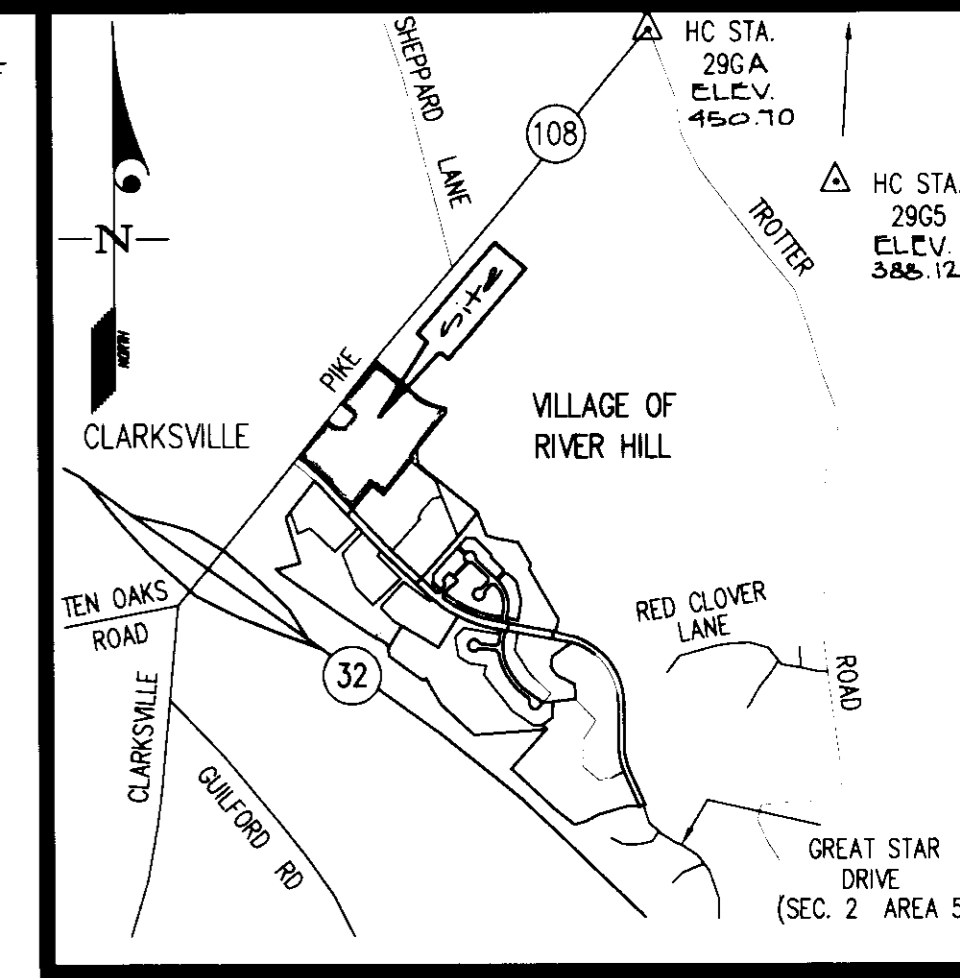


HO. CO. MONUMENT 296A IS AT THE INTERSECTION OF ROUTE 108 AND TROTTER RD. MONUMENT 296S IS AN ADDITIONAL 2544'± ALONG RTE 108 AWAY FROM THE SITE.



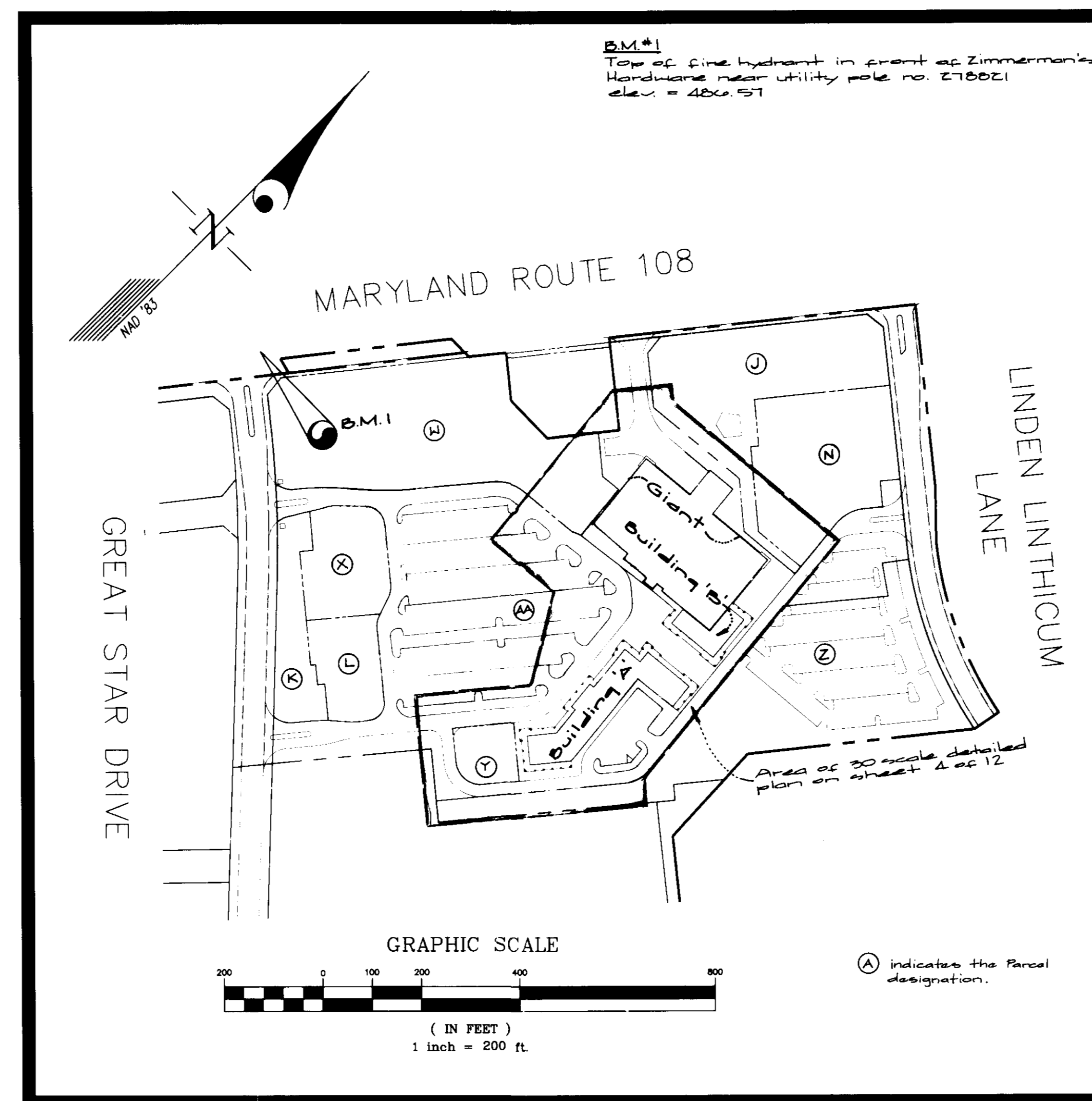
VICINITY MAP
SCALE: 1" = 2000'

SITE DEVELOPMENT PLAN VILLAGE OF RIVER HILL SECTION 4 ~ AREA 2 HOWARD COUNTY, MARYLAND

- GENERAL NOTES**
- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standard and specifications if applicable.
 - The contractor shall notify the Department of Public Works/Construction Inspection Division at (410) 313-1800 at least five (5) working days prior to the start of work.
 - The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
 - The contractor shall notify the Howard County Department of Public Works, Bureau of Utilities at (410) 313-4900 at least five working days prior to starting any excavation work.
 - Site area: 25.3 acres (approved mass grading F-96-89).
 - Traffic control devices, markings, and signing shall be in accordance with the latest edition of the manual on uniform traffic control devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
 - All plan dimensions are to face of curb unless otherwise noted.
 - Existing topography reflects mass grading as shown on F-96-89.
 - Coordinates and bearings are based upon the MD State plan system (NAD 83).
 - Water and sewer shown is public.
 - Drainage area is the Middle Patuxent, Contr # 34-3525-D
 - Stormwater Management for quality & quantity is provided off-site under F 96-89
 - All existing water and sewer is per Contract # 30-3436-D & Cont # 34-3525-D. Drainage area is the Middle Patuxent.
 - All existing public storm drain is per F-96-89 (Plot No. 12420 thru 12422).
 - All curb radii is 5' unless noted otherwise.
 - Utility information taken from approved final construction plans for development.
 - Sidewalks adjacent to perpendicular parking shall be 6' wide. All other sidewalks shall be 4' wide except where dimensioned otherwise. Provide 3' radius rounding at all angle breaks and intersections.
 - Contractor shall utilize PVC pipe for all sewer house connections. Contractor shall utilize D.I.P. (CL 51) for 6" water house connection.
 - For all storm drain connections at existing stubs, the contractor shall remove the existing blocking and maintain.
 - Use trench bedding class "C" for storm drains.
 - Paved areas indicated are private except as noted.
 - Project background: See Dept. of Planning & Zoning File Numbers: S-93-121, P-95-10, WP-95-32, WP-95-78, WP-95-114 & F-96-89, F97-43.
 - Recording reference: Plot Nos. 12420-12422 and 12543-12544
 - All proposed ramps shall be in accordance with current A.D.A. standards. Maximum sidewalk cross slope shall be two percent. Provide a five-foot by five-foot level (2 percent max.) landing at the top and bottom of all ramps and building entrances and exits.
 - All water meters shall be located inside buildings.
 - The limits of public maintenance for waterhouse connections shall be 7' from the back of curb.
 - All proposed site utilities are to terminate 5' from the building. The building plumber shall connect to and extend these utilities to the inside of the building.
 - For Gas, Telephone and Electric routing, see separate plan.
 - Fire lanes to be provided in accordance with the direction of the Fire Marshall or local fire department.
 - There is no floodplain on this site as determined by a study performed by Whitman, Bevardt and Assoc. and approved under P 95-10 on 1/20/95.
 - There are no wetlands on this site as determined by Exploration Research, Inc. and approved under P 95-10 on 1/20/95.
 - The traffic study for this was prepared by Wells & Associates and was approved under P 95-10 on 1/20/95.

Schedule B
Parking Lot Internal Landscaping

Number of Parking Spaces	464
Number of Trees Req @ 1 per 20 sp.	24
Number of Trees Provided Shade Trees Other Trees (2:1 substitution)	75



DRAWING LIST

NO.	DESCRIPTION
1.	COVER SHEET
2.	SITE DEVELOPMENT PLAN
3.	UTILITIES LOCATION, BUILDING TIES & LANDSCAPE PLAN
4.	30 SCALE BUILDING PLAN
5.	DRAINAGE AREA MAP
6.	SEDIMENT CONTROL PLAN
7.	STORM DRAIN PROFILES
8.	STORM DRAIN PROFILES
9.	Water & Sewer Profiles
10.	DETAIL SHEET
11.	SEDIMENT CONTROL NOTES & DETAILS
12.	Details

Street Light Information

Symbol	Description	Quantity
(A)	Type A - Single Type III, with horizontal 400 watt metal halide lamp on a 30 foot round tapered steel pole (brown).	21
(AHS)	Type AHS - Twin Type III, with horizontal 400 watt metal halide lamps on a 30 foot round tapered steel pole (brown).	3
(HSS)	Type HSS - Single Type III, with horizontal 400 watt metal halide lamp & house side shield on a 30 foot round tapered steel pole (brown).	7
(K)	Type K - Quad Type II, with horizontal 400 watt metal halide lamps on a 30 foot round tapered steel pole (brown).	Ph I 11 Ph II 4

Site Analysis

Area of Parcel: 25.3 Ac ± or 1,102,000 sq ft
 Present Zoning: New Town (NT)
 FDP Number: Phase 222, Part II
 Land Use(s): Commercial & open space

Number of Parking Spaces Required: 72,750 @ \$1,600 @ (total)
 Number of Parking Spaces Provided: 468 spaces
 122 handicap spaces (total)
 484 total spaces

OWNERS

CLARKSVILLE PIKE LIMITED PARTNERSHIP
GFS REALTY (GENERAL PARTNER)
P.O. BOX 1804 DEPT. 671
WASHINGTON, D.C. 20013
PHONE: (301) 341-8424

THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
THE ROUSE BUILDING
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MD 21044
PHONE: (410) 992-6370

WATER CODE: I-10		SEWER CODE: 6633500		ADDRESS CHART	
				Bldg. A	6030 Daybreak Circle
				Bldg. B	6040 Daybreak Circle
				Giant	6050 Daybreak Circle
SUBDIVISION NAME: Village of River Hill				SECTION/AREA: 4/2	PARCEL: 'C' thru 'L' Lots 704-71
PLAT: 12420-12422, 12543-12544	BLOCK: Map 34-6, Map 35-1	ZONE: NT	TAX MAP: 34 & 35	ELEC. DIST.: 5	CENSUS TRACT: 6055

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

8/14/96
Cott

Director: [Signature] 1/22/97
 Chief, Planning and Development: [Signature] 1/21/97
 Chief, Development Engineering Division: [Signature] 1/23/97

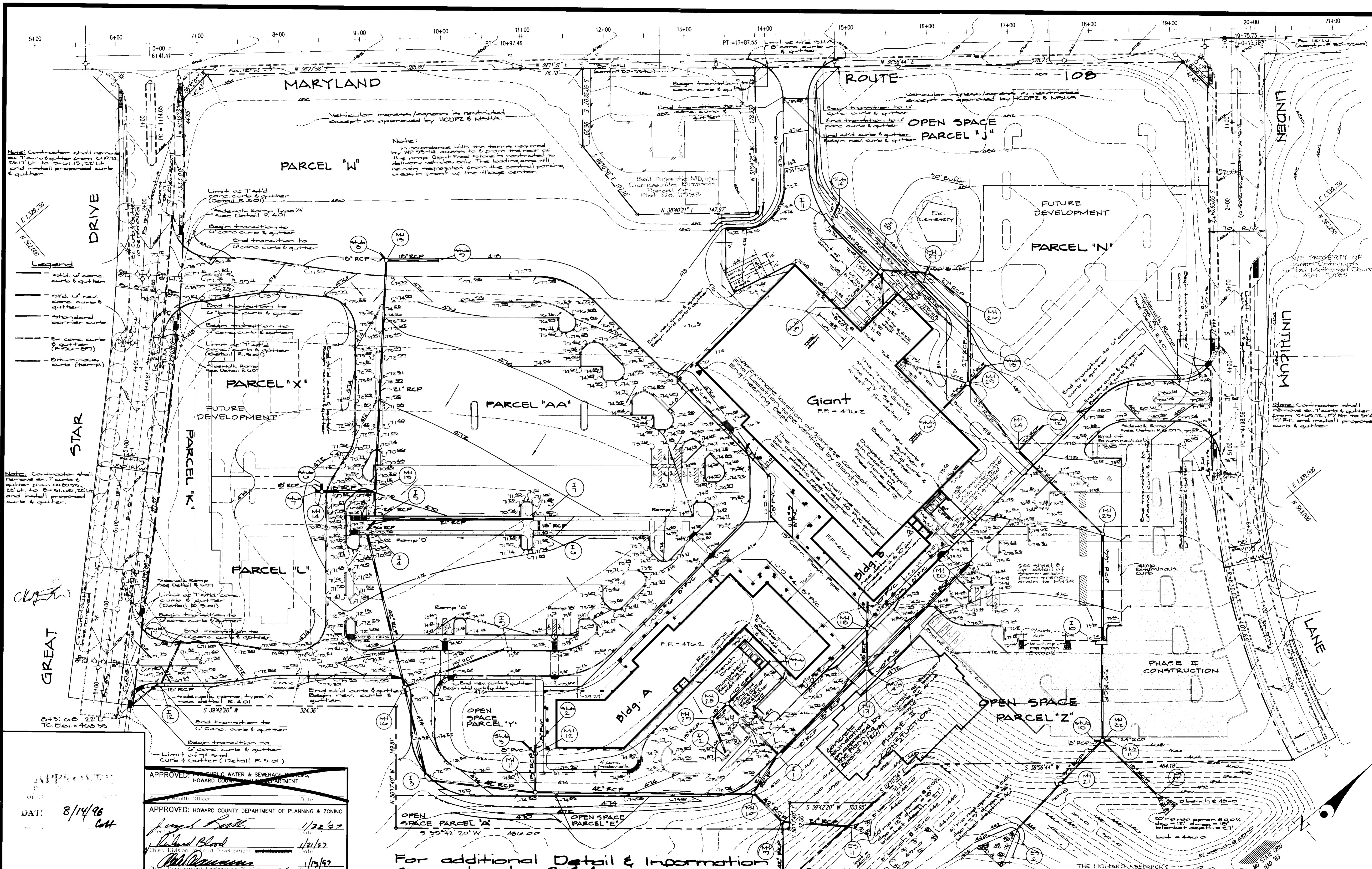
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866
 TEL: (301) 421-4024 NO. VA: (301) 989-2524 BAL: (410) 880-1820 FAX: (301) 421-4186 DES. DRN. JWC CHK.

PREPARED FOR:
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 THE ROUSE BUILDING
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD 21044
 (410) 992-6370

COVER SHEET
VILLAGE OF RIVER HILL
 SECTION 4 AREA 2
 PARCELS 'J' THRU 'L', 'N', 'W' THRU 'Z', AND 'AA'
 CLARKSVILLE ELECTION DISTRICT No. 5 HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN	ZONING: NT	G. L. W. FILE No.: 95097
DATE: Dec. 1996	TAX MAP No.: 34 & 35	SHEET: 1 OF 12

SDP 96-110



Note: Contractor shall remove ex. 12' curbs & gutters from C10174, C5117, L1, to 20' x 15' 22' lot and install proposed curb & gutter.

Legend
 - - - - - ex. 12' curbs & gutter
 - - - - - ex. 12' curbs & gutter
 - - - - - standard barrier curb
 - - - - - ex. 12' curbs & gutter (15'-0" to 15'-6")
 - - - - - illuminated curb (ramp)

Note: Contractor shall remove ex. 12' curbs & gutter from C10174, C5117, L1, to 20' x 15' 22' lot and install proposed curb & gutter.

Note: Contractor shall remove ex. 12' curbs & gutter from C10174, C5117, L1, to 20' x 15' 22' lot and install proposed curb & gutter.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WATER & SEWERAGE SYSTEMS
 Health Officer _____ Date _____
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 _____ Date 1/22/97
 Richard Blood 1/21/97
 Chief, Division of Planning & Zoning
 _____ Date 1/15/97
 Chief, Development Engineering Division

For additional Detail & Information see sheets 3 & 4.

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866
 TEL: (301) 421-4024 NO. VA.: (301) 989-2524 BALT.: (410) 880-1820 FAX: (301) 421-4186 DES. DRN. CHK.

DATE	REVISION	BY	APPR.
4/4/97	Δ revise grading of parking lot on parcel E, show 5' curb cuts		MCF
	release 4" PVC drain behind Giant, rev. foundation layout		KLP
12/6/97	rev. building 'B' utility room location Δ		

PREPARED FOR:
 The Howard Research and Development Corporation,
 10275 Little Reformatory Parkway
 Columbia, Maryland 21044
 (410) 292-6970

SITE DEVELOPMENT PLAN
VILLAGE OF RIVER HILL
 Section 4 Area 2
 PARCELS 'J' THRU 'L', 'N', 'W' THRU 'Z', AND 'AA'
 Carlsville Election District N95
 Howard County, Maryland

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	N.T.	050097
DATE	TAX MAP NO.	SHEET
Dec., 1996	34-135	2 of 12

SDP 96-110

5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00

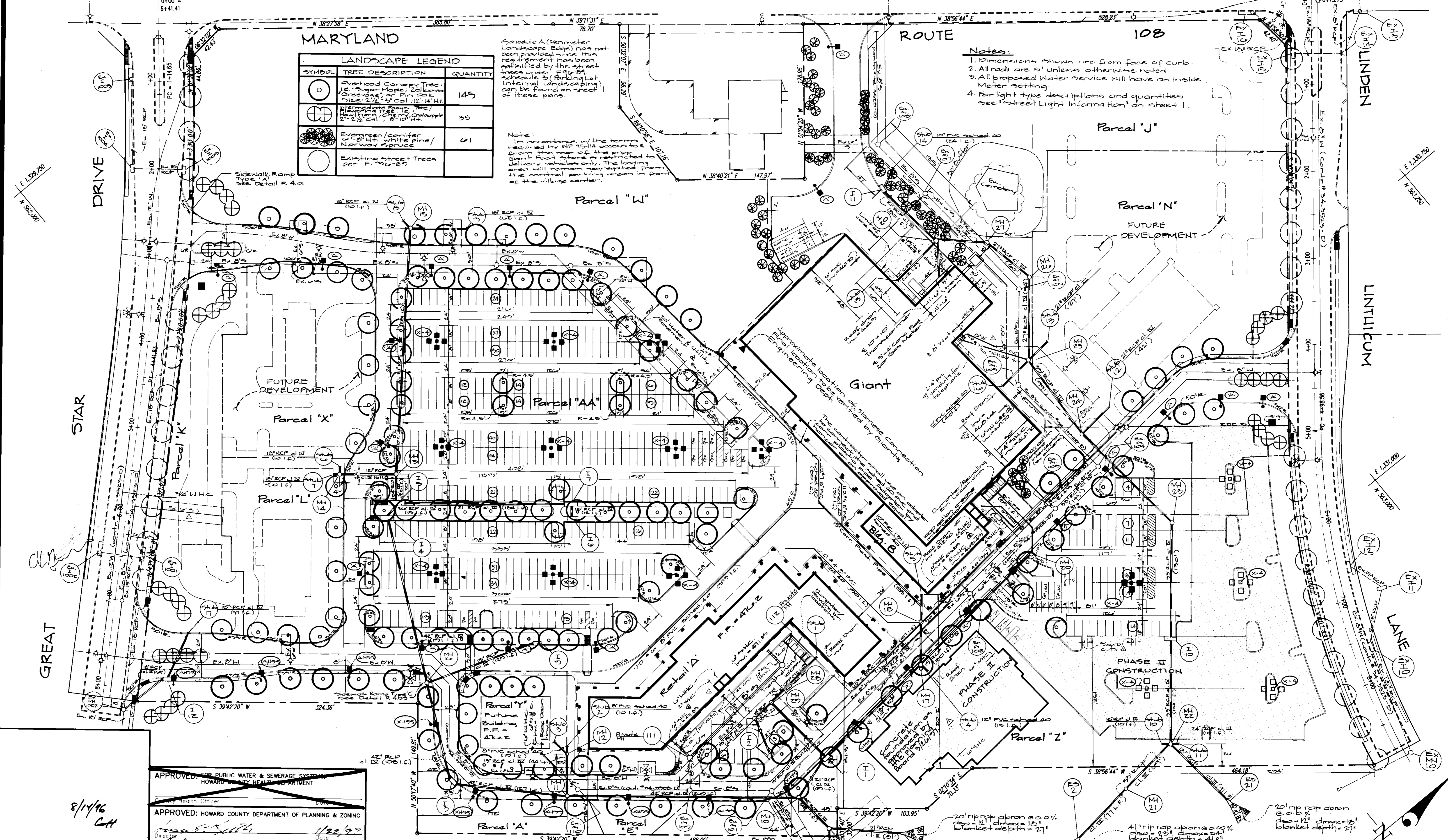
MARYLAND

LANDSCAPE LEGEND		
SYMBOL	TREE DESCRIPTION	QUANTITY
○	Overhead Canopy Tree, i.e. Sugar Maple, 2 1/2" Level, 2 1/2" Cal., 12' - 14' HT.	145
⊕	Intermediate Frame Tree, i.e. Norway Spruce, 2 1/2" Cal., 8' - 10' HT.	35
⊗	Evergreen/Conifer, i.e. 10' HT. White Pine/Norway Spruce	61
○	Existing Street Trees per P. 96-87	

Note: Schedule A (Perimeter Landscape Edge) has not been provided since this requirement has been satisfied by the street trees under Schedule B (Parking Lot Internal Landscaping) can be found on sheet of these plans.

Note: In accordance with the terms required by NP 95-114 access to Giant Food stores is restricted to delivery vehicles only. The loading areas will remain restricted from the central parking areas in front of the village center.

- Notes:**
1. Dimensions shown are from face of curb.
 2. All radii are 5' unless otherwise noted.
 3. All proposed Water Service Will have an inside Meter setting.
 4. For light type descriptions and quantities see "Street Light Information" on sheet 1.



APPROVED: FOR PUBLIC WATER & SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

8/14/96
CH

"This plan has been prepared in accordance with the requirements of the New Town Alternative Compliance. A financial surety for the 24 Required Landscape \$2,400.00 has been posted as part of the Grading Permit in the amount of \$2,400.00"

For Paving Sections See Sheet 10.

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866
TEL: (301) 421-4024 NO. VA.: (301) 989-2524 BALT.: (410) 880-1820 FAX: (301) 421-4186 DES.: DEV. DRN. CHK.

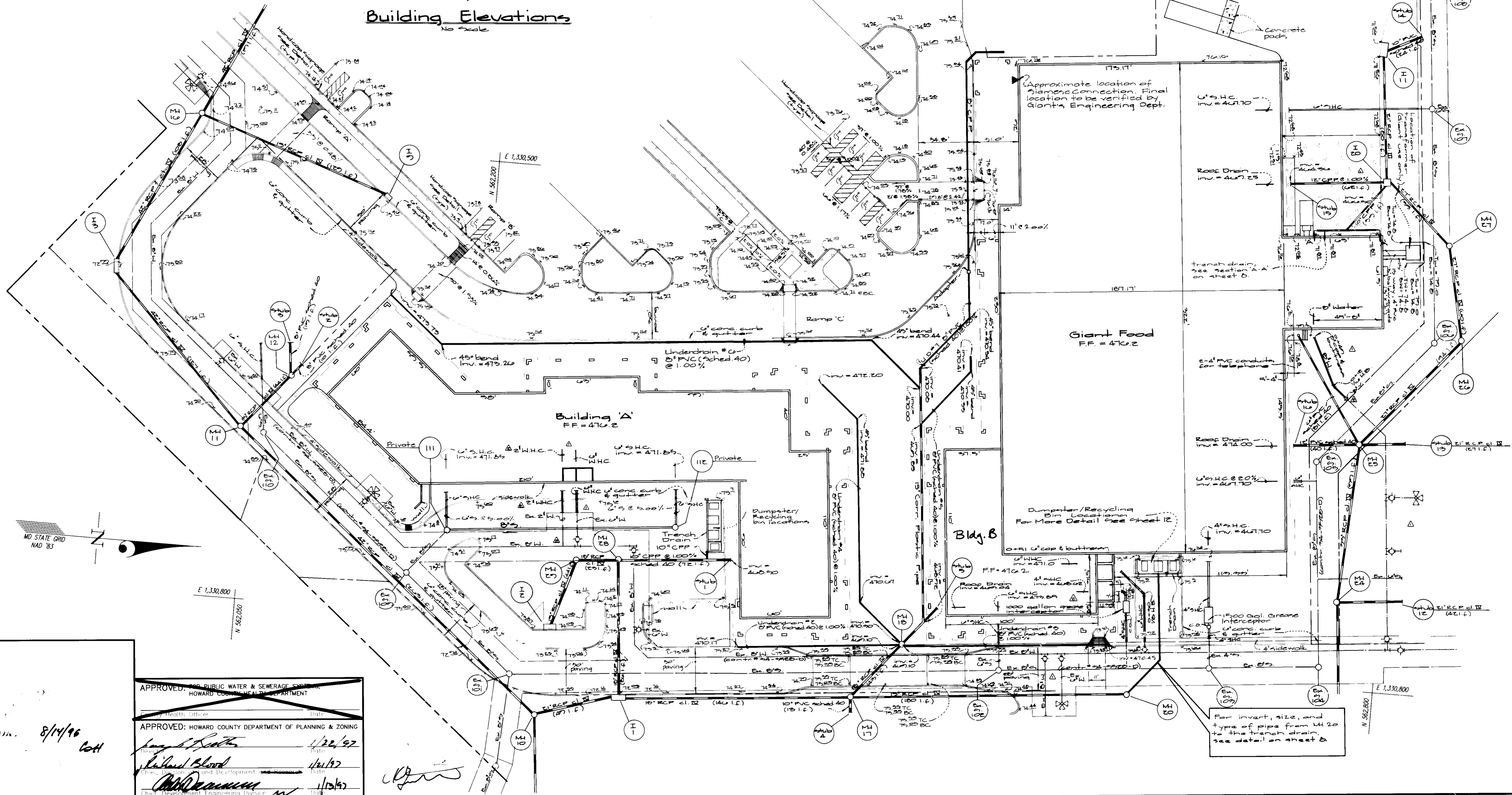
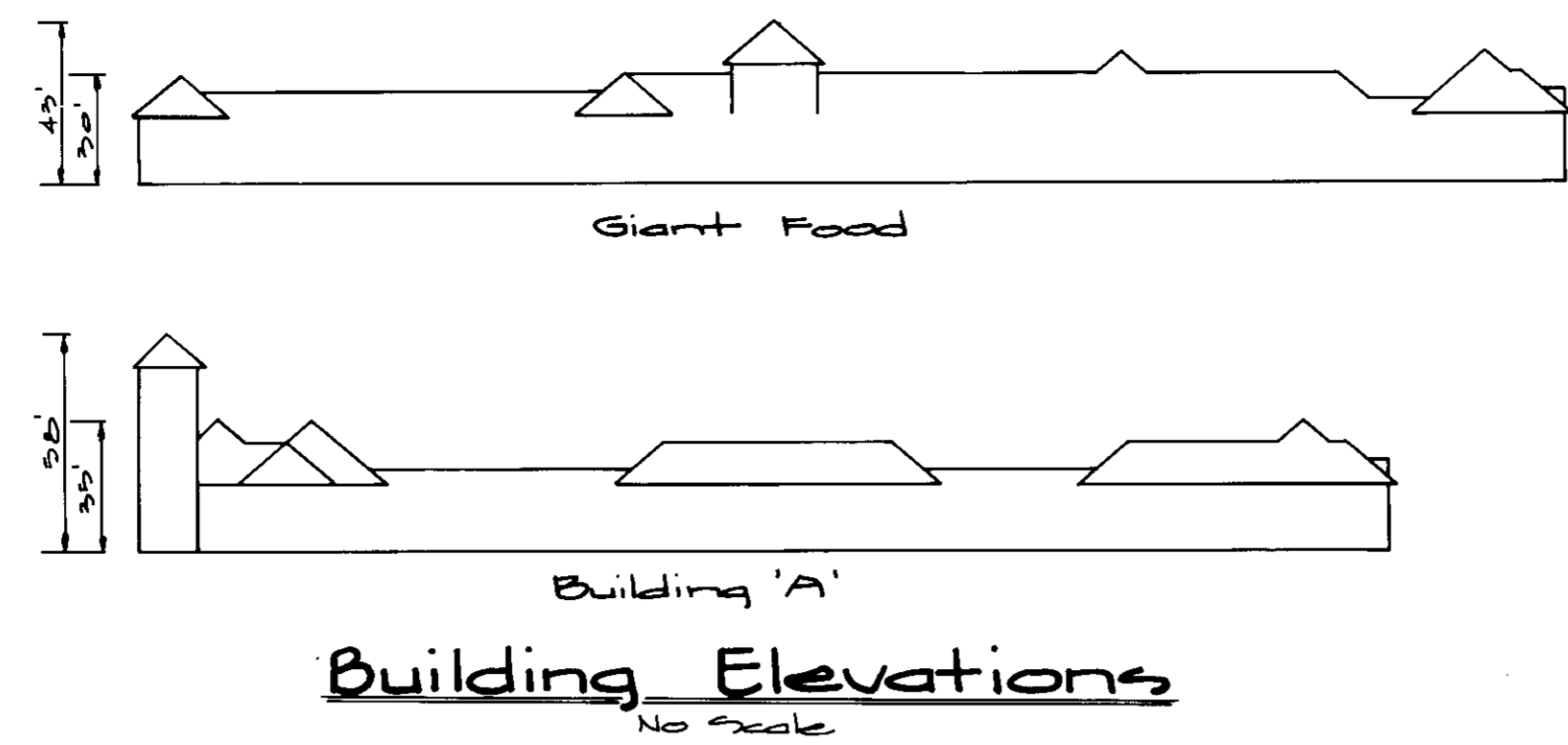
DATE	REVISION	BY	APPR.
4/16/97	REV. 1.0 TO ADD 10' RCP BEHIND GIANT	KLP	
4/24/97	REV. 2.0 TO ADD 10' RCP BEHIND GIANT	MCF	
4/24/97	REV. 3.0 TO ADD 10' RCP BEHIND GIANT	MCF	
4/24/97	REV. 4.0 TO ADD 10' RCP BEHIND GIANT	MCF	
4/24/97	REV. 5.0 TO ADD 10' RCP BEHIND GIANT	MCF	
4/24/97	REV. 6.0 TO ADD 10' RCP BEHIND GIANT	MCF	
4/24/97	REV. 7.0 TO ADD 10' RCP BEHIND GIANT	MCF	
4/24/97	REV. 8.0 TO ADD 10' RCP BEHIND GIANT	MCF	
4/24/97	REV. 9.0 TO ADD 10' RCP BEHIND GIANT	MCF	
4/24/97	REV. 10.0 TO ADD 10' RCP BEHIND GIANT	MCF	

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
THE ROUSE BUILDING
10275 LITTLE PATENT PARKWAY
COLUMBIA, MARYLAND 21044
(410) 982-6370

Utilities Location, Building Tie Down, & Landscaping Plan
VILLAGE OF RIVER HILL
Section 4 Area 2
Parcels J thru L, N, W thru Z, and AA
CLARKSVILLE ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1" = 50'	N.T.	95077
DATE	TAX MAP No.	SHEET
Dec. 1996	24 & 25	3 of 12

SDP 96-110



APPROVED: PUBLIC WATER & SEWERAGE EXP. DIV.
HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

8/14/96
10th

1/22/97
12/1/97
1/15/97

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866
TEL: (301) 421-4024 NO. VA.: (301) 989-2524 BALT. (410) 880-1820 FAX: (301) 421-4186 DES. DRN. CHK.

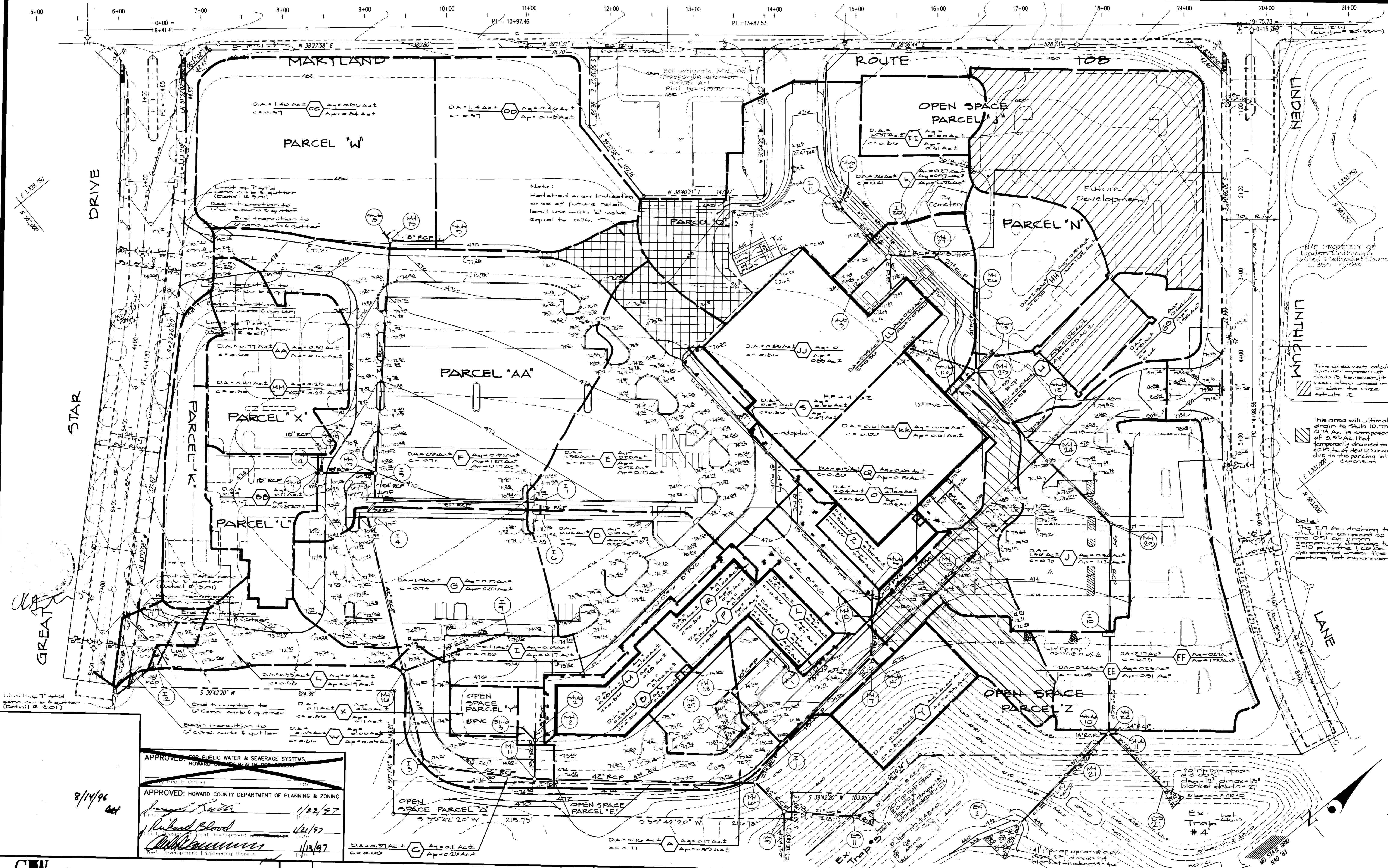
DATE	REVISION	BY	APPR.
10/17/97	Added 10" PVC to 10" CPP	KLP	
4/5/97	Added 10" PVC to 10" CPP	KLP	

PREPARED FOR:
The Howard Research and Development Corporation
The Route Building
10275 Little Patuxent Parkway
Columbia, Maryland 21044
(410) 592-0570

30 Scale Building Plan
VILLAGE OF RIVER HILL
Section 4 Area 2
Parcels 'J' thru 'L', 'N', 'W' thru 'Z' and 'AA'
Clarksville Election District No 3
Howard County, Maryland

SCALE	ZONING	G. L. W. FILE No.
1" = 30'	N.T.	75077
DATE	TAX MAP No.	SHEET
Dec., 1996	24 & 25	4 of 12

SDP 96-110



APPROVED FOR PUBLIC WATER & SEWERAGE SYSTEMS
 HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

8/14/96

[Signatures]

1/22/97
 1/24/97
 1/13/97

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866
 TEL: (301) 421-0024 NO. VA. (301) 999-2524 BALT. (410) 880-1820 FAX: (301) 421-4186

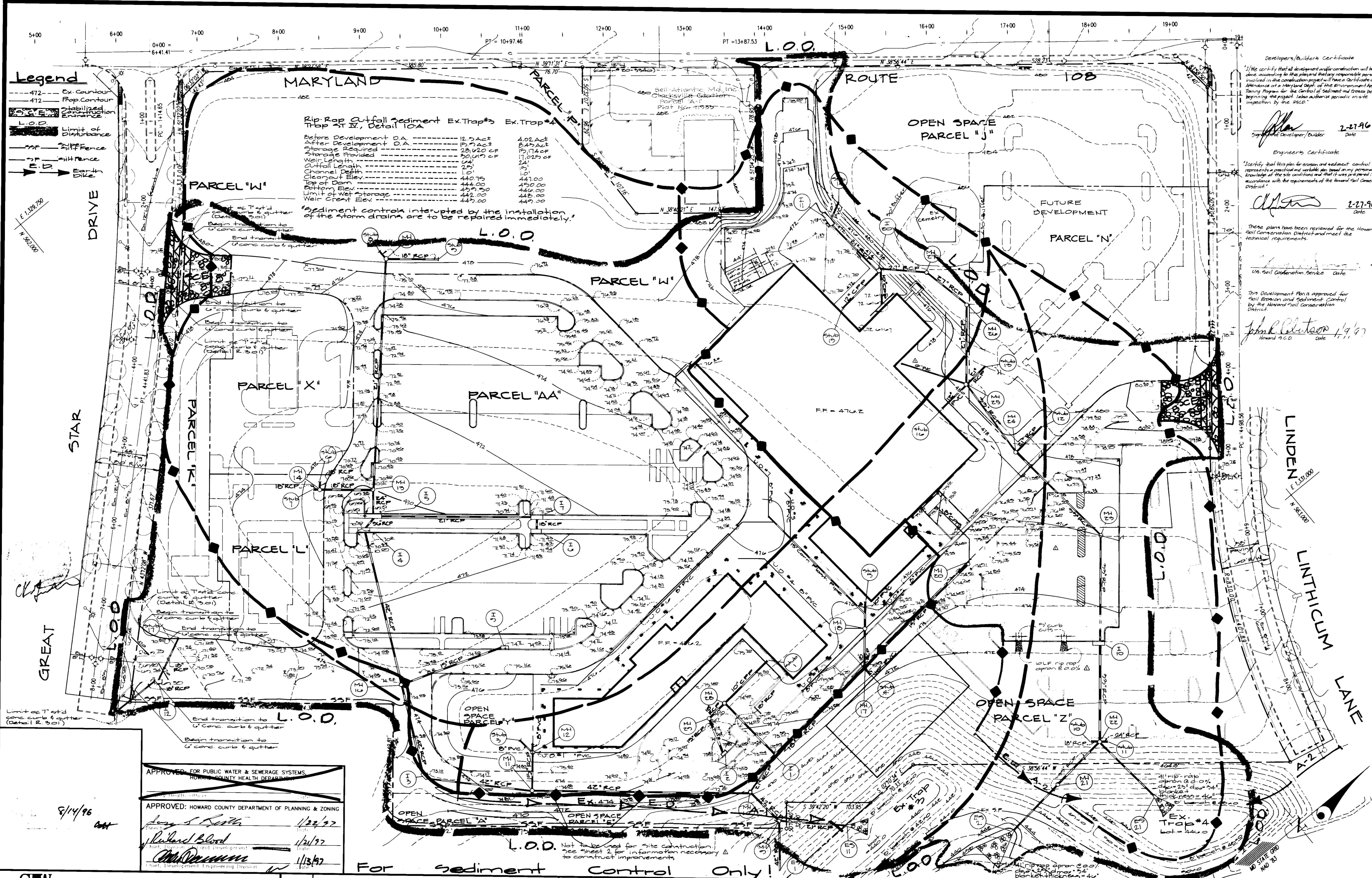
DATE	REVISION	BY	APPR.
4/1/97	rev. grading of parking lot on parcel Z; rev. w' pvc drain behind giant.		MCE

PREPARED FOR:
 The Howard Research and Development Corporation
 The Game Building
 10275 Little Belvoir Parkway
 Columbia, Maryland 21044
 (410) 972-6270

DRAINAGE AREA MAP
VILLAGE OF RIVER HILL
 Section 4 Area 2
 PARCELS 'J' THRU 'Z', 'N', 'W' THRU 'Z', AND 'AA'
 Clarksville Election District No. 9
 Howard County, Maryland

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	N.T.	95097
DATE	TAX MAP No.	SHEET
Dec., 1996	34-33	5 of 12

SDP 96-110



- Legend**
- 472 Ex. Culvert
 - 472 Pop Contour
 - 472 Stabilized Entrance
 - L.O.D. Limit of Disturbance
 - 3' SF 3' Hilt Fence
 - 1' SF 1' Hilt Fence
 - 1' SF 1' Hilt Fence

Rip Rap Outfall Sediment Ex. Trap #4
Trap at IV, Detail 10A

Before Development O.A.	18.54 ac	4.02 ac
After Development O.A.	15.79 ac	8.49 ac
Storage Required	28,620 CF	15,174 CF
Storage Provided	20,610 CF	17,025 CF
Weir Length	24'	24'
Outfall Length	10'	10'
Channel Depth	1.0'	1.0'
Cleanout Elev.	440.15	450.00
Top of Dam	444.00	446.00
Bottom Elev.	442.00	448.00
Limit of Wet Storage	442.00	448.00
Weir Crest Elev.	442.00	448.00

"Sediment controls interrupted by the installation of the storm drains are to be repaired immediately."

Developers/Builders Certificate
 I certify that all development and construction will be done according to this plan and that any responsible personnel involved in the construction project will have Certificates of Attendance at a Maryland Dept. 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 HSCD.

Signature: [Signature]
 Date: 2-27-96

Engineer's Certificate
 I certify that this plan for erosion and sediment control represents a practical and verifiable 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: [Signature]
 Date: 2-27-96

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements.

Signature: [Signature]
 Date: 1/9/97

Howard S.C.D. Date

APPROVED FOR PUBLIC WATER & SEWERAGE SYSTEMS,
 HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Signature: [Signature] 1/22/97
 Signature: [Signature] 1/21/97
 Signature: [Signature] 1/13/97

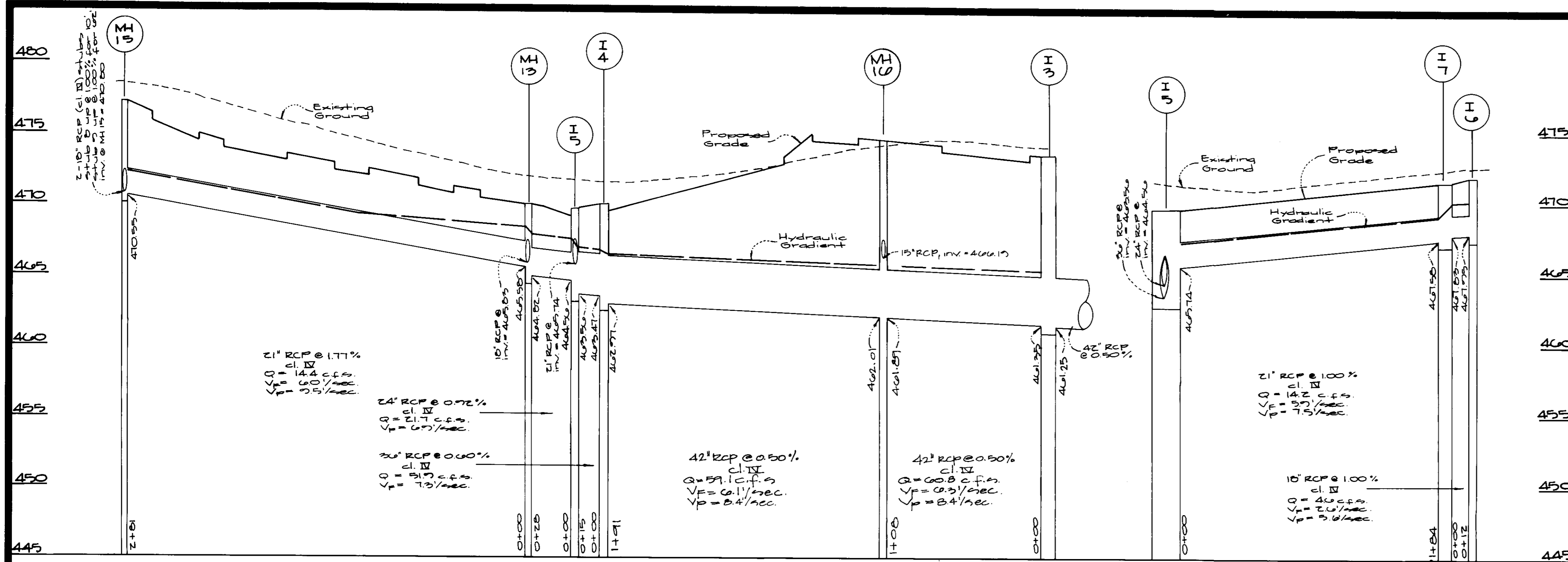
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 5909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866
 TEL: (301) 421-4024 HQ. VA: (301) 999-2524 BAL: (410) 880-1820 FAX: (301) 421-4186 DES. DRN. CHK.

DATE	REVISION	BY	APPR.
4/7/97	rev. grading of parking lot on parcel 3; add curb cuts with MCF rip rap; show w' PVC drain behind Giant		

PREPARED FOR:
 The Howard Research and Development Corporation
 The Park Building
 10279 Little Patuxent Parkway
 Columbia, Maryland 21044
 (410) 972-6370

Sediment Control Plan
VILLAGE OF RIVER HILL
 Section 4 Area 2
 PARCELS "J" THRU "L", "N", "W" THRU "Z", AND "AA"
 Clarksville Election District No 3
 Howard County, Maryland

SCALE	ZONING	G. L. W. FILE No.
1"=50'	N.T.	9507
DATE	TAX MAP No.	SHEET
Dec, 1996	34155	6 of 12



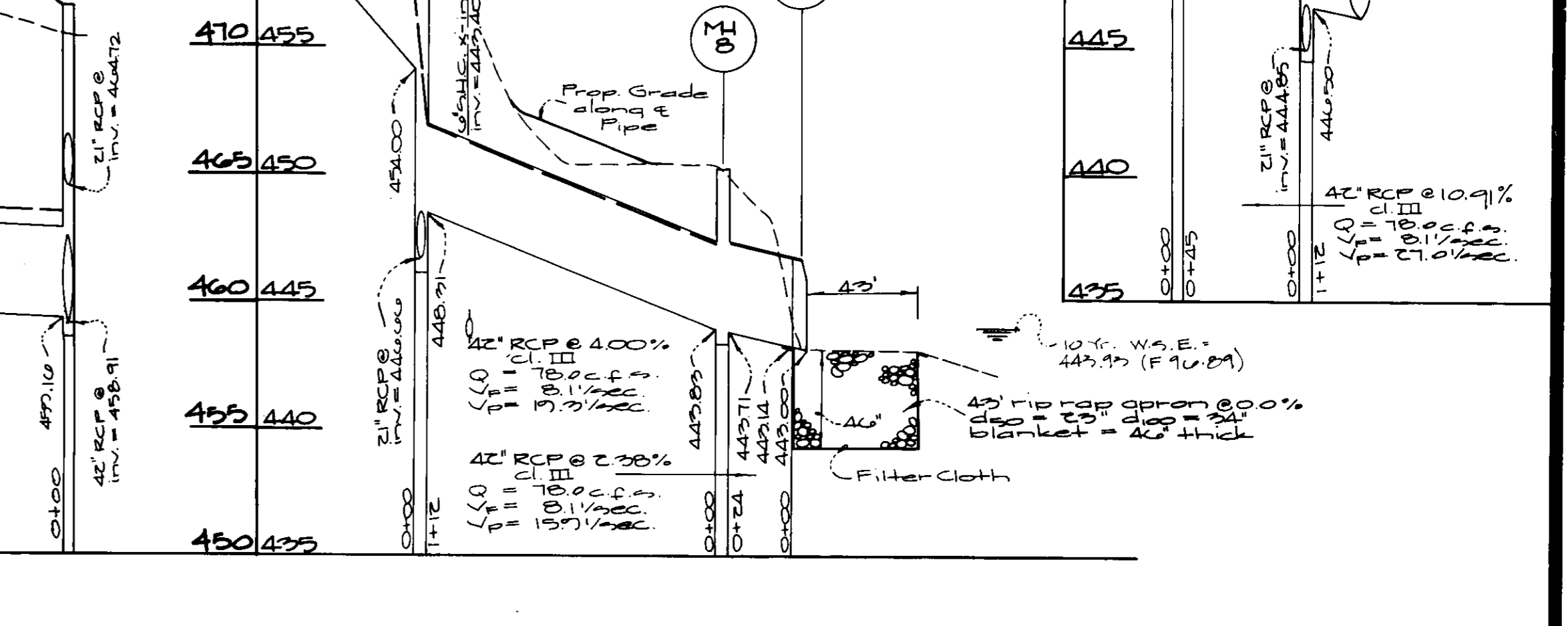
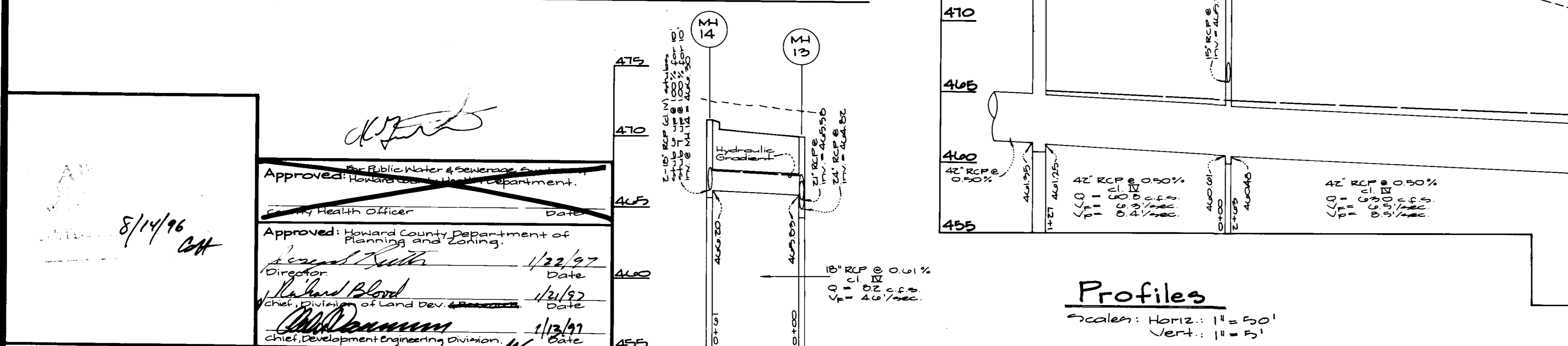
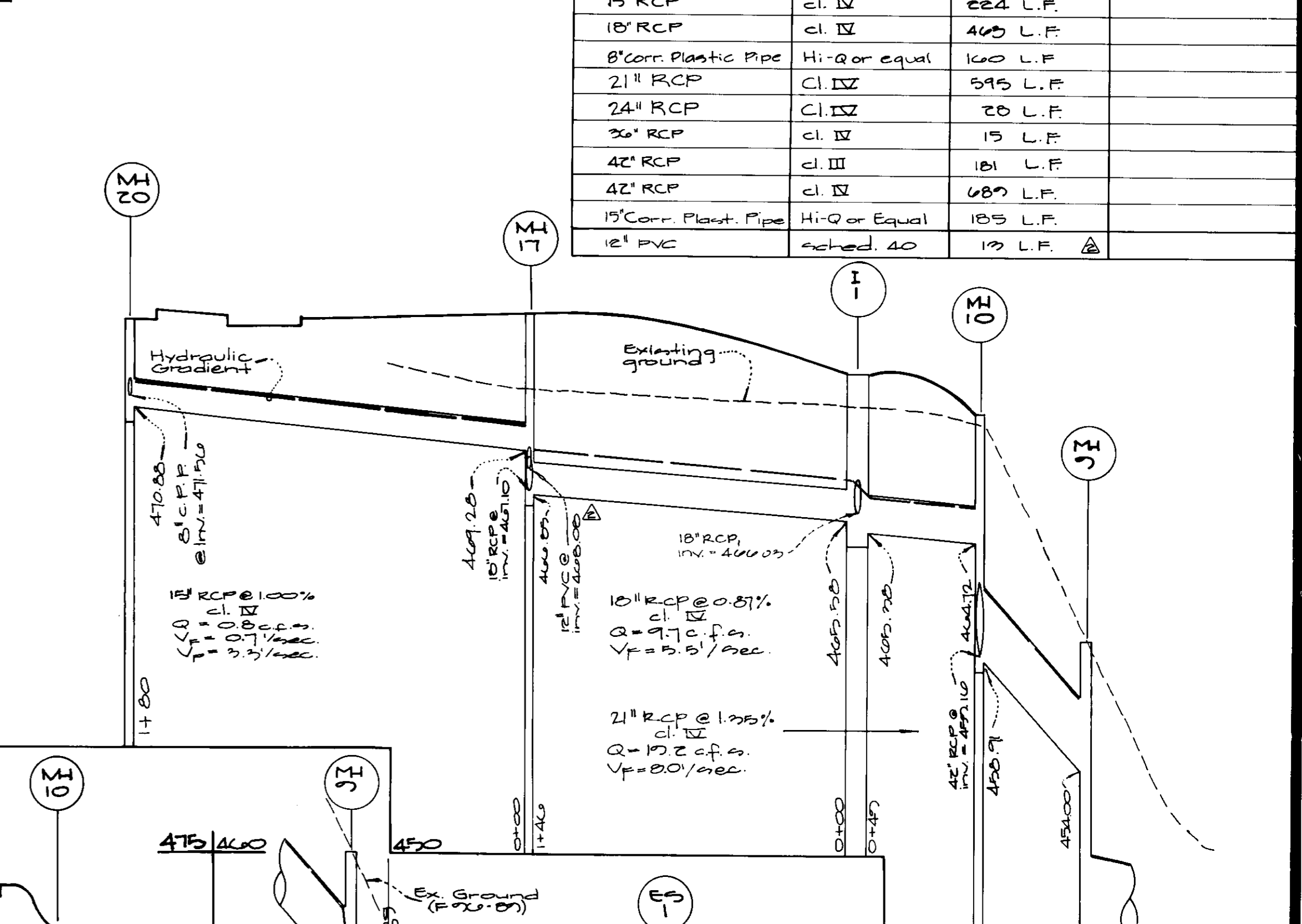
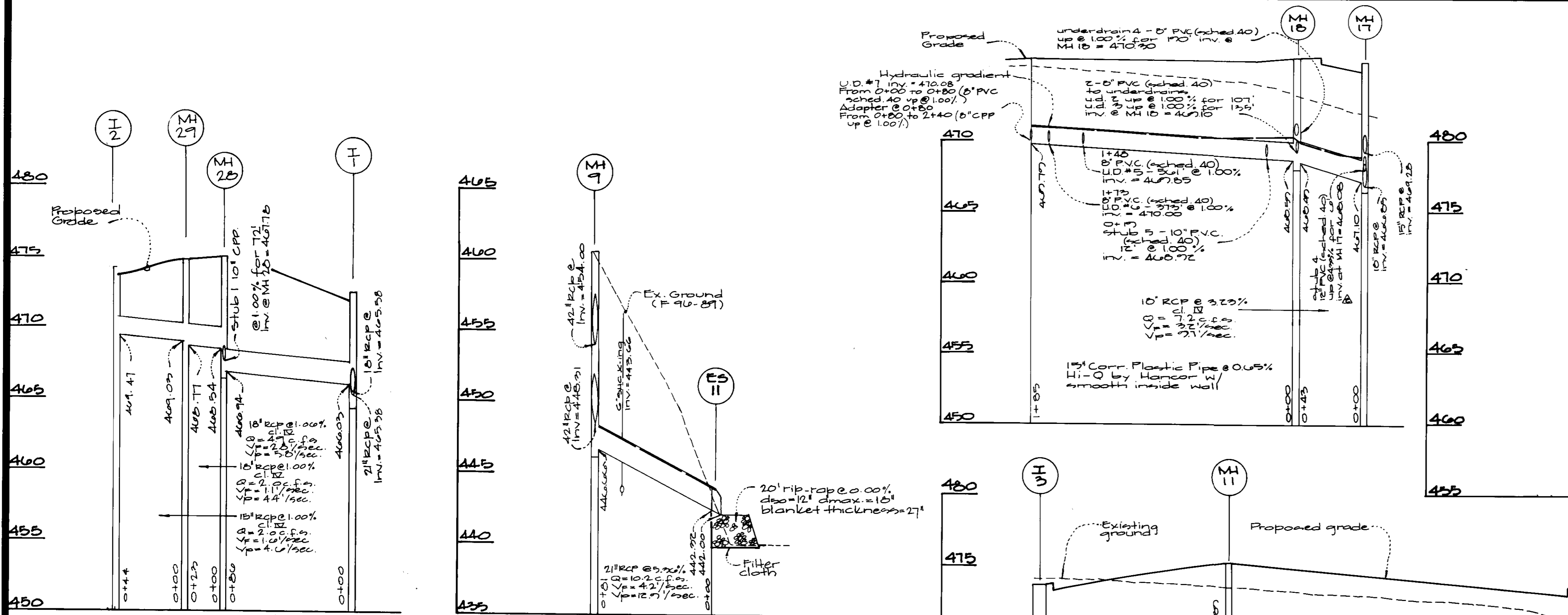
Structure Schedule

No	Type	Width (inside)	Top Elevation	Invert Elevation	Std. Detail	Locations	Remarks
			Upper	Upper			
I-1	A-10 Inlet		472.55	466.00	Ho. Co. S.D. 4.02	See Plan	
I-2	Double 4 comb.		472.30	469.47	Ho. Co. S.D. 4.04	"	
I-3	A-10 Inlet		473.43	461.25	Ho. Co. S.D. 4.02	"	
I-4	20 Inlet		470.50	462.97	SHA MD 574.02A	"	
I-5	20 Inlet		469.69	465.74	"	"	
I-6	A-10 Inlet	4'-8"	471.23	467.95	Ho. Co. S.D. 4.02	"	
I-7	20 Inlet		471.93	467.95	SHA MD 574.02A	"	
MH 8	Std Manhole		443.83	443.71	Ho. Co. G. 5.02	"	
MH 7	"		460.00	454.05	"	"	
MH 10	"		471.00	464.72	"	"	
MH 11	"		474.60	465.89	"	"	
MH 13	"		469.90	463.89	"	"	
MH 14	"		471.10	466.90	"	"	
MH 15	"		477.78	470.00	"	"	
MH 16	"		466.19	461.89	"	"	
MH 17	"		475.79	467.20	"	"	
MH 18	"		476.10	470.30	"	"	
MH 20	"		475.00	471.50	"	"	
MH 21	"		475.01	468.54	"	"	
MH 22	"		474.77	469.03	"	"	
ES 1	conc end section		446.04	445.14	Ho. Co. S.D. 5.01	"	
ES 11	"		442.20	442.00	"	"	

Pipe Schedule

Type & Size	Class	Quantity	Remarks
8" PVC	sched 40	1440 L.F.	
10" PVC	sched 40	84 L.F.	
15" RCP	cl. IV	224 L.F.	
18" RCP	cl. IV	405 L.F.	
8" corr. Plastic Pipe	Hi-Q or equal	160 L.F.	
21" RCP	cl. IV	595 L.F.	
24" RCP	cl. IV	20 L.F.	
36" RCP	cl. IV	15 L.F.	
42" RCP	cl. III	101 L.F.	
42" RCP	cl. IV	685 L.F.	
15" corr. Plast. Pipe	Hi-Q or Equal	105 L.F.	
12" PVC	sched 40	19 L.F.	

*These inlets have a top width equal to 1'-0".



Profiles
 Scale: Horiz.: 1" = 50'
 Vert.: 1" = 5'

Approved: *[Signature]*
 Public Water & Sewerage
 Health Officer
 Date: *[Blank]*

Approved: *[Signature]*
 Howard County Department of
 Planning and Zoning
 Director
 Date: 1/22/97

[Signature]
 Chief, Division of Land Dev.
 Date: 1/21/97

[Signature]
 Chief, Development Engineering Division
 Date: 1/13/97

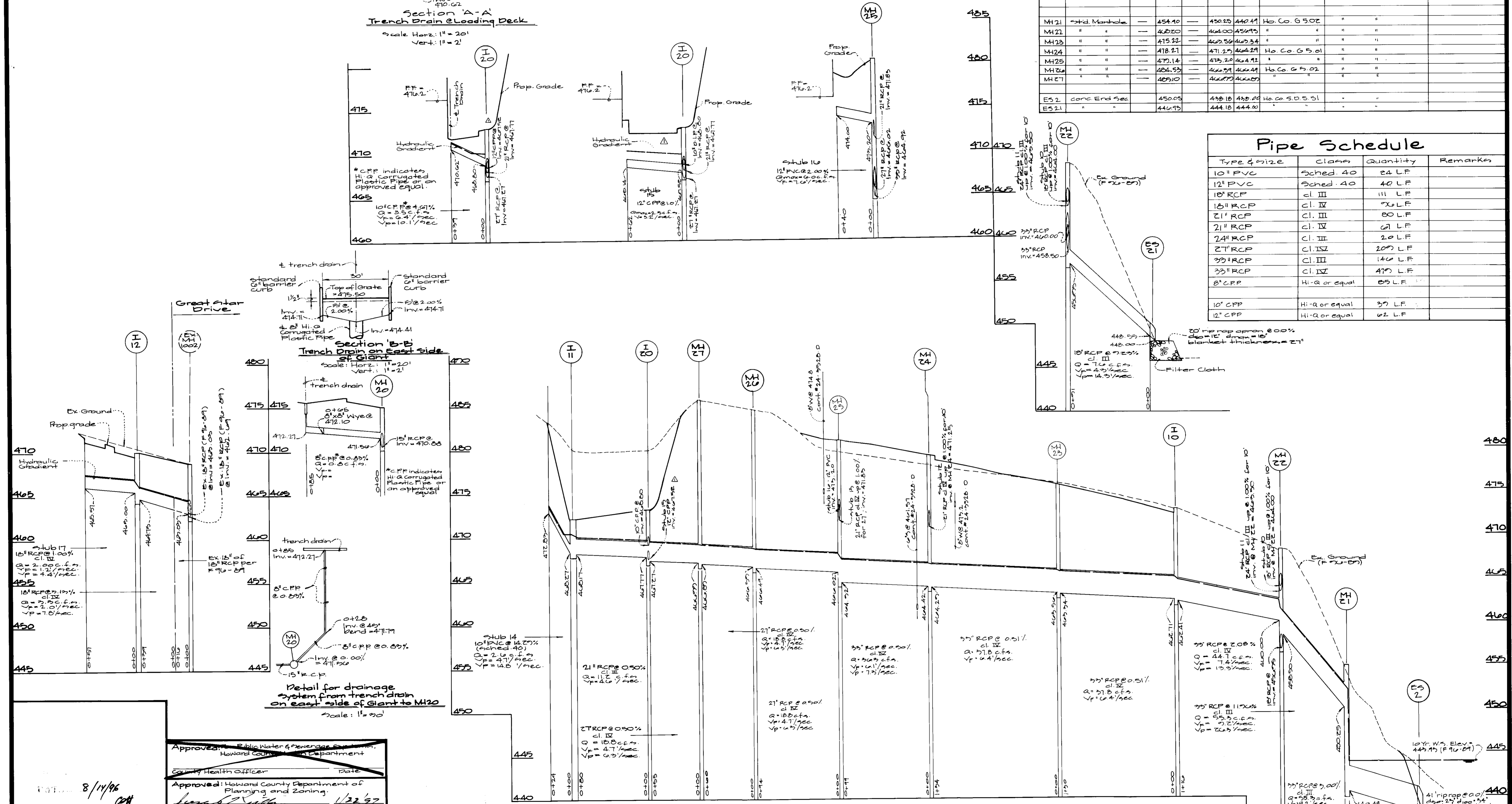
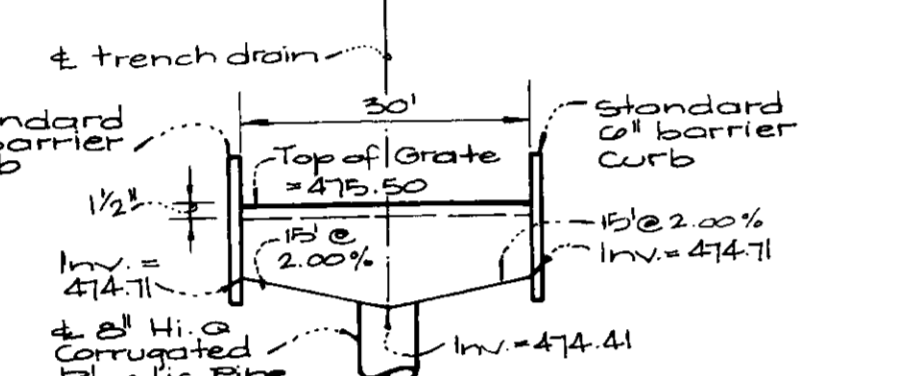
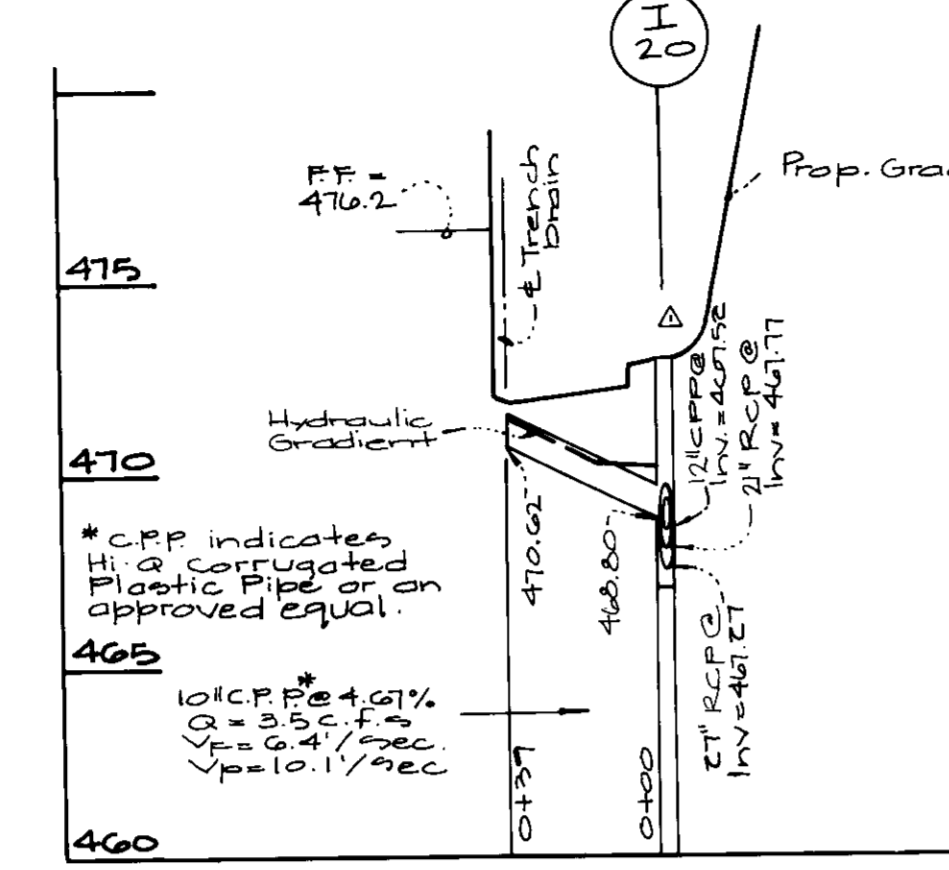
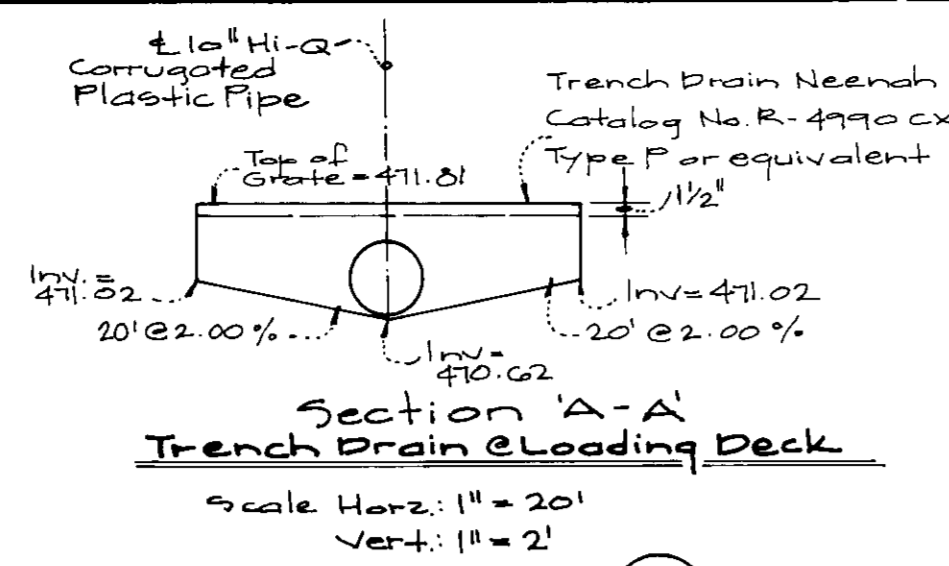
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD. 20866
 TELEPHONE: (301)421-4024 NO. VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.
8/14/96	rev. stub & inv @ MH 7; rev. structure & pipe schedule	KLP	
8/14/97	revised structure & pipe schedule	KLP	

PREPARED FOR:
 The Howard Research and
 Development Corporation
 The Royale Building
 10275 Little Patuxent Parkway
 Columbia, Maryland 21044
 (410) 492-0370

Storm Drain Profiles
VILLAGE OF RIVER HILL
 Section 4 Area 2
 PARCELS 'J' THRU 'L', 'N', 'W' THRU 'Z', AND 'AA'
 clarksville Election District No. 5
 Howard County, Maryland

DES.:	SCALE	ZONING	G.L.W. FILE NO.
DRN.:	As Shown	N.T.	95097
CHK.:	DATE	TAX MAP NO.	SHEET
	Dec, 1996	34 & 35	7 of 12



Structure Schedule

No	Type	Width (Inside)	Top Elevation	Invert Elevation	Std. Detail	Locations	Remarks
I-10	Conc. IS	3'-0"	472.94	462.71	SHA M2374.62	See Plan	
I-11	Conc. 20	4'-0"	472.00	462.27	"	"	
I-12	A-10	3'-0"	471.09	465.00	Ho. Co. 5B.4.02	"	
I-20	15' Inlet	3'-0"	472.93	465.00	5D. 4.22	"	
MH21	Std. Manhole		454.10	430.25	440.41	Ho. Co. G.5.02	"
MH22	"		462.00	444.00	450.95	"	
MH23	"		475.22	462.50	462.34	"	
MH24	"		478.27	471.25	464.29	Ho. Co. G.5.01	"
MH25	"		479.14	473.20	464.92	"	
MH26	"		484.53	466.99	464.49	Ho. Co. G.5.02	"
MH27	"		485.10	466.79	464.09	"	
ES2	Conc. End Sec.		450.05	438.18	438.20	Ho. Co. S.D.5.51	"
ES21	"		446.93	444.18	444.00	"	

Pipe Schedule

Type & Size	Class	Quantity	Remarks
10" PVC	Sched. 40	24 L.F.	
12" PVC	Sched. 40	40 L.F.	
18" RCP	cl. III	111 L.F.	
18" RCP	cl. IV	70 L.F.	
21" RCP	cl. III	80 L.F.	
21" RCP	cl. IV	61 L.F.	
24" RCP	cl. III	20 L.F.	
27" RCP	cl. ISX	209 L.F.	
33" RCP	cl. III	140 L.F.	
33" RCP	cl. ISX	479 L.F.	
8" CPP	Hi-Q or equal	89 L.F.	
10" CPP	Hi-Q or equal	39 L.F.	
12" CPP	Hi-Q or equal	62 L.F.	

Profiles
Scale: Horiz. 1" = 50'
Vert. 1" = 5'

Approved: Public Water & Sewerage Department
Howard County Health Department
County Health Officer
Date: _____

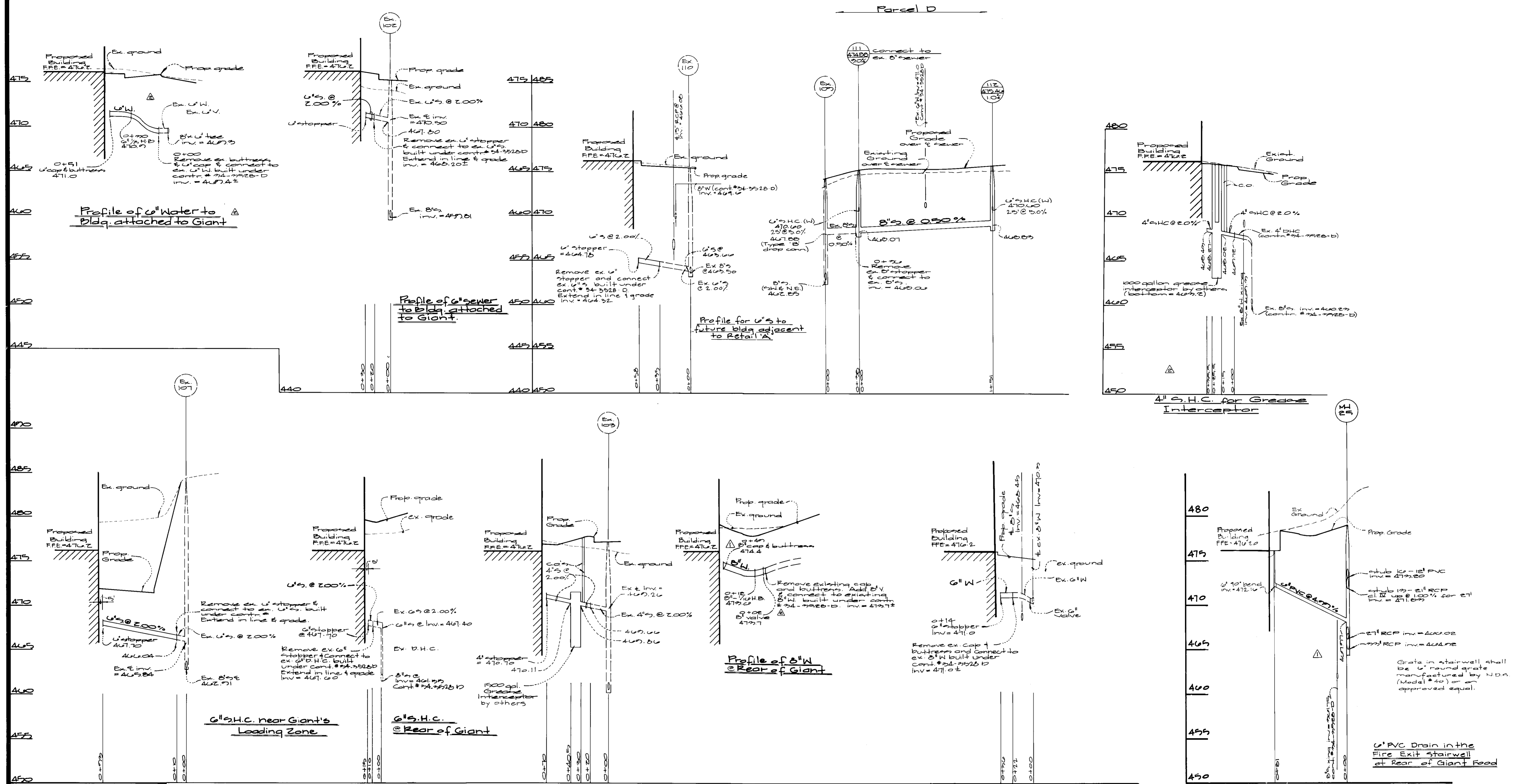
Approved: Howard County Department of Planning and Zoning
Date: 1/22/97
Date: 1/21/97
Date: 1/21/97

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD 20866
TELEPHONE: (301)421-4024 NO. VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

PREPARED FOR:
The Howard Research and Development Corporation
The Royale Building
10275 Little Bluff Parkway
Columbia, Maryland 21044
(410) 792-6570

Storm Drain Profiles
VILLAGE OF RIVER HILL
Section 4 Area 2
PARCELS "J" THRU "L", "N", "W" THRU "Z", AND "AA"
Clarksville Election District No. 5
Howard County, Maryland

DES.:	SCALE	ZONING	G.L.W. FILE NO.
DRN.:	As Shown	N.T.	95097
CHK.:	DATE	TAX MAP No.	SHEET
	Dec, 1996	34835	8 of 12



APPROVED: ~~Public Water & Sewerage System~~
 Howard County Health Dept.
 _____ Date _____
 Health Officer

APPROVED: Howard County Dept. of Planning & Zoning
 _____ Date 1/22/96
 Director

Richard Blood 1/21/97
 _____ Date
 Chief Div. of Land Development & Planning

_____ Date 1/13/97
 Chief Development Engineering Div.

Profile for Grease Interceptor from Giant
 Profile Scales
 Vert. : 1" = 5'
 Horiz. : 1" = 50'

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE, SUITE 250, BURTONSVILLE OFFICE PARK, BURTONSVILLE, MD 20866
 TELEPHONE: (301)421-4024 NO. VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

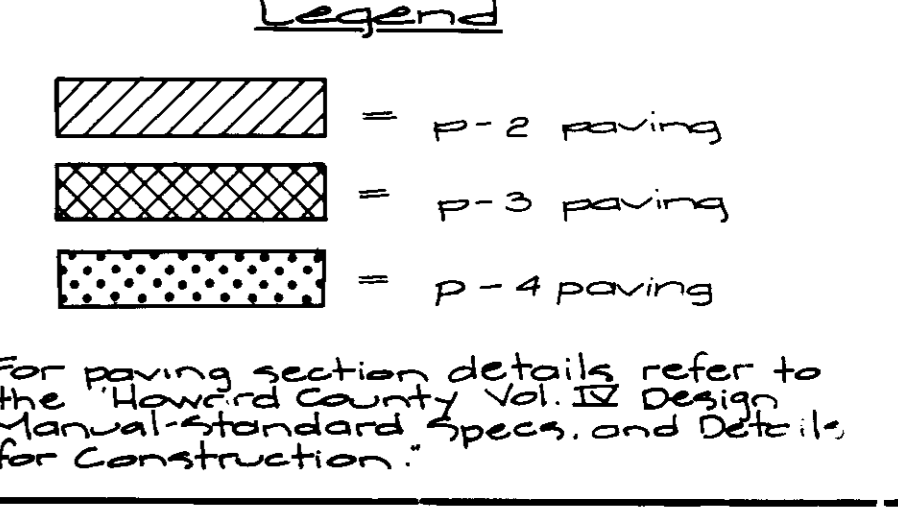
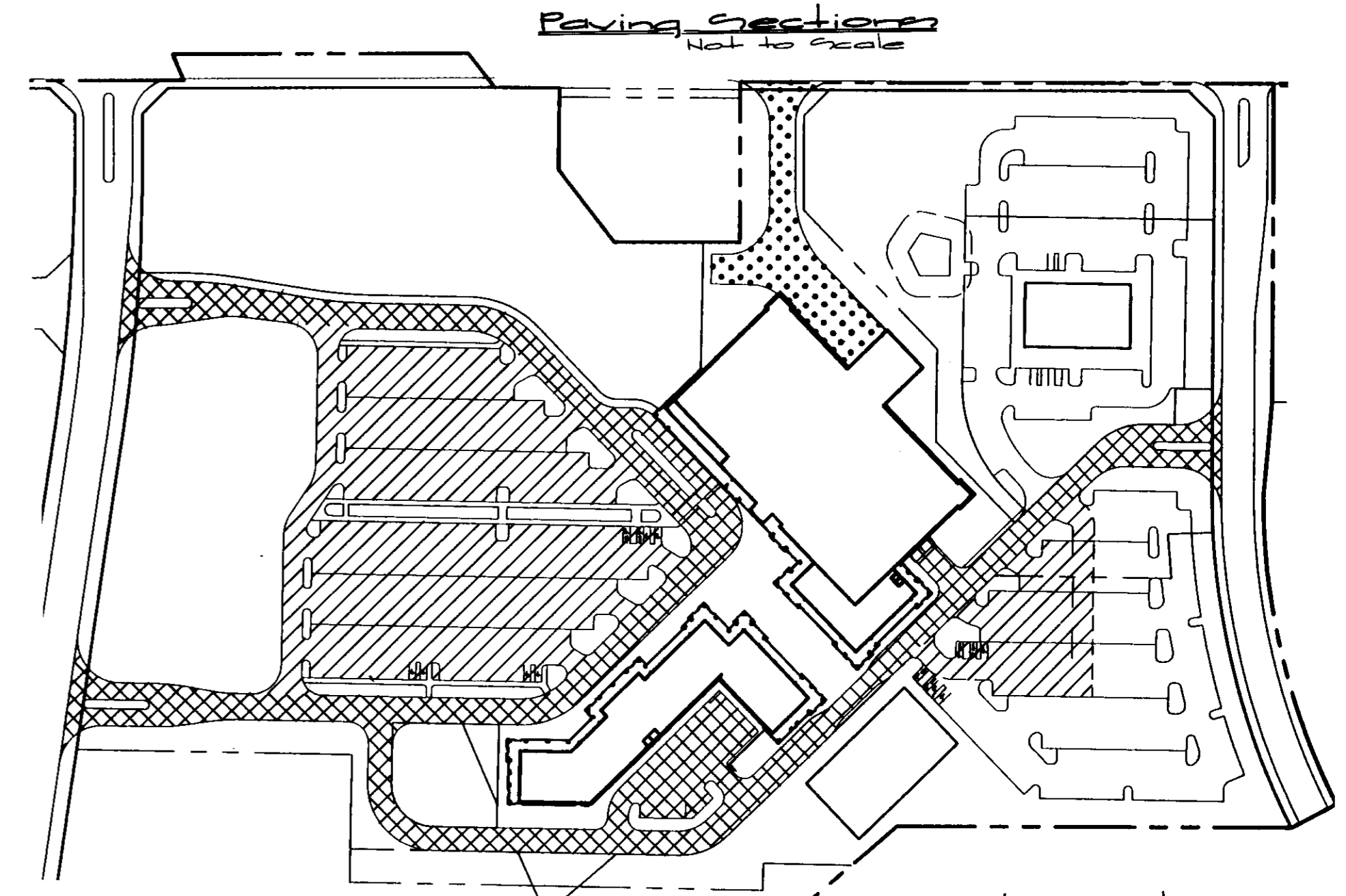
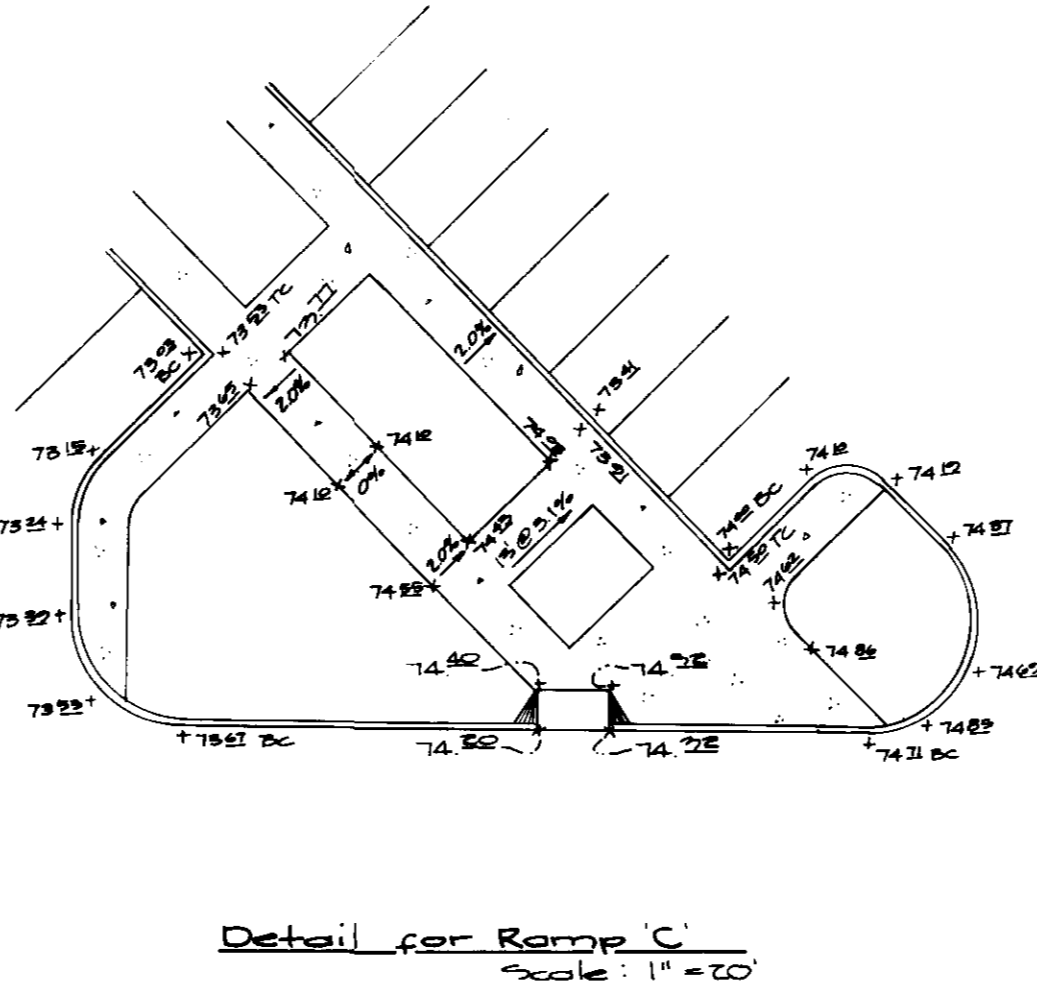
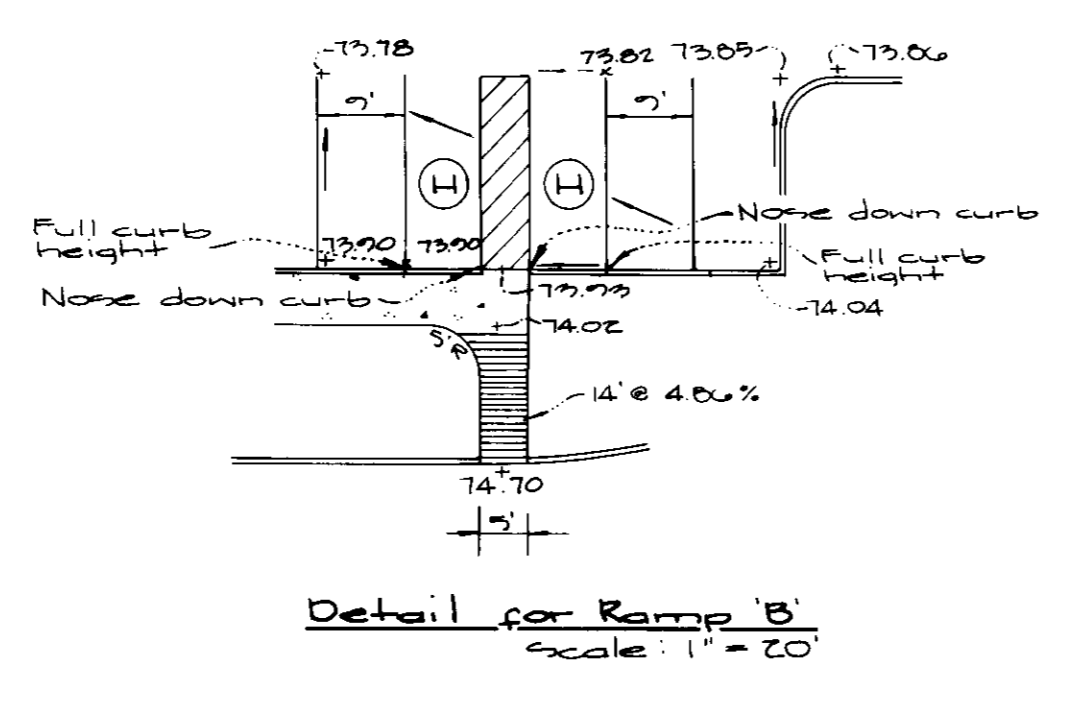
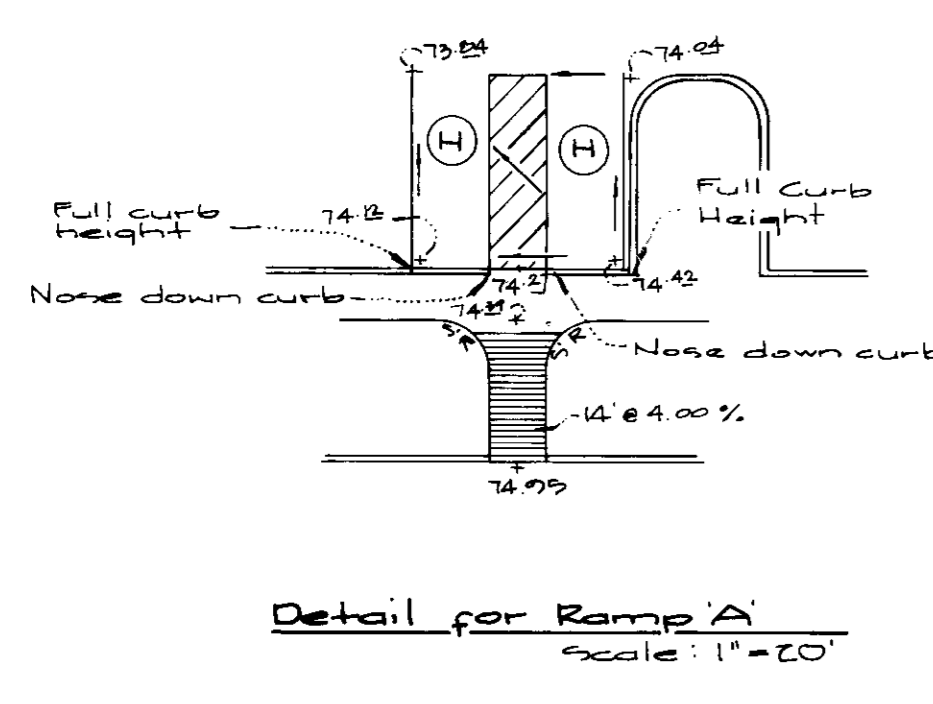
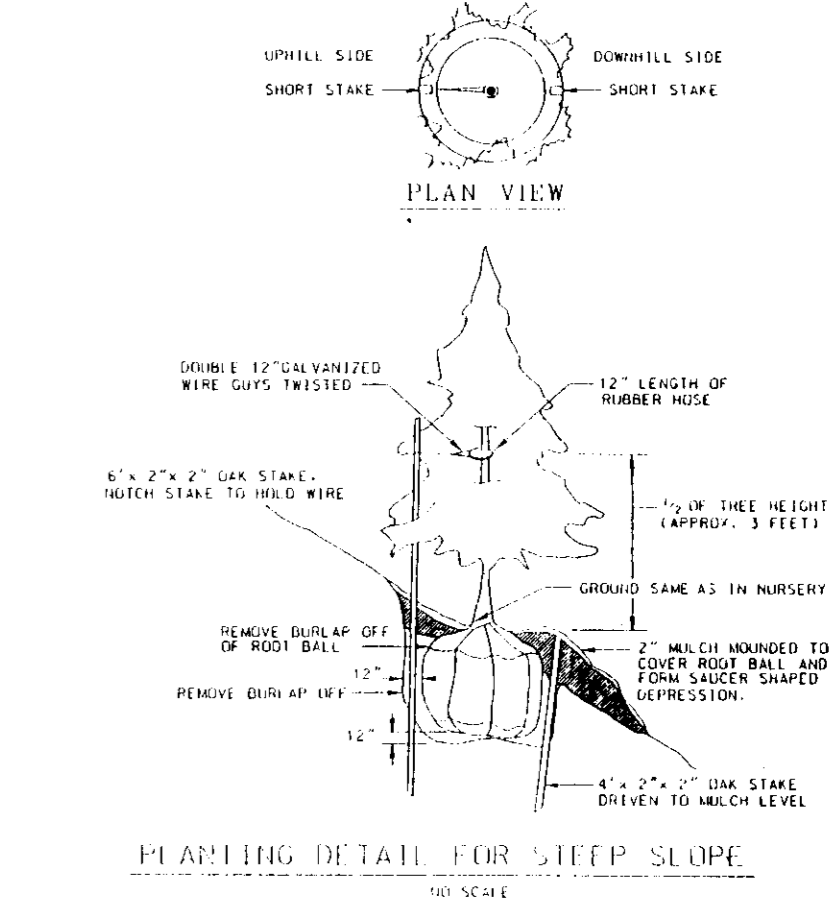
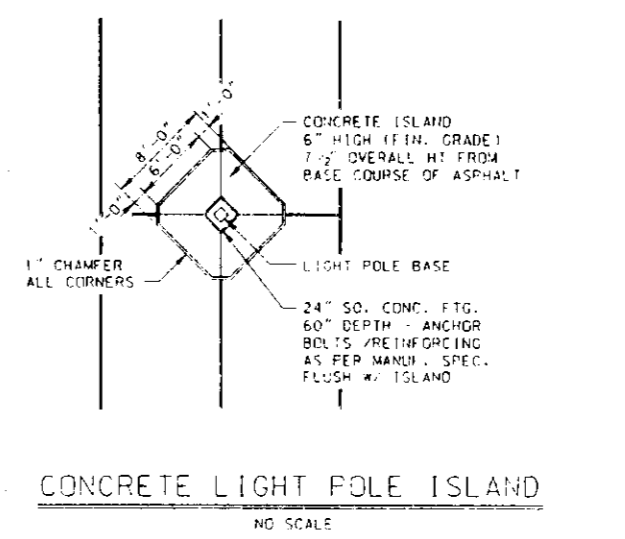
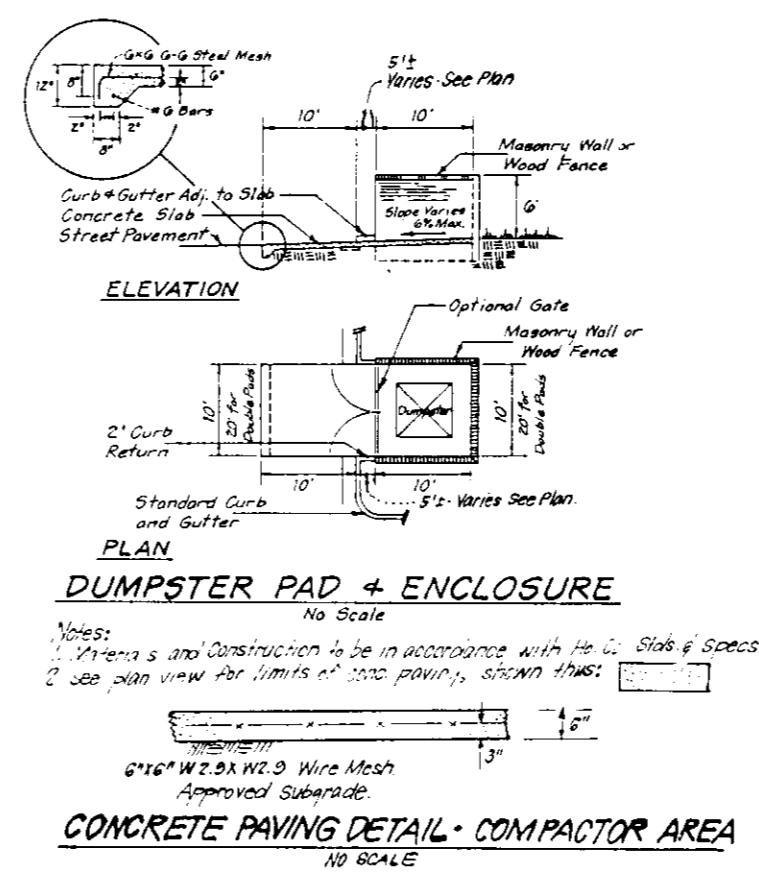
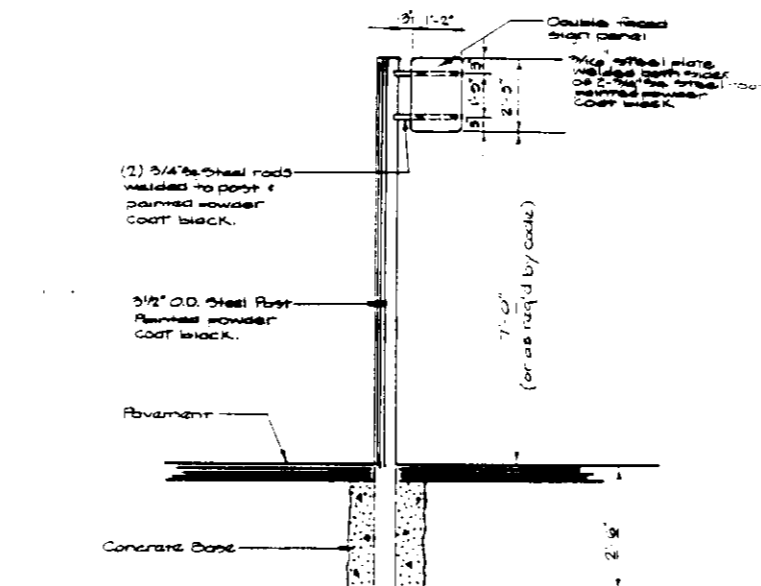
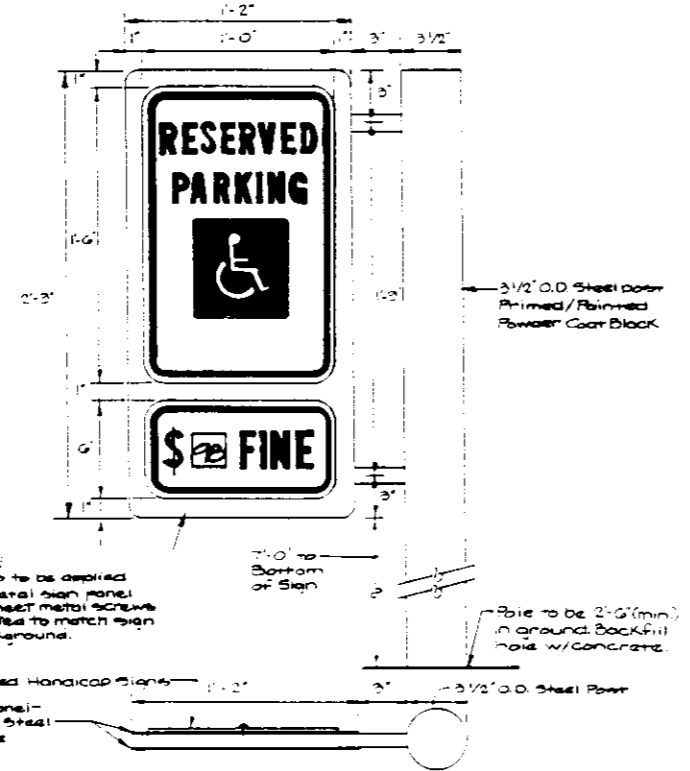
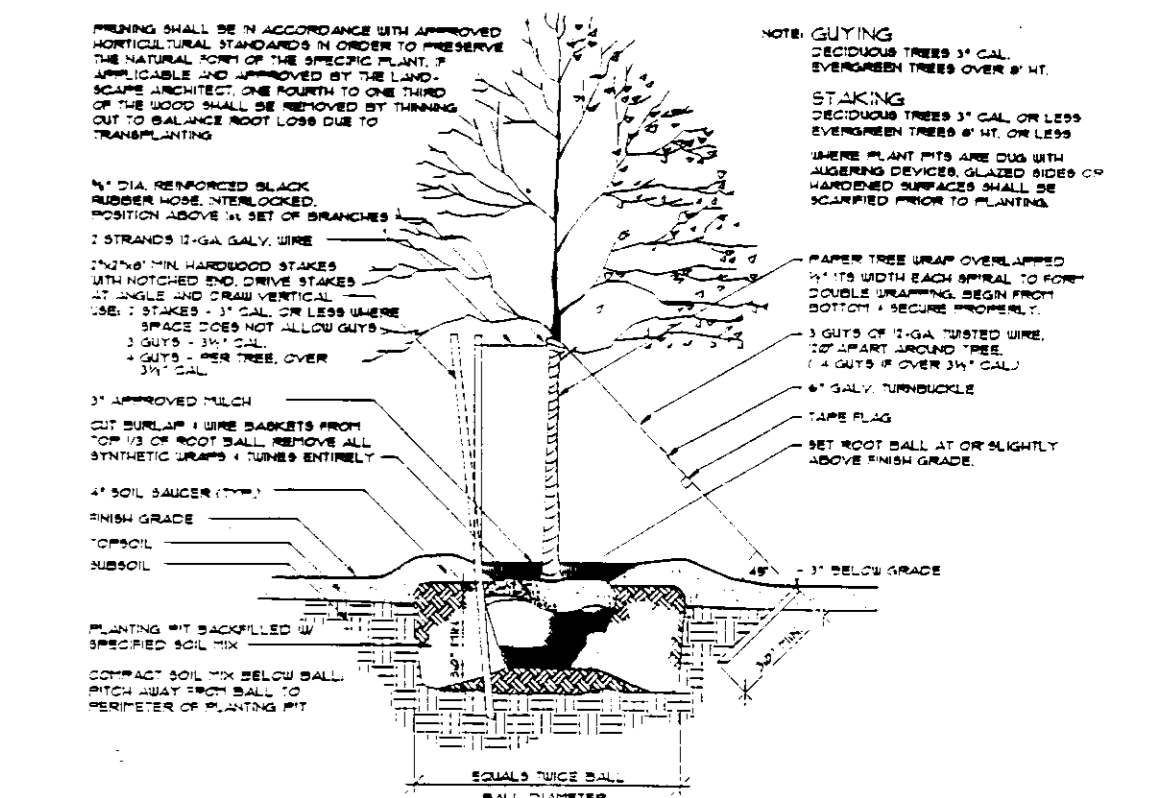
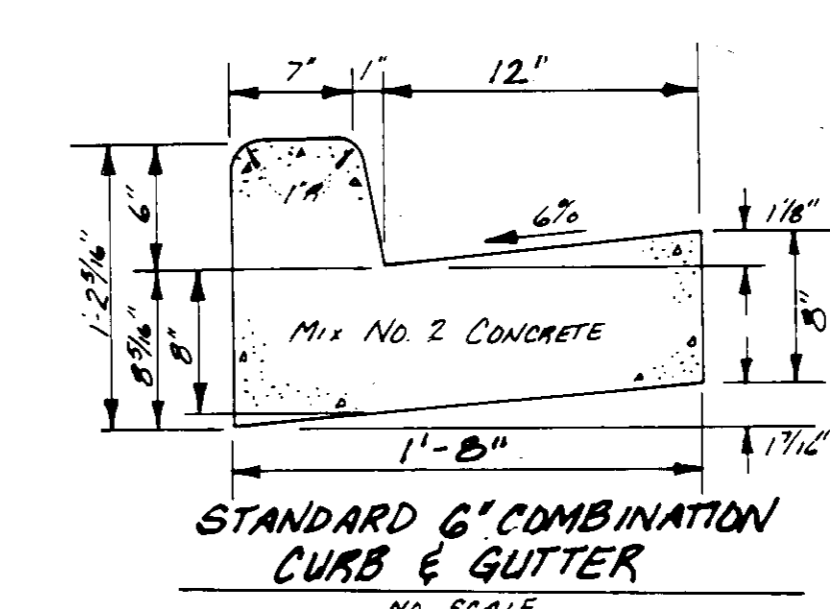
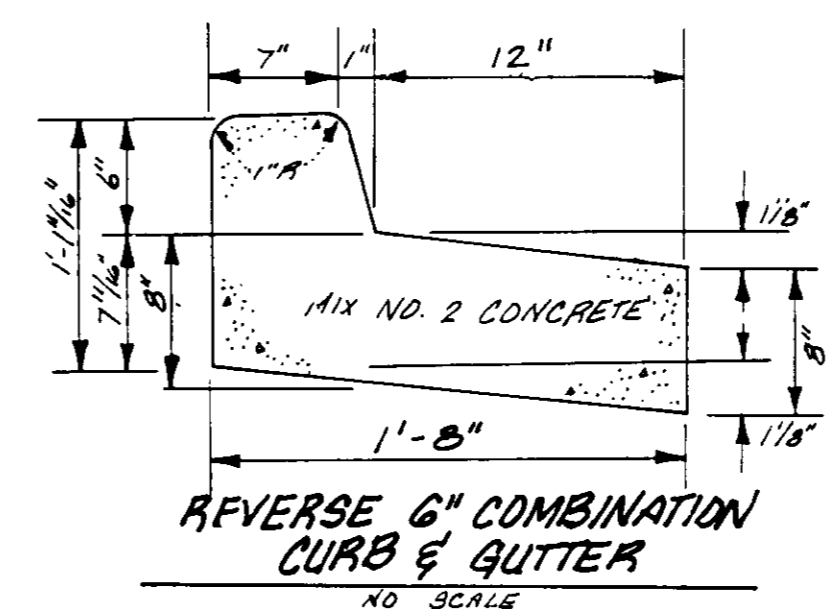
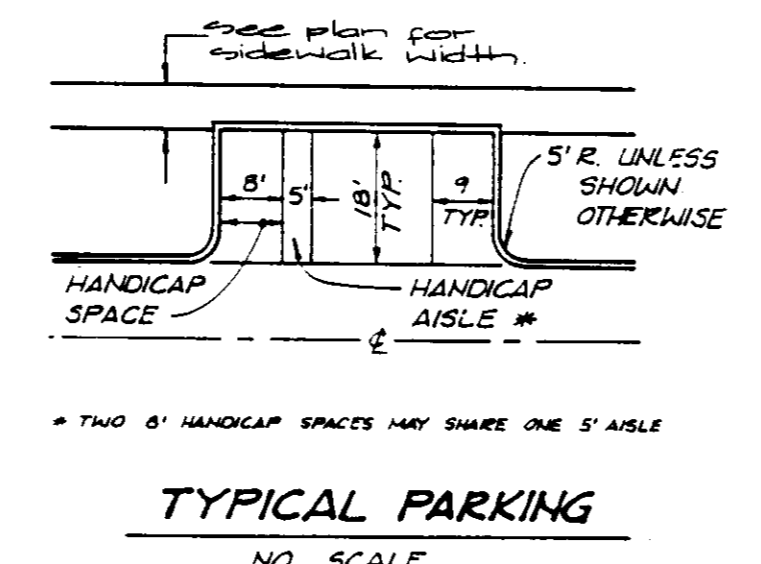
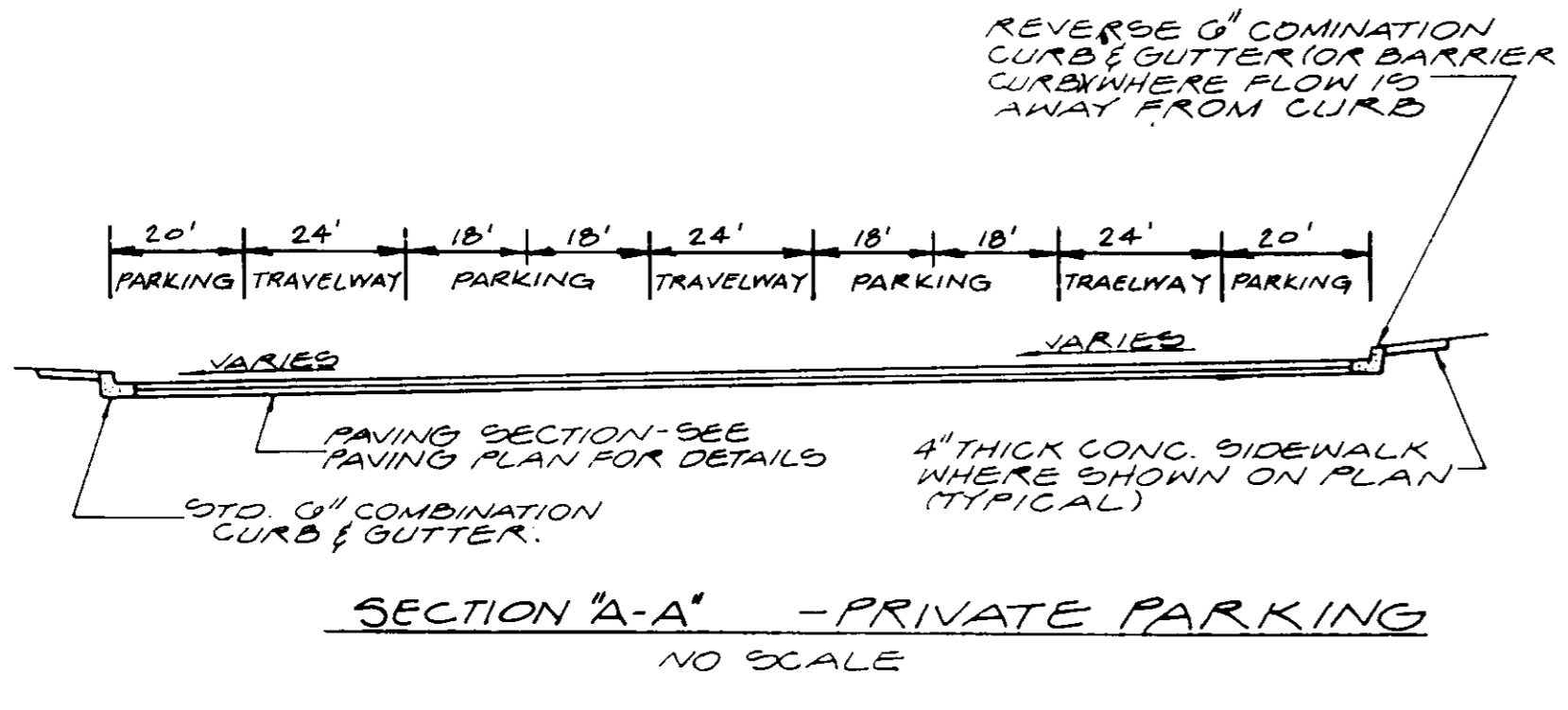
DATE	REVISION	BY	APP'R.
01/21/97	REV. 014 to add 15' x 4' H.C. grease interceptor	KLP	
01/15/97	Added PVC to 6" W @ rear of Giant profile	KLP	
	Rev. stairwell drain profile & G.W. profile @ rear of Giant	KLP	

PREPARED FOR:
 The Howard Research & Development Corporation
 The Rouse Building
 18275 Little Patuxent Parkway
 Columbia, Maryland 21044
 (410) 792-6370

Water & Sewer Profile
VILLAGE OF RIVER HILL
 Section 4 Area 2
 Parcels 'J' thru 'L', 'N', 'W' thru 'Z', and 'AA'
 Clarksville Election District N°5
 Howard County, Maryland

DES.	SCALE	ZONING	G.L.W. FILE NO.
MJT	As shown	N.T.	95007
DRN.	DATE	TAX MAP No.	SHEET
KLP	Dec, 1996	24 & 35	9 of 12
CHK.	DEV		
DEV			

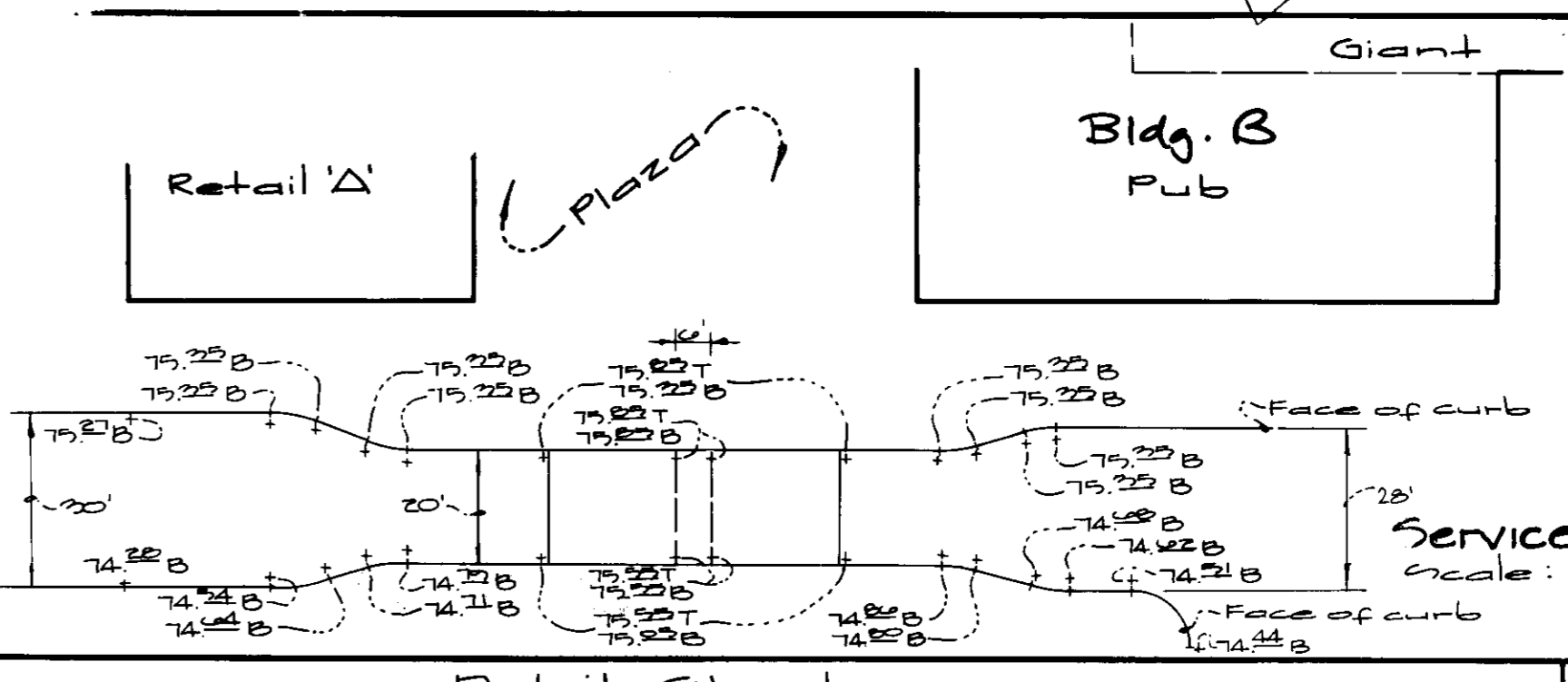
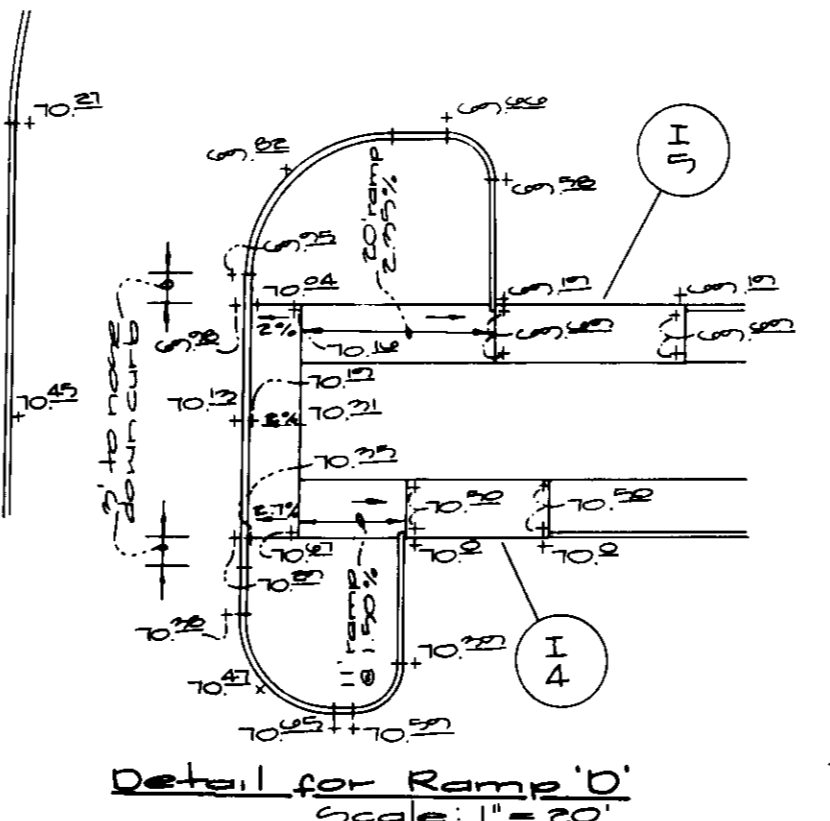
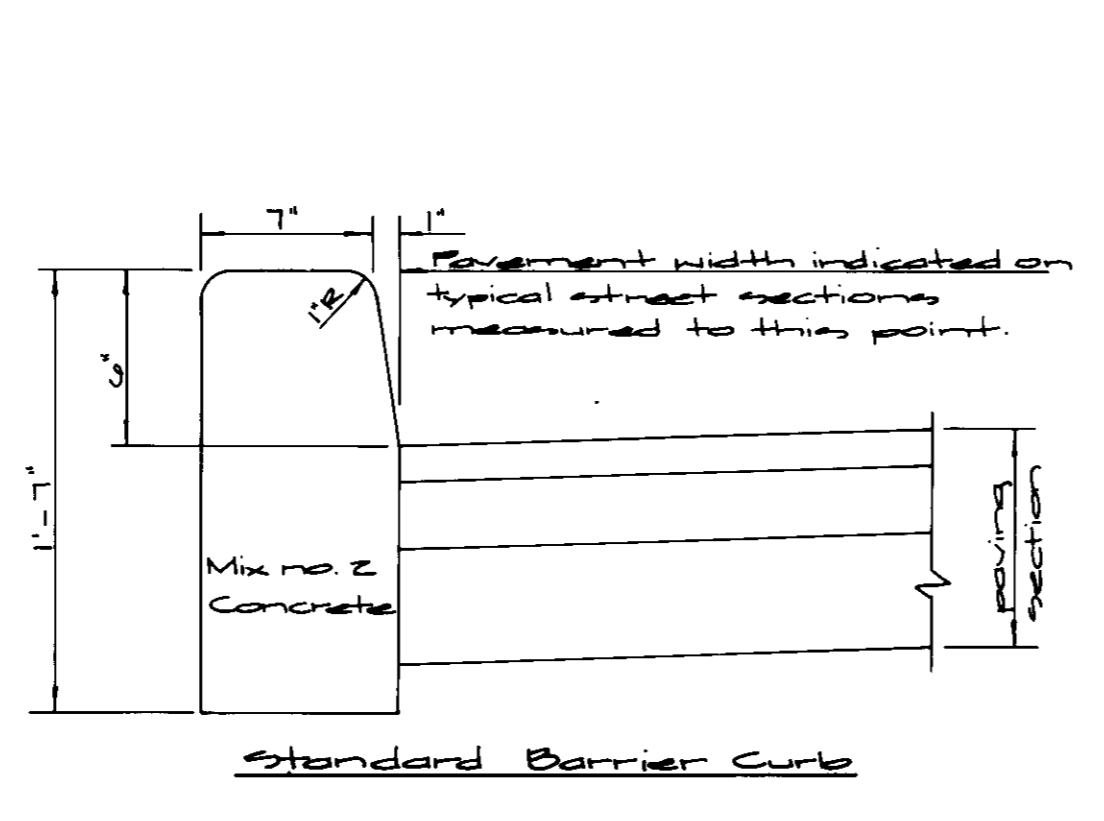
SDP 96-110



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Richard Beland
Chief, Division of Land Development and Research
Date: 1/21/97

1/18/97



GW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD 20866
TELEPHONE (301)421-4024 NO VA (301)989-2524 BALTO (301)880-1820 FAX (301)421-4186

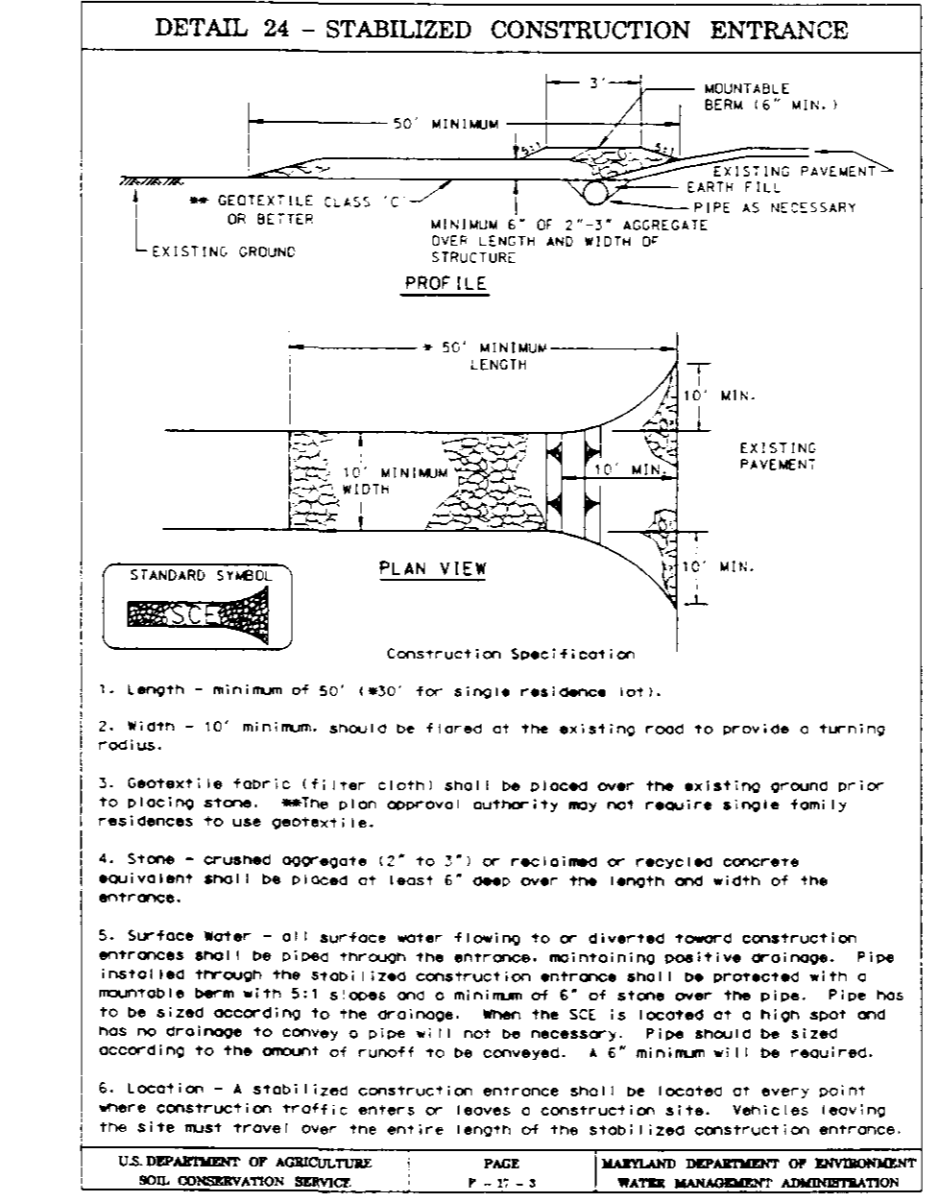
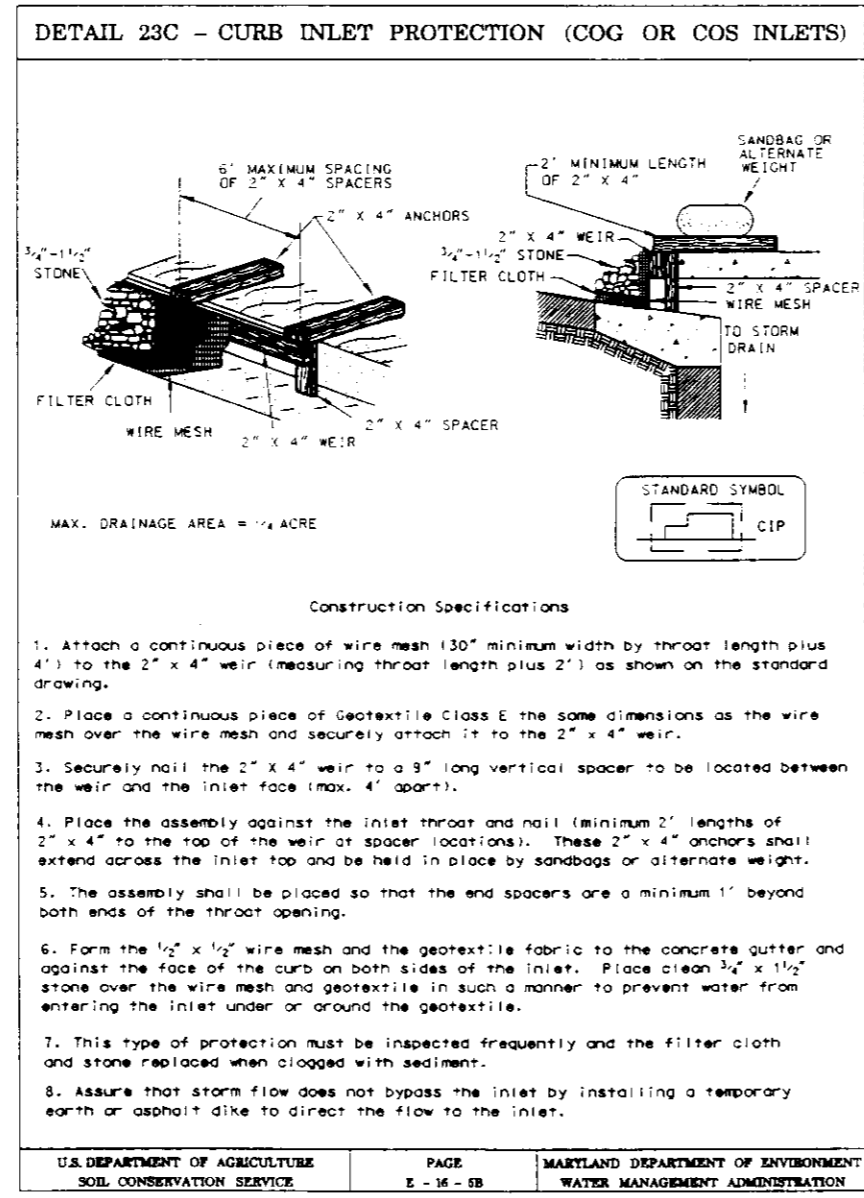
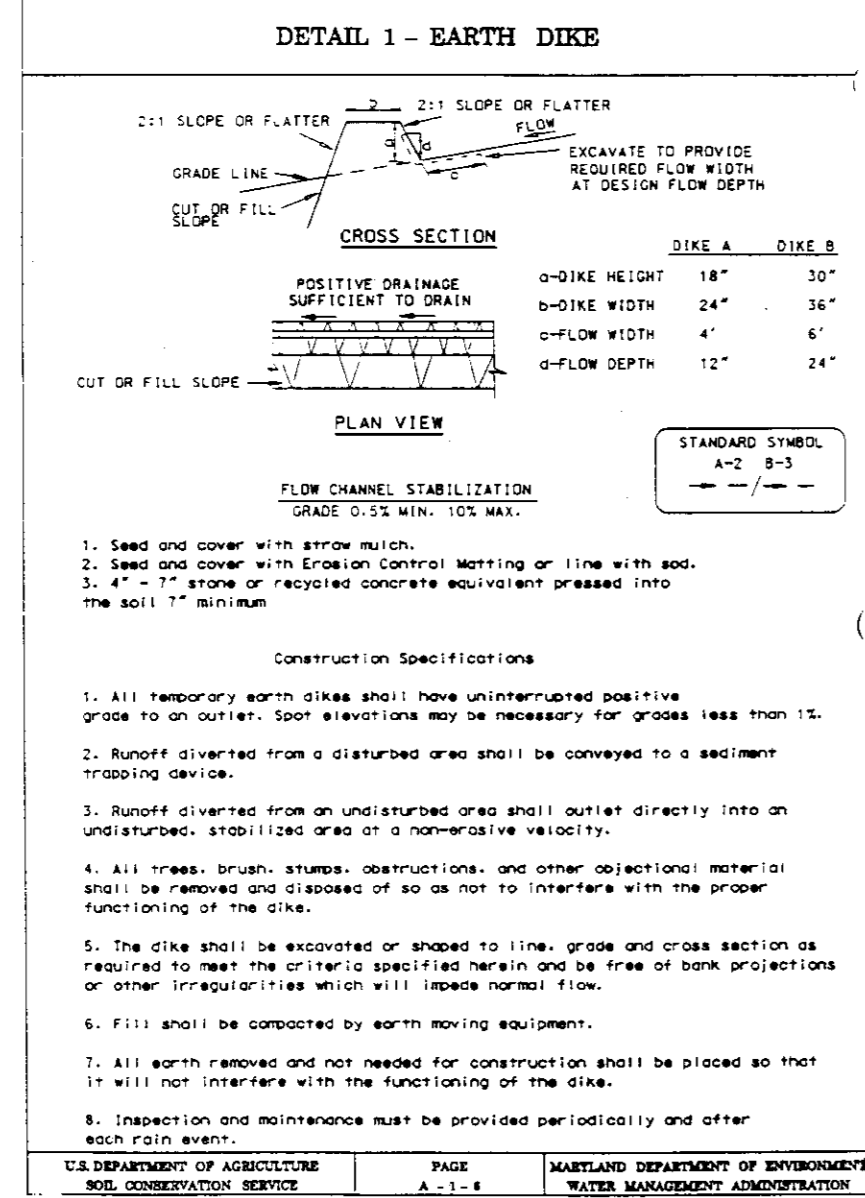
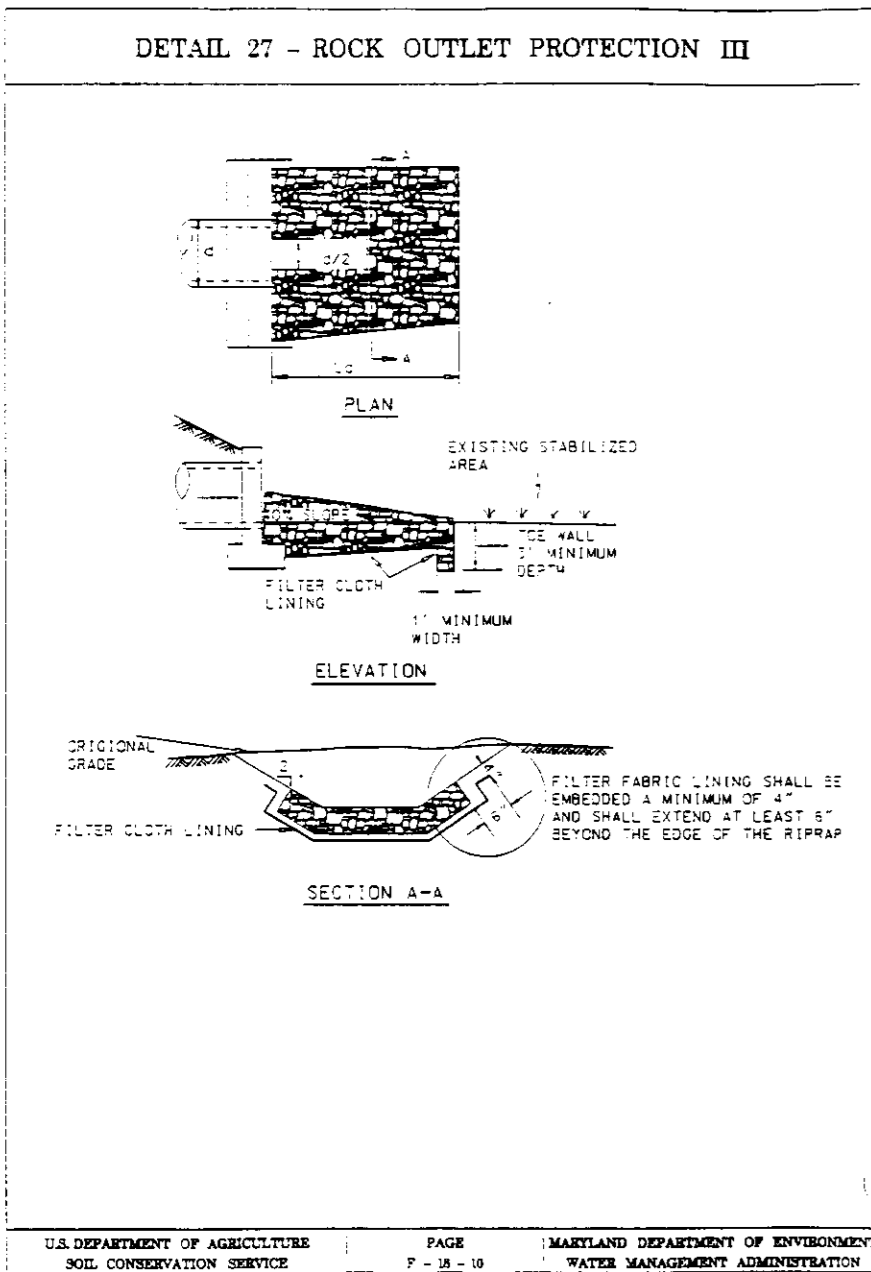
DATE	REVISION	BY	APPR.

PREPARED FOR:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
THE ROUSE BUILDING
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MD 21044
(410) 992-6370

Detail Sheet
VILLAGE OF RIVER HILL
Section 4 Area 2
PARCELS 'J' THRU 'L', 'N', 'W' THRU 'Z', AND 'AA'
CLARKSVILLE ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

DES.:	SCALE	ZONING	G.L.W. FILE No.
DRN.:	N.T.S.	N.T.	95007
CHK.:	DATE	TAX MAP No.	SHEET
	Dec., 1996	24 & 35	10 of 12

SDP 96-110



SEDIMENT CONTROL NOTES

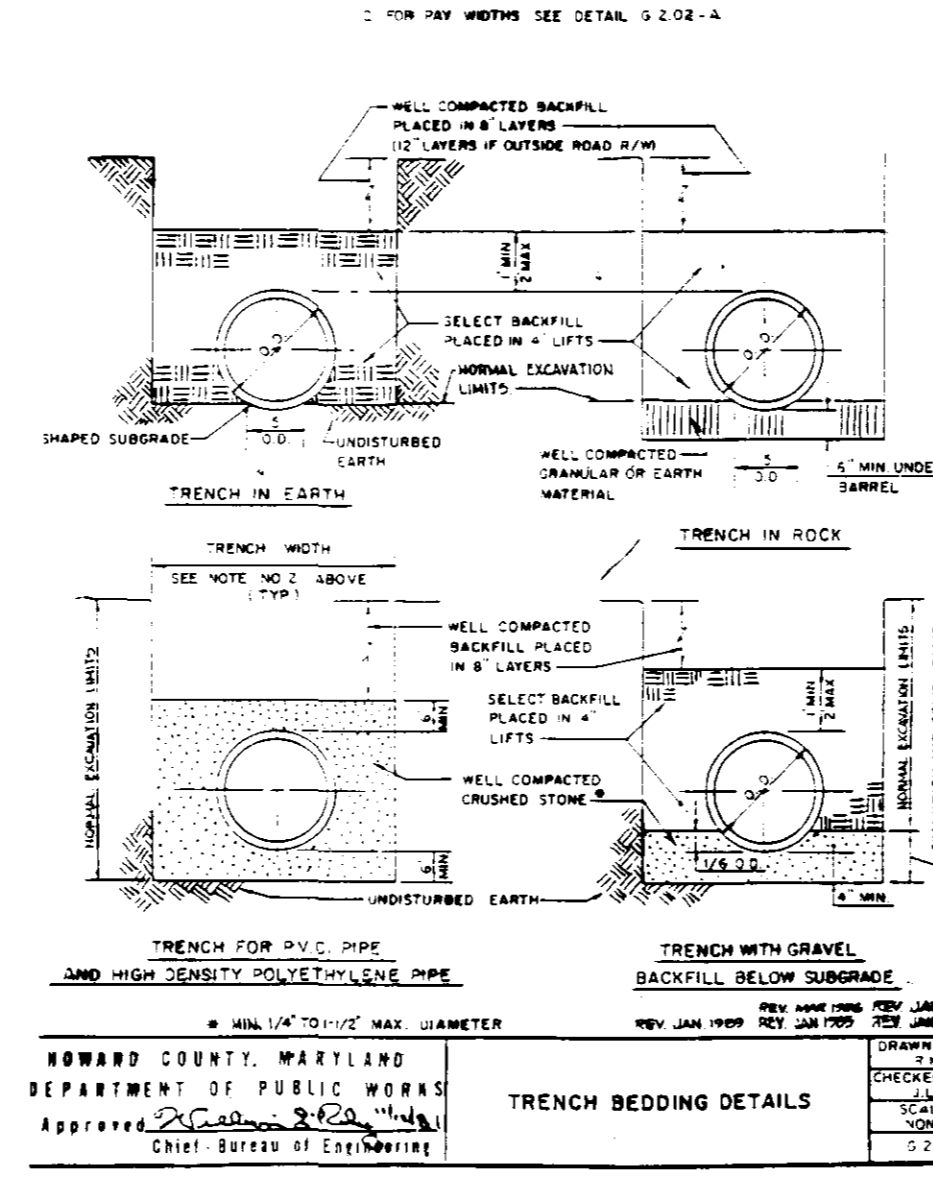
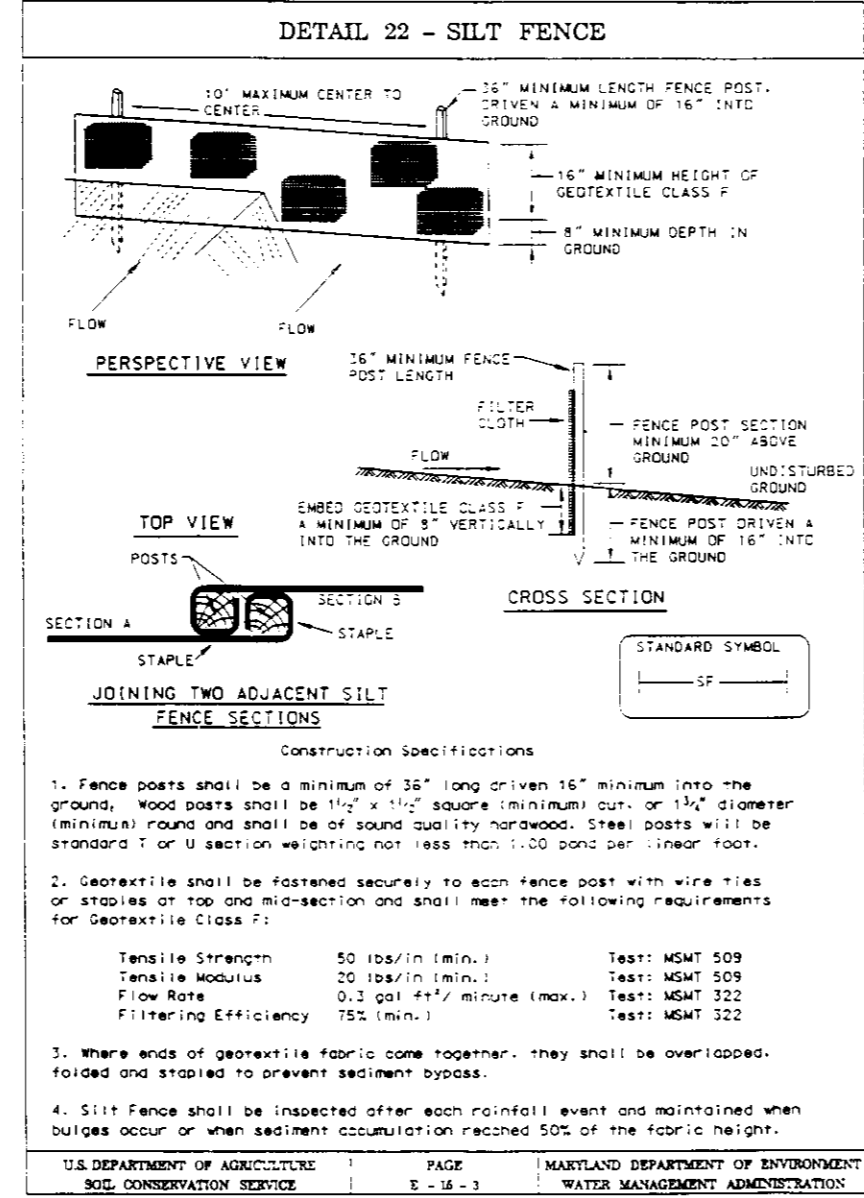
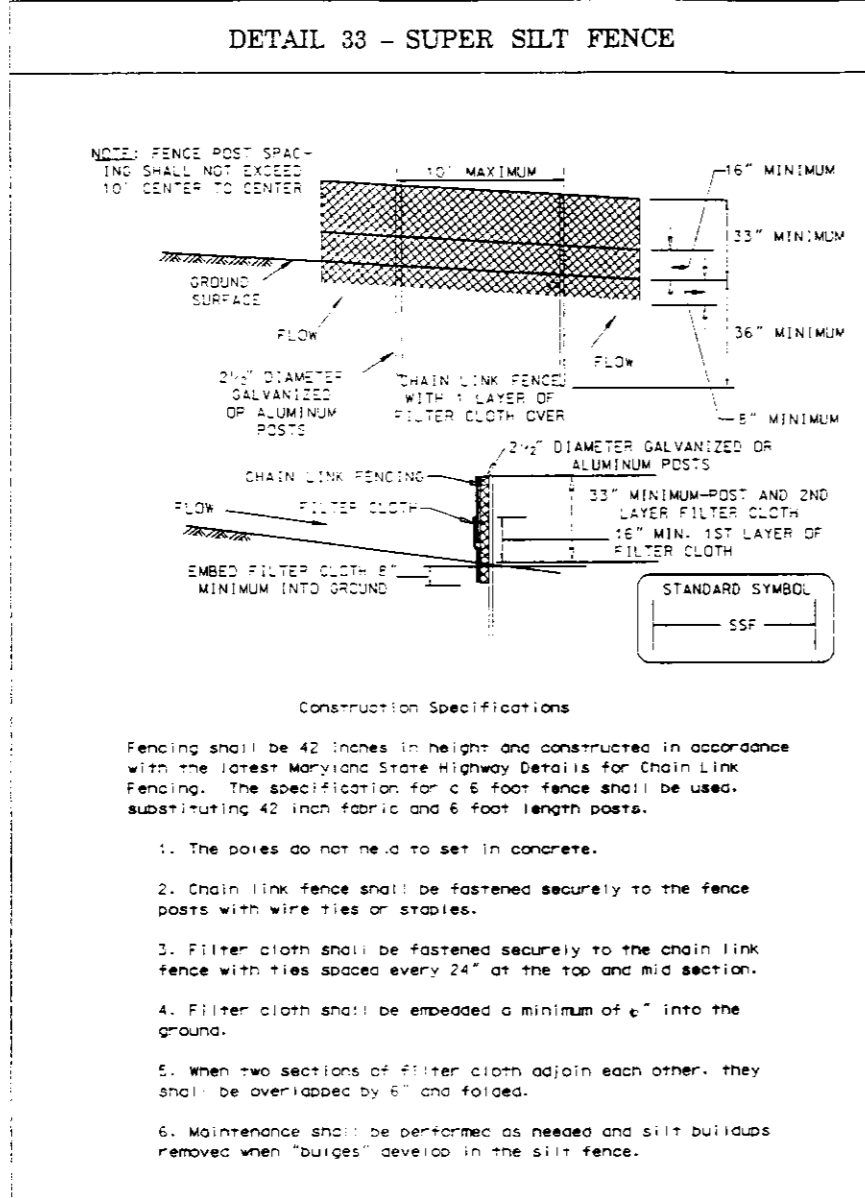
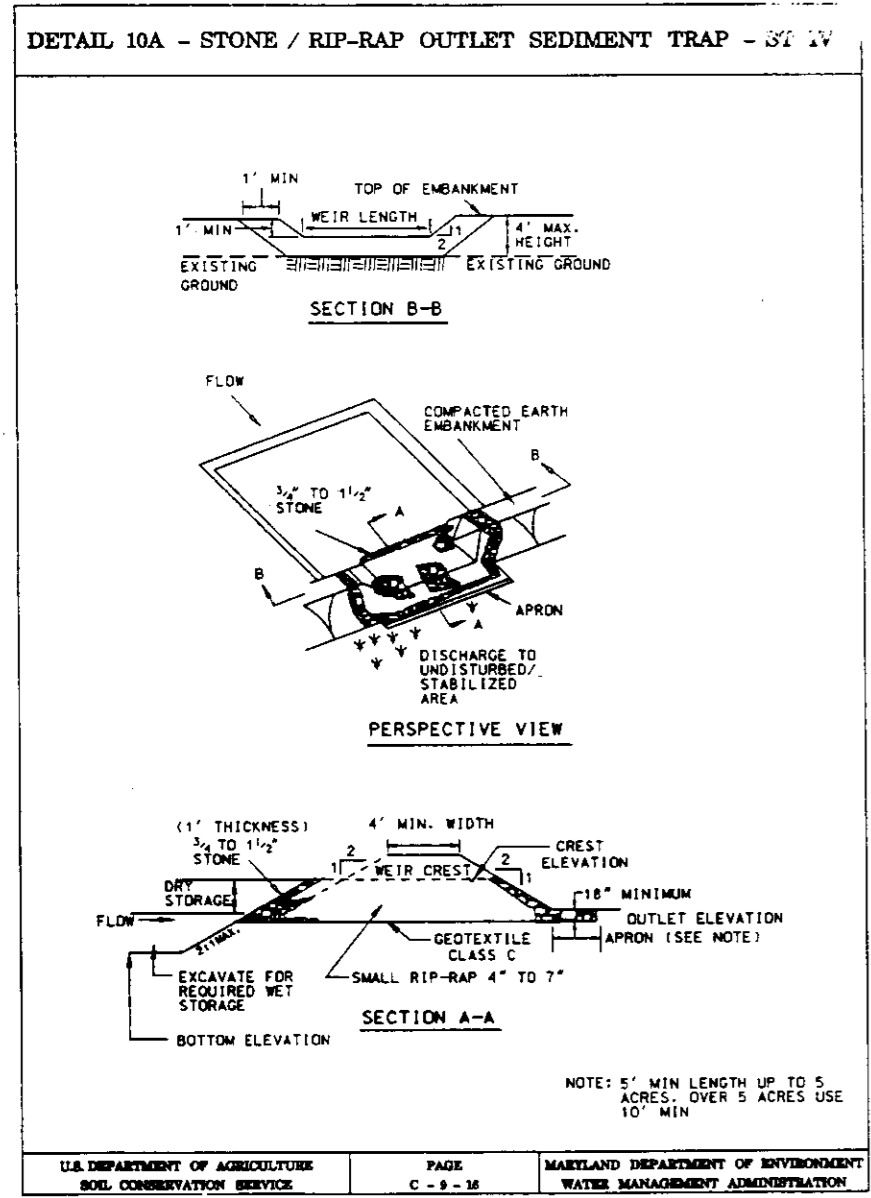
1. A minimum of 48 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (4/0) 3/13-1255
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
3. Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within:
 - a) 7 calendar days for all perimeter sediment control structures, dikes and perimeter slopes and all slopes greater than 3:1,
 - b) 14 days as to all other disturbed or graded areas on the project site.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding, sod, temporary seeding, and mulching (Sec. G.) Temporary stabilization, with mulch alone, shall only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
7. Site Analysis:

Total Area of Site	: 25.5	Acres
Area Disturbed	: 21.4	Acres
Area to be roofed or paved	: 15.0	Acres
Area to be vegetatively stabilized	: 7.57	Acres
Total Cut	: 24,925	Cu. Yds.
Total Fill	: 24,925	Cu. Yds.
Off-site waste/borrow area location:	N/A	
8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
9. Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
11. Trenches for the construction of utilities is limited to these pipe lengths or that which shall be back filled and stabilized within one working day, whichever is shorter.

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements.

PERMANENT SEEDING NOTES

- Apply to graded or cleared area 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
- 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square feet) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft).
 - 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.
- Seeding:** For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.
- Mulching:** Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.
- Maintenance:** Inspect all seeded areas and make needed repairs, replacements and reseeding.



DEVELOPER'S/BUILDER'S CERTIFICATE

"We certify that all development and/or construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland 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 HSCD."

Signature of Developer/Builder: *[Signature]* Date: 2-27-96

ENGINEER'S CERTIFICATE

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

Signature of Engineer: *[Signature]* Date: 2-27-96

TEMPORARY SEEDING NOTES

- Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.
- Seedbed Preparation:** Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.
- Soil Amendments:** Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).
- Seeding:** For periods March 1 thru April 30 and from August 15 thru October 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs/1000 sq ft). For the period May 1 thru July 31, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.
- Mulching:** Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted, weed-free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.
- Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.**

8/14/96
Cott

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: *[Signature]* Date: 1/22/97

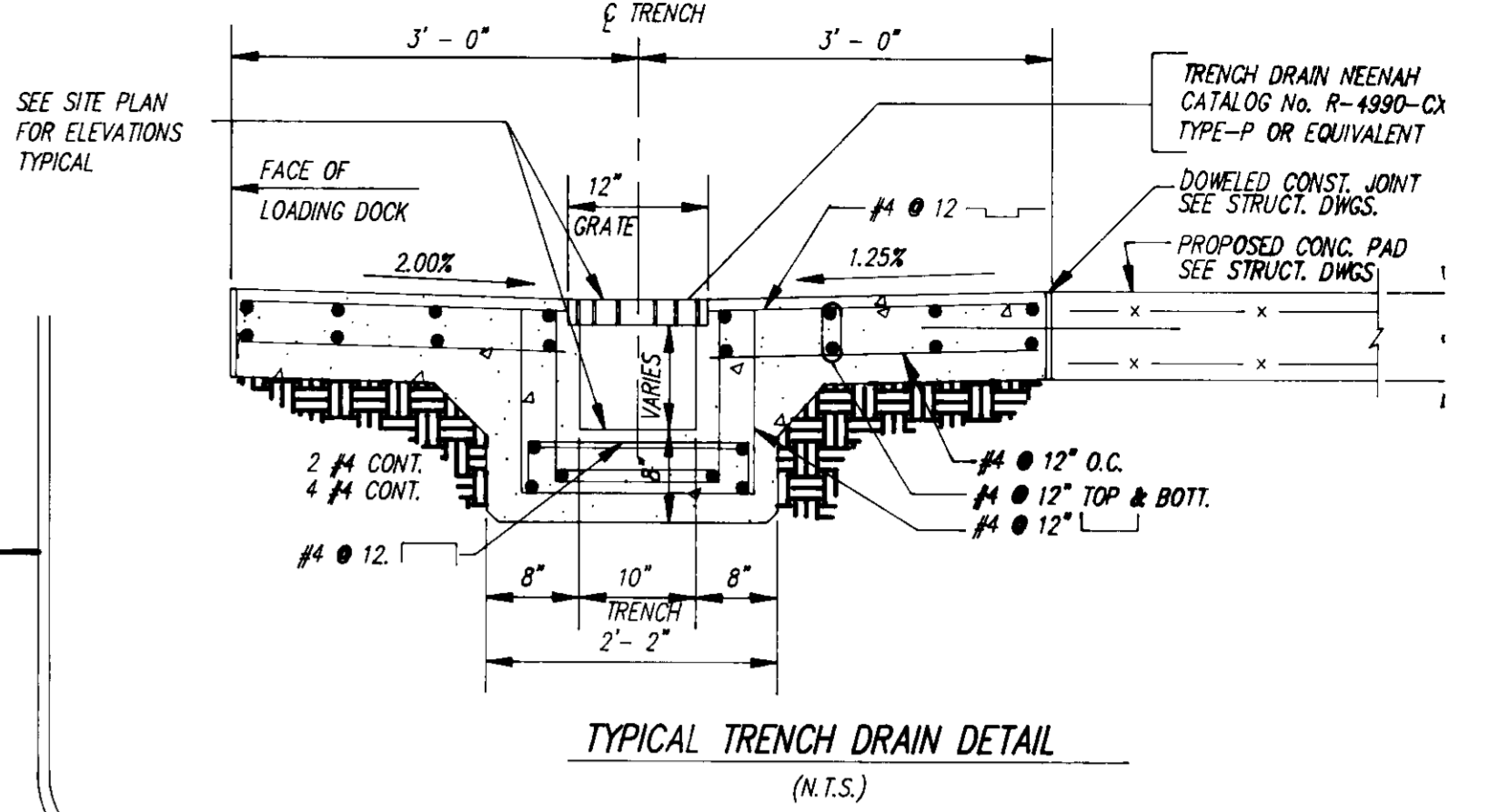
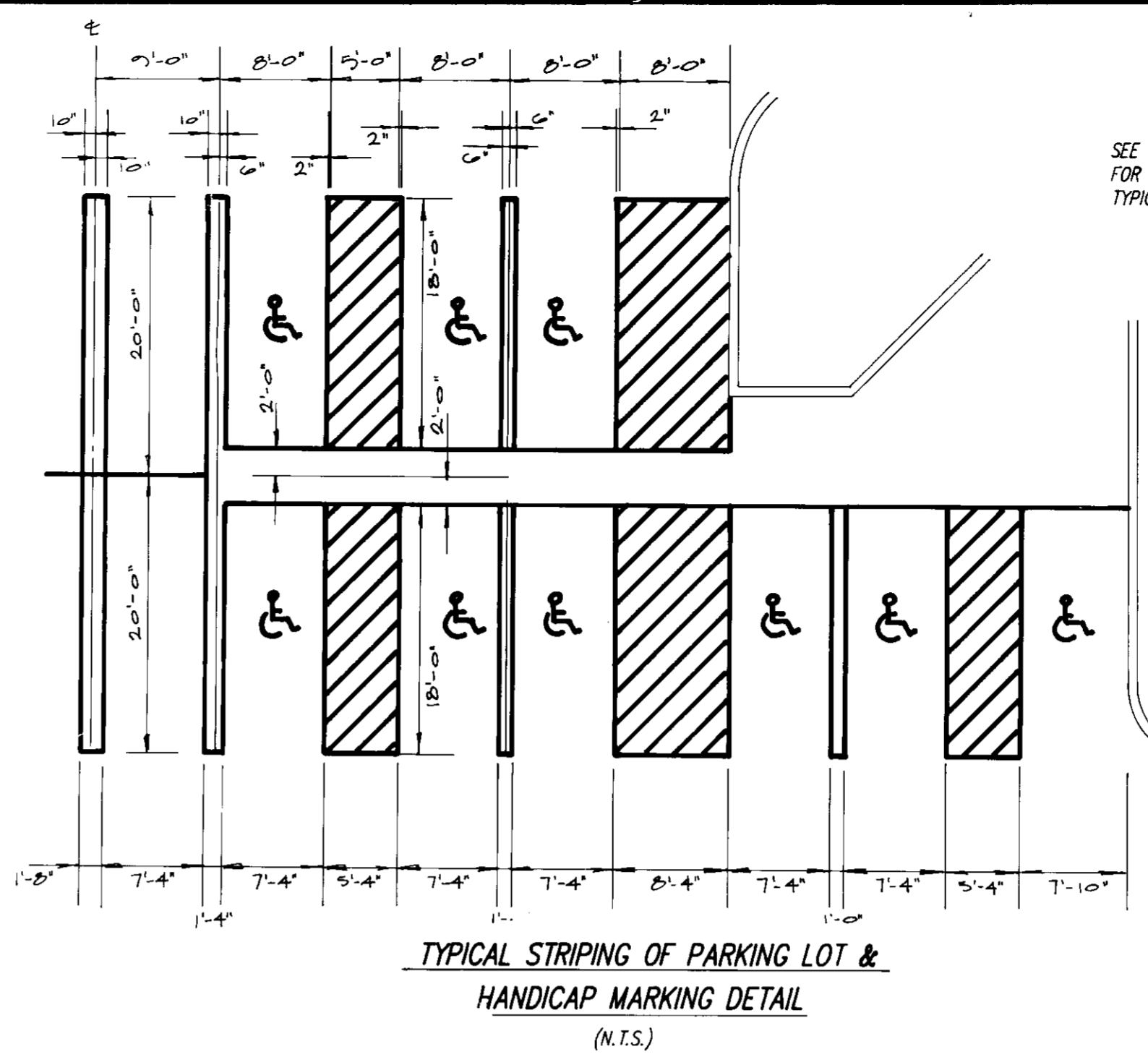
Chief, Division of Land Development: *[Signature]* Date: 1/21/97

Chief, Development Engineering Division: *[Signature]* Date: 1/19/97

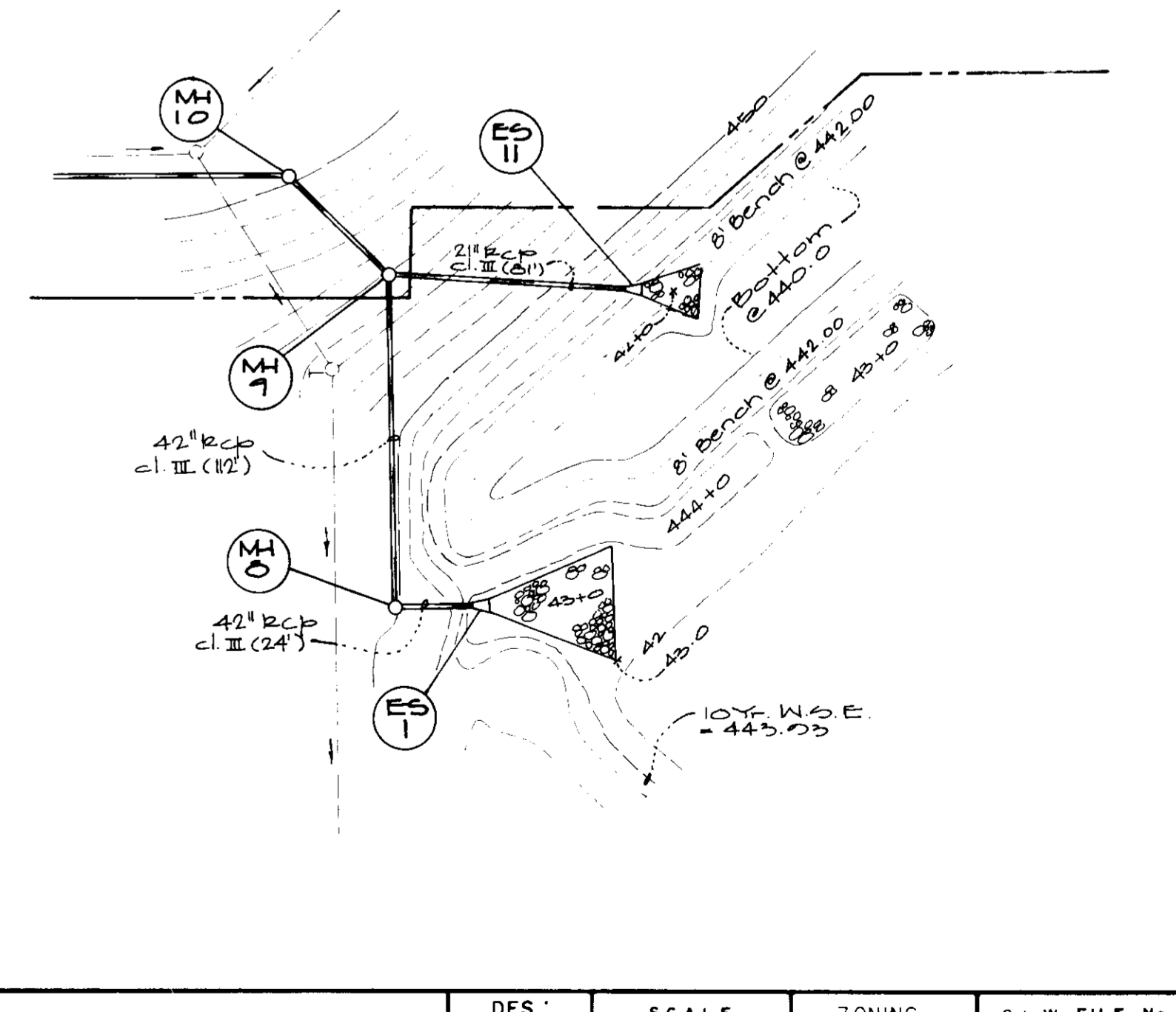
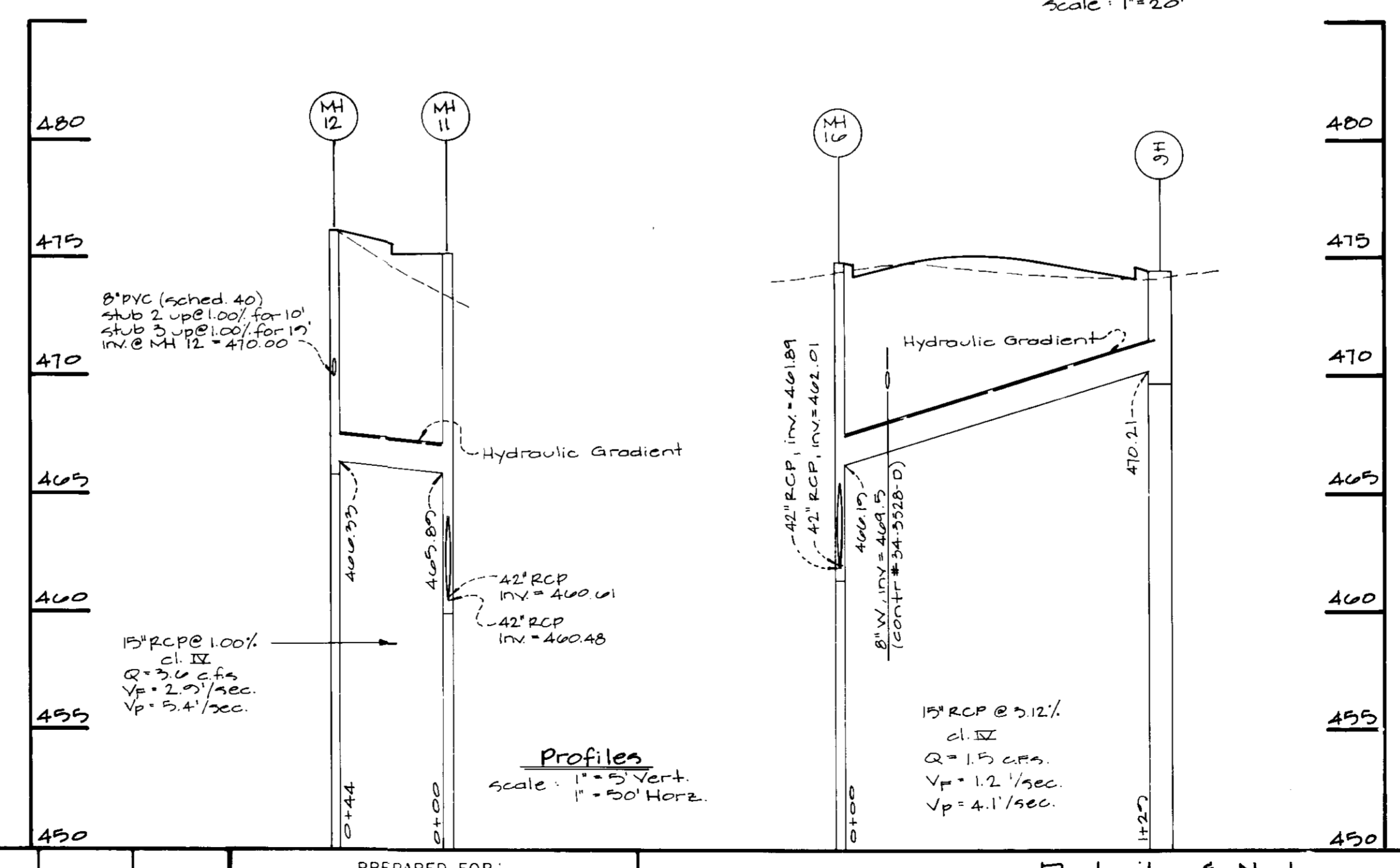
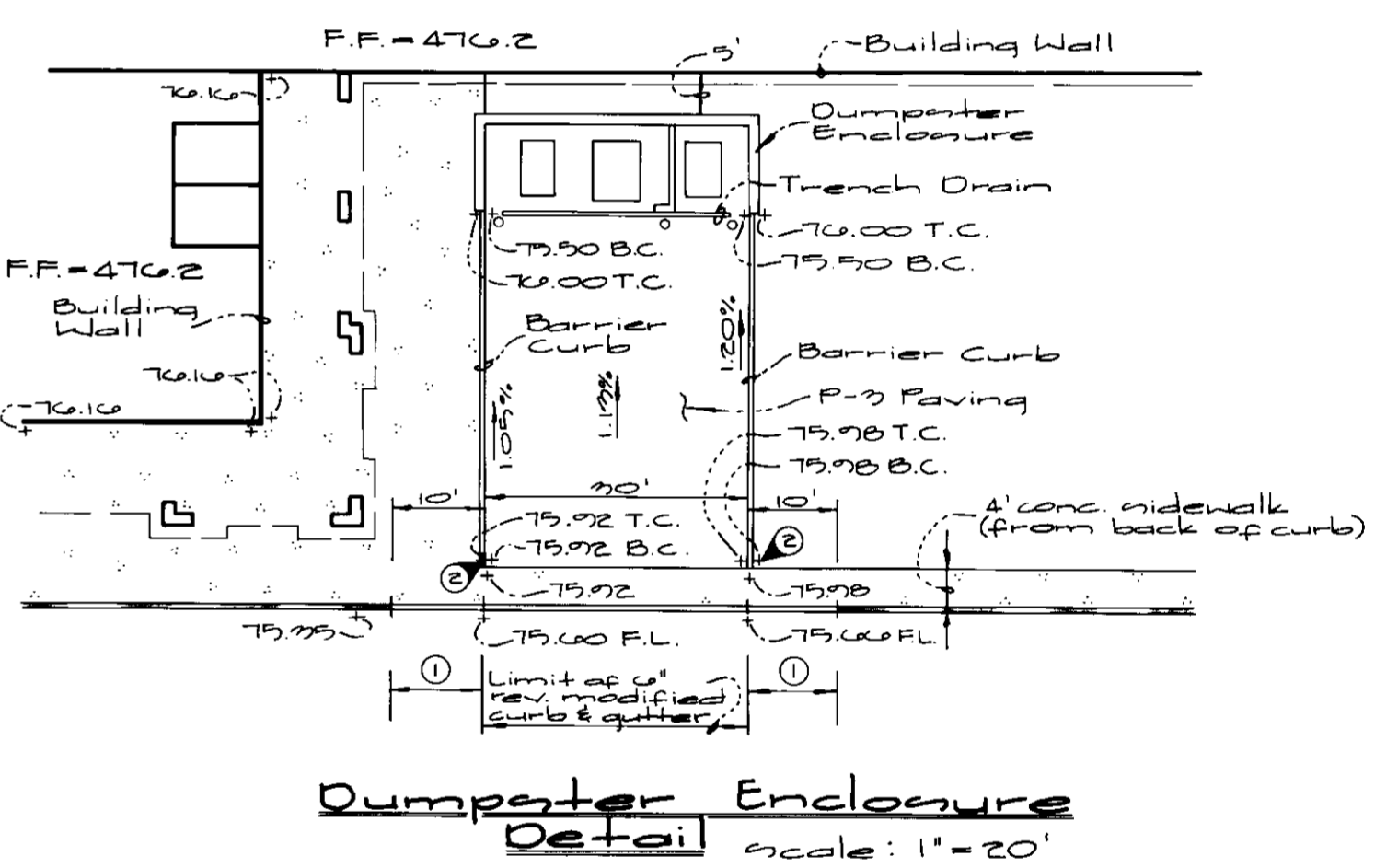
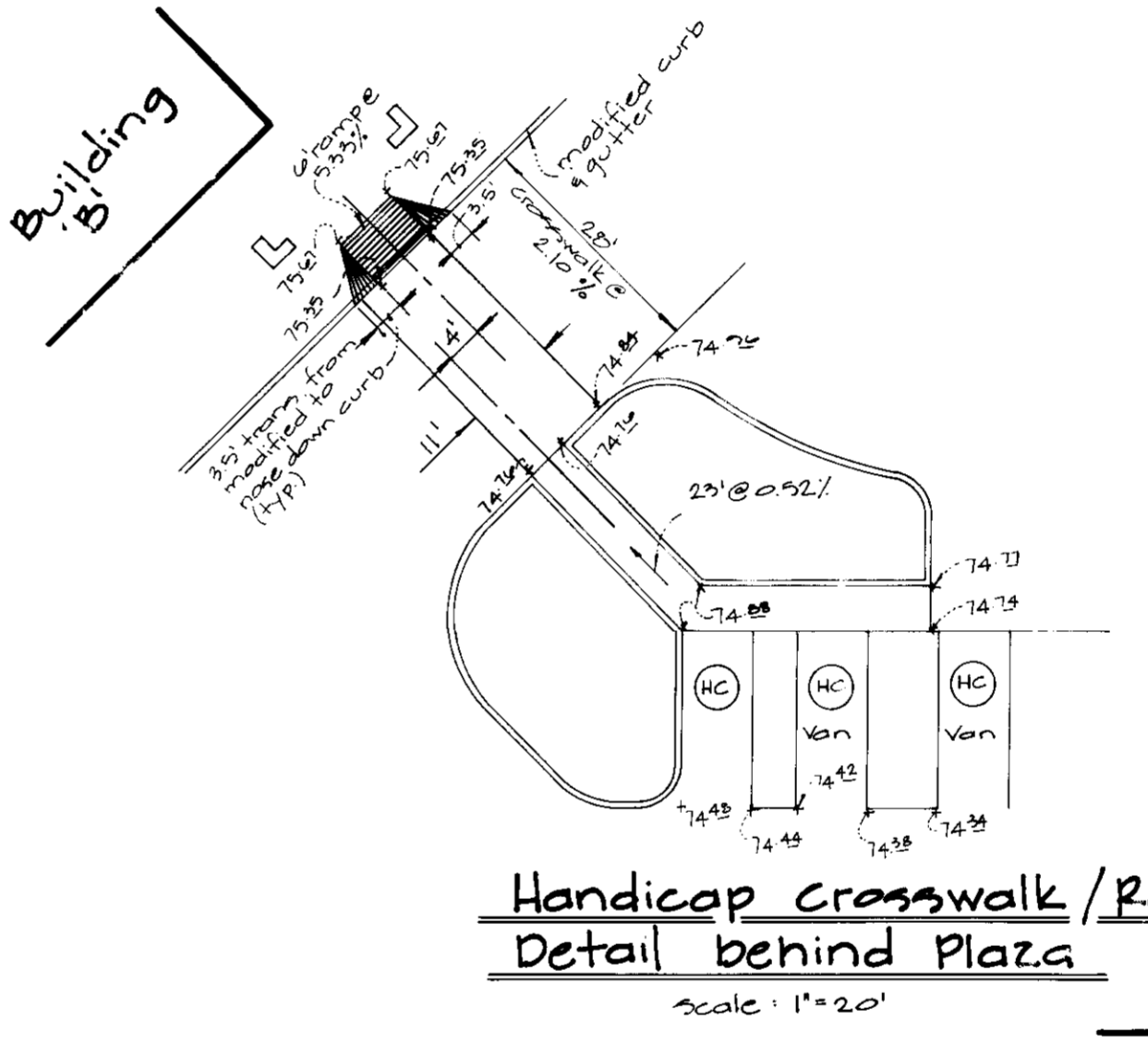
GLW GUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866 TEL: (301) 421-4024 NO. VA.: (301) 989-2524 BALI: (410) 880-1820 FAX: (301) 421-4186 DES. DRN. CHK. DATE REVISION BY APPR.	PREPARED FOR: THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION THE ROUSE BUILDING 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MD 21044 (410) 992-6370	Sediment Control Notes & Details VILLAGE OF RIVER HILL Section 4 Area 2 Parcels "J" thru "L", "N", "W" thru "Z", and "AA" CLARKSVILLE ELECTION DISTRICT No. 5 HOWARD COUNTY, MARYLAND	SCALE: --- ZONING: N.T. G. L. W. FILE No.: 9507
	DATE: Dec. 1996 TAX MAP No.: 34 & 35 SHEET: 11 of 12	SDP 96-110	

Structure Schedule							
No.	Type	Width (ft)	Top Elevation	Inv. Elevation	Std. Detail	Location	Remarks
I-7	A-10	7'-0"	Upper Lower	Upper Lower		See Plan	
MH 11	std. manhole	5'-0"	474.00	465.00	H.C. 02.05.02	See Plan	
MH 12	"	4'-0"	476.00	466.00	H.C. 02.05.01	"	
MH 10	"	5'-0"	474.80	461.80	H.C. 02.05.02	"	

Pipe Schedule		
Size	Type	Quantity
15"	RCP cl. III	175 L.F.
8"	PVC sch. 40	25 L.F.



- Notes
- 10' area to transition from 6" reversed standard curb & gutter to 6" reversed modified curb & gutter.
 - Contractor must make top of barrier curb, back of sidewalk, and P-3 paving at these points. Pavement shall be flush with back of the sidewalk for the entire 20'.



Approved: *[Signature]* Public Water & Sewer System, County Health Dept.
 Approved: *[Signature]* Howard County Dept. of Planning & Zoning
 Date: 1/22/97
 Date: 1/21/97
 Date: 1/13/97

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
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 TELEPHONE: (301)421-4024 NO VA (301)989-2524 BALTO (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.
4/5/97	Added structure & pipe schedules	KLP	

PREPARED FOR:
 The Howard Research and Development Corporation
 The Rouge Building
 10275 Little Patuxent Parkway
 Columbia, Maryland 21044
 (410) 972-6970

VILLAGE OF RIVER HILL
 Section 4 Area 2
 PARCELS "J" THRU "L", "N", "W" THRU "Z", AND "AA"
 Clarksville Election District No 5
 Howard County, Maryland

DES.:	SCALE	ZONING	G.L.W. FILE No.
As Shown	N.T.		95097
DRN.:	DATE	TAX MAP No.	SHEET
Dec., 1996	24 & 25		12 of 12