Appendix IV: Section 4.0 (3) 50% Upper Prediction Limit (UPL) MLE 100-Year Mean Return Period Event

i) St. Kitts

	Wind Speed (mph)	
Return Period	50% UPL	90% UPL
50 years	102	119
100 years	113	133

Police Stations

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	$\sqrt{K_{zt}}$	$\sqrt{K_z}$	$\sqrt{K_T}$	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
1	St George	1952	20	0.2	0.25	1.108	1.000	1.108	125.15	0.403		0.548		0.403		-	-	-
1A	St George	1971	8	0.1	0.25	1.108	1.000	1.108	125.15	0.353	1,800,000	0.501		0.353		635,195	-	-
2	St George	1972	300	0.7	0.25	1.108	1.000	1.108	125.15	0.848	500,000	0.975	100,000	0.848	300,000	423,839	97,518	254,303
3	St Thomas	1968	40	0.11	0.25	1.108	1.000	1.108	125.15	0.530	952,000	0.670	100,000	0.530	100,000	504,280	66,981	52,971
4	St Anne	1942	70	0.2	0.25	1.108	1.000	1.108	125.15	0.628	840,000	0.780	100,000	0.628	800,000	527,633	78,045	502,508
5	St John	1971	200	0.6	0.25	1.108	1.000	1.108	125.15	0.793	500,000	0.949	20,000	0.793	150,000	396,620	18,980	118,986
6	St John	1950	200	0.5	0.25	1.108	1.000	1.108	125.15	0.793	130,000	0.949	20,000	0.793	150,000	103,121	18,980	118,986
7	St Mary	1972	300	0.7	0.25	1.108	1.000	1.108	125.15	0.848	500,000	0.975	100,000	0.848	300,000	423,839	97,518	254,303
										S	5,222,000		440,000		1,800,000	3,014,528	378,020	1,302,057

Fire Stations

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	$\sqrt{K_{zt}}$	$\sqrt{K_z}$	$\sqrt{K_T}$	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
9	St George	1968	8	0.10	0.25	1.108	1.000	1.108	125.15	0.353		0.501		0.353		-	-	-
										S	-		-		-	-	-	-

Hospitals & Health Centers

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
11	St George	1967	170	0.5	0.25	1.108	1.000	1.108	125.15	0.916	660,000	0.976	200,000	0.916		604,474	195,101	-
12	St George	1967	170	0.5	0.25	1.108	1.000	1.108	125.15	0.916	1,000,000	0.976	350,000	0.916		915,869	341,426	-
13	St George	1999	170	0.5	0.25	1.108	1.000	1.108	125.15	0.791	860,000	0.937	300,000	0.791		680,509	281,117	-
14	St George	1999	170	0.5	0.25	1.108	1.000	1.108	125.15	0.791	800,000	0.937	1,000,000	0.791		633,032	937,057	-
15	St George	1999	170	0.5	0.25	1.108	1.000	1.108	125.15	0.791	1,600,000	0.937	100,000	0.791		1,266,064	93,706	-
16	St George	1967	170	0.5	0.25	1.108	1.000	1.108	125.15	0.916	1,000,000	0.976	400,000	0.916		915,869	390,202	-
17	St George	1999	170	0.5	0.25	1.108	1.000	1.108	125.15	0.791	860,000	0.937	200,000	0.791		680,509	187,411	-
18	St George	1967	170	0.5	0.25	1.108	1.000	1.108	125.15	0.916	3,000,000	0.976	1,600,000	0.916		2,747,607	1,560,806	-
21	St Anne		60	0.1	0.25	1.108	1.000	1.108	125.15	0.792	500,000	0.935	100,000	0.792		395,761	93,493	-
24	Christ Churcl	1986	380	0.8	0.25	1.108	1.000	1.108	125.15	0.966	800,000	0.982	100,000	0.966	5,000	773,127	98,210	4,832
25	St George	1949	40	0.1	0.25	1.108	1.000	1.108	125.15	0.546	600,000	0.617	240,000	0.546		327,853	148,186	-
26	St Mary				0.25	1.108	1.000	1.108	125.15	0.564	300,000	0.675	25,000	0.564		169,256	16,870	-
27	Christ Churcl	1952	400	0.9	0.25	1.108	1.000	1.108	125.15	0.968	160,000	0.983	25,000	0.968		154,956	24,563	-
29	St John	1954	100	0.2	0.25	1.108	1.000	1.108	125.15	0.861	260,000	0.966	25,000	0.861		223,820	24,138	-
30	St John		50	0.1	0.25	1.108	1.000	1.108	125.15	0.764	370,000	0.911	25,000	0.764		282,830	22,777	-
31	St John		150	0.4	0.25	1.108	1.000	1.108	125.15	0.905	270,000	0.974	25,000	0.905		244,239	24,346	-
32	St Anne	1955	80	0.1	0.25	1.108	1.000	1.108	125.15	0.832	270,000	0.958	25,000	0.832		224,634	23,949	-
33	St Thomas		35	0.1	0.25	1.108	1.000	1.108	125.15	0.709	260,000	0.847	20,000	0.709		184,245	16,936	-
34	St George	1975	8	0	0.25	1.108	1.000	1.108	125.15	0.564	600,000	0.675	500,000	0.564		338,512	337,408	-
										S	14,170,000		5,260,000		5,000	11,763,168	4,817,704	4,832

Port

1. Buildings

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
41	St George	1997	10	0	0.13	1.056	1.000	1.056	119.32	0.307	3,300,000	0.461	50,000	0.307		1,012,136	23,053	-
42	St George	1991	25	0	0.13	1.056	1.000	1.056	119.32	0.574	800,000	0.684	210,000	0.574		459,527	143,694	-
43	St George	1982	13	0	0.13	1.056	1.000	1.056	119.32	0.307	760,000	0.461	200,000	0.307		233,098	92,212	-
43A	St George	1993	13	0	0.13	1.056	1.000	1.056	119.32	0.485		0.610		0.485		-	-	-
44	St George	1986	10	0	0.13	1.056	1.000	1.056	119.32	0.307	2,000,000	0.461	1,500,000	0.307		613,416	691,587	-
45	St George	1980	12	0	0.13	1.056	1.000	1.056	119.32	0.485		0.610		0.485		-	-	-
										S	6,860,000		1,960,000		-	2,318,178	950,546	-

2. Wharf

1	2	3	4	5	6	7	8	9	10	11	12
Struc. No.	**Yr. Blt.**	**Elevation (ft.)**	**Design Wave Ht. (ft.)**	**Wave Elevation (ft)**	**Design Moment**	**Failure Moment**	**Moment due to Wind**	**z**	**P_f**	**Rep. Cost**	**Damage to Wharf**
41A	1996	12.5	27.0	53.51	160,541.43	240,812.14	157,396.17	-1.3856	0.0829	30,000,000	2,488,141
45A	1980	10	15.0	29.73	37,708.49	56,562.73	36,048.10	-1.4508	0.0734	35,000,000	2,569,855
									S	65,000,000	5,057,996

3. Pier

1	2	3	4	5	6	7	8	9	10	11	12
Struc. No.	**Yr. Blt.**	**Elevation (ft.)**	**Design Wave Ht. (ft.)**	**Wave Elevation (ft)**	**Design Moment**	**Failure Moment**	**Moment due to Wind**	**z**	**P_f**	**Rep. Cost**	**Damage to Pier**
41B	1996	9	15.6	30.92	41,185.25	61,777.88	39,453.92	-1.4454	0.0742	22,000,000	1,631,699
									S	22,000,000	1,631,699

4. Lighting Towers

5. Equipment

6. Molasses Pipeline

7. Railroad Tracks

Airport

1. Buildings

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
51	St Peter	1998	130	1.0	0.4	1.172	1.000	1.172	132.44	0.829	36,000,000	0.842		0.829		29,836,548	-	-
52	St Peter	1999	130	1.0	0.4	1.172	1.000	1.172	132.44	0.829	2,000,000	0.842	4,000,000	0.829		1,657,586	3,368,676	-
52A	St Peter	1999	130	1.0	0.4	1.172	1.000	1.172	132.44	0.829	1,400,000	0.842	500,000	0.829		1,160,310	421,085	-
53	St Peter	1974	130	1.0	0.4	1.172	1.000	1.172	132.44	0.829	300,000	0.842	1,000,000	0.829		248,638	842,169	-
53A	St Peter	1974	130	1.0	0.4	1.172	1.000	1.172	132.44	0.829	320,000	0.842	30,000	0.829		265,214	25,265	-
54	St Peter	1974	130	1.0	0.4	1.172	1.000	1.172	132.44	0.829		0.842	1,000,000	0.829		-	842,169	-
										S	40,020,000		6,530,000		-	33,168,296	5,499,364	-

2. Lighting Towers

3. Runway

1	2	3	4	5	6	7	8	9
Parish	**Length of Runway in feet**	**Rep. Cost per foot ($)**	**Total Rep. Cost ($)**	**Erosion Potential**	**Pavement Resistance**	**Failure Likelihood**	**Failure Probability**	**Pavement Damage**
St. Peter	8,000	10,000	80,000,000	H	VH	M	0.01	800,000
		S	80,000,000					800,000

Coast Guard Station

1. Buildings

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
55	St George	1987	20	0	0.13	1.056	1.000	1.056	119.32	0.326	1,100,000	0.144	250,000	0.326		358,828	35,882	-
										S	1,100,000		250,000		-	358,828	35,882	-

2. Pier

1	2	3	4	5	6	7	8	9	10	11	12
Struc. No.	**Yr. Blt.**	**Elevation (ft.)**	**Design Wave Ht. (ft.)**	**Wave Elevation (ft)**	**Design Moment**	**Failure Moment**	**Moment due to Wind**	**z**	**P_f**	**Rep. Cost**	**Damage to Pier**
55A	1988	10	13.0	25.77	27,661.75	41,492.62	26,235.31	-1.4708	0.0707	750,000	53,000
									S	750,000	53,000

Custom & Excise Department

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
56	St George	1977	75	0.1	0.13	1.056	1.000	1.056	119.32	0.561	600,000	0.494	200,000	0.561		336,576	98,774	-
										S	600,000		200,000		-	336,576	98,774	-

Power Stations

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
70	St Peter	1972	75	0.8	0.4	1.172	1.000	1.172	132.44	0.727	6,000,000	0.756	30,000,000	0.727	2,000,000	4,361,250	22,685,190	1,453,750
71	St Peter	1999	75	0.8	0.4	1.172	1.000	1.172	132.44	0.727	4,000,000	0.756	25,000,000	0.727	3,000,000	2,907,500	18,904,325	2,180,625
										S	10,000,000		55,000,000		5,000,000	7,268,750	41,589,515	3,634,375

Transmission Lines

1	2	3	4	5	6	7	8a	8b	8c	8d	9	10	11	12	13	14
Parish	**Miles of Lines**	**Elevation ft.**	**Design Wind Spd (mph)**	**Factor of Safety**	**Failure Wind Speed**	**Standard Deviation**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**z**	**P_f**	**Rep. Cost per Mile ($)**	**Total Rep. Cost ($)**	**Damage to Poles ($)**
St George	224	300	90	1.1	99	29.7	0.21	1.090	1.000	1.090	123.20	0.8149	0.7924	74,000	16,576,000	13,135,626
St Mary	40	350	90	1.1	99	29.7	0.28	1.120	1.000	1.120	126.61	0.9295	0.8237	74,000	2,960,000	2,438,083
Christ Churcl	8	300	90	1.1	99	29.7	0.3	1.129	1.000	1.129	127.58	0.9622	0.8320	35,000	280,000	232,966
St John	24	200	90	1.1	99	29.7	0.22	1.095	1.000	1.095	123.69	0.8313	0.7971	35,000	600,000	478,260
St Paul	12	200	90	1.1	99	29.7	0.3	1.129	1.000	1.129	127.58	0.9622	0.8320	35,000	420,000	349,449
St Anne	28	150	90	1.1	99	29.7	0.16	1.069	1.000	1.069	120.77	0.7331	0.7683	74,000	2,072,000	1,591,845
St Thomas	8	150	90	1.1	99	29.7	0.23	1.099	1.000	1.099	124.18	0.8477	0.8017	35,000	280,000	224,473
Trinity	8	150	90	1.1	99	29.7	0.1	1.043	1.000	1.043	117.86	0.6350	0.7373	35,000	280,000	206,439
St Peter	52	250	90	1.1	99	29.7	0.44	1.189	1.000	1.189	134.38	1.1912	0.8832	35,000	1,820,000	1,607,458
														S	25,288,000	20,264,599

Utility Poles

1	2	3	4	5	6	7	8a	8b	8c	8d	9	10	11	12	13	14
Parish	**No. of Poles**	**Elevation ft.**	**Design Wind Spd (mph)**	**Factor of Safety**	**Failure Wind Speed**	**Standard Deviation**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**z**	**P_f**	**Rep. Cost per Pole ($)**	**Total Rep. Cost ($)**	**Damage to Poles ($)**
St George	8000	300	90	1.1	99	29.7	0.21	1.090	1.000	1.090	123.20	0.8149	0.7924	1200	9,600,000	7,607,505
St Mary	1400	350	90	1.1	99	29.7	0.28	1.120	1.000	1.120	126.61	0.9295	0.8237	1200	1,680,000	1,383,777
Christ Churcl	300	300	90	1.1	99	29.7	0.3	1.129	1.000	1.129	127.58	0.9622	0.8320	1200	360,000	299,528
St Johns	800	200	90	1.1	99	29.7	0.22	1.095	1.000	1.095	123.69	0.8313	0.7971	1200	960,000	765,216
St Paul	500	200	90	1.1	99	29.7	0.3	1.129	1.000	1.129	127.58	0.9622	0.8320	1200	600,000	499,214
St Anne	1000	150	90	1.1	99	29.7	0.16	1.069	1.000	1.069	120.77	0.7331	0.7683	1200	1,200,000	921,918
St Thomas	300	150	90	1.1	99	29.7	0.23	1.099	1.000	1.099	124.18	0.8477	0.8017	1200	360,000	288,608
Trinity	300	150	90	1.1	99	29.7	0.1	1.043	1.000	1.043	117.86	0.6350	0.7373	1200	360,000	265,421
St Peters	1800	250	90	1.1	99	29.7	0.44	1.189	1.000	1.189	134.38	1.1912	0.8832	1200	2,160,000	1,907,752
														S	17,280,000	13,938,939

Courthouses

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
90	St George	1997	15	0	0.13	1.056	1.000	1.056	119.32	0.259	7,000,000	0.108		0.259		1,815,527	-	-
										S	7,000,000		-		-	1,815,527	-	-

Government Buildings

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
91	St George	1963 / 1995	15	0.1	0.13	1.056	1.000	1.056	119.32	0.259	15,000,000	0.108		0.259		3,890,415	-	-
										S	15,000,000		-		-	3,890,415	-	-

Public Market

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
92	St George	1978	10	25	0.6	1.258	1.000	1.258	142.15	0.468		0.035		0.468		-	-	-
										S	-		-		-	-	-	-

Radio & TV Studios

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
93	St George	1958	155	0.5	0.25	1.108	1.000	1.108	125.15	0.731	500,000	0.743		0.731		365,658	-	-
										S	500,000		-		-	365,658	-	-

Schools & Colleges

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
101	St Mary	1986	340	0.7	0.3	1.129	1.000	1.129	127.58	0.871	1,600,000	0.899	400,000	0.871		1,393,656	359,506	-
102	St Mary	1971	340	0.7	0.3	1.129	1.000	1.129	127.58	0.871	1,000,000	0.899	400,000	0.871		871,035	359,506	-
103	St Mary*	1971	340	0.7	0.3	1.129	1.000	1.129	127.58	0.871	2,300,000	0.899	420,000	0.871		2,003,381	377,482	-
104	St Mary	1982	340	0.7	0.3	1.129	1.000	1.129	127.58	0.871	2,000,000	0.899	100,000	0.871		1,742,070	89,877	-
105	St George	1982	135	0.3	0.2	1.086	1.000	1.086	122.72	0.678	2,500,000	0.664	110,000	0.678		1,695,068	73,042	-
106	St George	1975	20	0.1	0.1	1.043	1.000	1.043	117.86	0.282	200,000	0.128	30,000	0.282		56,488	3,842	-
106A	St George	1999	35	0.1	0.1	1.043	1.000	1.043	117.86	0.369	1,106,000	0.213	30,000	0.369		407,776	6,403	-
107	St George	1992	100	0.6	0.3	1.129	1.000	1.129	127.58	0.689	2,000,000	0.682	3,000,000	0.689		1,378,966	2,047,236	-
108	St John	1968	60	0.2	0.2	1.086	1.000	1.086	122.72	0.535	3,000,000	0.429	80,000	0.535		1,604,520	34,292	-
109	St Anne	1978	50	0.1	0.1	1.043	1.000	1.043	117.86	0.431	1,000,000	0.288	425,000	0.431		431,340	122,378	-
109A	St Anne	1999	50	0.1	0.1	1.043	1.000	1.043	117.86	0.431		0.288	400,000	0.431		-	115,180	-
110	St Anne	1978	50	0.1	0.1	1.043	1.000	1.043	117.86	0.431	2,600,000	0.288	500,000	0.431		1,121,484	143,975	-
111	St Anne	1982	25	0	0.1	1.043	1.000	1.043	117.86	0.315	1,700,000	0.158	100,000	0.315		535,282	15,813	-
112	St John	1986	100	0.3	0.2	1.086	1.000	1.086	122.72	0.627	1,600,000	0.579	70,000	0.627		1,002,475	40,551	-
113	St George	1972	40	0.1	0.1	1.043	1.000	1.043	117.86	0.392	2,500,000	0.239	2,500,000	0.392		978,838	597,888	-
114	St Thomas	1997	70	0.2	0.2	1.086	1.000	1.086	122.72	0.563	2,600,000	0.473	250,000	0.563		1,463,748	118,159	-
114A	St Thomas	1967	90	0.2	0.2	1.086	1.000	1.086	122.72	0.608	3,000,000	0.548	410,000	0.608		1,823,808	224,695	-
115	St John	1996	50	0.1	0.1	1.043	1.000	1.043	117.86	0.431	1,350,000	0.288	50,000	0.431		582,309	14,397	-
116	St George	1996	100	0.3	0.2	1.086	1.000	1.086	122.72	0.627	7,000,000	0.579	1,500,000	0.627		4,385,829	868,949	-
117	St George	1986	100	0.6	0.3	1.129	1.000	1.129	127.58	0.689	5,000,000	0.682	330,000	0.689		3,447,415	225,196	-
118	St George	1972	100	0.6	0.3	1.129	1.000	1.129	127.58	0.689	3,000,000	0.682	1,200,000	0.689		2,068,449	818,894	-
119	St George	1961	60	0.4	0.3	1.129	1.000	1.129	127.58	0.602	3,500,000	0.537	530,000	0.602		2,105,296	284,692	-
119A	St George	1957	60	0.4	0.3	1.129	1.000	1.129	127.58	0.602	6,000,000	0.537	3,000,000	0.602		3,609,078	1,611,465	-
120	Trinity	1985	140	0.1	0.1	1.043	1.000	1.043	117.86	0.618	1,600,000	0.565	150,000	0.618		989,131	84,801	-
121	St George	1996	25	0.3	0.2	1.086	1.000	1.086	122.72	0.377	1,200,000	0.222	150,000	0.377	30,000	451,985	33,331	11,300
122	St Peters	1974	450	2.0	0.6	1.258	1.000	1.258	142.15	0.968	1,500,000	0.971	70,000	0.968		1,452,171	67,991	-
123	St Peters	1996	450	2.0	0.6	1.258	1.000	1.258	142.15	0.968	700,000	0.971	50,000	0.968		677,680	48,565	-
124	St George	1987	15	0.1	0.1	1.043	1.000	1.043	117.86	0.245	300,000	0.096	50,000	0.245		73,358	4,821	-
125	Christ Churcl	1987	300	1.0	0.4	1.172	1.000	1.172	132.44	0.897	850,000	0.922	50,000	0.897		762,655	46,100	-
126	St Paul	1959	225	0.8	0.4	1.172	1.000	1.172	132.44	0.864	500,000	0.892	40,000	0.864		431,940	35,671	-
127	St George	1966	8	0	0.1	1.043	1.000	1.043	117.86	0.245	1,386,000	0.096	80,000	0.245		338,912	7,714	-
127A	St George	1999	8	0	0.1	1.043	1.000	1.043	117.86	0.245	1,000,000	0.096	80,000	0.245		244,525	7,714	-
128	St Peters	1982	85	0.9	0.4	1.172	1.000	1.172	132.44	0.721	300,000	0.729	100,000	0.721		216,336	72,917	-
129	St Paul	1999	170	0.4	0.2	1.086	1.000	1.086	122.72	0.716	1,300,000	0.722	70,000	0.716		931,020	50,556	-
										S	67,192,000		16,725,000		30,000	41,278,020	9,013,595	11,300

Pavements

1	2	3	4	5	6	7	8	9
Parish	**Area Paved sq. ft.**	**Rep. Cost per sq. ft. ($)**	**Total Rep. Cost ($)**	**Erosion Potential**	**Pavement Resistance**	**Failure Likelihood**	**Failure Probability**	**Pavement Damage**
St George	265,000	8	2,000,000	H	M	VH	0.5	1,000,000
St George			3,800,000	H	M	VH	0.5	1,900,000
St Peter	350,000	70	24,500,000	H	M	VH	0.5	12,250,000
		S	30,300,000					15,150,000

Paved Roads

1	2	3	4	5	6	7	8	9
Parish	**Miles of Road**	**Rep. Cost Per Mile**	**Total Rep. Cost**	**Erosion Potential**	**Pavement Resistance**	**Failure Likelihood**	**Failure Probability**	**Pavement Damage**
St Anne	24	573,000	13,752,000	H	M	VH	0.5	6,876,000
St Thomas	7	573,000	4,011,000	H	M	VH	0.5	2,005,500
Trinity	7	573,000	4,011,000	H	M	VH	0.5	2,005,500
St Peter	44	573,000	25,212,000	H	M	VH	0.5	12,606,000
St George	190	573,000	108,870,000	H	M	VH	0.5	54,435,000
St Mary	34	573,000	19,482,000	H	M	VH	0.5	9,741,000
Christ Churcl	7	573,000	4,011,000	H	M	VH	0.5	2,005,500
St John	20	573,000	11,460,000	H	M	VH	0.5	5,730,000
St Paul	10	573,000	5,730,000	H	M	VH	0.5	2,865,000
		S	196,539,000					98,269,500

Unpaved Roads

1	2	3	4	5	6	7	8	9
Parish	**Miles of Road**	**Rep. Cost Per Mile**	**Total Rep. Cost**	**Erosion Potential**	**Pavement Resistance**	**Failure Likelihood**	**Failure Probability**	**Pavement Damage**
St George	34	36,000	1,224,000	H	L	VH	0.5	612,000
St Mary	6	36,000	216,000	H	L	VH	0.5	108,000
Christ Churcl	1	36,000	36,000	H	L	VH	0.5	18,000
St John	4	36,000	144,000	H	L	VH	0.5	72,000
St Paul	2	36,000	72,000	H	L	VH	0.5	36,000
St Anne	4	36,000	144,000	H	L	VH	0.5	72,000
St Thomas	1	36,000	36,000	H	L	VH	0.5	18,000
Trinity	1	36,000	36,000	H	L	VH	0.5	18,000
St Peter	8	36,000	288,000	H	L	VH	0.5	144,000
		S	2,196,000					1,098,000

Wastemanagement Collection Vehicles

1	2	3	4	5	6	7	8	9	10	11
Parish	**No.of Vehicles**	**Cost per Vehicle ($)**	**Max X-area of Veh. (sq. ft.)**	**Weight of Vehicle (lb.)**	$\bar{Z}$	**s**	**b**	**P_f**	**Total Rep. Cost**	**Damage to Vehicles**
St George	4	200,000	172	14000	8377.55	1124.49	7.45	0.0000	800,000	0
St Mary	1	200,000	172	14000	8377.55	1124.49	7.45	0.0000	200,000	0
St Anne	1	200,000	172	14000	8377.55	1124.49	7.45	0.0000	200,000	0
								S	1,200,000	0

Wastemanagement Bins

1	2	3	4	5	6	7	8	9	10	11
Parish	**No.of Bins**	**Cost per Bin ($)**	**Max X-area of Bin (sq. ft.)**	**Weight of Bin (lb.)**	$\bar{Z}$	**s**	**b**	**P_f**	**Total Rep. Cost**	**Damage to Bins**
St George	4	700	27	1,000	117.41	176.52	0.67	0.2530	2,800	708
Trinity	1	700	27	1,000	117.41	176.52	0.67	0.2530	700	177
								S	3,500	885

SUMMARY

		Structure Value	Contents Value	Equipment Value	Structural Damage	Content Damage	Equipment Damage	% PML
Police Stations		5,222,000	440,000	1,800,000	3,014,528	378,020	1,302,057	62.91
Fire Stations		-	-	-	-	-	-	
Hospitals & Health Centers		14,170,000	5,260,000	5,000	11,763,168	4,817,704	4,832	85.34
Ports	Buildings	6,860,000	1,960,000	-	2,318,178	950,546	-	37.06
	Wharf	65,000,000			5,057,996			7.78
	Pier	22,000,000			1,631,699			7.42
Airport	Buildings	40,020,000	6,530,000	-	33,168,296	5,499,364	-	83.07
	Runway	80,000,000			800,000			1.00
Coast Guard Station	Building	1,100,000	250,000	-	358,828	35,882	-	29.24
	Pier	750,000			53,000			7.07
Custom & Excise Department		600,000	200,000	-	336,576	98,774	-	54.42
Power Stations		10,000,000	55,000,000	5,000,000	7,268,750	41,589,515	3,634,375	74.99
Transmission Lines		25,288,000			20,264,599			80.14
Utility Poles		17,280,000			13,938,939			80.67
Courthouse		7,000,000	-	-	1,815,527	-	-	25.94
Government Buildings		15,000,000	-	-	3,890,415	-	-	25.94
Public Market		-	-	-	-	-	-	
Radio & TV Studios		500,000	-	-	365,658	-	-	73.13
Schools & Colleges		67,192,000	16,725,000	30,000	41,278,020	9,013,595	11,300	59.92
Pavements		30,300,000			15,150,000			50.00
Paved Roads		196,539,000			98,269,500			50.00
Unpaved Roads		2,196,000			1,098,000			50.00
Wastemanagement	Vehicles	1,200,000			0			0.00
	Bins	3,500			885			25.30
Total		608,220,500	86,365,000	6,835,000	261,842,561	62,383,398	4,952,564	46.93

ii) Nevis

Return Period	Wind Speed (mph)	
	50% UPL	90% UPL
50 years	102	119
100 years	113	133

Police Stations

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
201	St Paul	1998	15	0.1	0.1	1.043	1.000	1.043	117.86	0.268	4,500,000	0.398	150,000	0.268	300,000	1,204,776	59,662	80,318
201B	St Paul	1998	15	0.1	0.1	1.043	1.000	1.043	117.86	0.465		0.595	600,000	0.465		-	357,040	-
202	St Thomas	1950's	200	0.6	0.3	1.129	1.000	1.129	127.58	0.942	250,000	0.979	25,000	0.942	100,000	235,496	24,469	94,198
203	St George	1940	725	1.8	0.6	1.258	1.000	1.258	142.15	0.999	285,000	0.998	25,000	0.999	100,000	284,652	24,954	99,878
203A	St James	1983	40	0.3	0.2	1.086	1.000	1.086	122.72	0.496	350,000	0.633	50,000	0.496	200,000	173,452	31,665	99,115
										S	5,385,000		850,000		700,000	1,898,376	497,790	373,510

Hospital & Health Centers

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
205	St Paul	1952	150	0.6	0.3	1.129	1.000	1.129	127.58	0.800	276,000	0.942	105,000	0.800		220,771	98,962	-
205 A	St Paul	1963	150	0.6	0.3	1.129	1.000	1.129	127.58	0.921	448,000	0.976	182,000	0.921		412,476	177,660	-
205 B	St Paul	1952	150	0.6	0.3	1.129	1.000	1.129	127.58	0.800	1,400,000	0.942	245,000	0.800		1,119,852	230,911	-
205 C	St Paul	1985	150	0.6	0.3	1.129	1.000	1.129	127.58	0.921	531,000	0.976	75,000	0.921		488,894	73,212	-
205 D	St Paul	1995	150	0.6	0.3	1.129	1.000	1.129	127.58	0.921	147,000	0.976	87,000	0.921		135,344	84,926	-
211	St Paul	1958	20	0.2	0.15	1.065	1.000	1.065	120.29	0.549		0.661		0.549		-	-	-
										S	2,802,000		694,000		0	2,377,336	665,671	0

Port

1. Buildings

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
209	St John	1999	8	0	0.13	1.056	1.000	1.056	119.32	0.284	400,000	0.108		0.284		113,460	-	-
210	St John	1999	8	0	0.13	1.056	1.000	1.056	119.32	0.284	745,000	0.108		0.284		211,320	-	-
										S	1,145,000		0		0	324,780	0	0

2. Wharf

1	2	3	4	5	6	7	8	9	10	11	12
Struc. No.	**Yr. Blt.**	**Elevation (ft.)**	**Design Wave Ht. (ft.)**	**Wave Elevation (ft)**	**Design Moment**	**Failure Moment**	**Moment due to Wind**	**z**	**P_f**	**Rep. Cost**	**Damage to Wharf**
208	1999	6	13	25.77	27,661.75	41,492.62	26,235.31	-1.4708	0.0707	13,500,000	953,997
									S	13,500,000	953,997

3. Pier

1	2	3	4	5	6	7	8	9	10	11	12
Struc. No.	**Yr. Blt.**	**Elevation (ft.)**	**Design Wave Ht. (ft.)**	**Wave Elevation (ft)**	**Design Moment**	**Failure Moment**	**Moment due to Wind**	**z**	**P_f**	**Rep. Cost**	**Damage to Pier**
206	1994	6	13	25.77	27,661.75	41,492.62	26,235.31	-1.4708	0.0707	400,000	28,267
207	1997+	6	13	25.77	27,661.75	41,492.62	26,235.31	-1.4708	0.0707	5,500,000	388,665
									S	5,900,000	416,932

Schools & Colleges

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
216	St James	1940	150	0.7	0.32	1.138	1.000	1.138	128.55	0.766	600,000	0.787	22,000	0.766		459,663	17,306	-
217	St George	1978	750	1.9	0.6	1.258	1.000	1.258	142.15	0.983	2,100,000	0.981	80,000	0.983		2,064,985	78,482	-
218 A	St George	1950	750	1.9	0.6	1.258	1.000	1.258	142.15	0.983	700,000	0.981	250,000	0.983		688,328	245,256	-
218 B	St George	1950	750	1.9	0.6	1.258	1.000	1.258	142.15	0.983	800,000	0.981	250,000	0.983		786,661	245,256	-
218 C	St George	1978	750	1.9	0.6	1.258	1.000	1.258	142.15	0.983	800,000	0.981	250,000	0.983		786,661	245,256	-
219	St James	1979	200	0.5	0.3	1.129	1.000	1.129	127.58	0.799		0.823	30,000	0.799		-	24,697	-
220	St Paul	1950	50	0.2	0.2	1.086	1.000	1.086	122.72	0.501	1,000,000	0.380	1,300,000	0.501		501,284	493,801	-
220 A	St Paul	1990	50	0.2	0.2	1.086	1.000	1.086	122.72	0.501	1,300,000	0.380	860,000	0.501		651,669	326,668	-
221	St Paul	1990	50	0.2	0.2	1.086	1.000	1.086	122.72	0.501	2,300,000	0.380	80,000	0.501		1,152,953	30,388	-
223	St Thomas	1983	100	0.2	0.2	1.086	1.000	1.086	122.72	0.627	200,000	0.579	80,000	0.627		125,309	46,344	-
224	St John	1983	350	1.5	0.5	1.215	1.000	1.215	137.30	0.940	1,377,000	0.953	60,000	0.940		1,294,487	57,196	-
225	St John	+1990	725	1.9	0.6	1.258	1.000	1.258	142.15	0.982	200,000	0.980	25,000	0.982		196,490	24,511	-
										S	11,377,000		3,287,000		0	8,708,490	1,835,159	0

Airport

1. Buildings

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
226	St James	1968	40	0.2	0.2	1.086	1.000	1.086	122.72	0.536	5,000,000	0.435	3,000,000	0.536		2,681,605	1,305,771	-
227	St James	1998	40	0.2	0.2	1.086	1.000	1.086	122.72	0.536	800,000	0.435	1,500,000	0.536		429,057	652,886	-
228	St James	1988	40	0.2	0.2	1.086	1.000	1.086	122.72	0.536	1,350,000	0.435	600,000	0.536		724,033	261,154	-
										S	7,150,000		5,100,000		0	3,834,695	2,219,811	0

2. Runway

1	2	3	4	5	6	7	8	9
Parish	**Length of Runway in feet**	**Rep. Cost per foot ($)**	**Total Rep. Cost ($)**	**Erosion Potential**	**Pavement Resistance**	**Failure Likelihood**	**Failure Probability**	**Pavement Damage**
St James	4,000							-
		S	0					-

Courthouse/Library

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
229	St Paul	*1877	10	0	0.13	1.056	1.000	1.056	119.32	0.259		0.108		0.259		-	-	-
										S	0		0		0	0	0	0

Public Market

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
230	St Paul	1940	8	0	0.13	1.056	1.000	1.056	119.32	0.259		0.108		0.259		-	-	-
										S	0		0		0	0	0	0

Government Buildings

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
231	St Paul	1982	15	0.1	0.13	1.056	1.000	1.056	119.32	0.259	500,000	0.108		0.259		129,681	-	-
										S	500,000		0		0	129,681	0	0

Power House

1	2	3	4	5	5a	5b	5c	5d	6	7	8	9	10	11	12	13	14	15
Struct No.	**Parish**	**Year Built**	**Elevation ft.**	**Distance from coast**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**Struct. Damage Ratio**	**Building Value**	**Content Damage Ratio**	**Contents Value**	**Equipment Damage Ratio**	**Ext.Equip Value**	**Structural Damage $**	**Content Damage $**	**Equipement Damage $**
232	St John	1984	250	1.3	0.4	1.172	1.000	1.172	132.44	0.877		0.904	8,000,000	0.877		-	7,233,280	-
										S	0		8,000,000		0	0	7,233,280	0

Transmission Lines

1	2	3	4	5	6	7	8a	8b	8c	8d	9	10	11	12	13	14
Parish	**Miles of Lines**	**Elevation ft.**	**Design Wind Spd (mph)**	**Factor of Safety**	**Failure Wind Speed**	**Standard Deviation**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**z**	**P_f**	**Rep. Cost per mile ($)**	**Total Rep. Cost ($)**	**Damage to Poles ($)**
St Paul	40	100	90	1.1	99	29.7	0.2	1.086	1.000	1.086	122.72	0.7986	0.7877	70,000	2,800,000	2,205,657
St George	60	500	90	1.1	99	29.7	0.6	1.258	1.000	1.258	142.15	1.4530	0.9269	35,000	2,100,000	1,946,464
St James	40	150	90	1.1	99	29.7	0.24	1.103	1.000	1.103	124.66	0.8640	0.8062	35,000	1,000,000	806,213
St John	30	350	90	1.1	99	29.7	0.35	1.151	1.000	1.151	130.01	1.0440	0.8518	35,000	750,000	638,816
St Thomas	30	100	90	1.1	99	29.7	0.25	1.108	1.000	1.108	125.15	0.8804	0.8107	35,000	750,000	608,006
														S	7,400,000	6,205,157

Utility Poles

1	2	3	4	5	6	7	8a	8b	8c	8d	9	10	11	12	13	14
Parish	**No. of Poles**	**Elevation ft.**	**Design Wind Spd (mph)**	**Factor of Safety**	**Failure Wind Speed**	**Standard Deviation**	**K_2**	**$\sqrt{K_{zt}}$**	**$\sqrt{K_z}$**	**$\sqrt{K_T}$**	**Site Speed mph**	**z**	**P_f**	**Rep. Cost per Pole ($)**	**Total Rep. Cost ($)**	**Damage to Poles ($)**
St Paul	1000	100	90	1.1	99	29.7	0.2	1.086	1.000	1.086	122.72	0.7986	0.7877	1200	1,200,000	945,282
St George	1500	500	90	1.1	99	29.7	0.6	1.258	1.000	1.258	142.15	1.4530	0.9269	1200	1,800,000	1,668,398
St James	1000	150	90	1.1	99	29.7	0.24	1.103	1.000	1.103	124.66	0.8640	0.8062	1200	1,200,000	967,456
St John	750	350	90	1.1	99	29.7	0.35	1.151	1.000	1.151	130.01	1.0440	0.8518	1200	900,000	766,579
St Thomas	750	100	90	1.1	99	29.7	0.25	1.108	1.000	1.108	125.15	0.8804	0.8107	1200	900,000	729,608
														S	6,000,000	5,077,323

Pavements

1	2	3	4	5	6	7	8	9
Parish	**Area Paved sq. ft.**	**Rep. Cost per sq. ft. ($)**	**Total Rep. Cost ($)**	**Erosion Potential**	**Pavement Resistance**	**Failure Likelihood**	**Failure Probability**	**Pavement Damage**
St James								-
		S	0					0

Paved Roads

1	2	3	4	5	6	7	8	9
Parish	**Miles of Road**	**Rep. Cost Per Mile**	**Total Rep. Cost**	**Erosion Potential**	**Pavement Resistance**	**Failure Likelihood**	**Failure Probability**	**Pavement Damage**
St Paul	22	459,000	10,098,000	H	M	VH	0.5	5,049,000
St George	33	459,000	15,147,000	H	M	VH	0.5	7,573,500
St James	22	459,000	10,098,000	H	M	VH	0.5	5,049,000
St John	17	459,000	7,803,000	H	M	VH	0.5	3,901,500
St Thomas	17	459,000	7,803,000	H	M	VH	0.5	3,901,500
		S	50,949,000					25,474,500

Unpaved Roads

1	2	3	4	5	6	7	8	9
Parish	**Miles of Road**	**Rep. Cost Per Mile**	**Total Rep. Cost**	**Erosion Potential**	**Pavement Resistance**	**Failure Likelihood**	**Failure Probability**	**Pavement Damage**
St George	27	36,000	972,000	H	L	VH	0.5	486,000
St John	14	36,000	504,000	H	L	VH	0.5	252,000
St Paul	18	36,000	648,000	H	L	VH	0.5	324,000
St Thomas	14	36,000	504,000	H	L	VH	0.5	252,000
St James	18	36,000	648,000	H	L	VH	0.5	324,000
		S	3,276,000					1,638,000

Wastemanagement Collection Vehicles

1	2	3	4	5	6	7	8	9	10	11
Parish	**No.of Vehicles**	**Cost per Vehicle ($)**	**Max X-area of Veh. (sq. ft.)**	**Weight of Vehicle (lb.)**	$\bar{z}$	**s**	**b**	P_f	**Total Rep. Cost**	**Damage to Vehicles**
St Thomas	1	240,000	172	14,000	8377.55	1124.49	7.45	0.0000	240,000	0
St John	2	75,000	150	11,000	6096.70	980.66	6.22	0.0000	150,000	0
St George	1	150,000	150	11,000	6096.70	980.66	6.22	0.0000	150,000	0
St Paul	2	240,000	172	14,000	8377.55	1124.49	7.45	0.0000	480,000	0
								S	1,020,000	0

Wastemanagement Bins

1	2	3	4	5	6	7	8	9	10	11
Parish	**No.of Bins**	**Cost per Bin ($)**	**Max X-area of Bin (sq. ft.)**	**Weight of Bin (lb.)**	$\overline{Z}$	**s**	**b**	**P_f**	**Total Rep. Cost**	**Damage to Vehicles**
St George	8	1,500	12	500	107.74	78.45	1.37	0.0848	12,000	1,018
St John	2	1,760	16	560	36.98	104.60	0.35	0.3618	3,520	1,274
								S	15,520	2,292

SUMMARY

		Structure Value	Contents Value	Equipment Value	Structural Damage	Content Damage	Equipment Damage	% PML
Police Stations		5,385,000	850,000	700,000	1,898,376	497,790	373,510	39.94
Hospitals & Health Centers		2,802,000	694,000	-	2,377,336	665,671	-	87.04
Ports	Buildings	1,145,000	-	-	324,780	-	-	28.37
	Wharf	13,500,000			953,997			7.07
	Pier	5,900,000			416,932			7.07
Schools & Colleges		11,377,000	3,287,000	-	8,708,490	1,835,159	-	71.90
Airport	Buildings	7,150,000	5,100,000	-	3,834,695	2,219,811	-	49.42
	Runway	-			-			
Courthouse / Library		-	-	-	-	-	-	
Public Market		-	-	-	-	-	-	
Government Buildings		500,000	-	-	129,681	-	-	25.94
Power House		-	8,000,000	-	-	7,233,280	-	90.42
Transmission Lines		7,400,000			6,205,157			83.85
Utility Poles		6,000,000			5,077,323			84.62
Pavements		-			-			
Paved Roads		50,949,000			25,474,500			50.00
Unpaved Roads		3,276,000			1,638,000			50.00
Wastemanagement	Vehicles	1,020,000			0			0.00
	Bins	15,520			2,292			14.77
Total		116,419,520	17,931,000	700,000	57,041,559	12,451,711	373,510	51.73

St. Kitts

		Structure Value	Contents Value	Equipment Value	Structural Damage	Content Damage	Equipment Damage
Police Stations		5222000	440000	1800000	3014527.512	378020.06	1302057.4
Fire Stations		0	0	0	0	0	0
Hospitals & Health Centers		14170000	5260000	5000	11763167.55	4817703.575	4832.045
Ports	Buildings	6860000	1960000	0	2318177.68	950545.68	0
	Wharf	65000000	0	0	5057995.72	0	0
	Pier	22000000	0	0	1631698.815	0	0
Airport	Buildings	40020000	6530000	0	33168295.86	5499363.57	0
	Runway	80000000	0	0	800000	0	0
Coast Guard Station	Building	1100000	250000	0	358827.7	35881.5	0
	Pier	750000	0	0	52999.81664	0	0
Custom & Excise Department		600000	200000	0	336576	98774.2	0
Power Stations		10000000	55000000	5000000	7268750	41589515	3634375
Transmission Lines		25288000	0	0	20264599.31	0	0
Utility Poles		17280000	0	0	13938939.01	0	0
Courthouse		7000000	0	0	1815527	0	0
Government Buildings		15000000	0	0	3890415	0	0
Public Market		0	0	0	0	0	0
Radio & TV Studios		500000	0	0	365658	0	0
Schools & Colleges		67192000	16725000	30000	41278020.36	9013594.625	11299.62
Pavements		30300000	0	0	15150000	0	0
Paved Roads		196539000	0	0	98269500	0	0
Unpaved Roads		2196000	0	0	1098000	0	0
Wastemanagement	Vehicles	1200000	0	0	5.63549E-08	0	0
	Bins	3500	0	0	885.4498021	0	0
Total		608220500	86365000	6835000	261842560.8	62383398.21	4952564.07

Nevis

		Structure Value	Contents Value	Equipment Value	Structural Damage	Content Damage	Equipment Damage
Police Stations		5385000	850000	700000	1898376	497790.05	373510.1
Hospitals & Health Centers		2802000	694000	0	2377336.174	665670.914	0
Ports	Buildings	1145000	0	0	324780.395	0	0
	Wharf	13500000	0	0	953996.6996	0	0
	Pier	5900000	0	0	416931.8909	0	0
Schools & Colleges		11377000	3287000	0	8708490.406	1835159.347	0
Airport	Buildings	7150000	5100000	0	3834695.15	2219810.7	0
	Runway	0	0	0	0	0	0
Courthouse / Library		0	0	0	0	0	0
Public Market		0	0	0	0	0	0
Government Buildings		500000	0	0	129680.5	0	0
Power House		0	8000000	0	0	7233280	0
Transmission Lines		7400000	0	0	6205157.493	0	0
Utility Poles		6000000	0	0	5077322.806	0	0
Pavements		0	0	0	0	0	0
Paved Roads		50949000	0	0	25474500	0	0
Unpaved Roads		3276000	0	0	1638000	0	0
Wastemanagement	Vehicles	1020000	0	0	7.63877E-05	0	0
	Bins	15520	0	0	2291.703457	0	0
Total		116419520	17931000	700000	57041559.22	12451711.01	373510.1

SUMMARY (St. Kitts + Nevis)

Infrastructure Element		Structure Replacement Cost (EC$)	Contents Replacement Cost (EC$)	Equipment Replacement Cost (EC$)	Structural Damage (EC$)	Content Damage (EC$)	Equipment Damage (EC$)	% PML
Police Stations		10,607,000	1,290,000	2,500,000	4,912,904	875,810	1,675,568	51.85
Fire Stations		-	-	-	-	-	-	
Hospitals & Health Centers		16,972,000	5,954,000	5,000	14,140,504	5,483,374	4,832	85.60
Ports	Buildings	8,005,000	1,960,000	-	2,642,958	950,546	-	36.06
	Wharf	78,500,000			6,011,992			7.66
	Pier	27,900,000			2,048,631			7.34
Airport	Buildings	47,170,000	11,630,000	-	37,002,991	7,719,174	-	76.06
	Runway	80,000,000			800,000			1.00
Coast Guard Station	Building	1,100,000	250,000	-	358,828	35,882	-	29.24
	Pier	750,000			53,000			7.07
Custom & Excise Department		600,000	200,000	-	336,576	98,774	-	54.42
Power Stations & Power House		10,000,000	63,000,000	5,000,000	7,268,750	48,822,795	3,634,375	76.57
Transmission Lines		32,688,000			26,469,757			80.98
Utility Poles		23,280,000			19,016,262			81.68
Courthouse / Library		7,000,000	-	-	1,815,527	-	-	25.94
Government Buildings		15,500,000	-	-	4,020,096	-	-	25.94
Public Market		-	-	-	-	-	-	
Radio & TV Studios		500,000	-	-	365,658	-	-	73.13
Schools & Colleges		78,569,000	20,012,000	30,000	49,986,511	10,848,754	11,300	61.70
Pavements		30,300,000			15,150,000			50.00
Paved Roads		247,488,000			123,744,000			50.00
Unpaved Roads		5,472,000			2,736,000			50.00
Wastemanagement	Vehicles	2,220,000			0			0.00
	Bins	19,020			3,177			16.70
Total		724,640,020	104,296,000	7,535,000	318,884,120	74,835,109	5,326,074	47.71