid and solid matter should be as follows:
 - All liquid material in the Separator inlet shall be purged into a suitable tank truck and disposed of at an approved Sanitary District discharge manhole or be taken to an approved sewage treatment plant for discharge.
 - The solid material shall be landfilled in an approved Sanitary Landfill.
 - The joint pipes, trash racks, grates, and structural parts shall be repaired as needed.

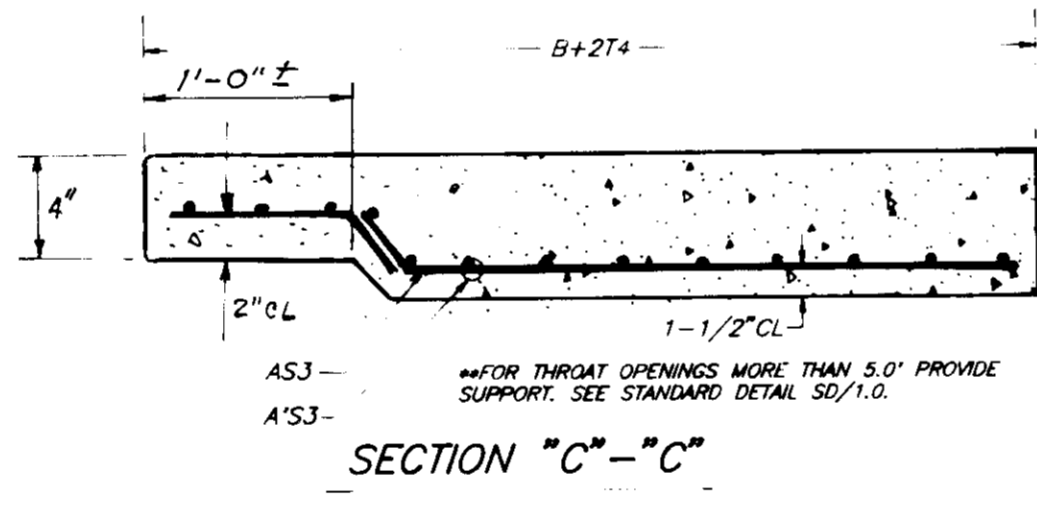


TRASH RACK AND DRAW DOWN PIPE DETAILS

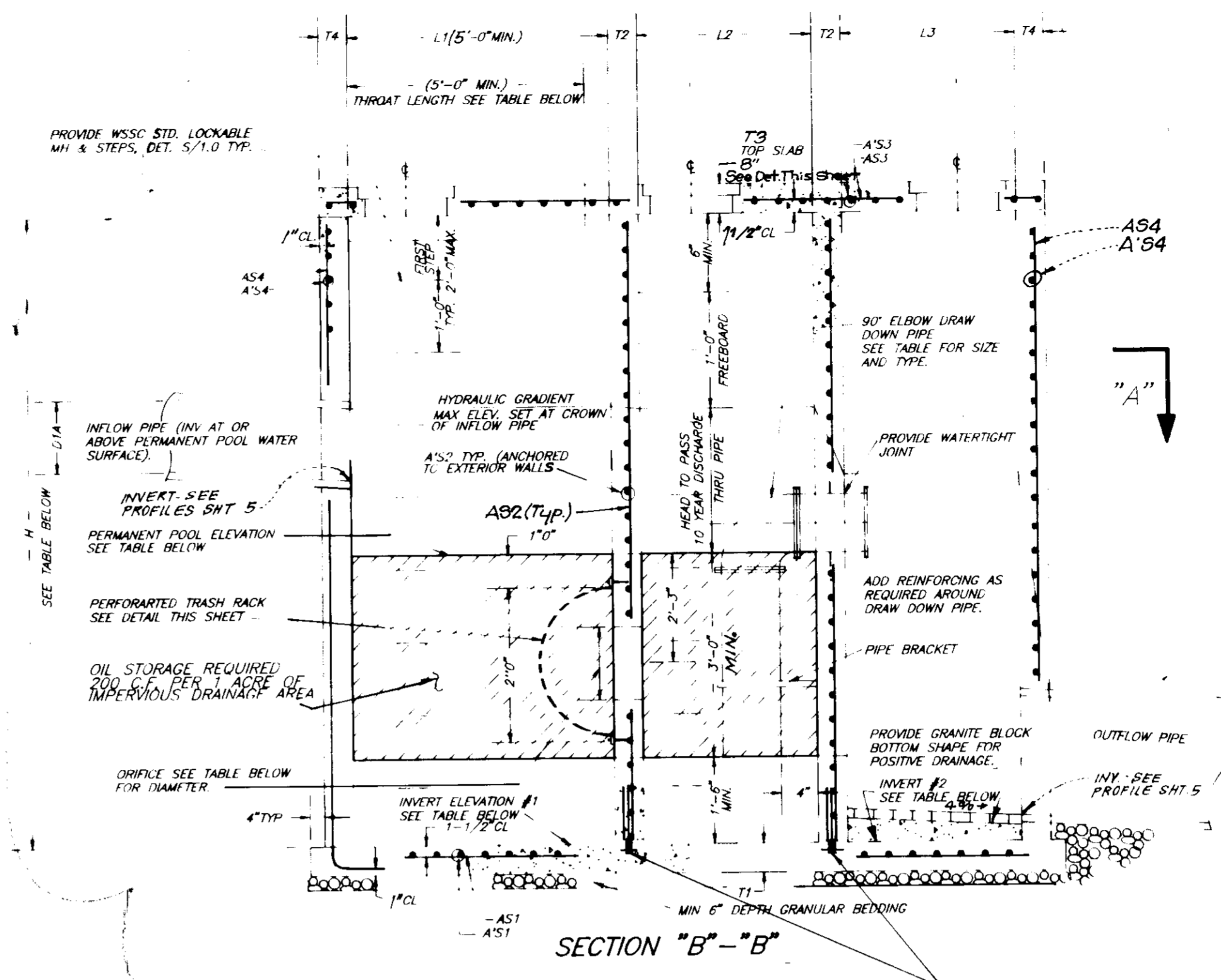
Cast-in place conc. to be 4000 psi @ 28 days. Reinforcing steel in accordance with ASTM A615 Grade 60.
 NOTE: For section and details refer to SD/700 & SD/706

Str. No.	Base Slab		Partition Walls		Top Slab		Outer Walls	
	T1	A'S1	T2	A'S2	T3	A'S3	T4	A'S4
OG-7	6"	#4 @ 12"	#5 @ 10"	6" #4 @ 12"	6" #4 @ 12"	Varies See Detail #15 Near Opening	#6 @ 10" #4 @ 12"	6" #6 @ 12" #4 @ 12"
OG-2	8"	#4 @ 12"	#4 @ 12"	6" #4 @ 12"	6" #4 @ 12"	Varies See Detail #1 Chamber #1 #6 @ 12" Chambers 2 & 3	#6 @ 12" #5 @ 10"	8" #5 @ 12" #4 @ 12"
OG-14	6"	#4 @ 12"	#6 @ 12"	6" #4 @ 12"	6" #4 @ 12"	Varies See Detail #15 Near Opening	#6 @ 12" #5 @ 12"	6" #5 @ 12" #4 @ 12"
OG-19	6"	#4 @ 12"	#6 @ 12"	6" #4 @ 12"	6" #4 @ 12"	Varies See Detail #15 Near Opening	#6 @ 12" #5 @ 12"	6" #5 @ 12" #4 @ 12"

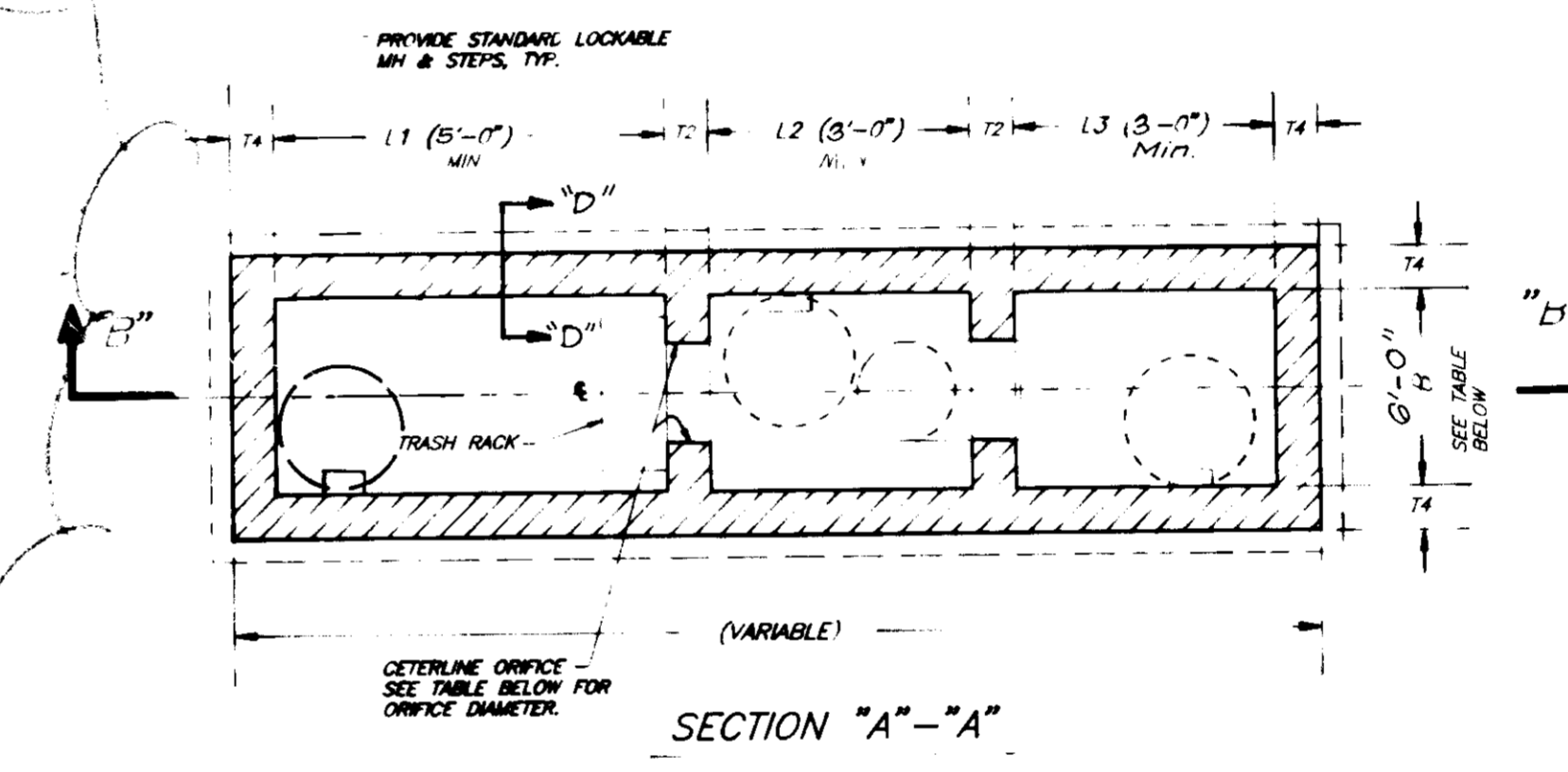
* For Depth > 5' Use #6 @ 8"
 ■ Additional #4 @ 12" EW on Wall with throat opening.
 ▲ Top Depth > 5' Use #6 @ 10"



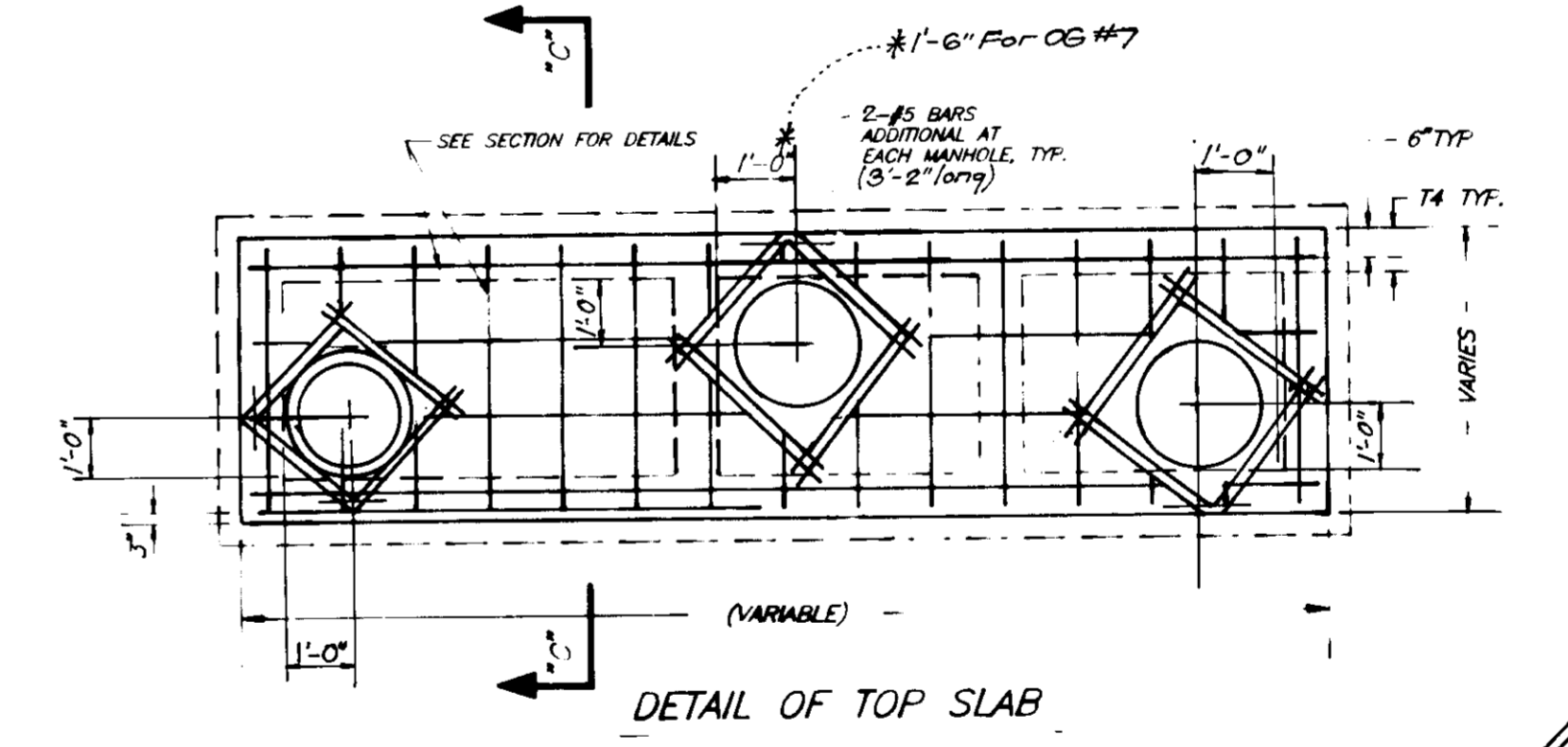
SECTION "C" - "C"



SECTION "B" - "B"



SECTION "A" - "A"



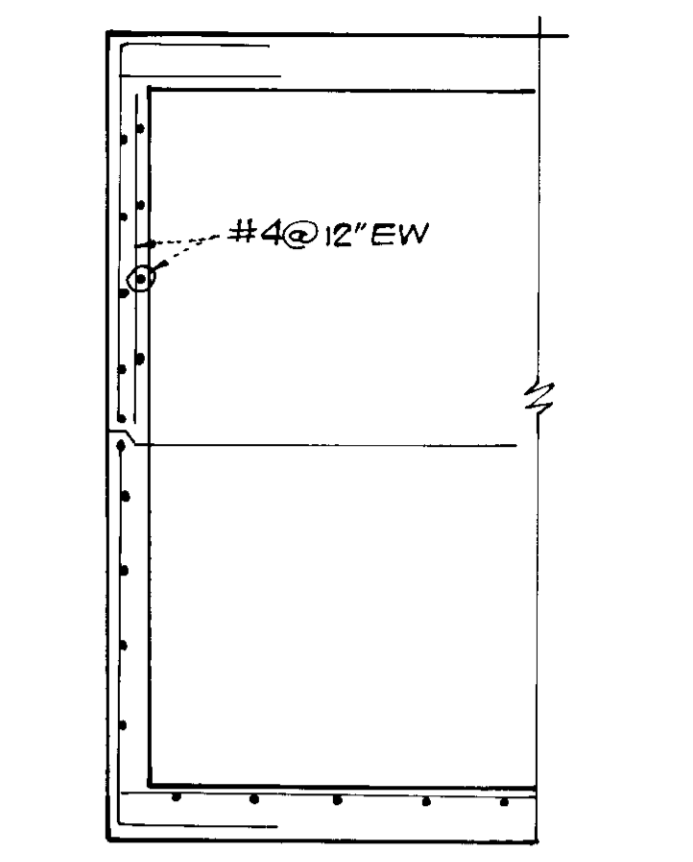
DETAIL OF TOP SLAB

OIL AND GRIT SEPARATOR DETAILS
 NO SCALE

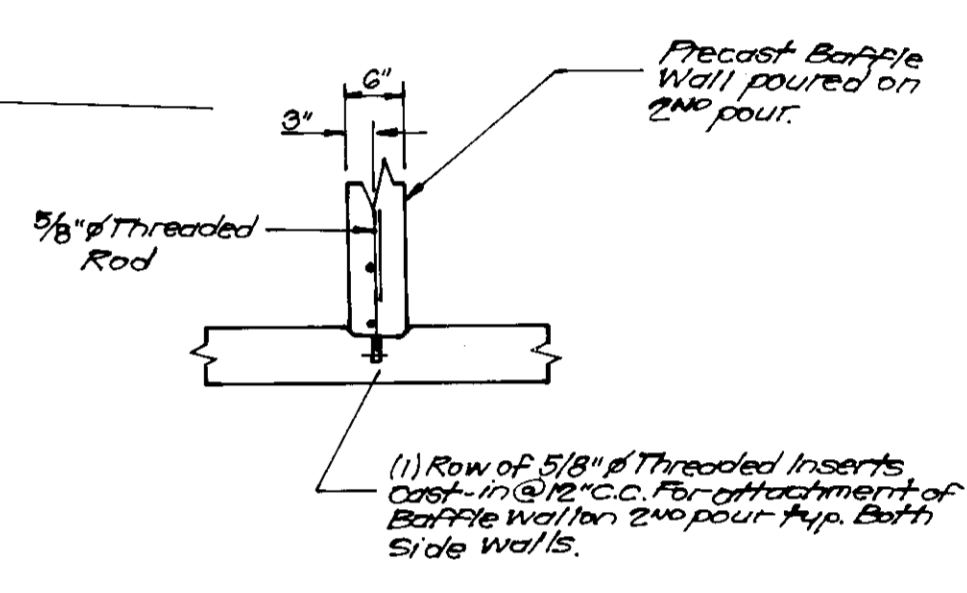
TRASH RACK AND STRUCTURE INFORMATION TABLE

STRUCTURE NO.	ORIFICE SIZE	DRAW DOWN PIPE DIA.	WIDTH OF TRASH RACK	H #	B	L1	L2	L3	INV #1	INV #2	THROAT LENGTH	THROAT ELEV.	PERMANENT POOL ELEV.
OG 7	1-15" DIA	15" CIP	2.5'	9.17'	6.0'	5.0'	3.0'	3.0'	370.00	370.00	5.0'	378.67	375.31
OG 14	1-18" DIA	18" CIP	3.0'	8.8'	6.0'	8.0'	4.0'	3.0'	338.50	341.00	8.0'	346.80	343.95
OG 19	1-18" DIA	18" CIP	3.5'	8.47'	6.0'	8.0'	4.0'	3.0'	336.31	342.00	5.0'	346.27	342.80
OG 2	1-21" DIA	24" CIP	3.5'	9.58'	6.0'	10.0'	4.0'	3.0'	337.89	341.50	10.0'	346.97	342.33

* FOR H > 8' SEE NOTE #3 AND TABLE FOR WALL THICKNESS, TOP SLAB, & BASE SLAB (LEFT)
 † ELEVATION GIVEN IS TAKEN AT THE LOWEST POINT OF THROAT.



SECTION "D" - "D"
 ADDITIONAL REINFORCING BELOW THROAT OPENING
 No Scale



1) Row of 5/8" Threaded Inserts Cast-in @ 12" O.C. For attachment of Barrier Wall to 24" pour Top Slab Walls.

TYP REINFE AROUND OPENINGS
 No Scale

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

James P. ... 6-1-92
 COUNTY HEALTH OFFICER DATE

APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING
Richard Blood 6/18/92
 DIRECTOR DATE

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

James P. ... 5/27/92
 DIRECTOR DATE

James P. ... 4-3-92
 CHIEF BUREAU OF ENGINEERING DATE

CLARK • FINEFROCK & SACKETT INC
 ENGINEERS • PLANNERS • SURVEYORS

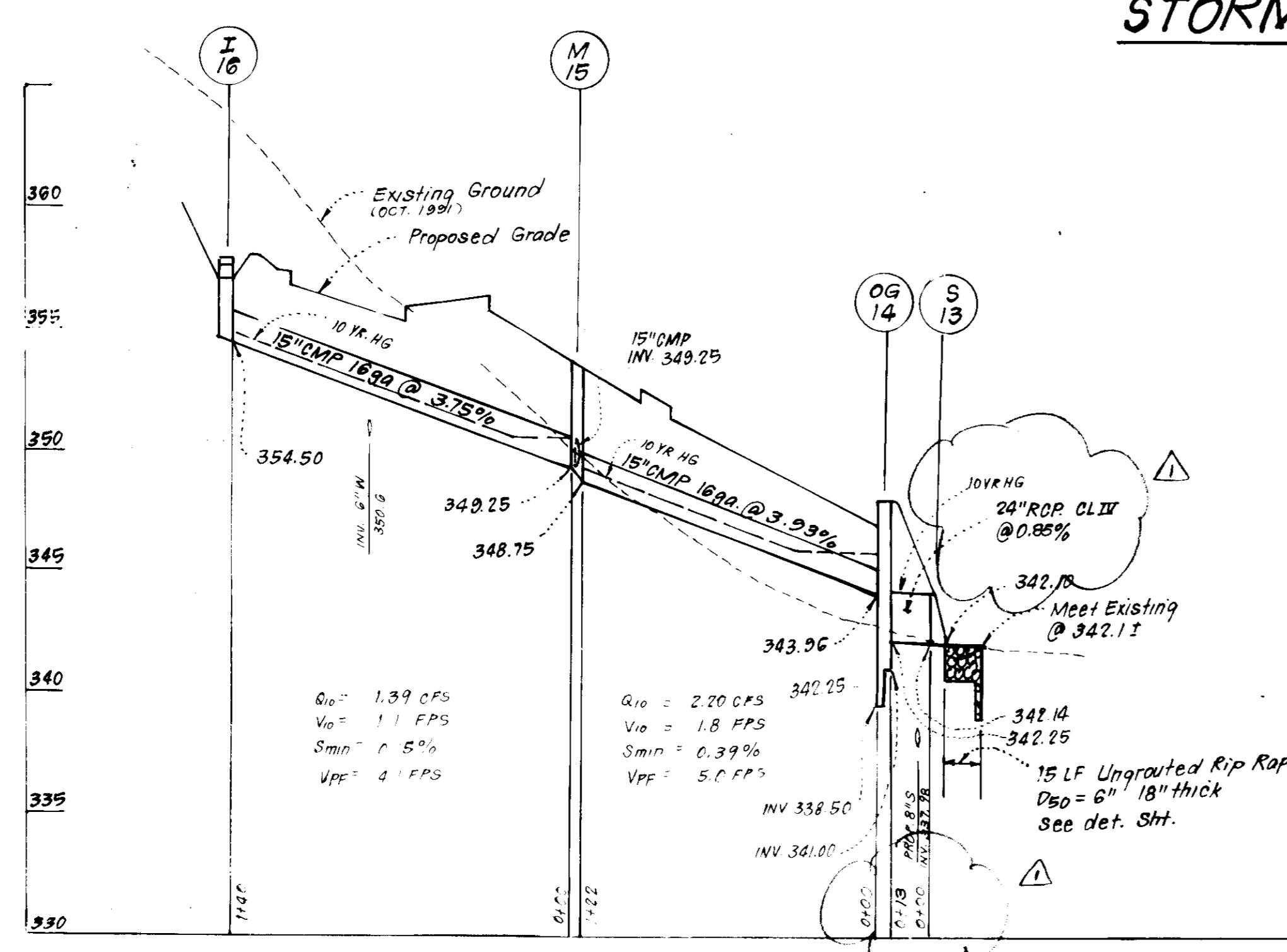
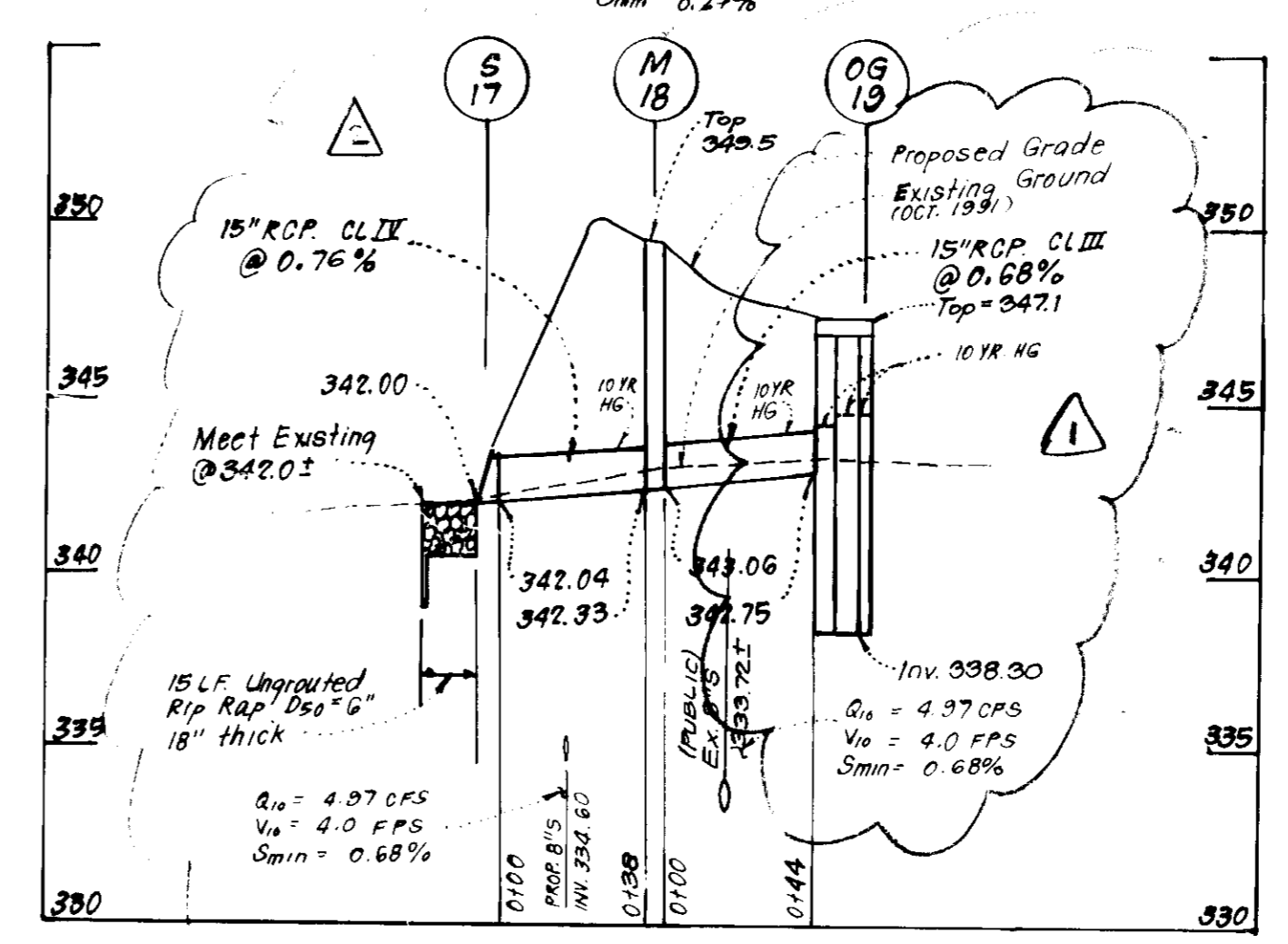
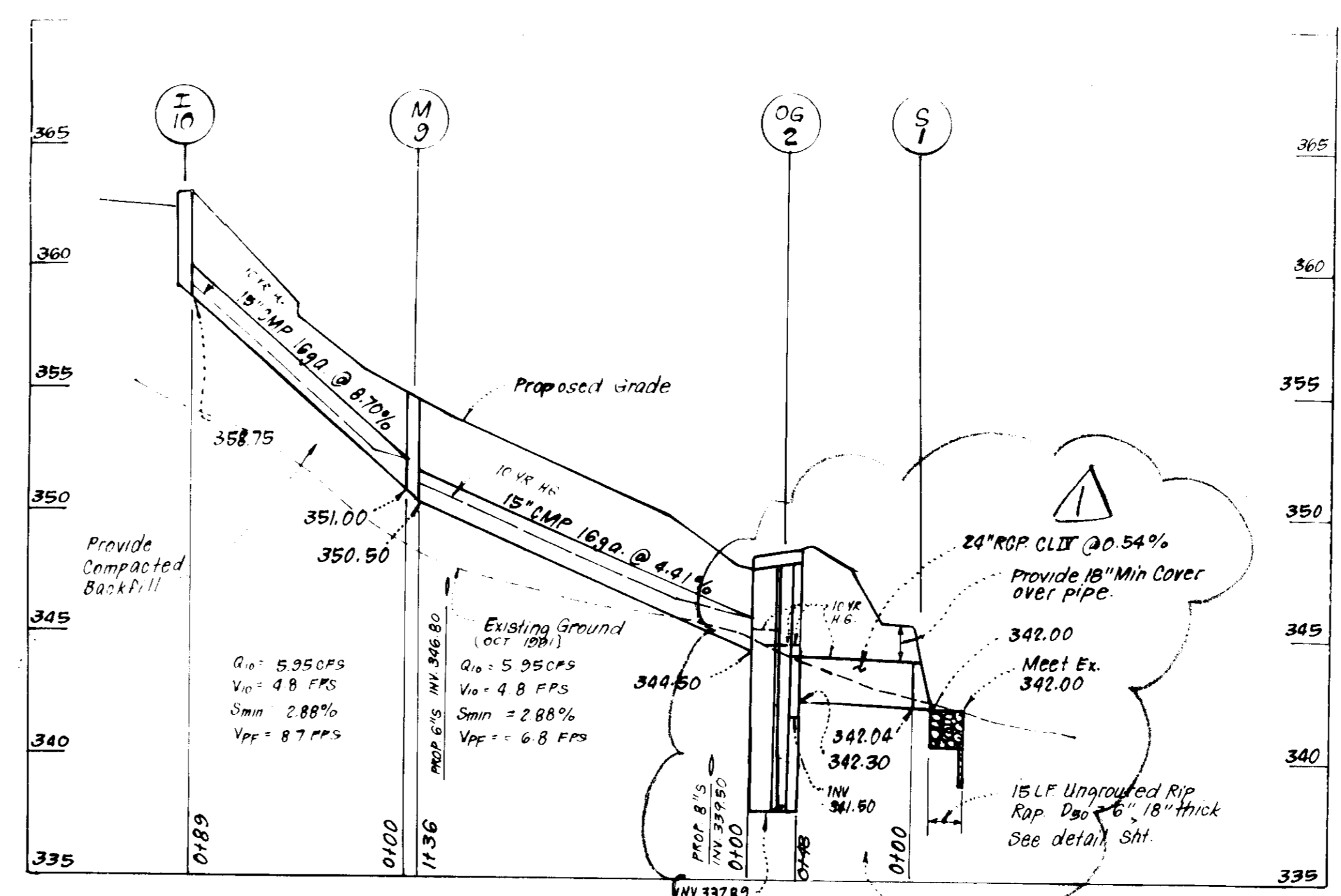
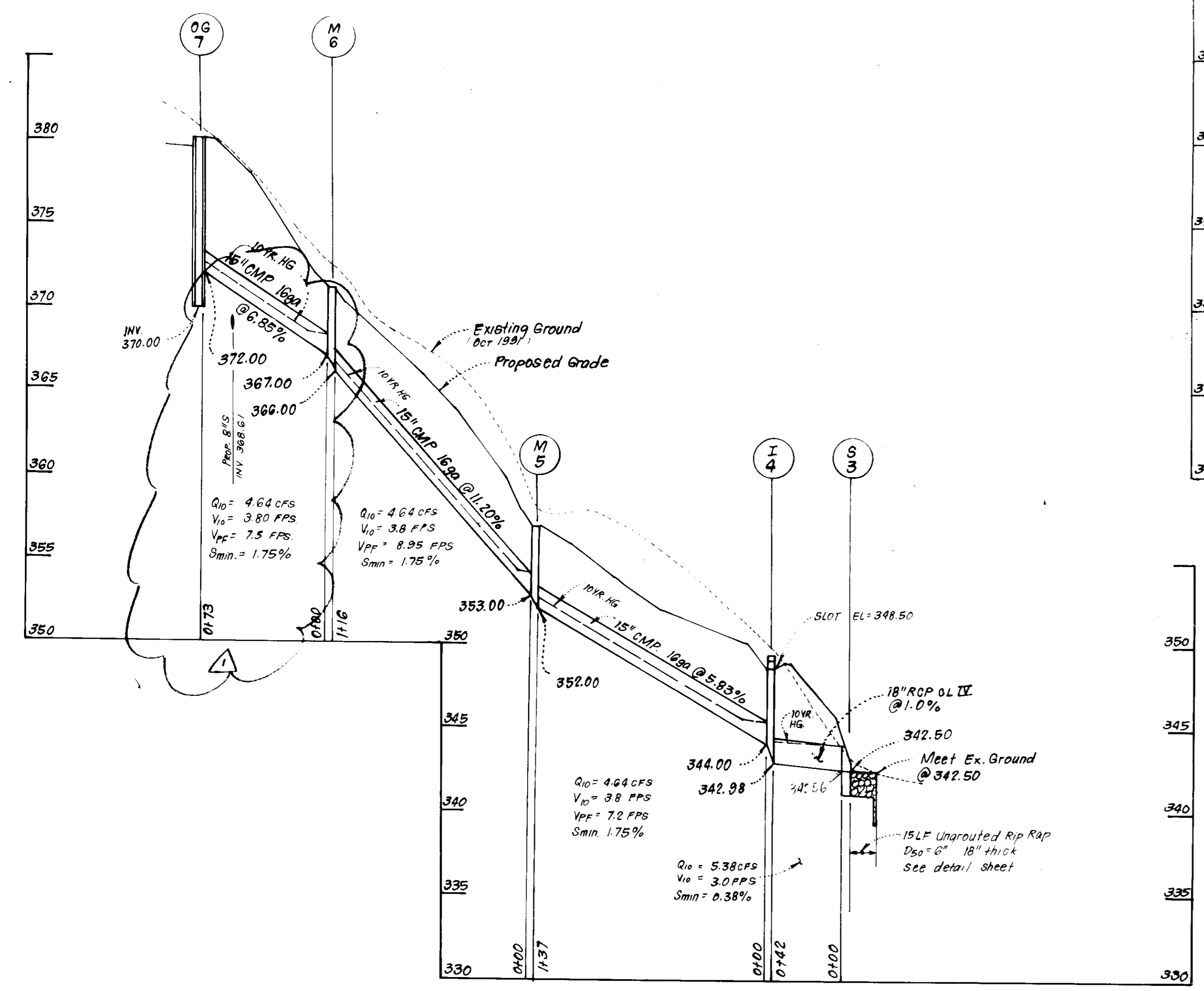
SCALE: AS SHOWN
 DRAWING: 4 OF 15
 JOB NO: 91-061
 FILE NO: 91-061-X

DESIGNED: KIWM
 DRAWN: KIWM
 CHECKED: JLS
 DATE: JAN. 1992

SITE DEVELOPMENT PLAN
 OIL AND GRIT SEPARATOR DETAILS
 PARCEL A
COLUMBIA TOWN CENTER
 SECTION 3 AREA 2
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY MARYLAND

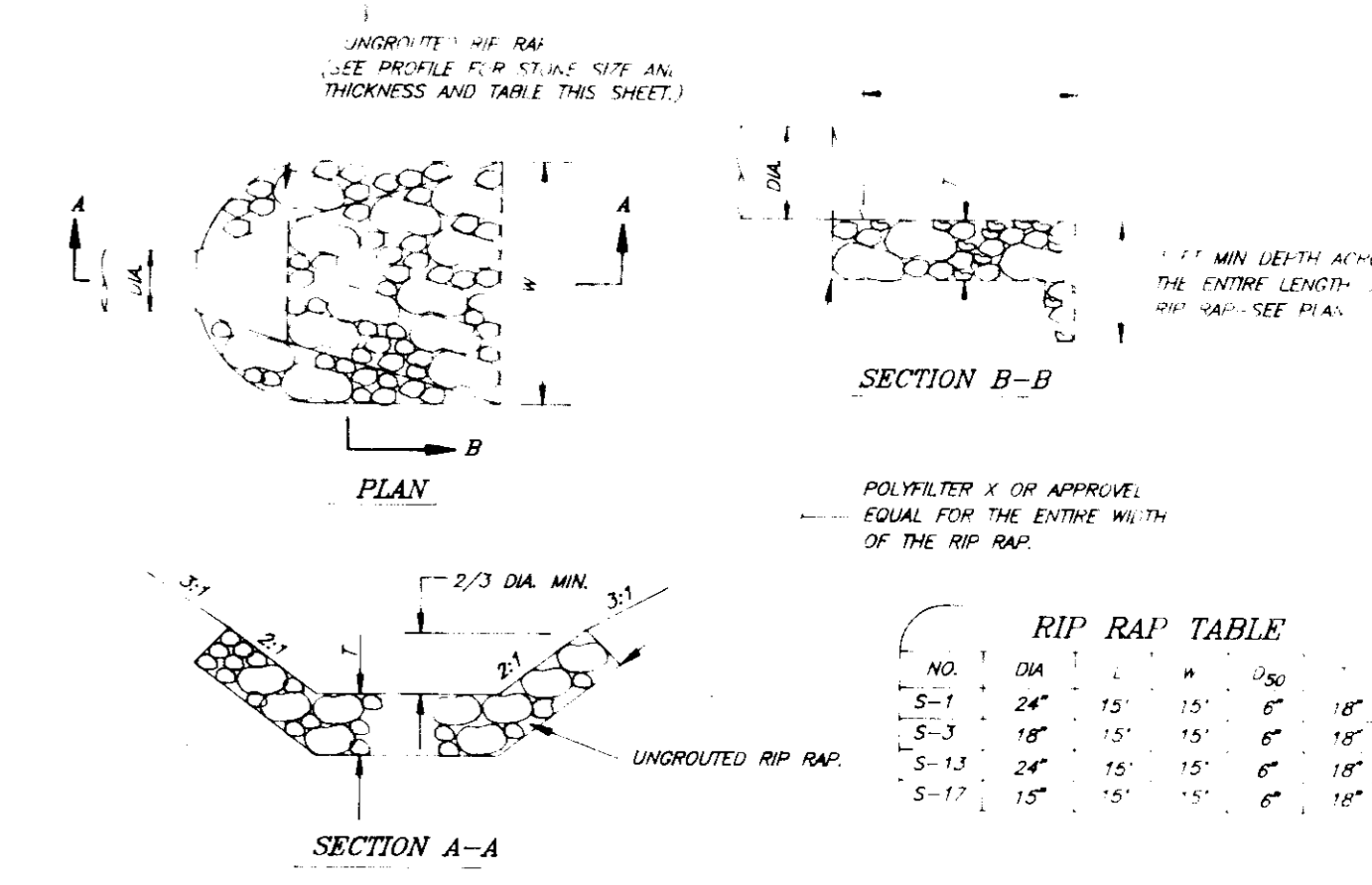
OWNER & DEVELOPER: THE RYLAND GROUP, INC.
 7130 MINSTREL WAY SUITE 215
 COLUMBIA MARYLAND 21045

NO.	REVISIONS	Date
1	Rev. Profiles per changes in O.G. Separators reconfig.	7-12-92
2	Rev. prop. grad. from str. 5-17 thru 06-19 corrected ex. sewer location	10-6-92



STORM DRAIN PROFILES

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



UNROUTED RIP RAP DETAILS STRUCTURES S-1, S-3, S-13 & S-17

NO.	DIA.	W.	L.	Q.	LF.
1	15"	16"	15'	15'	45'
2	15"	16"	15'	15'	45'
3	15"	16"	15'	15'	45'
4	15"	16"	15'	15'	45'
5	15"	16"	15'	15'	45'
6	15"	16"	15'	15'	45'
7	15"	16"	15'	15'	45'
8	15"	16"	15'	15'	45'
9	15"	16"	15'	15'	45'
10	15"	16"	15'	15'	45'
11	15"	16"	15'	15'	45'
12	15"	16"	15'	15'	45'
13	15"	16"	15'	15'	45'
14	15"	16"	15'	15'	45'
15	15"	16"	15'	15'	45'
16	15"	16"	15'	15'	45'
17	15"	16"	15'	15'	45'
18	15"	16"	15'	15'	45'
19	15"	16"	15'	15'	45'
20	15"	16"	15'	15'	45'
21	15"	16"	15'	15'	45'
22	15"	16"	15'	15'	45'
23	15"	16"	15'	15'	45'
24	15"	16"	15'	15'	45'
25	15"	16"	15'	15'	45'
26	15"	16"	15'	15'	45'
27	15"	16"	15'	15'	45'
28	15"	16"	15'	15'	45'
29	15"	16"	15'	15'	45'
30	15"	16"	15'	15'	45'
31	15"	16"	15'	15'	45'
32	15"	16"	15'	15'	45'
33	15"	16"	15'	15'	45'
34	15"	16"	15'	15'	45'
35	15"	16"	15'	15'	45'
36	15"	16"	15'	15'	45'
37	15"	16"	15'	15'	45'
38	15"	16"	15'	15'	45'
39	15"	16"	15'	15'	45'
40	15"	16"	15'	15'	45'
41	15"	16"	15'	15'	45'
42	15"	16"	15'	15'	45'
43	15"	16"	15'	15'	45'
44	15"	16"	15'	15'	45'
45	15"	16"	15'	15'	45'
46	15"	16"	15'	15'	45'
47	15"	16"	15'	15'	45'
48	15"	16"	15'	15'	45'
49	15"	16"	15'	15'	45'
50	15"	16"	15'	15'	45'

STRUCTURE SCHEDULE						
NO.	TYPE	INV. IN	INV. OUT	TOP ELEVATION		REMARKS
				UPPER	LOWER	
S-1	CONCRETE END SECTION	342.04	342.00			HO. CO. STD. SD 5.5' 24"
OG-2	OIL-GRIT SEPARATOR	344.50	342.30	348.85	347.80	SEE DETAIL SHEET 4
S-3	CONCRETE END SECTION	342.56	342.50			HO. CO. STD. SD 5.5' 18"
I-4	D INLET	344.00	342.98	342.98	342.98	HO. CO. STD. SD 4.1' 2'-6" SD
M-5	SHALLOW BRICK MANHOLE	353.00	352.00	357.00	357.00	HO. CO. STD. G 5.05 4'SD
M-8	SHALLOW BRICK MANHOLE	367.00	366.00	371.20	371.20	HO. CO. STD. G 5.05 4'SD
OG-7	OIL-GRIT SEPARATOR		372.00	379.80	379.50	SEE DETAIL SHEET 4
M-9	SHALLOW BRICK MANHOLE	351.00	350.50	354.90	354.90	HO. CO. STD. G 5.05 4'SD
I-10	A-10 INLET		358.75	363.55	363.00	HO. CO. STD. SD 4.02 W=2'-6"
S-13	CONCRETE END SECTION	342.14	342.10			HO. CO. STD. SD 5.5' 24"
OG-14	OIL-GRIT SEPARATOR	343.96	342.25	347.72	347.63	SEE DETAIL SHEET 4
M-15	SHALLOW BRICK MANHOLE	348.25	348.75	353.50	353.50	HO. CO. STD. G 5.05 4'SD
I-16	D INLET		354.50	357.72	357.72	HO. CO. STD. SD 4.1' 2'-6" SD
S-17	CONCRETE END SECTION	342.04	342.00			HO. CO. STD. SD 5.5' 18"
M-18	BRICK MANHOLE	343.06	342.31	349.50	349.50	HO. CO. STD. G 5.05 4'-0" HD.
OG-19	OIL-GRIT SEPARATOR		342.75	347.10	347.10	SEE DETAIL SHEET 4
I-20	A-5 INLET		350.50	354.20	354.00	HO. CO. STD. SD 4.0' W=2'-6"

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

APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING

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

March 21, 1992

DEVELOPER'S/BUILDER'S CERTIFICATE

I, the undersigned, certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have Certificate of Attendance at a Department of the Environment Approving 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.

Reviewed for: HUWALD S.C.E.
Name: *James M. Thom*
Signature: *James M. Thom* 3/10/92
Code: *3/10/92*
US Soil Conservation Service

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

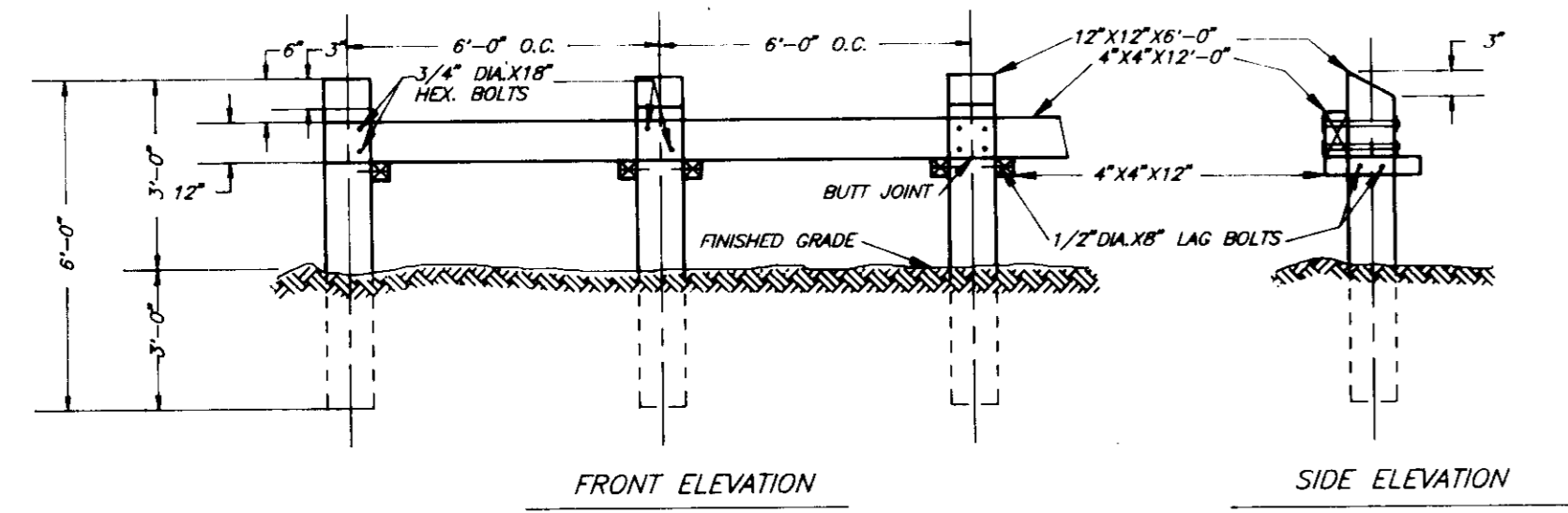
ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion 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: *Jeffrey L. Schmitz* 3/10/92
Code: *3/10/92*

DESIGNED	SI	COLUMBIA TOWN CENTER PARCEL A SECTION 3 AREA 2 FIFTH ELECTION DISTRICT HOWARD COUNTY MARYLAND	SCALE	As Shown
DRAWN	KIWM		DRAWING	50F15
CHECKED	KIWM		JOB NO.	91-061
DATE	JLS		FILE NO.	91-061 X

OWNER: THE RYLAND GROUP, INC.
7130 WINSTREL WAY SUITE 211
COLUMBIA MARYLAND 21046

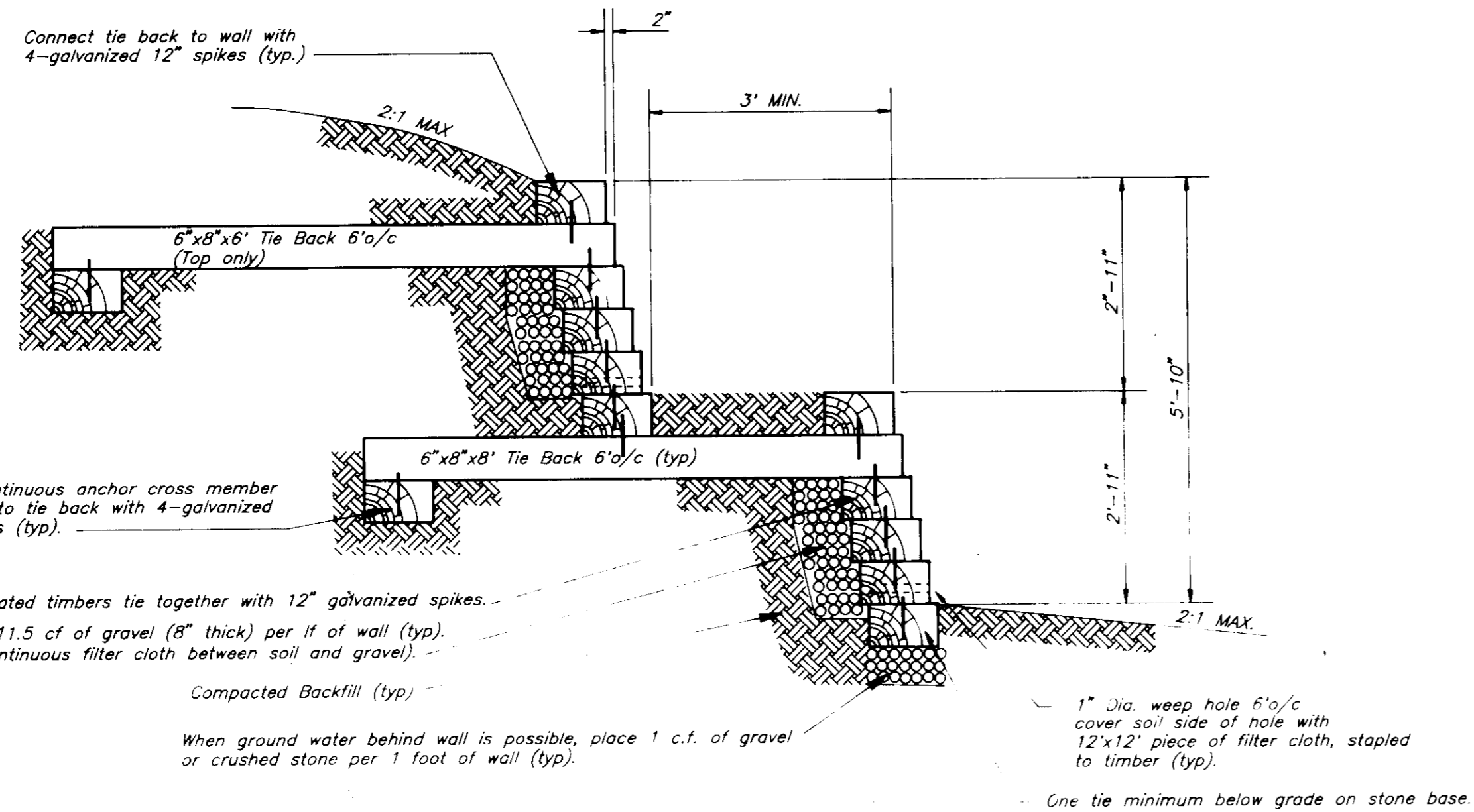


NOTES:
 1. ALL TIMBER TO BE PRESSURE TREATED.
 2. ALL HARDWARE TO BE HOT DIP GALVANIZED.
 3. REVEL ALL EXPOSED EDGES 1/2\"/>

DEAD END BARRICADE - TYPE B (R-11)

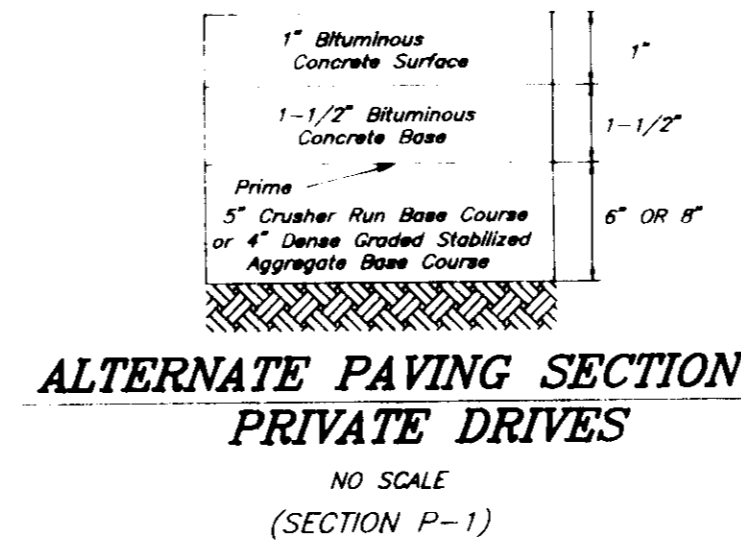
NO SCALE

- NOTE:
 1. Timbers shall be either:
 a) Creosote treated railroad ties.
 b) CCA treated landscaping timbers (.40 lb./cf retention)
 2. Hardware shall be hot dipped galvanized.
 3. Weepholes with or without gravel drain are minimum measures for groundwater, a drain system should be designed and utilized.
 4. Design shall be verified for site specific soil condition by a Professional Geotechnical Engineer.



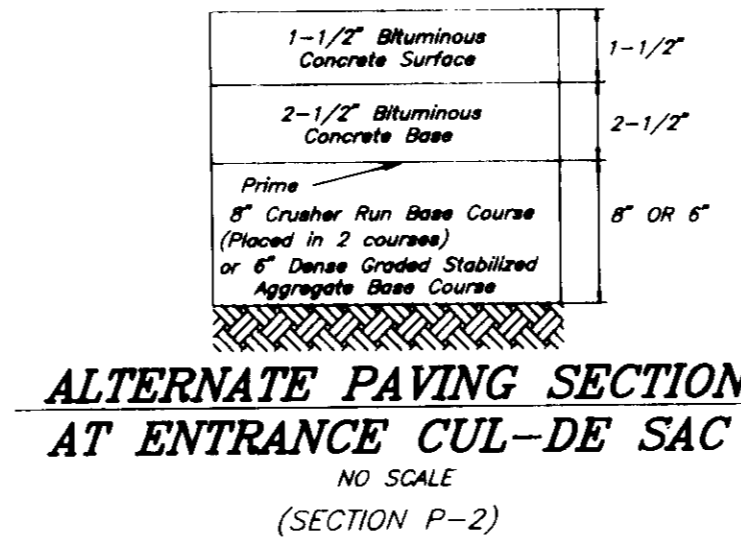
RETAINING WALL DETAIL

NO SCALE



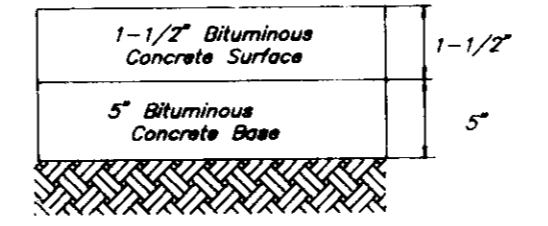
ALTERNATE PAVING SECTION PRIVATE DRIVES

NO SCALE (SECTION P-1)



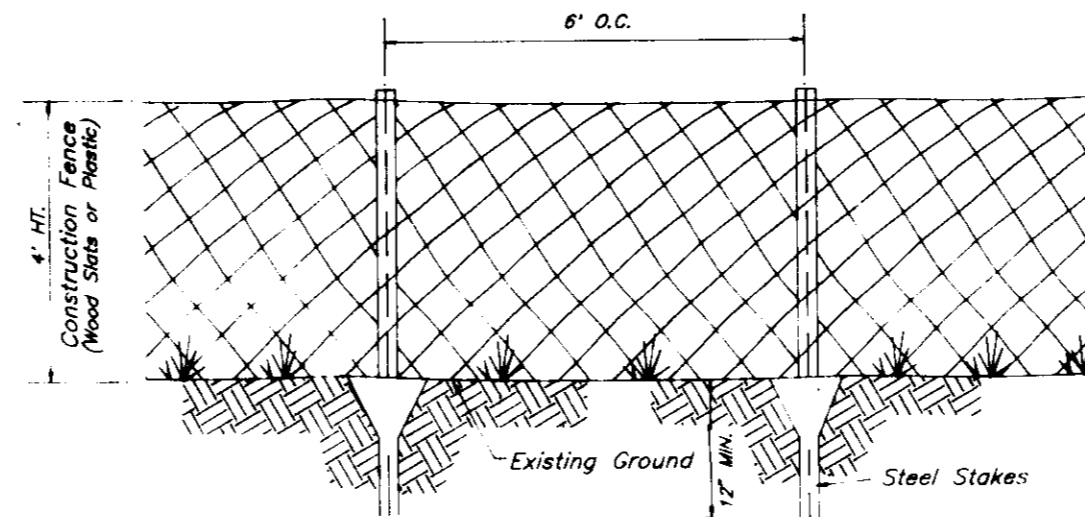
ALTERNATE PAVING SECTION AT ENTRANCE CUL-DE SAC

NO SCALE (SECTION P-2)



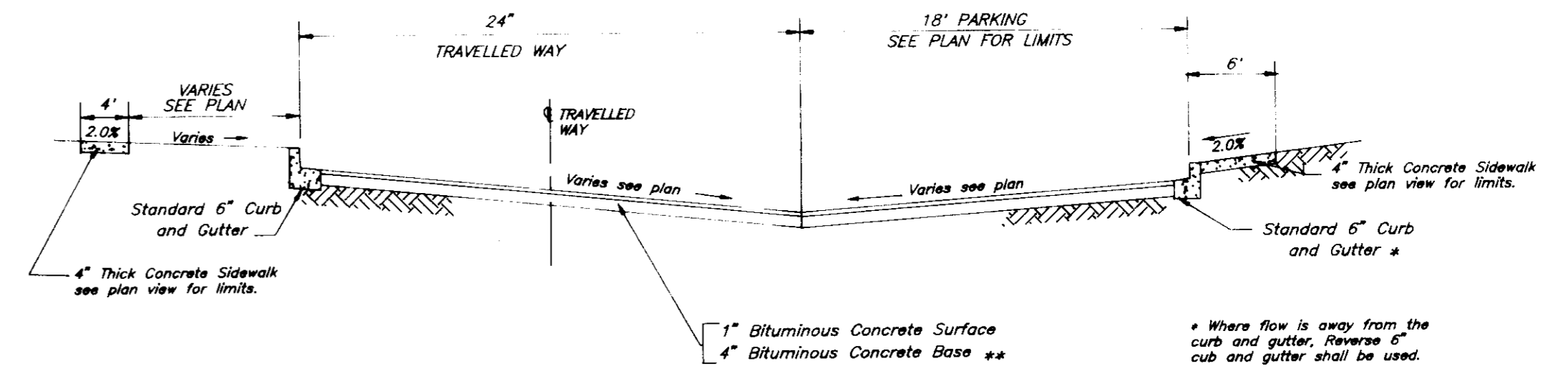
PAVING SECTION AT ENTRANCE CUL-DE SAC

NO SCALE (SECTION P-2)



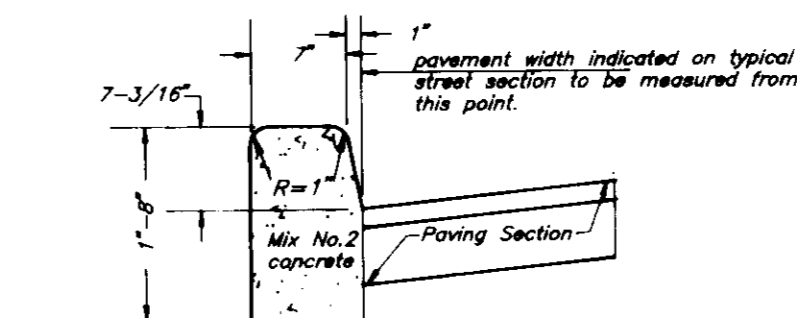
TYPICAL TREE PROTECTION FENCE DETAIL

NO SCALE



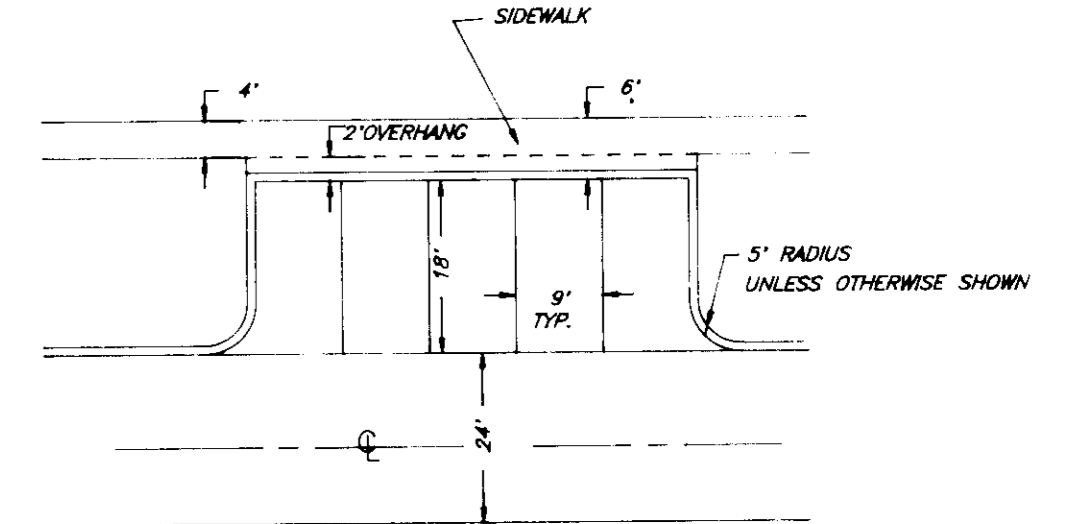
TYPICAL PAVING SECTION PRIVATE DRIVES

NO SCALE



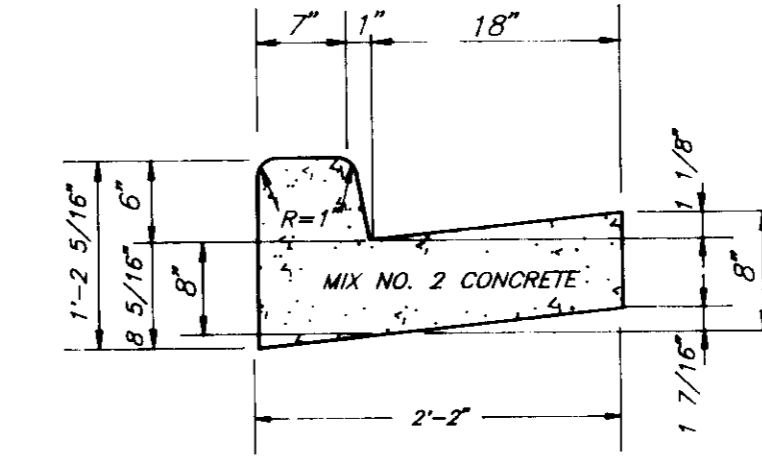
STANDARD BARRIER CURB

NO SCALE



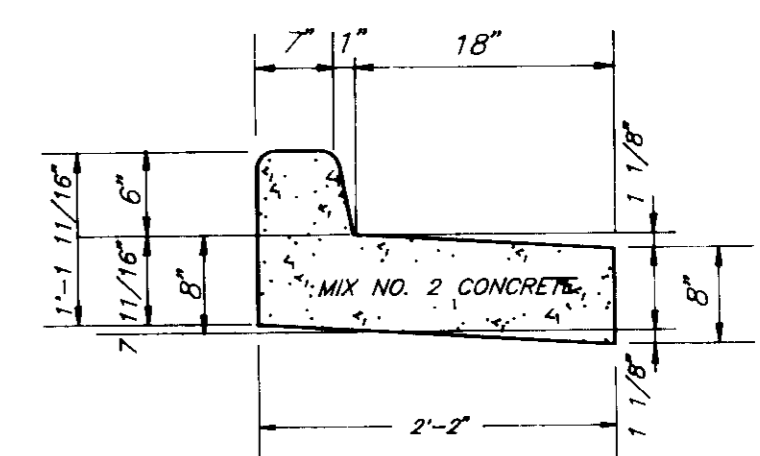
TYPICAL PARKING

NO SCALE



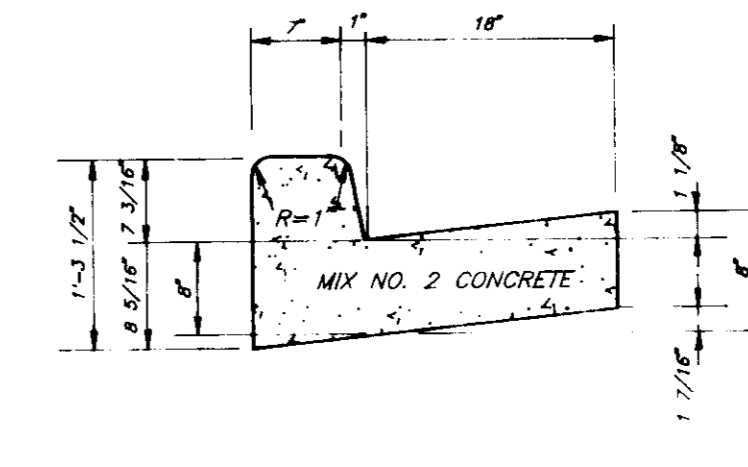
STANDARD 6\"/>

NO SCALE



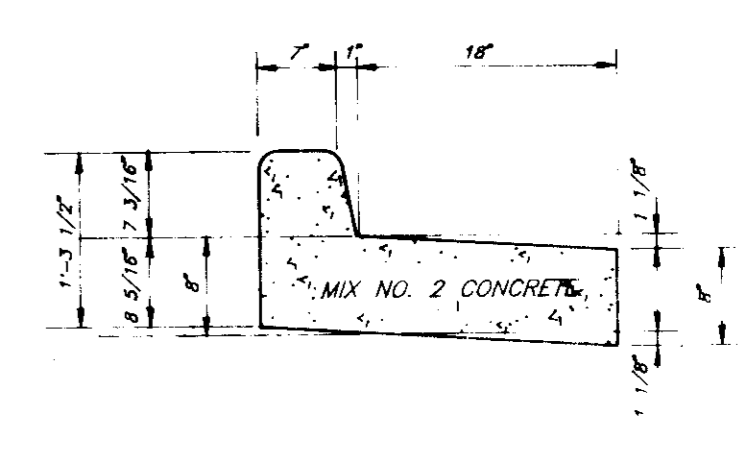
REVERSE 6\"/>

NO SCALE



STANDARD 7\"/>

NO SCALE



REVERSE 7\"/>

NO SCALE

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

[Signature] 6/1/92
 COUNTY HEALTH OFFICER DATE

APPROVED HOWARD COUNTY DEPT. OF PLANNING AND LAND DEVELOPMENT

[Signature] 6/18/92
 DIRECTOR DATE

[Signature] 6/5/92
 COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

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

[Signature] 5/27/92
 DIRECTOR DATE

[Signature] 6/3/92
 CHIEF BUREAU OF ENGINEERING DATE

March 3, 1992
 83



CLARK • FINEROCK & SACKETT INC
 ENGINEERS • PLANNERS • SURVEYORS

DESIGNED: **KIWM**
 DRAWN: **KIWM**
 CHECKED: **JLS**
 DATE: **JAN. 1992**

SITE DEVELOPMENT PLAN PAVING SECTIONS AND DETAILS PARCEL A COLUMBIA TOWN CENTER SECTION 3 AREA 2

FIFTH ELECTION DISTRICT HOWARD COUNTY MARYLAND

OWNER/DEVELOPER: **THE RYLAND GROUP, INC. 1130 MINSTREL WAY SUITE 215 COLUMBIA MARYLAND 21045**

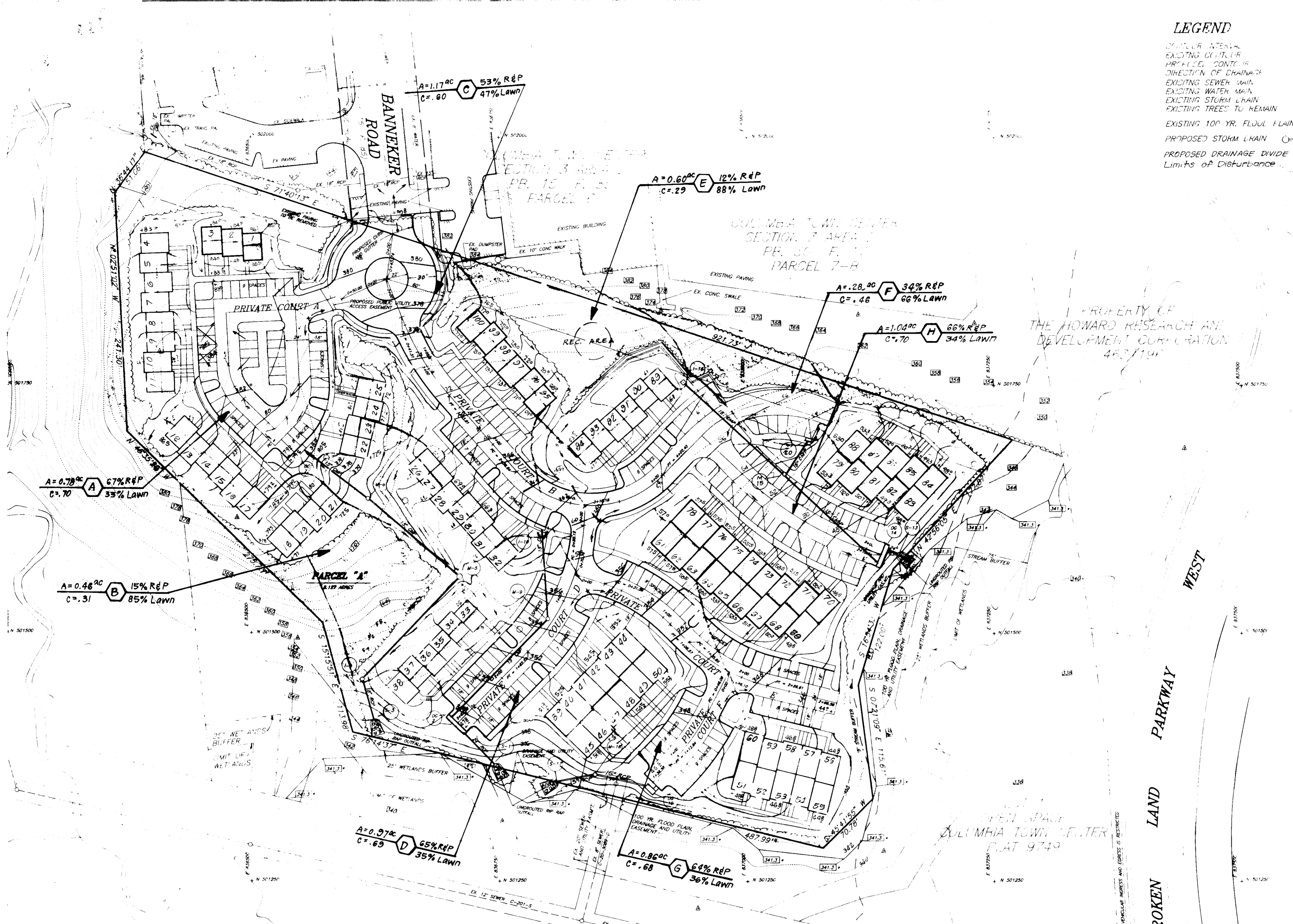
SCALE: **As Shown**
 DRAWING: **60P15**
 JOB NO: **91-061**
 FILE NO: **91-061-X**

LEGEND

- EXISTING INTERNAL DRAINAGE DRAINAGE
- PROPOSED CONTOUR
- DIRECTION OF DRAINAGE
- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- EXISTING STORM MAIN
- EXISTING TREES TO REMAIN
- EXISTING 100 YR. FLOOD PLAIN ELEVATION 341.3
- PROPOSED STORM MAIN 15" CMP
- PROPOSED DRAINAGE DIVIDE
- Limits of Disturbance

VICINITY MAP

SCALE: 1" = 200'



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
 HOWARD COUNTY HEALTH DEPARTMENT
Joseph W. Bond 6-1-92
 COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
James S. Smith 6/18/92
 DIRECTOR DATE

Michael Blood 6/5/92
 CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

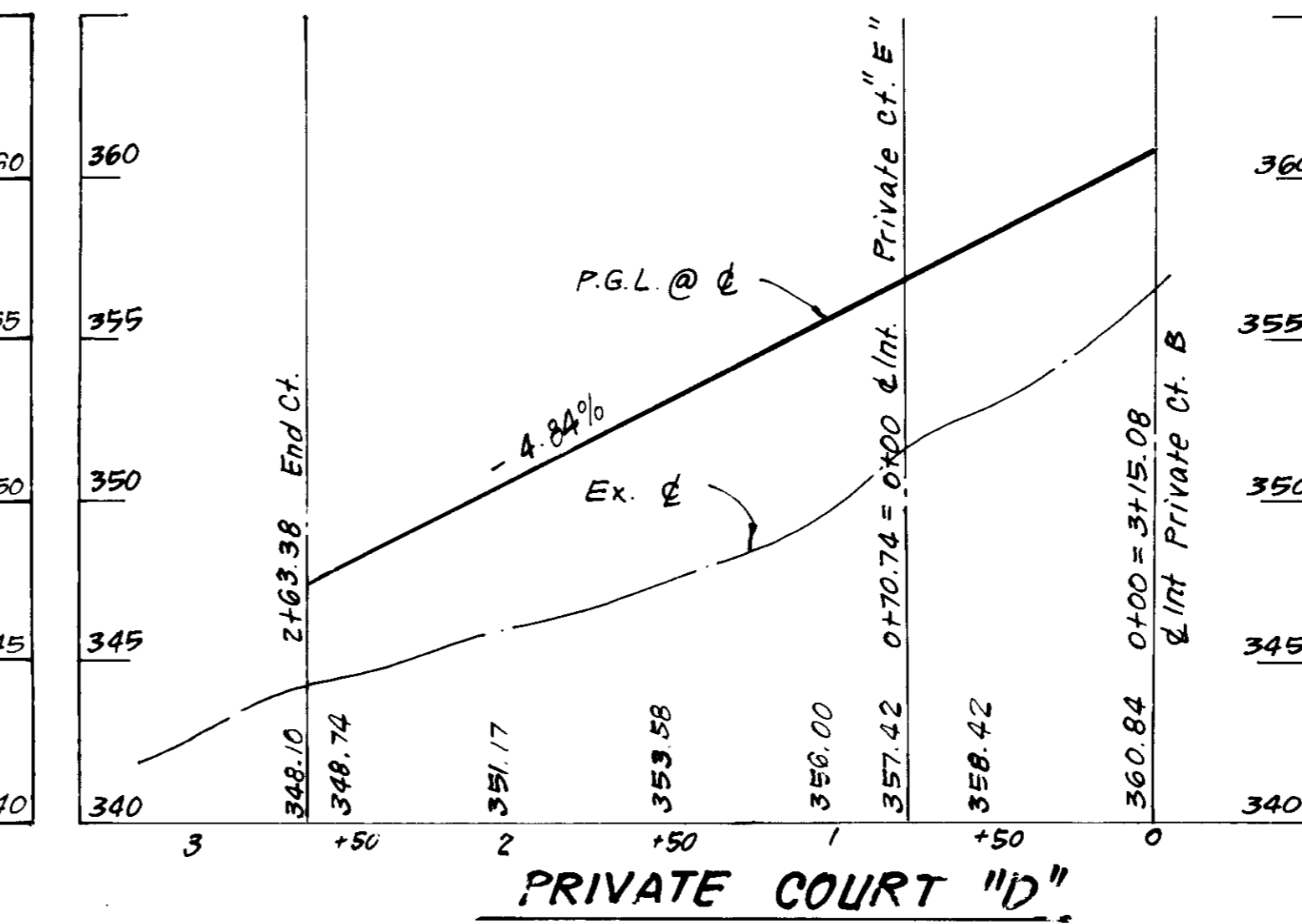
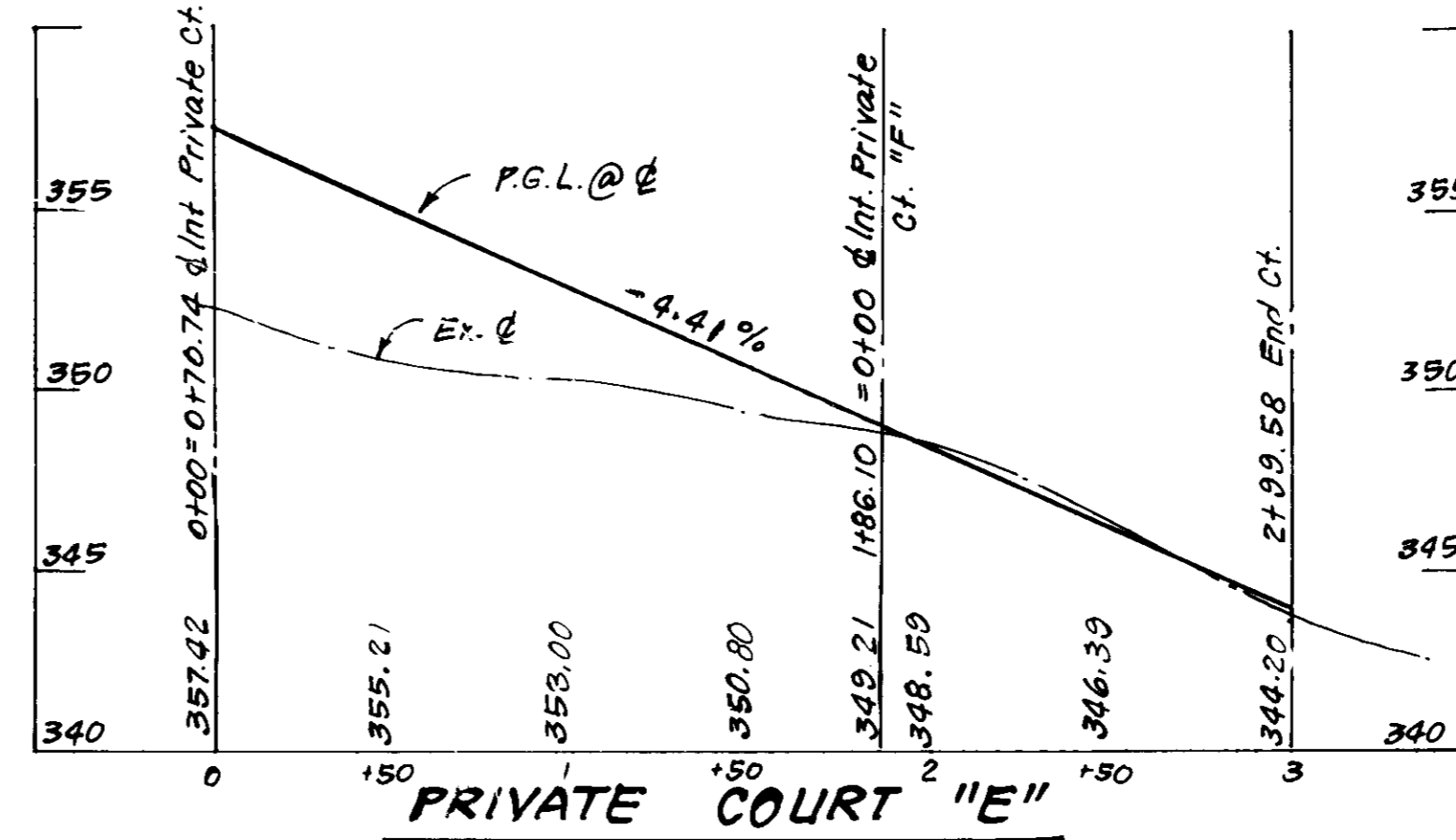
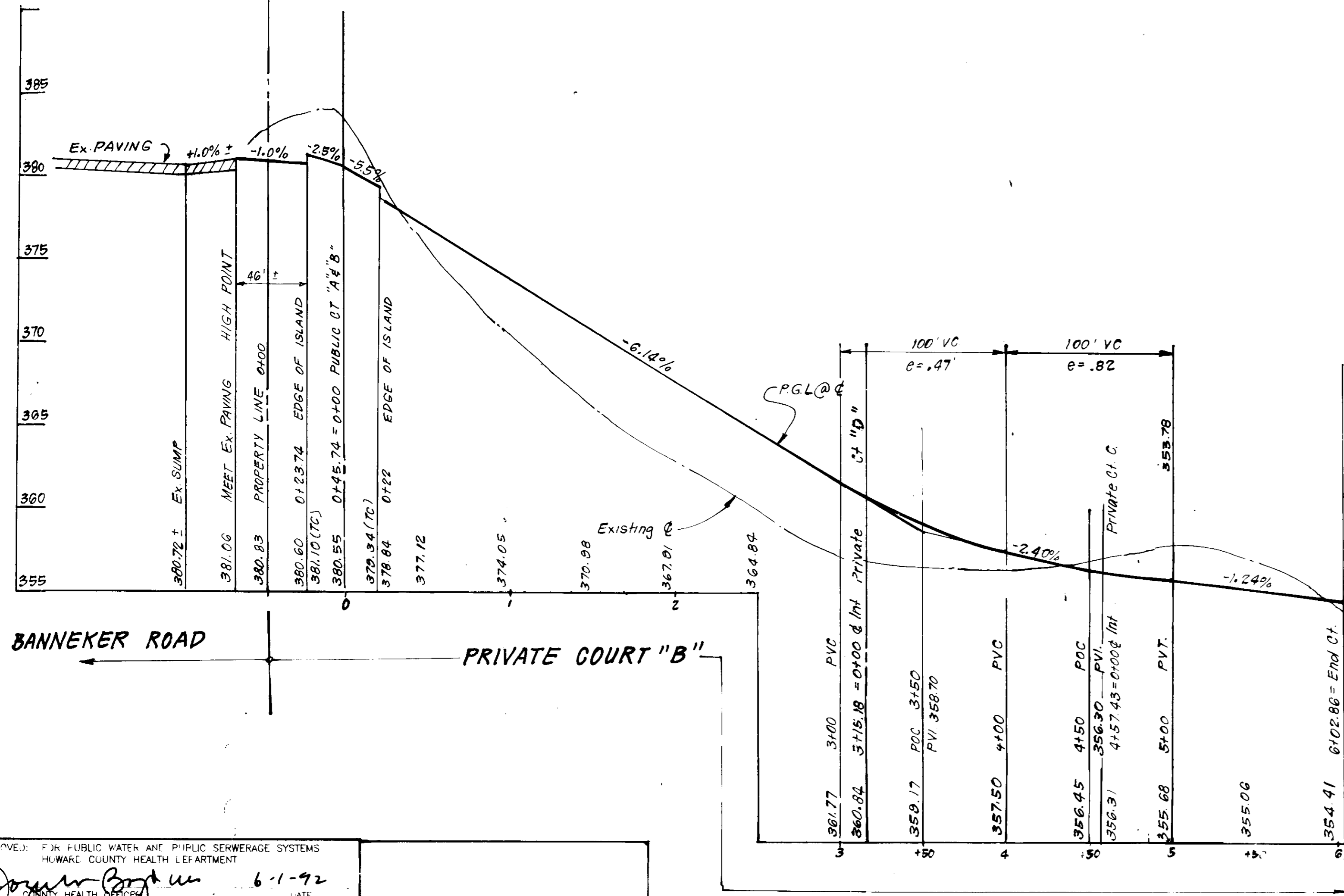
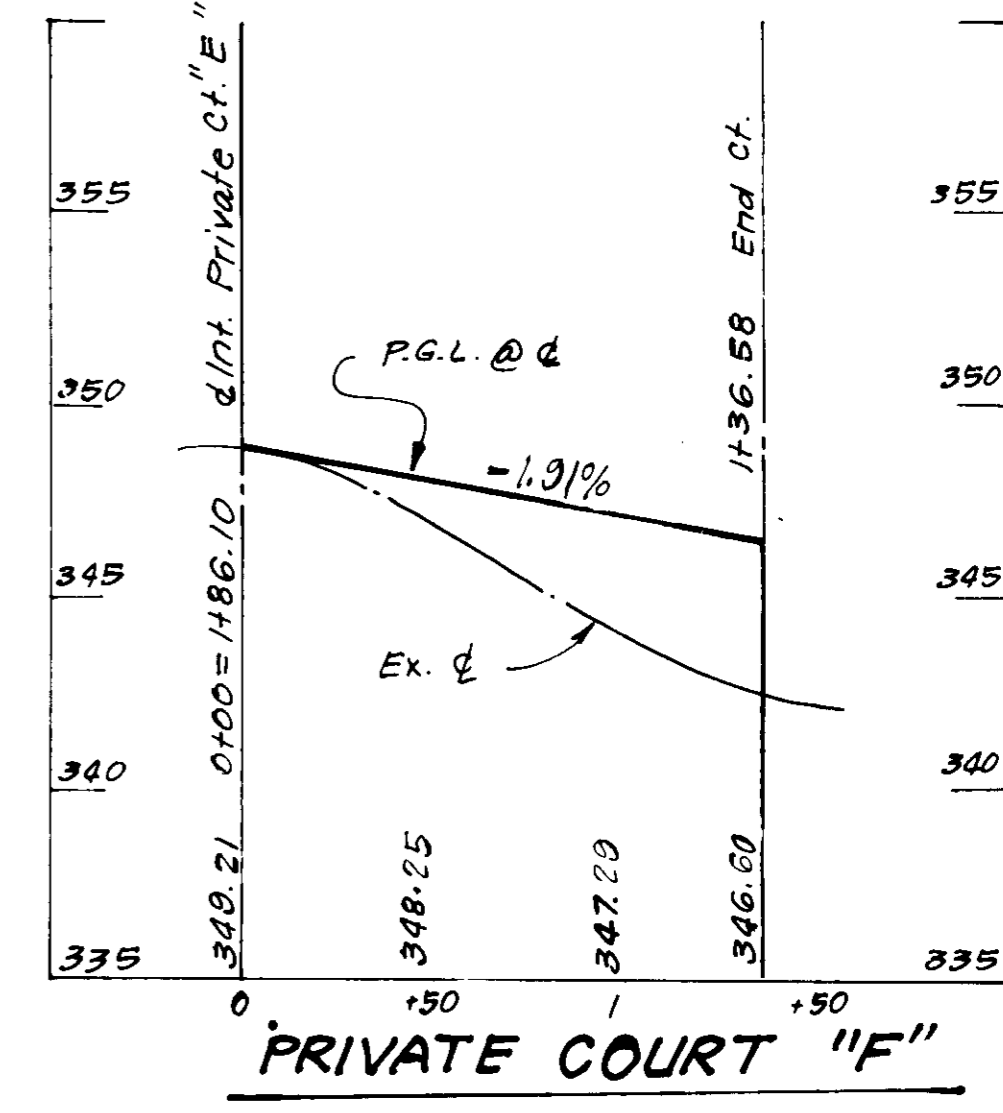
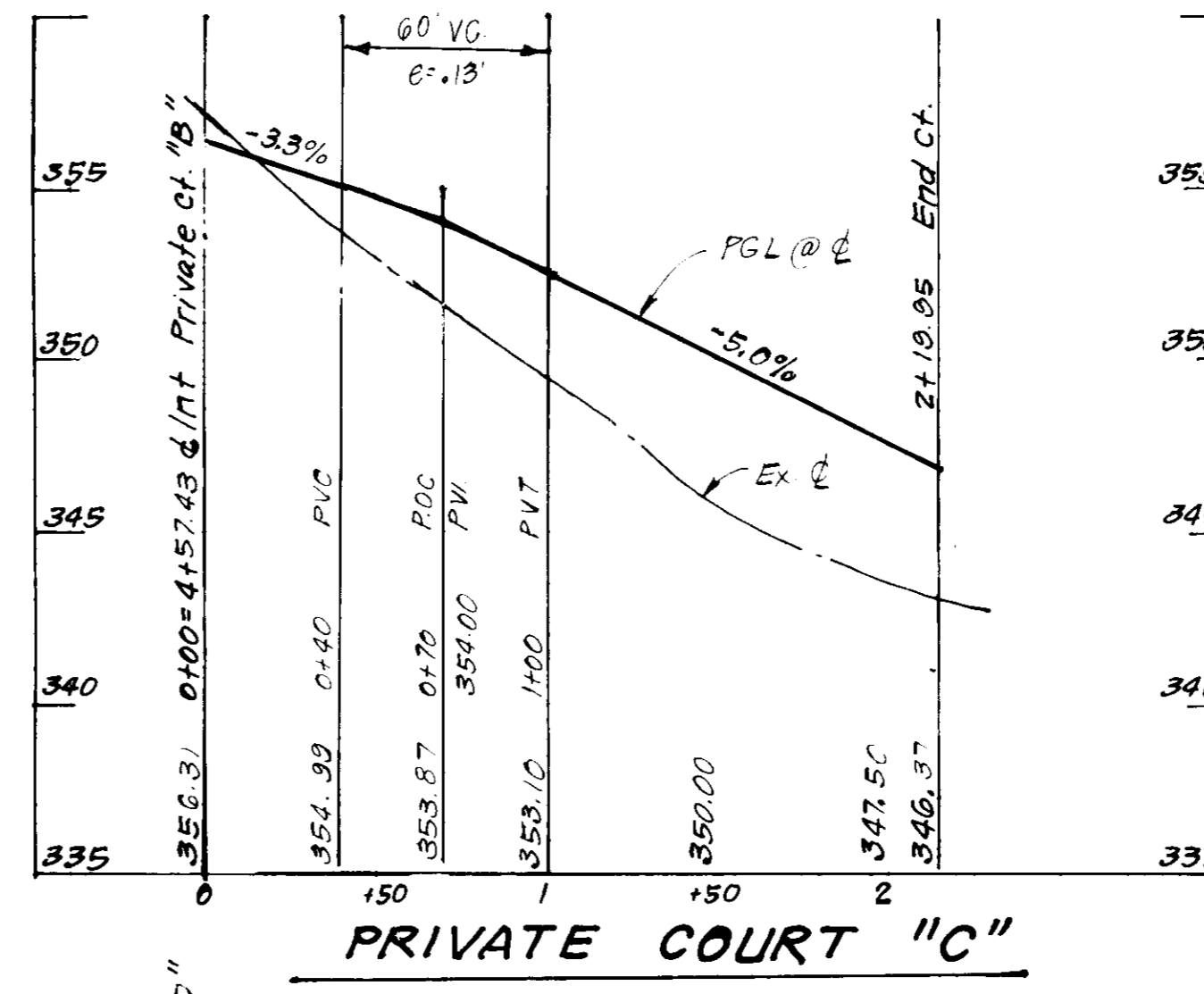
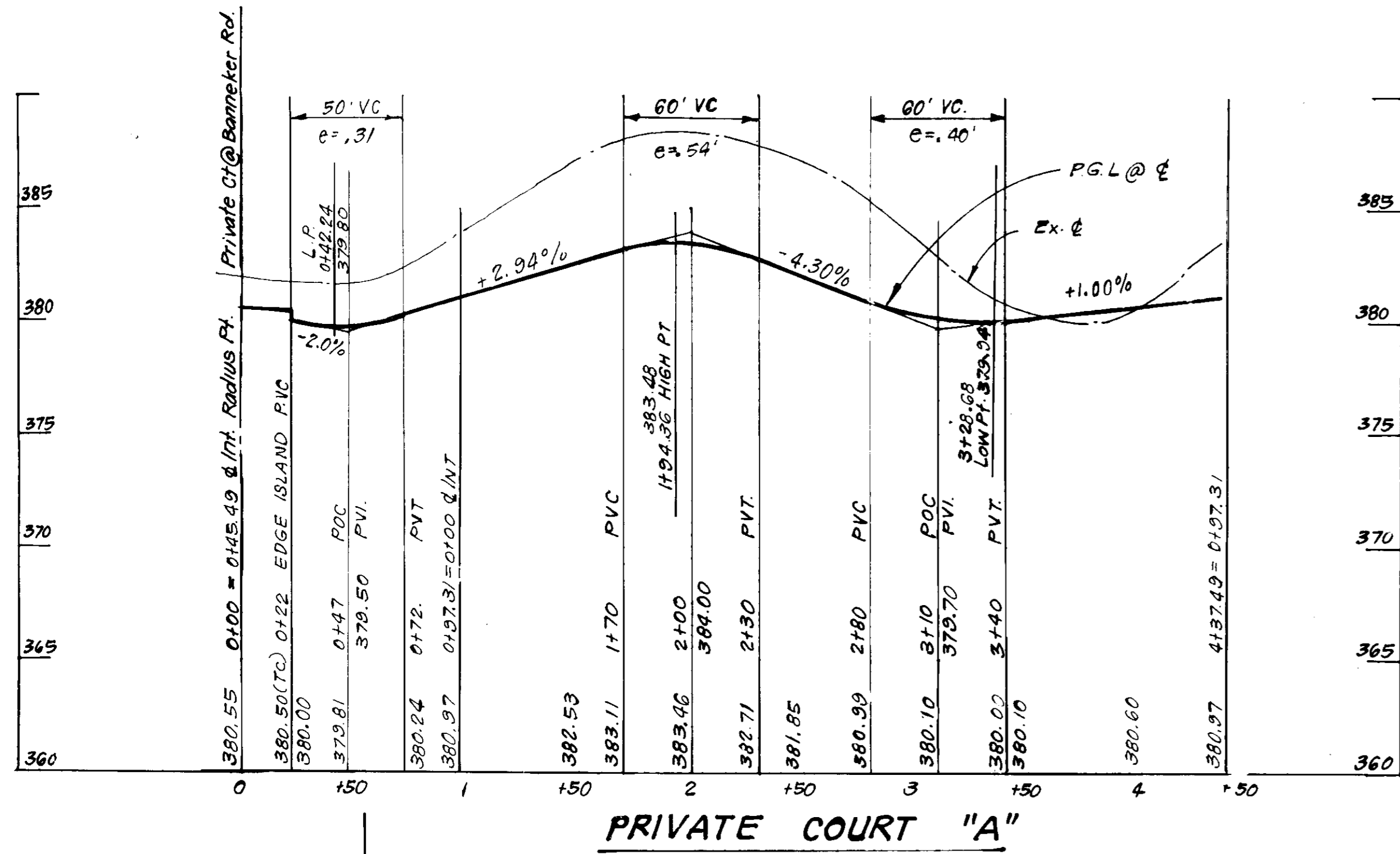
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
James A. Linn 5/27/92
 DIRECTOR DATE

James S. Riley 4-3-92
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED
 March 3, 1992
 JS

LOT 3
 OPEN SPACE
 COLUMBIA
 VILLAGE OF HICKORY RIDGE
 SECTION 5 AREA 2
 PLAT 6325

1	Rev location of OG-19 and Storm Drain	10-6-92
2	REVISION	Date
CLARK • FINEROCK & SACKETT, INC. ENGINEERS • PLANNERS • SURVEYORS 7130 MINISTREL WAY • COLUMBIA, MD 21046 • (301) 991-1100 • FAX (301) 991-1101		
DESIGNED	SITE DEVELOPMENT PLAN DRAINAGE AREA MAP PARCEL A COLUMBIA TOWN CENTER SECTION 3 AREA 2 FIFTH ELECTION DISTRICT HOWARD COUNTY MARYLAND	SCALE
DRAWN		1"=50'
CHECKED		DRAWING
DATE		7 OF 15
JAN 1992		JOB NO
OWNER	THE HOWARD GROUP, INC.	91-061
DEVELOPER	7130 MINISTREL WAY SUITE 211 COLUMBIA MARYLAND 21046	FILE NO
		91-06

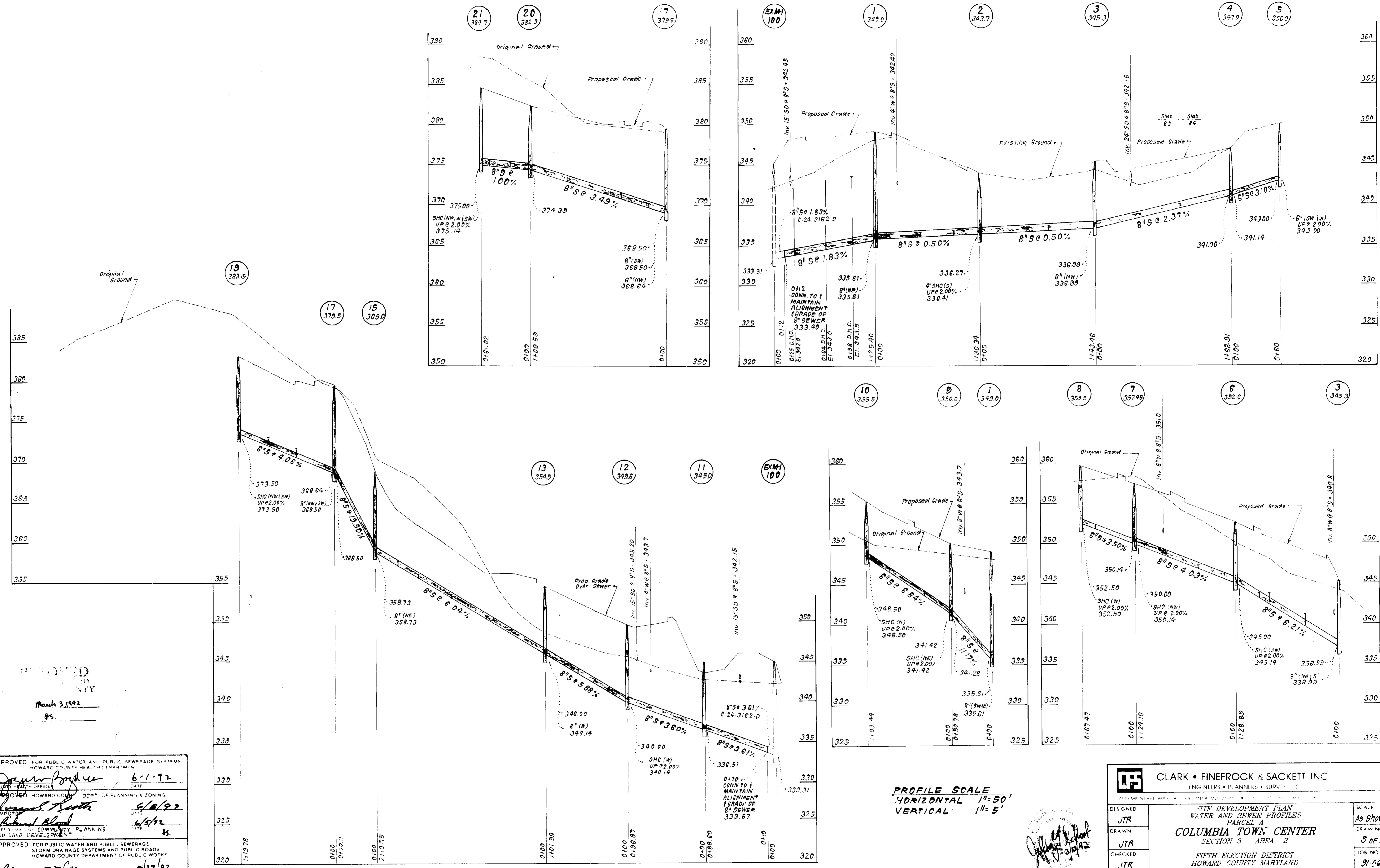


SCALE: HORIZ: 1" = 50'
VERT: 1" = 5'

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT
James M. Ryan 6-1-92
DIRECTOR
APPROVED FOR HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Richard Blood 5/18/92
CHIEF, DIVISION OF COMMUNITY PLANNING AND DEVELOPMENT
APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
James M. Ryan 5/27/92
DIRECTOR
James M. Ryan 4-23-92
CHIEF, BUREAU OF ENGINEERING

DATE: March 3, 1992

		CLARK • FINE ROCK & SACKETT, INC. ENGINEERS • PLANNERS • SURVEYORS 2135 MINISTREL WAY • COLUMBIA, MD 21045 • (410) 381-2500 - BALTO • (410) 621-8800 - WA	
DESIGNED	KIWM	SITE DEVELOPMENT PLAN STREET GRADES PARCEL A COLUMBIA TOWN CENTER SECTION 3 AREA 2 FIFTH ELECTION DISTRICT HOWARD COUNTY MARYLAND	SCALE
DRAWN	KIWM		HORIZ: 1" = 50'
CHECKED	JLS		VERT: 1" = 5'
DATE	1/11/92		JOB NO
OWNER	THE RYLAND GROUP, INC.		FILE NO
DEVELOPER	1130 MINISTREL WAY, SUITE 215 COLUMBIA, MARYLAND 21045	31-061-X	



APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
 HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER: *[Signature]* DATE: 6-1-92
 APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING
 DIRECTOR: *[Signature]* DATE: 6/8/92
 CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
 DATE: 6/5/92
 APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR: *[Signature]* DATE: 5/27/92
 CHIEF BUREAU OF ENGINEERING
 DATE: 4-3-92

PROFILE SCALE
 HORIZONTAL 1" = 50'
 VERTICAL 1" = 5'

CLARK • FINEFROCK & SACKETT INC
 ENGINEERS • PLANNERS • SURVEYORS

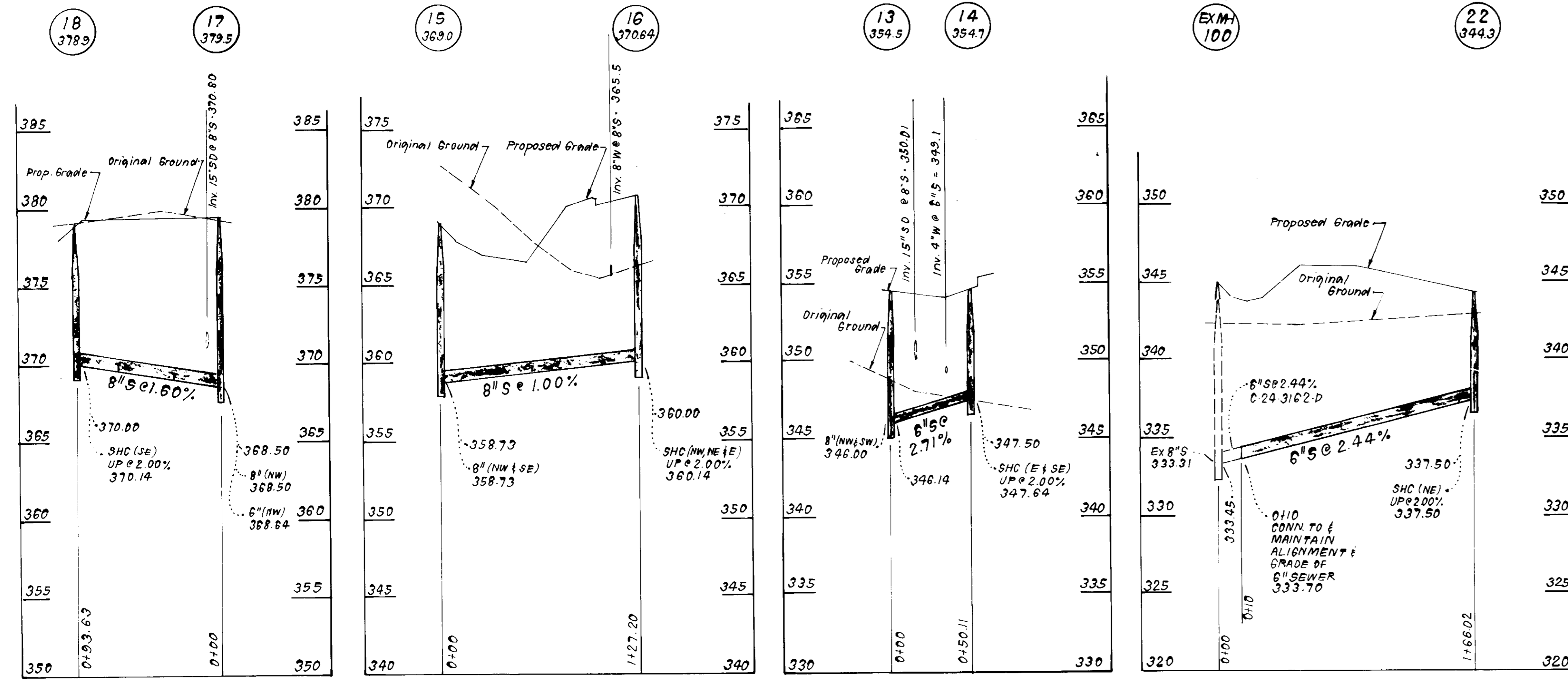
DESIGNED: JTR
 DRAWN: JTR
 CHECKED: JTR
 DATE: JAN 1992

SITE DEVELOPMENT PLAN
 WATER AND SEWER PROFILES
 PARCEL A
COLUMBIA TOWN CENTER
 SECTION 3 AREA 2

FIFTH ELECTION DISTRICT
 HOWARD COUNTY MARYLAND

OWNER: THE RYLAND GROUP, INC.
 DEVELOPER: 7130 MINGRELL WAY SUITE 215
 COLUMBIA MARYLAND 21045

SCALE: As SHOWN
 DRAWING: 9 OF 15
 JOB NO: 91-061
 FILE NO: 91-061-X



SEWER HOUSE CONNECTION TABLE

BLDG (S)	Inv. @ Bldg	Min. C.	BLDG (S)	Inv. @ Bldg	Min. C.
1	375.4	378.1	51	336.6	339.3
2/3	375.8	378.6	52/53	337.5	340.2
4/5	376.5	379.1	54/55	338.1	340.8
6/7	376.0	378.7	56	336.9	339.6
8/9	376.2	378.9	57/58	336.6	339.3
10/11	374.7	377.4	59/60	336.5	339.2
12/13	374.5	377.2	61/62	339.2	351.9
14/15	373.1	375.8	63/64	347.1	349.8
16/17	371.8	374.5	65/66	344.3	347.0
18	370.4	373.1	67/68	342.2	344.9
19/20	369.8	372.5	69/70	337.5	340.2
21	369.3	372.0	71/72	341.1	343.8
22/23	369.7	372.4	73/74	343.6	346.3
24/25	371.2	373.9	75/76	345.5	348.2
26	357.7	360.4	77/78	347.4	350.1
27/28	356.0	358.7	79/80	343.5	346.2
29/30	353.6	356.3	81/82	341.0	343.7
31/32	350.6	353.3	83/84	339.7	342.4
33/34	344.2	346.9	85/86	343.7	346.4
35/36	342.0	344.7	87/88	344.2	346.9
37/38	340.8	343.5	89/90	350.7	353.4
39/40	345.8	348.5	91/92	350.8	353.5
41/42	348.1	350.8	93/94	353.2	355.9
43/44	348.3	351.0	95/96	361.1	363.8
* 45/46	342.9	345.6	97/98	360.8	363.5
* 47/48	343.5	346.8	99/100	361.1	363.8
* 49/50	344.4	347.1			

* TYPE A DROP HOUSE CONNECTION SEE STD DET S 2.12

WATER & SEWER NOTES:

- All construction methods and materials for on site private water and sewer system shall follow the current edition of the Howard County Plumbing Code, supplemented by the Howard County Standard Details and Specifications where necessary.
- Sewer and Water House Connections shall be built to within 5 ft. of buildings unless shown otherwise in plan. Sewer House Connections shall be built at a slope of 2.00%.
- Areas where Water House Connections are to be built shall be at final grade and connections shall be laid with a minimum 3.5 ft of cover. Water House Connections shall be seamless copper water tube, ASTM designation B-88, soft temper, Type "K".
- Where sewers are to be extended from public connections, the material shall be the same as the public portion.
- Single Water House Connections shall be 1". Double Water House Connections shall be 1 1/2" inlet and 1" outlet. See Std. Det. W 3.2.3. Water house connection to units 84 through 87 shall be 4-Way Branch Connection with 2" inlet and 4-1" outlets.
- All Units shall be protected with Fire Sprinkler System.

PROFILE SCALE
 HORIZONTAL: 1"=50'
 VERTICAL: 1"=5'

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
 HOWARD COUNTY HEALTH DEPARTMENT
 [Signature] 6-1-92
 APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING
 [Signature] 6-8-92
 APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 5-27-92
 CHIEF BUREAU OF ENGINEERING 4-3-92

APPROVED
 [Signature] March 3, 1992
 [Signature]

[Signature]

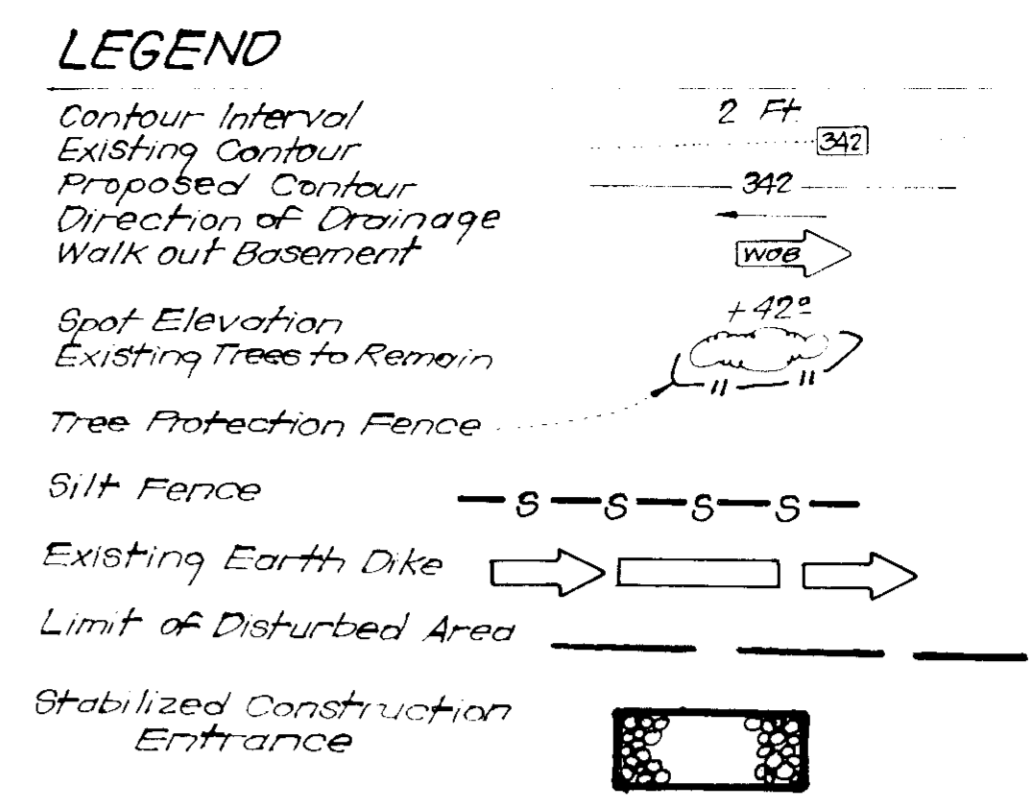
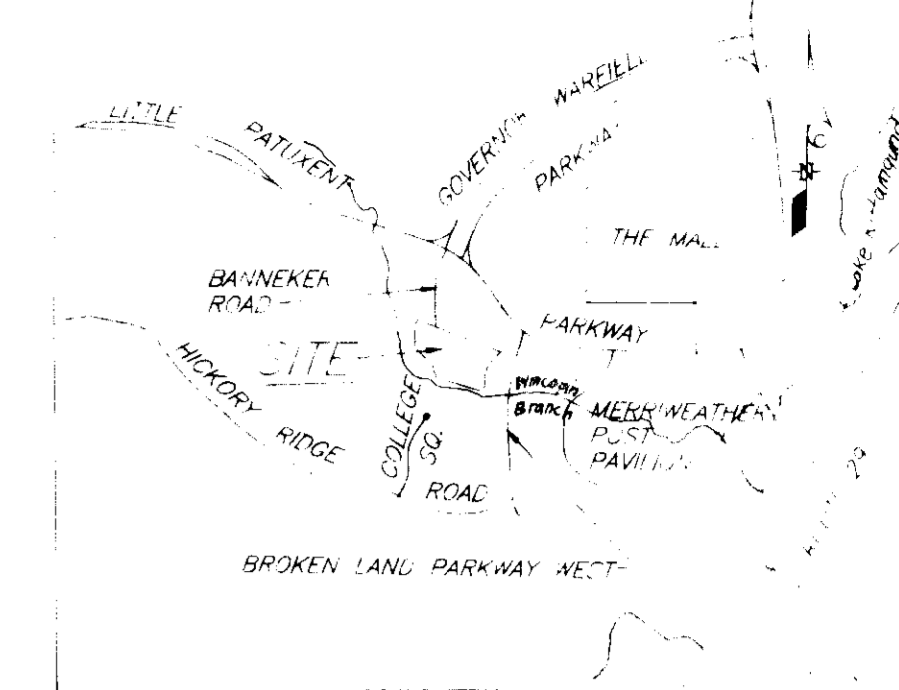
CLARK • FINEROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS

DESIGNED: JTR
 DRAWN: JTR
 CHECKED: JTR
 DATE: JAN. 1992

SITE DEVELOPMENT PLAN
 WATER AND SEWER PROFILES
 PARCEL A
COLUMBIA TOWN CENTER
 SECTION 3 AREA 2
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY MARYLAND

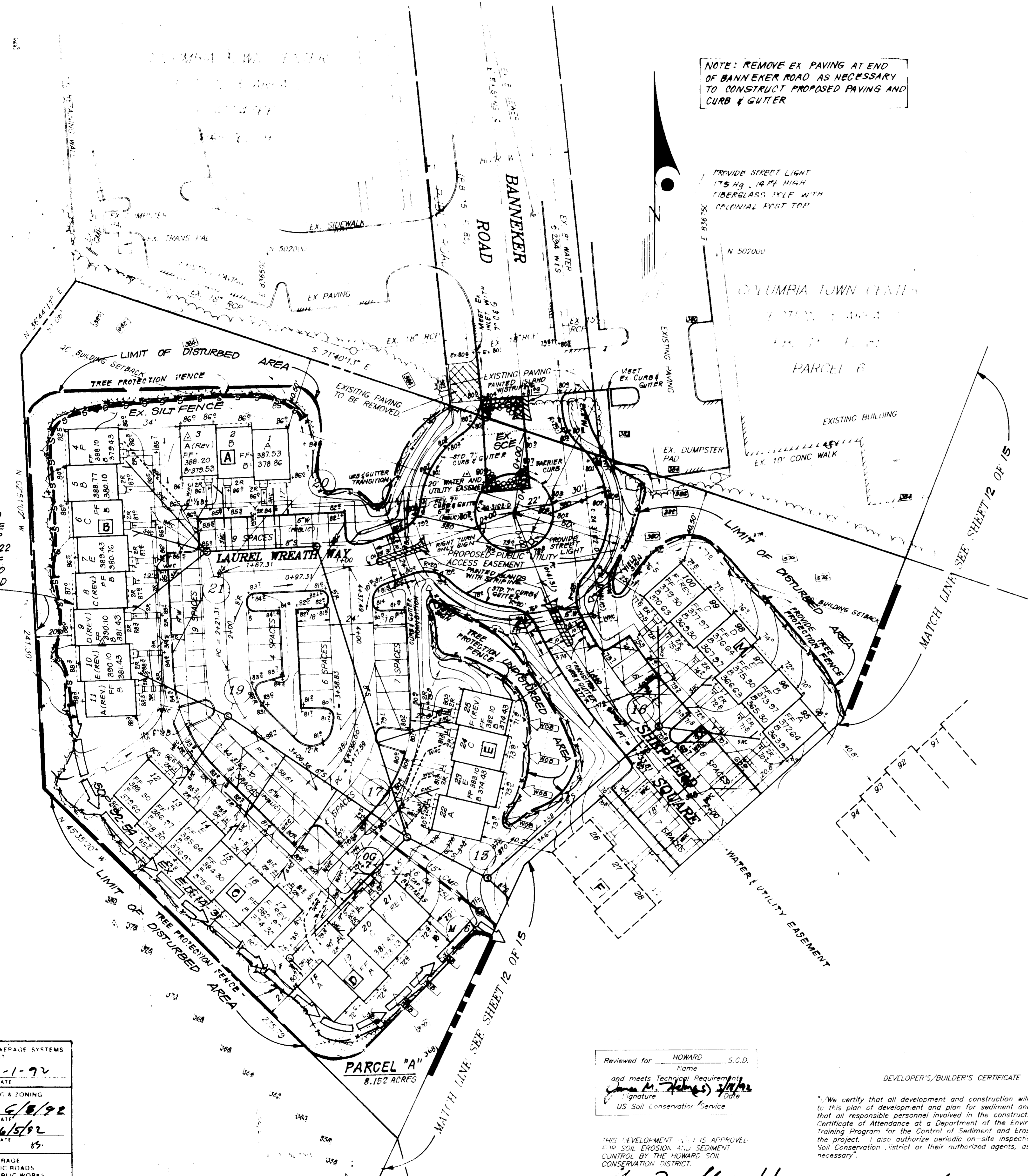
SCALE: AS SHOWN
 DRAWING: 100F15
 JOB NO: 91-001
 FILE NO: 91.061 X

OWNER: THE RYLAND GROUP, INC.
 DEVELOPER: 7130 MINNISTREL WAY SUITE 215
 COLUMBIA MARYLAND 21045



NOTE: REMOVE EX PAVING AT END OF BANNER ROAD AS NECESSARY TO CONSTRUCT PROPOSED PAVING AND CURB & GUTTER

PROVIDE STREET LIGHT 17.5 Hg. 14 FT HIGH FIBERGLASS POLE WITH COLONIAL POST TOP



NOTE: CROSS-HATCHED AREA INDICATES A MIN. 20 FT WIDE VEGETATIVE BUFFER STRIP SEE GENERAL NOTE No. 22 ON SHEET 1 OF 15. DENSE GRASS SHALL BE PROVIDED UNDER EXISTING WOODED AREA TO LIMITS SHOWN

CONSTRUCTION SEQUENCE:

	NO. OF DAYS
A. Obtain Grading Permit	-
B. Refurbish as necessary all existing sediment controls as per SDP-92-14 and stabilize.	14
C. Clear and Rough grade site where necessary and temporarily stabilize in accordance with stds. and specs.	30
D. Install storm drainage except Str. 1-4 and S-3. Temporarily and the 15" CMP leaving M-5 and provide a temporary pipe to existing trap #1. See plan sheet 12. Temporarily block inlets 1-10, OG-2, 1-16, 1-20, OG-14, and OG-19. Provide curb openings where shown in plan. Provide positive drainage to traps. Provide slope protection where shown in plan.	60
E. Construct utilities.	60
F. Fine grade and construct paving.	30
G. Construct buildings and walks, except in area of units 36-37 and 54-57 until traps #1 and #2 have been removed.	180
H. Upon approval of the sediment control inspector, remove traps #1 and #2. Provide silt fence as required and complete the storm drainage construction M-5 thru S-3. Remove inlet blocking. Complete construction of the remaining houses and sidewalks. Complete the construction of the curb and gutter where temporary curb cuts were provided.	20
I. Permanently stabilize all remaining areas and upon approval of the sediment control inspector remove all other sediment controls.	4

NOTE: STORM WATER MANAGEMENT IS BEING PROVIDED OFF-SITE REF F-85-131.

NOTE: EXISTING SEDIMENT & EROSION DEVICES PER GDF-92-54 ARE TO BE UTILIZED.

APPROVED
DATE: March 3, 1992

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT
DATE: 6-1-92

APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING
DATE: 6/15/92

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DATE: 5-27-92

CHECKED BY: DATE: 4-3-92

Reviewed for HOWARD S.C.D.
Name
and meets Technical Requirements
Signature: (James M. Helms) Date: 3/10/92
US Soil Conservation Service

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

Signature: Jeffrey J. Schmal Date: 3/10/92

DEVELOPER'S/BUILDER'S CERTIFICATE

"We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have Certificate of Attendance at a Department of the Environment 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: Maurice M. Simpson Date: 3-11-92

ENGINEER'S CERTIFICATE
I hereby certify that this plan for Sediment and Erosion 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: Jeffrey J. Schmal Date: 3/10/92

CLARK • FINEROCK • SACKETT INC.

SITE DEVELOPMENT PLAN
SEDIMENT AND EROSION CONTROL PLAN
PARCEL A
COLUMBIA TOWN CENTER

JAN 1992

Reviewed for HOWARD S.C.D.
Name
and meets Technical Requirements
Signature *A. J. [unclear]* 3/11/92
US Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Jeffrey J. Schaub 3/18/92
approved



NOTE: THE CROSS HATCHED AREA INDICATES A 20 FT. WIDE VEGETATIVE BUFFER STRIP TO BE PROVIDED. SEE GENERAL NOTE No. 22 ON SHEET 10F15
REFURBISH AS NECESSARY EXISTING TRAP#2 SOST (ST-V) (SOP-92-54)
D.A. 3.7 Ac
Storage Required 6600 CF
Storage Provided 6720 CF
Depth 3 FT.
Top of Stone Weir 342.5
Clean Out Elev. 340.0
Bottom Elev. 338.5
Bottom Dimensions 74' x 22'
2:1 Side Slopes
L=15'

OPEN SPACE
LOT 1
COLUMBIA TOWN CENTER
PLAT 9749

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 sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment 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".
Maurice M. Simpson 3/1/92
Signature Date

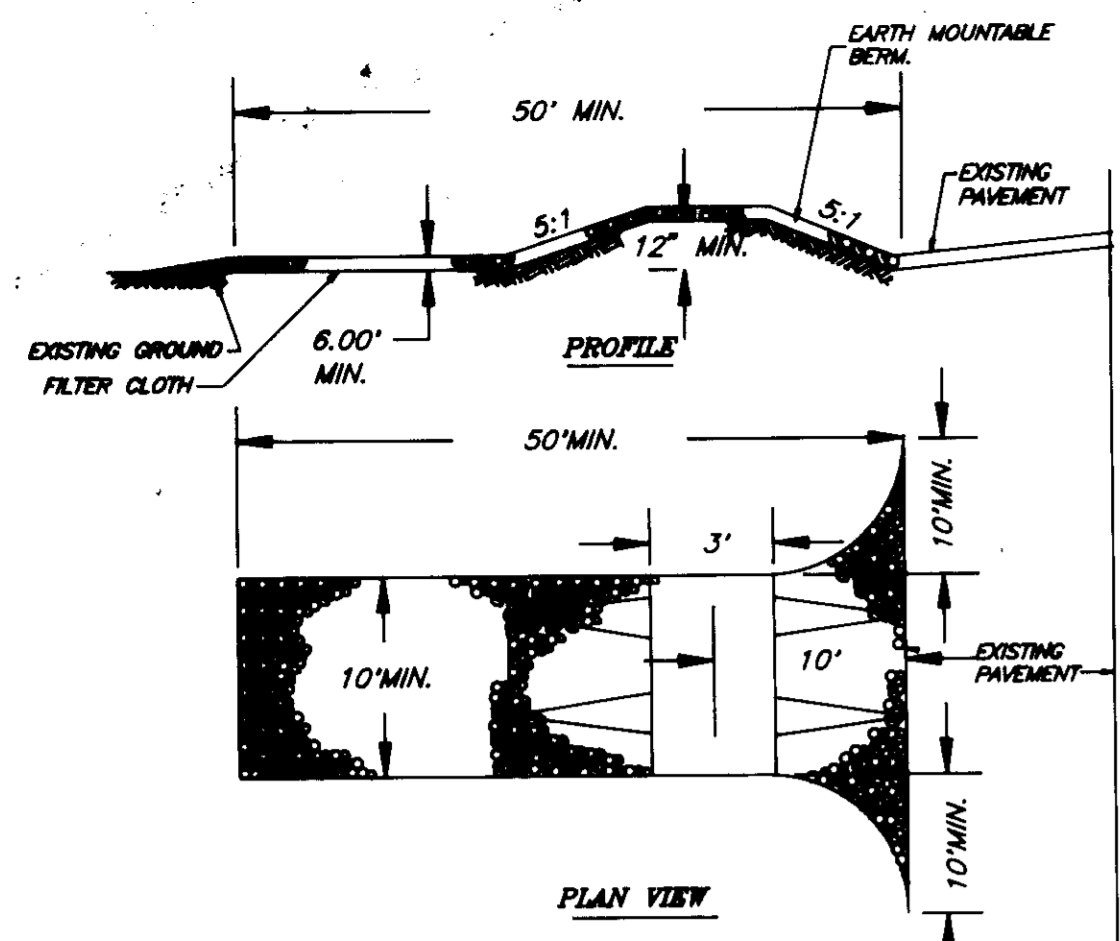
ENGINEER'S CERTIFICATE
I hereby certify that this plan for Sediment and Erosion Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
Jeffrey J. Schaub 3/18/92
Signature Date

REFURBISH AS NECESSARY EXISTING TRAP No. 1 SOST (ST-V) (SDP-92-54)
D.A. 4.0 Acres
Storage Required: 7200 CF
Storage Provided: 7400 CF
Depth: 3 FT.
Top of Stone Weir: 342.5
Clean out Elevation: 340.0
Bottom Elevation: 338.5
Bottom Dimensions Varies See Plan
Approx. 2000 SF
2:1 Side Slopes
L=16'

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT
James W. Boyd 6-1-92
COUNTY HEALTH OFFICER DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
James W. Boyd 6/6/92
DIRECTOR DATE
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
James W. Boyd 5/27/92
DIRECTOR DATE
CHIEF BUREAU OF ENGINEERING
James W. Boyd 4-3-92
DATE

APPROVED PLANNING BOARD OF HOWARD COUNTY
DATE March 3, 1992

CLARK • FINEFROCK & SACKETT, INC. ENGINEERS • PLANNERS • SURVEYORS		SCALE 1"=30' DRAWING 12 OF 15 JOB NO. 91.06 FILE NO. 91.061-X SOP-92-72
DESIGNED JME	SITE DEVELOPMENT PLAN SEDIMENT AND EROSION CONTROL PLAN PARCEL A COLUMBIA TOWN CENTER SECTION 3 AREA 2 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
DRAWN JME KJWM		
CHECKED WLS		
DATE JAN 1992	DRAWN BY JME KJWM WLS	



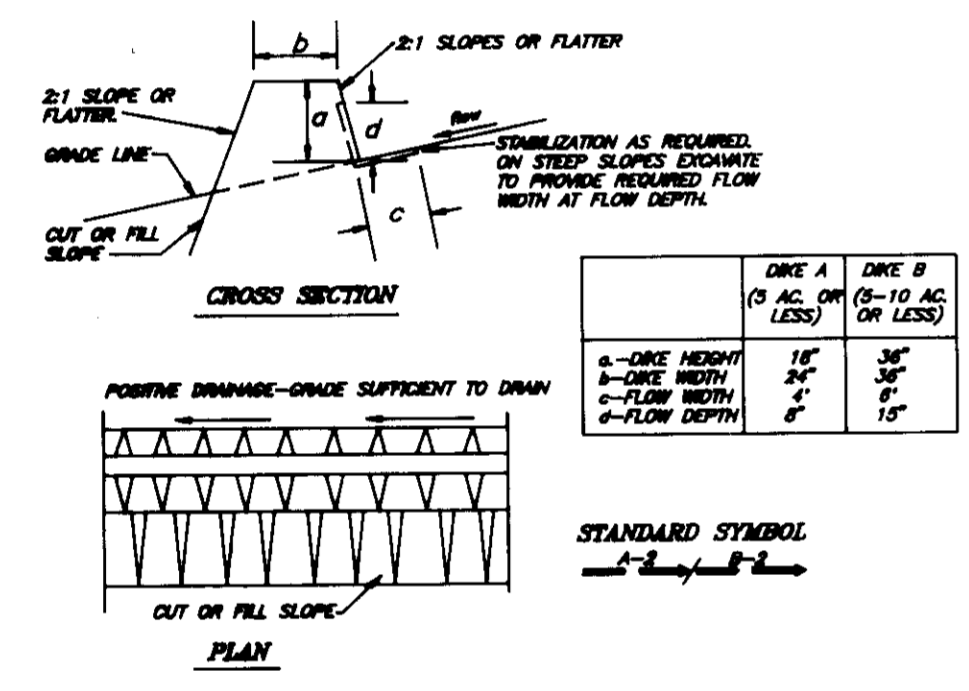
STANDARD SYMBOL: [Symbol]

CONSTRUCTION SPECIFICATIONS

- STONE SIZE: USE 2" STONE OR RECYCLED CONCRETE EQUIVALENT. LENGTH: AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A 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 CLOTH WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE.
- 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.
- 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, DROPPED, 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 RAINFALL.

STABILIZED CONSTRUCTION ENTRANCE (SCE)

NO SCALE

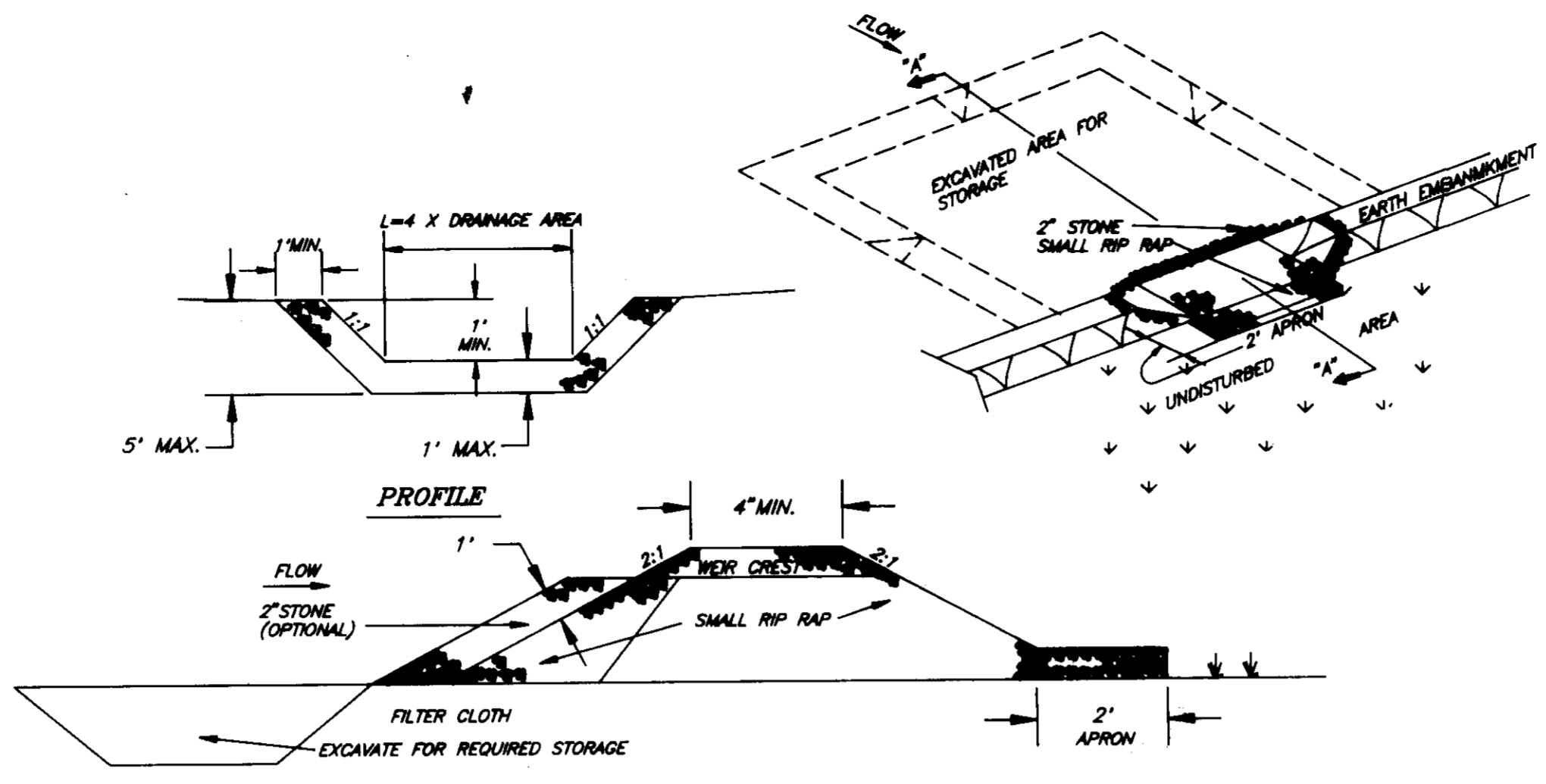


CONSTRUCTION SPECIFICATIONS

- All dikes shall be constructed by earth moving equipment.
 - The dike may be later and side slopes may be better if desired to facilitate flow.
 - Flow shall be maintained as needed to utilize a stabilized slope.
 - Diets shall be placed in an outlet trapping device such as a sediment trap or sediment basin immediately after the dike. The dike shall be cleaned and the dike shall be maintained.
 - Stabilization shall be (A) in accordance with standard specifications for stabilization in this manual, (B) Flow channel as per the dike table.
- | TYPE OF STABILIZATION | CHANNEL WIDTH | DIKE A | DIKE B |
|-----------------------|---------------|------------------------|--|
| 1 | 0.5-3.0' | SEED AND STRAW MULCH | SEED AND STRAW MULCH |
| 2 | 3.1-6.0' | SEED AND STRAW MULCH | SEED USING MIX OF EXCELLENOR SOIL 2" STONE |
| 3 | 6.1-10.0' | SEED WITH LIME OR SOIL | LIME RIP-RAP 4"-6" |
| 4 | 10.1-30.0' | LIME RIP-RAP 4"-6" | ENGINEERING DESIGN |

EARTH DIKS (ED)

NO SCALE



CROSS-SECTION "A"- "A"

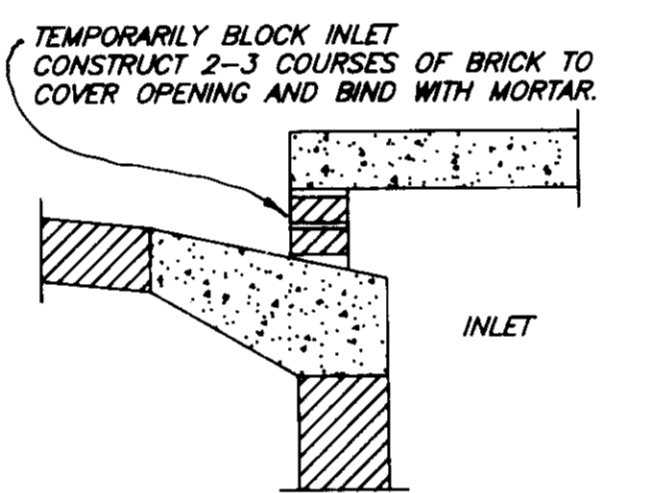
OPTION: A one foot layer of 2" stone may be placed on the upstream side of the riprap in place of the embedded filter cloth.

CONSTRUCTION SPECIFICATIONS FOR ST-V

- Area under embankment shall be cleared, grubbed and stripped of any vegetation on a 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 over-sized 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 riprap 4"-6" along with a 1" thickness of 2" aggregate placed on the up-grade side on the small riprap or embedded filter cloth in the riprap.
- Sediment shall be removed and the 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.

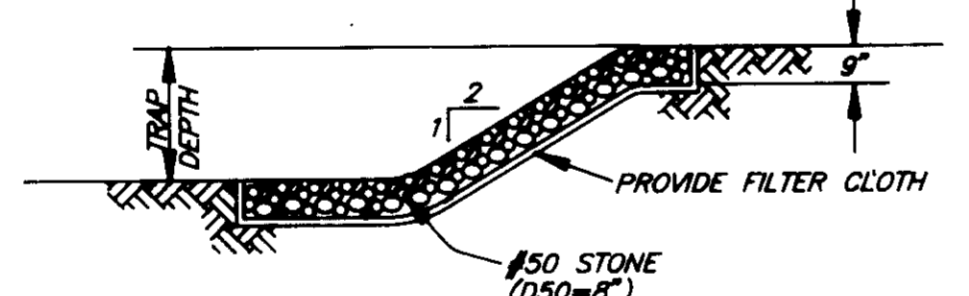
STONE OUTLET SEDIMENT TRAP (ST-V)

NO SCALE



INLET BLOCKING DETAIL

NO SCALE



UNGROUTED RIP RAP SLOPE PROTECTION

NO SCALE

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.) before seeding, and 800 lbs per acre 10-10-10 fertilizer (14 lbs./1000 sq ft.) before seeding. Harrow or disc into upper three inches of soil. At the 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 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 unrattled 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 reseeding.

TEMPORARY SEEDING NOTES

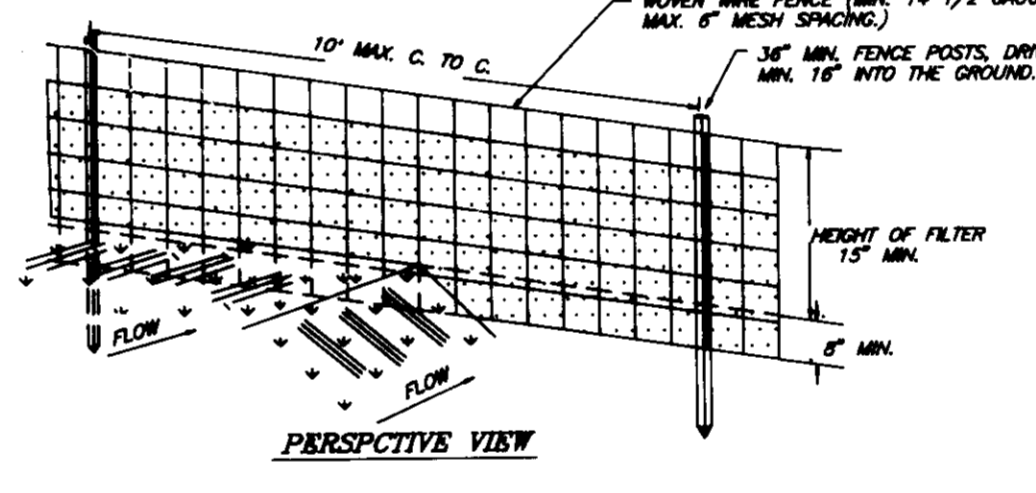
SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

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 ryegrass (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 unrattled 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.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

- WOMEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
- FILTER CLOTH TO BE FASTENED SECURELY TO WOMEN 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.

POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD.
FENCE: WOMEN WIRE, 14 GA, 6" MAX. MESH OPENING.
FILTER CLOTH: FILTER X, MARIAT 100X, STABILINKA T140N, OR APPROVED EQUAL.
PREFABRICATED UNIT: GEOPAR, ENVIROFENCE, OR APPROVED EQUAL.

SILT FENCE (S)

NO SCALE

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

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

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

CHIEF BUREAU OF ENGINEERING

APPROVED PLANNING

DATE: March 3, 1992

Reviewed for HOWARD S.C.D.

Signature: [Signature]

US Soil Conservation Service

DEVELOPER'S/BUILDER'S CERTIFICATE

I/We certify that all development and construction will be done according to the plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance of a Department of the Environment 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: Maurice M. Dupuis

Date: 2-11-92

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion 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: Jeffrey L. Schuch

Date: 3/12/92

CLARK • FINEROCK & SACKETT, INC.

ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA, MD 21045 • (301) 381-7500 • BALTO. • (301) 621-8100 • WASH.

DESIGNED: K/WM

DRAWN: K/WM

CHECKED: JS

DATE: JAN 1992

SITE DEVELOPMENT PLAN

SEDIMENT AND EROSION CONTROL DETAILS

PARCEL A

COLUMBIA TOWN CENTER

SECTION 3 AREA 2

FIFTH ELECTION DISTRICT

HOWARD COUNTY MARYLAND

SCALE: As Shown

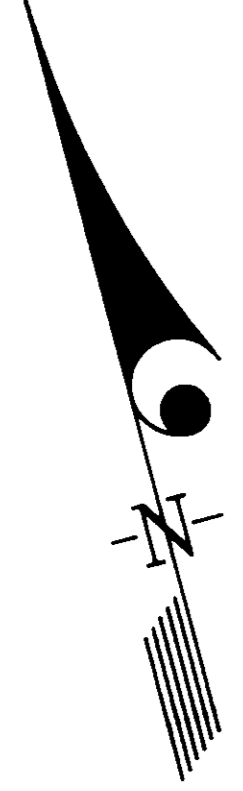
DRAWING: 130F15

JOB NO: 91061

FILE NO: 81-061-X

COLUMBIA TOWN CENTER
SECTION 3 AREA 2
P.B. 30 F. 17
PARCEL 7-B

PROPERTY OF
THE HOWARD RESEARCH AND
DEVELOPMENT CORPORATION
463/196



MATCH LINE SEE SHEET 14 OF 15

PARCEL "A"
8.127 ACRES

NOTE: THE CROSS HATCHED AREA
INDICATES A 20 FT WIDE (MIN)
VEGETATIVE BUFFER STRIP TO BE
PROVIDED. SEE GENERAL NOTE
NO. 21 ON SHEET 10 OF 15.

LOT 1
OPEN SPACE
COLUMBIA TOWN CENTER
PLAT 9749

WEST
PARKWAY
BROKEN LAND
(PUBLIC ROAD)

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT
James M. Boyd MD 6-1-92
COUNTY HEALTH OFFICER DATE

APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING
Richard Blood 6/3/92
DIRECTOR DATE

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
James M. Boyd 5/27/92
DIRECTOR DATE

Richard Blood 4-3-92
CHIEF BUREAU OF ENGINEERING DATE

March 3, 1992
85

CLARK • FINROCK & SACKETT, INC. ENGINEERS • PLANNERS • SURVEYORS		SCALE 1"=30' DRAWING 15 OF 15 JOB NO 91-061 FILE NO 91-061-LS
DESIGNED MJP	SITE DEVELOPMENT PLAN LANDSCAPE AND PLANTING PLAN PARCEL A COLUMBIA TOWN CENTER SECTION 3 AREA 2	
DRAWN MJP	FIFTH ELECTION DISTRICT HOWARD COUNTY MARYLAND	
CHECKED WHT	DATE JAN 1992	
OWNER & DEVELOPER:	FOR: THE RYLAND GROUP, INC. 7130 MINSTREL WAY SUITE 215 COLUMBIA MARYLAND 21045	

Richard Blood
3/12/92

