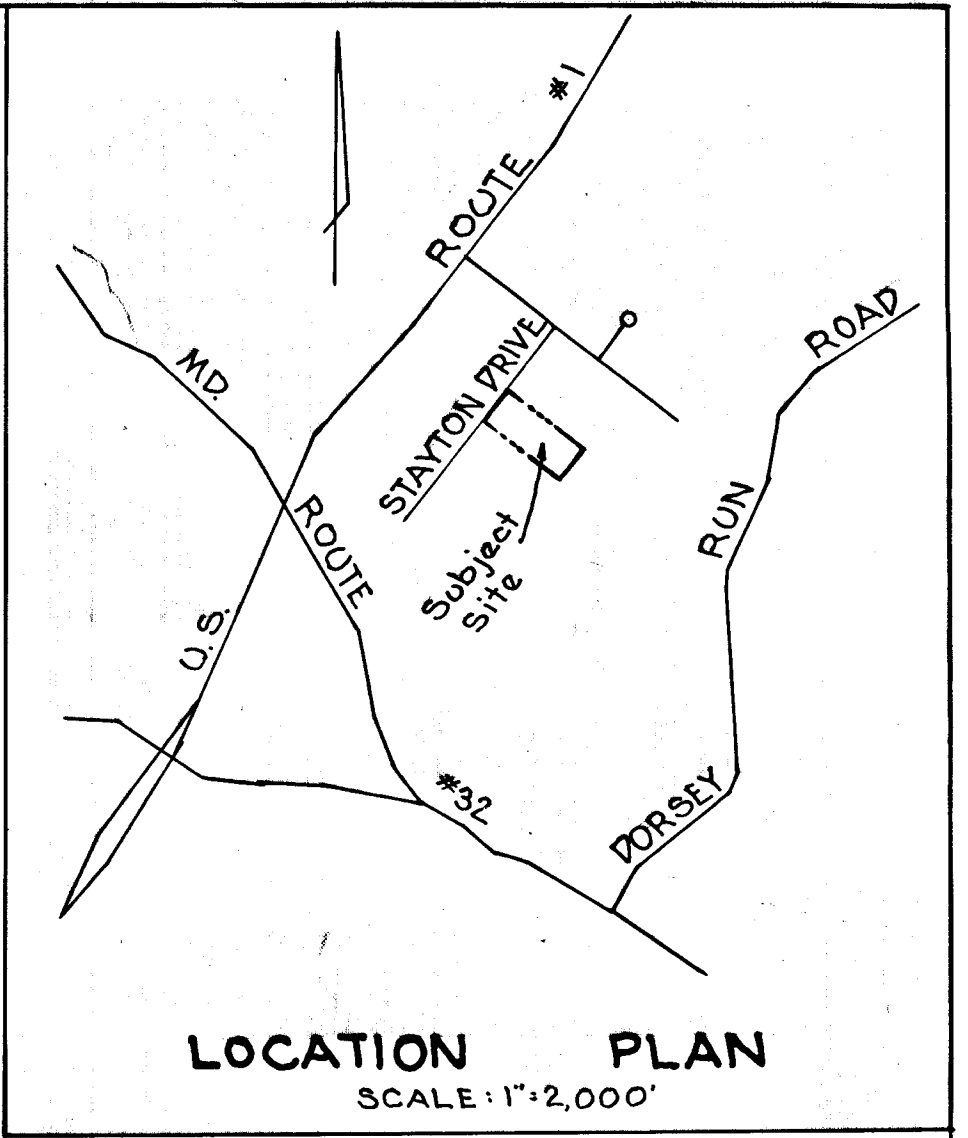


SUMMARY OF STORM DRAIN DATA

Structure No.	Type	Size	Top	Howard County Standard Detail	Invert Elevation		Q	Q Surch	Street Slope	Cap. c.f.s.	Surch. c.f.s.	V ₁ f.p.s.	V ₂ f.p.s.	Q ₁ c.f.s.	Q ₂ c.f.s.	Q ₃ c.f.s.	Q ₃ /Q ₁ %	Loss				L.H. In Structure Total	Remarks	Hydraulic Gradient		Pipe		Hyd. Grad Slope %	Remarks	
					In	Out												A	B	C	D			In	Out	Size	Length			Slope %
M-1	Std. Manhole	48"	249.91	D-103, Page 158	238.20	238.00						6.8	8.5	65.90	83.41	18.35	28	0.21	0.38	0.17	0.76			242.23	241.47	42"	25'	0.60	0.42	
I-1	Dbl.'S' Comb		248.60*	D-99 Page 154	235.52	235.32	5.09		Sump			8.5	8.8	83.41	86.68			0.23	0.10		0.33	Top Of Pipe Governs		239.02	237.56	42"	354	0.70	0.66	
E-1	"C" Endwall	42"	237.64	D-52, Page 107		233.14						8.8		86.68							0.0	Top Of Pipe Governs			42"	66	3.30	0.72		

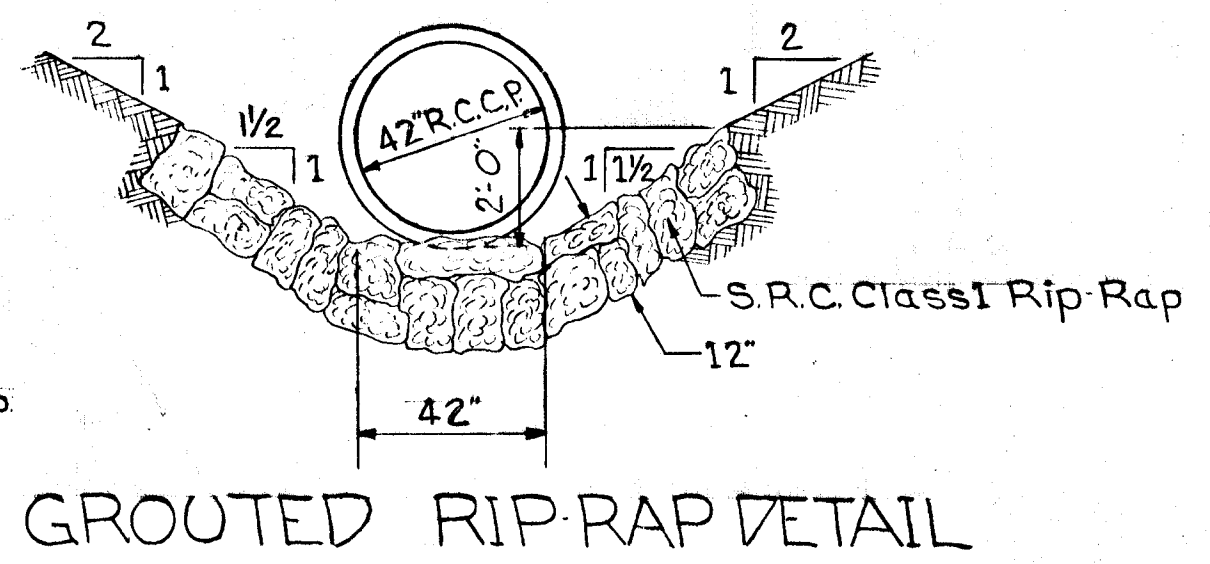
* Top Of Curb



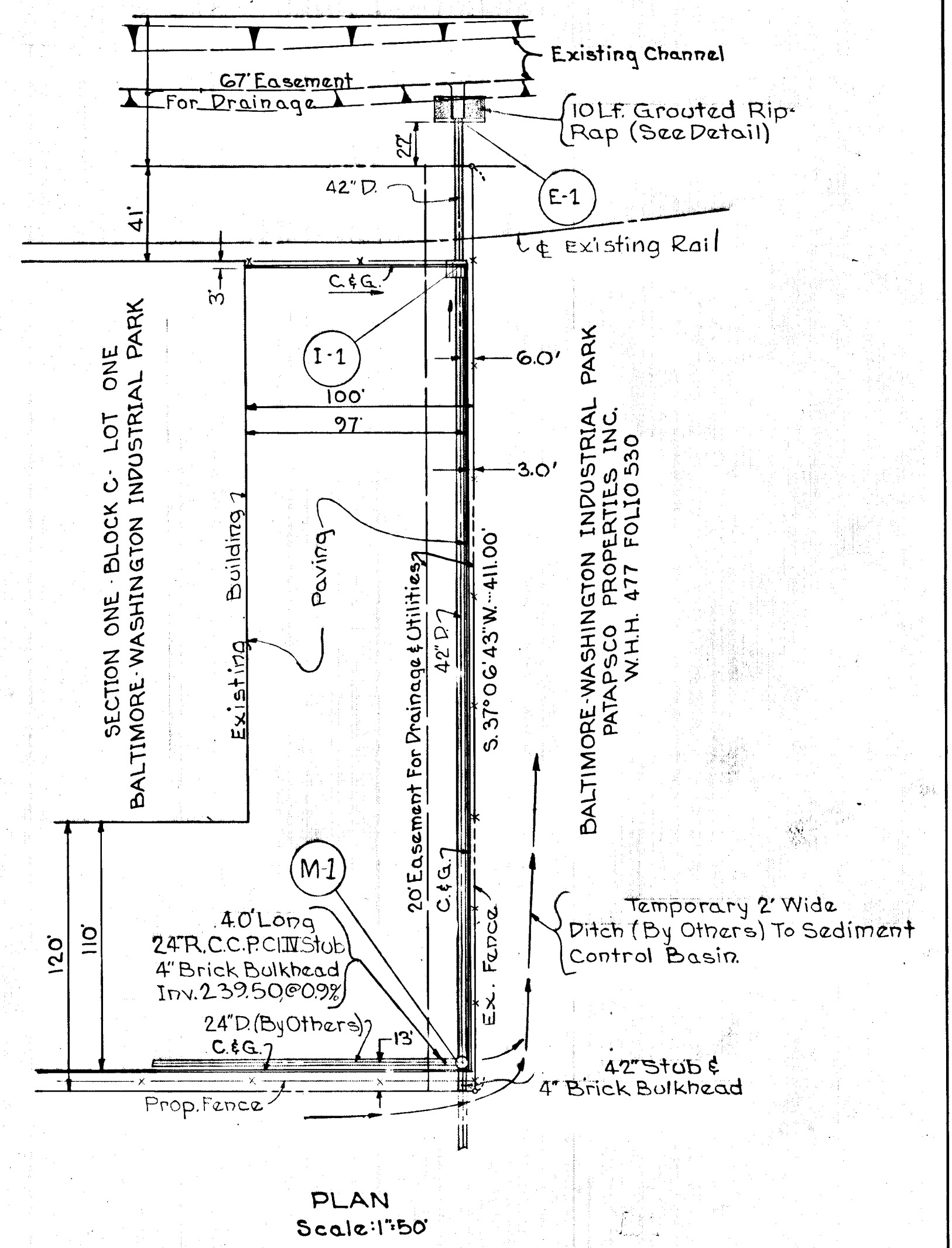
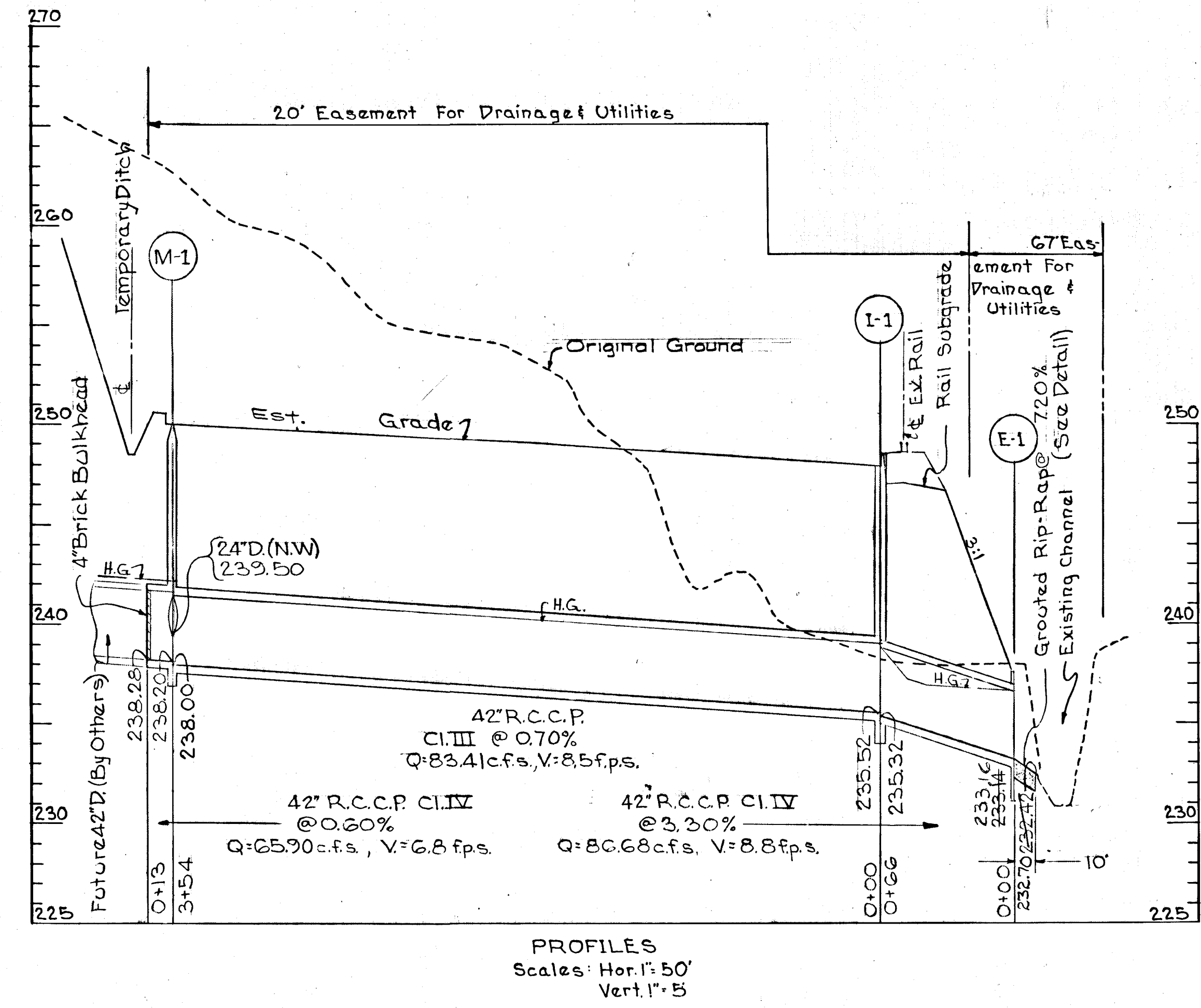
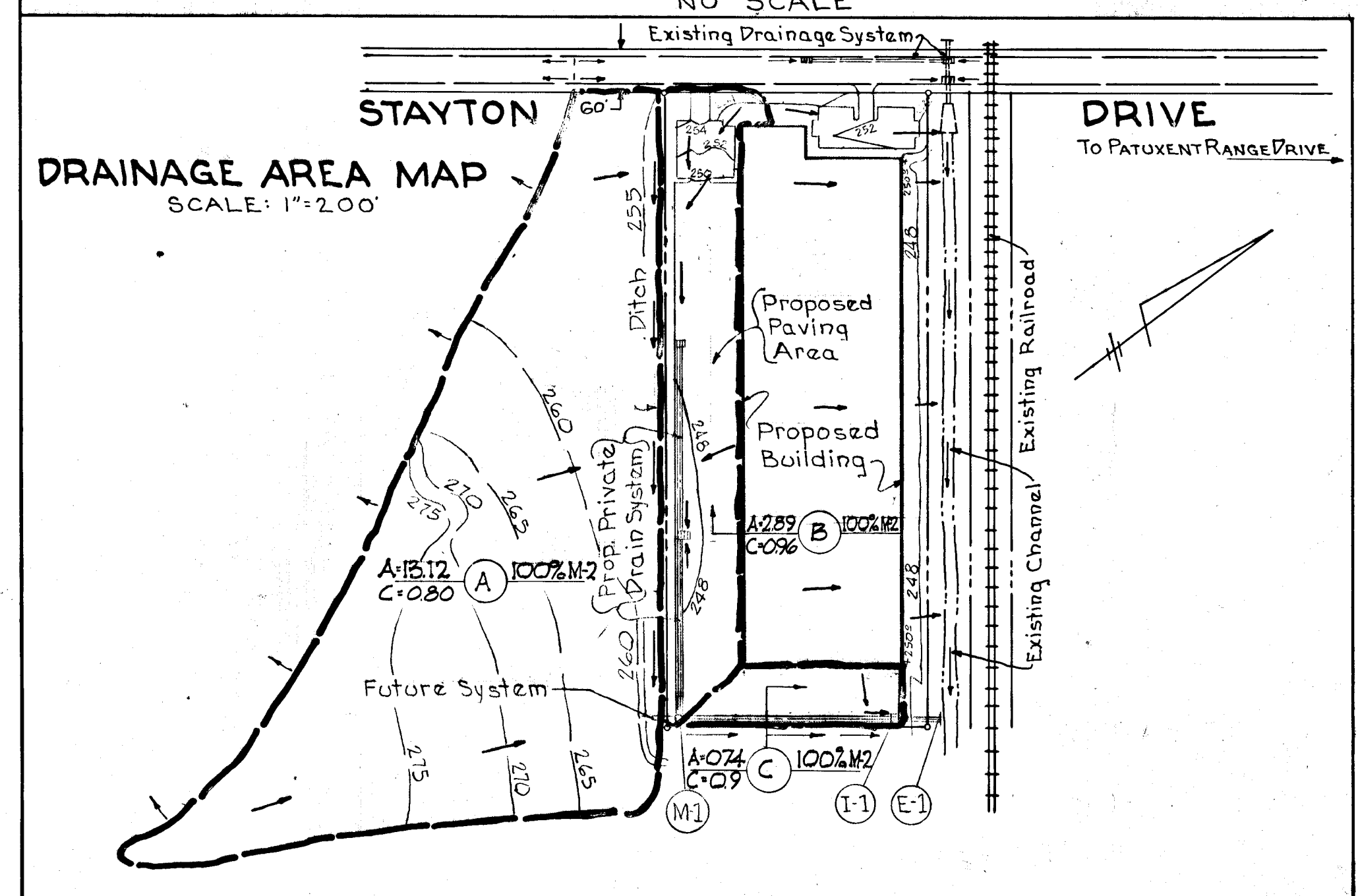
STORM DRAIN DESIGN DATA

Storm Frequency: 10 years

Location		Area	Incr.	Total	C	C.A.	Accum.	Time	I	Q	Pipe	Slope %	Vel.	L	Time	Remarks
From	To	No.	Acres	Acres		C.A.	C.A.	Conc.	in/hr	c.f.s.	Size	Min. Act.	ft.	ft.	In Pipe	
Future System	M-1	A		13.12		10.46	7.4	6.3	65.90	42"	0.42		6.8	25'	0.1	
Private System	M-1	B		2.89		2.78	6.2	6.6	18.35	24"	0.65		5.8	297	0.9	
	M-1	A&B		16.01		13.24	7.5	6.3	83.41	42"	0.66		8.5	354	0.7	
	I-1	C	0.74		0.9	0.67	5	6.6	7.6	5.09						20% Adj. Sump to 10 yr.
	I-1	E-1	A-C		16.75		13.98	8.2	6.2	86.68	42"	0.72		8.8	66	



Notes:
Grouted Rip-Rap To Be Placed In Accordance With Md. S.R.C. Standard Specifications For Grouted Rip-Rap



C.F.H. Designed	C.F.H. Drawn	C.F.H. Checked		ENGINEER	OWNER AND DEVELOPER	DEPT. OF PUBLIC IMPROVEMENTS APPROVED Principal Engr. Date: _____ Director: _____	HOWARD COUNTY		STORM DRAINS SECTION ONE		REVISIONS		Sheet 1 of 1
				GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC. Towson, Maryland 21204 <i>George W. Stephens, Jr.</i> 1-25-77 Prof. Engineer No. Patc.	PATAPSCO PROPERTIES INCORPORATED 501 SAINT PAUL STREET Baltimore, Maryland 21202		DEPARTMENT OF PUBLIC WORKS Chief, Bureau Of Highways	DIV. OF LAND DEVELOPMENT & TRANSPORTATION PLANNING Chief	BALTIMORE INDUSTRIAL PARK HOWARD COUNTY, MARYLAND	WASHINGTON INDUSTRIAL PARK ELECTION DISTRICT #G	Date: 7/2/73 Description: As Built By: EAP	Drawing No. Contract No.	