



July 13, 2023

Honorable Mike Causey
Commissioner of Insurance
North Carolina Department of Insurance
Raleigh, NC 27699

Re: Revision of Dwelling Insurance Rates

Dear Commissioner Causey:

Enclosed herewith for filing on behalf of all member companies of the North Carolina Rate Bureau are revised premium rates and relativities for dwelling insurance subject to the jurisdiction of the North Carolina Rate Bureau.

The enclosed memoranda and exhibits set forth and explain the calculations for needed rate level changes to produce an overall filed statewide average rate level change of +50.6% for dwelling insurance, proposed to be implemented effective 6/1/2024 (+16.1% for Fire, and +59.8% for Extended Coverage). The filing shows revised rate levels varying by territory, revised windstorm and hail exclusion credits, and revised wind mitigation credits.

The foregoing changes were calculated based on rates currently in force and reflect consideration, duly given, to data for the experience period set forth herein. In preparing this filing, due consideration has been given to the factors specified in G.S. 58-36-10(2).

Information and statistical data required pursuant to G.S. 58-36-15 and 11 NCAC 10.1105 are shown and referenced in Section E. Additionally, the prefiled testimony of (a) Joanna Biliouris, General Manager; (b) Paul Ericksen, ISO; (c) Minchong Mao, Aon; (d) Paul Anderson, Milliman; and (e) Dr. George Zanjani, University of Alabama are submitted herewith.

We propose that the revised rates and territory definitions become effective according to the following rule of application:

These changes are applicable to all new and renewal policies becoming effective on or after June 1, 2024.

Your approval of these changes is respectfully requested.

Sincerely,


Joanna Biliouris
General Manager

JB:ko
Enclosure

NORTH CAROLINA
DWELLING PROPERTY INSURANCE

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NORTH CAROLINA
DWELLING PROPERTY INSURANCE
STATEWIDE RATE LEVEL CHANGES

<u>Coverage</u>	Latest-Year <u>Earned Premium</u> ^(a)	Indicated <u>Change</u>	Filed <u>Change</u> ^(b)
Fire	\$74,789,801	+16.1%	+16.1%
Extended Coverage	\$281,463,075	+59.8%	+59.8%
Combined	\$356,252,876	+50.6%	+50.6%

^(a) Year-ended 12/31/2021 Aggregate Calculated Earned Premiums at Current Level.

These values also appear on page A-3.

^(b) The filed changes are equal to the indicated changes.

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DWELLING PROPERTY INSURANCE

INDICATED AND FILED RATE LEVEL CHANGES BY TERRITORY

Territory	Latest-Year Earned Premium ^(a)		Indicated Rate Level Change				Filed Rate Level Change			
	Fire	Extended Coverage	Fire		Extended Coverage		Fire ^(b)		Extended Coverage ^(c)	
			Buildings	Contents	Buildings	Contents	Buildings	Contents	Buildings	Contents
110	2,133,159	33,958,736	+14.3%	+2.6%	+78.6%	+54.5%	+14.3%	+2.6%	+78.6%	+54.5%
120	2,184,784	40,348,228	+23.1%	+10.5%	+97.7%	+71.1%	+23.1%	+10.5%	+97.7%	+71.1%
130	885,266	5,524,264	+12.7%	+1.1%	+54.8%	+33.9%	+12.7%	+1.1%	+54.8%	+33.9%
140	4,241,270	37,306,323	+11.9%	+0.4%	+97.3%	+70.7%	+11.9%	+0.4%	+97.3%	+70.7%
150	2,922,599	17,233,157	+31.8%	+18.3%	+20.3%	+4.1%	+31.8%	+18.3%	+20.3%	+4.1%
160	2,805,832	16,963,961	+16.7%	+4.7%	+35.1%	+16.9%	+16.7%	+4.7%	+35.1%	+16.9%
170	520,750	1,103,368	+17.6%	+5.5%	+44.4%	+25.0%	+17.6%	+5.5%	+44.4%	+25.0%
180	3,766,642	10,771,965	+11.1%	-0.3%	+59.2%	+37.8%	+11.1%	-0.3%	+59.2%	+37.8%
190	1,464,298	3,839,832	+27.9%	+14.8%	+106.0%	+78.3%	+27.9%	+14.8%	+106.0%	+78.3%
200	1,140,457	2,420,713	+21.8%	+9.3%	+95.3%	+69.0%	+21.8%	+9.3%	+95.3%	+69.0%
210	1,163,181	2,756,423	+33.5%	+19.8%	+62.5%	+40.6%	+33.5%	+19.8%	+62.5%	+40.6%
220	4,890,729	13,419,264	+12.5%	+0.9%	+44.7%	+25.3%	+12.5%	+0.9%	+44.7%	+25.3%
230	2,473,497	4,812,449	+22.6%	+10.1%	+77.9%	+53.9%	+22.6%	+10.1%	+77.9%	+53.9%
240	3,502,705	7,275,815	+25.5%	+12.6%	+65.9%	+43.6%	+25.5%	+12.6%	+65.9%	+43.6%
250	2,335,556	6,490,730	+9.6%	-1.6%	+33.6%	+15.6%	+9.6%	-1.6%	+33.6%	+15.6%
260	1,632,649	2,717,884	+17.6%	+5.5%	+34.7%	+16.6%	+17.6%	+5.5%	+34.7%	+16.6%
270	5,298,354	15,174,692	+3.3%	-7.3%	+28.5%	+11.2%	+3.3%	-7.3%	+28.5%	+11.2%
280	967,147	2,699,172	+12.8%	+1.2%	+36.4%	+18.0%	+12.8%	+1.2%	+36.4%	+18.0%
290	1,124,589	2,919,118	+13.9%	+2.2%	+25.0%	+8.2%	+13.9%	+2.2%	+25.0%	+8.2%
300	1,540,456	2,473,322	+22.5%	+10.0%	+45.4%	+25.9%	+22.5%	+10.0%	+45.4%	+25.9%
310	7,400,343	13,692,063	+14.2%	+2.5%	+34.6%	+16.5%	+14.2%	+2.5%	+34.6%	+16.5%
320	3,216,125	6,208,484	+30.1%	+16.8%	+35.8%	+17.5%	+30.1%	+16.8%	+35.8%	+17.5%
330	237,041	387,871	+20.3%	+8.0%	+42.8%	+23.6%	+20.3%	+8.0%	+42.8%	+23.6%
340	6,555,153	13,180,202	+16.6%	+4.6%	+26.4%	+9.3%	+16.6%	+4.6%	+26.4%	+9.3%
350	3,083,964	5,033,424	+24.7%	+11.9%	+27.4%	+10.2%	+24.7%	+11.9%	+27.4%	+10.2%
360	4,951,397	9,308,245	+13.4%	+1.7%	+24.5%	+7.8%	+13.4%	+1.7%	+24.5%	+7.8%
370	375,309	556,504	+16.0%	+4.1%	+35.5%	+17.3%	+16.0%	+4.1%	+35.5%	+17.3%
380	1,001,998	1,491,514	+16.9%	+4.9%	+39.9%	+21.1%	+16.9%	+4.9%	+39.9%	+21.1%
390	974,551	1,395,352	+17.3%	+5.3%	+39.4%	+20.6%	+17.3%	+5.3%	+39.4%	+20.6%
Statewide	74,789,801	281,463,075	+17.0%	+5.0%	+60.5%	+38.9%	+17.0%	+5.0%	+60.5%	+38.9%

^(a) The territory weights are the year-ending 12/31/2021 Aggregate Calculated Earned Premiums at Current Level.

^(b) For Fire, the filed changes are equal to the indicated changes.

^(c) For Extended Coverage, the filed changes are equal to the indicated changes.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CURRENT AND FILED BASE RATES

FIRE

Territory	(1)		(2)		(3) = (1) x (2)	
	Current Manual Base Rate ^(a)		Filed Rate Level Change ^(b)		Filed Base Rate	
	Buildings	Contents	Buildings	Contents	Buildings	Contents
110	\$17	\$4	1.143	1.026	\$19	\$4
120	\$17	\$4	1.231	1.105	\$21	\$4
130	\$32	\$9	1.127	1.011	\$36	\$9
140	\$29	\$9	1.119	1.004	\$32	\$9
150	\$31	\$9	1.318	1.183	\$41	\$11
160	\$34	\$11	1.167	1.047	\$40	\$12
170	\$45	\$13	1.176	1.055	\$53	\$14
180	\$45	\$14	1.111	0.997	\$50	\$14
190	\$49	\$14	1.279	1.148	\$63	\$16
200	\$64	\$16	1.218	1.093	\$78	\$17
210	\$45	\$13	1.335	1.198	\$60	\$16
220	\$42	\$12	1.125	1.009	\$47	\$12
230	\$68	\$17	1.226	1.101	\$83	\$19
240	\$45	\$13	1.255	1.126	\$56	\$15
250	\$39	\$12	1.096	0.984	\$43	\$12
260	\$48	\$13	1.176	1.055	\$56	\$14
270	\$30	\$10	1.033	0.927	\$31	\$9
280	\$28	\$9	1.128	1.012	\$32	\$9
290	\$36	\$11	1.139	1.022	\$41	\$11
300	\$49	\$15	1.225	1.100	\$60	\$17
310	\$35	\$11	1.142	1.025	\$40	\$11
320	\$36	\$11	1.301	1.168	\$47	\$13
330	\$38	\$12	1.203	1.080	\$46	\$13
340	\$32	\$9	1.166	1.046	\$37	\$9
350	\$37	\$11	1.247	1.119	\$46	\$12
360	\$30	\$9	1.134	1.017	\$34	\$9
370	\$33	\$10	1.160	1.041	\$38	\$10
380	\$30	\$9	1.169	1.049	\$35	\$9
390	\$31	\$10	1.173	1.053	\$36	\$11
Statewide	\$35.93	\$10.39	1.170	1.050	\$42.04	\$10.91

^(a) The current Base Class is Protection Class 5 with Frame construction; \$15,000 Coverage A, \$6,000 Coverage C.

^(b) For Fire, the filed changes are equal to the indicated changes.

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CURRENT AND FILED BASE RATES
EXTENDED COVERAGE

Territory	(1)		(2)		(3) = (1) x (2)	
	Current Manual Base Rate ^(a)		Filed Rate Level Change ^(b)		Filed Base Rate	
	Buildings	Contents	Buildings	Contents	Buildings	Contents
110	\$215	\$29	1.786	1.545	\$384	\$45
120	\$241	\$35	1.977	1.711	\$476	\$60
130	\$173	\$26	1.548	1.339	\$268	\$35
140	\$188	\$26	1.973	1.707	\$371	\$44
150	\$157	\$12	1.203	1.041	\$189	\$12
160	\$163	\$15	1.351	1.169	\$220	\$18
170	\$76	\$6	1.444	1.250	\$110	\$8
180	\$84	\$7	1.592	1.378	\$134	\$10
190	\$87	\$10	2.060	1.783	\$179	\$18
200	\$109	\$13	1.953	1.690	\$213	\$22
210	\$71	\$4	1.625	1.406	\$115	\$6
220	\$63	\$3	1.447	1.253	\$91	\$4
230	\$100	\$11	1.779	1.539	\$178	\$17
240	\$64	\$3	1.659	1.436	\$106	\$4
250	\$66	\$3	1.336	1.156	\$88	\$3
260	\$61	\$2	1.347	1.166	\$82	\$2
270	\$47	\$2	1.285	1.112	\$60	\$2
280	\$46	\$2	1.364	1.180	\$63	\$2
290	\$57	\$2	1.250	1.082	\$71	\$2
300	\$53	\$4	1.454	1.259	\$77	\$5
310	\$38	\$1	1.346	1.165	\$51	\$1
320	\$42	\$1	1.358	1.175	\$57	\$1
330	\$45	\$1	1.428	1.236	\$64	\$1
340	\$36	\$1	1.264	1.093	\$46	\$1
350	\$37	\$1	1.274	1.102	\$47	\$1
360	\$36	\$2	1.245	1.078	\$45	\$2
370	\$37	\$2	1.355	1.173	\$50	\$2
380	\$33	\$1	1.399	1.211	\$46	\$1
390	\$33	\$1	1.394	1.206	\$46	\$1
Statewide	\$85.33	\$9.65	1.605	1.389	\$136.95	\$13.40

^(a) The current Base Class is Form DP-001; \$15,000 Coverage A, \$6,000 Coverage C.

^(b) For Extended Coverage, the filed changes are equal to the indicated changes.

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DETERMINATION OF RATES TO BE CHARGED INDIVIDUAL INSUREDS

The filed base rates by territory are shown on pages A-4 and A-5. These are the filed manual rates for the classification carrying a unity differential. The revised rates for the remaining classifications are determined by applying the established classification rate differentials to the base rates by territory. The derivation of the revised wind exclusion and windstorm loss mitigation credits can be found on pages C-16-20.

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REVISED RULES

1. The base rates underlying the Rule 301 Key Premium tables have been revised to reflect the filed rate level changes. See page B-3 for the filed base rates.
2. The Windstorm or Hail Exclusion Credits have been revised to reflect the filed rates. See page B-4 for the Windstorm or Hail Exclusion Credits.
3. The Windstorm Loss Mitigation Credits have been revised to reflect the filed rates. See pages B-5-6 for the Windstorm Loss Mitigation Credits.

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FILED TERRITORY BASE RATES

<u>Territory</u>	Filed Base Rate			
	<u>Fire</u> ^(a)		<u>Extended Coverage</u> ^(b)	
	<u>Buildings</u>	<u>Contents</u>	<u>Buildings</u>	<u>Contents</u>
110	\$19	\$4	\$384	\$45
120	\$21	\$4	\$476	\$60
130	\$36	\$9	\$268	\$35
140	\$32	\$9	\$371	\$44
150	\$41	\$11	\$189	\$12
160	\$40	\$12	\$220	\$18
170	\$53	\$14	\$110	\$8
180	\$50	\$14	\$134	\$10
190	\$63	\$16	\$179	\$18
200	\$78	\$17	\$213	\$22
210	\$60	\$16	\$115	\$6
220	\$47	\$12	\$91	\$4
230	\$83	\$19	\$178	\$17
240	\$56	\$15	\$106	\$4
250	\$43	\$12	\$88	\$3
260	\$56	\$14	\$82	\$2
270	\$31	\$9	\$60	\$2
280	\$32	\$9	\$63	\$2
290	\$41	\$11	\$71	\$2
300	\$60	\$17	\$77	\$5
310	\$40	\$11	\$51	\$1
320	\$47	\$13	\$57	\$1
330	\$46	\$13	\$64	\$1
340	\$37	\$9	\$46	\$1
350	\$46	\$12	\$47	\$1
360	\$34	\$9	\$45	\$2
370	\$38	\$10	\$50	\$2
380	\$35	\$9	\$46	\$1
390	\$36	\$11	\$46	\$1

^(a) The Base Class is Protection Class 5 with Frame construction; \$15,000 Coverage A, \$6,000 Coverage C.

^(b) The Base Class is Form DP-001; \$15,000 Coverage A, \$6,000 Coverage C.

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DWELLING POLICY PROGRAM MANUAL CHANGES WINDSTORM OR HAIL EXCLUSION CREDITS

RULE A3.**WINDSTORM OR HAIL EXCLUSION – TERRITORIES 110, 120, 130, 140, 150 AND 160 ONLY**

Territory	Const.*	Building Credit	Contents Credit
110	M	\$ 335	\$ 37
	F	353	39
	MH	441	49
120	M	427	54
	F	449	57
	MH	561	71
130	M	226	30
	F	238	32
	MH	298	40
140	M	319	37
	F	336	39
	MH	420	49
150	M	147	10
	F	155	10
	MH	194	13
160	M	171	14
	F	180	15
	MH	225	19

* M = Masonry, F = Frame. MH = Mobile Homes.
Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

**Table A3.B.2.(R) Windstorm Or Hail Exclusion –
Territories 110, 120, 130, 140, 150 and 160 Only**

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**DWELLING POLICY PROGRAM MANUAL CHANGES
WINDSTORM LOSS MITIGATION CREDITS**

**RULE A9.
WINDSTORM MITIGATION PROGRAM**

Mitigation Feature	Const.	Territory 110	Territory 120	Territory 130	Territory 140	Territory 150	Territory 160
Total Hip Roof	M	\$ 18	\$ 22	\$ 12	\$ 16	\$ 8	\$ 6
	F	19	23	13	17	8	6
Opening Protection	M	18	22	12	16	8	6
	F	19	23	13	17	8	6
Total Hip Roof and Opening Protection	M	38	43	22	28	15	16
	F	40	45	23	29	16	17
IBHS Designation prior to March 31, 2019: <i>Hurricane Fortified for Safer Living®</i>	M	60	77	24	55	19	29
	F	63	81	25	58	20	30
<i>Hurricane Fortified for Existing Homes® Bronze Option 1</i>	M	14	17	6	7	5	5
	F	15	18	6	7	5	5
<i>Hurricane Fortified for Existing Homes® Bronze Option 2</i>	M	22	26	12	21	8	10
	F	23	27	13	22	8	11
<i>Hurricane Fortified for Existing Homes® Silver Option 1</i>	M	38	49	16	34	9	17
	F	40	52	17	36	9	18
<i>Hurricane Fortified for Existing Homes® Silver Option 2</i>	M	46	56	18	41	12	20
	F	48	59	19	43	13	21
<i>Hurricane Fortified for Existing Homes® Gold Option 1</i>	M	46	56	22	41	15	20
	F	48	59	23	43	16	21
<i>Hurricane Fortified for Existing Homes® Gold Option 2</i>	M	50	67	24	52	16	28
	F	53	70	25	55	17	29
IBHS Designation on or after March 31, 2019: <i>FORTIFIED for Safer Living®</i>	M	60	77	24	55	19	29
	F	63	81	25	58	20	30
FORTIFIED Roof – Hurricane – Existing Roof	M	14	17	6	7	5	5
	F	15	18	6	7	5	5
FORTIFIED Roof – Hurricane – New Roof	M	22	26	12	21	8	10
	F	23	27	13	22	8	11
FORTIFIED Home – Hurricane – Silver – Existing Roof	M	38	49	16	34	9	17
	F	40	52	17	36	9	18
FORTIFIED Home – Hurricane – Silver – New Roof	M	46	56	18	41	12	20
	F	48	59	19	43	13	21
FORTIFIED Home – Hurricane – Gold – Existing Roof	M	46	56	22	41	15	20
	F	48	59	23	43	16	21
FORTIFIED Home – Hurricane – Gold – New Roof	M	50	67	24	52	16	28
	F	53	70	25	55	17	29

Table A9.E.#1(R) – Windstorm Loss Mitigation Credit – Coverage A – Dwelling

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**DWELLING POLICY PROGRAM MANUAL CHANGES
WINDSTORM LOSS MITIGATION CREDITS**

**RULE A9.
WINDSTORM MITIGATION PROGRAM**

Mitigation Feature	Const.	Territory 110	Territory 120	Territory 130	Territory 140	Territory 150	Territory 160
Total Hip Roof	M	\$ 2	\$ 4	\$ 3	\$ 2	\$ 1	\$ 1
	F	2	4	3	2	1	1
Opening Protection	M	2	4	3	2	1	1
	F	2	4	3	2	1	1
Total Hip Roof and Opening Protection	M	2	6	3	2	1	1
	F	2	6	3	2	1	1
IBHS Designation prior to March 31, 2019: <i>Hurricane Fortified for Safer Living®</i>	M	8	12	4	8	2	4
	F	8	13	4	8	2	4
<i>Hurricane Fortified for Existing Homes® Bronze Option 1</i>	M	2	4	3	2	1	1
	F	2	4	3	2	1	1
<i>Hurricane Fortified for Existing Homes® Bronze Option 2</i>	M	2	6	3	2	1	1
	F	2	6	3	2	1	1
<i>Hurricane Fortified for Existing Homes® Silver Option 1</i>	M	4	6	3	6	1	3
	F	4	6	3	6	1	3
<i>Hurricane Fortified for Existing Homes® Silver Option 2</i>	M	4	10	3	6	1	3
	F	4	11	3	6	1	3
<i>Hurricane Fortified for Existing Homes® Gold Option 1</i>	M	6	10	3	6	1	3
	F	6	11	3	6	1	3
<i>Hurricane Fortified for Existing Homes® Gold Option 2</i>	M	6	10	4	6	2	3
	F	6	11	4	6	2	3
IBHS Designation on or after March 31, 2019: <i>FORTIFIED for Safer Living®</i>	M	8	12	4	8	2	4
	F	8	13	4	8	2	4
FORTIFIED Roof – Hurricane – Existing Roof	M	2	4	3	2	1	1
	F	2	4	3	2	1	1
FORTIFIED Roof – Hurricane – New Roof	M	2	6	3	2	1	1
	F	2	6	3	2	1	1
FORTIFIED Home – Hurricane – Silver – Existing Roof	M	4	6	3	6	1	3
	F	4	6	3	6	1	3
FORTIFIED Home – Hurricane – Silver – New Roof	M	4	10	3	6	1	3
	F	4	11	3	6	1	3
FORTIFIED Home – Hurricane – Gold – Existing Roof	M	6	10	3	6	1	3
	F	6	11	3	6	1	3
FORTIFIED Home – Hurricane – Gold – New Roof	M	6	10	4	6	2	3
	F	6	11	4	6	2	3

Table A9.E.#2(R) – Windstorm Loss Mitigation Credit – Coverage C – Personal Property

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CALCULATION OF INDICATED STATEWIDE RATE LEVEL CHANGE

FIRE

Year	(1) Adjusted Incurred Losses ^(a)	(2) Adjusted Incurred Losses Including LAE ^(b)	(3) Loss Trend Factor ^(c)	(4) Earned House Years	(5) Premium Trend Factor ^(d)
2017	37,882,585	41,026,840	1.487	631,323	1.281
2018	42,978,127	46,545,312	1.466	631,921	1.267
2019	46,159,755	49,991,015	1.444	633,872	1.253
2020	40,284,268	43,627,862	1.423	634,980	1.238
2021	45,159,992	48,908,271	1.401	643,996	1.211

Year	(6) Trended Loss Cost [(2)×(3)] / [(4)×(5)]	(7) Average Rating Factor ^(e)	(8) Trended Base Class Loss Cost (6) / (7)	(9) Accident Year Weights
2017	75.44	4.238	17.80	0.10
2018	85.23	4.271	19.96	0.15
2019	90.89	4.309	21.09	0.20
2020	78.97	4.333	18.23	0.25
2021	87.86	4.386	20.03	0.30

(10)	Weighted Trended Base Class Loss Cost ^(f)	19.56
(11)	Credibility (3,176,092 House Years) ^(g)	1.00
(12)	Trended Fixed Expense per Policy ^(h)	3.57
(13)	Base Class Loss Cost with Fixed Expense, (10) + (12)	23.13
(14)	Expected Loss and Fixed Expense Ratio ⁽ⁱ⁾	0.759
(15)	Base Class Rate Excluding Comp. for Assess. Risk & Dev., (13) / (14)	30.47
(16)	Compensation for Assessment Risk per Policy ^(j)	0.50
(17)	Base Class Rate Excluding Deviations, (15) + (16)	30.97
(18)	Selected Deviation ^(k)	0.0000
(19)	Deviation Amount per Policy, [(17) / (1.0 - (18))] - (17)	0.00
(20)	Required Base Class Rate per Policy, (17) + (19)	30.97
(21)	Current Average Base Class Rate	26.68
(22)	Indicated Rate Level Change, (20) / (21) - 1	+16.1%
(23)	Filed Rate Level Change ^(l)	+16.1%

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF INDICATED STATEWIDE RATE LEVEL CHANGE
FIRE

- (a) Incurred losses have been adjusted by the following loss development factors:

<u>Accident Year Ending</u>	<u>Loss Development Factor</u>
12/31/2017	1.000
12/31/2018	1.000
12/31/2019	0.998
12/31/2020	0.995
12/31/2021	0.958

- (b) The trended loss adjustment expenses have been calculated to be 8.3% of the incurred losses for Fire. This factor is developed on pages D-24 and D-28.
- (c) The development of the Loss Trend Factors is shown on page D-16.
- (d) The development of the Premium Trend Factors is shown on page D-18.
- (e) The calculation of the Average Rating Factors is shown on pages D-32-41.
- (f) The Weighted Trended Base Class Loss Cost is the sum of the products, by year, of the Trended Base Class Loss Costs and the accident year weights.
- (g) The standard for full credibility is 500,000 house years for Fire. This review is fully credible. The statewide credibility procedure is based on the "frequency with severity modification" model discussed in "Credibility of the Pure Premium" by Mayerson, Bowers and Jones. The full credibility standard is based on a normal distribution with a 90% probability of meeting the test and a 10% maximum departure from the expected value, translated to house year standards. Partial credibility (Z_p) is calculated as follows:
- $$Z_p = \sqrt{\frac{\text{Five-Year House Years}}{\text{Full Credibility Standard}}} \text{ (truncated to the nearest tenth)}$$
- (h) The development of the Trended Fixed Expense per Policy is shown on page D-28.
- (i) The development of the Expected Loss and Fixed Expense Ratio is shown on page D-22.
- (j) The Compensation for Assessment Risk loading is 1.6% of premium and is based on an analysis done by Aon. The provision per policy is calculated as $(0.016 \times \text{Current Average Base Class Rate}) / (1 - \text{Provisions for Commission \& Taxes})$. The commission and tax provisions are those shown on page D-22 for Fire.
- (k) A 0% deviation loading was selected by the North Carolina Rate Bureau.
- (l) The filed rate level change is equal to the indicated rate level change.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF INDICATED STATEWIDE RATE LEVEL CHANGE
EXTENDED COVERAGE

Year	(1) Non-Modeled Adjusted Incurred Losses ^(a) *	(2) Non-Modeled Adjusted Excess Losses ^(b)	(3) Losses Including LAE Adjusted for Excess [(1)-(2)] × LAE × Excess Factor ^(c) ^(d)	(4) Loss Trend Factor ^(e)	(5) Earned House Years
2017	54,934,539	0	64,624,113	1.640	627,472
2018	64,161,714	0	75,478,814	1.576	624,584
2019	60,922,438	0	71,668,181	1.516	625,090
2020	84,268,022	0	99,131,553	1.458	622,456
2021	64,543,789	0	75,928,281	1.401	628,095

Year	(6) Premium Trend Factor ^(f)	(7) Trended Loss Cost [(3)×(4)] / [(5)×(6)]	(8) Average Rating Factor ^(g)	(9) Trended Base Class Loss Cost (7) / (8)	(10) Accident Year Weights
2017	1.280	131.96	7.572	17.43	0.20
2018	1.262	150.91	7.619	19.81	0.20
2019	1.247	139.39	7.659	18.20	0.20
2020	1.237	187.71	7.705	24.36	0.20
2021	1.211	139.85	7.840	17.84	0.20

(11)	Weighted Trended Non-Hurricane Base Class Loss Cost ^(h)	19.53
(12)	Credibility (3,127,697 House Years) ⁽ⁱ⁾	1.00
(13)	Trended Modeled Hurricane Base Class Loss Cost ^(j)	16.74
(14)	Total Base Class Loss Cost (11) + (13)	36.27
(15)	Trended Fixed Expense per Policy ^(k)	6.46
(16)	Base Class Loss Cost with Fixed Expense, (14) + (15)	42.73
(17)	Expected Loss and Fixed Expense Ratio ^(l)	0.781
(18)	Base Rate Excluding Comp. for Assess. Risk, Net Reins. & Dev., (16) / (17)	54.71
(19)	Compensation for Assessment Risk per Policy ^(m)	1.06
(20)	Net Cost of Reinsurance per Policy ⁽ⁿ⁾	37.68
(21)	Base Class Rate Excluding Deviations, (18) + (19) + (20)	93.45
(22)	Selected Deviation ^(o)	0.000
(23)	Deviation Amount per Policy, [(21) / (1.0 - (22))] - (21)	0.00
(24)	Required Base Class Rate per Policy, (21) + (23)	93.45
(25)	Current Average Base Class Rate	58.49
(26)	Indicated Rate Level Change, (24) / (25) - 1	+59.8%
(27)	Filed Rate Level Change ^(p)	+59.8%

* Actual Hurricane losses of \$264,976 were removed from 2017, \$579,145,860 were removed from 2018, \$27,023,335 were removed from 2019, \$30,753,098 were removed from 2020, and \$2,715,663 were removed from 2021.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF INDICATED STATEWIDE RATE LEVEL CHANGE
EXTENDED COVERAGE

- (a) Incurred losses excluding hurricanes have been adjusted by the following loss development factors:

<u>Accident Year Ending</u>	<u>Loss Development Factor</u>
12/31/2017	1.000
12/31/2018	1.000
12/31/2019	1.001
12/31/2020	1.005
12/31/2021	1.039

The excluded hurricane losses can be found on pages D-54-58.

- (b) Excess losses are calculated on pages D-47-48.
- (c) The trended loss adjustment expenses have been calculated to be 11.4% of the non-hurricane incurred losses for Extended Coverage. This factor is developed on pages D-27 and D-28.
- (d) The excess factor is calculated on page D-47.
- (e) The development of the Loss Trend Factors is shown on page D-16.
- (f) The development of the Premium Trend Factors is shown on page D-18.
- (g) The calculation of the Average Rating Factors is shown on pages D-63-72.
- (h) The Weighted Trended Non-Hurricane Base Class Loss Cost is the sum of the products, by year, of the Trended Base Class Loss Costs and the accident year weights.
- (i) The standard for full credibility is 330,000 house years for Extended Coverage. This review is fully credible. The statewide credibility procedure is based on the "frequency with severity modification" model discussed in "Credibility of the Pure Premium" by Mayerson, Bowers and Jones. The full credibility standard is based on a normal distribution with a 90% probability of meeting the test and a 10% maximum departure from the expected value, translated to house year standards. Partial credibility (Z_p) is calculated as follows:
- $$Z_p = \sqrt{\frac{\text{Five-Year House Years}}{\text{Full Credibility Standard}}} \text{ (truncated to the nearest tenth)}$$
- (j) The modeled hurricane base-class loss cost is calculated by dividing modeled losses of \$99,843,453 by the product of the trended Average Rating Factor and Earned House Years for the latest year. Using the trended latest-year exposures, Aon developed modeled losses by blending the results of the AIR and RMS hurricane models. The resulting losses were adjusted by Aon to include a loading for LAE of 6.0%. The development of the Modeled Hurricane Base Class Loss Cost is shown on page D-79.
- (k) The development of the Trended Fixed Expense per Policy is shown on page D-28.
- (l) The development of the Expected Loss and Fixed Expense Ratio is shown on page D-25.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF INDICATED STATEWIDE RATE LEVEL CHANGE
EXTENDED COVERAGE

- (m) The Compensation for Assessment Risk loading is 1.6% of premium and is based on an analysis done by Aon. The provision per policy is calculated as $(0.016 \times \text{Current Average Base Class Rate}) / (1 - \text{Provisions for Commission \& Taxes})$. The commission and tax provisions are those shown on page D-25 for Extended Coverage.
- (n) The derivation of the statewide Net Cost of Reinsurance per Policy provision is provided on page D-80. This loading is based on an analysis done by Aon.
- (o) A 0% deviation loading was selected by the North Carolina Rate Bureau.
- (p) The filed rate level change is equal to the indicated rate level change.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF INDICATED CLASS RATE LEVEL CHANGES

FIRE

	(1)	(2)	(3)	(4)	(5)	(6)
	Trended	Five-Year	Trended	Base Class		Credibility-
	Adjusted	Earned	Average	Loss Cost		Weighted
<u>Class</u>	<u>Incurred Losses</u>	<u>House Years</u>	<u>Rating Factor</u>	<u>(1) / [(2) × (3)]</u>	<u>Credibility</u>	<u>Loss Cost</u>
Buildings	309,473,483	2,026,162	5.782	26.42	1.00	26.42
Contents	22,558,815	1,149,930	2.928	6.70	1.00	6.70
Total	332,032,298	3,176,092	5.380	19.43		19.43
	(7)	(8)	(9)	(10)	(11)	(12)
	Indicated	Current Latest-	Expected	Indicated	Compensation	Base Class
	Base Class	Year Average	Loss and	Base Class	for	Rate Excluding
	Loss Cost ^(a)	Base Class Rate	Fixed	Rate ^(b)	Assessment	Deviations
<u>Class</u>			<u>Expense Ratio</u>		<u>Risk per Policy</u>	<u>(10) + (11)</u>
Buildings	26.60	36.05	0.759	41.46	0.67	42.13
Contents	6.74	10.47	0.759	10.74	0.19	10.93
Total	19.56	26.48	0.759	30.48	0.50	30.98
	(13)	(14)	(15)	(16)	(17)	(18)
	Selected	Deviation	Required	Current Five-	Indicated	Indicated
	Deviation	Amount	Base Class	Year Average	Base Class	Rate Change
		per Policy	Rate	Base Class Rate	Rate Change	Balanced to
<u>Class</u>		<u>(12) / [1.0 - (13)] - (12)</u>	<u>(12) + (14)</u>		<u>(15) / (16) - 1</u>	<u>Statewide Level</u> ^(c)
Buildings	0.000	0.00	42.13	35.93	+17.3%	+17.0%
Contents	0.000	0.00	10.93	10.39	+5.2%	+5.0%
Total	0.000	0.00		26.68	+16.4%	+16.1%

^(a) Column (7) = (6) / Total (6) × Statewide Indication page row (10)

^(b) Column (10) = [(7) + (8) × Trended fixed expense ratio] / (9). The trended fixed expense ratio is shown in on page D-28.

^(c) Column (18) = [1 + (17)] / [1 + (17) total] × (1 + Statewide indicated rate level change) - 1

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF INDICATED CLASS RATE LEVEL CHANGES
EXTENDED COVERAGE

<u>Class</u>	(1) Trended Adjusted Incurred <u>Non-Modeled Losses</u>	(2) Five-Year Earned <u>House Years</u>	(3) Trended Average <u>Rating Factor</u>	(4) Base Class Loss Cost <u>= (1) / [(2) × (3)]</u>	(5) <u>Credibility</u>	(6) Credibility- Weighted <u>Loss Cost</u>
Buildings	542,699,265	2,018,639	9.858	27.27	1.00	27.27
Contents	10,801,156	1,109,058	5.057	1.93	1.00	1.93
Total	553,500,421	3,127,697	9.577	18.48		18.48

<u>Class</u>	(7) Modeled Base Class <u>Loss Cost</u>	(8) Total Base Class <u>Loss Cost</u>	(9) Indicated Base Class <u>Loss Cost</u> ^(a)	(10) Current Latest- Year Average <u>Base Class Rate</u>	(11) Expected Loss and Fixed <u>Expense Ratio</u>
Buildings	24.81	52.08	53.28	84.58	0.781
Contents	2.64	4.57	4.68	9.39	0.781
Total	16.74	35.45	36.27	57.16	0.781

<u>Class</u>	(12) Indicated Net Base Class Rate ^(b)	(13) Compensation for Assessment Risk per Policy	(14) Net Cost of Reinsurance per Policy	(15) Base Class Rate Excluding Deviations <u>(12)+(13)+(14)</u>	(16) Selected <u>Deviation</u>
Buildings	80.46	1.55	55.81	137.82	0.000
Contents	7.35	0.17	5.97	13.49	0.000
Total	54.71	1.06	37.68	93.45	0.000

<u>Class</u>	(17) Deviation Amount per Policy <u>(15) / [1.0 - (16)] - (15)</u>	(18) Required Base Class Rate <u>(15) + (17)</u>	(19) Current Five- Year Average <u>Base Class Rate</u>	(20) Indicated Base Class Rate Change <u>(18) / (19) - 1</u>	(21) Indicated Rate Change Balanced to Statewide Level ^(c)
Buildings	0.00	137.82	85.33	+61.5%	+60.5%
Contents	0.00	13.49	9.65	+39.8%	+38.9%
Total	0.00		58.49	+60.8%	+59.8%

^(a) Column (9) = (8) / Total (8) × Statewide Indication page row (14).

^(b) Column (12) = [(9) + (10) × Trended fixed expense ratio] / (11). The trended fixed expense ratio is shown on page D-28.

^(c) Column (21) = [1 + (20)] / [1 + (20) total] × (1 + Statewide indicated rate level change) - 1

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF INDICATED TERRITORY RATE LEVEL CHANGES

FIRE

<u>Territory</u>	(1) Latest-Year Aggregate Calculated Earned Premium at <u>Current Level</u>	(2) Current Average Base <u>Class Rate</u>	(3) Five-Year Experience Base Class <u>Loss Cost</u>	(4) Five-Year Earned <u>House Years</u>	(5) <u>Credibility</u>	(6) Five-Year Average Rating <u>Factor</u>	(7) Credibility- Weighted Base Class <u>Loss Cost</u> ^(a)	(8) Indicated Relativity <u>(7) / SW (7)</u>	(9) Indicated Base Class Loss Cost <u>(8) × 19.56</u> ^(b)	(10) Trended Fixed Expense per Policy ^(c)	(11) Trended Loss and Fixed Expense <u>(9) + (10)</u>
110	2,133,159	10.91	6.90	104,986	0.40	12.384	7.53	0.390	7.63	1.60	9.23
120	2,184,784	11.02	7.78	138,561	0.50	9.580	7.90	0.409	8.00	2.05	10.05
130	885,266	22.83	11.42	40,275	0.20	5.991	15.58	0.807	15.78	3.24	19.02
140	4,241,270	21.01	12.46	253,518	0.70	5.027	13.31	0.690	13.50	3.90	17.40
150	2,922,599	22.69	19.67	156,338	0.50	5.117	18.10	0.938	18.35	3.84	22.19
160	2,805,832	25.27	17.25	137,666	0.50	5.300	17.83	0.924	18.07	3.77	21.84
170	520,750	32.33	25.53	19,223	0.10	4.629	23.74	1.230	24.06	4.10	28.16
180	3,766,642	33.57	21.31	153,157	0.50	4.373	22.88	1.185	23.18	4.40	27.58
190	1,464,298	35.91	33.80	64,593	0.30	3.782	28.45	1.474	28.83	5.21	34.04
200	1,140,457	43.80	43.65	38,899	0.20	4.037	34.25	1.775	34.72	4.80	39.52
210	1,163,181	34.34	37.34	49,520	0.30	3.858	28.71	1.488	29.11	4.92	34.03
220	4,890,729	31.17	22.31	163,655	0.50	6.122	22.50	1.166	22.81	3.14	25.95
230	2,473,497	47.45	39.68	99,629	0.40	3.186	36.61	1.897	37.11	6.00	43.11
240	3,502,705	33.86	28.52	143,419	0.50	4.177	26.59	1.378	26.95	4.54	31.49
250	2,335,556	29.30	18.44	85,574	0.40	5.885	20.18	1.046	20.46	3.29	23.75
260	1,632,649	37.35	28.58	66,374	0.30	4.564	27.61	1.431	27.99	4.53	32.52
270	5,298,354	22.44	13.16	180,645	0.60	7.419	14.43	0.748	14.63	2.49	17.12
280	967,147	20.85	10.42	38,952	0.20	6.579	14.23	0.737	14.42	2.97	17.39
290	1,124,589	26.80	17.63	44,490	0.20	6.143	19.14	0.992	19.40	3.18	22.58
300	1,540,456	37.23	32.62	56,428	0.30	3.940	28.77	1.491	29.16	4.66	33.82
310	7,400,343	27.79	19.54	287,486	0.70	5.338	19.75	1.023	20.01	3.48	23.49
320	3,216,125	28.85	26.62	134,007	0.50	5.186	23.82	1.234	24.14	3.71	27.85
330	237,041	29.05	17.29	12,564	0.10	4.229	20.77	1.076	21.05	4.84	25.89
340	6,555,153	24.34	18.01	246,917	0.70	6.653	17.92	0.928	18.15	2.86	21.01
350	3,083,964	29.91	26.12	123,141	0.40	4.957	23.52	1.219	23.84	3.80	27.64
360	4,951,397	22.40	14.57	237,179	0.60	5.679	15.27	0.791	15.47	3.32	18.79
370	375,309	24.08	14.05	15,778	0.10	5.682	17.19	0.891	17.43	3.24	20.67
380	1,001,998	22.15	15.76	42,153	0.20	6.491	16.06	0.832	16.27	2.91	19.18
390	974,551	22.93	16.75	40,965	0.20	6.532	16.71	0.866	16.94	2.97	19.91
Statewide	74,789,801	26.68	19.43	3,176,092	1.00	5.380	19.30	1.000	19.56	3.57	23.13

^(a) Column (7) = (5) × (3) + [1.00 - (5)] × Statewide (3) × (2) / Statewide (2)

^(b) Column (9) = (8) × Indicated Statewide Base Class Loss Cost

^(c) The derivation of the territory Trended Fixed Expense per Policy is on page D-29.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF INDICATED TERRITORY RATE LEVEL CHANGES

FIRE

Territory	(12) Expected Loss and Fixed Expense Ratio	(13) Indicated Net Base Class Rate (11) / (12)	(14) Compensation of Assessment Risk per Policy	(15) Base Class Rate Excluding Deviations (13) + (14)	(16) Selected Deviations	(17) Deviation Amount per Policy (15) / (1.0 - (16)) - (15)	(18) Indicated Required Base Class Rate (15) + (17)	(19) Indicated Rate Level Change (18) / (2) - 1	(20) Indicated Rate Level Change Balanced to Statewide Indicated Level ^(d)	(21) Indicated Buildings Rate Level Change ^(e)	(22) Indicated Contents Rate Level Change ^(f)
110	0.759	12.16	0.20	12.36	0.000	0.00	12.36	+13.3%	+13.4%	+14.3%	+2.6%
120	0.759	13.24	0.21	13.45	0.000	0.00	13.45	+22.1%	+22.2%	+23.1%	+10.5%
130	0.759	25.06	0.43	25.49	0.000	0.00	25.49	+11.7%	+11.8%	+12.7%	+1.1%
140	0.759	22.92	0.39	23.31	0.000	0.00	23.31	+10.9%	+11.0%	+11.9%	+0.4%
150	0.759	29.24	0.42	29.66	0.000	0.00	29.66	+30.7%	+30.8%	+31.8%	+18.3%
160	0.759	28.77	0.47	29.24	0.000	0.00	29.24	+15.7%	+15.8%	+16.7%	+4.7%
170	0.759	37.10	0.60	37.70	0.000	0.00	37.70	+16.6%	+16.7%	+17.6%	+5.5%
180	0.759	36.34	0.63	36.97	0.000	0.00	36.97	+10.1%	+10.2%	+11.1%	-0.3%
190	0.759	44.85	0.67	45.52	0.000	0.00	45.52	+26.8%	+26.9%	+27.9%	+14.8%
200	0.759	52.07	0.82	52.89	0.000	0.00	52.89	+20.8%	+20.9%	+21.8%	+9.3%
210	0.759	44.84	0.64	45.48	0.000	0.00	45.48	+32.4%	+32.5%	+33.5%	+19.8%
220	0.759	34.19	0.58	34.77	0.000	0.00	34.77	+11.5%	+11.6%	+12.5%	+0.9%
230	0.759	56.80	0.88	57.68	0.000	0.00	57.68	+21.6%	+21.7%	+22.6%	+10.1%
240	0.759	41.49	0.63	42.12	0.000	0.00	42.12	+24.4%	+24.5%	+25.5%	+12.6%
250	0.759	31.29	0.55	31.84	0.000	0.00	31.84	+8.7%	+8.8%	+9.6%	-1.6%
260	0.759	42.85	0.70	43.55	0.000	0.00	43.55	+16.6%	+16.7%	+17.6%	+5.5%
270	0.759	22.56	0.42	22.98	0.000	0.00	22.98	+2.4%	+2.5%	+3.3%	-7.3%
280	0.759	22.91	0.39	23.30	0.000	0.00	23.30	+11.8%	+11.9%	+12.8%	+1.2%
290	0.759	29.75	0.50	30.25	0.000	0.00	30.25	+12.9%	+13.0%	+13.9%	+2.2%
300	0.759	44.56	0.69	45.25	0.000	0.00	45.25	+21.5%	+21.6%	+22.5%	+10.0%
310	0.759	30.95	0.52	31.47	0.000	0.00	31.47	+13.2%	+13.3%	+14.2%	+2.5%
320	0.759	36.69	0.54	37.23	0.000	0.00	37.23	+29.0%	+29.1%	+30.1%	+16.8%
330	0.759	34.11	0.54	34.65	0.000	0.00	34.65	+19.3%	+19.4%	+20.3%	+8.0%
340	0.759	27.68	0.45	28.13	0.000	0.00	28.13	+15.6%	+15.7%	+16.6%	+4.6%
350	0.759	36.42	0.56	36.98	0.000	0.00	36.98	+23.6%	+23.7%	+24.7%	+11.9%
360	0.759	24.76	0.42	25.18	0.000	0.00	25.18	+12.4%	+12.5%	+13.4%	+1.7%
370	0.759	27.23	0.45	27.68	0.000	0.00	27.68	+15.0%	+15.1%	+16.0%	+4.1%
380	0.759	25.27	0.41	25.68	0.000	0.00	25.68	+15.9%	+16.0%	+16.9%	+4.9%
390	0.759	26.23	0.43	26.66	0.000	0.00	26.66	+16.3%	+16.4%	+17.3%	+5.3%
Statewide	0.759	30.47	0.50	30.97	0.000	0.00	30.97	+16.0%	+16.1%	+17.0%	+5.0%

^(d) Column (20) = [1 + (19)] / [1 + Statewide (19)] × (1 + Statewide indicated rate level change) - 1

^(e) Column (21) = [1 + (20)] × [1 + Class page Buildings (18)] / [1 + Class page Total (18)] - 1

^(f) Column (22) = [1 + (20)] × [1 + Class page Contents (18)] / [1 + Class page Total (18)] - 1

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF INDICATED TERRITORY RATE LEVEL CHANGES
EXTENDED COVERAGE

Territory	(1) Latest-Year Aggregate Calculated Earned Premium at Current Level	(2) Current Average Base Class Rate	(3) Five-Year Non-Hurricane Experience Base Class Loss Cost	(4) Five-Year Earned House Years	(5) Credibility	(6) Five-Year Average Rating Factor	(7) Credibility- Weighted Base Class Loss Cost ^(a)	(8) Modeled Hurricane Base Class Loss Cost	(9) Total Base Class Loss Cost (7) + (8)	(10) Indicated Relativity (9) / SW (9)	(11) Indicated Base Class Loss Cost (10) × 36.27 ^(b)	(12) Trended Fixed Expense per Policy ^(c)	(13) Trended Loss and Fixed Expense (11) + (12)
110	33,958,736	127.69	11.54	103,415	0.50	16.828	13.73	63.78	77.51	2.327	84.40	3.70	88.10
120	40,348,228	146.13	10.74	137,878	0.60	13.303	12.81	69.44	82.25	2.469	89.55	4.68	94.23
130	5,524,264	114.16	13.75	39,745	0.30	7.312	15.26	42.40	57.66	1.731	62.78	8.26	71.04
140	37,306,323	123.20	15.83	253,628	0.80	7.483	15.85	56.35	72.20	2.168	78.63	8.24	86.87
150	17,233,157	101.90	21.06	154,736	0.60	6.752	19.00	22.81	41.81	1.255	45.52	9.23	54.75
160	16,963,961	106.81	17.09	138,039	0.60	7.466	16.62	27.17	43.79	1.315	47.70	8.37	56.07
170	1,103,368	48.34	20.64	19,184	0.20	6.344	16.86	9.59	26.45	0.794	28.80	9.25	38.05
180	10,771,965	55.72	18.91	152,671	0.60	7.489	17.71	13.63	31.34	0.941	34.13	8.15	42.28
190	3,839,832	58.35	16.42	64,506	0.40	5.942	16.11	21.13	37.24	1.118	40.55	10.31	50.86
200	2,420,713	68.64	13.38	38,768	0.30	5.232	15.15	24.81	39.96	1.200	43.52	11.40	54.92
210	2,756,423	48.75	20.26	49,413	0.30	6.387	17.22	10.88	28.10	0.844	30.61	9.44	40.05
220	13,419,264	42.88	20.08	157,035	0.60	12.806	18.41	7.28	25.69	0.771	27.96	4.83	32.79
230	4,812,449	64.17	16.56	99,118	0.50	4.495	16.24	19.06	35.30	1.060	38.45	13.38	51.83
240	7,275,815	42.82	20.97	142,430	0.60	6.799	18.95	8.44	27.39	0.822	29.81	8.76	38.57
250	6,490,730	43.46	19.99	85,200	0.50	10.971	17.95	6.38	24.33	0.730	26.48	5.61	32.09
260	2,717,884	43.13	18.24	65,225	0.40	6.962	16.84	5.66	22.50	0.675	24.48	9.72	34.20
270	15,174,692	30.57	15.66	176,527	0.70	16.033	15.74	3.03	18.77	0.563	20.42	3.67	24.09
280	2,699,172	29.91	14.95	38,061	0.30	12.665	15.62	3.15	18.77	0.563	20.42	4.80	25.22
290	2,919,118	37.00	14.12	43,987	0.30	11.775	15.37	4.42	19.79	0.594	21.54	5.30	26.84
300	2,473,322	36.09	15.09	56,171	0.40	6.243	15.58	5.05	20.63	0.619	22.45	9.03	31.48
310	13,692,063	27.56	14.94	279,197	0.90	10.119	15.04	2.14	17.18	0.516	18.72	5.82	24.54
320	6,208,484	31.05	17.11	129,237	0.60	9.620	16.63	2.86	19.49	0.585	21.22	6.35	27.57
330	387,871	30.28	15.26	12,353	0.10	6.289	15.85	2.38	18.23	0.547	19.84	9.72	29.56
340	13,180,202	25.16	13.14	240,354	0.80	13.568	13.69	1.96	15.65	0.470	17.05	4.48	21.53
350	5,033,424	27.91	14.46	119,772	0.60	8.815	15.04	1.90	16.94	0.509	18.46	6.66	25.12
360	9,308,245	23.85	12.88	233,986	0.80	10.111	13.49	1.07	14.56	0.437	15.85	5.89	21.74
370	556,504	23.49	10.69	15,536	0.20	8.700	14.87	0.79	15.66	0.470	17.05	6.68	23.73
380	1,491,514	21.33	12.09	41,374	0.30	10.228	14.76	0.64	15.40	0.462	16.76	5.88	22.64
390	1,395,352	20.89	11.06	40,151	0.30	10.508	14.46	0.57	15.03	0.451	16.36	5.88	22.24
Statewide	281,463,075	58.49	15.91	3,127,697	1.00	9.577	16.01	16.74	33.31	1.000	36.27	6.46	42.73

^(a) Column (7) = (5) × (3) + [1.00 - (5)] × Statewide (3)

^(b) Column (11) = (10) × Indicated Statewide Base Loss Cost

^(c) The derivation of the territory Trended Fixed Expense per Policy is on page D-30.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF INDICATED TERRITORY RATE LEVEL CHANGES
EXTENDED COVERAGE

Territory	(14) Expected Loss and Fixed Expense Ratio	(15) Indicated Net Base Class Rate (13) / (14)	(16) Compensation for Assessment Risk per Policy	(17) Net Cost of Reinsurance per Policy	(18) Base Class Rate Excluding Deviations (15) + (16) + (17)	(19) Selected Deviation	(20) Deviation Amount per Policy (18) / (1.0 - (19)) - (18)	(21) Indicated Required Base Class Rate (18) + (20)	(22) Indicated Rate Level Change (21) / (2) - 1	(23) Indicated Rate Level Change Balanced to Statewide Indicated Level ^(d)	(24) Indicated Buildings Rate Level Change ^(e)	(25) Indicated Contents Rate Level Change ^(f)
110	0.781	112.80	2.31	113.30	228.41	0.000	0.00	228.41	+78.9%	+77.8%	+78.6%	+54.5%
120	0.781	120.65	2.65	166.10	289.40	0.000	0.00	289.40	+98.0%	+96.8%	+97.7%	+71.1%
130	0.781	90.96	2.07	84.01	177.04	0.000	0.00	177.04	+55.1%	+54.1%	+54.8%	+33.9%
140	0.781	111.23	2.23	130.07	243.53	0.000	0.00	243.53	+97.7%	+96.4%	+97.3%	+70.7%
150	0.781	70.10	1.85	50.89	122.84	0.000	0.00	122.84	+20.5%	+19.8%	+20.3%	+4.1%
160	0.781	71.79	1.94	70.78	144.51	0.000	0.00	144.51	+35.3%	+34.5%	+35.1%	+16.9%
170	0.781	48.72	0.88	20.34	69.94	0.000	0.00	69.94	+44.7%	+43.8%	+44.4%	+25.0%
180	0.781	54.14	1.01	33.74	88.89	0.000	0.00	88.89	+59.5%	+58.5%	+59.2%	+37.8%
190	0.781	65.12	1.06	54.26	120.44	0.000	0.00	120.44	+106.4%	+105.1%	+106.0%	+78.3%
200	0.781	70.32	1.24	62.69	134.25	0.000	0.00	134.25	+95.6%	+94.4%	+95.3%	+69.0%
210	0.781	51.28	0.88	27.23	79.39	0.000	0.00	79.39	+62.9%	+61.8%	+62.5%	+40.6%
220	0.781	41.98	0.78	19.42	62.18	0.000	0.00	62.18	+45.0%	+44.1%	+44.7%	+25.3%
230	0.781	66.36	1.16	46.81	114.33	0.000	0.00	114.33	+78.2%	+77.1%	+77.9%	+53.9%
240	0.781	49.39	0.78	21.00	71.17	0.000	0.00	71.17	+66.2%	+65.2%	+65.9%	+43.6%
250	0.781	41.09	0.79	16.28	58.16	0.000	0.00	58.16	+33.8%	+33.0%	+33.6%	+15.6%
260	0.781	43.79	0.78	13.64	58.21	0.000	0.00	58.21	+35.0%	+34.1%	+34.7%	+16.6%
270	0.781	30.85	0.55	7.95	39.35	0.000	0.00	39.35	+28.7%	+27.9%	+28.5%	+11.2%
280	0.781	32.29	0.54	8.04	40.87	0.000	0.00	40.87	+36.6%	+35.8%	+36.4%	+18.0%
290	0.781	34.37	0.67	11.33	46.37	0.000	0.00	46.37	+25.3%	+24.5%	+25.0%	+8.2%
300	0.781	40.31	0.65	11.62	52.58	0.000	0.00	52.58	+45.7%	+44.8%	+45.4%	+25.9%
310	0.781	31.42	0.50	5.25	37.17	0.000	0.00	37.17	+34.9%	+34.0%	+34.6%	+16.5%
320	0.781	35.30	0.56	6.38	42.24	0.000	0.00	42.24	+36.0%	+35.2%	+35.8%	+17.5%
330	0.781	37.85	0.55	4.92	43.32	0.000	0.00	43.32	+43.1%	+42.2%	+42.8%	+23.6%
340	0.781	27.57	0.46	3.83	31.86	0.000	0.00	31.86	+26.6%	+25.8%	+26.4%	+9.3%
350	0.781	32.16	0.51	2.95	35.62	0.000	0.00	35.62	+27.6%	+26.8%	+27.4%	+10.2%
360	0.781	27.84	0.43	1.50	29.77	0.000	0.00	29.77	+24.8%	+24.0%	+24.5%	+7.8%
370	0.781	30.38	0.43	1.07	31.88	0.000	0.00	31.88	+35.7%	+34.9%	+35.5%	+17.3%
380	0.781	28.99	0.39	0.51	29.89	0.000	0.00	29.89	+40.1%	+39.3%	+39.9%	+21.1%
390	0.781	28.48	0.38	0.31	29.17	0.000	0.00	29.17	+39.6%	+38.8%	+39.4%	+20.6%
Statewide	0.781	54.71	1.06	37.68	93.45	0.000	0.00	93.45	+60.8%	+59.8%	+60.5%	+38.9%

^(d) Column (23) = [1 + (22)] / [1 + Statewide (22)] × (1 + Statewide indicated rate level change) - 1

^(e) Column (24) = [1 + (23)] × [1 + Class page Buildings (21)] / [1 + Class page Total (21)] - 1

^(f) Column (25) = [1 + (23)] × [1 + Class page Contents (21)] / [1 + Class page Total (21)] - 1

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF FILED TERRITORY BASE CLASS RATES

The Governing Committee elected to file the indicated rate level changes for both Fire and Extended Coverage. The filed territory base class rates are calculated by multiplying the current base class rate by the indicated territory rate level change.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF FILED TERRITORY BASE CLASS RATES
BUILDINGS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Fire					Extended Coverage					Combined
Territory	Latest-Year Aggregate Calculated Earned Premium at Current Level	Current Base Class Rate	Indicated Buildings Rate Level Change	Selected Rate Level Change	Filed Base Class Rate	Latest-Year Aggregate Calculated Earned Premium at Current Level	Current Base Class Rate	Indicated Buildings Rate Level Change	Selected Rate Level Change	Filed Base Class Rate	Filed Rate Level Change ^(a)
	110	2,133,159	\$17	+14.3%	+14.3%	\$19	33,958,736	\$215	+78.6%	+78.6%	\$384
120	2,184,784	\$17	+23.1%	+23.1%	\$21	40,348,228	\$241	+97.7%	+97.7%	\$476	+93.9%
130	885,266	\$32	+12.7%	+12.7%	\$36	5,524,264	\$173	+54.8%	+54.8%	\$268	+49.0%
140	4,241,270	\$29	+11.9%	+11.9%	\$32	37,306,323	\$188	+97.3%	+97.3%	\$371	+88.6%
150	2,922,599	\$31	+31.8%	+31.8%	\$41	17,233,157	\$157	+20.3%	+20.3%	\$189	+22.0%
160	2,805,832	\$34	+16.7%	+16.7%	\$40	16,963,961	\$163	+35.1%	+35.1%	\$220	+32.5%
170	520,750	\$45	+17.6%	+17.6%	\$53	1,103,368	\$76	+44.4%	+44.4%	\$110	+35.8%
180	3,766,642	\$45	+11.1%	+11.1%	\$50	10,771,965	\$84	+59.2%	+59.2%	\$134	+46.7%
190	1,464,298	\$49	+27.9%	+27.9%	\$63	3,839,832	\$87	+106.0%	+106.0%	\$179	+84.4%
200	1,140,457	\$64	+21.8%	+21.8%	\$78	2,420,713	\$109	+95.3%	+95.3%	\$213	+71.8%
210	1,163,181	\$45	+33.5%	+33.5%	\$60	2,756,423	\$71	+62.5%	+62.5%	\$115	+53.9%
220	4,890,729	\$42	+12.5%	+12.5%	\$47	13,419,264	\$63	+44.7%	+44.7%	\$91	+36.1%
230	2,473,497	\$68	+22.6%	+22.6%	\$83	4,812,449	\$100	+77.9%	+77.9%	\$178	+59.1%
240	3,502,705	\$45	+25.5%	+25.5%	\$56	7,275,815	\$64	+65.9%	+65.9%	\$106	+52.8%
250	2,335,556	\$39	+9.6%	+9.6%	\$43	6,490,730	\$66	+33.6%	+33.6%	\$88	+27.2%
260	1,632,649	\$48	+17.6%	+17.6%	\$56	2,717,884	\$61	+34.7%	+34.7%	\$82	+28.3%
270	5,298,354	\$30	+3.3%	+3.3%	\$31	15,174,692	\$47	+28.5%	+28.5%	\$60	+22.0%
280	967,147	\$28	+12.8%	+12.8%	\$32	2,699,172	\$46	+36.4%	+36.4%	\$63	+30.2%
290	1,124,589	\$36	+13.9%	+13.9%	\$41	2,919,118	\$57	+25.0%	+25.0%	\$71	+21.9%
300	1,540,456	\$49	+22.5%	+22.5%	\$60	2,473,322	\$53	+45.4%	+45.4%	\$77	+36.6%
310	7,400,343	\$35	+14.2%	+14.2%	\$40	13,692,063	\$38	+34.6%	+34.6%	\$51	+27.4%
320	3,216,125	\$36	+30.1%	+30.1%	\$47	6,208,484	\$42	+35.8%	+35.8%	\$57	+33.9%
330	237,041	\$38	+20.3%	+20.3%	\$46	387,871	\$45	+42.8%	+42.8%	\$64	+34.3%
340	6,555,153	\$32	+16.6%	+16.6%	\$37	13,180,202	\$36	+26.4%	+26.4%	\$46	+23.1%
350	3,083,964	\$37	+24.7%	+24.7%	\$46	5,033,424	\$37	+27.4%	+27.4%	\$47	+26.4%
360	4,951,397	\$30	+13.4%	+13.4%	\$34	9,308,245	\$36	+24.5%	+24.5%	\$45	+20.6%
370	375,309	\$33	+16.0%	+16.0%	\$38	556,504	\$37	+35.5%	+35.5%	\$50	+27.6%
380	1,001,998	\$30	+16.9%	+16.9%	\$35	1,491,514	\$33	+39.9%	+39.9%	\$46	+30.7%
390	974,551	\$31	+17.3%	+17.3%	\$36	1,395,352	\$33	+39.4%	+39.4%	\$46	+30.3%
Statewide	74,789,801	\$35.93	+17.0%	+17.0%	\$42.04	281,463,075	\$85.33	+60.5%	+60.5%	\$136.95	+51.4%

^(a) Column (11) = [(1) × (4) + (6) × (9)] / [(1) + (6)]

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF FILED TERRITORY BASE CLASS RATES

CONTENTS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Fire					Extended Coverage					Combined
	Latest-Year Aggregate Calculated Earned Premium at Current Level	Current Base Class Rate	Indicated Contents Rate Level Change	Selected Rate Level Change	Filed Base Class Rate	Latest-Year Aggregate Calculated Earned Premium at Current Level	Current Base Class Rate	Indicated Contents Rate Level Change	Selected Rate Level Change	Filed Base Class Rate	Filed Rate Level Change ^(a)
Territory	Current Level	Class Rate	Change	Change	Class Rate	Current Level	Class Rate	Change	Change	Class Rate	Change ^(a)
110	2,133,159	\$4	+2.6%	+2.6%	\$4	33,958,736	\$29	+54.5%	+54.5%	\$45	+51.4%
120	2,184,784	\$4	+10.5%	+10.5%	\$4	40,348,228	\$35	+71.1%	+71.1%	\$60	+68.0%
130	885,266	\$9	+1.1%	+1.1%	\$9	5,524,264	\$26	+33.9%	+33.9%	\$35	+29.4%
140	4,241,270	\$9	+0.4%	+0.4%	\$9	37,306,323	\$26	+70.7%	+70.7%	\$44	+63.5%
150	2,922,599	\$9	+18.3%	+18.3%	\$11	17,233,157	\$12	+4.1%	+4.1%	\$12	+6.2%
160	2,805,832	\$11	+4.7%	+4.7%	\$12	16,963,961	\$15	+16.9%	+16.9%	\$18	+15.2%
170	520,750	\$13	+5.5%	+5.5%	\$14	1,103,368	\$6	+25.0%	+25.0%	\$8	+18.7%
180	3,766,642	\$14	-0.3%	-0.3%	\$14	10,771,965	\$7	+37.8%	+37.8%	\$10	+27.9%
190	1,464,298	\$14	+14.8%	+14.8%	\$16	3,839,832	\$10	+78.3%	+78.3%	\$18	+60.8%
200	1,140,457	\$16	+9.3%	+9.3%	\$17	2,420,713	\$13	+69.0%	+69.0%	\$22	+49.9%
210	1,163,181	\$13	+19.8%	+19.8%	\$16	2,756,423	\$4	+40.6%	+40.6%	\$6	+34.4%
220	4,890,729	\$12	+0.9%	+0.9%	\$12	13,419,264	\$3	+25.3%	+25.3%	\$4	+18.8%
230	2,473,497	\$17	+10.1%	+10.1%	\$19	4,812,449	\$11	+53.9%	+53.9%	\$17	+39.0%
240	3,502,705	\$13	+12.6%	+12.6%	\$15	7,275,815	\$3	+43.6%	+43.6%	\$4	+33.5%
250	2,335,556	\$12	-1.6%	-1.6%	\$12	6,490,730	\$3	+15.6%	+15.6%	\$3	+11.0%
260	1,632,649	\$13	+5.5%	+5.5%	\$14	2,717,884	\$2	+16.6%	+16.6%	\$2	+12.4%
270	5,298,354	\$10	-7.3%	-7.3%	\$9	15,174,692	\$2	+11.2%	+11.2%	\$2	+6.4%
280	967,147	\$9	+1.2%	+1.2%	\$9	2,699,172	\$2	+18.0%	+18.0%	\$2	+13.6%
290	1,124,589	\$11	+2.2%	+2.2%	\$11	2,919,118	\$2	+8.2%	+8.2%	\$2	+6.5%
300	1,540,456	\$15	+10.0%	+10.0%	\$17	2,473,322	\$4	+25.9%	+25.9%	\$5	+19.8%
310	7,400,343	\$11	+2.5%	+2.5%	\$11	13,692,063	\$1	+16.5%	+16.5%	\$1	+11.6%
320	3,216,125	\$11	+16.8%	+16.8%	\$13	6,208,484	\$1	+17.5%	+17.5%	\$1	+17.3%
330	237,041	\$12	+8.0%	+8.0%	\$13	387,871	\$1	+23.6%	+23.6%	\$1	+17.7%
340	6,555,153	\$9	+4.6%	+4.6%	\$9	13,180,202	\$1	+9.3%	+9.3%	\$1	+7.7%
350	3,083,964	\$11	+11.9%	+11.9%	\$12	5,033,424	\$1	+10.2%	+10.2%	\$1	+10.8%
360	4,951,397	\$9	+1.7%	+1.7%	\$9	9,308,245	\$2	+7.8%	+7.8%	\$2	+5.7%
370	375,309	\$10	+4.1%	+4.1%	\$10	556,504	\$2	+17.3%	+17.3%	\$2	+12.0%
380	1,001,998	\$9	+4.9%	+4.9%	\$9	1,491,514	\$1	+21.1%	+21.1%	\$1	+14.6%
390	974,551	\$10	+5.3%	+5.3%	\$11	1,395,352	\$1	+20.6%	+20.6%	\$1	+14.3%
Statewide	74,789,801	\$10.39	+5.0%	+5.0%	\$10.91	281,463,075	\$9.65	+38.9%	+38.9%	\$13.40	+31.8%

^(a) Column (11) = [(1) × (4) + (6) × (9)] / [(1) + (6)]

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

DERIVATION OF WIND EXCLUSION CREDITS

The filed wind exclusion credits on page B-4 are based on the following formula:

$$C_x = \left[I - \frac{\frac{Ldi' + Fi}{(1 - V)} + d'R + dB}{(1 - D)} \right] * r_x$$

C_x = Indicated credit for construction type x (Frame, Masonry or Mobile Home)

I = Indicated rate

F = Provision in filed rates for fixed expenses (territory trended fixed expense ratio divided by the filed territory buildings or contents rate level change)

V = Provision in filed rates for variable expenses

L = Provision in filed rates for losses and loss adjustment expenses = 1.0-V-F

d = Percentage of losses remaining after wind losses are excluded

i = Indicated rate excluding compensation for assessment risk and deviations

i' = Indicated rate excluding compensation for assessment risk, deviations and the net cost of reinsurance

B = Compensation for assessment risk provision

D = Deviation provision

d' = The portion of the net cost of reinsurance attributable to non-wind related perils

R = Net cost of reinsurance provision

r_x = The construction relativity (Frame = 1.00, Masonry = 0.95, Mobile Homes = 1.25)

The d value is calculated as:

$$\frac{N}{N + X + Y}$$

Where N = 5-year average annual non-wind losses; X = latest-year modeled hurricane losses and Y = 5-year average annual non-hurricane wind losses.

The d' value is calculated as:

$$\frac{W}{W + O + H}$$

Where each variable represents the net cost of reinsurance attributable to a particular peril (W = Winter Storm, O = Other Wind, and H = Hurricane Wind).

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

DERIVATION OF WIND EXCLUSION CREDITS FOR EXTENDED COVERAGE

The following displays the variables described above and the indicated credit, C:

	Territory 110		Territory 120		Territory 130		Territory 140		Territory 150		Territory 160	
	Buildings	Contents	Buildings	Contents	Buildings	Contents	Buildings	Contents	Buildings	Contents	Buildings	Contents
C	\$352.91	\$39.35	\$448.51	\$56.53	\$237.57	\$32.15	\$335.72	\$39.29	\$155.15	\$9.88	\$180.38	\$15.37
I	\$384	\$45	\$476	\$60	\$268	\$35	\$371	\$44	\$189	\$12	\$220	\$18
F	0.016	0.019	0.016	0.019	0.047	0.055	0.034	0.040	0.076	0.088	0.059	0.068
V	0.219	0.219	0.219	0.219	0.219	0.219	0.219	0.219	0.219	0.219	0.219	0.219
L	0.765	0.762	0.765	0.762	0.734	0.726	0.747	0.741	0.705	0.693	0.722	0.713
d	0.122	0.218	0.089	0.088	0.109	0.028	0.116	0.133	0.157	0.120	0.222	0.152
i	\$380.00	\$44.00	\$472.00	\$59.00	\$265.00	\$34.00	\$368.00	\$44.00	\$186.00	\$12.00	\$217.00	\$17.00
i'	\$191.00	\$21.00	\$200.00	\$23.00	\$138.00	\$17.00	\$170.00	\$19.00	\$108.00	\$7.00	\$110.00	\$8.00
B	\$3.90	\$0.53	\$4.37	\$0.63	\$3.13	\$0.47	\$3.41	\$0.47	\$2.84	\$0.22	\$2.95	\$0.27
D	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
d'	0.000012	0.000013	0.000004	0.000004	0.000012	0.000009	0.000006	0.000005	0.000014	0.000012	0.000008	0.000009
R	\$189.00	\$23.00	\$272.00	\$36.00	\$127.00	\$17.00	\$198.00	\$25.00	\$78.00	\$5.00	\$107.00	\$9.00
N	2,889,586	169,448	2,331,653	80,653	348,209	2,463	3,011,006	126,841	1,396,263	20,745	1,906,738	26,272
X	19,927,596	606,490	22,388,219	805,137	2,425,686	82,083	20,207,742	797,150	4,617,307	130,456	5,199,060	136,948
Y	889,057	2,368	1,431,310	29,589	426,837	2,142	2,690,125	32,535	2,855,424	21,436	1,493,700	9,665
W	341	11	157	5	45	1	204	6	113	3	83	3
O	80,641	2,494	48,248	1,492	687	21	16,190	501	19,477	602	38,384	1,187
H	27,554,689	852,207	41,980,503	1,298,366	3,763,400	116,394	36,714,653	1,135,505	8,003,019	247,516	10,491,160	324,469

In order to derive the filed dollar credit, the indicated percentage credit is applied to the filed base rate.

	Territory 110		Territory 120		Territory 130		Territory 140		Territory 150		Territory 160	
	Buildings	Contents	Buildings	Contents	Buildings	Contents	Buildings	Contents	Buildings	Contents	Buildings	Contents
(1) Indicated Frame Credit	\$353	\$39	\$449	\$57	\$238	\$32	\$336	\$39	\$155	\$10	\$180	\$15
(2) Indicated Frame Base Rate	\$384	\$45	\$476	\$60	\$268	\$35	\$371	\$44	\$189	\$12	\$220	\$18
(3) Indicated Non-Wind Frame Base Rate = (2) - (1)	\$31	\$6	\$27	\$3	\$30	\$3	\$35	\$5	\$34	\$2	\$40	\$3
(4) Filed Frame Base Rate	\$384	\$45	\$476	\$60	\$268	\$35	\$371	\$44	\$189	\$12	\$220	\$18
(5) Filed Frame Credit = (4) - (3)	\$353	\$39	\$449	\$57	\$238	\$32	\$336	\$39	\$155	\$10	\$180	\$15
(6) Filed Masonry Credit = (5) * 0.95	\$335	\$37	\$427	\$54	\$226	\$30	\$319	\$37	\$147	\$10	\$171	\$14
(7) Filed Mobile Home Credit = (5) * 1.25	\$441	\$49	\$561	\$71	\$298	\$40	\$420	\$49	\$194	\$13	\$225	\$19

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

DERIVATION OF WINDSTORM LOSS MITIGATION CREDITS

BUILDINGS

	Territory					
	110	120	130	140	150	160
(1) Current Wind Exclusion Credit	168	199	124	140	118	120
(2) Filed Wind Exclusion Credit	353	449	238	336	155	180
(3) Ratio of Filed and Current Wind Credits = (2)/(1)	2.101	2.256	1.919	2.400	1.314	1.500
(4) Current Windstorm Loss Mitigation Credits - Frame						
Total Hip Roof	9	10	7	7	6	4
Opening Protection	9	10	7	7	6	4
Total Hip Roof and Opening Protection	19	20	12	12	12	11
<u>IBHS Designation:</u>						
FORTIFIED for Safer Living®	30	36	13	24	15	20
FORTIFIED Roof - Hurricane - Existing Roof	7	8	3	3	4	3
FORTIFIED Roof - Hurricane - New Roof	11	12	7	9	6	7
FORTIFIED Home - Hurricane - Silver - Existing Roof	19	23	9	15	7	12
FORTIFIED Home - Hurricane - Silver - New Roof	23	26	10	18	10	14
FORTIFIED Home - Hurricane - Gold - Existing Roof	23	26	12	18	12	14
FORTIFIED Home - Hurricane - Gold - New Roof	25	31	13	23	13	19
(5) Revised Windstorm Loss Mitigation Credits - Frame = (4)×(3)						
Total Hip Roof	19	23	13	17	8	6
Opening Protection	19	23	13	17	8	6
Total Hip Roof and Opening Protection	40	45	23	29	16	17
<u>IBHS Designation:</u>						
FORTIFIED for Safer Living®	63	81	25	58	20	30
FORTIFIED Roof - Hurricane - Existing Roof	15	18	6	7	5	5
FORTIFIED Roof - Hurricane - New Roof	23	27	13	22	8	11
FORTIFIED Home - Hurricane - Silver - Existing Roof	40	52	17	36	9	18
FORTIFIED Home - Hurricane - Silver - New Roof	48	59	19	43	13	21
FORTIFIED Home - Hurricane - Gold - Existing Roof	48	59	23	43	16	21
FORTIFIED Home - Hurricane - Gold - New Roof	53	70	25	55	17	29
(6) Revised Windstorm Loss Mitigation Credits - Masonry = (5)×0.95						
Total Hip Roof	18	22	12	16	8	6
Opening Protection	18	22	12	16	8	6
Total Hip Roof and Opening Protection	38	43	22	28	15	16
<u>IBHS Designation:</u>						
FORTIFIED for Safer Living®	60	77	24	55	19	29
FORTIFIED Roof - Hurricane - Existing Roof	14	17	6	7	5	5
FORTIFIED Roof - Hurricane - New Roof	22	26	12	21	8	10
FORTIFIED Home - Hurricane - Silver - Existing Roof	38	49	16	34	9	17
FORTIFIED Home - Hurricane - Silver - New Roof	46	56	18	41	12	20
FORTIFIED Home - Hurricane - Gold - Existing Roof	46	56	22	41	15	20
FORTIFIED Home - Hurricane - Gold - New Roof	50	67	24	52	16	28

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

DERIVATION OF WINDSTORM LOSS MITIGATION CREDITS

CONTENTS

	Territory					
	110	120	130	140	150	160
(1) Current Wind Exclusion Credit	20	27	22	19	9	12
(2) Filed Wind Exclusion Credit	39	57	32	39	10	15
(3) Ratio of Filed and Current Wind Credits = (2)/(1)	1.950	2.111	1.455	2.053	1.111	1.250
(4) Current Windstorm Loss Mitigation Credits - Frame						
Total Hip Roof	1	2	2	1	1	1
Opening Protection	1	2	2	1	1	1
Total Hip Roof and Opening Protection	1	3	2	1	1	1
<u>IBHS Designation:</u>						
FORTIFIED for Safer Living®	4	6	3	4	2	3
FORTIFIED Roof - Hurricane - Existing Roof	1	2	2	1	1	1
FORTIFIED Roof - Hurricane - New Roof	1	3	2	1	1	1
FORTIFIED Home - Hurricane - Silver - Existing Roof	2	3	2	3	1	2
FORTIFIED Home - Hurricane - Silver - New Roof	2	5	2	3	1	2
FORTIFIED Home - Hurricane - Gold - Existing Roof	3	5	2	3	1	2
FORTIFIED Home - Hurricane - Gold - New Roof	3	5	3	3	2	2
(5) Revised Windstorm Loss Mitigation Credits - Frame = (4)×(3)						
Total Hip Roof	2	4	3	2	1	1
Opening Protection	2	4	3	2	1	1
Total Hip Roof and Opening Protection	2	6	3	2	1	1
<u>IBHS Designation:</u>						
FORTIFIED for Safer Living®	8	13	4	8	2	4
FORTIFIED Roof - Hurricane - Existing Roof	2	4	3	2	1	1
FORTIFIED Roof - Hurricane - New Roof	2	6	3	2	1	1
FORTIFIED Home - Hurricane - Silver - Existing Roof	4	6	3	6	1	3
FORTIFIED Home - Hurricane - Silver - New Roof	4	11	3	6	1	3
FORTIFIED Home - Hurricane - Gold - Existing Roof	6	11	3	6	1	3
FORTIFIED Home - Hurricane - Gold - New Roof	6	11	4	6	2	3
(6) Revised Windstorm Loss Mitigation Credits - Masonry = (5)×0.95						
Total Hip Roof	2	4	3	2	1	1
Opening Protection	2	4	3	2	1	1
Total Hip Roof and Opening Protection	2	6	3	2	1	1
<u>IBHS Designation:</u>						
FORTIFIED for Safer Living®	8	12	4	8	2	4
FORTIFIED Roof - Hurricane - Existing Roof	2	4	3	2	1	1
FORTIFIED Roof - Hurricane - New Roof	2	6	3	2	1	1
FORTIFIED Home - Hurricane - Silver - Existing Roof	4	6	3	6	1	3
FORTIFIED Home - Hurricane - Silver - New Roof	4	10	3	6	1	3
FORTIFIED Home - Hurricane - Gold - Existing Roof	6	10	3	6	1	3
FORTIFIED Home - Hurricane - Gold - New Roof	6	10	4	6	2	3

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

DERIVATION OF WINDSTORM LOSS MITIGATION CREDITS

The filed credits displayed on pages C-18-19 apply to the current IBHS designations effective on or after March 31, 2019. The same filed credits apply to the previous IBHS designations according to the following mappings:

Current IBHS Designation:

FORTIFIED for Safer Living®
FORTIFIED Roof - Hurricane - Existing Roof
FORTIFIED Roof - Hurricane - New Roof
FORTIFIED Home - Hurricane - Silver - Existing Roof
FORTIFIED Home - Hurricane - Silver - New Roof
FORTIFIED Home - Hurricane - Gold - Existing Roof
FORTIFIED Home - Hurricane - Gold - New Roof

Previous IBHS Designation:

Hurricane Fortified for Safer Living®
Hurricane Fortified for Existing Homes® Bronze Option 1
Hurricane Fortified for Existing Homes® Bronze Option 2
Hurricane Fortified for Existing Homes® Silver Option 1
Hurricane Fortified for Existing Homes® Silver Option 2
Hurricane Fortified for Existing Homes® Gold Option 1
Hurricane Fortified for Existing Homes® Gold Option 2

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DWELLING PROPERTY INSURANCE

EXPLANATORY MEMORANDUM

This memorandum supplements the filing letter and supporting exhibits setting forth a revision of dwelling insurance rates in the State of North Carolina. It is the purpose of this memorandum to describe the source data used and to set forth in detail the insurance ratemaking procedures reflected in the filing. Certain pages in the filing and accompanying material contain a notation "all carriers" or other similar wording. This indicates that the data are combined ISO and ISS data. Data for certain companies are not included, as noted in Section E.

Premium and Loss Experience

This revision is based upon the combined premium and loss experience of all licensed companies writing residential dwelling insurance in this State, except as noted in Section E. In order to have this experience available in all detail necessary for rate review and ratemaking in accordance with accepted standards, all such companies are required to file each year their total dwelling insurance experience with the official statistical agents. Experience is recorded pursuant to the officially approved statistical plans and reported by the companies in accordance with instructions issued by the statistical agents under the Official Calls for Experience.

The Commissioner appointed the following statistical agents for the collection of dwelling insurance experience in North Carolina: Insurance Services Office (ISO), Independent Statistical Service, Inc. (ISS), American Association of Insurance Services, Inc. (AAIS), and National Independent Statistical Service (NISS). At the direction of the North Carolina Rate Bureau, tabulations of experience reported to ISS, AAIS and NISS are provided to ISO so that ISO may aggregate the experience and develop the analysis included in this filing.

Experience utilized in the filing was collected under the Personal Lines Statistical Plan (Other Than Automobile), Personal Lines Statistical Agent Plan (Other Than Automobile) and the Official Statistical Programs of ISO, and the Personal Lines Statistical Plan and the Statistical Programs of ISS. In substance, the statistical plans of all statistical agents are similar in North Carolina and provide for the recording and reporting of the experience in the detail required for ratemaking and in such form that the experience of all companies can be combined. The experience collected by AAIS and in the ISO Statistical Agent Plan is collected in lesser detail and has not been used in this review. The experience collected by NISS was also excluded from this review because over 98% of its reported premium is not written using the Rate Bureau's policy program.

The licensing of an organization and its appointment as a statistical agent in North Carolina are predicated upon demonstration by the organization of its ability to perform this function. Moreover, the performance of the statistical agents is reviewed periodically through examination by personnel of state insurance departments under the convention examinations of the National Association of Insurance Commissioners. From time to time, such organizations are called upon by Insurance Department examiners to verify, and do verify, the data they consolidate as statistical agents.

The insurance companies likewise are subject to a variety of checks and controls. Effective controls are maintained within the company over the activities of company employees connected with the company's statistics. Companies are required by statute to submit directly to the Insurance Department statistical and accounting information to be found in the Annual Statement and the Insurance Expense Exhibit. These documents are scrutinized by experienced Insurance Department personnel throughout the country. The insurance companies are also subject to examination by the Insurance Department, which examinations include the statistical records of the companies.

NORTH CAROLINA
DWELLING PROPERTY INSURANCE
EXPLANATORY MEMORANDUM

Statewide Rate Level Exhibits (pages C-2-6)

1. Experience

Dwelling insurance experience was compiled on a calendar accident year basis for the years ended December 31, 2021, 2020, 2019, 2018, and 2017. For any twelve-month period, the accident year experience compiles the losses resulting from accidents occurring during that period with the premiums and number of dwellings “earned” during the same period. Since this filing utilizes catastrophe models to estimate the average annual losses attributable to hurricanes, actual hurricane losses have been removed from the ratemaking experience.

2. Average Rating Factors

The earned premiums at present manual rates for the dwelling insurance coverages are calculated by multiplying the number of insured exposures earned during the experience period by the base rates and rating factors in effect at the time of review. The earned premiums at present rates are then used to determine average rating factors. The average rating factor is the ratio of the average rate (earned premium at manual level divided by corresponding house-years) and the current manual base rate. The average rating factor is used to convert the pure-premiums incurred during the experience period to the base-class level. This calculation is shown on pages D-32-41 for Fire and pages D-63-72 for Extended Coverage.

3. Losses

Losses compiled for any accident year include paid losses as well as loss reserves. The amounts that will ultimately be required as payments of claims on open cases are carefully determined by the claim departments of the companies, and experience has shown that these determinations are highly accurate in the aggregate. Since, however, there are differences between the total incurred losses so determined and the amounts ultimately paid, the ratemaking procedure provides for a “development” of the incurred losses to a basis which, for all practical purposes, can be considered as the ultimate basis. This development is accomplished as follows:

Each year the experience is compiled for the latest five years, all valued as of three months after the close of the latest accident year period. Thus, the experience is reported for the latest year as of 15 months, the preceding year as of 27 months, the next preceding year as of 39 months, the third preceding year as of 51 months and the fourth preceding year as of 63 months all measured from the beginning of each accident year respectively.

From reports of prior years, similarly aged experience was obtained so that there are available five successive reports for the earliest year, four successive reports for the next earliest year, three successive reports for the middle year and two successive reports for the second most recent year.

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DWELLING PROPERTY INSURANCE

EXPLANATORY MEMORANDUM

Dwelling claims generally are settled, and are therefore sufficiently matured, as of 87 months, by which time nearly all incurred losses have been paid. From a comparison of the incurred losses for each year at successive valuation dates, it is determined what the rate of development has been in the past in order to calculate the development of less mature losses. This development is reflected in the incurred losses for the less mature years by the application of loss development factors. In this filing, loss development factors have been calculated based on the statewide experience of companies reporting to ISO, and are as follows:

<u>Accident Year Ending</u>	<u>Factor to Develop to 87 Months</u>	
	<u>Fire</u>	<u>Extended Coverage</u>
December 31, 2017	1.000	1.000
December 31, 2018	1.000	1.000
December 31, 2019	0.998	1.001
December 31, 2020	0.995	1.005
December 31, 2021	0.958	1.039

The derivation of the factors shown above is shown on pages D-12 and D-13. By applying these factors, the reported incurred losses have been adjusted to the amounts at which it is believed they will ultimately be settled.

In order to increase stability in rate levels while maintaining adequacy in the event of wide swings in hurricane and other losses, an excess procedure and hurricane loss models have been utilized for Extended Coverage. Hence, inordinate shifts in rate level (both upward and downward), which might result from reflecting large hurricane and other losses only in the year in which they occur will be reduced. The incurred non-modeled excess losses are those losses which result from unusually severe loss activity (other than hurricane). They are removed from the experience used in developing rates. In order to reflect the impact of excess losses (that are not related to hurricanes and not accounted for in the hurricane models) on a long-term basis, the non-modeled losses are multiplied by an excess factor of 1.056. The derivation of the excess factor is shown on page D-47. The derivation of the excess non-modeled losses is shown on page D-48. The modeled losses used in this filing are based on analysis performed by Aon on behalf of the North Carolina Rate Bureau and are displayed on page D-79.

4. Loss Adjustment Expense

The dwelling loss adjustment expenses, prior to trend considerations, are determined as an average percentage of the North Carolina incurred losses for calendar accident years 2017-2021 for Fire and Extended Coverage, based on a North Carolina expense call. The high and low years are excluded from the average. See pages D-24 and D-27.

A separate Loss Adjustment Expense factor was used for modeled hurricane losses.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

EXPLANATORY MEMORANDUM

5. Fixed Expense

The fixed expense (general expenses and other acquisition expenses) loading is determined as an average percentage of North Carolina earned premiums for calendar accident years 2019-2021, based on a North Carolina expense call. See pages D-22 and D-25. The development of trended fixed expense per policy is shown on page D-28.

6. Loss Trend

Loss trends are selected using the information provided by the observed growth in frequencies, severities, and pure premiums that occurred during the historical experience period. This procedure is displayed on pages D-14-16.

First, the frequencies, severities, and pure premiums are calculated by subline group, cause-of-loss group (i.e., wind-related, water-related, etc.), and year. Hurricane losses are excluded from the loss experience. Then average annual rates of change are calculated by fitting exponential curves to the data for three time periods: the latest five years, the latest four years, and the latest three years. Based on these average annual rates of change, historical annual rates of change are selected to trend the historical loss experience to the average occurrence date of the latest year (July 1, 2021) and prospective annual rates of change are selected to trend the losses from the latest year to one year beyond the assumed effective date (June 1, 2025). The historical and prospective annual rates of change that are selected for the pure premiums are used to trend the losses and are based on the selections for frequency and severity. The selected historical annual pure premium changes are +1.5% for Fire and +4.0% for Extended Coverage. The selected prospective annual pure premium changes are +9.0% for Fire and +9.0% for Extended Coverage.

7. Premium Trend

The premium trend procedure is based on the observed growth in yearly average policy amount relativities. This procedure is displayed on pages D-17-18.

First, the Current Amount Factors are calculated by subline group, class and year. The Current Amount Factor trends the average policy amount relativity (and, therefore, the Average Rating Factor used in the derivation of the statewide, class and territory rate level indications) from a given historical year to the average date of writing for the latest year of the review (January 1, 2021). Then, a least-squares fitted annual change is calculated for the historical average relativities. Based on the calculated value, a selection for the annual change is made. (The selected annual changes reflect consideration of the calculated value and the overall pattern in average relativity growth observed during the experience period.) The selected annual changes are used to trend the average policy amount relativity from the latest year to six months beyond the assumed effective date (December 1, 2024). The selected annual changes are:

	<u>Fire</u>	<u>Extended Coverage</u>
Buildings	+5.0%	+5.0%
Contents	+5.0%	+5.0%

NORTH CAROLINA
DWELLING PROPERTY INSURANCE
EXPLANATORY MEMORANDUM

8. Exposure Trend

The exposure trend procedure is based on the observed growth in yearly average policy amounts for Extended Coverage. This procedure is displayed on page D-19.

First, the average policy amounts are calculated by class and year. Then average annual rates of change are calculated by fitting exponential curves to the data for three time periods: the latest five years, the latest four years, and the latest three years. Based on these average annual rates of change, annual rates of change are selected to trend the latest-year exposures used to calculate the modeled hurricane losses to six months beyond the assumed effective date (December 1, 2024). The selected annual changes are +5.0% for Buildings and +5.0% for Contents.

9. Expense Trend

The selected annual change to be applied to general expense, other acquisition expense and loss adjustment expense costs is based on the observed growth in the All Items Consumer Price Index and the Compensation Cost Index. The selected annual change is +5.5% based on analysis and review of the index data, which are displayed on pages D-20-21.

10. Trend Periods

The effective date assumed in this filing is June 1, 2024¹ for new and renewal policies. Given this effective date, the trend periods for premiums, losses and expenses are as follows:

- premiums are trended from January 1 of the given year to December 1, 2024.
- losses are trended from July 1 of the given year to June 1, 2025.
- general expense and other acquisition expense percentages, since they are based on 2019-2021 data, are trended from July 1, 2020 to December 1, 2024.
- loss adjustment expense percentages, since they are based on 2017-2021 data, are trended from July 1, 2019 to June 1, 2025.

11. Expected Loss and Fixed Expense Ratio

These quantities represent the portion of the premium income available for losses, loss adjustment expenses, general expenses and other acquisition expenses. They are determined from special calls for North Carolina expense experience and reflect the 2019, 2020, and 2021 results as reported by all companies licensed in North Carolina during those years. The breakdown of the expected loss and fixed expense ratios is set forth on page D-22 for Fire and page D-25 for Extended Coverage.

¹ The effective date of implementation of these rates may differ from the trend effective date.

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12. Net Cost of Reinsurance per Policy

The provision for the net cost of reinsurance is based on an analysis provided by Aon. This analysis generates the total dollars required by territory based on latest-year house years. The conversion to the required base-class level is shown on page D-80.

Class Rate Level Exhibits - Fire and Extended Coverage (pages C-7 and C-8)

1. Trended Adjusted Incurred Losses (column 1)

Incurred losses for the latest five years, trended and loaded for LAE. For Extended Coverage, the excess loss procedure is incorporated into the indication through column (21).

2. Trended Average Rating Factor (column 3)

The calculation of the Trended Average Rating Factors is shown on pages D-32-41 for Fire and D-63-72 for Extended Coverage.

3. Credibility (column 5)

The five-year loss cost by class is assigned a credibility value based on the number of house years underlying this loss cost. The standard for full credibility is 500,000 house years for Fire and 330,000 house years for Extended Coverage, with partial credibility equal to

$$\sqrt{\text{five year house years} / \text{full credibility standard}}$$

truncated to the nearest tenth. The complement of credibility is assigned to the statewide five-year base loss cost adjusted by the ratio of the class' current base rate and the statewide average current base rate.

4. Modeled Base Class Loss Cost (column 7 - Extended Coverage)

The modeled hurricane base-class loss cost is derived by dividing the modeled hurricane losses by the product of the latest-year trended average rating factor and latest-year house-years.

5. Indicated Base Class Loss Cost (column 7 - Fire, column 9 - Extended Coverage)

The indicated base-class loss cost by class is the statewide base-class loss cost (computed on the statewide indications pages) adjusted by the class relativity indicated by the credibility-weighted loss cost (ratio of class to statewide of column 6 for Fire or column 8 for Extended Coverage).

6. Indicated Net Base Class Rate (column 10 - Fire, column 12 - Extended Coverage)

The indicated net base-class rate is the sum of the loss cost and fixed expense divided by the expected loss and fixed expense ratio derived on page D-22 for Fire and page D-25 for Extended Coverage. The fixed expense is calculated as the average current base-class rate multiplied by the fixed expense ratio developed on page D-28.

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7. Compensation for Assessment Risk per Policy (column 11 - Fire, column 13 - Extended Coverage)

The compensation for assessment risk is reflected as a percentage of the base-class rate by class and is loaded for the effects of taxes and commission.

8. Net Cost of Reinsurance per Policy (column 14 - Extended Coverage)

The net cost of reinsurance was allocated to class in proportion to modeled hurricane losses.

9. Indicated Base Class Rate Change (column 17 - Fire, column 20 - Extended Coverage)

The indicated base-class rate level change is the ratio of required base-class rate and current base-class rate, minus 1.

10. Indicated Rate Change Balanced to Statewide (column 18 - Fire, column 21 - Extended Coverage)

These are indicated base-class rate level changes adjusted to balance to the statewide indicated change.

Territory Rate Level Exhibits - Fire (pages C-9-10)

1. Latest-Year Earned Premium at Current Level (column 1)

Earned premium for the latest year (2021), adjusted to the manual rate level currently in effect.

2. Five-Year Experience Base Class Loss Cost (column 3)

A five-year experience base-class loss cost by territory is derived by dividing five-year trended territory losses and LAE by the product of the five-year trended average rating factor and five-year house years. This calculation is shown on pages D-42-46.

3. Credibility (column 5)

The five-year loss cost is assigned a credibility value based upon the number of house years underlying this loss cost. The standard for full credibility is 500,000 house years, with partial credibility equal to

$$\sqrt{\text{five year house years} / \text{full credibility standard}}$$

truncated to the nearest tenth. The complement of credibility is assigned to the statewide five-year experience base-class loss cost adjusted by the ratio of the territory's current base-class rate and the statewide average current base-class rate.

4. Indicated Base Class Loss Cost (column 9)

The Indicated Base Class loss cost for each territory is the indicated statewide base-class loss cost (row 9 from the statewide indication) multiplied by each territory's indicated relativity (column 7).

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5. Trended Fixed Expense per Policy (column 10)

The trended fixed expense per policy by territory is calculated by first distributing the statewide trended fixed expense ratio to territory. This is accomplished by multiplying the statewide trended fixed expense ratio by the ratio of the statewide latest-year average rate to the territory latest-year average rate. Finally, the trended fixed expense per policy by territory is calculated as the product of the territory trended fixed expense ratio and the latest-year average territory base rate. This calculation can be found on page D-29.

6. Expected Loss and Fixed Expense Ratio (column 12)

These quantities represent the portion of the premium income available for losses, loss adjustment expenses, general expenses and other acquisition expenses.

7. Compensation for Assessment Risk Cost per Policy (column 14)

The compensation for assessment risk is reflected as a percentage of the base-class rate by class and is loaded for the effects of taxes and commission.

8. Indicated Rate Level Change (column 19)

The indicated rate level change is the ratio of required base-class rate and current base-class rate, minus 1.

9. Indicated Rate Level Change Balanced to Statewide (column 20)

These are indicated base-class rate level changes adjusted to balance to the statewide indicated change.

10. Indicated Buildings Rate Level Change (column 21)

The indicated buildings rate level change is the product of the indicated rate level change balanced to statewide and the class relativity embedded in the indicated buildings base rate change balanced to statewide (column 18) on the class indications page.

11. Indicated Contents Rate Level Change (column 22)

The indicated contents rate level change is the product of the indicated rate level change balanced to statewide and the class relativity embedded in the indicated contents base rate change balanced to statewide (column 18) on the class indications page.

Territory Rate Level Exhibits - Extended Coverage (pages C-11-12)

1. Latest-Year Earned Premium at Current Level (column 1)

Earned premium for the latest year (2021), adjusted to the manual rate level currently in effect.

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2. Five-Year Non-Hurricane Experience Base Class Loss Cost (column 3)

A five-year experience base-class loss cost by territory is derived by dividing five-year trended territory losses and LAE by the product of the five-year trended average rating factor and five-year house years. The territory losses exclude hurricane losses and include an excess loss provision. This calculation is shown on pages D-73-78.

3. Credibility (column 5)

The five-year loss cost is assigned a credibility value based upon the number of house years underlying this loss cost. The standard for full credibility is 330,000 house years, with partial credibility equal to

$$\sqrt{\text{five year house years} / \text{full credibility standard}}$$

truncated to the nearest tenth. The complement of credibility is assigned to the statewide five-year non-modeled experience base-class loss cost.

4. Modeled Hurricane Base Class Loss Cost (column 8)

The modeled hurricane base-class loss cost is derived by dividing modeled hurricane territory losses by the product of the trended average rating factor and house years for the latest year. The development of these costs is presented on page D-79.

5. Indicated Base Class Loss Cost (column 11)

The Indicated Base Class loss cost for each territory is the indicated statewide base-class loss cost (row 13 from the statewide indication) multiplied by each territory's indicated relativity (column 10).

6. Trended Fixed Expense per Policy (column 12)

The trended fixed expense per policy by territory is calculated by first distributing the statewide trended fixed expense ratio to territory. This is accomplished by multiplying the statewide trended fixed expense ratio by the ratio of the statewide latest-year average rate to the territory latest-year average rate. Finally, the trended fixed expense per policy by territory is calculated as the product of the territory trended fixed expense ratio and the latest-year average territory base rate. This calculation can be found on page D-30.

7. Expected Loss and Fixed Expense Ratio (column 14)

These quantities represent the portion of the premium income available for losses, loss adjustment expenses, general expenses and other acquisition expenses.

8. Compensation for Assessment Risk Cost per Policy (column 16)

The compensation for assessment risk is reflected as a percentage of the base-class rate by class and is loaded for the effects of taxes and commission.

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9. Net Cost of Reinsurance per Policy (column 17)

The provisions for the net cost of reinsurance are based on analysis provided by Aon. This analysis generates the total dollars required by policy form to cover the cost of the expense and profit components of the reinsurance premium paid by the primary insurers. The development of these provisions is presented on page D-80.

10. Indicated Rate Level Change (column 22)

The indicated rate level change is the ratio of required base-class rate and current base-class rate, minus 1.

11. Indicated Rate Level Change Balanced to Statewide (column 23)

These are indicated base-class rate level changes adjusted to balance to the statewide indicated change.

12. Indicated Buildings Rate Level Change (column 24)

The indicated buildings rate level change is the product of the indicated rate level change balanced to statewide and the class relativity embedded in the indicated buildings base rate change balanced to statewide (column 21) on the class indications page.

13. Indicated Contents Rate Level Change (column 25)

The indicated contents rate level change is the product of the indicated rate level change balanced to statewide and the class relativity embedded in the indicated contents base rate change balanced to statewide (column 21) on the class indications page.

Credibility Factor Determination

Credibility considerations enter into the dwelling insurance ratemaking formulas.

The credibility procedure is based on the ‘frequency with severity modification’ model discussed in “Credibility of the Pure Premium” by Mayerson, Bowers and Jones. The full credibility standard is based on a normal distribution with a 90% probability of meeting the test and a 10% maximum departure from the expected value, translated to house year standards. Partial credibility (Z_p) is calculated as follows:

$$Z_p = \sqrt{\text{five year house years} / \text{full credibility standard}} \quad (\text{truncated to the nearest tenth})$$

The full credibility standards are 500,000 house years for Fire and 330,000 house years for Extended Coverage.

On a statewide and class basis, both Fire and Extended Coverage are fully credible. On a territory basis, partial credibility may be employed. In that case, the calculation of the rate level indication incorporates credibility as follows: credibility is applied to the five-year (non-hurricane for Extended Coverage) territory loss costs and (1 - credibility) to the complement of credibility.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

LOSS DEVELOPMENT
FIRE

Incurred Losses as of:

Accident							
<u>Year</u>	<u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>	<u>51 Months</u>	<u>63 Months</u>	<u>75 Months</u>	<u>87 Months</u>
2010	10,796,690	10,538,060	10,621,955	10,625,291	10,624,141	10,624,141	10,624,161
2011	10,044,574	9,798,490	9,793,574	9,827,405	9,827,405	9,827,405	9,827,405
2012	10,399,350	10,017,055	9,788,627	9,787,337	9,787,336	9,787,336	9,787,336
2013	10,045,404	9,724,252	9,772,227	9,744,951	9,759,155	9,759,155	9,759,155
2014	8,246,761	8,065,190	8,057,322	8,060,090	8,060,090	8,060,090	8,060,090
2015	8,740,834	8,492,225	8,533,162	8,349,724	8,349,724	8,349,724	8,349,724
2016	11,975,398	11,674,797	11,567,531	11,529,440	11,529,440	11,529,440	
2017	10,289,328	9,593,011	9,592,752	9,599,661	9,598,687		
2018	9,912,831	9,182,392	9,035,732	9,043,939			
2019	10,123,860	9,658,748	9,706,929				
2020	9,107,443	8,906,548					
2021	8,405,397						

Link Ratios

Accident						
<u>Year</u>	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>	<u>75:63</u>	<u>87:75</u>
2010	0.976	1.008	1.000	1.000	1.000	1.000
2011	0.976	0.999	1.003	1.000	1.000	1.000
2012	0.963	0.977	1.000	1.000	1.000	1.000
2013	0.968	1.005	0.997	1.001	1.000	1.000
2014	0.978	0.999	1.000	1.000	1.000	1.000
2015	0.972	1.005	0.979	1.000	1.000	1.000
2016	0.975	0.991	0.997	1.000	1.000	
2017	0.932	1.000	1.001	1.000		
2018	0.926	0.984	1.001			
2019	0.954	1.005				
2020	0.978					
Average	<u>27:15</u> 0.963	<u>39:27</u> 0.997	<u>51:39</u> 0.998	<u>63:51</u> 1.000	<u>75:63</u> 1.000	<u>87:75</u> 1.000
Selected Link Ratio	0.963	0.997	0.998	1.000	1.000	1.000

Selected Loss Development Factors

Fire	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
	1.000	1.000	0.998	0.995	0.958

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

LOSS DEVELOPMENT
EXTENDED COVERAGE

Incurred Losses as of:

Accident							
<u>Year</u>	<u>15 Months</u>	<u>27 Months</u>	<u>39 Months</u>	<u>51 Months</u>	<u>63 Months</u>	<u>75 Months</u>	<u>87 Months</u>
2010	12,917,888	13,029,507	13,122,571	13,126,440	13,121,030	13,118,530	13,121,451
2011	45,036,303	45,191,210	45,198,702	45,241,159	45,245,867	45,245,867	45,249,704
2012	16,465,118	17,458,582	17,684,184	17,726,549	17,729,642	17,733,270	17,733,270
2013	14,857,760	15,159,003	15,174,974	15,174,902	15,189,259	15,189,259	15,189,259
2014	18,671,578	19,110,992	19,248,948	19,259,335	19,259,896	19,262,823	19,264,337
2015	18,987,995	19,308,930	19,381,935	19,379,997	19,389,274	19,389,274	19,389,274
2016	28,459,328	30,017,752	30,175,996	30,228,639	30,231,695	30,231,698	
2017	21,618,276	22,385,128	22,359,739	22,422,816	22,428,584		
2018	58,846,070	61,795,412	61,763,842	61,892,434			
2019	20,803,719	21,624,566	21,712,798				
2020	27,980,582	29,692,860					
2021	18,516,440						

Link Ratios

Accident						
<u>Year</u>	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>	<u>75:63</u>	<u>87:75</u>
2010	1.009	1.007	1.000	1.000	1.000	1.000
2011	1.003	1.000	1.001	1.000	1.000	1.000
2012	1.060	1.013	1.002	1.000	1.000	1.000
2013	1.020	1.001	1.000	1.001	1.000	1.000
2014	1.024	1.007	1.001	1.000	1.000	1.000
2015	1.017	1.004	1.000	1.000	1.000	1.000
2016	1.055	1.005	1.002	1.000	1.000	
2017	1.035	0.999	1.003	1.000		
2018	1.050	0.999	1.002			
2019	1.039	1.004				
2020	1.061					
	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>	<u>75:63</u>	<u>87:75</u>
Average	1.034	1.004	1.001	1.000	1.000	1.000
Selected	1.034	1.004	1.001	1.000	1.000	1.000
Link Ratio						

Selected Loss Development Factors

<u>EC</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
	1.000	1.000	1.001	1.005	1.039

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

FREQUENCY, SEVERITY, AND PURE PREMIUM RATES OF CHANGE

FIRE

<u>Year</u>	<u>Frequency</u>	<u>Severity</u>	<u>Pure Premium</u>
2017	0.3103%	19,338	60.01
2018	0.3146%	21,619	68.01
2019	0.2865%	25,418	72.82
2020	0.2739%	23,165	63.44
2021	0.2804%	25,006	70.12
Annual Rate of Change			
5-Year Average (2017 - 2021)	-3.4%	+6.0%	+2.4%
4-Year Average (2018 - 2021)	-3.8%	+3.5%	-0.5%
3-Year Average (2019 - 2021)	-1.1%	-0.8%	-1.9%
Selected Annual Rate of Change			
Historical Time Period	-3.5%	+5.0%	+1.5%
Prospective Time Period	0.0%	+9.0%	+9.0%

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

FREQUENCY, SEVERITY, AND PURE PREMIUM RATES OF CHANGE

EXTENDED COVERAGE

FREQUENCY

<u>Year</u>	<u>Wind</u>	<u>Water</u>	<u>Other Physical Damage</u>	<u>V&MM</u>	<u>Non-Wind</u>	<u>Total</u>
2017	0.7953%	0.3361%	0.2387%	0.0301%	0.6049%	1.4002%
2018	0.7772%	0.4140%	0.2594%	0.0365%	0.7099%	1.4871%
2019	0.8052%	0.3108%	0.2164%	0.0344%	0.5616%	1.3668%
2020	1.3011%	0.3740%	0.2313%	0.0329%	0.6382%	1.9393%
2021	0.6996%	0.3474%	0.1998%	0.0326%	0.5798%	1.2794%
Annual Rate of Change						
5-Year Average (2017 - 2021)	+2.6%	-0.4%	-4.6%	+0.6%	-1.9%	+0.9%
4-Year Average (2018 - 2021)	+1.7%	-3.4%	-6.9%	-3.8%	-4.7%	-1.0%
3-Year Average (2019 - 2021)	-6.8%	+5.7%	-3.9%	-2.7%	+1.6%	-3.3%
Selected Annual Rate of Change						
Historical Time Period						-1.0%
Prospective Time Period						0.0%

SEVERITY

<u>Year</u>	<u>Wind</u>	<u>Water</u>	<u>Other Physical Damage</u>	<u>V&MM</u>	<u>Non-Wind</u>	<u>Total</u>
2017	5,549	8,264	6,016	4,255	7,177	6,253
2018	6,200	8,725	6,375	5,168	7,683	6,908
2019	6,775	8,078	7,240	6,193	7,639	7,130
2020	6,592	8,498	6,640	7,479	7,772	6,980
2021	7,904	8,511	7,741	7,459	8,187	8,032
Annual Rate of Change						
5-Year Average (2017 - 2021)	+8.0%	+0.3%	+5.6%	+16.1%	+2.8%	+5.2%
4-Year Average (2018 - 2021)	+7.3%	-0.2%	+5.1%	+13.8%	+2.1%	+4.4%
3-Year Average (2019 - 2021)	+8.0%	+2.6%	+3.4%	+9.7%	+3.5%	+6.1%
Selected Annual Rate of Change						
Historical Time Period						+5.0%
Prospective Time Period						+9.0%

PURE PREMIUM

<u>Year</u>	<u>Wind</u>	<u>Water</u>	<u>Other Physical Damage</u>	<u>V&MM</u>	<u>Non-Wind</u>	<u>Total</u>
2017	44.13	27.77	14.36	1.28	43.41	87.54
2018	48.18	36.12	16.53	1.89	54.54	102.72
2019	54.55	25.11	15.67	2.13	42.91	97.46
2020	85.77	31.78	15.36	2.46	49.60	135.37
2021	55.29	29.57	15.47	2.43	47.47	102.76
Annual Rate of Change						
5-Year Average (2017 - 2021)	+10.8%	0.0%	+0.8%	+16.7%	+0.8%	+6.1%
4-Year Average (2018 - 2021)	+9.0%	-3.6%	-2.2%	+9.4%	-2.7%	+3.4%
3-Year Average (2019 - 2021)	+0.7%	+8.5%	-0.6%	+6.8%	+5.2%	+2.7%
Selected Annual Rate of Change						
Historical Time Period						+4.0%
Prospective Time Period						+9.0%

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF LOSS TREND FACTORS

FIRE

(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>Year</u>	<u>Average Date of Occurrence</u> ^(a)	<u>Number of Years of Historical Loss Trend</u> ^(b)	<u>Historical Annual Loss Trend</u>	<u>Number of Prospective Loss Trend</u> ^(c)	<u>Prospective Annual Loss Trend</u>	<u>Loss Trend Factors</u> ^(d)
2017	7/1/2017	4.0	+1.5%	3.9167	+9.0%	1.487
2018	7/1/2018	3.0	+1.5%	3.9167	+9.0%	1.466
2019	7/1/2019	2.0	+1.5%	3.9167	+9.0%	1.444
2020	7/1/2020	1.0	+1.5%	3.9167	+9.0%	1.423
2021	7/1/2021	0.0	+1.5%	3.9167	+9.0%	1.401

EXTENDED COVERAGE

(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>Year</u>	<u>Average Date of Occurrence</u> ^(a)	<u>Number of Years of Historical Loss Trend</u> ^(b)	<u>Historical Annual Loss Trend</u>	<u>Number of Prospective Loss Trend</u> ^(c)	<u>Prospective Annual Loss Trend</u>	<u>Loss Trend Factors</u> ^(d)
2017	7/1/2017	4.0	+4.0%	3.9167	+9.0%	1.640
2018	7/1/2018	3.0	+4.0%	3.9167	+9.0%	1.576
2019	7/1/2019	2.0	+4.0%	3.9167	+9.0%	1.516
2020	7/1/2020	1.0	+4.0%	3.9167	+9.0%	1.458
2021	7/1/2021	0.0	+4.0%	3.9167	+9.0%	1.401

^(a) Average date of occurrence for the accident year shown in Column (1).

^(b) Number of years between Column (2) and 7/1/2021, the average date of occurrence for the latest year.

^(c) Number of years between 7/1/2021 and 6/1/2025, one year beyond the assumed effective date of 6/1/2024.

^(d) Column (7) = $[1 + (4)]^{(3)} \times [1 + (6)]^{(5)}$

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

AVERAGE POLICY AMOUNT RELATIVITY ANNUAL RATE OF CHANGE

FIRE

Average Policy Amount Relativity

<u>Year</u>	<u>Buildings</u>	<u>Contents</u>
2017	5.132	2.265
2018	5.185	2.298
2019	5.239	2.339
2020	5.291	2.420
2021	5.397	2.549
Fitted Annual Rate of Change	+1.2%	+2.9%
Selected Annual Rate of Change	+5.0%	+5.0%

EXTENDED COVERAGE

Average Policy Amount Relativity

<u>Year</u>	<u>Buildings</u>	<u>Contents</u>
2017	6.202	2.692
2018	6.292	2.744
2019	6.356	2.797
2020	6.407	2.925
2021	6.536	3.132
Fitted Annual Rate of Change	+1.2%	+3.7%
Selected Annual Rate of Change	+5.0%	+5.0%

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF PREMIUM TREND FACTORS

FIRE						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>Year</u>	<u>Average Policy Amount Relativity</u>	<u>Current Amount Factor</u> ^(a)	<u>Number of Years of Prospective Premium Trend</u> ^(b)	<u>Prospective Annual Premium Trend</u>	<u>Premium Trend Factors</u> ^{(c)(d)}	<u>Latest-Year Premium Distribution</u>
Buildings						
2017	5.132	1.052	3.9167	+5.0%	1.274	0.9190
2018	5.185	1.041	3.9167	+5.0%	1.260	0.9190
2019	5.239	1.030	3.9167	+5.0%	1.247	0.9190
2020	5.291	1.020	3.9167	+5.0%	1.235	0.9190
2021	5.397	1.000	3.9167	+5.0%	1.211	0.9190
Contents						
2017	2.265	1.126	3.9167	+5.0%	1.363	0.0810
2018	2.298	1.110	3.9167	+5.0%	1.344	0.0810
2019	2.339	1.090	3.9167	+5.0%	1.320	0.0810
2020	2.420	1.053	3.9167	+5.0%	1.275	0.0810
2021	2.549	1.000	3.9167	+5.0%	1.211	0.0810
Total						
2017					1.281	
2018					1.267	
2019					1.253	
2020					1.238	
2021					1.211	

EXTENDED COVERAGE

(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>Year</u>	<u>Average Policy Amount Relativity</u>	<u>Current Amount Factor</u> ^(a)	<u>Number of Years of Prospective Premium Trend</u> ^(b)	<u>Prospective Annual Premium Trend</u>	<u>Premium Trend Factors</u> ^{(c)(d)}	<u>Latest-Year Premium Distribution</u>
Buildings						
2017	6.202	1.054	3.9167	+5.0%	1.276	0.9689
2018	6.292	1.039	3.9167	+5.0%	1.258	0.9689
2019	6.356	1.028	3.9167	+5.0%	1.244	0.9689
2020	6.407	1.020	3.9167	+5.0%	1.235	0.9689
2021	6.536	1.000	3.9167	+5.0%	1.211	0.9689
Contents						
2017	2.692	1.164	3.9167	+5.0%	1.409	0.0311
2018	2.744	1.142	3.9167	+5.0%	1.382	0.0311
2019	2.797	1.120	3.9167	+5.0%	1.356	0.0311
2020	2.925	1.071	3.9167	+5.0%	1.297	0.0311
2021	3.132	1.000	3.9167	+5.0%	1.211	0.0311
Total						
2017					1.280	
2018					1.262	
2019					1.247	
2020					1.237	
2021					1.211	

^(a) Column (3) = Latest Year Column (2) / Column (2)

^(b) Number of years between 1/1/2021 and 12/1/2024, six months beyond the assumed effective date of 6/1/2024.

^(c) Column (6) = (3) × [1 + (5)]⁽⁴⁾

^(d) Total Column (6) = [Buildings (6) × Buildings (7)] + [Contents (6) × Contents (7)]

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF EXPOSURE TREND
EXTENDED COVERAGE

Average Exposure Per Policy

<u>Year</u>	<u>Buildings</u> <u>(Coverage A)</u>	<u>Contents</u> <u>(Coverage C)</u>
2017	118,383	16,046
2018	120,189	16,355
2019	121,464	16,671
2020	122,478	17,427
2021	125,055	18,660
 Annual Rate of Change		
5-Year Average (2017 - 2021)	+1.3%	+3.7%
4-Year Average (2018 - 2021)	+1.3%	+4.5%
3-Year Average (2019 - 2021)	+1.5%	+5.8%
Selected Annual Rate of Change	+5.0%	+5.0%

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

DETERMINATION OF TREND FOR EXPENSES

<u>Month</u>	<u>All Items CPI Index</u> ^(a)	<u>All Items (Less Energy) CPI Index</u> ^(b)	<u>Compensation Cost Index</u> ^(c)
Apr-19	255.5	260.9	
May-19	256.1	261.2	139.1
Jun-19	256.1	261.7	
Jul-19	256.6	262.1	
Aug-19	256.6	262.6	139.6
Sep-19	256.8	263.0	
Oct-19	257.3	263.5	
Nov-19	257.2	263.5	139.6
Dec-19	257.0	263.5	
Jan-20	258.0	264.5	
Feb-20	258.7	265.7	140.6
Mar-20	258.1	265.9	
Apr-20	256.4	265.5	
May-20	256.4	265.5	142.5
Jun-20	257.8	266.1	
Jul-20	259.1	267.1	
Aug-20	259.9	268.1	142.7
Sep-20	260.3	268.3	
Oct-20	260.4	268.7	
Nov-20	260.2	268.7	143.0
Dec-20	260.5	268.6	
Jan-21	261.6	269.2	
Feb-21	263.0	270.1	144.6
Mar-21	264.9	271.0	
Apr-21	267.1	273.1	
May-21	269.2	274.9	145.6
Jun-21	271.7	277.2	
Jul-21	273.0	278.2	
Aug-21	273.6	278.7	146.4
Sep-21	274.3	279.4	
Oct-21	276.6	281.2	
Nov-21	277.9	282.4	147.1
Dec-21	278.8	283.6	
Jan-22	281.1	285.8	
Feb-22	283.7	288.0	150.1
Mar-22	287.5	289.5	
Apr-22	289.1	291.2	
May-22	292.3	293.1	153.4
Jun-22	296.3	295.4	
Jul-22	296.3	296.7	
Aug-22	296.2	298.3	154.4
Sep-22	296.8	299.7	
Oct-22	298.0	300.8	
Nov-22	297.7	301.1	155.1
Dec-22	296.8	301.7	
Jan-23	299.2	303.6	
Feb-23	300.8	305.6	157.8
Mar-23	301.8	306.9	

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

DETERMINATION OF TREND FOR EXPENSES

	All Items <u>CPI Index</u> ^(a)	All Items (Less Energy) <u>CPI Index</u> ^(b)	Compensation <u>Cost Index</u> ^(c)	<u>Combined</u> ^(d)
(1) Annual Change in indices based on exponential curve of best fit for the latest 48 points (or 16 quarters)	4.96%	4.41%	3.44%	4.06%
(2) Annual Change in indices based on exponential curve of best fit for the latest 36 points (or 12 quarters)	6.58%	5.57%	3.99%	5.03%
(3) Annual Change in indices based on exponential curve of best fit for the latest 24 points (or 8 quarters)	6.95%	6.39%	4.97%	5.82%
(4) Annual Change in indices based on exponential curve of best fit for the latest 12 points (or 4 quarters)	3.53%	5.43%	3.64%	4.06%

(5) Average Annual Index ^(e)

<u>Year Ended</u>	All Items <u>CPI Index</u> ^(a)	All Items (Less Energy) <u>CPI Index</u> ^(b)	Compensation <u>Cost Index</u> ^(c)
09/30/2020	258.0	265.6	141.4
03/31/2021	260.0	268.1	143.2
09/30/2021	266.6	273.2	144.9
03/31/2022	276.2	281.0	147.3
09/30/2022	287.7	290.4	151.3
03/31/2023	296.8	299.5	155.2

(6) Current Cost Factor (Latest Index Value Divided by Average Annual Index)

<u>Year Ended</u>	All Items <u>CPI Index</u> ^(a)	All Items (Less Energy) <u>CPI Index</u> ^(b)	Compensation <u>Cost Index</u> ^(c)	<u>Combined</u> ^(d)
09/30/2020	1.170	1.155	1.116	1.139
03/31/2021	1.161	1.145	1.102	1.128
09/30/2021	1.132	1.123	1.089	1.108
03/31/2022	1.093	1.092	1.071	1.082
09/30/2022	1.049	1.057	1.043	1.048
03/31/2023	1.017	1.025	1.017	1.019

(7) Selected Annual Change = **+5.5%** (based on Comp. Cost Index and CPI with and without energy)

^(a) CPI - All Urban Consumers - All Items. Source: Bureau of Labor Statistics (Series ID: CUUR0000SA0).

^(b) CPI - All Urban Consumers - All Items Less Energy. Source: Bureau of Labor Statistics (Series ID: CUUR0000SA0LE).

^(c) Total Compensation Cost Index - Insurance Carriers, Agent Brokers, and Service. Source: Bureau of Labor Statistics (Series ID: CIU2015240000000I).

^(d) Weighted average determined as .25 (All Items) + .25 (All Items - Less Energy) + .50 (CCI).

^(e) Average year ended index for period shown.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

EXPENSE, DIVIDENDS, PROFIT AND CONTINGENCIES

FIRE

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>3-Year Average</u>	<u>Selected</u>
Commission and Brokerage	5,305,706	5,067,724	4,578,459	3,446,028	3,253,680		
Written Premium Including Deviations	49,021,465	46,900,011	36,773,123	31,375,897	31,181,609		
Ratio	0.108	0.108	0.125	0.110	0.104	0.113	0.113
Other Acquisition Expense	3,661,942	3,613,525	2,970,207	2,131,420	2,307,962		
Earned Premium at Current Manual Level ^(a)	39,255,411	39,085,949	37,076,360	32,118,017	30,602,473		
Ratio	0.093	0.092	0.080	0.066	0.075	0.074	0.082
General Expense	2,302,910	2,043,207	1,824,848	1,694,205	1,424,720		
Earned Premium at Current Manual Level ^(a)	39,255,411	39,085,949	37,076,360	32,118,017	30,602,473		
Ratio	0.059	0.052	0.049	0.053	0.047	0.050	0.050
Taxes, Licenses and Fees	1,347,953	1,255,803	1,057,395	922,376	889,063		
Written Premium Including Deviations	49,021,465	46,900,011	36,773,123	31,375,897	31,181,609		
Ratio	0.027	0.027	0.029	0.029	0.029	0.029	0.029
<u>Fire (AS Line 1) Data</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>5-Year Average</u>	<u>Selected</u>
Direct Written Premium (Statutory Page 14)	210,227,630	222,876,329	232,488,088	252,840,202	285,923,387		
Total Dividends	1,025,053	1,137,689	1,456,325	858,765	631,193		
Ratio of Dividends to Direct Written Premium	0.5%	0.5%	0.6%	0.3%	0.2%	0.4%	0.4%

Expected Loss and Fixed Expense Ratio

Commission and Brokerage	11.3%
Taxes, Licenses and Fees	2.9%
Dividends	0.4%
Contingencies	1.0%
Profit	8.5%
Total	24.1%
1 - Variable Expense	75.9%

^(a) The calculation of the on-leveling factors used to adjust the Earned Premium to the current manual level is found on page D-23.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF EARNED PREMIUM AT CURRENT MANUAL LEVEL

FIRE

(A) Calculation of On-leveling Factors

Rate Filing Effective Date	Implemented Overall Rate Change	Cumulative Overall Rate Change	Portion of Earned Premium Based on Implemented Rates				
			<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
4/1/2015	1.000	1.000	1.000000	1.000000	0.579861	0.003472	
2/1/2019	0.792	0.792			0.420139	0.871528	0.125000
7/1/2020	1.000	0.792				0.125000	0.861111
11/1/2021	1.000	0.792					0.013889
6/1/2023	1.022	0.809					
Average Cumulative Rate Change			1.0000	1.0000	0.9126	0.7927	0.7920
On-leveling Factor ^(a)			0.8090	0.8090	0.8865	1.0206	1.0215

(B) Calculation of Earned Premium at Current Level

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
(1) Earned Premium Excluding Deviations	48,523,376	48,313,905	41,823,305	31,469,740	29,958,368
(2) On-leveling Factor	0.8090	0.8090	0.8865	1.0206	1.0215
(3) Earned Premium at Current Manual Level ^(b)	39,255,411	39,085,949	37,076,360	32,118,017	30,602,473

^(a) The On-leveling Factor is calculated as the Total Cumulative Overall Rate Change divided by the Average Cumulative Rate Change for the accident year.

^(b) (3) = (1) x (2)

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

LOSS ADJUSTMENT EXPENSE

FIRE

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>5-Year Average</u>
Allocated LAE	119,012	286,556	194,778	159,041	197,623	
Unallocated LAE	1,304,713	1,156,488	1,382,052	1,091,907	1,201,467	
Total LAE	1,423,725	1,443,044	1,576,830	1,250,948	1,399,090	
Incurred Losses	15,419,622	20,790,454	17,264,397	15,103,836	16,178,762	
Ratio: LAE/I.L.	0.092	0.069	0.091	0.083	0.086	0.084
					Selected LAE Ratio ^(a) :	0.087

^(a) The selection of 0.087 is based on the average LAE ratio excluding the high and low years (2017 and 2018).

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

EXPENSE, DIVIDENDS, PROFIT AND CONTINGENCIES

EXTENDED COVERAGE

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>3-Year Average</u>	<u>Selected</u>
Commission and Brokerage	5,517,605	5,513,146	7,142,198	6,092,786	6,438,535		
Written Premium Including Deviations	59,674,255	61,689,897	75,598,109	69,454,044	70,273,318		
Ratio	0.092	0.089	0.094	0.088	0.092	0.091	0.091
Other Acquisition Expense	4,772,787	5,111,239	6,674,013	6,031,540	5,988,019		
Earned Premium at Current Manual Level ^(a)	96,159,031	92,957,682	95,947,972	87,854,377	85,617,569		
Ratio	0.050	0.055	0.070	0.069	0.070	0.070	0.070
General Expense	2,753,309	2,826,058	3,764,325	3,622,046	3,526,783		
Earned Premium at Current Manual Level ^(a)	96,159,031	92,957,682	95,947,972	87,854,377	85,617,569		
Ratio	0.029	0.030	0.039	0.041	0.041	0.040	0.040
Taxes, Licenses and Fees	1,596,397	1,473,951	1,969,006	1,845,551	1,840,205		
Written Premium Including Deviations	59,674,255	61,689,897	75,598,109	69,454,044	70,273,318		
Ratio	0.027	0.024	0.026	0.027	0.026	0.026	0.026
<u>Allied Lines (AS Line 2) Data</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>5-Year Average</u>	<u>Selected</u>
Direct Written Premium (Statutory Page 14)	247,355,349	268,843,429	306,405,628	330,404,765	357,352,571		
Total Dividends	2,076,235	1,981,600	2,575,133	2,402,443	2,206,978		
Ratio of Dividends to Direct Written Premium	0.8%	0.7%	0.8%	0.7%	0.6%	0.7%	0.7%

Expected Loss and Fixed Expense Ratio

Commission and Brokerage	9.1%
Taxes, Licenses and Fees	2.6%
Dividends	0.7%
Contingencies	1.0%
Profit	8.5%
 Total	 21.9%
 1 - Variable Expense	 78.1%

^(a) The calculation of the on-leveling factors used to adjust the Earned Premium to the current manual level is found on page D-26.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF EARNED PREMIUM AT CURRENT MANUAL LEVEL
EXTENDED COVERAGE

(A) Calculation of On-leveling Factors

Rate Filing Effective Date	Implemented Overall Rate Change	Cumulative Overall Rate Change	Portion of Earned Premium Based on Implemented Rates				
			<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
4/1/2015	1.034	1.034	1.000000	1.000000	0.579861	0.003472	
2/1/2019	1.187	1.227			0.420139	0.871528	0.125000
7/1/2020	1.053	1.292				0.125000	0.861111
11/1/2021	1.100	1.422					0.013889
6/1/2023	1.122	1.595					
Average Cumulative Rate Change			1.0340	1.0340	1.1151	1.2345	1.2857
On-leveling Factor ^(a)			1.5426	1.5426	1.4304	1.2920	1.2406

(B) Calculation of Earned Premium at Current Level

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
(1) Earned Premium Excluding Deviations	62,335,687	60,260,393	67,077,721	67,998,744	69,013,033
(2) On-leveling Factor	1.5426	1.5426	1.4304	1.2920	1.2406
(3) Earned Premium at Current Manual Level ^(b)	96,159,031	92,957,682	95,947,972	87,854,377	85,617,569

^(a) The On-leveling Factor is calculated as the Total Cumulative Overall Rate Change divided by the Average Cumulative Rate Change for the accident year.

^(b) (3) = (1) x (2)

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

LOSS ADJUSTMENT EXPENSE
EXTENDED COVERAGE

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>5-Year Average</u>
Allocated LAE	258,772	869,932	221,792	651,867	568,207	
Unallocated LAE	4,414,708	9,264,936	3,946,358	4,661,052	3,740,608	
Total LAE	4,673,480	10,134,868	4,168,150	5,312,919	4,308,815	
Incurred Losses	36,329,762	98,254,049	37,050,623	39,148,789	29,783,629	
Ratio: LAE/I.L.	0.129	0.103	0.112	0.136	0.145	0.125
					Selected LAE Ratio ^(a) :	0.126

^(a) The selection of 0.126 is based on the average LAE ratio excluding the high and low years (2018 and 2021).

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TRENDED EXPENSE PROVISIONS

Trended Loss Adjustment Expense Factor

	<u>Fire</u>	<u>EC</u>
(1) Selected Loss Adjustment Expense Ratio	0.087	0.126
(2) Expense Trend Factor, 1.055 ^{(71/12) (a)}	1.373	1.373
(3) 2019 Loss Trend Factor	1.444	1.516
(4) Trended Loss Adjustment Expense Factor, $1.0 + \{(1) \times [(2) / (3)]\}$	1.083	1.114

Trended Fixed Expense per Policy

	<u>Fire</u>	<u>EC</u>
(5) Selected Other Acquisition Expense Ratio	0.082	0.070
(6) Selected General Expense Ratio	0.050	0.040
(7) Expense Trend Factor, 1.055 ^{(53/12) (b)}	1.267	1.267
(8) 2020 Premium Trend Factor	1.238	1.237
(9) Trended Fixed Expense Ratio, $[(5) + (6)] \times [(7) / (8)]$	0.135	0.113
(10) Latest-Year Average Base Class Rate	26.48	57.16
(11) Trended Fixed Expense per Policy, $(9) \times (10)$	3.57	6.46

^(a) Loss adjustment expense percentages, since they are based on 2017-2021 data, are trended from July 1, 2019 to June 1, 2025 (71 months).

^(b) General expense and other acquisition expense percentages, since they are based on 2019-2021 data, are trended from July 1, 2020 to December 1, 2024 (53 months).

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

DERIVATION OF TERRITORY FIXED EXPENSE PER POLICY

FIRE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Latest-Year Aggregate Calculated Earned Premium at Current Level	Latest-Year Earned House Years	Statewide Average Relativity to Territory ={Statewide[(1)/(2)]/(1)/(2)}	Statewide Trended Fixed Expense Ratio	Territory Trended Fixed Expense Ratio =(4) x (3)	Latest-Year Average Base Class Rate	Trended Fixed Expense per Policy
110	2,133,159	19,996	1.089	0.135	0.147	10.91	1.60
120	2,184,784	25,875	1.375	0.135	0.186	11.03	2.05
130	885,266	8,058	1.057	0.135	0.143	22.69	3.24
140	4,241,270	50,773	1.390	0.135	0.188	20.76	3.90
150	2,922,599	31,787	1.263	0.135	0.171	22.45	3.84
160	2,805,832	26,927	1.115	0.135	0.151	24.94	3.77
170	520,750	4,251	0.948	0.135	0.128	32.02	4.10
180	3,766,642	31,821	0.981	0.135	0.132	33.34	4.40
190	1,464,298	13,719	1.088	0.135	0.147	35.46	5.21
200	1,140,457	8,019	0.817	0.135	0.110	43.63	4.80
210	1,163,181	10,759	1.074	0.135	0.145	33.93	4.92
220	4,890,729	31,904	0.758	0.135	0.102	30.74	3.14
230	2,473,497	20,257	0.951	0.135	0.128	46.88	6.00
240	3,502,705	30,370	1.007	0.135	0.136	33.35	4.54
250	2,335,556	17,054	0.848	0.135	0.114	28.90	3.29
260	1,632,649	12,979	0.923	0.135	0.125	36.20	4.53
270	5,298,354	38,161	0.836	0.135	0.113	22.03	2.49
280	967,147	8,673	1.041	0.135	0.141	21.03	2.97
290	1,124,589	8,665	0.895	0.135	0.121	26.26	3.18
300	1,540,456	12,275	0.925	0.135	0.125	37.28	4.66
310	7,400,343	59,708	0.937	0.135	0.126	27.65	3.48
320	3,216,125	26,871	0.970	0.135	0.131	28.35	3.71
330	237,041	2,536	1.242	0.135	0.168	28.79	4.84
340	6,555,153	49,652	0.880	0.135	0.119	24.00	2.86
350	3,083,964	25,286	0.952	0.135	0.129	29.43	3.80
360	4,951,397	47,613	1.117	0.135	0.151	21.98	3.32
370	375,309	3,244	1.004	0.135	0.136	23.85	3.24
380	1,001,998	8,570	0.993	0.135	0.134	21.70	2.91
390	974,551	8,193	0.976	0.135	0.132	22.51	2.97
Statewide	74,789,801	643,996			0.135	26.48	3.57

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

DERIVATION OF TERRITORY FIXED EXPENSE PER POLICY
EXTENDED COVERAGE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Latest-Year Aggregate Calculated Earned Premium at Current Level	Latest-Year Earned House Years	Statewide Average Relativity to Territory ={Statewide[(1)/(2)]/(1)/(2)}	Statewide Trended Fixed Expense Ratio	Territory Trended Fixed Expense Ratio =(4) x (3)	Latest-Year Average Base Class Rate	Trended Fixed Expense per Policy
110	33,958,736	19,657	0.259	0.113	0.029	127.73	3.70
120	40,348,228	25,747	0.286	0.113	0.032	146.28	4.68
130	5,524,264	7,938	0.644	0.113	0.073	113.11	8.26
140	37,306,323	50,415	0.606	0.113	0.068	121.19	8.24
150	17,233,157	31,378	0.816	0.113	0.092	100.29	9.23
160	16,963,961	26,732	0.706	0.113	0.080	104.61	8.37
170	1,103,368	4,234	1.720	0.113	0.194	47.66	9.25
180	10,771,965	31,566	1.313	0.113	0.148	55.06	8.15
190	3,839,832	13,667	1.595	0.113	0.180	57.28	10.31
200	2,420,713	7,976	1.477	0.113	0.167	68.25	11.40
210	2,756,423	10,696	1.739	0.113	0.197	47.90	9.44
220	13,419,264	31,606	1.055	0.113	0.119	40.57	4.83
230	4,812,449	20,123	1.874	0.113	0.212	63.11	13.38
240	7,275,815	29,997	1.848	0.113	0.209	41.89	8.76
250	6,490,730	16,896	1.167	0.113	0.132	42.52	5.61
260	2,717,884	12,669	2.089	0.113	0.236	41.17	9.72
270	15,174,692	37,385	1.104	0.113	0.125	29.34	3.67
280	2,699,172	8,493	1.410	0.113	0.159	30.18	4.80
290	2,919,118	8,544	1.312	0.113	0.148	35.80	5.30
300	2,473,322	12,191	2.209	0.113	0.250	36.12	9.03
310	13,692,063	56,380	1.845	0.113	0.208	27.96	5.82
320	6,208,484	24,861	1.794	0.113	0.203	31.28	6.35
330	387,871	2,434	2.812	0.113	0.318	30.56	9.72
340	13,180,202	46,874	1.594	0.113	0.180	24.88	4.48
350	5,033,424	23,436	2.086	0.113	0.236	28.22	6.66
360	9,308,245	46,896	2.258	0.113	0.255	23.11	5.89
370	556,504	3,187	2.566	0.113	0.290	23.04	6.68
380	1,491,514	8,241	2.476	0.113	0.280	20.99	5.88
390	1,395,352	7,876	2.529	0.113	0.286	20.55	5.88
Statewide	281,463,075	628,095			0.113	57.16	6.46

NORTH CAROLINA
DWELLING PROPERTY INSURANCE

DEVIATIONS

FIRE

<u>Year</u>	FPBP		FPBP		<u>Average Deviation</u>
	<u>Written Premium Adjusted to Manual</u>	<u>Written Premium Adjusted to Manual</u>	<u>Direct Written Premium</u>	<u>Direct Written Premium</u>	
2017	37,939,132	49,447,003	37,939,132	49,021,465	0.49%
2018	39,677,006	46,790,075	39,677,006	46,900,011	-0.13%
2019	33,414,715	36,766,177	33,414,715	36,773,123	-0.01%
2020	35,106,484	31,142,012	35,106,484	31,375,897	-0.35%
2021	39,166,559	31,596,390	39,166,559	31,181,609	0.59%
5-Year Average					0.12%
Selection					0.00%

EXTENDED COVERAGE

<u>Year</u>	FPBP		FPBP		<u>Average Deviation</u>
	<u>Written Premium Adjusted to Manual</u>	<u>Written Premium Adjusted to Manual</u>	<u>Direct Written Premium</u>	<u>Direct Written Premium</u>	
2017	110,724,724	59,496,328	111,657,947	59,674,255	-0.65%
2018	112,287,804	61,190,184	113,236,612	61,689,897	-0.83%
2019	124,207,652	75,012,228	125,122,336	75,598,109	-0.75%
2020	132,613,149	68,215,719	133,555,209	69,454,044	-1.09%
2021	153,094,113	71,625,070	154,132,175	70,273,318	0.14%
5-Year Average					-0.64%
Selection					0.00%

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TRENDED AVERAGE RATING FACTORS

FIRE

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			Earned House Years	Current Manual Base Rate ^(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate	Average Rating Factor	Premium Trend Factor	Trended Aggregate Calculated Earned Premium at Current Level	Trended Average Rating Factor	
						(3) / (1)	(3) / [(1)x(2)]		(3) x (6)	(7) / [(1)x(2)]	
110	Buildings	2017	11,810	17	2,285,899	193.56	11.386	1.274	2,912,235	14.505	
		2018	11,452	17	2,180,207	190.38	11.199	1.260	2,747,061	14.110	
		2019	11,104	17	2,070,191	186.44	10.967	1.247	2,581,528	13.676	
		2020	10,803	17	1,977,273	183.03	10.766	1.235	2,441,932	13.297	
		2021	10,636	17	1,958,692	184.16	10.833	1.211	2,371,976	13.118	
		Total	55,805	17	10,472,262	187.66	11.039		13,054,732	13.761	
	Contents	2017	10,430	4	177,233	16.99	4.248	1.363	241,569	5.790	
		2018	10,083	4	173,520	17.21	4.302	1.344	233,211	5.782	
		2019	9,808	4	171,985	17.54	4.384	1.320	227,020	5.787	
		2020	9,500	4	169,743	17.87	4.467	1.275	216,422	5.695	
		2021	9,360	4	174,467	18.64	4.660	1.211	211,280	5.643	
		Total	49,181	4	866,948	17.63	4.407		1,129,502	5.742	
	Total	2017	22,240	10.90	2,463,132	110.75	10.161		3,153,804	13.010	
		2018	21,535	10.91	2,353,727	109.30	10.018		2,980,272	12.685	
		2019	20,912	10.90	2,242,176	107.22	9.837		2,808,548	12.321	
		2020	20,303	10.92	2,147,016	105.75	9.684		2,658,354	11.990	
		2021	19,996	10.91	2,133,159	106.68	9.778		2,583,256	11.841	
		Total	104,986	10.91	11,339,210	108.01	9.900		14,184,234	12.384	
	120	Buildings	2017	16,165	17	2,367,693	146.47	8.616	1.274	3,016,441	10.977
			2018	15,411	17	2,216,589	143.83	8.461	1.260	2,792,902	10.660
			2019	14,872	17	2,113,425	142.11	8.359	1.247	2,635,441	10.424
2020			14,396	17	2,040,298	141.73	8.337	1.235	2,519,768	10.296	
2021			13,998	17	2,002,229	143.04	8.414	1.211	2,424,699	10.189	
Total			74,842	17	10,740,234	143.51	8.441		13,389,251	10.524	
Contents		2017	13,892	4	206,548	14.87	3.717	1.363	281,525	5.066	
		2018	13,199	4	193,915	14.69	3.673	1.344	260,622	4.936	
		2019	12,650	4	185,785	14.69	3.672	1.320	245,236	4.847	
		2020	12,101	4	181,245	14.98	3.744	1.275	231,087	4.774	
		2021	11,877	4	182,555	15.37	3.843	1.211	221,074	4.653	
		Total	63,719	4	950,048	14.91	3.727		1,239,544	4.863	
Total		2017	30,057	10.99	2,574,241	85.65	7.793		3,297,966	9.984	
		2018	28,610	11.00	2,410,504	84.25	7.659		3,053,524	9.703	
		2019	27,522	11.02	2,299,210	83.54	7.581		2,880,677	9.498	
		2020	26,497	11.06	2,221,543	83.84	7.581		2,750,855	9.387	
		2021	25,875	11.03	2,184,784	84.44	7.655		2,645,773	9.270	
		Total	138,561	11.02	11,690,282	84.37	7.656		14,628,795	9.580	
130		Buildings	2017	4,867	32	804,633	165.32	5.166	1.274	1,025,102	6.582
			2018	4,901	32	808,129	164.89	5.153	1.260	1,018,243	6.493
			2019	4,869	32	794,277	163.13	5.098	1.247	990,463	6.357
	2020		4,781	32	776,738	162.46	5.077	1.235	959,271	6.270	
	2021		4,798	32	794,703	165.63	5.176	1.211	962,385	6.268	
	Total		24,216	32	3,978,480	164.29	5.134		4,955,464	6.395	
	Contents	2017	3,114	9	79,110	25.40	2.823	1.363	107,827	3.847	
		2018	3,208	9	83,507	26.03	2.892	1.344	112,233	3.887	
		2019	3,244	9	85,288	26.29	2.921	1.320	112,580	3.856	
		2020	3,233	9	86,755	26.83	2.982	1.275	110,613	3.802	
		2021	3,260	9	90,563	27.78	3.087	1.211	109,672	3.738	
		Total	16,059	9	425,223	26.48	2.942		552,925	3.826	
	Total	2017	7,981	23.03	883,743	110.73	4.808		1,132,929	6.164	
		2018	8,109	22.90	891,636	109.96	4.802		1,130,476	6.088	
		2019	8,113	22.80	879,565	108.41	4.755		1,103,043	5.963	
		2020	8,014	22.72	863,493	107.75	4.742		1,069,884	5.876	
		2021	8,058	22.69	885,266	109.86	4.842		1,072,057	5.863	
		Total	40,275	22.83	4,403,703	109.34	4.789		5,508,389	5.991	

(a) The Total Class Current Manual Base Rate is the weighted average of the Buildings and Contents Current Manual Base Rates using Earned House Years as weights.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TRENDED AVERAGE RATING FACTORS

FIRE

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			Earned House Years	Current Manual Base Rate ^(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate	Average Rating Factor	Premium Trend Factor	Trended Aggregate Calculated Earned Premium at Current Level	Trended Average Rating Factor
						(3) / (1)	(3) / [(1)x(2)]		(3) x (6)	(7) / [(1)x(2)]
140	Buildings	2017	31,124	29	3,994,934	128.36	4.426	1.274	5,089,546	5.639
		2018	30,869	29	3,952,295	128.03	4.415	1.260	4,979,892	5.563
		2019	30,391	29	3,869,096	127.31	4.390	1.247	4,824,763	5.474
		2020	29,976	29	3,793,844	126.56	4.364	1.235	4,685,397	5.390
		<u>2021</u>	<u>29,854</u>	<u>29</u>	<u>3,810,923</u>	<u>127.65</u>	<u>4.402</u>	<u>1.211</u>	<u>4,615,028</u>	<u>5.331</u>
		Total	152,214	29	19,421,092	127.59	4.400		24,194,626	5.481
	Contents	2017	19,621	9	364,320	18.57	2.063	1.363	496,568	2.812
		2018	20,068	9	383,702	19.12	2.124	1.344	515,695	2.855
		2019	20,333	9	398,726	19.61	2.179	1.320	526,318	2.876
		2020	20,363	9	407,771	20.03	2.225	1.275	519,908	2.837
		<u>2021</u>	<u>20,919</u>	<u>9</u>	<u>430,347</u>	<u>20.57</u>	<u>2.286</u>	<u>1.211</u>	<u>521,150</u>	<u>2.768</u>
		Total	101,304	9	1,984,866	19.59	2.177		2,579,639	2.829
	Total	2017	50,745	21.27	4,359,254	85.91	4.039		5,586,114	5.175
		2018	50,937	21.12	4,335,997	85.12	4.031		5,495,587	5.108
		2019	50,724	20.98	4,267,822	84.14	4.010		5,351,081	5.028
		2020	50,339	20.91	4,201,615	83.47	3.992		5,205,305	4.945
		<u>2021</u>	<u>50,773</u>	<u>20.76</u>	<u>4,241,270</u>	<u>83.53</u>	<u>4.024</u>		<u>5,136,178</u>	<u>4.873</u>
		Total	253,518	21.01	21,405,958	84.44	4.019		26,774,265	5.027
150	Buildings	2017	19,483	31	2,663,931	136.73	4.411	1.274	3,393,848	5.619
		2018	19,548	31	2,650,737	135.60	4.374	1.260	3,339,929	5.512
		2019	19,500	31	2,628,736	134.81	4.349	1.247	3,278,034	5.423
		2020	19,337	31	2,591,664	134.03	4.323	1.235	3,200,705	5.339
		<u>2021</u>	<u>19,432</u>	<u>31</u>	<u>2,619,691</u>	<u>134.81</u>	<u>4.349</u>	<u>1.211</u>	<u>3,172,446</u>	<u>5.266</u>
		Total	97,300	31	13,154,759	135.20	4.361		16,384,962	5.432
	Contents	2017	11,268	9	248,078	22.02	2.446	1.363	338,130	3.334
		2018	11,644	9	260,237	22.35	2.483	1.344	349,759	3.338
		2019	11,833	9	269,203	22.75	2.528	1.320	355,348	3.337
		2020	11,938	9	279,160	23.38	2.598	1.275	355,929	3.313
		<u>2021</u>	<u>12,355</u>	<u>9</u>	<u>302,908</u>	<u>24.52</u>	<u>2.724</u>	<u>1.211</u>	<u>366,822</u>	<u>3.299</u>
		Total	59,038	9	1,359,586	23.03	2.559		1,765,988	3.324
	Total	2017	30,751	22.94	2,912,009	94.70	4.128		3,731,978	5.290
		2018	31,192	22.79	2,910,974	93.32	4.095		3,689,688	5.190
		2019	31,333	22.69	2,897,939	92.49	4.076		3,633,382	5.111
		2020	31,275	22.60	2,870,824	91.79	4.062		3,556,634	5.032
		<u>2021</u>	<u>31,787</u>	<u>22.45</u>	<u>2,922,599</u>	<u>91.94</u>	<u>4.095</u>		<u>3,539,268</u>	<u>4.960</u>
		Total	156,338	22.69	14,514,345	92.84	4.092		18,150,950	5.117
160	Buildings	2017	18,010	34	2,872,577	159.50	4.691	1.274	3,659,663	5.977
		2018	17,791	34	2,854,767	160.46	4.719	1.260	3,597,006	5.947
		2019	16,923	34	2,717,372	160.57	4.723	1.247	3,388,563	5.889
		2020	16,347	34	2,597,655	158.91	4.674	1.235	3,208,104	5.772
		<u>2021</u>	<u>16,317</u>	<u>34</u>	<u>2,563,987</u>	<u>157.14</u>	<u>4.622</u>	<u>1.211</u>	<u>3,104,988</u>	<u>5.597</u>
		Total	85,388	34	13,606,358	159.35	4.687		16,958,324	5.841
	Contents	2017	10,409	11	218,075	20.95	1.905	1.363	297,236	2.596
		2018	10,586	11	224,051	21.16	1.924	1.344	301,125	2.586
		2019	10,364	11	224,825	21.69	1.972	1.320	296,769	2.603
		2020	10,309	11	229,814	22.29	2.027	1.275	293,013	2.584
		<u>2021</u>	<u>10,610</u>	<u>11</u>	<u>241,845</u>	<u>22.79</u>	<u>2.072</u>	<u>1.211</u>	<u>292,874</u>	<u>2.509</u>
		Total	52,278	11	1,138,610	21.78	1.980		1,481,017	2.575
	Total	2017	28,419	25.58	3,090,652	108.75	4.251		3,956,899	5.443
		2018	28,377	25.42	3,078,818	108.50	4.268		3,898,131	5.404
		2019	27,287	25.26	2,942,197	107.82	4.269		3,685,332	5.347
		2020	26,656	25.10	2,827,469	106.07	4.226		3,501,117	5.233
		<u>2021</u>	<u>26,927</u>	<u>24.94</u>	<u>2,805,832</u>	<u>104.20</u>	<u>4.178</u>		<u>3,397,862</u>	<u>5.060</u>
		Total	137,666	25.27	14,744,968	107.11	4.238		18,439,341	5.300

(a) The Total Class Current Manual Base Rate is the weighted average of the Buildings and Contents Current Manual Base Rates using Earned House Years as weights.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TRENDED AVERAGE RATING FACTORS

FIRE

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			Earned House Years	Current Manual Base Rate ^(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate (3) / (1)	Average Rating Factor (3) / [(1)x(2)]	Premium Trend Factor	Trended Aggregate Calculated Earned Premium at Current Level (3) x (6)	Trended Average Rating Factor (7) / [(1)x(2)]	
170	Buildings	2017	2,166	45	359,893	166.16	3.692	1.274	458,504	4.704	
		2018	2,242	45	378,219	168.70	3.749	1.260	476,556	4.724	
		2019	2,295	45	391,813	170.72	3.794	1.247	488,591	4.731	
		2020	2,384	45	409,130	171.61	3.814	1.235	505,276	4.710	
		<u>2021</u>	<u>2,527</u>	<u>45</u>	<u>443,768</u>	<u>175.61</u>	<u>3.902</u>	<u>1.211</u>	<u>537,403</u>	<u>4.726</u>	
		Total	11,614	45	1,982,823	170.73	3.794		2,466,330	4.719	
	Contents	2017	1,353	13	52,288	38.65	2.973	1.363	71,269	4.052	
		2018	1,440	13	57,856	40.18	3.091	1.344	77,758	4.154	
		2019	1,489	13	61,344	41.20	3.169	1.320	80,974	4.183	
		2020	1,603	13	68,631	42.81	3.293	1.275	87,505	4.199	
		<u>2021</u>	<u>1,724</u>	<u>13</u>	<u>76,982</u>	<u>44.65</u>	<u>3.435</u>	<u>1.211</u>	<u>93,225</u>	<u>4.160</u>	
		Total	7,609	13	317,101	41.67	3.206		410,731	4.152	
	Total	2017	3,519	32.70	412,181	117.13	3.582		529,773	4.604	
		2018	3,682	32.49	436,075	118.43	3.645		554,314	4.634	
		2019	3,784	32.41	453,157	119.76	3.695		569,565	4.644	
		2020	3,987	32.13	477,761	119.83	3.730		592,781	4.627	
		<u>2021</u>	<u>4,251</u>	<u>32.02</u>	<u>520,750</u>	<u>122.50</u>	<u>3.826</u>		<u>630,628</u>	<u>4.633</u>	
		Total	19,223	32.33	2,299,924	119.64	3.701		2,877,061	4.629	
	180	Buildings	2017	18,771	45	3,124,819	166.47	3.699	1.274	3,981,019	4.713
			2018	19,066	45	3,211,496	168.44	3.743	1.260	4,046,485	4.716
			2019	19,326	45	3,283,717	169.91	3.776	1.247	4,094,795	4.708
2020			19,669	45	3,330,220	169.31	3.763	1.235	4,112,822	4.647	
<u>2021</u>			<u>19,850</u>	<u>45</u>	<u>3,393,792</u>	<u>170.97</u>	<u>3.799</u>	<u>1.211</u>	<u>4,109,882</u>	<u>4.601</u>	
Total			96,682	45	16,344,044	169.05	3.757		20,345,003	4.676	
Contents		2017	10,665	14	296,261	27.78	1.984	1.363	403,804	2.704	
		2018	11,038	14	313,714	28.42	2.030	1.344	421,632	2.728	
		2019	11,299	14	324,999	28.76	2.055	1.320	428,999	2.712	
		2020	11,502	14	338,669	29.44	2.103	1.275	431,803	2.682	
		<u>2021</u>	<u>11,971</u>	<u>14</u>	<u>372,850</u>	<u>31.15</u>	<u>2.225</u>	<u>1.211</u>	<u>451,521</u>	<u>2.694</u>	
		Total	56,475	14	1,646,493	29.15	2.082		2,137,759	2.704	
Total		2017	29,436	33.77	3,421,080	116.22	3.442		4,384,823	4.411	
		2018	30,104	33.63	3,525,210	117.10	3.482		4,468,117	4.413	
		2019	30,625	33.56	3,608,716	117.84	3.511		4,523,794	4.402	
		2020	31,171	33.56	3,668,889	117.70	3.507		4,544,625	4.344	
		<u>2021</u>	<u>31,821</u>	<u>33.34</u>	<u>3,766,642</u>	<u>118.37</u>	<u>3.550</u>		<u>4,561,403</u>	<u>4.300</u>	
		Total	153,157	33.57	17,990,537	117.46	3.499		22,482,762	4.373	
190		Buildings	2017	7,740	49	1,197,165	154.67	3.157	1.274	1,525,188	4.021
			2018	7,977	49	1,244,746	156.04	3.185	1.260	1,568,380	4.013
			2019	8,103	49	1,247,258	153.93	3.141	1.247	1,555,331	3.917
	2020		8,210	49	1,240,720	151.12	3.084	1.235	1,532,289	3.809	
	<u>2021</u>		<u>8,411</u>	<u>49</u>	<u>1,283,767</u>	<u>152.63</u>	<u>3.115</u>	<u>1.211</u>	<u>1,554,642</u>	<u>3.772</u>	
	Total		40,441	49	6,213,656	153.65	3.136		7,735,830	3.904	
	Contents	2017	4,381	14	142,404	32.50	2.322	1.363	194,097	3.165	
		2018	4,644	14	151,973	32.72	2.337	1.344	204,252	3.142	
		2019	4,801	14	158,028	32.92	2.351	1.320	208,597	3.103	
		2020	5,018	14	165,863	33.05	2.361	1.275	211,475	3.010	
		<u>2021</u>	<u>5,308</u>	<u>14</u>	<u>180,531</u>	<u>34.01</u>	<u>2.429</u>	<u>1.211</u>	<u>218,623</u>	<u>2.942</u>	
		Total	24,152	14	798,799	33.07	2.362		1,037,044	3.067	
	Total	2017	12,121	36.35	1,339,569	110.52	3.040		1,719,285	3.902	
		2018	12,621	36.12	1,396,719	110.67	3.064		1,772,632	3.888	
		2019	12,904	35.98	1,405,286	108.90	3.027		1,763,928	3.799	
		2020	13,228	35.72	1,406,583	106.33	2.977		1,743,764	3.690	
		<u>2021</u>	<u>13,719</u>	<u>35.46</u>	<u>1,464,298</u>	<u>106.74</u>	<u>3.010</u>		<u>1,773,265</u>	<u>3.645</u>	
		Total	64,593	35.91	7,012,455	108.56	3.023		8,772,874	3.782	

(a) The Total Class Current Manual Base Rate is the weighted average of the Buildings and Contents Current Manual Base Rates using Earned House Years as weights.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TRENDED AVERAGE RATING FACTORS

FIRE

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			Earned House Years	Current Manual Base Rate ^(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate	Average Rating Factor	Premium Trend Factor	Trended Aggregate Calculated Earned Premium at Current Level	Trended Average Rating Factor	
						(3) / (1)	(3) / [(1)x(2)]		(3) x (6)	(7) / [(1)x(2)]	
200	Buildings	2017	4,419	64	926,280	209.61	3.275	1.274	1,180,081	4.173	
		2018	4,479	64	955,932	213.43	3.335	1.260	1,204,474	4.202	
		2019	4,503	64	951,422	211.29	3.301	1.247	1,186,423	4.117	
		2020	4,513	64	954,154	211.42	3.303	1.235	1,178,380	4.080	
		2021	4,616	64	984,956	213.38	3.334	1.211	1,192,782	4.038	
		Total	22,530	64	4,772,744	211.84	3.310		5,942,140	4.121	
	Contents	2017	3,160	16	132,073	41.80	2.612	1.363	180,015	3.560	
		2018	3,236	16	140,325	43.36	2.710	1.344	188,597	3.643	
		2019	3,261	16	142,927	43.83	2.739	1.320	188,664	3.616	
		2020	3,309	16	148,839	44.98	2.811	1.275	189,770	3.584	
		2021	3,403	16	155,501	45.70	2.856	1.211	188,312	3.459	
		Total	16,369	16	719,665	43.97	2.748		935,358	3.571	
	Total	2017	7,579	43.99	1,058,353	139.64	3.174		1,360,096	4.079	
		2018	7,715	43.87	1,096,257	142.09	3.239		1,393,071	4.116	
		2019	7,764	43.84	1,094,349	140.95	3.215		1,375,087	4.040	
		2020	7,822	43.69	1,102,993	141.01	3.228		1,368,150	4.003	
		2021	8,019	43.63	1,140,457	142.22	3.260		1,381,094	3.947	
		Total	38,899	43.80	5,492,409	141.20	3.224		6,877,498	4.037	
	210	Buildings	2017	6,141	45	875,412	142.55	3.168	1.274	1,115,275	4.036
			2018	6,471	45	925,733	143.06	3.179	1.260	1,166,424	4.006
			2019	6,612	45	960,648	145.29	3.229	1.247	1,197,928	4.026
2020			6,764	45	992,674	146.76	3.261	1.235	1,225,952	4.028	
2021			7,038	45	1,053,638	149.71	3.327	1.211	1,275,956	4.029	
Total			33,026	45	4,808,105	145.59	3.235		5,981,535	4.025	
Contents		2017	3,019	13	78,127	25.88	1.991	1.363	106,487	2.713	
		2018	3,135	13	81,944	26.14	2.011	1.344	110,133	2.702	
		2019	3,214	13	83,566	26.00	2.000	1.320	110,307	2.640	
		2020	3,405	13	94,180	27.66	2.128	1.275	120,080	2.713	
		2021	3,721	13	109,543	29.44	2.265	1.211	132,657	2.742	
		Total	16,494	13	447,360	27.12	2.086		579,664	2.703	
Total		2017	9,160	34.45	953,539	104.10	3.022		1,221,762	3.872	
		2018	9,606	34.56	1,007,677	104.90	3.035		1,276,557	3.845	
		2019	9,826	34.53	1,044,214	106.27	3.078		1,308,235	3.856	
		2020	10,169	34.29	1,086,854	106.88	3.117		1,346,032	3.860	
		2021	10,759	33.93	1,163,181	108.11	3.186		1,408,613	3.859	
		Total	49,520	34.34	5,255,465	106.13	3.091		6,561,199	3.858	
220		Buildings	2017	21,363	42	4,634,650	216.95	5.165	1.274	5,904,544	6.581
			2018	21,358	42	4,805,935	225.02	5.358	1.260	6,055,478	6.751
			2019	21,296	42	4,868,110	228.59	5.443	1.247	6,070,533	6.787
	2020		20,657	42	4,761,201	230.49	5.488	1.235	5,880,083	6.777	
	2021		19,927	42	4,588,447	230.26	5.482	1.211	5,556,609	6.639	
	Total		104,601	42	23,658,343	226.18	5.385		29,467,247	6.707	
	Contents	2017	11,337	12	240,027	21.17	1.764	1.363	327,157	2.405	
		2018	11,762	12	256,759	21.83	1.819	1.344	345,084	2.445	
		2019	12,012	12	272,208	22.66	1.888	1.320	359,315	2.493	
		2020	11,966	12	286,664	23.96	1.996	1.275	365,497	2.545	
		2021	11,977	12	302,282	25.24	2.103	1.211	366,064	2.547	
		Total	59,054	12	1,357,940	22.99	1.916		1,763,117	2.488	
	Total	2017	32,700	31.60	4,874,677	149.07	4.717		6,231,701	6.031	
		2018	33,120	31.35	5,062,694	152.86	4.876		6,400,562	6.164	
		2019	33,308	31.18	5,140,318	154.33	4.950		6,429,848	6.191	
		2020	32,623	31.00	5,047,865	154.73	4.991		6,245,580	6.176	
		2021	31,904	30.74	4,890,729	153.30	4.987		5,922,673	6.039	
		Total	163,655	31.17	25,016,283	152.86	4.904		31,230,364	6.122	

(a) The Total Class Current Manual Base Rate is the weighted average of the Buildings and Contents Current Manual Base Rates using Earned House Years as weights.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TRENDED AVERAGE RATING FACTORS

FIRE

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			Earned House Years	Current Manual Base Rate ^(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate (3) / (1)	Average Rating Factor (3) / [(1)x(2)]	Premium Trend Factor	Trended Aggregate Calculated Earned Premium at Current Level (3) x (6)	Trended Average Rating Factor (7) / [(1)x(2)]	
230	Buildings	2017	12,179	68	2,077,352	170.57	2.508	1.274	2,646,546	3.196	
		2018	12,037	68	2,098,541	174.34	2.564	1.260	2,644,162	3.230	
		2019	11,705	68	2,120,781	181.19	2.664	1.247	2,644,614	3.323	
		2020	11,688	68	2,117,047	181.13	2.664	1.235	2,614,553	3.290	
		<u>2021</u>	<u>11,868</u>	<u>68</u>	<u>2,154,798</u>	<u>181.56</u>	<u>2.670</u>	<u>1.211</u>	<u>2,609,460</u>	<u>3.233</u>	
		Total	59,477	68	10,568,519	177.69	2.613		13,159,335	3.254	
	Contents	2017	7,830	17	273,581	34.94	2.055	1.363	372,891	2.801	
		2018	7,936	17	284,070	35.80	2.106	1.344	381,790	2.830	
		2019	7,950	17	290,217	36.51	2.147	1.320	383,086	2.835	
		2020	8,047	17	297,657	36.99	2.176	1.275	379,513	2.774	
		<u>2021</u>	<u>8,389</u>	<u>17</u>	<u>318,699</u>	<u>37.99</u>	<u>2.235</u>	<u>1.211</u>	<u>385,944</u>	<u>2.706</u>	
		Total	40,152	17	1,464,224	36.47	2.145		1,903,224	2.788	
	Total	2017	20,009	48.04	2,350,933	117.49	2.446		3,019,437	3.141	
		2018	19,973	47.74	2,382,611	119.29	2.499		3,025,952	3.173	
		2019	19,655	47.37	2,410,998	122.67	2.590		3,027,700	3.252	
		2020	19,735	47.20	2,414,704	122.36	2.592		2,994,066	3.214	
		<u>2021</u>	<u>20,257</u>	<u>46.88</u>	<u>2,473,497</u>	<u>122.11</u>	<u>2.605</u>		<u>2,995,404</u>	<u>3.154</u>	
		Total	99,629	47.45	12,032,743	120.78	2.545		15,062,559	3.186	
	240	Buildings	2017	18,227	45	2,839,897	155.81	3.462	1.274	3,618,029	4.411
			2018	18,410	45	2,882,253	156.56	3.479	1.260	3,631,639	4.384
			2019	18,690	45	2,923,771	156.44	3.476	1.247	3,645,942	4.335
2020			18,837	45	2,966,635	157.49	3.500	1.235	3,663,794	4.322	
<u>2021</u>			<u>19,310</u>	<u>45</u>	<u>3,153,519</u>	<u>163.31</u>	<u>3.629</u>	<u>1.211</u>	<u>3,818,912</u>	<u>4.395</u>	
Total			93,474	45	14,766,075	157.97	3.510		18,378,316	4.369	
Contents		2017	9,137	13	256,011	28.02	2.155	1.363	348,943	2.938	
		2018	9,549	13	272,048	28.49	2.192	1.344	365,633	2.945	
		2019	9,891	13	284,388	28.75	2.212	1.320	375,392	2.919	
		2020	10,308	13	307,911	29.87	2.298	1.275	392,587	2.930	
		<u>2021</u>	<u>11,060</u>	<u>13</u>	<u>349,186</u>	<u>31.57</u>	<u>2.429</u>	<u>1.211</u>	<u>422,864</u>	<u>2.941</u>	
		Total	49,945	13	1,469,544	29.42	2.263		1,905,419	2.935	
Total		2017	27,364	34.32	3,095,908	113.14	3.297		3,966,972	4.224	
		2018	27,959	34.07	3,154,301	112.82	3.311		3,997,272	4.196	
		2019	28,581	33.93	3,208,159	112.25	3.308		4,021,334	4.147	
		2020	29,145	33.68	3,274,546	112.35	3.336		4,056,381	4.132	
		<u>2021</u>	<u>30,370</u>	<u>33.35</u>	<u>3,502,705</u>	<u>115.33</u>	<u>3.458</u>		<u>4,241,776</u>	<u>4.188</u>	
		Total	143,419	33.86	16,235,619	113.20	3.343		20,283,735	4.177	
250		Buildings	2017	11,065	39	2,157,962	195.03	5.001	1.274	2,749,244	6.371
			2018	10,993	39	2,227,307	202.61	5.195	1.260	2,806,407	6.546
			2019	11,017	39	2,291,009	207.95	5.332	1.247	2,856,888	6.649
	2020		11,070	39	2,318,987	209.48	5.371	1.235	2,863,949	6.634	
	<u>2021</u>		<u>10,677</u>	<u>39</u>	<u>2,188,059</u>	<u>204.93</u>	<u>5.255</u>	<u>1.211</u>	<u>2,649,739</u>	<u>6.363</u>	
	Total		54,822	39	11,183,324	203.99	5.231		13,926,227	6.513	
	Contents	2017	5,810	12	111,161	19.13	1.594	1.363	151,512	2.173	
		2018	5,997	12	118,276	19.72	1.644	1.344	158,963	2.209	
		2019	6,187	12	125,821	20.34	1.695	1.320	166,084	2.237	
		2020	6,381	12	135,771	21.28	1.773	1.275	173,108	2.261	
		<u>2021</u>	<u>6,377</u>	<u>12</u>	<u>147,497</u>	<u>23.13</u>	<u>1.927</u>	<u>1.211</u>	<u>178,619</u>	<u>2.334</u>	
		Total	30,752	12	638,526	20.76	1.730		828,286	2.245	
	Total	2017	16,875	29.70	2,269,123	134.47	4.527		2,900,756	5.788	
		2018	16,990	29.47	2,345,583	138.06	4.685		2,965,370	5.923	
		2019	17,204	29.29	2,416,830	140.48	4.796		3,022,972	5.999	
		2020	17,451	29.13	2,454,758	140.67	4.829		3,037,057	5.974	
		<u>2021</u>	<u>17,054</u>	<u>28.90</u>	<u>2,335,556</u>	<u>136.95</u>	<u>4.739</u>		<u>2,828,358</u>	<u>5.739</u>	
		Total	85,574	29.30	11,821,850	138.15	4.715		14,754,513	5.885	

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NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TRENDED AVERAGE RATING FACTORS

FIRE

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			Earned House Years	Current Manual Base Rate ^(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate	Average Rating Factor	Premium Trend Factor	Trended Aggregate Calculated Earned Premium at Current Level	Trended Average Rating Factor	
						(3) / (1)	(3) / [(1)x(2)]		(3) x (6)	(7) / [(1)x(2)]	
260	Buildings	2017	8,478	48	1,466,833	173.02	3.605	1.274	1,868,745	4.592	
		2018	8,634	48	1,504,179	174.22	3.629	1.260	1,895,266	4.573	
		2019	10,265	48	1,986,164	193.49	4.031	1.247	2,476,747	5.027	
		2020	10,203	48	1,973,605	193.43	4.030	1.235	2,437,402	4.977	
		<u>2021</u>	<u>8,602</u>	<u>48</u>	<u>1,481,977</u>	<u>172.28</u>	<u>3.589</u>	<u>1.211</u>	<u>1,794,674</u>	<u>4.347</u>	
		Total	46,182	48	8,412,758	182.17	3.795		10,472,834	4.724	
	Contents	2017	3,751	13	113,444	30.24	2.326	1.363	154,624	3.171	
		2018	3,907	13	120,214	30.77	2.367	1.344	161,568	3.181	
		2019	4,031	13	128,828	31.96	2.458	1.320	170,053	3.245	
		2020	4,126	13	135,467	32.83	2.526	1.275	172,720	3.220	
		<u>2021</u>	<u>4,377</u>	<u>13</u>	<u>150,672</u>	<u>34.42</u>	<u>2.648</u>	<u>1.211</u>	<u>182,464</u>	<u>3.207</u>	
		Total	20,192	13	648,625	32.12	2.471		841,429	3.205	
	Total	2017	12,229	37.26	1,580,277	129.22	3.468		2,023,369	4.441	
		2018	12,541	37.10	1,624,393	129.53	3.491		2,056,834	4.421	
		2019	14,296	38.13	2,114,992	147.94	3.880		2,646,800	4.856	
		2020	14,329	37.92	2,109,072	147.19	3.882		2,610,122	4.804	
		<u>2021</u>	<u>12,979</u>	<u>36.20</u>	<u>1,632,649</u>	<u>125.79</u>	<u>3.475</u>		<u>1,977,138</u>	<u>4.208</u>	
		Total	66,374	37.35	9,061,383	136.52	3.655		11,314,263	4.564	
	270	Buildings	2017	22,469	30	4,265,088	189.82	6.327	1.274	5,433,722	8.061
			2018	22,637	30	4,440,933	196.18	6.539	1.260	5,595,576	8.240
			2019	22,380	30	4,548,348	203.23	6.774	1.247	5,671,790	8.448
2020			21,927	30	4,612,475	210.36	7.012	1.235	5,696,407	8.660	
<u>2021</u>			<u>22,960</u>	<u>30</u>	<u>5,009,072</u>	<u>218.17</u>	<u>7.272</u>	<u>1.211</u>	<u>6,065,986</u>	<u>8.807</u>	
Total			112,373	30	22,875,916	203.57	6.786		28,463,481	8.443	
Contents		2017	11,898	10	210,363	17.68	1.768	1.363	286,725	2.410	
		2018	12,900	10	229,120	17.76	1.776	1.344	307,937	2.387	
		2019	14,145	10	252,783	17.87	1.787	1.320	333,674	2.359	
		2020	14,128	10	259,611	18.38	1.838	1.275	331,004	2.343	
		<u>2021</u>	<u>15,201</u>	<u>10</u>	<u>289,282</u>	<u>19.03</u>	<u>1.903</u>	<u>1.211</u>	<u>350,321</u>	<u>2.305</u>	
		Total	68,272	10	1,241,159	18.18	1.818		1,609,661	2.358	
Total		2017	34,367	23.08	4,475,451	130.23	5.642		5,720,447	7.212	
		2018	35,537	22.74	4,670,053	131.41	5.779		5,903,513	7.305	
		2019	36,525	22.25	4,801,131	131.45	5.908		6,005,464	7.390	
		2020	36,055	22.16	4,872,086	135.13	6.098		6,027,411	7.544	
		<u>2021</u>	<u>38,161</u>	<u>22.03</u>	<u>5,298,354</u>	<u>138.84</u>	<u>6.302</u>		<u>6,416,307</u>	<u>7.632</u>	
		Total	180,645	22.44	24,117,075	133.51	5.949		30,073,142	7.419	
280		Buildings	2017	4,656	28	744,625	159.93	5.712	1.274	948,652	7.277
			2018	4,696	28	773,292	164.67	5.881	1.260	974,348	7.410
			2019	4,702	28	780,415	165.98	5.928	1.247	973,178	7.392
	2020		4,748	28	783,620	165.04	5.894	1.235	967,771	7.280	
	<u>2021</u>		<u>5,493</u>	<u>28</u>	<u>898,823</u>	<u>163.63</u>	<u>5.844</u>	<u>1.211</u>	<u>1,088,475</u>	<u>7.077</u>	
	Total		24,295	28	3,980,775	163.85	5.852		4,952,424	7.280	
	Contents	2017	2,654	9	52,131	19.64	2.182	1.363	71,055	2.975	
		2018	2,794	9	56,324	20.16	2.240	1.344	75,699	3.010	
		2019	2,951	9	60,072	20.36	2.262	1.320	79,295	2.986	
		2020	3,078	9	63,975	20.78	2.309	1.275	81,568	2.944	
		<u>2021</u>	<u>3,180</u>	<u>9</u>	<u>68,324</u>	<u>21.49</u>	<u>2.387</u>	<u>1.211</u>	<u>82,740</u>	<u>2.891</u>	
		Total	14,657	9	300,826	20.52	2.280		390,357	2.959	
	Total	2017	7,310	21.10	796,756	109.00	5.166		1,019,707	6.611	
		2018	7,490	20.91	829,616	110.76	5.297		1,050,047	6.705	
		2019	7,653	20.67	840,487	109.82	5.313		1,052,473	6.653	
		2020	7,826	20.53	847,595	108.31	5.275		1,049,339	6.531	
		<u>2021</u>	<u>8,673</u>	<u>21.03</u>	<u>967,147</u>	<u>111.51</u>	<u>5.303</u>		<u>1,171,215</u>	<u>6.421</u>	
		Total	38,952	20.85	4,281,601	109.92	5.272		5,342,781	6.579	

(a) The Total Class Current Manual Base Rate is the weighted average of the Buildings and Contents Current Manual Base Rates using Earned House Years as weights.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TRENDED AVERAGE RATING FACTORS

FIRE

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			Earned House Years	Current Manual Base Rate ^(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate	Average Rating Factor	Premium Trend Factor	Trended Aggregate Calculated Earned Premium at Current Level	Trended Average Rating Factor	
						(3) / (1)	(3) / [(1)x(2)]		(3) x (6)	(7) / [(1)x(2)]	
290	Buildings	2017	6,026	36	1,170,984	194.32	5.398	1.274	1,491,834	6.877	
		2018	5,966	36	1,197,583	200.73	5.576	1.260	1,508,955	7.026	
		2019	5,609	36	1,105,941	197.17	5.477	1.247	1,379,108	6.830	
		2020	5,220	36	1,007,657	193.04	5.362	1.235	1,244,456	6.622	
		<u>2021</u>	<u>5,288</u>	<u>36</u>	<u>1,047,314</u>	<u>198.05</u>	<u>5.502</u>	<u>1.211</u>	<u>1,268,297</u>	<u>6.662</u>	
		Total	28,109	36	5,529,479	196.72	5.464		6,892,650	6.811	
	Contents	2017	3,243	11	60,075	18.52	1.684	1.363	81,882	2.295	
		2018	3,318	11	63,279	19.07	1.734	1.344	85,047	2.330	
		2019	3,260	11	63,984	19.63	1.784	1.320	84,459	2.355	
		2020	3,183	11	68,129	21.40	1.946	1.275	86,864	2.481	
		<u>2021</u>	<u>3,377</u>	<u>11</u>	<u>77,275</u>	<u>22.88</u>	<u>2.080</u>	<u>1.211</u>	<u>93,580</u>	<u>2.519</u>	
		Total	16,381	11	332,742	20.31	1.847		431,832	2.397	
	Total	2017	9,269	27.25	1,231,059	132.81	4.874		1,573,716	6.231	
		2018	9,284	27.07	1,260,862	135.81	5.017		1,594,002	6.343	
		2019	8,869	26.81	1,169,925	131.91	4.920		1,463,567	6.155	
		2020	8,403	26.53	1,075,786	128.02	4.826		1,331,320	5.972	
		<u>2021</u>	<u>8,665</u>	<u>26.26</u>	<u>1,124,589</u>	<u>129.79</u>	<u>4.942</u>		<u>1,361,877</u>	<u>5.985</u>	
		Total	44,490	26.80	5,862,221	131.76	4.917		7,324,482	6.143	
	300	Buildings	2017	6,858	49	1,013,091	147.72	3.015	1.274	1,290,678	3.841
			2018	6,791	49	1,017,686	149.86	3.058	1.260	1,282,284	3.853
			2019	7,244	49	1,164,125	160.70	3.280	1.247	1,451,664	4.090
2020			7,963	49	1,358,997	170.66	3.483	1.235	1,678,361	4.301	
<u>2021</u>			<u>8,043</u>	<u>49</u>	<u>1,382,000</u>	<u>171.83</u>	<u>3.507</u>	<u>1.211</u>	<u>1,673,602</u>	<u>4.247</u>	
Total			36,899	49	5,935,899	160.87	3.283		7,376,589	4.080	
Contents		2017	3,706	15	126,065	34.02	2.268	1.363	171,827	3.091	
		2018	3,775	15	130,242	34.50	2.300	1.344	175,045	3.091	
		2019	3,829	15	134,451	35.11	2.341	1.320	177,475	3.090	
		2020	3,987	15	144,855	36.33	2.422	1.275	184,690	3.088	
		<u>2021</u>	<u>4,232</u>	<u>15</u>	<u>158,456</u>	<u>37.44</u>	<u>2.496</u>	<u>1.211</u>	<u>191,890</u>	<u>3.023</u>	
		Total	19,529	15	694,069	35.54	2.369		900,927	3.076	
Total		2017	10,564	37.07	1,139,156	107.83	2.909		1,462,505	3.735	
		2018	10,566	36.85	1,147,928	108.64	2.948		1,457,329	3.743	
		2019	11,073	37.24	1,298,576	117.27	3.149		1,629,139	3.951	
		2020	11,950	37.66	1,503,852	125.85	3.342		1,863,051	4.140	
		<u>2021</u>	<u>12,275</u>	<u>37.28</u>	<u>1,540,456</u>	<u>125.50</u>	<u>3.366</u>		<u>1,865,492</u>	<u>4.077</u>	
		Total	56,428	37.23	6,629,968	117.49	3.156		8,277,516	3.940	
310		Buildings	2017	40,531	35	6,272,795	154.77	4.422	1.274	7,991,541	5.633
			2018	39,831	35	6,212,515	155.97	4.456	1.260	7,827,769	5.615
			2019	39,060	35	6,184,202	158.33	4.524	1.247	7,711,700	5.641
	2020		40,266	35	6,568,258	163.12	4.661	1.235	8,111,799	5.756	
	<u>2021</u>		<u>41,417</u>	<u>35</u>	<u>6,941,431</u>	<u>167.60</u>	<u>4.789</u>	<u>1.211</u>	<u>8,406,073</u>	<u>5.799</u>	
	Total		201,105	35	32,179,201	160.01	4.572		40,048,882	5.690	
	Contents	2017	16,651	11	361,244	21.70	1.972	1.363	492,376	2.688	
		2018	16,905	11	374,585	22.16	2.014	1.344	503,442	2.707	
		2019	17,198	11	392,667	22.83	2.076	1.320	518,320	2.740	
		2020	17,336	11	411,721	23.75	2.159	1.275	524,944	2.753	
		<u>2021</u>	<u>18,291</u>	<u>11</u>	<u>458,912</u>	<u>25.09</u>	<u>2.281</u>	<u>1.211</u>	<u>555,742</u>	<u>2.762</u>	
		Total	86,381	11	1,999,129	23.14	2.104		2,594,824	2.731	
	Total	2017	57,182	28.01	6,634,039	116.02	4.142		8,483,917	5.297	
		2018	56,736	27.85	6,587,100	116.10	4.169		8,331,211	5.273	
		2019	56,258	27.66	6,576,869	116.91	4.227		8,230,020	5.289	
		2020	57,602	27.78	6,979,979	121.18	4.362		8,636,743	5.397	
		<u>2021</u>	<u>59,708</u>	<u>27.65</u>	<u>7,400,343</u>	<u>123.94</u>	<u>4.483</u>		<u>8,961,815</u>	<u>5.428</u>	
		Total	287,486	27.79	34,178,330	118.89	4.278		42,643,706	5.338	

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NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TRENDED AVERAGE RATING FACTORS

FIRE

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			Earned House Years	Current Manual Base Rate ^(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate	Average Rating Factor	Premium Trend Factor	Trended Aggregate Calculated Earned Premium at Current Level	Trended Average Rating Factor	
						(3) / (1)	(3) / [(1)x(2)]		(3) x (6)	(7) / [(1)x(2)]	
320	Buildings	2017	19,941	36	3,166,088	158.77	4.410	1.274	4,033,596	5.619	
		2018	19,521	36	3,087,136	158.14	4.393	1.260	3,889,791	5.535	
		2019	19,087	36	3,022,595	158.36	4.399	1.247	3,769,176	5.485	
		2020	18,477	36	2,926,153	158.37	4.399	1.235	3,613,799	5.433	
		2021	18,650	36	3,025,837	162.24	4.507	1.211	3,664,289	5.458	
		Total	95,676	36	15,227,809	159.16	4.421		18,970,651	5.508	
	Contents	2017	7,246	11	153,708	21.21	1.928	1.363	209,504	2.628	
		2018	7,394	11	155,402	21.02	1.911	1.344	208,860	2.568	
		2019	7,644	11	162,554	21.27	1.933	1.320	214,571	2.552	
		2020	7,826	11	170,179	21.75	1.977	1.275	216,978	2.520	
		2021	8,221	11	190,288	23.15	2.104	1.211	230,439	2.548	
		Total	38,331	11	832,131	21.71	1.974		1,080,352	2.562	
	Total	2017	27,187	29.34	3,319,796	122.11	4.162		4,243,100	5.319	
		2018	26,915	29.13	3,242,538	120.47	4.136		4,098,651	5.228	
		2019	26,731	28.85	3,185,149	119.16	4.130		3,983,747	5.166	
		2020	26,303	28.56	3,096,332	117.72	4.122		3,830,777	5.099	
		2021	26,871	28.35	3,216,125	119.69	4.222		3,894,728	5.113	
		Total	134,007	28.85	16,059,940	119.84	4.154		20,051,003	5.186	
	330	Buildings	2017	1,651	38	226,889	137.43	3.616	1.274	289,057	4.607
			2018	1,618	38	221,850	137.11	3.608	1.260	279,531	4.546
			2019	1,649	38	231,169	140.19	3.689	1.247	288,268	4.600
2020			1,684	38	228,318	135.58	3.568	1.235	281,973	4.406	
2021			1,638	38	213,956	130.62	3.437	1.211	259,101	4.163	
Total			8,240	38	1,122,182	136.19	3.584		1,397,930	4.465	
Contents		2017	826	12	20,966	25.38	2.115	1.363	28,577	2.883	
		2018	837	12	21,553	25.75	2.146	1.344	28,967	2.884	
		2019	868	12	23,097	26.61	2.217	1.320	30,488	2.927	
		2020	895	12	23,233	25.96	2.163	1.275	29,622	2.758	
		2021	898	12	23,085	25.71	2.142	1.211	27,956	2.594	
		Total	4,324	12	111,934	25.89	2.157		145,610	2.806	
Total		2017	2,477	29.33	247,855	100.06	3.412		317,634	4.372	
		2018	2,455	29.14	243,403	99.15	3.402		308,498	4.312	
		2019	2,517	29.03	254,266	101.02	3.480		318,756	4.362	
		2020	2,579	28.98	251,551	97.54	3.366		311,595	4.169	
		2021	2,536	28.79	237,041	93.47	3.247		287,057	3.932	
		Total	12,564	29.05	1,234,116	98.23	3.381		1,543,540	4.229	
340		Buildings	2017	34,192	32	6,098,265	178.35	5.574	1.274	7,769,190	7.101
			2018	33,448	32	6,091,362	182.11	5.691	1.260	7,675,116	7.171
			2019	32,323	32	6,011,027	185.97	5.811	1.247	7,495,751	7.247
	2020		32,329	32	6,096,622	188.58	5.893	1.235	7,529,328	7.278	
	2021		32,377	32	6,200,436	191.51	5.985	1.211	7,508,728	7.247	
	Total		164,669	32	30,497,712	185.21	5.788		37,978,113	7.207	
	Contents	2017	15,667	9	277,061	17.68	1.965	1.363	377,634	2.678	
		2018	15,974	9	286,956	17.96	1.996	1.344	385,669	2.683	
		2019	16,604	9	304,509	18.34	2.038	1.320	401,952	2.690	
		2020	16,728	9	322,568	19.28	2.143	1.275	411,274	2.732	
		2021	17,275	9	354,717	20.53	2.282	1.211	429,562	2.763	
		Total	82,248	9	1,545,811	18.79	2.088		2,006,091	2.710	
	Total	2017	49,859	24.77	6,375,326	127.87	5.162		8,146,824	6.597	
		2018	49,422	24.57	6,378,318	129.06	5.253		8,060,785	6.638	
		2019	48,927	24.19	6,315,536	129.08	5.336		7,897,703	6.673	
		2020	49,057	24.16	6,419,190	130.85	5.416		7,940,602	6.700	
		2021	49,652	24.00	6,555,153	132.02	5.501		7,938,290	6.662	
		Total	246,917	24.34	32,043,523	129.77	5.332		39,984,204	6.653	

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NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TRENDED AVERAGE RATING FACTORS

FIRE

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			Earned House Years	Current Manual Base Rate ^(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate	Average Rating Factor	Premium Trend Factor	Trended Aggregate Calculated Earned Premium at Current Level	Trended Average Rating Factor	
						(3) / (1)	(3) / [(1)x(2)]		(3) x (6)	(7) / [(1)x(2)]	
350	Buildings	2017	18,420	37	2,762,694	149.98	4.054	1.274	3,519,672	5.164	
		2018	17,928	37	2,716,736	151.54	4.096	1.260	3,423,087	5.160	
		2019	17,645	37	2,715,332	153.89	4.159	1.247	3,386,019	5.186	
		2020	17,661	37	2,776,407	157.21	4.249	1.235	3,428,863	5.247	
		<u>2021</u>	<u>17,928</u>	<u>37</u>	<u>2,906,388</u>	<u>162.11</u>	<u>4.381</u>	<u>1.211</u>	<u>3,519,636</u>	<u>5.306</u>	
		Total	89,582	37	13,877,557	154.91	4.187		17,277,277	5.213	
	Contents	2017	6,194	11	134,010	21.64	1.967	1.363	182,656	2.681	
		2018	6,387	11	140,446	21.99	1.999	1.344	188,759	2.687	
		2019	6,695	11	148,134	22.13	2.011	1.320	195,537	2.655	
		2020	6,925	11	156,489	22.60	2.054	1.275	199,523	2.619	
		<u>2021</u>	<u>7,358</u>	<u>11</u>	<u>177,576</u>	<u>24.13</u>	<u>2.194</u>	<u>1.211</u>	<u>215,045</u>	<u>2.657</u>	
		Total	33,559	11	756,655	22.55	2.050		981,520	2.659	
	Total	2017	24,614	30.46	2,896,704	117.69	3.864		3,702,328	4.938	
		2018	24,315	30.17	2,857,182	117.51	3.895		3,611,846	4.924	
		2019	24,340	29.85	2,863,466	117.64	3.941		3,581,556	4.930	
		2020	24,586	29.68	2,932,896	119.29	4.019		3,628,386	4.972	
		<u>2021</u>	<u>25,286</u>	<u>29.43</u>	<u>3,083,964</u>	<u>121.96</u>	<u>4.144</u>		<u>3,734,681</u>	<u>5.019</u>	
		Total	123,141	29.91	14,634,212	118.84	3.973		18,258,797	4.957	
	360	Buildings	2017	31,304	30	4,461,977	142.54	4.751	1.274	5,684,559	6.053
			2018	30,260	30	4,365,235	144.26	4.809	1.260	5,500,196	6.059
			2019	30,277	30	4,459,431	147.29	4.910	1.247	5,560,910	6.122
2020			30,064	30	4,503,708	149.80	4.993	1.235	5,562,079	6.167	
<u>2021</u>			<u>29,420</u>	<u>30</u>	<u>4,524,525</u>	<u>153.79</u>	<u>5.126</u>	<u>1.211</u>	<u>5,479,200</u>	<u>6.208</u>	
Total			151,325	30	22,314,876	147.46	4.915		27,786,944	6.121	
Contents		2017	16,362	9	325,487	19.89	2.210	1.363	443,639	3.013	
		2018	16,459	9	336,442	20.44	2.271	1.344	452,178	3.053	
		2019	17,097	9	359,094	21.00	2.334	1.320	474,004	3.080	
		2020	17,743	9	388,417	21.89	2.432	1.275	495,232	3.101	
		<u>2021</u>	<u>18,193</u>	<u>9</u>	<u>426,872</u>	<u>23.46</u>	<u>2.607</u>	<u>1.211</u>	<u>516,942</u>	<u>3.157</u>	
		Total	85,854	9	1,836,312	21.39	2.377		2,381,995	3.083	
Total		2017	47,666	22.79	4,787,464	100.44	4.407		6,128,198	5.641	
		2018	46,719	22.60	4,701,677	100.64	4.453		5,952,374	5.638	
		2019	47,374	22.42	4,818,525	101.71	4.537		6,034,914	5.682	
		2020	47,807	22.21	4,892,125	102.33	4.607		6,057,311	5.705	
		<u>2021</u>	<u>47,613</u>	<u>21.98</u>	<u>4,951,397</u>	<u>103.99</u>	<u>4.731</u>		<u>5,996,142</u>	<u>5.730</u>	
		Total	237,179	22.40	24,151,188	101.83	4.546		30,168,939	5.679	
370		Buildings	2017	1,930	33	298,274	154.55	4.683	1.274	380,001	5.966
			2018	1,863	33	288,689	154.96	4.696	1.260	363,748	5.917
			2019	1,928	33	303,085	157.20	4.764	1.247	377,947	5.940
	2020		1,986	33	318,913	160.58	4.866	1.235	393,858	6.010	
	<u>2021</u>		<u>1,953</u>	<u>33</u>	<u>330,572</u>	<u>169.26</u>	<u>5.129</u>	<u>1.211</u>	<u>400,323</u>	<u>6.211</u>	
	Total		9,660	33	1,539,533	159.37	4.829		1,915,877	6.010	
	Contents	2017	1,175	10	34,080	29.00	2.900	1.363	46,451	3.953	
		2018	1,151	10	33,013	28.68	2.868	1.344	44,369	3.855	
		2019	1,219	10	35,733	29.31	2.931	1.320	47,168	3.869	
		2020	1,282	10	39,764	31.02	3.102	1.275	50,699	3.955	
		<u>2021</u>	<u>1,291</u>	<u>10</u>	<u>44,737</u>	<u>34.65</u>	<u>3.465</u>	<u>1.211</u>	<u>54,177</u>	<u>4.197</u>	
		Total	6,118	10	187,327	30.62	3.062		242,864	3.970	
	Total	2017	3,105	24.30	332,354	107.04	4.405		426,452	5.652	
		2018	3,014	24.22	321,702	106.74	4.407		408,117	5.591	
		2019	3,147	24.09	338,818	107.66	4.469		425,115	5.608	
		2020	3,268	23.98	358,677	109.75	4.577		444,557	5.673	
		<u>2021</u>	<u>3,244</u>	<u>23.85</u>	<u>375,309</u>	<u>115.69</u>	<u>4.851</u>		<u>454,500</u>	<u>5.874</u>	
		Total	15,778	24.08	1,726,860	109.45	4.545		2,158,741	5.682	

(a) The Total Class Current Manual Base Rate is the weighted average of the Buildings and Contents Current Manual Base Rates using Earned House Years as weights.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TRENDED AVERAGE RATING FACTORS

FIRE

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			Earned House Years	Current Manual Base Rate ^(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate (3) / (1)	Average Rating Factor (3) / [(1)x(2)]	Premium Trend Factor	Trended Aggregate Calculated Earned Premium at Current Level (3) x (6)	Trended Average Rating Factor (7) / [(1)x(2)]	
380	Buildings	2017	5,378	30	868,602	161.51	5.384	1.274	1,106,599	6.859	
		2018	5,259	30	869,096	165.26	5.509	1.260	1,095,061	6.941	
		2019	5,275	30	885,910	167.95	5.598	1.247	1,104,730	6.981	
		2020	5,307	30	902,434	170.05	5.668	1.235	1,114,506	7.000	
		<u>2021</u>	<u>5,181</u>	<u>30</u>	<u>904,571</u>	<u>174.59</u>	<u>5.820</u>	<u>1.211</u>	<u>1,095,435</u>	<u>7.048</u>	
		Total	26,400	30	4,430,613	167.83	5.594		5,516,331	6.965	
	Contents	2017	2,951	9	74,649	25.30	2.811	1.363	101,747	3.831	
		2018	3,001	9	77,023	25.67	2.852	1.344	103,519	3.833	
		2019	3,127	9	81,059	25.92	2.880	1.320	106,998	3.802	
		2020	3,285	9	89,155	27.14	3.016	1.275	113,673	3.845	
		<u>2021</u>	<u>3,389</u>	<u>9</u>	<u>97,427</u>	<u>28.75</u>	<u>3.194</u>	<u>1.211</u>	<u>117,984</u>	<u>3.868</u>	
		Total	15,753	9	419,313	26.62	2.958		543,921	3.836	
	Total	2017	8,329	22.56	943,251	113.25	5.020		1,208,346	6.431	
		2018	8,260	22.37	946,119	114.54	5.120		1,198,580	6.487	
		2019	8,402	22.18	966,969	115.09	5.189		1,211,728	6.502	
		2020	8,592	21.97	991,589	115.41	5.253		1,228,179	6.506	
		<u>2021</u>	<u>8,570</u>	<u>21.70</u>	<u>1,001,998</u>	<u>116.92</u>	<u>5.388</u>		<u>1,213,419</u>	<u>6.525</u>	
		Total	42,153	22.15	4,849,926	115.06	5.194		6,060,252	6.491	
	390	Buildings	2017	5,198	31	916,982	176.41	5.691	1.274	1,168,235	7.250
			2018	5,095	31	902,811	177.20	5.716	1.260	1,137,542	7.202
			2019	5,068	31	892,734	176.15	5.682	1.247	1,113,239	7.086
2020			4,972	31	868,818	174.74	5.637	1.235	1,072,990	6.962	
<u>2021</u>			<u>4,882</u>	<u>31</u>	<u>872,963</u>	<u>178.81</u>	<u>5.768</u>	<u>1.211</u>	<u>1,057,158</u>	<u>6.985</u>	
Total			25,215	31	4,454,308	176.65	5.698		5,549,164	7.099	
Contents		2017	3,011	10	82,933	27.54	2.754	1.363	113,038	3.754	
		2018	3,042	10	86,027	28.28	2.828	1.344	115,620	3.801	
		2019	3,150	10	89,754	28.49	2.849	1.320	118,475	3.761	
		2020	3,236	10	91,377	28.24	2.824	1.275	116,506	3.600	
		<u>2021</u>	<u>3,311</u>	<u>10</u>	<u>101,588</u>	<u>30.68</u>	<u>3.068</u>	<u>1.211</u>	<u>123,023</u>	<u>3.716</u>	
		Total	15,750	10	451,679	28.68	2.868		586,662	3.725	
Total		2017	8,209	23.30	999,915	121.81	5.228		1,281,273	6.699	
		2018	8,137	23.15	988,838	121.52	5.249		1,253,162	6.653	
		2019	8,218	22.95	982,488	119.55	5.209		1,231,714	6.531	
		2020	8,208	22.72	960,195	116.98	5.149		1,189,496	6.378	
		<u>2021</u>	<u>8,193</u>	<u>22.51</u>	<u>974,551</u>	<u>118.95</u>	<u>5.284</u>		<u>1,180,181</u>	<u>6.399</u>	
		Total	40,965	22.93	4,905,987	119.76	5.223		6,135,826	6.532	
Statewide		Buildings	2017	410,562	35.74	66,916,284	162.99	4.560		85,251,346	5.810
			2018	406,552	35.84	67,081,989	165.00	4.604		84,523,308	5.801
			2019	403,718	35.96	67,522,104	167.25	4.651		84,200,064	5.800
	2020		402,239	36.05	67,794,225	168.54	4.675		83,725,867	5.774	
	<u>2021</u>		<u>403,091</u>	<u>36.05</u>	<u>68,734,834</u>	<u>170.52</u>	<u>4.730</u>		<u>83,237,884</u>	<u>5.728</u>	
	Total		2,026,162	35.93	338,049,436	166.84	4.644		420,938,469	5.782	
	Contents	2017	220,761	10.30	4,901,513	22.20	2.156		6,680,765	2.938	
		2018	225,369	10.35	5,106,523	22.66	2.189		6,863,166	2.942	
		2019	230,154	10.38	5,316,029	23.10	2.225		7,017,158	2.937	
		2020	232,741	10.42	5,563,613	23.90	2.294		7,093,607	2.925	
		<u>2021</u>	<u>240,905</u>	<u>10.47</u>	<u>6,054,967</u>	<u>25.13</u>	<u>2.401</u>		<u>7,332,566</u>	<u>2.907</u>	
		Total	1,149,930	10.39	26,942,645	23.43	2.255		34,987,262	2.928	
	Total	2017	631,323	26.84	71,817,797	113.76	4.238		91,932,111	5.425	
		2018	631,921	26.75	72,188,512	114.24	4.271		91,386,474	5.406	
		2019	633,872	26.67	72,838,133	114.91	4.309		91,217,222	5.396	
		2020	634,980	26.66	73,357,838	115.53	4.333		90,819,474	5.365	
		<u>2021</u>	<u>643,996</u>	<u>26.48</u>	<u>74,789,801</u>	<u>116.13</u>	<u>4.386</u>		<u>90,570,450</u>	<u>5.311</u>	
		Total	3,176,092	26.68	364,992,081	114.92	4.307		455,925,731	5.380	

(a) The Total Class Current Manual Base Rate is the weighted average of the Buildings and Contents Current Manual Base Rates using Earned House Years as weights.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF EXPERIENCE BASE CLASS LOSS COST

FIRE

Territory	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Earned House Years	Trended Average Rating Factor	Total Adjusted Incurred Losses	Loss Trend Factor	Trended LAE Factor	Trended Adjusted Incurred Losses & LAE (3)x(4)x(5)	Experience Base Class Loss Cost (6)/[(1)x(2)]
110	2017	22,240	13.010	644,529	1.487	1.083	1,037,963	
	2018	21,535	12.685	1,662,254	1.466	1.083	2,639,124	
	2019	20,912	12.321	795,459	1.444	1.083	1,243,980	
	2020	20,303	11.990	1,618,642	1.423	1.083	2,494,504	
	<u>2021</u>	<u>19,996</u>	<u>11.841</u>	<u>1,025,827</u>	1.401	1.083	<u>1,556,470</u>	
	Total	104,986	12.384	5,746,711			8,972,041	6.90
	120	2017	30,057	9.984	971,196	1.487	1.083	1,564,034
2018		28,610	9.703	906,621	1.466	1.083	1,439,422	
2019		27,522	9.498	248,660	1.444	1.083	388,867	
2020		26,497	9.387	2,607,212	1.423	1.083	4,017,998	
<u>2021</u>		<u>25,875</u>	<u>9.270</u>	<u>1,921,505</u>	1.401	1.083	<u>2,915,467</u>	
Total		138,561	9.580	6,655,194			10,325,788	7.78
130		2017	7,981	6.164	85,705	1.487	1.083	138,021
	2018	8,109	6.088	243,992	1.466	1.083	387,381	
	2019	8,113	5.963	523,893	1.444	1.083	819,291	
	2020	8,014	5.876	483,040	1.423	1.083	744,417	
	<u>2021</u>	<u>8,058</u>	<u>5.863</u>	<u>439,598</u>	1.401	1.083	<u>666,995</u>	
	Total	40,275	5.991	1,776,228			2,756,105	11.42
	140	2017	50,745	5.175	1,765,275	1.487	1.083	2,842,836
2018		50,937	5.108	2,550,211	1.466	1.083	4,048,914	
2019		50,724	5.028	2,683,905	1.444	1.083	4,197,230	
2020		50,339	4.945	1,366,981	1.423	1.083	2,106,667	
<u>2021</u>		<u>50,773</u>	<u>4.873</u>	<u>1,771,781</u>	1.401	1.083	<u>2,688,293</u>	
Total		253,518	5.027	10,138,153			15,883,940	12.46
150		2017	30,751	5.290	2,149,571	1.487	1.083	3,461,714
	2018	31,192	5.190	2,475,730	1.466	1.083	3,930,662	
	2019	31,333	5.111	2,357,487	1.444	1.083	3,686,761	
	2020	31,275	5.032	1,156,913	1.423	1.083	1,782,929	
	<u>2021</u>	<u>31,787</u>	<u>4.960</u>	<u>1,892,707</u>	1.401	1.083	<u>2,871,772</u>	
	Total	156,338	5.117	10,032,408			15,733,838	19.67
	160	2017	28,419	5.443	1,563,020	1.487	1.083	2,517,120
2018		28,377	5.404	898,679	1.466	1.083	1,426,813	
2019		27,287	5.347	1,880,008	1.444	1.083	2,940,054	
2020		26,656	5.233	1,966,014	1.423	1.083	3,029,842	
<u>2021</u>		<u>26,927</u>	<u>5.060</u>	<u>1,759,215</u>	1.401	1.083	<u>2,669,227</u>	
Total		137,666	5.300	8,066,936			12,583,056	17.25

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF EXPERIENCE BASE CLASS LOSS COST

FIRE

Territory	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Earned House Years	Trended Average Rating Factor	Total Adjusted Incurred Losses	Loss Trend Factor	Trended LAE Factor	Trended Adjusted Incurred Losses & LAE (3)x(4)x(5)	Experience Base Class Loss Cost (6)/[(1)x(2)]
170	2017	3,519	4.604	145,902	1.487	1.083	234,964	
	2018	3,682	4.634	477,355	1.466	1.083	757,886	
	2019	3,784	4.644	243,425	1.444	1.083	380,681	
	2020	3,987	4.627	207,580	1.423	1.083	319,903	
	<u>2021</u>	<u>4,251</u>	<u>4.633</u>	<u>381,307</u>	1.401	1.083	<u>578,551</u>	
	Total	19,223	4.629	1,455,569			2,271,985	25.53
	180	2017	29,436	4.411	1,921,210	1.487	1.083	3,093,957
2018		30,104	4.413	1,711,113	1.466	1.083	2,716,696	
2019		30,625	4.402	2,383,794	1.444	1.083	3,727,901	
2020		31,171	4.344	1,153,872	1.423	1.083	1,778,243	
<u>2021</u>		<u>31,821</u>	<u>4.300</u>	<u>1,946,485</u>	1.401	1.083	<u>2,953,369</u>	
Total		153,157	4.373	9,116,474			14,270,166	21.31
190		2017	12,121	3.902	871,773	1.487	1.083	1,403,922
	2018	12,621	3.888	1,232,177	1.466	1.083	1,956,300	
	2019	12,904	3.799	905,827	1.444	1.083	1,416,579	
	2020	13,228	3.690	1,146,781	1.423	1.083	1,767,315	
	<u>2021</u>	<u>13,719</u>	<u>3.645</u>	<u>1,128,366</u>	1.401	1.083	<u>1,712,051</u>	
	Total	64,593	3.782	5,284,924			8,256,167	33.80
	200	2017	7,579	4.079	984,129	1.487	1.083	1,584,862
2018		7,715	4.116	495,029	1.466	1.083	785,947	
2019		7,764	4.040	1,252,419	1.444	1.083	1,958,598	
2020		7,822	4.003	431,443	1.423	1.083	664,901	
<u>2021</u>		<u>8,019</u>	<u>3.947</u>	<u>1,225,774</u>	1.401	1.083	<u>1,859,846</u>	
Total		38,899	4.037	4,388,794			6,854,154	43.65
210		2017	9,160	3.872	987,447	1.487	1.083	1,590,205
	2018	9,606	3.845	830,771	1.466	1.083	1,318,997	
	2019	9,826	3.856	1,241,783	1.444	1.083	1,941,965	
	2020	10,169	3.860	811,048	1.423	1.083	1,249,913	
	<u>2021</u>	<u>10,759</u>	<u>3.859</u>	<u>680,995</u>	1.401	1.083	<u>1,033,262</u>	
	Total	49,520	3.858	4,552,044			7,134,342	37.34
	220	2017	32,700	6.031	2,462,082	1.487	1.083	3,964,989
2018		33,120	6.164	2,918,233	1.466	1.083	4,633,214	
2019		33,308	6.191	3,262,872	1.444	1.083	5,102,649	
2020		32,623	6.176	2,794,335	1.423	1.083	4,306,375	
<u>2021</u>		<u>31,904</u>	<u>6.039</u>	<u>2,865,299</u>	1.401	1.083	<u>4,347,469</u>	
Total		163,655	6.122	14,302,821			22,354,696	22.31

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF EXPERIENCE BASE CLASS LOSS COST

FIRE

		(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Earned	Trended	Total	Loss	Trended	Trended	Experience
<u>Territory</u>	<u>Year</u>	House	Average	Adjusted	Trend	LAE	Adjusted	Base Class
		Years	Rating	Incurred	Factor	Factor	Incurred	Loss Cost
			Factor	Losses			Losses & LAE	
							(3)x(4)x(5)	(6)/[(1)x(2)]
230	2017	20,009	3.141	1,840,085	1.487	1.083	2,963,312	
	2018	19,973	3.173	1,560,337	1.466	1.083	2,477,313	
	2019	19,655	3.252	1,976,066	1.444	1.083	3,090,275	
	2020	19,735	3.214	999,453	1.423	1.083	1,540,266	
	<u>2021</u>	<u>20,257</u>	<u>3.154</u>	<u>1,664,064</u>	1.401	1.083	<u>2,524,856</u>	
	Total	99,629	3.186	8,040,005			12,596,022	39.68
	240	2017	27,364	4.224	2,055,460	1.487	1.083	3,310,156
2018		27,959	4.196	2,974,794	1.466	1.083	4,723,015	
2019		28,581	4.147	1,833,273	1.444	1.083	2,866,968	
2020		29,145	4.132	2,056,928	1.423	1.083	3,169,950	
<u>2021</u>		<u>30,370</u>	<u>4.188</u>	<u>1,989,089</u>	1.401	1.083	<u>3,018,011</u>	
Total		143,419	4.177	10,909,544			17,088,100	28.52
250		2017	16,875	5.788	1,186,667	1.487	1.083	1,911,033
	2018	16,990	5.923	1,661,393	1.466	1.083	2,637,757	
	2019	17,204	5.999	1,263,774	1.444	1.083	1,976,355	
	2020	17,451	5.974	947,898	1.423	1.083	1,460,814	
	<u>2021</u>	<u>17,054</u>	<u>5.739</u>	<u>858,254</u>	1.401	1.083	<u>1,302,214</u>	
	Total	85,574	5.885	5,917,986			9,288,173	18.44
	260	2017	12,229	4.441	859,922	1.487	1.083	1,384,836
2018		12,541	4.421	1,562,097	1.466	1.083	2,480,107	
2019		14,296	4.856	1,075,062	1.444	1.083	1,681,238	
2020		14,329	4.804	817,983	1.423	1.083	1,260,601	
<u>2021</u>		<u>12,979</u>	<u>4.208</u>	<u>1,220,142</u>	1.401	1.083	<u>1,851,301</u>	
Total		66,374	4.564	5,535,206			8,658,083	28.58
270		2017	34,367	7.212	1,715,572	1.487	1.083	2,762,793
	2018	35,537	7.305	2,142,905	1.466	1.083	3,402,243	
	2019	36,525	7.390	1,560,777	1.444	1.083	2,440,824	
	2020	36,055	7.544	3,012,157	1.423	1.083	4,642,062	
	<u>2021</u>	<u>38,161</u>	<u>7.632</u>	<u>2,895,874</u>	1.401	1.083	<u>4,393,860</u>	
	Total	180,645	7.419	11,327,285			17,641,782	13.16
	280	2017	7,310	6.611	167,966	1.487	1.083	270,496
2018		7,490	6.705	94,510	1.466	1.083	150,051	
2019		7,653	6.653	256,523	1.444	1.083	401,164	
2020		7,826	6.531	504,041	1.423	1.083	776,782	
<u>2021</u>		<u>8,673</u>	<u>6.421</u>	<u>706,031</u>	1.401	1.083	<u>1,071,249</u>	
Total		38,952	6.579	1,729,071			2,669,742	10.42

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF EXPERIENCE BASE CLASS LOSS COST

FIRE

Territory	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Earned House Years	Trended Average Rating Factor	Total Adjusted Incurred Losses	Loss Trend Factor	Trended LAE Factor	Trended Adjusted Incurred Losses & LAE (3)x(4)x(5)	Experience Base Class Loss Cost (6)/[(1)x(2)]
290	2017	9,269	6.231	440,391	1.487	1.083	709,215	
	2018	9,284	6.343	627,317	1.466	1.083	995,977	
	2019	8,869	6.155	251,139	1.444	1.083	392,744	
	2020	8,403	5.972	939,056	1.423	1.083	1,447,188	
	<u>2021</u>	<u>8,665</u>	<u>5.985</u>	<u>839,636</u>	1.401	1.083	<u>1,273,965</u>	
	Total	44,490	6.143	3,097,539			4,819,089	17.63
300	2017	10,564	3.735	785,020	1.487	1.083	1,264,213	
	2018	10,566	3.743	1,111,553	1.466	1.083	1,764,788	
	2019	11,073	3.951	811,808	1.444	1.083	1,269,548	
	2020	11,950	4.140	949,565	1.423	1.083	1,463,383	
	<u>2021</u>	<u>12,275</u>	<u>4.077</u>	<u>982,063</u>	1.401	1.083	<u>1,490,067</u>	
	Total	56,428	3.940	4,640,009			7,251,999	32.62
310	2017	57,182	5.297	2,946,859	1.487	1.083	4,745,684	
	2018	56,736	5.273	3,190,141	1.466	1.083	5,064,917	
	2019	56,258	5.289	4,602,460	1.444	1.083	7,197,566	
	2020	57,602	5.397	3,873,071	1.423	1.083	5,968,825	
	<u>2021</u>	<u>59,708</u>	<u>5.428</u>	<u>4,621,964</u>	1.401	1.083	<u>7,012,827</u>	
	Total	287,486	5.338	19,234,495			29,989,819	19.54
320	2017	27,187	5.319	2,845,301	1.487	1.083	4,582,132	
	2018	26,915	5.228	1,563,751	1.466	1.083	2,482,733	
	2019	26,731	5.166	2,338,902	1.444	1.083	3,657,697	
	2020	26,303	5.099	2,066,228	1.423	1.083	3,184,283	
	<u>2021</u>	<u>26,871</u>	<u>5.113</u>	<u>3,027,306</u>	1.401	1.083	<u>4,593,280</u>	
	Total	134,007	5.186	11,841,488			18,500,125	26.62
330	2017	2,477	4.372	258,252	1.487	1.083	415,894	
	2018	2,455	4.312	107,642	1.466	1.083	170,901	
	2019	2,517	4.362	57,409	1.444	1.083	89,779	
	2020	2,579	4.169	75,936	1.423	1.083	117,026	
	<u>2021</u>	<u>2,536</u>	<u>3.932</u>	<u>82,332</u>	1.401	1.083	<u>124,921</u>	
	Total	12,564	4.229	581,571			918,521	17.29
340	2017	49,859	6.597	2,935,166	1.487	1.083	4,726,853	
	2018	49,422	6.638	4,361,540	1.466	1.083	6,924,721	
	2019	48,927	6.673	4,287,624	1.444	1.083	6,705,209	
	2020	49,057	6.700	3,636,560	1.423	1.083	5,604,335	
	<u>2021</u>	<u>49,652</u>	<u>6.662</u>	<u>3,710,468</u>	1.401	1.083	<u>5,629,830</u>	
	Total	246,917	6.653	18,931,358			29,590,948	18.01

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF EXPERIENCE BASE CLASS LOSS COST

FIRE

Territory	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Earned House Years	Trended Average Rating Factor	Total Adjusted Incurred Losses	Loss Trend Factor	Trended LAE Factor	Trended Adjusted Incurred Losses & LAE (3)x(4)x(5)	Experience Base Class Loss Cost (6)/[(1)x(2)]
350	2017	24,614	4.938	1,844,000	1.487	1.083	2,969,616	
	2018	24,315	4.924	1,850,822	1.466	1.083	2,938,509	
	2019	24,340	4.930	2,446,245	1.444	1.083	3,825,565	
	2020	24,586	4.972	1,755,231	1.423	1.083	2,705,002	
	<u>2021</u>	<u>25,286</u>	<u>5.019</u>	<u>2,310,623</u>	1.401	1.083	<u>3,505,869</u>	
	Total	123,141	4.957	10,206,921			15,944,561	26.12
360	2017	47,666	5.641	2,190,810	1.487	1.083	3,528,126	
	2018	46,719	5.638	1,831,448	1.466	1.083	2,907,750	
	2019	47,374	5.682	3,642,961	1.444	1.083	5,697,052	
	2020	47,807	5.705	2,130,629	1.423	1.083	3,283,532	
	<u>2021</u>	<u>47,613</u>	<u>5.730</u>	<u>2,772,537</u>	1.401	1.083	<u>4,206,723</u>	
	Total	237,179	5.679	12,568,385			19,623,183	14.57
370	2017	3,105	5.652	43,114	1.487	1.083	69,432	
	2018	3,014	5.591	420,984	1.466	1.083	668,387	
	2019	3,147	5.608	197,760	1.444	1.083	309,267	
	2020	3,268	5.673	83,718	1.423	1.083	129,019	
	<u>2021</u>	<u>3,244</u>	<u>5.874</u>	<u>55,217</u>	1.401	1.083	<u>83,780</u>	
	Total	15,778	5.682	800,793			1,259,885	14.05
380	2017	8,329	6.431	762,616	1.487	1.083	1,228,133	
	2018	8,260	6.487	522,617	1.466	1.083	829,748	
	2019	8,402	6.502	717,335	1.444	1.083	1,121,806	
	2020	8,592	6.506	645,071	1.423	1.083	994,125	
	<u>2021</u>	<u>8,570</u>	<u>6.525</u>	<u>91,956</u>	1.401	1.083	<u>139,523</u>	
	Total	42,153	6.491	2,739,595			4,313,335	15.76
390	2017	8,209	6.699	453,545	1.487	1.083	730,398	
	2018	8,137	6.653	992,111	1.466	1.083	1,575,153	
	2019	8,218	6.531	1,061,105	1.444	1.083	1,659,411	
	2020	8,208	6.378	46,882	1.423	1.083	72,250	
	<u>2021</u>	<u>8,193</u>	<u>6.399</u>	<u>293,577</u>	1.401	1.083	<u>445,439</u>	
	Total	40,965	6.532	2,847,220			4,482,651	16.75
Statewide	2017	631,323	5.425	37,882,585			61,006,909	
	2018	631,921	5.406	42,978,127			68,235,426	
	2019	633,872	5.396	46,159,755			72,187,024	
	2020	634,980	5.365	40,284,268			62,082,450	
	<u>2021</u>	<u>643,996</u>	<u>5.311</u>	<u>45,159,992</u>			<u>68,520,487</u>	
	Total	3,176,092	5.380	212,464,727			332,032,296	19.43

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

DERIVATION OF EXCESS FACTOR (EXCLUDING HURRICANE LOSSES)
EXTENDED COVERAGE

<u>Year</u>	(1) Reported Earned <u>Premium</u>	(2) Developed Incurred <u>Losses</u>	(3) Loss Ratio <u>(2)/(1)</u>	(4) Normal Loss Ratio	(5) Excess Loss Ratio <u>(3)-(4)</u>	(6) Total Excess Losses <u>(1)x(5)</u>	(7) Excess Ratio <u>(6)/(2)</u>
1992	29,900,438	4,742,564	0.159	0.159	0.000	0	0.000
1993	31,889,553	16,886,073	0.530	0.500	0.030	956,687	0.057
1994	34,062,149	8,139,204	0.239	0.239	0.000	0	0.000
1995	36,469,795	7,946,434	0.218	0.218	0.000	0	0.000
1996	40,105,731	10,177,932	0.254	0.254	0.000	0	0.000
1997	45,956,155	8,042,733	0.175	0.175	0.000	0	0.000
1998	50,483,351	19,677,761	0.390	0.390	0.000	0	0.000
1999	57,917,971	26,401,571	0.456	0.456	0.000	0	0.000
2000	64,276,450	14,556,461	0.226	0.226	0.000	0	0.000
2001	58,472,402	9,227,560	0.158	0.158	0.000	0	0.000
2002	62,801,958	15,725,972	0.250	0.250	0.000	0	0.000
2003	70,166,881	19,351,691	0.276	0.276	0.000	0	0.000
2004	77,384,514	15,018,657	0.194	0.194	0.000	0	0.000
2005	86,660,735	15,298,940	0.177	0.177	0.000	0	0.000
2006	93,459,391	16,657,822	0.178	0.178	0.000	0	0.000
2007	107,421,691	18,390,566	0.171	0.171	0.000	0	0.000
2008	88,217,778	13,999,208	0.159	0.159	0.000	0	0.000
2009	111,244,031	29,274,749	0.263	0.263	0.000	0	0.000
2010	112,338,979	36,014,031	0.321	0.321	0.000	0	0.000
2011	111,845,007	106,994,195	0.957	0.500	0.457	51,113,168	0.478
2012	114,730,408	43,404,563	0.378	0.378	0.000	0	0.000
2013	130,312,911	36,515,999	0.280	0.280	0.000	0	0.000
2014	129,484,769	41,392,117	0.320	0.320	0.000	0	0.000
2015	144,645,016	41,215,981	0.285	0.285	0.000	0	0.000
2016	151,098,382	43,539,523	0.288	0.288	0.000	0	0.000
2017	150,970,492	50,631,512	0.335	0.335	0.000	0	0.000
2018	150,499,179	58,969,831	0.392	0.392	0.000	0	0.000
2019	165,498,577	56,026,234	0.339	0.339	0.000	0	0.000
2020	181,458,232	77,276,055	0.426	0.426	0.000	0	0.000
2021	192,527,058	58,662,049	0.305	0.305	0.000	0	0.000
Total	2,882,299,984	920,157,988	9.099	8.612	0.487	52,069,855	
Average			0.303	0.287	0.016		

Average Excess Loss Ratio = Avg of column (5) 0.016
Average Normal Loss Ratio = Avg of column (4) 0.287

Excess Factor = 1.0 + (avg (5)/avg (4)) =
= 1.0 + (0.016 / 0.287) = 1.056

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

DEVELOPMENT OF EXCESS LOSSES ON A \$500 DEDUCTIBLE LEVEL
EXTENDED COVERAGE

<u>Accident</u> <u>Year</u>	<u>Non-Hurricane</u> <u>Adjusted</u> <u>Incurred Losses</u>	<u>Excess</u> <u>Ratio</u>	<u>Adjusted Incurred</u> <u>Excess Losses</u>
2017	54,934,539	0.000	0
2018	64,161,714	0.000	0
2019	60,922,438	0.000	0
2020	84,268,022	0.000	0
2021	64,543,789	0.000	0

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TERRITORY EXCESS LOSSES
EXTENDED COVERAGE

Territory Group	Territory	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Reported Earned Premium	Non-Hurricane Developed Incurred Losses	Loss Ratio (2)/(1)	Normal Loss Ratio	Excess Loss Ratio (3)-(4)	Total Excess Losses (1)x(5)	Excess Ratio (6)/(2)
Beach	110	2017	21,199,250	1,928,844	0.091	0.091	0.000	0	0.000
		2018	20,304,876	2,459,146	0.121	0.121	0.000	0	0.000
		2019	20,412,981	1,759,934	0.086	0.086	0.000	0	0.000
		2020	20,702,313	2,304,935	0.111	0.111	0.000	0	0.000
		<u>2021</u>	<u>22,226,462</u>	<u>1,261,514</u>	0.057	0.057	0.000	<u>0</u>	0.000
		Total	104,845,882	9,714,373				0	
	120	2017	25,263,683	1,619,537	0.064	0.064	0.000	0	0.000
		2018	23,835,348	3,132,336	0.131	0.131	0.000	0	0.000
		2019	23,874,891	1,431,528	0.060	0.060	0.000	0	0.000
		2020	24,445,297	1,720,157	0.070	0.070	0.000	0	0.000
<u>2021</u>		<u>25,895,695</u>	<u>1,313,400</u>	0.051	0.051	0.000	<u>0</u>	0.000	
Total		123,314,914	9,216,958				0		
Coast	130	2017	2,071,407	308,723	0.149	0.149	0.000	0	0.000
		2018	2,118,967	353,906	0.167	0.167	0.000	0	0.000
		2019	2,431,628	388,831	0.160	0.160	0.000	0	0.000
		2020	2,807,725	585,446	0.209	0.209	0.000	0	0.000
		<u>2021</u>	<u>3,105,634</u>	<u>412,356</u>	0.133	0.133	0.000	<u>0</u>	0.000
		Total	12,535,361	2,049,262				0	
	140	2017	15,521,526	2,417,587	0.156	0.156	0.000	0	0.000
		2018	15,466,441	2,959,268	0.191	0.191	0.000	0	0.000
		2019	16,674,025	2,562,635	0.154	0.154	0.000	0	0.000
		2020	18,406,827	3,046,493	0.166	0.166	0.000	0	0.000
<u>2021</u>		<u>20,850,329</u>	<u>3,945,166</u>	0.189	0.189	0.000	<u>0</u>	0.000	
Total		86,919,148	14,931,149				0		
150	2017	7,472,441	1,119,221	0.150	0.150	0.000	0	0.000	
	2018	7,586,042	2,163,373	0.285	0.285	0.000	0	0.000	
	2019	8,489,514	1,452,581	0.171	0.171	0.000	0	0.000	
	2020	9,299,682	2,782,758	0.299	0.299	0.000	0	0.000	
	<u>2021</u>	<u>9,612,948</u>	<u>3,894,383</u>	0.405	0.405	0.000	<u>0</u>	0.000	
	Total	42,460,627	11,412,316				0		
160	2017	8,694,422	1,316,564	0.151	0.151	0.000	0	0.000	
	2018	7,977,639	2,010,325	0.252	0.252	0.000	0	0.000	
	2019	8,196,675	1,492,145	0.182	0.182	0.000	0	0.000	
	2020	8,472,949	1,998,997	0.236	0.236	0.000	0	0.000	
	<u>2021</u>	<u>8,541,566</u>	<u>2,228,627</u>	0.261	0.261	0.000	<u>0</u>	0.000	
	Total	41,883,251	9,046,658				0		

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TERRITORY EXCESS LOSSES
EXTENDED COVERAGE

Territory Group	Territory	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Reported Earned Premium	Non-Hurricane Developed Incurred Losses	Loss Ratio (2)/(1)	Normal Loss Ratio	Excess Loss Ratio (3)-(4)	Total Excess Losses (1)x(5)	Excess Ratio (6)/(2)
Inland	170	2017	504,919	111,275	0.220	0.220	0.000	0	0.000
		2018	546,746	247,827	0.453	0.453	0.000	0	0.000
		2019	652,589	2,160,964	3.311	0.500	2.811	1,834,428	0.849
		2020	785,989	909,978	1.158	0.500	0.658	517,181	0.568
		<u>2021</u>	<u>873,843</u>	<u>245,519</u>	0.281	0.281	0.000	0	0.000
		Total	3,364,086	3,675,563				2,351,609	
	180	2017	5,259,233	1,104,531	0.210	0.210	0.000	0	0.000
		2018	5,506,903	1,228,931	0.223	0.223	0.000	0	0.000
		2019	6,477,598	3,102,906	0.479	0.479	0.000	0	0.000
		2020	7,535,128	3,522,968	0.468	0.468	0.000	0	0.000
<u>2021</u>		<u>8,146,588</u>	<u>2,455,604</u>	0.301	0.301	0.000	0	0.000	
Total		32,925,450	11,414,940				0		
190	2017	1,749,110	449,406	0.257	0.257	0.000	0	0.000	
	2018	1,863,794	473,069	0.254	0.254	0.000	0	0.000	
	2019	2,159,801	519,422	0.240	0.240	0.000	0	0.000	
	2020	2,511,543	1,016,350	0.405	0.405	0.000	0	0.000	
	<u>2021</u>	<u>2,909,362</u>	<u>915,887</u>	0.315	0.315	0.000	0	0.000	
	Total	11,193,610	3,374,134				0		
200	2017	966,795	220,427	0.228	0.228	0.000	0	0.000	
	2018	995,907	179,474	0.180	0.180	0.000	0	0.000	
	2019	1,224,037	272,791	0.223	0.223	0.000	0	0.000	
	2020	1,538,779	512,869	0.333	0.333	0.000	0	0.000	
	<u>2021</u>	<u>1,805,249</u>	<u>230,473</u>	0.128	0.128	0.000	0	0.000	
	Total	6,530,767	1,416,034				0		
210	2017	1,209,503	364,950	0.302	0.302	0.000	0	0.000	
	2018	1,311,169	359,317	0.274	0.274	0.000	0	0.000	
	2019	1,530,355	920,014	0.601	0.500	0.101	154,566	0.168	
	2020	1,835,263	1,582,848	0.862	0.500	0.362	664,365	0.420	
	<u>2021</u>	<u>2,116,185</u>	<u>1,002,414</u>	0.474	0.474	0.000	0	0.000	
	Total	8,002,475	4,229,543				818,931		
220	2017	7,716,877	4,513,501	0.585	0.500	0.085	655,935	0.145	
	2018	8,169,357	5,290,988	0.648	0.500	0.148	1,209,065	0.229	
	2019	9,809,334	3,696,831	0.377	0.377	0.000	0	0.000	
	2020	10,891,045	5,731,895	0.526	0.500	0.026	283,167	0.049	
	<u>2021</u>	<u>11,170,883</u>	<u>4,333,735</u>	0.388	0.388	0.000	0	0.000	
	Total	47,757,496	23,566,950				2,148,167		

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TERRITORY EXCESS LOSSES
EXTENDED COVERAGE

Territory Group	Territory	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Reported Earned Premium	Non-Hurricane Developed Incurred Losses	Loss Ratio (2)/(1)	Normal Loss Ratio	Excess Loss Ratio (3)-(4)	Total Excess Losses (1)x(5)	Excess Ratio (6)/(2)
Inland	230	2017	2,247,272	245,066	0.109	0.109	0.000	0	0.000
		2018	2,286,913	380,992	0.167	0.167	0.000	0	0.000
		2019	2,766,878	525,507	0.190	0.190	0.000	0	0.000
		2020	3,355,129	1,254,112	0.374	0.374	0.000	0	0.000
		<u>2021</u>	<u>3,744,658</u>	<u>1,515,222</u>	0.405	0.405	0.000	<u>0</u>	0.000
		Total	14,400,850	3,920,899				0	
	240	2017	3,800,596	1,216,626	0.320	0.320	0.000	0	0.000
		2018	3,984,376	1,779,491	0.447	0.447	0.000	0	0.000
		2019	4,540,213	2,940,336	0.648	0.500	0.148	671,952	0.229
		2020	5,207,098	3,725,834	0.716	0.500	0.216	1,124,733	0.302
		<u>2021</u>	<u>5,612,667</u>	<u>3,471,113</u>	0.618	0.500	0.118	<u>662,295</u>	0.191
		Total	23,144,950	13,133,400				2,458,980	
	250	2017	3,730,252	1,308,818	0.351	0.351	0.000	0	0.000
		2018	3,882,440	1,870,235	0.482	0.482	0.000	0	0.000
		2019	4,791,609	1,661,368	0.347	0.347	0.000	0	0.000
		2020	5,567,410	3,099,909	0.557	0.500	0.057	317,342	0.102
		<u>2021</u>	<u>5,176,635</u>	<u>2,220,851</u>	0.429	0.429	0.000	<u>0</u>	0.000
		Total	23,148,346	10,161,181				317,342	
	260	2017	1,303,625	374,975	0.288	0.288	0.000	0	0.000
		2018	1,369,086	715,631	0.523	0.500	0.023	31,489	0.044
		2019	2,255,512	911,029	0.404	0.404	0.000	0	0.000
2020		2,643,776	1,320,577	0.500	0.500	0.000	0	0.000	
<u>2021</u>		<u>2,161,308</u>	<u>1,218,762</u>	0.564	0.500	0.064	<u>138,324</u>	0.113	
Total		9,733,307	4,540,974				169,813		
270	2017	7,593,219	7,006,033	0.923	0.500	0.423	3,211,932	0.458	
	2018	8,036,273	4,822,424	0.600	0.500	0.100	803,627	0.167	
	2019	9,303,751	6,380,223	0.686	0.500	0.186	1,730,498	0.271	
	2020	10,257,139	9,533,082	0.929	0.500	0.429	4,400,313	0.462	
	<u>2021</u>	<u>11,202,102</u>	<u>4,989,257</u>	0.445	0.445	0.000	<u>0</u>	0.000	
	Total	46,392,484	32,731,019				10,146,370		
280	2017	1,262,734	669,930	0.531	0.500	0.031	39,145	0.058	
	2018	1,349,703	521,341	0.386	0.386	0.000	0	0.000	
	2019	1,547,680	717,592	0.464	0.464	0.000	0	0.000	
	2020	1,762,008	1,169,562	0.664	0.500	0.164	288,969	0.247	
	<u>2021</u>	<u>2,129,562</u>	<u>920,071</u>	0.432	0.432	0.000	<u>0</u>	0.000	
	Total	8,051,687	3,998,496				328,114		

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TERRITORY EXCESS LOSSES
EXTENDED COVERAGE

Territory Group	Territory	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Reported Earned Premium	Non-Hurricane Developed Incurred Losses	Loss Ratio (2)/(1)	Normal Loss Ratio	Excess Loss Ratio (3)-(4)	Total Excess Losses (1)x(5)	Excess Ratio (6)/(2)
Inland	290	2017	2,246,514	671,029	0.299	0.299	0.000	0	0.000
		2018	2,293,845	1,107,720	0.483	0.483	0.000	0	0.000
		2019	2,444,588	571,360	0.234	0.234	0.000	0	0.000
		2020	2,293,066	699,601	0.305	0.305	0.000	0	0.000
		<u>2021</u>	<u>2,298,095</u>	<u>731,059</u>	0.318	0.318	0.000	<u>0</u>	0.000
		Total	11,576,108	3,780,769				0	
	300	2017	937,856	412,492	0.440	0.440	0.000	0	0.000
		2018	955,295	452,503	0.474	0.474	0.000	0	0.000
		2019	1,244,319	434,640	0.349	0.349	0.000	0	0.000
		2020	1,621,766	1,883,826	1.162	0.500	0.662	1,073,609	0.570
		<u>2021</u>	<u>1,780,395</u>	<u>663,438</u>	0.373	0.373	0.000	<u>0</u>	0.000
		Total	6,539,631	3,846,899				1,073,609	
	310	2017	7,247,098	4,765,873	0.658	0.500	0.158	1,145,041	0.240
		2018	7,386,452	8,752,869	1.185	0.500	0.685	5,059,720	0.578
		2019	8,426,672	5,404,816	0.641	0.500	0.141	1,188,161	0.220
		2020	10,182,975	7,126,224	0.700	0.500	0.200	2,036,595	0.286
		<u>2021</u>	<u>10,884,663</u>	<u>6,422,412</u>	0.590	0.500	0.090	<u>979,620</u>	0.153
		Total	44,127,860	32,472,194				10,409,137	
	320	2017	3,861,742	2,445,046	0.633	0.500	0.133	513,612	0.210
		2018	3,899,083	2,590,405	0.664	0.500	0.164	639,450	0.247
		2019	4,313,061	3,236,561	0.750	0.500	0.250	1,078,265	0.333
2020		4,722,922	3,261,113	0.690	0.500	0.190	897,355	0.275	
<u>2021</u>		<u>5,004,156</u>	<u>3,365,818</u>	0.673	0.500	0.173	<u>865,719</u>	0.257	
Total		21,800,964	14,898,943				3,994,401		
330	2017	203,459	321,007	1.578	0.500	1.078	219,329	0.683	
	2018	206,796	155,040	0.750	0.500	0.250	51,699	0.333	
	2019	258,261	174,475	0.676	0.500	0.176	45,454	0.261	
	2020	319,680	158,541	0.496	0.496	0.000	0	0.000	
	<u>2021</u>	<u>315,777</u>	<u>136,956</u>	0.434	0.434	0.000	<u>0</u>	0.000	
	Total	1,303,973	946,019				316,482		
340	2017	7,448,216	7,417,108	0.996	0.500	0.496	3,694,315	0.498	
	2018	7,594,139	7,347,925	0.968	0.500	0.468	3,554,057	0.484	
	2019	8,851,379	7,205,188	0.814	0.500	0.314	2,779,333	0.386	
	2020	10,328,461	10,568,936	1.023	0.500	0.523	5,401,785	0.511	
	<u>2021</u>	<u>10,600,903</u>	<u>5,274,766</u>	0.498	0.498	0.000	<u>0</u>	0.000	
	Total	44,823,098	37,813,923				15,429,490		

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TERRITORY EXCESS LOSSES
EXTENDED COVERAGE

Territory Group	Territory	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Reported Earned Premium	Non-Hurricane Developed Incurred Losses	Loss Ratio (2)/(1)	Normal Loss Ratio	Excess Loss Ratio (3)-(4)	Total Excess Losses (1)x(5)	Excess Ratio (6)/(2)
Inland	350	2017	2,872,219	2,336,255	0.813	0.500	0.313	899,005	0.385
		2018	2,893,164	2,694,648	0.931	0.500	0.431	1,246,954	0.463
		2019	3,252,411	1,708,385	0.525	0.500	0.025	81,310	0.048
		2020	3,756,754	2,752,649	0.733	0.500	0.233	875,324	0.318
		<u>2021</u>	<u>4,008,276</u>	<u>1,680,388</u>	0.419	0.419	0.000	<u>0</u>	0.000
		Total	16,782,824	11,172,325				3,102,593	
	360	2017	6,122,283	4,721,121	0.771	0.500	0.271	1,659,139	0.351
		2018	6,166,989	3,512,114	0.570	0.500	0.070	431,689	0.123
		2019	6,874,826	3,286,456	0.478	0.478	0.000	0	0.000
		2020	7,419,655	3,517,769	0.474	0.474	0.000	0	0.000
		<u>2021</u>	<u>7,536,470</u>	<u>2,890,298</u>	0.384	0.384	0.000	<u>0</u>	0.000
		Total	34,120,223	17,927,758				2,090,828	
	370	2017	326,056	117,509	0.360	0.360	0.000	0	0.000
		2018	333,366	231,948	0.696	0.500	0.196	65,340	0.282
		2019	381,664	247,612	0.649	0.500	0.149	56,868	0.230
		2020	433,870	157,132	0.362	0.362	0.000	0	0.000
		<u>2021</u>	<u>456,511</u>	<u>123,738</u>	0.271	0.271	0.000	<u>0</u>	0.000
		Total	1,931,467	877,939				122,208	
	380	2017	1,052,985	546,471	0.519	0.500	0.019	20,007	0.037
		2018	1,083,702	644,049	0.594	0.500	0.094	101,868	0.158
2019		1,165,602	444,845	0.382	0.382	0.000	0	0.000	
2020		1,210,196	804,808	0.665	0.500	0.165	199,682	0.248	
<u>2021</u>		<u>1,218,994</u>	<u>469,768</u>	0.385	0.385	0.000	<u>0</u>	0.000	
Total		5,731,479	2,909,941				321,557		
390	2017	1,085,200	581,587	0.536	0.500	0.036	39,067	0.067	
	2018	1,094,368	532,536	0.487	0.487	0.000	0	0.000	
	2019	1,146,723	415,259	0.362	0.362	0.000	0	0.000	
	2020	1,143,787	526,686	0.460	0.460	0.000	0	0.000	
	<u>2021</u>	<u>1,141,142</u>	<u>329,054</u>	0.288	0.288	0.000	<u>0</u>	0.000	
	Total	5,611,220	2,385,122				39,067		
Statewide	2017	150,970,492	50,631,512				12,096,527		
	2018	150,499,179	58,969,831				13,194,958		
	2019	165,498,577	56,026,234				9,620,835		
	2020	181,458,232	77,276,055				18,080,420		
	<u>2021</u>	<u>192,527,058</u>	<u>58,662,049</u>				<u>2,645,958</u>		
	Total	840,953,538	301,565,681				55,638,698		

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

DEVELOPMENT OF TERRITORY EXCESS LOSSES ON A \$500 DEDUCTIBLE LEVEL
EXTENDED COVERAGE

Territory Group	Territory	Year	(1)	(2)	(3)	(4)	(5)
			Total Adjusted Incurred Losses	Hurricane Adjusted Incurred Losses	Non-Hurricane Adjusted Incurred Losses (1) - (2)	Excess Ratio	Adjusted Incurred Excess Losses (3) x (4)
Beach	110	2017	2,341,390	10,829	2,330,561	0.000	0
		2018	3,673,911	731,201	2,942,710	0.000	0
		2019	11,700,142	9,614,911	2,085,231	0.000	0
		2020	2,971,806	217,251	2,754,555	0.000	0
		<u>2021</u>	<u>1,540,221</u>	<u>45,728</u>	<u>1,494,493</u>	0.000	<u>0</u>
	Total	22,227,470	10,619,920	11,607,550		0	
	120	2017	1,955,907	28,945	1,926,962	0.000	0
		2018	191,596,627	187,781,134	3,815,493	0.000	0
		2019	6,868,466	4,877,221	1,991,245	0.000	0
		2020	10,867,344	8,815,691	2,051,653	0.000	0
<u>2021</u>		<u>1,780,532</u>	<u>209,689</u>	<u>1,570,843</u>	0.000	<u>0</u>	
Total	213,068,876	201,712,680	11,356,196		0		
Coast	130	2017	372,972	15,303	357,669	0.000	0
		2018	4,454,453	4,063,119	391,334	0.000	0
		2019	2,135,575	1,701,372	434,203	0.000	0
		2020	848,988	179,575	669,413	0.000	0
		<u>2021</u>	<u>472,344</u>	<u>0</u>	<u>472,344</u>	0.000	<u>0</u>
	Total	8,284,332	5,959,369	2,324,963		0	
	140	2017	2,806,541	4,720	2,801,821	0.000	0
		2018	169,777,930	166,320,387	3,457,543	0.000	0
		2019	6,976,111	4,005,817	2,970,294	0.000	0
		2020	8,905,193	5,413,849	3,491,344	0.000	0
<u>2021</u>		<u>4,851,831</u>	<u>93,462</u>	<u>4,758,369</u>	0.000	<u>0</u>	
Total	193,317,606	175,838,235	17,479,371		0		
150	2017	1,266,326	16,534	1,249,792	0.000	0	
	2018	27,009,889	24,553,959	2,455,930	0.000	0	
	2019	4,530,385	2,893,234	1,637,151	0.000	0	
	2020	5,349,111	2,208,569	3,140,542	0.000	0	
	<u>2021</u>	<u>4,617,493</u>	<u>126,947</u>	<u>4,490,546</u>	0.000	<u>0</u>	
Total	42,773,204	29,799,243	12,973,961		0		
160	2017	1,462,293	0	1,462,293	0.000	0	
	2018	94,566,587	92,277,805	2,288,782	0.000	0	
	2019	2,606,835	930,324	1,676,511	0.000	0	
	2020	4,701,973	2,442,272	2,259,701	0.000	0	
	<u>2021</u>	<u>2,696,122</u>	<u>139,324</u>	<u>2,556,798</u>	0.000	<u>0</u>	
Total	106,033,810	95,789,725	10,244,085		0		

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

DEVELOPMENT OF TERRITORY EXCESS LOSSES ON A \$500 DEDUCTIBLE LEVEL
EXTENDED COVERAGE

Territory Group	Territory	Year	(1)	(2)	(3)	(4)	(5)
			Total Adjusted Incurred Losses	Hurricane Adjusted Incurred Losses	Non-Hurricane Adjusted Incurred Losses (1) - (2)	Excess Ratio	Adjusted Incurred Excess Losses (3) x (4)
Inland	170	2017	121,292	0	121,292	0.000	0
		2018	326,727	66,826	259,901	0.000	0
		2019	2,315,305	34,612	2,280,693	0.849	1,936,308
		2020	1,461,757	489,463	972,294	0.568	552,263
		<u>2021</u>	<u>281,450</u>	<u>17,198</u>	<u>264,252</u>	0.000	<u>0</u>
		Total	4,506,531	608,099	3,898,432		2,488,571
	180	2017	1,176,288	9,155	1,167,133	0.000	0
		2018	7,661,181	6,354,815	1,306,366	0.000	0
		2019	4,147,889	867,664	3,280,225	0.000	0
		2020	5,474,203	1,712,331	3,761,872	0.000	0
		<u>2021</u>	<u>2,960,540</u>	<u>275,080</u>	<u>2,685,460</u>	0.000	<u>0</u>
		Total	21,420,101	9,219,045	12,201,056		0
	190	2017	469,947	0	469,947	0.000	0
		2018	11,296,791	10,792,423	504,368	0.000	0
		2019	1,016,974	475,035	541,939	0.000	0
		2020	1,507,594	441,852	1,065,742	0.000	0
		<u>2021</u>	<u>1,032,300</u>	<u>65,494</u>	<u>966,806</u>	0.000	<u>0</u>
		Total	15,323,606	11,774,804	3,548,802		0
	200	2017	246,797	0	246,797	0.000	0
		2018	11,005,823	10,818,582	187,241	0.000	0
		2019	669,663	379,641	290,022	0.000	0
		2020	851,925	309,544	542,381	0.000	0
		<u>2021</u>	<u>253,126</u>	<u>1,551</u>	<u>251,575</u>	0.000	<u>0</u>
		Total	13,027,334	11,509,318	1,518,016		0
	210	2017	376,093	1,826	374,267	0.000	0
		2018	1,066,766	688,503	378,263	0.000	0
		2019	1,020,847	45,854	974,993	0.168	163,799
		2020	1,857,254	183,598	1,673,656	0.420	702,936
		<u>2021</u>	<u>1,217,666</u>	<u>129,329</u>	<u>1,088,337</u>	0.000	<u>0</u>
		Total	5,538,626	1,049,110	4,489,516		866,735
	220	2017	4,762,614	36,259	4,726,355	0.145	685,321
		2018	29,391,581	23,888,604	5,502,977	0.229	1,260,182
		2019	4,278,616	392,857	3,885,759	0.000	0
		2020	6,704,779	676,388	6,028,391	0.049	295,391
		<u>2021</u>	<u>4,925,248</u>	<u>350,407</u>	<u>4,574,841</u>	0.000	<u>0</u>
		Total	50,062,838	25,344,515	24,718,323		2,240,894

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

DEVELOPMENT OF TERRITORY EXCESS LOSSES ON A \$500 DEDUCTIBLE LEVEL
EXTENDED COVERAGE

Territory Group	Territory	Year	(1)	(2)	(3)	(4)	(5)
			Total Adjusted Incurred Losses	Hurricane Adjusted Incurred Losses	Non-Hurricane Adjusted Incurred Losses (1) - (2)	Excess Ratio	Adjusted Incurred Excess Losses (3) x (4)
Inland	230	2017	254,416	892	253,524	0.000	0
		2018	16,839,799	16,430,670	409,129	0.000	0
		2019	675,923	129,099	546,824	0.000	0
		2020	1,393,157	85,678	1,307,479	0.000	0
		<u>2021</u>	<u>1,769,987</u>	<u>48,777</u>	<u>1,721,210</u>	0.000	<u>0</u>
	Total	20,933,282	16,695,116	4,238,166		0	
	240	2017	1,332,230	10,172	1,322,058	0.000	0
		2018	4,947,692	3,092,404	1,855,288	0.000	0
		2019	3,383,029	245,665	3,137,364	0.229	718,456
		2020	4,515,396	531,341	3,984,055	0.302	1,203,185
		<u>2021</u>	<u>4,036,947</u>	<u>271,752</u>	<u>3,765,195</u>	0.191	<u>719,152</u>
		Total	18,215,294	4,151,334	14,063,960		2,640,793
	250	2017	1,385,250	13,135	1,372,115	0.000	0
		2018	12,139,322	10,158,850	1,980,472	0.000	0
		2019	1,912,447	159,411	1,753,036	0.000	0
2020		3,654,286	343,595	3,310,691	0.102	337,690	
<u>2021</u>		<u>2,487,772</u>	<u>90,315</u>	<u>2,397,457</u>	0.000	<u>0</u>	
Total		21,579,077	10,765,306	10,813,771		337,690	
260	2017	403,886	0	403,886	0.000	0	
	2018	1,674,894	888,312	786,582	0.044	34,610	
	2019	982,153	3,799	978,354	0.000	0	
	2020	1,554,037	152,407	1,401,630	0.000	0	
	<u>2021</u>	<u>1,303,873</u>	<u>21,257</u>	<u>1,282,616</u>	0.113	<u>144,936</u>	
	Total	5,918,843	1,065,775	4,853,068		179,546	
270	2017	7,691,581	7,736	7,683,845	0.458	3,519,201	
	2018	7,151,859	1,951,134	5,200,725	0.167	868,521	
	2019	7,144,524	88,926	7,055,598	0.271	1,912,067	
	2020	11,113,011	624,864	10,488,147	0.462	4,845,524	
	<u>2021</u>	<u>5,604,062</u>	<u>173,099</u>	<u>5,430,963</u>	0.000	<u>0</u>	
	Total	38,705,037	2,845,759	35,859,278		11,145,313	
280	2017	731,378	0	731,378	0.058	42,420	
	2018	1,101,011	528,653	572,358	0.000	0	
	2019	789,914	1,225	788,689	0.000	0	
	2020	1,363,015	72,240	1,290,775	0.247	318,821	
	<u>2021</u>	<u>1,088,329</u>	<u>76,882</u>	<u>1,011,447</u>	0.000	<u>0</u>	
	Total	5,073,647	679,000	4,394,647		361,241	

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

DEVELOPMENT OF TERRITORY EXCESS LOSSES ON A \$500 DEDUCTIBLE LEVEL
EXTENDED COVERAGE

Territory Group	Territory	Year	(1) Total Adjusted Incurred Losses	(2) Hurricane Adjusted Incurred Losses	(3) Non-Hurricane Adjusted Incurred Losses (1) - (2)	(4) Excess Ratio	(5) Adjusted Incurred Excess Losses (3) x (4)
Inland	290	2017	729,655	9,197	720,458	0.000	0
		2018	3,004,051	1,843,424	1,160,627	0.000	0
		2019	635,189	0	635,189	0.000	0
		2020	789,617	48,045	741,572	0.000	0
		<u>2021</u>	<u>786,353</u>	<u>4,117</u>	<u>782,236</u>	0.000	<u>0</u>
		Total	5,944,865	1,904,783	4,040,082		0
	300	2017	447,901	0	447,901	0.000	0
		2018	3,562,022	3,076,603	485,419	0.000	0
		2019	470,985	7,362	463,623	0.000	0
		2020	2,170,208	163,690	2,006,518	0.570	1,143,715
		<u>2021</u>	<u>721,177</u>	<u>14,414</u>	<u>706,763</u>	0.000	<u>0</u>
		Total	7,372,293	3,262,069	4,110,224		1,143,715
	310	2017	5,033,582	0	5,033,582	0.240	1,208,060
		2018	13,940,810	4,533,699	9,407,111	0.578	5,437,310
		2019	5,789,202	32,246	5,756,956	0.220	1,266,530
		2020	9,475,217	1,855,613	7,619,604	0.286	2,179,207
<u>2021</u>		<u>7,126,033</u>	<u>173,145</u>	<u>6,952,888</u>	0.153	<u>1,063,792</u>	
Total		41,364,844	6,594,703	34,770,141		11,154,899	
320	2017	2,578,293	0	2,578,293	0.210	541,442	
	2018	4,952,181	2,158,847	2,793,334	0.247	689,953	
	2019	3,459,223	12,530	3,446,693	0.333	1,147,749	
	2020	4,343,653	684,525	3,659,128	0.275	1,006,260	
	<u>2021</u>	<u>3,795,791</u>	<u>64,902</u>	<u>3,730,889</u>	0.257	<u>958,838</u>	
	Total	19,129,141	2,920,804	16,208,337		4,344,242	
330	2017	318,642	0	318,642	0.683	217,632	
	2018	175,791	13,954	161,837	0.333	53,892	
	2019	180,607	0	180,607	0.261	47,138	
	2020	286,632	115,608	171,024	0.000	0	
	<u>2021</u>	<u>149,716</u>	<u>0</u>	<u>149,716</u>	0.000	<u>0</u>	
	Total	1,111,388	129,562	981,826		318,662	
340	2017	8,002,132	92,033	7,910,099	0.498	3,939,229	
	2018	11,742,892	3,951,220	7,791,672	0.484	3,771,169	
	2019	7,739,767	49,649	7,690,118	0.386	2,968,386	
	2020	12,844,918	1,307,643	11,537,275	0.511	5,895,548	
	<u>2021</u>	<u>5,772,960</u>	<u>192,138</u>	<u>5,580,822</u>	0.000	<u>0</u>	
	Total	46,102,669	5,592,683	40,509,986		16,574,332	

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

DEVELOPMENT OF TERRITORY EXCESS LOSSES ON A \$500 DEDUCTIBLE LEVEL
EXTENDED COVERAGE

Territory Group	Territory	Year	(1) Total Adjusted Incurred Losses	(2) Hurricane Adjusted Incurred Losses	(3) Non-Hurricane Adjusted Incurred Losses (1) - (2)	(4) Excess Ratio	(5) Adjusted Incurred Excess Losses (3) x (4)
Inland	350	2017	2,481,536	7,986	2,473,550	0.385	952,317
		2018	3,696,449	880,155	2,816,294	0.463	1,303,944
		2019	1,822,196	28,434	1,793,762	0.048	86,101
		2020	3,522,629	624,820	2,897,809	0.318	921,503
		<u>2021</u>	<u>1,832,492</u>	<u>53,369</u>	<u>1,779,123</u>	0.000	<u>0</u>
		Total	13,355,302	1,594,764	11,760,538		3,263,865
	360	2017	5,090,719	254	5,090,465	0.351	1,786,753
		2018	4,774,917	1,054,860	3,720,057	0.123	457,567
		2019	3,504,700	46,447	3,458,253	0.000	0
		2020	4,684,676	901,345	3,783,331	0.000	0
		<u>2021</u>	<u>3,142,434</u>	<u>66,661</u>	<u>3,075,773</u>	0.000	<u>0</u>
		Total	21,197,446	2,069,567	19,127,879		2,244,320
	370	2017	122,896	0	122,896	0.000	0
		2018	315,685	66,930	248,755	0.282	70,149
		2019	267,086	0	267,086	0.230	61,430
		2020	171,365	7,872	163,493	0.000	0
		<u>2021</u>	<u>129,820</u>	<u>0</u>	<u>129,820</u>	0.000	<u>0</u>
		Total	1,006,852	74,802	932,050		131,579
	380	2017	590,708	0	590,708	0.037	21,856
		2018	790,238	95,224	695,014	0.158	109,812
2019		473,770	0	473,770	0.000	0	
2020		1,019,913	94,390	925,523	0.248	229,530	
<u>2021</u>		<u>521,759</u>	<u>10,626</u>	<u>511,133</u>	0.000	<u>0</u>	
	Total	3,396,388	200,240	3,196,148		361,198	
390	2017	646,250	0	646,250	0.067	43,299	
	2018	669,695	83,563	586,132	0.000	0	
	2019	448,250	0	448,250	0.000	0	
	2020	617,463	49,039	568,424	0.000	0	
	<u>2021</u>	<u>361,074</u>	<u>0</u>	<u>361,074</u>	0.000	<u>0</u>	
	Total	2,742,732	132,602	2,610,130		43,299	
Statewide		2017	55,199,515	264,976	54,934,539		12,957,530
		2018	643,307,574	579,145,860	64,161,714		14,057,109
		2019	87,945,773	27,023,335	60,922,438		10,307,964
		2020	115,021,120	30,753,098	84,268,022		19,631,573
		<u>2021</u>	<u>67,259,452</u>	<u>2,715,663</u>	<u>64,543,789</u>		<u>2,886,718</u>
		Total	968,733,434	639,902,932	328,830,502		59,840,894

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

TERRITORY EXCESS HISTORY
EXTENDED COVERAGE

Territory Group ^(a)	Year	(1)	(2)	(3)	(4)	(5)
		Reported Earned <u>Premium</u>	Non-Hurricane Developed <u>Incurred Losses</u>	Loss Ratio <u>(2)/(1)</u>	Normal Loss Ratio	Excess Loss Ratio <u>(3)-(4)</u>
Beach	1992	10,360,778	221,952	0.021	0.021	0.000
	1993	11,250,305	5,507,038	0.490	0.490	0.000
	1994	12,810,077	908,287	0.071	0.071	0.000
	1995	14,277,092	610,612	0.043	0.043	0.000
	1996	16,284,838	1,368,719	0.084	0.084	0.000
	1997	20,632,874	857,168	0.042	0.042	0.000
	1998	21,926,477	5,178,232	0.236	0.236	0.000
	1999	25,611,849	11,081,702	0.433	0.433	0.000
	2000	28,077,262	1,501,064	0.053	0.053	0.000
	2001	21,673,412	1,149,484	0.053	0.053	0.000
	2002	22,940,351	1,165,195	0.051	0.051	0.000
	2003	26,026,651	3,007,193	0.116	0.116	0.000
	2004	29,879,061	2,228,458	0.075	0.075	0.000
	2005	34,544,227	2,142,282	0.062	0.062	0.000
	2006	37,440,178	2,133,444	0.057	0.057	0.000
	2007	45,036,237	2,439,041	0.054	0.054	0.000
	2008	48,846,340	2,162,126	0.044	0.044	0.000
	2009	45,439,460	2,755,214	0.061	0.061	0.000
	2010	43,461,783	2,770,274	0.064	0.064	0.000
	2011	38,091,605	1,974,297	0.052	0.052	0.000
	2012	36,029,152	2,076,940	0.058	0.058	0.000
	2013	37,644,589	2,369,563	0.063	0.063	0.000
	2014	42,698,055	2,579,285	0.060	0.060	0.000
	2015	46,223,933	3,746,603	0.081	0.081	0.000
	2016	47,013,981	2,595,281	0.055	0.055	0.000
	2017	46,462,933	3,548,381	0.076	0.076	0.000
	2018	44,140,224	5,591,482	0.127	0.127	0.000
	2019	44,287,872	3,191,462	0.072	0.072	0.000
	2020	45,147,610	4,025,092	0.089	0.089	0.000
	<u>2021</u>	48,122,157	2,574,914	<u>0.054</u>	<u>0.054</u>	<u>0.000</u>
	Average			0.097	0.097	0.000

Selected Excess Distributional Weight = 1.0

(a) The Beach Territory Group consists of current Territories 110 and 120, as well as past Territories 04, 05, 06, 07, and 08.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

TERRITORY EXCESS HISTORY
EXTENDED COVERAGE

Territory Group ^(a)	Year	(1)	(2)	(3)	(4)	(5)
		Reported Earned <u>Premium</u>	Non-Hurricane Developed <u>Incurred Losses</u>	Loss Ratio <u>(2)/(1)</u>	Normal Loss Ratio	Excess Loss Ratio <u>(3)-(4)</u>
Coast	1992	3,692,065	429,715	0.116	0.116	0.000
	1993	3,892,559	2,956,249	0.759	0.500	0.259
	1994	4,136,913	414,178	0.100	0.100	0.000
	1995	4,400,806	614,221	0.140	0.140	0.000
	1996	4,747,317	1,244,955	0.262	0.262	0.000
	1997	5,714,794	731,035	0.128	0.128	0.000
	1998	6,480,779	1,604,853	0.248	0.248	0.000
	1999	8,281,989	4,156,110	0.502	0.500	0.002
	2000	10,595,742	990,675	0.093	0.093	0.000
	2001	9,677,523	810,004	0.084	0.084	0.000
	2002	10,765,695	1,017,967	0.095	0.095	0.000
	2003	12,832,643	1,676,339	0.131	0.131	0.000
	2004	13,658,566	1,199,394	0.088	0.088	0.000
	2005	14,958,786	1,660,690	0.111	0.111	0.000
	2006	16,801,890	1,664,870	0.099	0.099	0.000
	2007	20,873,986	982,392	0.047	0.047	0.000
	2008	20,870,002	1,319,294	0.063	0.063	0.000
	2009	19,385,890	1,616,200	0.083	0.083	0.000
	2010	20,296,410	3,054,900	0.151	0.151	0.000
	2011	21,325,373	3,485,808	0.163	0.163	0.000
	2012	22,134,860	2,910,030	0.131	0.131	0.000
	2013	24,503,099	2,598,727	0.106	0.106	0.000
	2014	28,399,077	6,559,307	0.231	0.231	0.000
	2015	33,058,524	4,350,447	0.132	0.132	0.000
	2016	34,495,367	4,082,156	0.118	0.118	0.000
	2017	33,759,796	5,162,095	0.153	0.153	0.000
	2018	33,149,089	7,486,872	0.226	0.226	0.000
	2019	35,791,842	5,896,192	0.165	0.165	0.000
	2020	38,987,183	8,413,694	0.216	0.216	0.000
	<u>2021</u>	42,110,477	10,480,532	<u>0.249</u>	<u>0.249</u>	<u>0.000</u>
	Average			0.173	0.164	0.009

Selected Excess Distributional Weight = 1.5

(a) The Coast Territory Group consists of current Territories 130-160, as well as past Territories 30, 31, 42, 43, 48, 49, and 52.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

TERRITORY EXCESS HISTORY
EXTENDED COVERAGE

Territory Group ^(a)	Year	(1)	(2)	(3)	(4)	(5)
		Reported Earned <u>Premium</u>	Non-Hurricane Developed <u>Incurred Losses</u>	Loss Ratio <u>(2)/(1)</u>	Normal Loss Ratio	Excess Loss Ratio <u>(3)-(4)</u>
Inland	1992	15,847,594	4,090,896	0.258	0.258	0.000
	1993	16,746,689	8,422,786	0.503	0.500	0.003
	1994	17,115,160	6,816,738	0.398	0.398	0.000
	1995	17,791,896	6,721,602	0.378	0.378	0.000
	1996	18,828,702	7,485,717	0.398	0.398	0.000
	1997	19,326,674	6,386,230	0.330	0.330	0.000
	1998	21,566,331	12,756,189	0.591	0.500	0.091
	1999	24,024,133	11,163,759	0.465	0.465	0.000
	2000	25,603,446	12,064,722	0.471	0.471	0.000
	2001	27,121,467	7,268,072	0.268	0.268	0.000
	2002	29,095,912	13,542,810	0.465	0.465	0.000
	2003	31,307,587	14,668,157	0.469	0.469	0.000
	2004	33,846,888	11,590,805	0.342	0.342	0.000
	2005	37,157,722	11,523,625	0.310	0.310	0.000
	2006	39,217,323	12,863,339	0.328	0.328	0.000
	2007	41,511,468	14,991,832	0.361	0.361	0.000
	2008	18,501,436	10,517,787	0.568	0.500	0.068
	2009	46,418,680	24,903,333	0.536	0.500	0.036
	2010	48,580,790	30,188,858	0.621	0.500	0.121
	2011	52,428,029	101,534,090	1.937	0.500	1.437
	2012	56,566,396	38,417,593	0.679	0.500	0.179
	2013	68,165,223	31,547,709	0.463	0.463	0.000
	2014	58,387,637	32,253,525	0.552	0.500	0.052
	2015	65,362,559	33,118,931	0.507	0.500	0.007
	2016	69,589,034	36,862,086	0.530	0.500	0.030
	2017	70,747,763	41,921,036	0.593	0.500	0.093
	2018	73,209,866	45,891,477	0.627	0.500	0.127
	2019	85,418,863	46,938,580	0.550	0.500	0.050
	2020	97,323,439	64,837,269	0.666	0.500	0.166
	<u>2021</u>	102,294,424	45,606,603	<u>0.446</u>	<u>0.446</u>	<u>0.000</u>
	Average			0.520	0.438	0.082

Selected Excess Distributional Weight = 4.0

(a) The Inland Territory Group consists of current Territories 170-390, as well as past Territories 32-41, 44-47, 53, 57, and 60.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TERRITORY EXCESS FACTORS
EXTENDED COVERAGE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Total	Hurricane	Non-Hurricane	Non-Hurricane		Trended					
	Adjusted	Adjusted	Adjusted	Non-Excess	Loss	Non-Hurricane	Excess	Excess	Statewide	Excess	Territory
Territory	Incurred	Incurred	Incurred	Incurred Losses	Trend	Adjusted Incurred	Distributional	Amount	Excess	Unit	Excess
Group	Year	Losses	Losses	Excess Losses	Factor	Losses	Weight	(6)x(7)	Factor	(6)/(8)x[(9)-1.0]	1.0+[(7)x(10)]
Beach	2017	4,297,297	39,774	0	4,257,523	1.640	6,982,338	1.0	6,982,338		
	2018	195,270,538	188,512,335	0	6,758,203	1.576	10,650,928	1.0	10,650,928		
	2019	18,568,608	14,492,132	0	4,076,476	1.516	6,179,938	1.0	6,179,938		
	2020	13,839,150	9,032,942	0	4,806,208	1.458	7,007,451	1.0	7,007,451		
	<u>2021</u>	<u>3,320,753</u>	<u>255,417</u>	<u>0</u>	<u>3,065,336</u>	<u>1.401</u>	<u>4,294,536</u>	<u>1.0</u>	<u>4,294,536</u>		
	Total	235,296,346	212,332,600	0	22,963,746		35,115,191	1.0	35,115,191		
Coast	2017	5,908,132	36,557	0	5,871,575	1.640	9,629,383	1.5	14,444,075		
	2018	295,808,859	287,215,270	0	8,593,589	1.576	13,543,496	1.5	20,315,244		
	2019	16,248,906	9,530,747	0	6,718,159	1.516	10,184,729	1.5	15,277,094		
	2020	19,805,265	10,244,265	0	9,561,000	1.458	13,939,938	1.5	20,909,907		
	<u>2021</u>	<u>12,637,790</u>	<u>359,733</u>	<u>0</u>	<u>12,278,057</u>	<u>1.401</u>	<u>17,201,558</u>	<u>1.5</u>	<u>25,802,337</u>		
	Total	350,408,952	307,386,572	0	43,022,380		64,499,104	1.5	96,748,657		
Inland	2017	44,994,086	188,645	12,957,530	31,847,911	1.640	52,230,574	4.0	208,922,296		
	2018	152,228,177	103,418,255	14,057,109	34,752,813	1.576	54,770,433	4.0	219,081,732		
	2019	53,128,259	3,000,456	10,307,964	39,819,839	1.516	60,366,876	4.0	241,467,504		
	2020	81,376,705	11,475,891	19,631,573	50,269,241	1.458	73,292,553	4.0	293,170,212		
	<u>2021</u>	<u>51,300,909</u>	<u>2,100,513</u>	<u>2,886,718</u>	<u>46,313,678</u>	<u>1.401</u>	<u>64,885,463</u>	<u>4.0</u>	<u>259,541,852</u>		
	Total	383,028,136	120,183,760	59,840,894	203,003,482		305,545,899	4.0	1,222,183,596		
Statewide	968,733,434	639,902,932	59,840,894	268,989,608		405,160,194		1,354,047,444	1.056	0.016756	

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TRENDED AVERAGE RATING FACTORS
EXTENDED COVERAGE

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			Earned House Years	Current Manual Base Rate(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate (3) / (1)	Average Rating Factor (3)/[(1)x(2)]	Premium Trend Factor	Trended Aggregate Earned Premium at Current Level (3) x (6)	Trended Average Rating Factor (7)/[(1)x(2)]	
110	Buildings	2017	11,653	215	36,151,696	3,102.35	14.430	1.276	46,129,564	18.412	
		2018	11,288	215	35,024,817	3,102.84	14.432	1.258	44,061,220	18.155	
		2019	10,902	215	33,734,343	3,094.33	14.392	1.244	41,965,523	17.904	
		2020	10,592	215	32,595,844	3,077.40	14.313	1.235	40,255,867	17.677	
		2021	10,434	215	32,339,239	3,099.41	14.416	1.211	39,162,818	17.458	
		Total	54,869	215	169,845,939	3,095.48	14.398		211,574,992	17.935	
	Contents	2017	10,294	29	1,619,763	157.35	5.426	1.409	2,282,246	7.645	
		2018	9,952	29	1,592,990	160.07	5.520	1.382	2,201,512	7.628	
		2019	9,653	29	1,588,288	164.54	5.674	1.356	2,153,719	7.694	
		2020	9,424	29	1,577,986	167.44	5.774	1.297	2,046,648	7.489	
		2021	9,223	29	1,619,497	175.59	6.055	1.211	1,961,211	7.333	
		Total	48,546	29	7,998,524	164.76	5.681		10,645,336	7.561	
	Total	2017	21,947	127.76	37,771,459	1,721.03	13.471		48,411,810	17.266	
		2018	21,240	127.85	36,617,807	1,724.00	13.485		46,262,732	17.036	
		2019	20,555	127.65	35,322,631	1,718.44	13.462		44,119,242	16.815	
		2020	20,016	127.43	34,173,830	1,707.33	13.398		42,302,515	16.585	
		2021	19,657	127.73	33,958,736	1,727.56	13.525		41,124,029	16.379	
		Total	103,415	127.69	177,844,463	1,719.72	13.468		222,220,328	16.828	
	120	Buildings	2017	16,081	241	44,594,435	2,773.11	11.507	1.276	56,902,499	14.683
			2018	15,331	241	41,869,863	2,731.06	11.332	1.258	52,672,288	14.256
			2019	14,764	241	39,890,054	2,701.85	11.211	1.244	49,623,227	13.946
2020			14,297	241	38,585,090	2,698.82	11.198	1.235	47,652,586	13.830	
2021			13,909	241	38,181,361	2,745.08	11.390	1.211	46,237,628	13.794	
Total			74,382	241	203,120,803	2,730.78	11.331		253,088,228	14.118	
Contents		2017	13,824	35	2,420,669	175.11	5.003	1.409	3,410,723	7.049	
		2018	13,132	35	2,277,054	173.40	4.954	1.382	3,146,889	6.847	
		2019	12,564	35	2,185,409	173.94	4.970	1.356	2,963,415	6.739	
		2020	12,138	35	2,148,884	177.04	5.058	1.297	2,787,103	6.561	
		2021	11,838	35	2,166,867	183.04	5.230	1.211	2,624,076	6.333	
		Total	63,496	35	11,198,883	176.37	5.039		14,932,206	6.719	
Total		2017	29,905	145.77	47,015,104	1,572.15	10.785		60,313,222	13.836	
		2018	28,463	145.96	44,146,917	1,551.03	10.626		55,819,177	13.436	
		2019	27,328	146.29	42,075,463	1,539.65	10.525		52,586,642	13.154	
		2020	26,435	146.41	40,733,974	1,540.91	10.525		50,439,689	13.032	
		2021	25,747	146.28	40,348,228	1,567.10	10.713		48,861,704	12.973	
		Total	137,878	146.13	214,319,686	1,554.42	10.637		268,020,434	13.303	
130		Buildings	2017	4,808	173	4,924,489	1,024.23	5.920	1.276	6,283,648	7.554
			2018	4,838	173	5,009,256	1,035.40	5.985	1.258	6,301,644	7.529
			2019	4,790	173	4,995,392	1,042.88	6.028	1.244	6,214,268	7.499
	2020		4,695	173	5,016,158	1,068.40	6.176	1.235	6,194,955	7.627	
	2021		4,704	173	5,210,871	1,107.75	6.403	1.211	6,310,365	7.754	
	Total		23,835	173	25,156,166	1,055.43	6.101		31,304,880	7.592	
	Contents	2017	3,086	26	252,226	81.73	3.144	1.409	355,386	4.429	
		2018	3,174	26	268,707	84.66	3.256	1.382	371,353	4.500	
		2019	3,206	26	280,559	87.51	3.366	1.356	380,438	4.564	
		2020	3,210	26	295,180	91.96	3.537	1.297	382,848	4.587	
		2021	3,234	26	313,393	96.91	3.727	1.211	379,519	4.514	
		Total	15,910	26	1,410,065	88.63	3.409		1,869,544	4.520	
	Total	2017	7,894	115.53	5,176,715	655.78	5.676		6,639,034	7.280	
		2018	8,012	114.77	5,277,963	658.76	5.740		6,672,997	7.257	
		2019	7,996	114.06	5,275,951	659.82	5.785		6,594,706	7.231	
		2020	7,905	113.31	5,311,338	671.90	5.930		6,577,803	7.344	
		2021	7,938	113.11	5,524,264	695.93	6.153		6,689,884	7.451	
		Total	39,745	114.16	26,566,231	668.42	5.855		33,174,424	7.312	

(a) The Total Class Current Manual Base Rate is the weighted average of the Buildings and Contents Current Manual Base Rates using Earned House Years as weights.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

**CALCULATION OF TRENDED AVERAGE RATING FACTORS
EXTENDED COVERAGE**

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			Earned House Years	Current Manual Base Rate(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate (3) / (1)	Average Rating Factor (3)/[(1)x(2)]	Premium Trend Factor	Trended Aggregate Earned Premium at Current Level (3) x (6)	Trended Average Rating Factor (7)/[(1)x(2)]	
140	Buildings	2017	31,384	188	37,010,237	1,179.27	6.273	1.276	47,225,062	8.004	
		2018	31,107	188	36,705,462	1,179.97	6.276	1.258	46,175,471	7.896	
		2019	30,354	188	35,573,575	1,171.96	6.234	1.244	44,253,527	7.755	
		2020	29,709	188	34,786,870	1,170.92	6.228	1.235	42,961,784	7.692	
		<u>2021</u>	<u>29,622</u>	<u>188</u>	<u>35,589,049</u>	<u>1,201.44</u>	<u>6.391</u>	<u>1.211</u>	<u>43,098,338</u>	<u>7.739</u>	
		Total	152,176	188	179,665,193	1,180.64	6.280		223,714,182	7.820	
	Contents	2017	19,827	26	1,363,742	68.78	2.645	1.409	1,921,512	3.727	
		2018	20,238	26	1,446,978	71.50	2.750	1.382	1,999,724	3.800	
		2019	20,335	26	1,518,038	74.65	2.871	1.356	2,058,460	3.893	
		2020	20,259	26	1,580,761	78.03	3.001	1.297	2,050,247	3.892	
		<u>2021</u>	<u>20,793</u>	<u>26</u>	<u>1,717,274</u>	<u>82.59</u>	<u>3.177</u>	<u>1.211</u>	<u>2,079,619</u>	<u>3.847</u>	
		Total	101,452	26	7,626,793	75.18	2.891		10,109,562	3.833	
	Total	2017	51,211	125.28	38,373,979	749.33	5.981		49,146,574	7.660	
		2018	51,345	124.15	38,152,440	743.06	5.985		48,175,195	7.558	
		2019	50,689	123.01	37,091,613	731.75	5.949		46,311,987	7.427	
		2020	49,968	122.32	36,367,631	727.82	5.950		45,012,031	7.364	
		<u>2021</u>	<u>50,415</u>	<u>121.19</u>	<u>37,306,323</u>	<u>739.98</u>	<u>6.106</u>		<u>45,177,957</u>	<u>7.394</u>	
		Total	253,628	123.20	187,291,986	738.45	5.994		233,823,744	7.483	
	150	Buildings	2017	19,253	157	16,673,104	866.00	5.516	1.276	21,274,881	7.038
			2018	19,335	157	16,761,335	866.89	5.522	1.258	21,085,759	6.946
			2019	19,241	157	16,634,014	864.51	5.506	1.244	20,692,713	6.850
2020			19,003	157	16,427,793	864.48	5.506	1.235	20,288,324	6.800	
<u>2021</u>			<u>19,105</u>	<u>157</u>	<u>16,741,936</u>	<u>876.31</u>	<u>5.582</u>	<u>1.211</u>	<u>20,274,484</u>	<u>6.759</u>	
Total			95,937	157	83,238,182	867.63	5.526		103,616,161	6.879	
Contents		2017	11,250	12	382,118	33.97	2.831	1.409	538,404	3.988	
		2018	11,625	12	406,044	34.93	2.911	1.382	561,153	4.023	
		2019	11,792	12	423,901	35.95	2.996	1.356	574,810	4.062	
		2020	11,859	12	446,495	37.65	3.138	1.297	579,104	4.069	
		<u>2021</u>	<u>12,273</u>	<u>12</u>	<u>491,221</u>	<u>40.02</u>	<u>3.335</u>	<u>1.211</u>	<u>594,869</u>	<u>4.039</u>	
		Total	58,799	12	2,149,779	36.56	3.047		2,848,340	4.037	
Total		2017	30,503	103.52	17,055,222	559.13	5.401		21,813,285	6.908	
		2018	30,960	102.55	17,167,379	554.50	5.407		21,646,912	6.818	
		2019	31,033	101.90	17,057,915	549.67	5.394		21,267,523	6.725	
		2020	30,862	101.28	16,874,288	546.77	5.399		20,867,428	6.676	
		<u>2021</u>	<u>31,378</u>	<u>100.29</u>	<u>17,233,157</u>	<u>549.21</u>	<u>5.476</u>		<u>20,869,353</u>	<u>6.632</u>	
		Total	154,736	101.90	85,387,961	551.83	5.415		106,464,501	6.752	
160		Buildings	2017	18,252	163	18,182,741	996.21	6.112	1.276	23,201,178	7.799
			2018	18,015	163	18,129,493	1,006.36	6.174	1.258	22,806,902	7.767
			2019	16,962	163	17,142,208	1,010.62	6.200	1.244	21,324,907	7.713
	2020		16,221	163	16,382,776	1,009.97	6.196	1.235	20,232,728	7.652	
	<u>2021</u>		<u>16,185</u>	<u>163</u>	<u>16,542,008</u>	<u>1,022.06</u>	<u>6.270</u>	<u>1.211</u>	<u>20,032,372</u>	<u>7.593</u>	
	Total		85,635	163	86,379,226	1,008.69	6.188		107,598,087	7.708	
	Contents	2017	10,545	15	344,751	32.69	2.180	1.409	485,754	3.071	
		2018	10,700	15	355,408	33.22	2.214	1.382	491,174	3.060	
		2019	10,377	15	363,080	34.99	2.333	1.356	492,336	3.163	
		2020	10,235	15	384,540	37.57	2.505	1.297	498,748	3.249	
		<u>2021</u>	<u>10,547</u>	<u>15</u>	<u>421,953</u>	<u>40.01</u>	<u>2.667</u>	<u>1.211</u>	<u>510,985</u>	<u>3.230</u>	
		Total	52,404	15	1,869,732	35.68	2.379		2,478,997	3.154	
	Total	2017	28,797	108.80	18,527,492	643.38	5.913		23,686,932	7.560	
		2018	28,715	107.85	18,484,901	643.74	5.969		23,298,076	7.523	
		2019	27,339	106.82	17,505,288	640.30	5.994		21,817,243	7.471	
		2020	26,456	105.74	16,767,316	633.78	5.994		20,731,476	7.411	
		<u>2021</u>	<u>26,732</u>	<u>104.61</u>	<u>16,963,961</u>	<u>634.59</u>	<u>6.066</u>		<u>20,543,357</u>	<u>7.346</u>	
		Total	138,039	106.81	88,248,958	639.30	5.985		110,077,084	7.466	

(a) The Total Class Current Manual Base Rate is the weighted average of the Buildings and Contents Current Manual Base Rates using Earned House Years as weights.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

**CALCULATION OF TRENDED AVERAGE RATING FACTORS
EXTENDED COVERAGE**

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			Earned House Years	Current Manual Base Rate(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate (3) / (1)	Average Rating Factor (3)/[(1)x(2)]	Premium Trend Factor	Trended Aggregate Calculated Earned Premium at Current Level (3) x (6)	Trended Average Rating Factor (7)/[(1)x(2)]	
170	Buildings	2017	2,171	76	805,998	371.26	4.885	1.276	1,028,453	6.233	
		2018	2,237	76	847,089	378.67	4.983	1.258	1,065,638	6.268	
		2019	2,294	76	882,578	384.73	5.062	1.244	1,097,927	6.297	
		2020	2,381	76	943,328	396.19	5.213	1.235	1,165,010	6.438	
		<u>2021</u>	<u>2,520</u>	<u>76</u>	<u>1,055,246</u>	<u>418.75</u>	<u>5.510</u>	<u>1.211</u>	<u>1,277,903</u>	<u>6.672</u>	
		Total	11,603	76	4,534,239	390.78	5.142		5,634,931	6.390	
	Contents	2017	1,353	6	29,955	22.14	3.690	1.409	42,207	5.199	
		2018	1,436	6	32,969	22.96	3.826	1.382	45,563	5.288	
		2019	1,486	6	35,502	23.89	3.982	1.356	48,141	5.399	
		2020	1,592	6	41,358	25.98	4.330	1.297	53,641	5.616	
		<u>2021</u>	<u>1,714</u>	<u>6</u>	<u>48,122</u>	<u>28.08</u>	<u>4.679</u>	<u>1.211</u>	<u>58,276</u>	<u>5.667</u>	
		Total	7,581	6	187,906	24.79	4.131		247,828	5.448	
	Total	2017	3,524	49.12	835,953	237.22	4.829		1,070,660	6.185	
		2018	3,673	48.63	880,058	239.60	4.927		1,111,201	6.221	
		2019	3,780	48.48	918,080	242.88	5.010		1,146,068	6.254	
		2020	3,973	47.95	984,686	247.84	5.169		1,218,651	6.397	
		<u>2021</u>	<u>4,234</u>	<u>47.66</u>	<u>1,103,368</u>	<u>260.60</u>	<u>5.468</u>		<u>1,336,179</u>	<u>6.622</u>	
		Total	19,184	48.34	4,722,145	246.15	5.092		5,882,759	6.344	
	180	Buildings	2017	18,862	84	9,432,243	500.07	5.953	1.276	12,035,542	7.596
			2018	19,085	84	9,755,155	511.14	6.085	1.258	12,271,985	7.655
			2019	19,340	84	10,008,324	517.49	6.161	1.244	12,450,355	7.664
2020			19,600	84	10,258,251	523.38	6.231	1.235	12,668,940	7.695	
<u>2021</u>			<u>19,703</u>	<u>84</u>	<u>10,492,002</u>	<u>532.51</u>	<u>6.339</u>	<u>1.211</u>	<u>12,705,814</u>	<u>7.677</u>	
Total			96,590	84	49,945,975	517.09	6.156		62,132,636	7.658	
Contents		2017	10,665	7	206,113	19.33	2.761	1.409	290,413	3.890	
		2018	11,001	7	220,006	20.00	2.857	1.382	304,048	3.948	
		2019	11,236	7	232,912	20.73	2.961	1.356	315,829	4.016	
		2020	11,316	7	249,054	22.01	3.144	1.297	323,023	4.078	
		<u>2021</u>	<u>11,863</u>	<u>7</u>	<u>279,963</u>	<u>23.60</u>	<u>3.371</u>	<u>1.211</u>	<u>339,035</u>	<u>4.083</u>	
		Total	56,081	7	1,188,048	21.18	3.026		1,572,348	4.005	
Total		2017	29,527	56.19	9,638,356	326.43	5.809		12,325,955	7.429	
		2018	30,086	55.84	9,975,161	331.55	5.938		12,576,033	7.486	
		2019	30,576	55.70	10,241,236	334.94	6.013		12,766,184	7.496	
		2020	30,916	55.82	10,507,305	339.87	6.089		12,991,963	7.528	
		<u>2021</u>	<u>31,566</u>	<u>55.06</u>	<u>10,771,965</u>	<u>341.25</u>	<u>6.198</u>		<u>13,044,849</u>	<u>7.506</u>	
		Total	152,671	55.72	51,134,023	334.93	6.011		63,704,984	7.489	
190		Buildings	2017	7,784	87	3,207,293	412.04	4.736	1.276	4,092,506	6.043
			2018	7,999	87	3,369,687	421.26	4.842	1.258	4,239,066	6.091
			2019	8,122	87	3,428,244	422.09	4.852	1.244	4,264,736	6.035
	2020		8,208	87	3,474,265	423.28	4.865	1.235	4,290,717	6.009	
	<u>2021</u>		<u>8,392</u>	<u>87</u>	<u>3,645,502</u>	<u>434.40</u>	<u>4.993</u>	<u>1.211</u>	<u>4,414,703</u>	<u>6.047</u>	
	Total		40,505	87	17,124,991	422.79	4.860		21,301,728	6.045	
	Contents	2017	4,374	10	135,378	30.95	3.095	1.409	190,748	4.361	
		2018	4,616	10	145,610	31.54	3.154	1.382	201,233	4.359	
		2019	4,778	10	156,817	32.82	3.282	1.356	212,644	4.450	
		2020	4,958	10	172,907	34.87	3.487	1.297	224,260	4.523	
		<u>2021</u>	<u>5,275</u>	<u>10</u>	<u>194,330</u>	<u>36.84</u>	<u>3.684</u>	<u>1.211</u>	<u>235,334</u>	<u>4.461</u>	
		Total	24,001	10	805,042	33.54	3.354		1,064,219	4.434	
	Total	2017	12,158	59.30	3,342,671	274.94	4.636		4,283,254	5.941	
		2018	12,615	58.82	3,515,297	278.66	4.738		4,440,299	5.984	
		2019	12,900	58.48	3,585,061	277.91	4.752		4,477,380	5.935	
		2020	13,166	58.00	3,647,172	277.01	4.776		4,514,977	5.913	
		<u>2021</u>	<u>13,667</u>	<u>57.28</u>	<u>3,839,832</u>	<u>280.96</u>	<u>4.905</u>		<u>4,650,037</u>	<u>5.940</u>	
		Total	64,506	58.35	17,930,033	277.96	4.764		22,365,947	5.942	

(a) The Total Class Current Manual Base Rate is the weighted average of the Buildings and Contents Current Manual Base Rates using Earned House Years as weights.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

**CALCULATION OF TRENDED AVERAGE RATING FACTORS
EXTENDED COVERAGE**

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			Earned House Years	Current Manual Base Rate(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate (3) / (1)	Average Rating Factor (3)/[(1)x(2)]	Premium Trend Factor	Trended Aggregate Calculated Earned Premium at Current Level (3) x (6)	Trended Average Rating Factor (7)/[(1)x(2)]	
200	Buildings	2017	4,422	109	1,950,176	441.02	4.046	1.276	2,488,425	5.163	
		2018	4,475	109	2,021,580	451.75	4.144	1.258	2,543,148	5.214	
		2019	4,491	109	2,051,282	456.75	4.190	1.244	2,551,795	5.213	
		2020	4,490	109	2,096,673	466.97	4.284	1.235	2,589,391	5.291	
		2021	4,590	109	2,240,780	488.19	4.479	1.211	2,713,585	5.424	
		Total	22,468	109	10,360,491	461.12	4.230		12,886,344	5.262	
	Contents	2017	3,160	13	136,491	43.19	3.323	1.409	192,316	4.681	
		2018	3,225	13	146,799	45.52	3.501	1.382	202,876	4.839	
		2019	3,245	13	153,765	47.39	3.645	1.356	208,505	4.943	
		2020	3,284	13	165,732	50.47	3.882	1.297	214,954	5.035	
		2021	3,386	13	179,933	53.14	4.088	1.211	217,899	4.950	
		Total	16,300	13	782,720	48.02	3.694		1,036,550	4.892	
	Total	2017	7,582	68.99	2,086,667	275.21	3.989		2,680,741	5.125	
		2018	7,700	68.79	2,168,379	281.61	4.094		2,746,024	5.184	
		2019	7,736	68.73	2,205,047	285.04	4.147		2,760,300	5.192	
		2020	7,774	68.45	2,262,405	291.02	4.252		2,804,345	5.270	
		2021	7,976	68.25	2,420,713	303.50	4.447		2,931,484	5.385	
		Total	38,768	68.64	11,143,211	287.43	4.188		13,922,894	5.232	
	210	Buildings	2017	6,187	71	2,188,693	353.76	4.982	1.276	2,792,772	6.358
			2018	6,468	71	2,327,637	359.87	5.069	1.258	2,928,167	6.376
			2019	6,602	71	2,409,595	364.98	5.141	1.244	2,997,536	6.395
2020			6,741	71	2,507,762	372.02	5.240	1.235	3,097,086	6.471	
2021			7,009	71	2,697,048	384.80	5.420	1.211	3,266,125	6.563	
Total			33,007	71	12,130,735	367.52	5.176		15,081,686	6.436	
Contents		2017	3,030	4	38,445	12.69	3.172	1.409	54,169	4.469	
		2018	3,135	4	40,773	13.01	3.251	1.382	56,348	4.493	
		2019	3,208	4	42,294	13.18	3.296	1.356	57,351	4.469	
		2020	3,346	4	49,323	14.74	3.685	1.297	63,972	4.780	
		2021	3,687	4	59,375	16.10	4.026	1.211	71,903	4.875	
		Total	16,406	4	230,210	14.03	3.508		303,743	4.629	
Total		2017	9,217	48.97	2,227,138	241.63	4.934		2,846,941	6.308	
		2018	9,603	49.13	2,368,410	246.63	5.020		2,984,515	6.326	
		2019	9,810	49.09	2,451,889	249.94	5.091		3,054,887	6.344	
		2020	10,087	48.78	2,557,085	253.50	5.197		3,161,058	6.424	
		2021	10,696	47.90	2,756,423	257.71	5.380		3,338,028	6.515	
		Total	49,413	48.75	12,360,945	250.16	5.131		15,385,429	6.387	
220		Buildings	2017	21,408	63	13,463,026	628.88	9.982	1.276	17,178,821	12.737
			2018	21,358	63	13,998,932	655.44	10.404	1.258	17,610,656	13.088
			2019	21,253	63	14,124,676	664.60	10.549	1.244	17,571,097	13.123
	2020		20,552	63	13,754,297	669.24	10.623	1.235	16,986,557	13.119	
	2021		19,793	63	13,269,263	670.40	10.641	1.211	16,069,077	12.887	
	Total		104,364	63	68,610,194	657.41	10.435		85,416,208	12.991	
	Contents	2017	9,165	3	95,642	10.44	3.479	1.409	134,760	4.901	
		2018	9,373	3	105,550	11.26	3.754	1.382	145,870	5.188	
		2019	10,601	3	127,576	12.03	4.011	1.356	172,993	5.440	
		2020	11,719	3	140,769	12.01	4.004	1.297	182,577	5.193	
		2021	11,813	3	150,001	12.70	4.233	1.211	181,651	5.126	
		Total	52,671	3	619,538	11.76	3.921		817,851	5.176	
	Total	2017	30,573	45.01	13,558,668	443.49	9.853		17,313,581	12.582	
		2018	30,731	44.70	14,104,482	458.97	10.268		17,756,526	12.926	
		2019	31,854	43.03	14,252,252	447.42	10.398		17,744,090	12.945	
		2020	32,271	41.21	13,895,066	430.57	10.448		17,169,134	12.910	
		2021	31,606	40.57	13,419,264	424.58	10.465		16,250,728	12.674	
		Total	157,035	42.88	69,229,732	440.86	10.281		86,234,059	12.806	

(a) The Total Class Current Manual Base Rate is the weighted average of the Buildings and Contents Current Manual Base Rates using Earned House Years as weights.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

**CALCULATION OF TRENDED AVERAGE RATING FACTORS
EXTENDED COVERAGE**

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			Earned House Years	Current Manual Base Rate(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate (3) / (1)	Average Rating Factor (3)/[(1)x(2)]	Premium Trend Factor	Trended Aggregate Earned Premium at Current Level (3) x (6)	Trended Average Rating Factor (7)/[(1)x(2)]	
230	Buildings	2017	12,189	100	4,188,653	343.64	3.436	1.276	5,344,721	4.385	
		2018	11,986	100	4,236,976	353.49	3.535	1.258	5,330,116	4.447	
		2019	11,645	100	4,313,318	370.40	3.704	1.244	5,365,768	4.608	
		2020	11,610	100	4,374,131	376.76	3.768	1.235	5,402,052	4.653	
		2021	11,783	100	4,529,555	384.41	3.844	1.211	5,485,291	4.655	
		Total	59,213	100	21,642,633	365.50	3.655		26,927,948	4.548	
	Contents	2017	7,805	11	228,119	29.23	2.657	1.409	321,420	3.744	
		2018	7,882	11	236,966	30.06	2.733	1.382	327,487	3.777	
		2019	7,916	11	245,976	31.07	2.825	1.356	333,543	3.830	
		2020	7,962	11	258,149	32.42	2.948	1.297	334,819	3.823	
		2021	8,340	11	282,894	33.92	3.084	1.211	342,585	3.734	
		Total	39,905	11	1,252,104	31.38	2.852		1,659,854	3.781	
	Total	2017	19,994	65.26	4,416,772	220.90	3.385		5,666,141	4.343	
		2018	19,868	64.69	4,473,942	225.18	3.481		5,657,603	4.402	
		2019	19,561	63.98	4,559,294	233.08	3.643		5,699,311	4.554	
		2020	19,572	63.79	4,632,280	236.68	3.710		5,736,871	4.595	
		2021	20,123	63.11	4,812,449	239.15	3.789		5,827,876	4.589	
		Total	99,118	64.17	22,894,737	230.98	3.600		28,587,802	4.495	
	240	Buildings	2017	18,382	64	6,275,117	341.37	5.334	1.276	8,007,049	6.806
			2018	18,341	64	6,375,544	347.61	5.431	1.258	8,020,434	6.833
			2019	18,516	64	6,431,531	347.35	5.427	1.244	8,000,825	6.752
2020			18,616	64	6,559,612	352.36	5.506	1.235	8,101,121	6.800	
2021			19,124	64	7,144,381	373.58	5.837	1.211	8,651,845	7.069	
Total			92,979	64	32,786,185	352.62	5.510		40,781,274	6.853	
Contents		2017	9,163	3	86,385	9.43	3.143	1.409	121,716	4.428	
		2018	9,534	3	92,736	9.73	3.242	1.382	128,161	4.481	
		2019	9,816	3	98,373	10.02	3.341	1.356	133,394	4.530	
		2020	10,065	3	110,045	10.93	3.644	1.297	142,728	4.727	
		2021	10,873	3	131,434	12.09	4.029	1.211	159,167	4.880	
		Total	49,451	3	518,973	10.49	3.498		685,166	4.618	
Total		2017	27,545	43.71	6,361,502	230.95	5.284		8,128,765	6.752	
		2018	27,875	43.14	6,468,280	232.05	5.379		8,148,595	6.776	
		2019	28,332	42.87	6,529,904	230.48	5.376		8,134,219	6.697	
		2020	28,681	42.59	6,669,657	232.55	5.460		8,243,849	6.749	
		2021	29,997	41.89	7,275,815	242.55	5.790		8,811,012	7.012	
		Total	142,430	42.82	33,305,158	233.84	5.461		41,466,440	6.799	
250		Buildings	2017	11,166	66	6,197,447	555.03	8.410	1.276	7,907,942	10.731
			2018	10,989	66	6,404,546	582.81	8.831	1.258	8,056,919	11.109
			2019	10,972	66	6,612,102	602.63	9.131	1.244	8,225,455	11.359
	2020		10,985	66	6,736,671	613.26	9.292	1.235	8,319,789	11.475	
	2021		10,599	66	6,431,418	606.79	9.194	1.211	7,788,447	11.134	
	Total		54,711	66	32,382,184	591.88	8.968		40,298,552	11.160	
	Contents	2017	5,824	3	40,940	7.03	2.343	1.409	57,684	3.302	
		2018	5,969	3	43,699	7.32	2.440	1.382	60,392	3.373	
		2019	6,147	3	48,248	7.85	2.616	1.356	65,424	3.548	
		2020	6,252	3	53,234	8.51	2.838	1.297	69,044	3.681	
		2021	6,297	3	59,312	9.42	3.140	1.211	71,827	3.802	
		Total	30,489	3	245,433	8.05	2.683		324,371	3.546	
	Total	2017	16,990	44.40	6,238,387	367.18	8.270		7,965,626	10.560	
		2018	16,958	43.82	6,448,245	380.25	8.677		8,117,311	10.924	
		2019	17,119	43.38	6,660,350	389.06	8.969		8,290,879	11.164	
		2020	17,237	43.15	6,789,905	393.91	9.129		8,388,833	11.279	
		2021	16,896	42.52	6,490,730	384.16	9.035		7,860,274	10.941	
		Total	85,200	43.46	32,627,617	382.95	8.812		40,622,923	10.971	

(a) The Total Class Current Manual Base Rate is the weighted average of the Buildings and Contents Current Manual Base Rates using Earned House Years as weights.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

**CALCULATION OF TRENDED AVERAGE RATING FACTORS
EXTENDED COVERAGE**

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			Earned House Years	Current Manual Base Rate(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate (3) / (1)	Average Rating Factor (3)/[(1)x(2)]	Premium Trend Factor	Trended Aggregate Calculated Earned Premium at Current Level (3) x (6)	Trended Average Rating Factor (7)/[(1)x(2)]	
260	Buildings	2017	8,457	61	2,580,419	305.12	5.002	1.276	3,292,615	6.383	
		2018	8,521	61	2,637,546	309.53	5.074	1.258	3,318,033	6.384	
		2019	10,093	61	3,843,499	380.81	6.243	1.244	4,781,313	7.766	
		2020	9,986	61	3,852,540	385.79	6.324	1.235	4,757,887	7.811	
		2021	8,410	61	2,682,347	318.95	5.229	1.211	3,248,322	6.332	
		Total	45,467	61	15,596,351	343.03	5.623		19,398,170	6.994	
	Contents	2017	3,708	2	23,415	6.31	3.157	1.409	32,992	4.449	
		2018	3,846	2	25,031	6.51	3.254	1.382	34,593	4.497	
		2019	3,959	2	27,291	6.89	3.447	1.356	37,007	4.674	
		2020	3,986	2	29,831	7.48	3.742	1.297	38,691	4.853	
		2021	4,259	2	35,537	8.34	4.172	1.211	43,035	5.052	
		Total	19,758	2	141,105	7.14	3.571		186,318	4.715	
	Total	2017	12,165	43.02	2,603,834	214.04	4.975		3,325,607	6.355	
		2018	12,367	42.65	2,662,577	215.30	5.048		3,352,626	6.356	
		2019	14,052	44.38	3,870,790	275.46	6.207		4,818,320	7.726	
		2020	13,972	44.17	3,882,371	277.87	6.291		4,796,578	7.772	
		2021	12,669	41.17	2,717,884	214.53	5.211		3,291,357	6.310	
		Total	65,225	43.13	15,737,456	241.28	5.594		19,584,488	6.962	
	270	Buildings	2017	22,573	47	12,886,631	570.89	12.147	1.276	16,443,341	15.499
			2018	22,673	47	13,498,504	595.36	12.667	1.258	16,981,118	15.935
			2019	22,358	47	13,774,109	616.07	13.108	1.244	17,134,992	16.306
2020			21,769	47	13,856,773	636.54	13.543	1.235	17,113,115	16.726	
2021			22,715	47	15,065,713	663.25	14.112	1.211	18,244,578	17.089	
Total			112,088	47	69,081,730	616.32	13.113		85,917,144	16.309	
Contents		2017	11,130	2	75,046	6.74	3.371	1.409	105,740	4.750	
		2018	12,031	2	82,792	6.88	3.441	1.382	114,419	4.755	
		2019	13,205	2	92,573	7.01	3.505	1.356	125,529	4.753	
		2020	13,403	2	96,442	7.20	3.598	1.297	125,085	4.666	
		2021	14,670	2	108,979	7.43	3.714	1.211	131,974	4.498	
		Total	64,439	2	455,832	7.07	3.537		602,747	4.677	
Total		2017	33,703	32.14	12,961,677	384.59	11.966		16,549,081	15.278	
		2018	34,704	31.40	13,581,296	391.35	12.463		17,095,537	15.688	
		2019	35,563	30.29	13,866,682	389.92	12.873		17,260,521	16.023	
		2020	35,172	29.85	13,953,215	396.71	13.290		17,238,200	16.419	
		2021	37,385	29.34	15,174,692	405.90	13.834		18,376,552	16.754	
		Total	176,527	30.57	69,537,562	393.92	12.886		86,519,891	16.033	
280		Buildings	2017	4,649	46	2,109,095	453.67	9.862	1.276	2,691,205	12.584
			2018	4,664	46	2,204,988	472.77	10.278	1.258	2,773,875	12.929
			2019	4,672	46	2,232,985	477.95	10.390	1.244	2,777,833	12.925
	2020		4,714	46	2,255,703	478.51	10.402	1.235	2,785,793	12.847	
	2021		5,440	46	2,671,525	491.09	10.676	1.211	3,235,217	12.928	
	Total		24,139	46	11,474,296	475.34	10.334		14,263,923	12.846	
	Contents	2017	2,534	2	19,771	7.80	3.901	1.409	27,857	5.497	
		2018	2,643	2	21,431	8.11	4.054	1.382	29,618	5.603	
		2019	2,782	2	22,977	8.26	4.130	1.356	31,157	5.600	
		2020	2,910	2	24,933	8.57	4.284	1.297	32,338	5.556	
		2021	3,053	2	27,647	9.06	4.528	1.211	33,481	5.483	
		Total	13,922	2	116,759	8.39	4.193		154,451	5.547	
	Total	2017	7,183	30.48	2,128,866	296.38	9.724		2,719,062	12.419	
		2018	7,307	30.08	2,226,419	304.70	10.130		2,803,493	12.755	
		2019	7,454	29.58	2,255,962	302.65	10.232		2,808,990	12.740	
		2020	7,624	29.21	2,280,636	299.14	10.241		2,818,131	12.655	
		2021	8,493	30.18	2,699,172	317.81	10.531		3,268,698	12.752	
		Total	38,061	29.91	11,591,055	304.54	10.182		14,418,374	12.665	

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NORTH CAROLINA

DWELLING PROPERTY INSURANCE

**CALCULATION OF TRENDED AVERAGE RATING FACTORS
EXTENDED COVERAGE**

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			Earned House Years	Current Manual Base Rate(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate (3) / (1)	Average Rating Factor (3)/[(1)x(2)]	Premium Trend Factor	Trended Aggregate Earned Premium at Current Level (3) x (6)	Trended Average Rating Factor (7)/[(1)x(2)]	
290	Buildings	2017	6,026	57	3,241,454	537.91	9.437	1.276	4,136,095	12.042	
		2018	5,953	57	3,329,554	559.31	9.812	1.258	4,188,579	12.344	
		2019	5,579	57	3,054,665	547.53	9.606	1.244	3,800,003	11.950	
		2020	5,185	57	2,757,937	531.91	9.332	1.235	3,406,052	11.525	
		2021	5,250	57	2,896,309	551.68	9.679	1.211	3,507,430	11.721	
		Total	27,993	57	15,279,919	545.85	9.576		19,038,159	11.932	
	Contents	2017	3,238	2	16,834	5.20	2.599	1.409	23,719	3.663	
		2018	3,306	2	17,867	5.40	2.702	1.382	24,692	3.734	
		2019	3,144	2	18,017	5.73	2.865	1.356	24,431	3.885	
		2020	3,012	2	19,382	6.43	3.217	1.297	25,138	4.173	
		2021	3,294	2	22,809	6.92	3.462	1.211	27,622	4.193	
		Total	15,994	2	94,909	5.93	2.967		125,602	3.927	
	Total	2017	9,264	37.78	3,258,288	351.72	9.310		4,159,814	11.885	
		2018	9,259	37.36	3,347,421	361.53	9.677		4,213,271	12.180	
		2019	8,723	37.18	3,072,682	352.25	9.474		3,824,434	11.792	
		2020	8,197	36.79	2,777,319	338.82	9.210		3,431,190	11.378	
		2021	8,544	35.80	2,919,118	341.66	9.543		3,535,052	11.557	
		Total	43,987	37.00	15,374,828	349.53	9.447		19,163,761	11.775	
	300	Buildings	2017	6,877	53	1,598,123	232.39	4.385	1.276	2,039,205	5.595
			2018	6,779	53	1,610,406	237.56	4.482	1.258	2,025,891	5.639
			2019	7,223	53	1,933,614	267.70	5.051	1.244	2,405,416	6.283
2020			7,916	53	2,350,046	296.87	5.601	1.235	2,902,307	6.918	
2021			7,991	53	2,406,981	301.21	5.683	1.211	2,914,854	6.882	
Total			36,786	53	9,899,170	269.10	5.077		12,287,673	6.302	
Contents		2017	3,699	4	48,777	13.19	3.297	1.409	68,727	4.645	
		2018	3,762	4	50,577	13.44	3.361	1.382	69,897	4.645	
		2019	3,799	4	53,491	14.08	3.520	1.356	72,534	4.773	
		2020	3,925	4	59,551	15.17	3.793	1.297	77,238	4.920	
		2021	4,200	4	66,341	15.80	3.949	1.211	80,339	4.782	
		Total	19,385	4	278,737	14.38	3.595		368,735	4.755	
Total		2017	10,576	35.86	1,646,900	155.72	4.342		2,107,932	5.558	
		2018	10,541	35.51	1,660,983	157.57	4.437		2,095,788	5.599	
		2019	11,022	36.11	1,987,105	180.29	4.993		2,477,950	6.226	
		2020	11,841	36.76	2,409,597	203.50	5.536		2,979,545	6.845	
		2021	12,191	36.12	2,473,322	202.88	5.617		2,995,193	6.802	
		Total	56,171	36.09	10,177,907	181.20	5.021		12,656,408	6.243	
310		Buildings	2017	40,601	38	12,007,633	295.75	7.783	1.276	15,321,740	9.931
			2018	39,711	38	11,941,071	300.70	7.913	1.258	15,021,867	9.955
			2019	38,962	38	11,950,329	306.72	8.072	1.244	14,866,209	10.041
	2020		40,028	38	12,802,797	319.85	8.417	1.235	15,811,454	10.395	
	2021		41,088	38	13,631,665	331.77	8.731	1.211	16,507,946	10.573	
	Total		200,390	38	62,333,495	311.06	8.186		77,529,216	10.181	
	Contents	2017	15,914	1	43,722	2.75	2.747	1.409	61,604	3.871	
		2018	15,963	1	45,846	2.87	2.872	1.382	63,359	3.969	
		2019	16,144	1	50,692	3.14	3.140	1.356	68,738	4.258	
		2020	15,494	1	53,379	3.45	3.445	1.297	69,233	4.468	
		2021	15,292	1	60,398	3.95	3.950	1.211	73,142	4.783	
		Total	78,807	1	254,037	3.22	3.224		336,076	4.265	
	Total	2017	56,515	27.58	12,051,355	213.24	7.732		15,383,344	9.869	
		2018	55,674	27.39	11,986,917	215.31	7.861		15,085,226	9.893	
		2019	55,106	27.16	12,001,021	217.78	8.018		14,934,947	9.979	
		2020	55,522	27.67	12,856,176	231.55	8.368		15,880,687	10.337	
		2021	56,380	27.96	13,692,063	242.85	8.686		16,581,088	10.518	
		Total	279,197	27.56	62,587,532	224.17	8.134		77,865,292	10.119	

(a) The Total Class Current Manual Base Rate is the weighted average of the Buildings and Contents Current Manual Base Rates using Earned House Years as weights.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TRENDED AVERAGE RATING FACTORS
EXTENDED COVERAGE

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			Earned House Years	Current Manual Base Rate(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate (3) / (1)	Average Rating Factor (3)/[(1)x(2)]	Premium Trend Factor	Trended Aggregate Calculated Earned Premium at Current Level (3) x (6)	Trended Average Rating Factor (7)/[(1)x(2)]	
320	Buildings	2017	19,904	42	6,378,883	320.48	7.631	1.276	8,139,455	9.737	
		2018	19,379	42	6,262,789	323.17	7.695	1.258	7,878,589	9.680	
		2019	18,869	42	6,125,897	324.65	7.730	1.244	7,620,616	9.616	
		2020	18,201	42	5,940,730	326.40	7.771	1.235	7,336,802	9.598	
		2021	<u>18,361</u>	<u>42</u>	<u>6,184,175</u>	<u>336.81</u>	<u>8.019</u>	1.211	<u>7,489,036</u>	<u>9.711</u>	
		Total	94,714	42	30,892,474	326.17	7.766		38,464,498	9.669	
	Contents	2017	7,043	1	19,203	2.73	2.727	1.409	27,057	3.842	
		2018	7,128	1	19,672	2.76	2.760	1.382	27,187	3.814	
		2019	7,140	1	20,844	2.92	2.919	1.356	28,264	3.959	
		2020	6,712	1	21,410	3.19	3.190	1.297	27,769	4.137	
		2021	<u>6,500</u>	<u>1</u>	<u>24,309</u>	<u>3.74</u>	<u>3.740</u>	1.211	<u>29,438</u>	<u>4.529</u>	
		Total	34,523	1	105,438	3.05	3.054		139,715	4.047	
	Total	2017	26,947	31.28	6,398,086	237.43	7.591		8,166,512	9.689	
		2018	26,507	30.97	6,282,461	237.01	7.653		7,905,776	9.630	
		2019	26,009	30.74	6,146,741	236.33	7.688		7,648,880	9.567	
		2020	24,913	30.95	5,962,140	239.32	7.732		7,364,571	9.551	
		2021	<u>24,861</u>	<u>31.28</u>	<u>6,208,484</u>	<u>249.73</u>	<u>7.984</u>		<u>7,518,474</u>	<u>9.668</u>	
		Total	129,237	31.05	30,997,912	239.85	7.725		38,604,213	9.620	
	330	Buildings	2017	1,665	45	366,136	219.90	4.887	1.276	467,190	6.235
			2018	1,610	45	354,423	220.14	4.892	1.258	445,864	6.154
			2019	1,636	45	376,740	230.28	5.117	1.244	468,665	6.366
2020			1,674	45	396,982	237.15	5.270	1.235	490,273	6.508	
2021			<u>1,635</u>	<u>45</u>	<u>385,705</u>	<u>235.91</u>	<u>5.242</u>	1.211	<u>467,089</u>	<u>6.348</u>	
Total			8,220	45	1,879,986	228.71	5.082		2,339,081	6.324	
Contents		2017	823	1	1,835	2.23	2.230	1.409	2,586	3.142	
		2018	828	1	1,859	2.25	2.245	1.382	2,569	3.103	
		2019	848	1	2,007	2.37	2.367	1.356	2,721	3.209	
		2020	835	1	2,095	2.51	2.509	1.297	2,717	3.254	
		2021	<u>799</u>	<u>1</u>	<u>2,166</u>	<u>2.71</u>	<u>2.711</u>	1.211	<u>2,623</u>	<u>3.283</u>	
		Total	4,133	1	9,962	2.41	2.410		13,216	3.198	
Total		2017	2,488	30.45	367,971	147.90	4.857		469,776	6.201	
		2018	2,438	30.06	356,282	146.14	4.862		448,433	6.119	
		2019	2,484	29.98	378,747	152.47	5.086		471,386	6.330	
		2020	2,509	30.36	399,077	159.06	5.239		492,990	6.472	
		2021	<u>2,434</u>	<u>30.56</u>	<u>387,871</u>	<u>159.36</u>	<u>5.215</u>		<u>469,712</u>	<u>6.315</u>	
		Total	12,353	30.28	1,889,948	153.00	5.053		2,352,297	6.289	
340		Buildings	2017	34,913	36	13,210,937	378.40	10.511	1.276	16,857,156	13.412
			2018	33,955	36	13,271,707	390.86	10.857	1.258	16,695,807	13.658
			2019	32,791	36	13,042,732	397.75	11.049	1.244	16,225,159	13.745
	2020		32,281	36	12,972,253	401.85	11.163	1.235	16,020,732	13.786	
	2021		<u>31,983</u>	<u>36</u>	<u>13,110,733</u>	<u>409.93</u>	<u>11.387</u>	1.211	<u>15,877,098</u>	<u>13.790</u>	
	Total		165,923	36	65,608,362	395.41	10.984		81,675,952	13.674	
	Contents	2017	14,729	1	45,991	3.12	3.122	1.409	64,801	4.400	
		2018	14,742	1	48,721	3.30	3.305	1.382	67,332	4.567	
		2019	15,178	1	58,397	3.85	3.847	1.356	79,186	5.217	
		2020	14,891	1	62,324	4.19	4.185	1.297	80,834	5.428	
		2021	<u>14,891</u>	<u>1</u>	<u>69,469</u>	<u>4.67</u>	<u>4.665</u>	1.211	<u>84,127</u>	<u>5.650</u>	
		Total	74,431	1	284,902	3.83	3.828		376,280	5.055	
	Total	2017	49,642	25.62	13,256,928	267.05	10.424		16,921,957	13.305	
		2018	48,697	25.40	13,320,428	273.54	10.769		16,763,139	13.553	
		2019	47,969	24.93	13,101,129	273.12	10.955		16,304,345	13.634	
		2020	47,172	24.95	13,034,577	276.32	11.075		16,101,566	13.681	
		2021	<u>46,874</u>	<u>24.88</u>	<u>13,180,202</u>	<u>281.18</u>	<u>11.302</u>		<u>15,961,225</u>	<u>13.686</u>	
		Total	240,354	25.16	65,893,264	274.15	10.896		82,052,232	13.568	

(a) The Total Class Current Manual Base Rate is the weighted average of the Buildings and Contents Current Manual Base Rates using Earned House Years as weights.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

CALCULATION OF TRENDED AVERAGE RATING FACTORS
EXTENDED COVERAGE

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			Earned House Years	Current Manual Base Rate(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate (3) / (1)	Average Rating Factor (3)/[(1)x(2)]	Premium Trend Factor	Trended Aggregate Calculated Earned Premium at Current Level (3) x (6)	Trended Average Rating Factor (7)/[(1)x(2)]	
350	Buildings	2017	18,711	37	4,669,419	249.55	6.745	1.276	5,958,179	8.606	
		2018	17,951	37	4,590,224	255.71	6.911	1.258	5,774,502	8.694	
		2019	17,628	37	4,589,376	260.35	7.036	1.244	5,709,184	8.753	
		2020	17,514	37	4,726,114	269.85	7.293	1.235	5,836,751	9.007	
		2021	<u>17,723</u>	<u>37</u>	<u>5,012,029</u>	<u>282.80</u>	<u>7.643</u>	<u>1.211</u>	<u>6,069,567</u>	<u>9.256</u>	
		Total	89,527	37	23,587,162	263.46	7.121		29,348,183	8.860	
	Contents	2017	6,048	1	15,493	2.56	2.562	1.409	21,830	3.609	
		2018	6,167	1	16,275	2.64	2.639	1.382	22,492	3.647	
		2019	6,320	1	17,456	2.76	2.762	1.356	23,670	3.745	
		2020	5,997	1	18,502	3.09	3.085	1.297	23,997	4.002	
		2021	<u>5,713</u>	<u>1</u>	<u>21,395</u>	<u>3.74</u>	<u>3.745</u>	<u>1.211</u>	<u>25,909</u>	<u>4.535</u>	
		Total	30,245	1	89,121	2.95	2.947		117,898	3.898	
	Total	2017	24,759	28.21	4,684,912	189.22	6.708		5,980,009	8.562	
		2018	24,118	27.79	4,606,499	191.00	6.873		5,796,994	8.649	
		2019	23,948	27.50	4,606,832	192.37	6.995		5,732,854	8.705	
		2020	23,511	27.82	4,744,616	201.80	7.254		5,860,748	8.960	
		2021	<u>23,436</u>	<u>28.22</u>	<u>5,033,424</u>	<u>214.77</u>	<u>7.611</u>		<u>6,095,476</u>	<u>9.217</u>	
		Total	119,772	27.91	23,676,283	197.68	7.083		29,466,081	8.815	
	360	Buildings	2017	31,399	36	8,829,687	281.21	7.811	1.276	11,266,681	9.967
			2018	30,027	36	8,635,316	287.59	7.988	1.258	10,863,228	10.049
			2019	30,020	36	8,923,501	297.25	8.257	1.244	11,100,835	10.272
2020			29,781	36	9,103,404	305.68	8.491	1.235	11,242,704	10.486	
2021			<u>29,114</u>	<u>36</u>	<u>9,148,953</u>	<u>314.25</u>	<u>8.729</u>	<u>1.211</u>	<u>11,079,382</u>	<u>10.571</u>	
Total			150,341	36	44,640,861	296.93	8.248		55,552,830	10.264	
Contents		2017	15,936	2	113,150	7.10	3.550	1.409	159,428	5.002	
		2018	15,925	2	117,750	7.39	3.697	1.382	162,731	5.109	
		2019	16,650	2	128,372	7.71	3.855	1.356	174,072	5.227	
		2020	17,352	2	142,225	8.20	4.098	1.297	184,466	5.315	
		2021	<u>17,782</u>	<u>2</u>	<u>159,292</u>	<u>8.96</u>	<u>4.479</u>	<u>1.211</u>	<u>192,903</u>	<u>5.424</u>	
		Total	83,645	2	660,789	7.90	3.950		873,600	5.222	
Total		2017	47,335	24.55	8,942,837	188.93	7.696		11,426,109	9.833	
		2018	45,952	24.22	8,753,066	190.48	7.865		11,025,959	9.907	
		2019	46,670	23.87	9,051,873	193.95	8.125		11,274,907	10.121	
		2020	47,133	23.48	9,245,629	196.16	8.354		11,427,170	10.326	
		2021	<u>46,896</u>	<u>23.11</u>	<u>9,308,245</u>	<u>198.49</u>	<u>8.589</u>		<u>11,272,285</u>	<u>10.401</u>	
		Total	233,986	23.85	45,301,650	193.61	8.118		56,426,430	10.111	
370		Buildings	2017	1,943	37	482,809	248.49	6.716	1.276	616,064	8.569
			2018	1,850	37	466,920	252.39	6.821	1.258	587,385	8.581
			2019	1,891	37	485,351	256.66	6.937	1.244	603,777	8.629
	2020		1,940	37	514,840	265.38	7.172	1.235	635,827	8.858	
	2021		<u>1,916</u>	<u>37</u>	<u>542,489</u>	<u>283.14</u>	<u>7.652</u>	<u>1.211</u>	<u>656,954</u>	<u>9.267</u>	
	Total		9,540	37	2,492,409	261.26	7.061		3,100,007	8.782	
	Contents	2017	1,166	2	10,150	8.70	4.352	1.409	14,301	6.133	
		2018	1,125	2	9,851	8.76	4.378	1.382	13,614	6.051	
		2019	1,185	2	10,700	9.03	4.515	1.356	14,509	6.122	
		2020	1,249	2	12,062	9.66	4.829	1.297	15,644	6.263	
		2021	<u>1,271</u>	<u>2</u>	<u>14,015</u>	<u>11.03</u>	<u>5.513</u>	<u>1.211</u>	<u>16,972</u>	<u>6.677</u>	
		Total	5,996	2	56,778	9.47	4.735		75,040	6.258	
	Total	2017	3,109	23.87	492,959	158.56	6.643		630,365	8.494	
		2018	2,975	23.76	476,771	160.26	6.745		600,999	8.502	
		2019	3,076	23.52	496,051	161.26	6.857		618,286	8.546	
		2020	3,189	23.29	526,902	165.22	7.094		651,471	8.771	
		2021	<u>3,187</u>	<u>23.04</u>	<u>556,504</u>	<u>174.62</u>	<u>7.579</u>		<u>673,926</u>	<u>9.178</u>	
		Total	15,536	23.49	2,549,187	164.08	6.985		3,175,047	8.700	

(a) The Total Class Current Manual Base Rate is the weighted average of the Buildings and Contents Current Manual Base Rates using Earned House Years as weights.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

**CALCULATION OF TRENDED AVERAGE RATING FACTORS
EXTENDED COVERAGE**

Territory	Class	Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			Earned House Years	Current Manual Base Rate(a)	Aggregate Calculated Earned Premium at Current Level	Average Rate (3)/(1)	Average Rating Factor (3)/[(1)x(2)]	Premium Trend Factor	Trended Aggregate Earned Premium at Current Level (3) x (6)	Trended Average Rating Factor (7)/[(1)x(2)]	
380	Buildings	2017	5,365	33	1,398,582	260.69	7.900	1.276	1,784,591	10.080	
		2018	5,235	33	1,397,037	266.86	8.087	1.258	1,757,473	10.173	
		2019	5,261	33	1,441,678	274.03	8.304	1.244	1,793,447	10.330	
		2020	5,272	33	1,477,807	280.31	8.494	1.235	1,825,092	10.490	
		2021	<u>5,147</u>	<u>33</u>	<u>1,478,392</u>	<u>287.23</u>	<u>8.704</u>	1.211	<u>1,790,333</u>	<u>10.541</u>	
		Total	26,280	33	7,193,496	273.73	8.295		8,950,936	10.321	
	Contents	2017	2,894	1	10,210	3.53	3.528	1.409	14,386	4.971	
		2018	2,925	1	10,405	3.56	3.557	1.382	14,380	4.916	
		2019	3,054	1	11,111	3.64	3.638	1.356	15,067	4.934	
		2020	3,127	1	12,065	3.86	3.858	1.297	15,648	5.004	
		2021	<u>3,094</u>	<u>1</u>	<u>13,122</u>	<u>4.24</u>	<u>4.241</u>	1.211	<u>15,891</u>	<u>5.136</u>	
		Total	15,094	1	56,913	3.77	3.771		75,372	4.994	
	Total	2017	8,259	21.79	1,408,792	170.58	7.828		1,798,977	9.996	
		2018	8,160	21.53	1,407,442	172.48	8.011		1,771,853	10.085	
		2019	8,315	21.25	1,452,789	174.72	8.222		1,808,514	10.235	
		2020	8,399	21.09	1,489,872	177.39	8.411		1,840,740	10.392	
		2021	<u>8,241</u>	<u>20.99</u>	<u>1,491,514</u>	<u>180.99</u>	<u>8.623</u>		<u>1,806,224</u>	<u>10.442</u>	
		Total	41,374	21.33	7,250,409	175.24	8.216		9,026,308	10.228	
	390	Buildings	2017	5,183	33	1,429,501	275.81	8.358	1.276	1,824,043	10.664
			2018	5,048	33	1,410,022	279.32	8.464	1.258	1,773,808	10.648
			2019	5,012	33	1,411,587	281.64	8.535	1.244	1,756,014	10.617
2020			4,903	33	1,384,185	282.31	8.555	1.235	1,709,468	10.565	
2021			<u>4,811</u>	<u>33</u>	<u>1,382,709</u>	<u>287.41</u>	<u>8.709</u>	1.211	<u>1,674,461</u>	<u>10.547</u>	
Total			24,957	33	7,018,004	281.20	8.521		8,737,794	10.610	
Contents		2017	2,977	1	10,808	3.63	3.631	1.409	15,228	5.115	
		2018	2,993	1	11,063	3.70	3.696	1.382	15,289	5.108	
		2019	3,079	1	11,436	3.71	3.714	1.356	15,507	5.036	
		2020	3,080	1	11,470	3.72	3.724	1.297	14,877	4.830	
		2021	<u>3,065</u>	<u>1</u>	<u>12,643</u>	<u>4.12</u>	<u>4.125</u>	1.211	<u>15,311</u>	<u>4.995</u>	
		Total	15,194	1	57,420	3.78	3.779		76,212	5.016	
Total		2017	8,160	21.33	1,440,309	176.51	8.275		1,839,271	10.567	
		2018	8,041	21.09	1,421,085	176.73	8.380		1,789,097	10.550	
		2019	8,091	20.82	1,423,023	175.88	8.448		1,771,521	10.516	
		2020	7,983	20.65	1,395,655	174.83	8.466		1,724,345	10.460	
		2021	<u>7,876</u>	<u>20.55</u>	<u>1,395,352</u>	<u>177.17</u>	<u>8.621</u>		<u>1,689,772</u>	<u>10.440</u>	
		Total	40,151	20.89	7,075,424	176.22	8.436		8,814,006	10.508	
Statewide		Buildings	2017	412,268	85.85	276,434,657	670.52	7.810		352,730,623	9.966
			2018	406,208	85.93	274,447,879	675.63	7.863		345,255,432	9.891
			2019	402,243	85.40	271,417,299	674.76	7.901		337,643,122	9.829
	2020		398,864	84.85	268,891,632	674.14	7.945		332,081,164	9.812	
	2021		<u>399,056</u>	<u>84.58</u>	<u>272,709,384</u>	<u>683.39</u>	<u>8.080</u>		<u>330,251,062</u>	<u>9.785</u>	
	Total		2,018,639	85.33	1,363,900,851	675.65	7.918		1,697,961,403	9.858	
	Contents	2017	215,204	9.99	7,835,142	36.41	3.644		11,039,714	5.135	
		2018	218,376	9.84	7,891,429	36.14	3.672		10,905,955	5.075	
		2019	222,847	9.58	8,026,102	36.02	3.760		10,883,394	5.098	
		2020	223,592	9.48	8,240,088	36.85	3.887		10,687,391	5.042	
		2021	<u>229,039</u>	<u>9.39</u>	<u>8,753,691</u>	<u>38.22</u>	<u>4.070</u>		<u>10,600,723</u>	<u>4.929</u>	
		Total	1,109,058	9.65	40,746,452	36.74	3.807		54,117,177	5.057	
	Total	2017	627,472	59.83	284,269,799	453.04	7.572		363,770,337	9.690	
		2018	624,584	59.33	282,339,308	452.04	7.619		356,161,387	9.611	
		2019	625,090	58.37	279,443,401	447.05	7.659		348,526,516	9.552	
		2020	622,456	57.78	277,131,720	445.22	7.705		342,768,555	9.530	
		2021	<u>628,095</u>	<u>57.16</u>	<u>281,463,075</u>	<u>448.12</u>	<u>7.840</u>		<u>340,851,785</u>	<u>9.494</u>	
		Total	3,127,697	58.49	1,404,647,303	449.10	7.678		1,752,078,580	9.577	

(a) The Total Class Current Manual Base Rate is the weighted average of the Buildings and Contents Current Manual Base Rates using Earned House Years as weights.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

**CALCULATION OF NON-HURRICANE EXPERIENCE BASE CLASS LOSS COST
EXTENDED COVERAGE**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Trended	Non-Hurricane	Adjusted	Excess	Loss	Trended	Trended	Non-Hurricane
		Average	Adjusted	Incurred	Factor	Trend	LAE	Non-Hurricane	Experience
		Rating	Incurred	Excess	Factor	Factor	Adjusted	Losses & LAE	Base Class
		Factor	Losses	Losses	Factor	Factor	for Excess	Adjusted	Loss Cost
<u>Territory</u>	<u>Year</u>	<u>Earned</u> <u>House</u> <u>Years</u>	<u>Adjusted</u> <u>Incurred</u> <u>Losses</u>	<u>Adjusted</u> <u>Incurred</u> <u>Excess</u> <u>Losses</u>	<u>Excess</u> <u>Factor</u>	<u>Loss</u> <u>Trend</u> <u>Factor</u>	<u>Trended</u> <u>LAE</u> <u>Factor</u>	<u>[(3)-(4)]x(5)x(6)x(7)</u>	<u>(8)/[(1)x(2)]</u>
110	2017	21,947	2,330,561	0	1.017	1.640	1.114	4,330,225	
	2018	21,240	2,942,710	0	1.017	1.576	1.114	5,254,239	
	2019	20,555	2,085,231	0	1.017	1.516	1.114	3,581,455	
	2020	20,016	2,754,555	0	1.017	1.458	1.114	4,550,039	
	<u>2021</u>	<u>19,657</u>	<u>1,494,493</u>	<u>0</u>	<u>1.017</u>	<u>1.401</u>	<u>1.114</u>	<u>2,372,128</u>	
	Total	103,415	11,607,550	0				20,088,086	11.54
120	2017	29,905	1,926,962	0	1.017	1.640	1.114	3,580,331	
	2018	28,463	3,815,493	0	1.017	1.576	1.114	6,812,602	
	2019	27,328	1,991,245	0	1.017	1.516	1.114	3,420,031	
	2020	26,435	2,051,653	0	1.017	1.458	1.114	3,388,969	
	<u>2021</u>	<u>25,747</u>	<u>1,570,843</u>	<u>0</u>	<u>1.017</u>	<u>1.401</u>	<u>1.114</u>	<u>2,493,314</u>	
	Total	137,878	11,356,196	0				19,695,247	10.74
130	2017	7,894	357,669	0	1.025	1.640	1.114	669,783	
	2018	8,012	391,334	0	1.025	1.576	1.114	704,227	
	2019	7,996	434,203	0	1.025	1.516	1.114	751,625	
	2020	7,905	669,413	0	1.025	1.458	1.114	1,114,450	
	<u>2021</u>	<u>7,938</u>	<u>472,344</u>	<u>0</u>	<u>1.025</u>	<u>1.401</u>	<u>1.114</u>	<u>755,624</u>	
	Total	39,745	2,324,963	0				3,995,709	13.75
140	2017	51,211	2,801,821	0	1.025	1.640	1.114	5,246,785	
	2018	51,345	3,457,543	0	1.025	1.576	1.114	6,222,041	
	2019	50,689	2,970,294	0	1.025	1.516	1.114	5,141,711	
	2020	49,968	3,491,344	0	1.025	1.458	1.114	5,812,450	
	<u>2021</u>	<u>50,415</u>	<u>4,758,369</u>	<u>0</u>	<u>1.025</u>	<u>1.401</u>	<u>1.114</u>	<u>7,612,114</u>	
	Total	253,628	17,479,371	0				30,035,101	15.83
150	2017	30,503	1,249,792	0	1.025	1.640	1.114	2,340,403	
	2018	30,960	2,455,930	0	1.025	1.576	1.114	4,419,583	
	2019	31,033	1,637,151	0	1.025	1.516	1.114	2,833,981	
	2020	30,862	3,140,542	0	1.025	1.458	1.114	5,228,429	
	<u>2021</u>	<u>31,378</u>	<u>4,490,546</u>	<u>0</u>	<u>1.025</u>	<u>1.401</u>	<u>1.114</u>	<u>7,183,669</u>	
	Total	154,736	12,973,961	0				22,006,065	21.06

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

**CALCULATION OF NON-HURRICANE EXPERIENCE BASE CLASS LOSS COST
EXTENDED COVERAGE**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
	Earned House Years	Trended Average Rating Factor	Non-Hurricane Adjusted Incurred Losses	Adjusted Incurred Excess Losses	Excess Factor	Loss Trend Factor	Trended LAE Factor	Trended Non-Hurricane Losses & LAE Adjusted for Excess [(3)-(4)]x(5)x(6)x(7)	Non-Hurricane Experience Base Class Loss Cost (8)/[(1)x(2)]	
<u>Territory</u>	<u>Year</u>	<u>Years</u>	<u>Factor</u>	<u>Losses</u>	<u>Excess Losses</u>	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>	<u>[(3)-(4)]x(5)x(6)x(7)</u>	<u>(8)/[(1)x(2)]</u>
160	2017	28,797	7.560	1,462,293	0	1.025	1.640	1.114	2,738,340	
	2018	28,715	7.523	2,288,782	0	1.025	1.576	1.114	4,118,790	
	2019	27,339	7.471	1,676,511	0	1.025	1.516	1.114	2,902,115	
	2020	26,456	7.411	2,259,701	0	1.025	1.458	1.114	3,761,989	
	<u>2021</u>	<u>26,732</u>	<u>7.346</u>	<u>2,556,798</u>	<u>0</u>	<u>1.025</u>	<u>1.401</u>	<u>1.114</u>	<u>4,090,191</u>	
	Total	138,039	7.466	10,244,085	0				17,611,425	17.09
170	2017	3,524	6.185	121,292	0	1.067	1.640	1.114	236,443	
	2018	3,673	6.221	259,901	0	1.067	1.576	1.114	486,871	
	2019	3,780	6.254	2,280,693	1,936,308	1.067	1.516	1.114	620,573	
	2020	3,973	6.397	972,294	552,263	1.067	1.458	1.114	727,928	
	<u>2021</u>	<u>4,234</u>	<u>6.622</u>	<u>264,252</u>	<u>0</u>	<u>1.067</u>	<u>1.401</u>	<u>1.114</u>	<u>440,054</u>	
	Total	19,184	6.344	3,898,432	2,488,571				2,511,869	20.64
180	2017	29,527	7.429	1,167,133	0	1.067	1.640	1.114	2,275,170	
	2018	30,086	7.486	1,306,366	0	1.067	1.576	1.114	2,447,207	
	2019	30,576	7.496	3,280,225	0	1.067	1.516	1.114	5,910,884	
	2020	30,916	7.528	3,761,872	0	1.067	1.458	1.114	6,519,453	
	<u>2021</u>	<u>31,566</u>	<u>7.506</u>	<u>2,685,460</u>	<u>0</u>	<u>1.067</u>	<u>1.401</u>	<u>1.114</u>	<u>4,472,048</u>	
	Total	152,671	7.489	12,201,056	0				21,624,762	18.91
190	2017	12,158	5.941	469,947	0	1.067	1.640	1.114	916,099	
	2018	12,615	5.984	504,368	0	1.067	1.576	1.114	944,829	
	2019	12,900	5.935	541,939	0	1.067	1.516	1.114	976,561	
	2020	13,166	5.913	1,065,742	0	1.067	1.458	1.114	1,846,967	
	<u>2021</u>	<u>13,667</u>	<u>5.940</u>	<u>966,806</u>	<u>0</u>	<u>1.067</u>	<u>1.401</u>	<u>1.114</u>	<u>1,610,004</u>	
	Total	64,506	5.942	3,548,802	0				6,294,460	16.42
200	2017	7,582	5.125	246,797	0	1.067	1.640	1.114	481,098	
	2018	7,700	5.184	187,241	0	1.067	1.576	1.114	350,757	
	2019	7,736	5.192	290,022	0	1.067	1.516	1.114	522,612	
	2020	7,774	5.270	542,381	0	1.067	1.458	1.114	939,965	
	<u>2021</u>	<u>7,976</u>	<u>5.385</u>	<u>251,575</u>	<u>0</u>	<u>1.067</u>	<u>1.401</u>	<u>1.114</u>	<u>418,943</u>	
	Total	38,768	5.232	1,518,016	0				2,713,375	13.38

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

**CALCULATION OF NON-HURRICANE EXPERIENCE BASE CLASS LOSS COST
EXTENDED COVERAGE**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
		Trended	Non-Hurricane	Adjusted	Excess	Loss	Trended	Trended	Non-Hurricane	
		Average	Adjusted	Incurred	Factor	Trend	LAE	Non-Hurricane	Experience	
		Rating	Incurred	Excess	Factor	Factor	Factor	Adjusted	Base Class	
		Factor	Losses	Losses	Factor	Factor	Factor	for Excess	Loss Cost	
<u>Territory</u>	<u>Year</u>	<u>Years</u>	<u>Factor</u>	<u>Losses</u>	<u>Excess Losses</u>	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>	<u>Loss Cost</u>	
								$[(3)-(4)] \times (5) \times (6) \times (7)$	$(8) / [(1) \times (2)]$	
210	2017	9,217	6.308	374,267	0	1.067	1.640	1.114	729,583	
	2018	9,603	6.326	378,263	0	1.067	1.576	1.114	708,598	
	2019	9,810	6.344	974,993	163,799	1.067	1.516	1.114	1,461,751	
	2020	10,087	6.424	1,673,656	702,936	1.067	1.458	1.114	1,682,291	
	<u>2021</u>	<u>10,696</u>	<u>6.515</u>	<u>1,088,337</u>	<u>0</u>	<u>1.067</u>	<u>1.401</u>	<u>1.114</u>	<u>1,812,388</u>	
	Total	49,413	6.387	4,489,516	866,735				6,394,611	20.26
220	2017	30,573	12.582	4,726,355	685,321	1.067	1.640	1.114	7,877,456	
	2018	30,731	12.926	5,502,977	1,260,182	1.067	1.576	1.114	7,948,000	
	2019	31,854	12.945	3,885,759	0	1.067	1.516	1.114	7,002,041	
	2020	32,271	12.910	6,028,391	295,391	1.067	1.458	1.114	9,935,485	
	<u>2021</u>	<u>31,606</u>	<u>12.674</u>	<u>4,574,841</u>	<u>0</u>	<u>1.067</u>	<u>1.401</u>	<u>1.114</u>	<u>7,618,400</u>	
	Total	157,035	12.806	24,718,323	2,240,894				40,381,382	20.08
230	2017	19,994	4.343	253,524	0	1.067	1.640	1.114	494,211	
	2018	19,868	4.402	409,129	0	1.067	1.576	1.114	766,419	
	2019	19,561	4.554	546,824	0	1.067	1.516	1.114	985,363	
	2020	19,572	4.595	1,307,479	0	1.067	1.458	1.114	2,265,906	
	<u>2021</u>	<u>20,123</u>	<u>4.589</u>	<u>1,721,210</u>	<u>0</u>	<u>1.067</u>	<u>1.401</u>	<u>1.114</u>	<u>2,866,300</u>	
	Total	99,118	4.495	4,238,166	0				7,378,199	16.56
240	2017	27,545	6.752	1,322,058	0	1.067	1.640	1.114	2,577,175	
	2018	27,875	6.776	1,855,288	0	1.067	1.576	1.114	3,475,499	
	2019	28,332	6.697	3,137,364	718,456	1.067	1.516	1.114	4,358,812	
	2020	28,681	6.749	3,984,055	1,203,185	1.067	1.458	1.114	4,819,343	
	<u>2021</u>	<u>29,997</u>	<u>7.012</u>	<u>3,765,195</u>	<u>719,152</u>	<u>1.067</u>	<u>1.401</u>	<u>1.114</u>	<u>5,072,520</u>	
	Total	142,430	6.799	14,063,960	2,640,793				20,303,349	20.97
250	2017	16,990	10.560	1,372,115	0	1.067	1.640	1.114	2,674,755	
	2018	16,958	10.924	1,980,472	0	1.067	1.576	1.114	3,710,005	
	2019	17,119	11.164	1,753,036	0	1.067	1.516	1.114	3,158,927	
	2020	17,237	11.279	3,310,691	337,690	1.067	1.458	1.114	5,152,312	
	<u>2021</u>	<u>16,896</u>	<u>10.941</u>	<u>2,397,457</u>	<u>0</u>	<u>1.067</u>	<u>1.401</u>	<u>1.114</u>	<u>3,992,442</u>	
	Total	85,200	10.971	10,813,771	337,690				18,688,441	19.99

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

**CALCULATION OF NON-HURRICANE EXPERIENCE BASE CLASS LOSS COST
EXTENDED COVERAGE**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
	Earned House Years	Trended Average Rating Factor	Non-Hurricane Adjusted Incurred Losses	Adjusted Incurred Excess Losses	Excess Factor	Loss Trend Factor	Trended LAE Factor	Trended Non-Hurricane Losses & LAE Adjusted for Excess [(3)-(4)]x(5)x(6)x(7)	Non-Hurricane Experience Base Class Loss Cost (8)/[(1)x(2)]	
<u>Territory</u>	<u>Year</u>	<u>Years</u>	<u>Factor</u>	<u>Losses</u>	<u>Excess Losses</u>	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>	<u>[(3)-(4)]x(5)x(6)x(7)</u>	<u>(8)/[(1)x(2)]</u>
260	2017	12,165	6.355	403,886	0	1.067	1.640	1.114	787,322	
	2018	12,367	6.356	786,582	34,610	1.067	1.576	1.114	1,408,664	
	2019	14,052	7.726	978,354	0	1.067	1.516	1.114	1,762,970	
	2020	13,972	7.772	1,401,630	0	1.067	1.458	1.114	2,429,073	
	<u>2021</u>	<u>12,669</u>	<u>6.310</u>	<u>1,282,616</u>	<u>144,936</u>	1.067	1.401	1.114	<u>1,894,558</u>	
	Total	65,225	6.962	4,853,068	179,546				8,282,587	18.24
270	2017	33,703	15.278	7,683,845	3,519,201	1.067	1.640	1.114	8,118,417	
	2018	34,704	15.688	5,200,725	868,521	1.067	1.576	1.114	8,115,490	
	2019	35,563	16.023	7,055,598	1,912,067	1.067	1.516	1.114	9,268,515	
	2020	35,172	16.419	10,488,147	4,845,524	1.067	1.458	1.114	9,778,859	
	<u>2021</u>	<u>37,385</u>	<u>16.754</u>	<u>5,430,963</u>	<u>0</u>	1.067	1.401	1.114	<u>9,044,084</u>	
	Total	176,527	16.033	35,859,278	11,145,313				44,325,365	15.66
280	2017	7,183	12.419	731,378	42,420	1.067	1.640	1.114	1,343,032	
	2018	7,307	12.755	572,358	0	1.067	1.576	1.114	1,072,195	
	2019	7,454	12.740	788,689	0	1.067	1.516	1.114	1,421,198	
	2020	7,624	12.655	1,290,775	318,821	1.067	1.458	1.114	1,684,430	
	<u>2021</u>	<u>8,493</u>	<u>12.752</u>	<u>1,011,447</u>	<u>0</u>	1.067	1.401	1.114	<u>1,684,344</u>	
	Total	38,061	12.665	4,394,647	361,241				7,205,199	14.95
290	2017	9,264	11.885	720,458	0	1.067	1.640	1.114	1,404,437	
	2018	9,259	12.180	1,160,627	0	1.067	1.576	1.114	2,174,195	
	2019	8,723	11.792	635,189	0	1.067	1.516	1.114	1,144,595	
	2020	8,197	11.378	741,572	0	1.067	1.458	1.114	1,285,170	
	<u>2021</u>	<u>8,544</u>	<u>11.557</u>	<u>782,236</u>	<u>0</u>	1.067	1.401	1.114	<u>1,302,643</u>	
	Total	43,987	11.775	4,040,082	0				7,311,040	14.12
300	2017	10,576	5.558	447,901	0	1.067	1.640	1.114	873,123	
	2018	10,541	5.599	485,419	0	1.067	1.576	1.114	909,332	
	2019	11,022	6.226	463,623	0	1.067	1.516	1.114	835,437	
	2020	11,841	6.845	2,006,518	1,143,715	1.067	1.458	1.114	1,495,267	
	<u>2021</u>	<u>12,191</u>	<u>6.802</u>	<u>706,763</u>	<u>0</u>	1.067	1.401	1.114	<u>1,176,960</u>	
	Total	56,171	6.243	4,110,224	1,143,715				5,290,119	15.09

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

**CALCULATION OF NON-HURRICANE EXPERIENCE BASE CLASS LOSS COST
EXTENDED COVERAGE**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Trended Average Rating Factor	Non-Hurricane Adjusted Incurred Losses	Adjusted Incurred Excess Losses	Excess Factor	Loss Trend Factor	Trended LAE Factor	Trended Non-Hurricane Losses & LAE Adjusted for Excess [(3)-(4)]x(5)x(6)x(7)	Non-Hurricane Experience Base Class Loss Cost (8)/[(1)x(2)]
<u>Territory</u>	<u>Year</u>	<u>Earned House Years</u>							
310	2017	56,515	9.869	5,033,582	1,208,060	1.067	1.640	1.114	7,457,344
	2018	55,674	9.893	9,407,111	5,437,310	1.067	1.576	1.114	7,436,602
	2019	55,106	9.979	5,756,956	1,266,530	1.067	1.516	1.114	8,091,636
	2020	55,522	10.337	7,619,604	2,179,207	1.067	1.458	1.114	9,428,394
	<u>2021</u>	<u>56,380</u>	<u>10.518</u>	<u>6,952,888</u>	<u>1,063,792</u>	1.067	1.401	1.114	<u>9,807,005</u>
	Total	279,197	10.119	34,770,141	11,154,899				42,220,981
320	2017	26,947	9.689	2,578,293	541,442	1.067	1.640	1.114	3,970,569
	2018	26,507	9.630	2,793,334	689,953	1.067	1.576	1.114	3,940,250
	2019	26,009	9.567	3,446,693	1,147,749	1.067	1.516	1.114	4,142,640
	2020	24,913	9.551	3,659,128	1,006,260	1.067	1.458	1.114	4,597,511
	<u>2021</u>	<u>24,861</u>	<u>9.668</u>	<u>3,730,889</u>	<u>958,838</u>	1.067	1.401	1.114	<u>4,616,246</u>
	Total	129,237	9.620	16,208,337	4,344,242				21,267,216
330	2017	2,488	6.201	318,642	217,632	1.067	1.640	1.114	196,905
	2018	2,438	6.119	161,837	53,892	1.067	1.576	1.114	202,213
	2019	2,484	6.330	180,607	47,138	1.067	1.516	1.114	240,508
	2020	2,509	6.472	171,024	0	1.067	1.458	1.114	296,390
	<u>2021</u>	<u>2,434</u>	<u>6.315</u>	<u>149,716</u>	<u>0</u>	1.067	1.401	1.114	<u>249,319</u>
	Total	12,353	6.289	981,826	318,662				1,185,335
340	2017	49,642	13.305	7,910,099	3,939,229	1.067	1.640	1.114	7,740,680
	2018	48,697	13.553	7,791,672	3,771,169	1.067	1.576	1.114	7,531,582
	2019	47,969	13.634	7,690,118	2,968,386	1.067	1.516	1.114	8,508,444
	2020	47,172	13.681	11,537,275	5,895,548	1.067	1.458	1.114	9,777,306
	<u>2021</u>	<u>46,874</u>	<u>13.686</u>	<u>5,580,822</u>	<u>0</u>	1.067	1.401	1.114	<u>9,293,642</u>
	Total	240,354	13.568	40,509,986	16,574,332				42,851,654
350	2017	24,759	8.562	2,473,550	952,317	1.067	1.640	1.114	2,965,440
	2018	24,118	8.649	2,816,294	1,303,944	1.067	1.576	1.114	2,833,075
	2019	23,948	8.705	1,793,762	86,101	1.067	1.516	1.114	3,077,163
	2020	23,511	8.960	2,897,809	921,503	1.067	1.458	1.114	3,425,006
	<u>2021</u>	<u>23,436</u>	<u>9.217</u>	<u>1,779,123</u>	<u>0</u>	1.067	1.401	1.114	<u>2,962,741</u>
	Total	119,772	8.815	11,760,538	3,263,865				15,263,425

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

**CALCULATION OF NON-HURRICANE EXPERIENCE BASE CLASS LOSS COST
EXTENDED COVERAGE**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Trended	Non-Hurricane	Adjusted	Excess	Loss	Trended	Trended	Non-Hurricane
		Average	Adjusted	Incurred	Factor	Trend	LAE	Non-Hurricane	Experience
		Rating	Incurred	Excess	Factor	Factor	Adjusted	Losses & LAE	Base Class
		Factor	Losses	Losses	Factor	Factor	for Excess	Adjusted	Loss Cost
<u>Territory</u>	<u>Year</u>	<u>Earned</u> <u>House</u> <u>Years</u>	<u>Adjusted</u> <u>Incurred</u> <u>Losses</u>	<u>Adjusted</u> <u>Incurred</u> <u>Excess</u> <u>Losses</u>	<u>Excess</u> <u>Factor</u>	<u>Loss</u> <u>Trend</u> <u>Factor</u>	<u>Trended</u> <u>LAE</u> <u>Factor</u>	<u>[(3)-(4)]x(5)x(6)x(7)</u>	<u>(8)/[(1)x(2)]</u>
360	2017	47,335	5,090,465	1,786,753	1.067	1.640	1.114	6,440,145	
	2018	45,952	3,720,057	457,567	1.067	1.576	1.114	6,111,601	
	2019	46,670	3,458,253	0	1.067	1.516	1.114	6,231,686	
	2020	47,133	3,783,331	0	1.067	1.458	1.114	6,556,642	
	<u>2021</u>	<u>46,896</u>	<u>3,075,773</u>	<u>0</u>	<u>1.067</u>	<u>1.401</u>	<u>1.114</u>	<u>5,122,029</u>	
	Total	233,986	19,127,879	2,244,320				30,462,103	12.88
370	2017	3,109	122,896	0	1.067	1.640	1.114	239,569	
	2018	2,975	248,755	70,149	1.067	1.576	1.114	334,581	
	2019	3,076	267,086	61,430	1.067	1.516	1.114	370,587	
	2020	3,189	163,493	0	1.067	1.458	1.114	283,339	
	<u>2021</u>	<u>3,187</u>	<u>129,820</u>	<u>0</u>	<u>1.067</u>	<u>1.401</u>	<u>1.114</u>	<u>216,187</u>	
	Total	15,536	932,050	131,579				1,444,263	10.69
380	2017	8,259	590,708	21,856	1.067	1.640	1.114	1,108,901	
	2018	8,160	695,014	109,812	1.067	1.576	1.114	1,096,255	
	2019	8,315	473,770	0	1.067	1.516	1.114	853,722	
	2020	8,399	925,523	229,530	1.067	1.458	1.114	1,206,180	
	<u>2021</u>	<u>8,241</u>	<u>511,133</u>	<u>0</u>	<u>1.067</u>	<u>1.401</u>	<u>1.114</u>	<u>851,181</u>	
	Total	41,374	3,196,148	361,198				5,116,239	12.09
390	2017	8,160	646,250	43,299	1.067	1.640	1.114	1,175,372	
	2018	8,041	586,132	0	1.067	1.576	1.114	1,097,997	
	2019	8,091	448,250	0	1.067	1.516	1.114	807,735	
	2020	7,983	568,424	0	1.067	1.458	1.114	985,098	
	<u>2021</u>	<u>7,876</u>	<u>361,074</u>	<u>0</u>	<u>1.067</u>	<u>1.401</u>	<u>1.114</u>	<u>601,290</u>	
	Total	40,151	2,610,130	43,299				4,667,492	11.06
Statewide	2017	627,472	54,934,539	12,957,530				80,989,113	
	2018	624,584	64,161,714	14,057,109				92,633,699	
	2019	625,090	60,922,438	10,307,964				90,385,278	
	2020	622,456	84,268,022	19,631,573				110,974,641	
	<u>2021</u>	<u>628,095</u>	<u>64,543,789</u>	<u>2,886,718</u>				<u>101,632,368</u>	
	Total	3,127,697	328,830,502	59,840,894				476,615,099	15.91

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

DERIVATION OF MODELED HURRICANE BASE CLASS LOSS COST

<u>Territory</u>	(1) Modeled Hurricane Losses ^(a)	(2) Latest-Year Earned House Years	(3) Latest-Year Trended Average Rating Factor	(4) Modeled Hurricane Base Class Loss Cost = (1) / [(2)x(3)]
110	20,534,087	19,657	16.379	63.78
120	23,193,356	25,747	12.973	69.44
130	2,507,769	7,938	7.451	42.40
140	21,004,892	50,415	7.394	56.35
150	4,747,763	31,378	6.632	22.81
160	5,336,009	26,732	7.346	27.17
170	268,884	4,234	6.622	9.59
180	3,229,864	31,566	7.506	13.63
190	1,715,607	13,667	5.940	21.13
200	1,065,398	7,976	5.385	24.81
210	758,049	10,696	6.515	10.88
220	2,915,282	31,606	12.674	7.28
230	1,759,724	20,123	4.589	19.06
240	1,774,390	29,997	7.012	8.44
250	1,179,695	16,896	10.941	6.38
260	452,477	12,669	6.310	5.66
270	1,895,095	37,385	16.754	3.03
280	340,796	8,493	12.752	3.15
290	436,618	8,544	11.557	4.42
300	418,721	12,191	6.802	5.05
310	1,271,947	56,380	10.518	2.14
320	686,907	24,861	9.668	2.86
330	36,541	2,434	6.315	2.38
340	1,258,985	46,874	13.686	1.96
350	409,520	23,436	9.217	1.90
360	520,418	46,896	10.401	1.07
370	23,024	3,187	9.178	0.79
380	54,969	8,241	10.442	0.64
390	46,669	7,876	10.440	0.57
Statewide	99,843,453	628,095	9.494	16.74

^(a) The modeled hurricane losses include a loading for LAE of 6.0%.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

DERIVATION OF NET COST OF REINSURANCE

<u>Territory</u>	(1) <u>Net Cost of Reinsurance</u>	(2) <u>Latest-Year Earned House Years</u>	(3) <u>Latest-Year Trended Average Rating Factor</u>	(4) <u>Expected Loss and Fixed Expense Ratio</u>	(5) <u>Net Cost of Reinsurance per Policy ^(a) = (1) / [(2)x(3)x(4)]</u>
110	28,490,383	19,657	16.379	78.1%	113.30
120	43,328,771	25,747	12.973	78.1%	166.10
130	3,880,550	7,938	7.451	78.1%	84.01
140	37,867,058	50,415	7.394	78.1%	130.07
150	8,270,730	31,378	6.632	78.1%	50.89
160	10,855,286	26,732	7.346	78.1%	70.78
170	445,403	4,234	6.622	78.1%	20.34
180	6,242,999	31,566	7.506	78.1%	33.74
190	3,440,041	13,667	5.940	78.1%	54.26
200	2,103,067	7,976	5.385	78.1%	62.69
210	1,482,095	10,696	6.515	78.1%	27.23
220	6,074,994	31,606	12.674	78.1%	19.42
230	3,376,168	20,123	4.589	78.1%	46.81
240	3,450,565	29,997	7.012	78.1%	21.00
250	2,349,958	16,896	10.941	78.1%	16.28
260	851,461	12,669	6.310	78.1%	13.64
270	3,891,142	37,385	16.754	78.1%	7.95
280	679,673	8,493	12.752	78.1%	8.04
290	874,121	8,544	11.557	78.1%	11.33
300	752,645	12,191	6.802	78.1%	11.62
310	2,432,750	56,380	10.518	78.1%	5.25
320	1,198,176	24,861	9.668	78.1%	6.38
330	59,050	2,434	6.315	78.1%	4.92
340	1,918,292	46,874	13.686	78.1%	3.83
350	497,836	23,436	9.217	78.1%	2.95
360	571,981	46,896	10.401	78.1%	1.50
370	24,440	3,187	9.178	78.1%	1.07
380	34,011	8,241	10.442	78.1%	0.51
390	19,926	7,876	10.440	78.1%	0.31
Statewide	175,463,573	628,095	9.494	78.1%	37.68

^(a) For use on page C-12 Column (17)

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

SECTION E - SUPPLEMENTAL MATERIAL

North Carolina G.S. 58-36-15(h) specifies that the following information must be included in all policy form, rule and rate filings filed under Article 36. 11 NCAC 10.1105 specifies that additional detail be provided under each of these items. These materials are contained on the pages indicated.

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NORTH CAROLINA

DWELLING PROPERTY INSURANCE

EARNED PREMIUMS AT ACTUAL AND CURRENT RATE LEVELS

I. Earned Premium at Collected Rate Level

<u>Year</u>	<u>Fire</u>	<u>Extended Coverage</u>
2017	\$ 82,659,114	\$ 171,361,054
2018	84,858,721	171,725,762
2019	76,386,516	186,667,671
2020	67,721,689	202,240,080
2021	69,354,337	214,671,393

II. Earned Premium at Current Rate Level

<u>Year</u>	<u>Fire</u>	<u>Extended Coverage</u>
2017	\$ 71,817,797	\$ 284,269,799
2018	72,188,512	282,339,308
2019	72,838,133	279,443,401
2020	73,357,838	277,131,720
2021	74,789,801	281,463,075

NORTH CAROLINA**DWELLING PROPERTY INSURANCE****PAID/INCURRED LOSSES AND ALLOCATED LOSS ADJUSTMENT EXPENSE****I. Paid Losses**

The Rate Bureau is advised by ISO that paid loss and loss adjustment expenses are not available for the experience period of this filing.

II. Incurred Losses ^(a)

<u>Year</u>	<u>Fire</u>	<u>Extended Coverage</u>
2017	\$ 37,882,585	\$ 55,199,515
2018	42,978,127	643,307,574
2019	46,159,755	87,945,773
2020	40,284,268	115,021,120
2021	45,159,992	67,259,452

^(a) Incurred losses are developed, adjusted to a common deductible of \$500, include actual hurricane losses and do not include loss adjustment expense.

NORTH CAROLINA
DWELLING PROPERTY INSURANCE
ANTICIPATED LOSS AND LOSS ADJUSTMENT EXPENSE RATIOS

Loss and LAE ratios that were anticipated at the time the rates were promulgated for the experience period:

<u>Rate Filing</u>	<u>Years in Experience Period Affected</u>	<u>Anticipated Loss and LAE Ratios</u>	
		<u>Fire</u>	<u>Extended Coverage</u>
2011	2017 - 2020	0.539	0.166
2018	2019 – 2021	0.604	0.278
2019	2020 - 2021	0.583	0.288
2020	2021	0.586	0.323

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

EXCLUDED COMPANIES

(The market shares shown are based on 2021 Dwelling Fire and Extended Coverage written premium.)

The historical experience used to develop the statewide rate-level indications, territory rate-level indications and class indications is based on the experience of companies and residual market entities reporting to the Insurance Services Office (full statistical plan) and the Independent Statistical Service. The historical premium and loss experience utilized in this filing, after accounting for the premium and loss experience of reporting companies whose data were not included (as described below), accounts for 99.03% of the total North Carolina Residential Dwelling insurance market.

The experience reported to the National Insurance Statistical Service is not considered in this review as over 98% of its reported premium is not written using the Rate Bureau's policy program. The experience reported to the American Association of Insurance Services and to Insurance Services Office under the Statistical Agent Plan is excluded because it is not available in sufficient detail. This experience, including the portion reported to the National Insurance Statistical Service which was written using the Rate Bureau's policy program, accounts for approximately 0.48% of the total North Carolina Dwelling insurance market.

Premium and loss experience for the following insurers is not included in the filed experience: Bankers Standard Insurance Company, Federal Insurance Company, Hanover Insurance Company, Lighthouse Property Insurance Corporation, Massachusetts Bay Insurance Company, Pacific Indemnity Company, and Vigilant Insurance Company. The experience for these companies was not included pending resolution of data anomalies.

The loss development factors used in the calculation of the statewide rate level indications are based on North Carolina experience reported to ISO. This experience represents 22.78% of the market. See also the prefiled testimony of P. Anderson and P. Ericksen.

The expense data for the following insurers is not included in the 2020 and 2021 expense calculations: American Family Home Insurance Company, American Modern Home Insurance Company, American Modern Property and Casualty Insurance Company, and American Modern Select Insurance Company. The expense data for these companies was not included pending resolution of data anomalies.

Earned House Years by year are as follows:

<u>Year</u>	<u>Fire</u>	<u>Extended Coverage</u>
2017	631,323	627,472
2018	631,921	624,584
2019	633,872	625,090
2020	634,980	622,456
2021	643,996	628,095

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

**ADJUSTMENTS TO PREMIUMS, LOSSES, LOSS ADJUSTMENT EXPENSES,
EXPENSES AND EXPOSURES**

Adjustments made to premiums, losses, loss adjustment expenses, and expenses are set forth below and in the prefiled testimony of P. Anderson, M. Mao and P. Ericksen.

Losses are adjusted to the \$500 base deductible level by application of loss elimination ratios. These factors are applied on a record-by-record basis and vary by cause of loss.

Losses were developed to an ultimate basis through the application of loss development factors.

Non-hurricane losses for Extended Coverage have been smoothed using an excess procedure.

Additionally, due to the volatile nature and the catastrophic potential of hurricane losses, they have been removed from the actual data. A separate provision for hurricane losses was included based on modeled hurricane losses developed by Aon.

NORTH CAROLINA**DWELLING PROPERTY INSURANCE****EARNED PREMIUM AT PRESENT RATES CALCULATION**

Earned premium at present rates by coverage is calculated by the following formula for each exposure:

Fire Premium = Territory Base Rate × Amount of Insurance Factor × Optional Coverage Factor

Extended Coverage Premium = Territory Base Rate × Amount of Insurance Factor × Optional Coverage Factor

The results are then summed to generate the aggregate earned premium at present rates used in the rate review.

A sample calculation for a single insured is shown below. This sample insured is in Territory 230, Coverage A, \$30,000 amount of insurance, protection class 8, masonry construction, Extended Coverage policy form 1.

Fire:

(1)	Territory 230, Coverage A, protection class 8, masonry construction base rate	\$65
(2)	Amount of insurance factor for \$30,000	1.60
(3)	Optional Coverage Factor	1.00
(4)	Earned premium at present rates (1)×(2)×(3)	\$104.00

Extended Coverage:

(1)	Territory 230, Coverage A, masonry construction, policy form 1 base rate	\$94
(2)	Amount of insurance factor for \$30,000	1.79
(3)	Optional Coverage Factor	1.00
(4)	Earned premium at present rates (1)×(2)×(3)	\$168.26

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

TOP TEN DWELLING FIRE INSURANCE WRITERS

<u>Company Name</u>	<u>2021 Written Premium^(a)</u>	<u>2021 Written Premium Market Share</u>	<u>2021 Earned Premium^(a)</u>	<u>2021 Earned Premium Market Share</u>
North Carolina Joint Underwriting Association (FAIR Plan)	35,739,630	48.26%	34,278,959	47.25%
North Carolina Farm Bureau Mutual Insurance Company	7,933,402	10.71%	8,036,581	11.08%
United Services Automobile Association	4,752,342	6.42%	5,146,048	7.09%
North Carolina Insurance Underwriting Association (Beach Plan)	3,822,042	5.16%	3,773,531	5.20%
Nationwide Mutual Fire Insurance Company	3,361,817	4.54%	3,458,551	4.77%
American Modern Select Insurance Company	2,588,098	3.49%	3,112,959	4.29%
American Strategic Insurance Company	2,436,980	3.29%	2,185,828	3.01%
USAA Casualty Insurance Company	1,728,287	2.33%	1,758,473	2.42%
USAA General Indemnity Company	966,746	1.31%	1,015,599	1.40%
The Cincinnati Insurance Company	904,593	1.22%	950,625	1.31%
Total	64,233,937	86.73%	63,717,154	87.82%
Grand Total	74,061,869		72,552,687	

^(a) The premium amounts for the Beach and FAIR Plans were taken from their December 2021 statutory financial statements. For all other writers, the premium amounts were taken from the NCRB Expense Experience data call, based on 2021 Annual Statement, Statutory Page 14, Line 1.0 (Residential Only).

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

TOP TEN DWELLING EXTENDED COVERAGE INSURANCE WRITERS

<u>Company Name</u>	<u>2021 Written Premium^(a)</u>	<u>2021 Written Premium Market Share</u>	<u>2021 Earned Premium^(a)</u>	<u>2021 Earned Premium Market Share</u>
North Carolina Joint Underwriting Association (FAIR Plan)	82,862,753	35.78%	77,420,278	34.60%
North Carolina Insurance Underwriting Association (Beach Plan)	71,443,810	30.85%	69,037,250	30.85%
United Services Automobile Association	17,207,847	7.43%	18,261,059	8.16%
North Carolina Farm Bureau Mutual Insurance Company	11,722,906	5.06%	11,607,890	5.19%
Nationwide Mutual Fire Insurance Company	7,384,841	3.19%	7,447,023	3.33%
American Modern Select Insurance Company	5,210,005	2.25%	6,151,092	2.75%
USAA Casualty Insurance Company	4,824,728	2.08%	4,779,963	2.14%
Pennsylvania National Mutual Casualty Insurance Co	3,018,593	1.30%	2,928,245	1.31%
American Strategic Insurance Company	2,980,074	1.29%	2,663,655	1.19%
USAA General Indemnity Company	2,800,158	1.21%	2,884,089	1.29%
Total	209,455,715	90.44%	203,180,544	90.81%
Grand Total	231,599,143		223,750,108	

^(a) The premium amounts for the Beach and FAIR Plans were taken from their December 2021 statutory financial statements. For all other writers, the premium amounts were taken from the NCRB Expense Experience data call, based on 2021 Annual Statement, Statutory Page 14, Line 2.1 (Residential Only).

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

LOSSES AND LOSS ADJUSTMENT EXPENSE

The data requested by 11 NCAC 10.1105(1)(i)(i,ii) were not being collected or reported in the experience period. The response to 11 NCAC 10.1105(1), page E-4, provides incurred loss and loss adjustment expense information. The response to 11 NCAC 10.1105(1)(l) provides incurred data by cause of loss. Additional information concerning loss adjustment expenses is provided in the response to 11 NCAC 10.1105(7). Additional information concerning loss trend is provided in Section D and in the prefiled testimony of P. Anderson and P. Ericksen.

(iii) Applied Loss Development Factor

<u>Year</u>	<u>Fire</u>	<u>Extended Coverage</u>
2017	1.000	1.000
2018	1.000	1.000
2019	0.998	1.001
2020	0.995	1.005
2021	0.958	1.039

(iv) Loss Adjustment Expense Factor

	<u>Fire</u>	<u>Extended Coverage</u>
Non-Hurricane	1.083	1.114
Hurricane	-	1.060

(v) Applied Loss Trend Factor

<u>Year</u>	<u>Fire</u>	<u>Extended Coverage</u>
2017	1.487	1.640
2018	1.466	1.576
2019	1.444	1.516
2020	1.423	1.458
2021	1.401	1.401

(vi) Trended Incurred Losses and LAE

<u>Year</u>	<u>Fire</u>	<u>Extended Coverage</u>
2017	\$ 61,006,910	\$ 100,823,839
2018	68,235,427	1,080,144,319
2019	72,187,025	146,312,693
2020	62,082,448	184,397,431
2021	68,520,488	104,767,317

(vii) This information is given in the response to 11 NCAC 10.1105(1), page E-5.

NORTH CAROLINA
DWELLING PROPERTY INSURANCE
EXCESS LOSS PROCEDURE

See Section D and prefiled testimony of P. Anderson, P. Ericksen, and M. Mao.

NORTH CAROLINA
DWELLING PROPERTY INSURANCE
CAUSE OF LOSS DATA

Loss experience by cause of loss is provided on the attached Exhibit (1)(l).

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

LOSSES BY CAUSE
EXTENDED COVERAGE

<u>Territory</u>	<u>Cause of Loss</u>	<u>Year</u>	<u>Incurred Losses</u>	<u>Incurred Claims</u>	<u>Average Loss</u>	<u>Frequency per-100</u>	<u>Pure Premium</u>
110	Wind and Hail	2017	288,971	32	9,030	0.15	13.17
		2018	901,799	117	7,708	0.55	42.46
		2019	10,250,068	1,121	9,144	5.45	498.67
		2020	1,240,667	125	9,925	0.62	61.98
		2021	389,323	49	7,945	0.25	19.81
	Water Damage and Freezing	2017	1,967,336	129	15,251	0.59	89.64
		2018	2,598,065	181	14,354	0.85	122.32
		2019	1,154,249	97	11,899	0.47	56.15
		2020	1,614,675	124	13,022	0.62	80.67
		2021	1,057,598	119	8,887	0.61	53.80
	All Other Physical Damage	2017	85,083	11	7,735	0.05	3.88
		2018	119,709	15	7,981	0.07	5.64
		2019	230,962	16	14,435	0.08	11.24
		2020	106,240	14	7,589	0.07	5.31
		2021	93,300	11	8,482	0.06	4.75
	Vandalism & Malicious Mischief	2017	0	0	0	0.00	0.00
		2018	54,338	10	5,434	0.05	2.56
		2019	64,863	8	8,108	0.04	3.16
		2020	10,224	3	3,408	0.01	0.51
		2021	0	0	0	0.00	0.00
	Total	2017	2,341,390	172	13,613	0.78	106.68
		2018	3,673,911	323	11,374	1.52	172.97
		2019	11,700,142	1,242	9,420	6.04	569.21
		2020	2,971,806	266	11,172	1.33	148.47
		2021	1,540,221	179	8,605	0.91	78.35
120	Wind and Hail	2017	597,997	104	5,750	0.35	20.00
		2018	188,917,604	8,830	21,395	31.02	6,637.30
		2019	5,611,776	412	13,621	1.51	205.35
		2020	9,436,277	897	10,520	3.39	356.96
		2021	664,089	60	11,068	0.23	25.79
	Water Damage and Freezing	2017	1,299,517	106	12,260	0.35	43.45
		2018	2,443,461	220	11,107	0.77	85.85
		2019	1,174,346	106	11,079	0.39	42.97
		2020	1,318,306	121	10,895	0.46	49.87
		2021	1,037,456	111	9,346	0.43	40.29
	All Other Physical Damage	2017	54,585	11	4,962	0.04	1.83
		2018	197,493	29	6,810	0.10	6.94
		2019	78,774	17	4,634	0.06	2.88
		2020	107,488	15	7,166	0.06	4.07
		2021	50,176	10	5,018	0.04	1.95
	Vandalism & Malicious Mischief	2017	3,808	3	1,269	0.01	0.13
		2018	38,069	8	4,759	0.03	1.34
		2019	3,570	2	1,785	0.01	0.13
		2020	5,273	2	2,637	0.01	0.20
		2021	28,811	5	5,762	0.02	1.12
	Total	2017	1,955,907	224	8,732	0.75	65.40
		2018	191,596,627	9,087	21,085	31.93	6,731.43
		2019	6,868,466	537	12,790	1.97	251.33
		2020	10,867,344	1,035	10,500	3.92	411.10
		2021	1,780,532	186	9,573	0.72	69.15

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

LOSSES BY CAUSE
EXTENDED COVERAGE

<u>Territory</u>	<u>Cause of Loss</u>	<u>Year</u>	<u>Incurred Losses</u>	<u>Incurred Claims</u>	<u>Average Loss</u>	<u>Frequency per-100</u>	<u>Pure Premium</u>
130	Wind and Hail	2017	225,578	33	6,836	0.42	28.58
		2018	4,184,423	514	8,141	6.42	522.27
		2019	1,880,505	266	7,070	3.33	235.18
		2020	720,563	112	6,434	1.42	91.15
		2021	156,896	27	5,811	0.34	19.77
	Water Damage and Freezing	2017	133,570	19	7,030	0.24	16.92
		2018	248,397	28	8,871	0.35	31.00
		2019	229,352	19	12,071	0.24	28.68
		2020	114,085	19	6,004	0.24	14.43
		2021	296,354	40	7,409	0.50	37.33
	All Other Physical Damage	2017	13,824	7	1,975	0.09	1.75
		2018	21,633	5	4,327	0.06	2.70
		2019	25,164	6	4,194	0.08	3.15
		2020	14,340	3	4,780	0.04	1.81
		2021	19,094	2	9,547	0.03	2.41
	Vandalism & Malicious Mischief	2017	0	0	0	0.00	0.00
		2018	0	0	0	0.00	0.00
		2019	554	1	554	0.01	0.07
		2020	0	0	0	0.00	0.00
		2021	0	0	0	0.00	0.00
	Total	2017	372,972	59	6,322	0.75	47.25
		2018	4,454,453	547	8,143	6.83	555.97
		2019	2,135,575	292	7,314	3.65	267.08
		2020	848,988	134	6,336	1.70	107.40
		2021	472,344	69	6,846	0.87	59.50
140	Wind and Hail	2017	1,225,807	222	5,522	0.43	23.94
		2018	164,984,589	13,156	12,541	25.62	3,213.26
		2019	5,018,931	668	7,513	1.32	99.01
		2020	6,944,050	943	7,364	1.89	138.97
		2021	2,980,585	210	14,193	0.42	59.12
	Water Damage and Freezing	2017	1,376,957	178	7,736	0.35	26.89
		2018	2,376,153	246	9,659	0.48	46.28
		2019	1,395,961	155	9,006	0.31	27.54
		2020	1,583,936	175	9,051	0.35	31.70
		2021	1,312,738	150	8,752	0.30	26.04
	All Other Physical Damage	2017	182,198	41	4,444	0.08	3.56
		2018	2,392,902	221	10,828	0.43	46.60
		2019	522,751	55	9,505	0.11	10.31
		2020	319,134	51	6,258	0.10	6.39
		2021	534,996	61	8,770	0.12	10.61
	Vandalism & Malicious Mischief	2017	21,579	10	2,158	0.02	0.42
		2018	24,286	9	2,698	0.02	0.47
		2019	38,468	9	4,274	0.02	0.76
		2020	58,073	10	5,807	0.02	1.16
		2021	23,512	4	5,878	0.01	0.47
	Total	2017	2,806,541	451	6,223	0.88	54.80
		2018	169,777,930	13,632	12,454	26.55	3,306.61
		2019	6,976,111	887	7,865	1.75	137.63
		2020	8,905,193	1,179	7,553	2.36	178.22
		2021	4,851,831	425	11,416	0.84	96.24

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

LOSSES BY CAUSE
EXTENDED COVERAGE

<u>Territory</u>	<u>Cause of Loss</u>	<u>Year</u>	<u>Incurred Losses</u>	<u>Incurred Claims</u>	<u>Average Loss</u>	<u>Frequency per-100</u>	<u>Pure Premium</u>
150	Wind and Hail	2017	687,798	159	4,326	0.52	22.55
		2018	24,962,394	2,963	8,425	9.57	806.28
		2019	3,844,680	668	5,756	2.15	123.89
		2020	4,542,652	776	5,854	2.51	147.19
		2021	3,616,231	319	11,336	1.02	115.25
	Water Damage and Freezing	2017	438,396	76	5,768	0.25	14.37
		2018	1,405,696	123	11,428	0.40	45.40
		2019	521,992	72	7,250	0.23	16.82
		2020	651,670	100	6,517	0.32	21.12
		2021	665,659	98	6,792	0.31	21.21
	All Other Physical Damage	2017	136,044	40	3,401	0.13	4.46
		2018	607,479	92	6,603	0.30	19.62
		2019	153,834	35	4,395	0.11	4.96
		2020	141,271	29	4,871	0.09	4.58
		2021	317,830	34	9,348	0.11	10.13
	Vandalism & Malicious Mischief	2017	4,088	1	4,088	0.00	0.13
		2018	34,320	8	4,290	0.03	1.11
		2019	9,879	3	3,293	0.01	0.32
		2020	13,518	1	13,518	0.00	0.44
		2021	17,773	4	4,443	0.01	0.57
Total	2017	1,266,326	276	4,588	0.90	41.51	
	2018	27,009,889	3,186	8,478	10.29	872.41	
	2019	4,530,385	778	5,823	2.51	145.99	
	2020	5,349,111	906	5,904	2.94	173.32	
	2021	4,617,493	455	10,148	1.45	147.16	
160	Wind and Hail	2017	583,703	122	4,784	0.42	20.27
		2018	92,084,781	8,300	11,095	28.90	3,206.85
		2019	1,389,937	220	6,318	0.80	50.84
		2020	3,680,131	567	6,491	2.14	139.10
		2021	1,277,150	138	9,255	0.52	47.78
	Water Damage and Freezing	2017	683,635	100	6,836	0.35	23.74
		2018	1,265,724	183	6,917	0.64	44.08
		2019	750,257	93	8,067	0.34	27.44
		2020	657,056	86	7,640	0.33	24.84
		2021	1,210,630	122	9,923	0.46	45.29
	All Other Physical Damage	2017	162,470	38	4,276	0.13	5.64
		2018	1,154,999	165	7,000	0.57	40.22
		2019	428,398	41	10,449	0.15	15.67
		2020	301,009	44	6,841	0.17	11.38
		2021	188,906	31	6,094	0.12	7.07
	Vandalism & Malicious Mischief	2017	32,485	9	3,609	0.03	1.13
		2018	61,083	12	5,090	0.04	2.13
		2019	38,243	9	4,249	0.03	1.40
		2020	63,777	5	12,755	0.02	2.41
		2021	19,436	7	2,777	0.03	0.73
Total	2017	1,462,293	269	5,436	0.93	50.78	
	2018	94,566,587	8,660	10,920	30.16	3,293.28	
	2019	2,606,835	363	7,181	1.33	95.35	
	2020	4,701,973	702	6,698	2.65	177.73	
	2021	2,696,122	298	9,047	1.11	100.86	

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

LOSSES BY CAUSE
EXTENDED COVERAGE

<u>Territory</u>	<u>Cause of Loss</u>	<u>Year</u>	<u>Incurred Losses</u>	<u>Incurred Claims</u>	<u>Average Loss</u>	<u>Frequency per-100</u>	<u>Pure Premium</u>
170	Wind and Hail	2017	96,014	28	3,429	0.79	27.25
		2018	251,089	82	3,062	2.23	68.36
		2019	2,198,041	252	8,722	6.67	581.49
		2020	1,385,015	232	5,970	5.84	348.61
		2021	224,754	43	5,227	1.02	53.08
	Water Damage and Freezing	2017	21,699	6	3,617	0.17	6.16
		2018	57,251	14	4,089	0.38	15.59
		2019	58,146	16	3,634	0.42	15.38
		2020	12,848	5	2,570	0.13	3.23
		2021	20,512	7	2,930	0.17	4.84
	All Other Physical Damage	2017	2,842	1	2,842	0.03	0.81
		2018	16,333	7	2,333	0.19	4.45
		2019	59,118	10	5,912	0.26	15.64
		2020	56,990	15	3,799	0.38	14.34
		2021	20,256	6	3,376	0.14	4.78
	Vandalism & Malicious Mischief	2017	737	1	737	0.03	0.21
		2018	2,054	2	1,027	0.05	0.56
		2019	0	0	0	0.00	0.00
		2020	6,904	1	6,904	0.03	1.74
		2021	15,928	2	7,964	0.05	3.76
Total	2017	121,292	36	3,369	1.02	34.42	
	2018	326,727	105	3,112	2.86	88.95	
	2019	2,315,305	278	8,328	7.35	612.51	
	2020	1,461,757	253	5,778	6.37	367.92	
	2021	281,450	58	4,853	1.37	66.47	
180	Wind and Hail	2017	578,647	153	3,782	0.52	19.60
		2018	6,811,194	1,220	5,583	4.06	226.39
		2019	3,292,567	472	6,976	1.54	107.68
		2020	4,497,589	833	5,399	2.69	145.48
		2021	1,964,533	302	6,505	0.96	62.24
	Water Damage and Freezing	2017	381,166	85	4,484	0.29	12.91
		2018	579,984	112	5,178	0.37	19.28
		2019	530,440	91	5,829	0.30	17.35
		2020	634,719	123	5,160	0.40	20.53
		2021	714,649	114	6,269	0.36	22.64
	All Other Physical Damage	2017	202,158	44	4,595	0.15	6.85
		2018	227,906	48	4,748	0.16	7.58
		2019	301,188	51	5,906	0.17	9.85
		2020	312,905	59	5,303	0.19	10.12
		2021	255,084	37	6,894	0.12	8.08
	Vandalism & Malicious Mischief	2017	14,317	8	1,790	0.03	0.48
		2018	42,097	7	6,014	0.02	1.40
		2019	23,694	14	1,692	0.05	0.77
		2020	28,990	8	3,624	0.03	0.94
		2021	26,274	3	8,758	0.01	0.83
Total	2017	1,176,288	290	4,056	0.98	39.84	
	2018	7,661,181	1,387	5,524	4.61	254.64	
	2019	4,147,889	628	6,605	2.05	135.66	
	2020	5,474,203	1,023	5,351	3.31	177.07	
	2021	2,960,540	456	6,492	1.44	93.79	

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

LOSSES BY CAUSE
EXTENDED COVERAGE

<u>Territory</u>	<u>Cause of Loss</u>	<u>Year</u>	<u>Incurred Losses</u>	<u>Incurred Claims</u>	<u>Average Loss</u>	<u>Frequency per-100</u>	<u>Pure Premium</u>
190	Wind and Hail	2017	272,463	69	3,949	0.57	22.41
		2018	10,992,951	1,594	6,896	12.64	871.42
		2019	751,373	139	5,406	1.08	58.25
		2020	1,252,727	231	5,423	1.75	95.15
		2021	661,684	92	7,192	0.67	48.41
	Water Damage and Freezing	2017	151,951	19	7,997	0.16	12.50
		2018	219,310	37	5,927	0.29	17.38
		2019	141,910	26	5,458	0.20	11.00
		2020	203,671	44	4,629	0.33	15.47
		2021	190,934	30	6,364	0.22	13.97
	All Other Physical Damage	2017	39,802	18	2,211	0.15	3.27
		2018	80,767	24	3,365	0.19	6.40
		2019	91,614	15	6,108	0.12	7.10
		2020	47,667	13	3,667	0.10	3.62
		2021	179,682	24	7,487	0.18	13.15
	Vandalism & Malicious Mischief	2017	5,731	4	1,433	0.03	0.47
		2018	3,763	4	941	0.03	0.30
		2019	32,077	3	10,692	0.02	2.49
		2020	3,529	3	1,176	0.02	0.27
		2021	0	0	0	0.00	0.00
Total	2017	469,947	110	4,272	0.90	38.65	
	2018	11,296,791	1,659	6,809	13.15	895.50	
	2019	1,016,974	183	5,557	1.42	78.84	
	2020	1,507,594	291	5,181	2.21	114.51	
	2021	1,032,300	146	7,071	1.07	75.53	
200	Wind and Hail	2017	187,395	43	4,358	0.57	24.72
		2018	10,806,880	1,399	7,725	18.17	1,403.49
		2019	583,636	75	7,782	0.97	75.44
		2020	679,272	96	7,076	1.23	87.38
		2021	172,373	27	6,384	0.34	21.61
	Water Damage and Freezing	2017	37,725	12	3,144	0.16	4.98
		2018	123,700	17	7,276	0.22	16.06
		2019	32,631	7	4,662	0.09	4.22
		2020	98,593	19	5,189	0.24	12.68
		2021	33,273	9	3,697	0.11	4.17
	All Other Physical Damage	2017	7,757	4	1,939	0.05	1.02
		2018	73,325	17	4,313	0.22	9.52
		2019	49,728	10	4,973	0.13	6.43
		2020	63,797	6	10,633	0.08	8.21
		2021	14,246	4	3,562	0.05	1.79
	Vandalism & Malicious Mischief	2017	13,920	2	6,960	0.03	1.84
		2018	1,918	2	959	0.03	0.25
		2019	3,668	3	1,223	0.04	0.47
		2020	10,263	2	5,132	0.03	1.32
		2021	33,234	4	8,309	0.05	4.17
Total	2017	246,797	61	4,046	0.80	32.55	
	2018	11,005,823	1,435	7,670	18.64	1,429.33	
	2019	669,663	95	7,049	1.23	86.56	
	2020	851,925	123	6,926	1.58	109.59	
	2021	253,126	44	5,753	0.55	31.74	

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

LOSSES BY CAUSE
EXTENDED COVERAGE

<u>Territory</u>	<u>Cause of Loss</u>	<u>Year</u>	<u>Incurred Losses</u>	<u>Incurred Claims</u>	<u>Average Loss</u>	<u>Frequency per-100</u>	<u>Pure Premium</u>
210	Wind and Hail	2017	247,288	40	6,182	0.43	26.83
		2018	889,726	162	5,492	1.69	92.65
		2019	828,104	130	6,370	1.33	84.41
		2020	1,578,773	246	6,418	2.44	156.52
		2021	954,906	130	7,345	1.22	89.28
	Water Damage and Freezing	2017	57,349	20	2,867	0.22	6.22
		2018	103,617	23	4,505	0.24	10.79
		2019	113,364	23	4,929	0.23	11.56
		2020	163,334	34	4,804	0.34	16.19
		2021	212,148	39	5,440	0.36	19.83
	All Other Physical Damage	2017	70,747	16	4,422	0.17	7.68
		2018	60,794	10	6,079	0.10	6.33
		2019	61,022	18	3,390	0.18	6.22
		2020	101,212	19	5,327	0.19	10.03
		2021	37,094	15	2,473	0.14	3.47
	Vandalism & Malicious Mischief	2017	709	0	0	0.00	0.08
		2018	12,629	2	6,315	0.02	1.32
		2019	18,357	6	3,060	0.06	1.87
		2020	13,935	5	2,787	0.05	1.38
		2021	13,518	3	4,506	0.03	1.26
Total	2017	376,093	76	4,949	0.82	40.80	
	2018	1,066,766	197	5,415	2.05	111.09	
	2019	1,020,847	177	5,767	1.80	104.06	
	2020	1,857,254	304	6,109	3.01	184.12	
	2021	1,217,666	187	6,512	1.75	113.84	
220	Wind and Hail	2017	2,066,581	372	5,555	1.22	67.59
		2018	24,974,645	4,123	6,057	13.42	812.69
		2019	1,829,043	306	5,977	0.96	57.42
		2020	4,232,199	654	6,471	2.03	131.15
		2021	2,266,276	310	7,311	0.98	71.70
	Water Damage and Freezing	2017	1,857,765	266	6,984	0.87	60.76
		2018	3,420,499	428	7,992	1.39	111.30
		2019	1,749,727	251	6,971	0.79	54.93
		2020	1,555,304	236	6,590	0.73	48.20
		2021	1,725,660	199	8,672	0.63	54.60
	All Other Physical Damage	2017	652,104	135	4,830	0.44	21.33
		2018	793,601	151	5,256	0.49	25.82
		2019	556,492	95	5,858	0.30	17.47
		2020	608,538	117	5,201	0.36	18.86
		2021	710,740	88	8,077	0.28	22.49
	Vandalism & Malicious Mischief	2017	186,164	34	5,475	0.11	6.09
		2018	202,836	38	5,338	0.12	6.60
		2019	143,354	38	3,772	0.12	4.50
		2020	308,738	35	8,821	0.11	9.57
		2021	222,572	31	7,180	0.10	7.04
Total	2017	4,762,614	807	5,902	2.64	155.78	
	2018	29,391,581	4,740	6,201	15.42	956.41	
	2019	4,278,616	690	6,201	2.17	134.32	
	2020	6,704,779	1,042	6,435	3.23	207.76	
	2021	4,925,248	628	7,843	1.99	155.83	

NORTH CAROLINA

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<u>Territory</u>	<u>Cause of Loss</u>	<u>Year</u>	<u>Incurred Losses</u>	<u>Incurred Claims</u>	<u>Average Loss</u>	<u>Frequency per-100</u>	<u>Pure Premium</u>
230	Wind and Hail	2017	125,590	54	2,326	0.27	6.28
		2018	16,531,566	2,858	5,784	14.38	832.07
		2019	400,874	106	3,782	0.54	20.49
		2020	1,076,933	221	4,873	1.13	55.02
		2021	1,366,248	203	6,730	1.01	67.89
	Water Damage and Freezing	2017	40,069	14	2,862	0.07	2.00
		2018	182,216	35	5,206	0.18	9.17
		2019	57,903	14	4,136	0.07	2.96
		2020	137,338	23	5,971	0.12	7.02
		2021	160,167	28	5,720	0.14	7.96
	All Other Physical Damage	2017	59,283	21	2,823	0.11	2.97
		2018	104,882	36	2,913	0.18	5.28
		2019	178,522	31	5,759	0.16	9.13
		2020	143,457	37	3,877	0.19	7.33
		2021	205,766	35	5,879	0.17	10.23
	Vandalism & Malicious Mischief	2017	29,474	10	2,947	0.05	1.47
		2018	21,135	7	3,019	0.04	1.06
		2019	38,624	7	5,518	0.04	1.97
		2020	35,429	12	2,952	0.06	1.81
		2021	37,806	9	4,201	0.04	1.88
	Total	2017	254,416	99	2,570	0.50	12.72
		2018	16,839,799	2,936	5,736	14.78	847.58
		2019	675,923	158	4,278	0.81	34.55
		2020	1,393,157	293	4,755	1.50	71.18
		2021	1,769,987	275	6,436	1.37	87.96
240	Wind and Hail	2017	737,953	193	3,824	0.70	26.79
		2018	3,782,648	640	5,910	2.30	135.70
		2019	2,838,296	440	6,451	1.55	100.18
		2020	3,381,168	585	5,780	2.04	117.89
		2021	2,755,172	380	7,250	1.27	91.85
	Water Damage and Freezing	2017	309,021	73	4,233	0.27	11.22
		2018	924,116	79	11,698	0.28	33.15
		2019	228,622	56	4,083	0.20	8.07
		2020	745,407	114	6,539	0.40	25.99
		2021	587,026	74	7,933	0.25	19.57
	All Other Physical Damage	2017	275,183	34	8,094	0.12	9.99
		2018	216,388	48	4,508	0.17	7.76
		2019	289,539	43	6,733	0.15	10.22
		2020	368,411	74	4,979	0.26	12.85
		2021	501,301	55	9,115	0.18	16.71
	Vandalism & Malicious Mischief	2017	10,073	5	2,015	0.02	0.37
		2018	24,540	8	3,068	0.03	0.88
		2019	26,572	7	3,796	0.02	0.94
		2020	20,410	8	2,551	0.03	0.71
		2021	193,448	11	17,586	0.04	6.45
	Total	2017	1,332,230	305	4,368	1.11	48.37
		2018	4,947,692	775	6,384	2.78	177.50
		2019	3,383,029	546	6,196	1.93	119.41
		2020	4,515,396	781	5,782	2.72	157.44
		2021	4,036,947	520	7,763	1.73	134.58

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<u>Territory</u>	<u>Cause of Loss</u>	<u>Year</u>	<u>Incurred Losses</u>	<u>Incurred Claims</u>	<u>Average Loss</u>	<u>Frequency per-100</u>	<u>Pure Premium</u>
250	Wind and Hail	2017	645,167	126	5,120	0.74	37.97
		2018	10,768,609	1,680	6,410	9.91	635.02
		2019	1,059,554	159	6,664	0.93	61.89
		2020	2,200,472	346	6,360	2.01	127.66
		2021	1,474,351	213	6,922	1.26	87.26
	Water Damage and Freezing	2017	562,785	79	7,124	0.46	33.12
		2018	991,957	136	7,294	0.80	58.49
		2019	700,622	96	7,298	0.56	40.93
		2020	996,010	99	10,061	0.57	57.78
		2021	815,761	96	8,498	0.57	48.28
	All Other Physical Damage	2017	150,567	38	3,962	0.22	8.86
		2018	318,146	70	4,545	0.41	18.76
		2019	124,156	39	3,183	0.23	7.25
		2020	99,015	31	3,194	0.18	5.74
		2021	148,600	25	5,944	0.15	8.79
	Vandalism & Malicious Mischief	2017	26,731	6	4,455	0.04	1.57
		2018	60,610	13	4,662	0.08	3.57
		2019	28,115	3	9,372	0.02	1.64
		2020	358,789	17	21,105	0.10	20.82
		2021	49,060	9	5,451	0.05	2.90
Total	2017	1,385,250	249	5,563	1.47	81.53	
	2018	12,139,322	1,899	6,392	11.20	715.85	
	2019	1,912,447	297	6,439	1.73	111.71	
	2020	3,654,286	493	7,412	2.86	212.00	
	2021	2,487,772	343	7,253	2.03	147.24	
260	Wind and Hail	2017	234,646	57	4,117	0.47	19.29
		2018	1,258,738	248	5,076	2.01	101.78
		2019	534,184	100	5,342	0.71	38.01
		2020	1,155,008	229	5,044	1.64	82.67
		2021	817,709	138	5,925	1.09	64.54
	Water Damage and Freezing	2017	51,206	14	3,658	0.12	4.21
		2018	242,264	26	9,318	0.21	19.59
		2019	269,437	27	9,979	0.19	19.17
		2020	163,716	35	4,678	0.25	11.72
		2021	239,462	32	7,483	0.25	18.90
	All Other Physical Damage	2017	101,033	20	5,052	0.16	8.31
		2018	140,306	25	5,612	0.20	11.35
		2019	168,760	29	5,819	0.21	12.01
		2020	216,312	26	8,320	0.19	15.48
		2021	237,234	40	5,931	0.32	18.73
	Vandalism & Malicious Mischief	2017	17,001	1	17,001	0.01	1.40
		2018	33,586	1	33,586	0.01	2.72
		2019	9,772	2	4,886	0.01	0.70
		2020	19,001	3	6,334	0.02	1.36
		2021	9,468	3	3,156	0.02	0.75
Total	2017	403,886	92	4,390	0.76	33.20	
	2018	1,674,894	300	5,583	2.43	135.43	
	2019	982,153	158	6,216	1.12	69.89	
	2020	1,554,037	293	5,304	2.10	111.23	
	2021	1,303,873	213	6,121	1.68	102.92	

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<u>Territory</u>	<u>Cause of Loss</u>	<u>Year</u>	<u>Incurred Losses</u>	<u>Incurred Claims</u>	<u>Average Loss</u>	<u>Frequency per-100</u>	<u>Pure Premium</u>
270	Wind and Hail	2017	3,944,889	527	7,486	1.56	117.05
		2018	3,181,330	448	7,101	1.29	91.67
		2019	4,041,766	504	8,019	1.42	113.65
		2020	6,340,340	775	8,181	2.20	180.27
		2021	2,291,756	277	8,273	0.74	61.30
	Water Damage and Freezing	2017	2,173,215	234	9,287	0.69	64.48
		2018	2,827,849	271	10,435	0.78	81.48
		2019	2,051,559	228	8,998	0.64	57.69
		2020	2,993,752	276	10,847	0.78	85.12
		2021	2,580,245	256	10,079	0.68	69.02
	All Other Physical Damage	2017	1,552,470	156	9,952	0.46	46.06
		2018	1,000,042	161	6,211	0.46	28.82
		2019	921,059	128	7,196	0.36	25.90
		2020	1,706,213	170	10,037	0.48	48.51
		2021	649,042	95	6,832	0.25	17.36
	Vandalism & Malicious Mischief	2017	21,007	10	2,101	0.03	0.62
		2018	142,638	14	10,188	0.04	4.11
		2019	130,140	15	8,676	0.04	3.66
		2020	72,706	10	7,271	0.03	2.07
		2021	83,019	11	7,547	0.03	2.22
	Total	2017	7,691,581	927	8,297	2.75	228.22
		2018	7,151,859	894	8,000	2.58	206.08
		2019	7,144,524	875	8,165	2.46	200.90
		2020	11,113,011	1,231	9,028	3.50	315.96
		2021	5,604,062	639	8,770	1.71	149.90
280	Wind and Hail	2017	128,739	30	4,291	0.42	17.92
		2018	705,279	111	6,354	1.52	96.52
		2019	414,334	51	8,124	0.68	55.59
		2020	902,600	82	11,007	1.08	118.39
		2021	649,268	85	7,638	1.00	76.45
	Water Damage and Freezing	2017	445,348	31	14,366	0.43	62.00
		2018	203,518	36	5,653	0.49	27.85
		2019	188,407	30	6,280	0.40	25.28
		2020	324,288	36	9,008	0.47	42.54
		2021	264,062	30	8,802	0.35	31.09
	All Other Physical Damage	2017	157,291	23	6,839	0.32	21.90
		2018	171,817	25	6,873	0.34	23.51
		2019	187,173	18	10,399	0.24	25.11
		2020	128,447	22	5,839	0.29	16.85
		2021	155,666	24	6,486	0.28	18.33
	Vandalism & Malicious Mischief	2017	0	0	0	0.00	0.00
		2018	20,397	2	10,199	0.03	2.79
		2019	0	0	0	0.00	0.00
		2020	7,680	2	3,840	0.03	1.01
		2021	19,333	6	3,222	0.07	2.28
	Total	2017	731,378	84	8,707	1.17	101.82
		2018	1,101,011	174	6,328	2.38	150.68
		2019	789,914	99	7,979	1.33	105.97
		2020	1,363,015	142	9,599	1.86	178.78
		2021	1,088,329	145	7,506	1.71	128.14

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<u>Territory</u>	<u>Cause of Loss</u>	<u>Year</u>	<u>Incurred Losses</u>	<u>Incurred Claims</u>	<u>Average Loss</u>	<u>Frequency per-100</u>	<u>Pure Premium</u>
290	Wind and Hail	2017	344,927	45	7,665	0.49	37.23
		2018	2,024,729	320	6,327	3.46	218.68
		2019	361,039	38	9,501	0.44	41.39
		2020	474,649	74	6,414	0.90	57.91
		2021	446,845	59	7,574	0.69	52.30
	Water Damage and Freezing	2017	283,926	39	7,280	0.42	30.65
		2018	785,909	84	9,356	0.91	84.88
		2019	198,671	29	6,851	0.33	22.78
		2020	183,803	23	7,991	0.28	22.42
		2021	316,303	27	11,715	0.32	37.02
	All Other Physical Damage	2017	64,790	16	4,049	0.17	6.99
		2018	167,109	25	6,684	0.27	18.05
		2019	56,547	10	5,655	0.11	6.48
		2020	131,165	18	7,287	0.22	16.00
		2021	23,205	8	2,901	0.09	2.72
	Vandalism & Malicious Mischief	2017	36,012	4	9,003	0.04	3.89
		2018	26,304	7	3,758	0.08	2.84
		2019	18,932	2	9,466	0.02	2.17
		2020	0	0	0	0.00	0.00
		2021	0	0	0	0.00	0.00
Total	2017	729,655	104	7,016	1.12	78.76	
	2018	3,004,051	436	6,890	4.71	324.45	
	2019	635,189	79	8,040	0.91	72.82	
	2020	789,617	115	6,866	1.40	96.33	
	2021	786,353	94	8,365	1.10	92.04	
300	Wind and Hail	2017	341,972	84	4,071	0.79	32.33
		2018	3,344,491	570	5,868	5.41	317.28
		2019	288,421	63	4,578	0.57	26.17
		2020	1,794,692	292	6,146	2.47	151.57
		2021	482,953	93	5,193	0.76	39.62
	Water Damage and Freezing	2017	73,617	15	4,908	0.14	6.96
		2018	71,317	17	4,195	0.16	6.77
		2019	53,188	9	5,910	0.08	4.83
		2020	175,343	15	11,690	0.13	14.81
		2021	75,145	17	4,420	0.14	6.16
	All Other Physical Damage	2017	32,006	10	3,201	0.09	3.03
		2018	141,995	32	4,437	0.30	13.47
		2019	119,456	22	5,430	0.20	10.84
		2020	184,904	31	5,965	0.26	15.62
		2021	111,310	22	5,060	0.18	9.13
	Vandalism & Malicious Mischief	2017	306	2	153	0.02	0.03
		2018	4,219	2	2,110	0.02	0.40
		2019	9,920	4	2,480	0.04	0.90
		2020	15,269	5	3,054	0.04	1.29
		2021	51,769	2	25,885	0.02	4.25
Total	2017	447,901	111	4,035	1.05	42.35	
	2018	3,562,022	621	5,736	5.89	337.92	
	2019	470,985	98	4,806	0.89	42.73	
	2020	2,170,208	343	6,327	2.90	183.28	
	2021	721,177	134	5,382	1.10	59.16	

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310	Wind and Hail	2017	2,726,574	528	5,164	0.93	48.25
		2018	11,118,977	1,369	8,122	2.46	199.72
		2019	3,892,482	600	6,487	1.09	70.64
		2020	6,309,495	1,077	5,858	1.94	113.64
		2021	3,550,469	510	6,962	0.90	62.97
	Water Damage and Freezing	2017	1,337,189	153	8,740	0.27	23.66
		2018	1,230,380	206	5,973	0.37	22.10
		2019	775,156	113	6,860	0.21	14.07
		2020	1,430,138	190	7,527	0.34	25.76
		2021	1,435,775	173	8,299	0.31	25.47
	All Other Physical Damage	2017	878,215	184	4,773	0.33	15.54
		2018	1,533,778	279	5,497	0.50	27.55
		2019	1,038,119	204	5,089	0.37	18.84
		2020	1,577,508	236	6,684	0.43	28.41
		2021	1,884,858	197	9,568	0.35	33.43
	Vandalism & Malicious Mischief	2017	91,604	18	5,089	0.03	1.62
		2018	57,675	18	3,204	0.03	1.04
		2019	83,445	23	3,628	0.04	1.51
		2020	158,076	25	6,323	0.05	2.85
		2021	254,931	30	8,498	0.05	4.52
Total	2017	5,033,582	883	5,701	1.56	89.07	
	2018	13,940,810	1,872	7,447	3.36	250.40	
	2019	5,789,202	940	6,159	1.71	105.06	
	2020	9,475,217	1,528	6,201	2.75	170.66	
	2021	7,126,033	910	7,831	1.61	126.39	
320	Wind and Hail	2017	1,556,737	301	5,172	1.12	57.77
		2018	3,479,422	491	7,086	1.85	131.26
		2019	2,170,398	328	6,617	1.26	83.45
		2020	3,315,753	492	6,739	1.97	133.09
		2021	2,532,463	304	8,330	1.22	101.86
	Water Damage and Freezing	2017	352,741	61	5,783	0.23	13.09
		2018	615,831	82	7,510	0.31	23.23
		2019	394,644	51	7,738	0.20	15.17
		2020	423,995	62	6,839	0.25	17.02
		2021	445,398	58	7,679	0.23	17.92
	All Other Physical Damage	2017	641,204	101	6,349	0.37	23.80
		2018	794,310	135	5,884	0.51	29.97
		2019	607,391	68	8,932	0.26	23.35
		2020	591,883	95	6,230	0.38	23.76
		2021	729,127	90	8,101	0.36	29.33
	Vandalism & Malicious Mischief	2017	27,611	9	3,068	0.03	1.02
		2018	62,618	13	4,817	0.05	2.36
		2019	286,790	9	31,866	0.03	11.03
		2020	12,022	6	2,004	0.02	0.48
		2021	88,803	8	11,100	0.03	3.57
Total	2017	2,578,293	472	5,462	1.75	95.68	
	2018	4,952,181	721	6,868	2.72	186.83	
	2019	3,459,223	456	7,586	1.75	133.00	
	2020	4,343,653	655	6,632	2.63	174.35	
	2021	3,795,791	460	8,252	1.85	152.68	

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330	Wind and Hail	2017	118,222	26	4,547	1.05	47.52
		2018	131,454	24	5,477	0.98	53.92
		2019	127,201	26	4,892	1.05	51.21
		2020	240,246	48	5,005	1.91	95.75
		2021	132,673	13	10,206	0.53	54.51
	Water Damage and Freezing	2017	136,579	2	68,290	0.08	54.90
		2018	20,943	4	5,236	0.16	8.59
		2019	18,932	2	9,466	0.08	7.62
		2020	36,377	5	7,275	0.20	14.50
		2021	611	1	611	0.04	0.25
	All Other Physical Damage	2017	63,841	7	9,120	0.28	25.66
		2018	23,394	7	3,342	0.29	9.60
		2019	34,065	6	5,678	0.24	13.71
		2020	10,009	4	2,502	0.16	3.99
		2021	16,432	3	5,477	0.12	6.75
	Vandalism & Malicious Mischief	2017	0	0	0	0.00	0.00
		2018	0	0	0	0.00	0.00
		2019	409	0	0	0.00	0.16
		2020	0	0	0	0.00	0.00
		2021	0	0	0	0.00	0.00
Total	2017	318,642	35	9,104	1.41	128.07	
	2018	175,791	35	5,023	1.44	72.10	
	2019	180,607	34	5,312	1.37	72.71	
	2020	286,632	57	5,029	2.27	114.24	
	2021	149,716	17	8,807	0.70	61.51	
340	Wind and Hail	2017	4,493,216	756	5,943	1.52	90.51
		2018	7,069,274	941	7,513	1.93	145.17
		2019	3,750,124	513	7,310	1.07	78.18
		2020	8,476,015	1,053	8,049	2.23	179.68
		2021	2,007,660	314	6,394	0.67	42.83
	Water Damage and Freezing	2017	1,583,367	197	8,037	0.40	31.90
		2018	2,182,418	233	9,367	0.48	44.82
		2019	1,601,374	189	8,473	0.39	33.38
		2020	2,442,883	229	10,668	0.49	51.79
		2021	2,128,201	195	10,914	0.42	45.40
	All Other Physical Damage	2017	1,772,462	283	6,263	0.57	35.70
		2018	2,354,758	290	8,120	0.60	48.36
		2019	2,151,274	214	10,053	0.45	44.85
		2020	1,746,410	254	6,876	0.54	37.02
		2021	1,421,547	178	7,986	0.38	30.33
	Vandalism & Malicious Mischief	2017	153,087	30	5,103	0.06	3.08
		2018	136,442	27	5,053	0.06	2.80
		2019	236,995	21	11,285	0.04	4.94
		2020	179,610	18	9,978	0.04	3.81
		2021	215,552	24	8,981	0.05	4.60
Total	2017	8,002,132	1,266	6,321	2.55	161.20	
	2018	11,742,892	1,491	7,876	3.06	241.14	
	2019	7,739,767	937	8,260	1.95	161.35	
	2020	12,844,918	1,554	8,266	3.29	272.30	
	2021	5,772,960	711	8,119	1.52	123.16	

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

LOSSES BY CAUSE
EXTENDED COVERAGE

<u>Territory</u>	<u>Cause of Loss</u>	<u>Year</u>	<u>Incurred Losses</u>	<u>Incurred Claims</u>	<u>Average Loss</u>	<u>Frequency per-100</u>	<u>Pure Premium</u>
350	Wind and Hail	2017	1,608,788	254	6,334	1.03	64.98
		2018	2,602,928	344	7,567	1.43	107.92
		2019	836,382	157	5,327	0.66	34.92
		2020	2,398,598	424	5,657	1.80	102.02
		2021	896,680	112	8,006	0.48	38.26
	Water Damage and Freezing	2017	318,720	44	7,244	0.18	12.87
		2018	378,802	49	7,731	0.20	15.71
		2019	496,530	61	8,140	0.25	20.73
		2020	609,506	64	9,524	0.27	25.92
		2021	434,510	57	7,623	0.24	18.54
	All Other Physical Damage	2017	490,681	92	5,333	0.37	19.82
		2018	710,977	99	7,182	0.41	29.48
		2019	462,144	52	8,887	0.22	19.30
		2020	489,749	58	8,444	0.25	20.83
		2021	417,913	51	8,194	0.22	17.83
	Vandalism & Malicious Mischief	2017	63,347	12	5,279	0.05	2.56
		2018	3,742	3	1,247	0.01	0.16
		2019	27,140	8	3,393	0.03	1.13
		2020	24,776	8	3,097	0.03	1.05
		2021	83,389	17	4,905	0.07	3.56
Total	2017	2,481,536	402	6,173	1.62	100.23	
	2018	3,696,449	495	7,468	2.05	153.27	
	2019	1,822,196	278	6,555	1.16	76.09	
	2020	3,522,629	554	6,359	2.36	149.83	
	2021	1,832,492	237	7,732	1.01	78.19	
360	Wind and Hail	2017	3,145,158	555	5,667	1.17	66.44
		2018	2,826,912	381	7,420	0.83	61.52
		2019	1,880,998	336	5,598	0.72	40.30
		2020	3,007,782	488	6,163	1.04	63.81
		2021	1,498,021	208	7,202	0.44	31.94
	Water Damage and Freezing	2017	1,026,307	104	9,868	0.22	21.68
		2018	995,785	147	6,774	0.32	21.67
		2019	760,432	85	8,946	0.18	16.29
		2020	1,019,607	121	8,427	0.26	21.63
		2021	832,962	116	7,181	0.25	17.76
	All Other Physical Damage	2017	877,018	110	7,973	0.23	18.53
		2018	899,112	160	5,619	0.35	19.57
		2019	822,911	116	7,094	0.25	17.63
		2020	581,775	94	6,189	0.20	12.34
		2021	778,967	105	7,419	0.22	16.61
	Vandalism & Malicious Mischief	2017	42,236	9	4,693	0.02	0.89
		2018	53,108	7	7,587	0.02	1.16
		2019	40,359	10	4,036	0.02	0.86
		2020	75,512	14	5,394	0.03	1.60
		2021	32,484	7	4,641	0.01	0.69
Total	2017	5,090,719	778	6,543	1.64	107.55	
	2018	4,774,917	695	6,870	1.51	103.91	
	2019	3,504,700	547	6,407	1.17	75.10	
	2020	4,684,676	717	6,534	1.52	99.39	
	2021	3,142,434	436	7,207	0.93	67.01	

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

LOSSES BY CAUSE
EXTENDED COVERAGE

<u>Territory</u>	<u>Cause of Loss</u>	<u>Year</u>	<u>Incurred Losses</u>	<u>Incurred Claims</u>	<u>Average Loss</u>	<u>Frequency per-100</u>	<u>Pure Premium</u>
370	Wind and Hail	2017	32,400	13	2,492	0.42	10.42
		2018	142,972	22	6,499	0.74	48.06
		2019	119,186	21	5,676	0.68	38.75
		2020	80,346	14	5,739	0.44	25.19
		2021	83,474	12	6,956	0.38	26.19
	Water Damage and Freezing	2017	47,528	7	6,790	0.23	15.29
		2018	125,824	13	9,679	0.44	42.29
		2019	103,851	6	17,309	0.20	33.76
		2020	50,172	6	8,362	0.19	15.73
		2021	44,877	4	11,219	0.13	14.08
	All Other Physical Damage	2017	40,783	3	13,594	0.10	13.12
		2018	46,521	9	5,169	0.30	15.64
		2019	43,001	4	10,750	0.13	13.98
		2020	40,847	4	10,212	0.13	12.81
		2021	1,469	1	1,469	0.03	0.46
	Vandalism & Malicious Mischief	2017	2,185	1	2,185	0.03	0.70
		2018	368	1	368	0.03	0.12
		2019	1,048	1	1,048	0.03	0.34
		2020	0	0	0	0.00	0.00
		2021	0	0	0	0.00	0.00
	Total	2017	122,896	24	5,121	0.77	39.53
		2018	315,685	45	7,015	1.51	106.11
		2019	267,086	32	8,346	1.04	86.83
		2020	171,365	24	7,140	0.75	53.74
		2021	129,820	17	7,636	0.53	40.73
380	Wind and Hail	2017	335,071	44	7,615	0.53	40.57
		2018	326,681	40	8,167	0.49	40.03
		2019	276,211	51	5,416	0.61	33.22
		2020	843,411	65	12,976	0.77	100.42
		2021	271,513	29	9,363	0.35	32.95
	Water Damage and Freezing	2017	164,357	17	9,668	0.21	19.90
		2018	296,745	27	10,991	0.33	36.37
		2019	91,821	14	6,559	0.17	11.04
		2020	80,858	12	6,738	0.14	9.63
		2021	181,450	23	7,889	0.28	22.02
	All Other Physical Damage	2017	91,280	17	5,369	0.21	11.05
		2018	165,099	25	6,604	0.31	20.23
		2019	94,640	12	7,887	0.14	11.38
		2020	76,523	9	8,503	0.11	9.11
		2021	64,403	14	4,600	0.17	7.81
	Vandalism & Malicious Mischief	2017	0	0	0	0.00	0.00
		2018	1,713	1	1,713	0.01	0.21
		2019	11,098	4	2,775	0.05	1.33
		2020	19,121	1	19,121	0.01	2.28
		2021	4,393	1	4,393	0.01	0.53
	Total	2017	590,708	78	7,573	0.94	71.52
		2018	790,238	93	8,497	1.14	96.84
		2019	473,770	81	5,849	0.97	56.98
		2020	1,019,913	87	11,723	1.04	121.43
		2021	521,759	67	7,787	0.81	63.31

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

LOSSES BY CAUSE
EXTENDED COVERAGE

<u>Territory</u>	<u>Cause of Loss</u>	<u>Year</u>	<u>Incurred Losses</u>	<u>Incurred Claims</u>	<u>Average Loss</u>	<u>Frequency per-100</u>	<u>Pure Premium</u>
390	Wind and Hail	2017	249,734	49	5,097	0.60	30.60
		2018	264,506	34	7,780	0.42	32.89
		2019	231,927	40	5,798	0.49	28.66
		2020	431,028	66	6,531	0.83	53.99
		2021	204,728	21	9,749	0.27	25.99
	Water Damage and Freezing	2017	195,297	17	11,488	0.21	23.93
		2018	76,719	12	6,393	0.15	9.54
		2019	107,412	13	8,262	0.16	13.28
		2020	64,468	14	4,605	0.18	8.08
		2021	75,942	12	6,329	0.15	9.64
	All Other Physical Damage	2017	201,219	25	8,049	0.31	24.66
		2018	276,647	20	13,832	0.25	34.40
		2019	103,588	15	6,906	0.19	12.80
		2020	110,311	18	6,128	0.23	13.82
		2021	75,873	12	6,323	0.15	9.63
	Vandalism & Malicious Mischief	2017	0	0	0	0.00	0.00
		2018	51,823	2	25,912	0.02	6.44
		2019	5,323	3	1,774	0.04	0.66
		2020	11,656	1	11,656	0.01	1.46
		2021	4,531	4	1,133	0.05	0.58
Total	2017	646,250	91	7,102	1.12	79.20	
	2018	669,695	68	9,848	0.85	83.29	
	2019	448,250	71	6,313	0.88	55.40	
	2020	617,463	99	6,237	1.24	77.35	
	2021	361,074	49	7,369	0.62	45.84	
Statewide	Wind and Hail	2017	27,828,025	5,019	5,545	0.80	44.35
		2018	600,322,591	52,981	11,331	8.48	961.16
		2019	60,702,038	8,262	7,347	1.32	97.11
		2020	82,618,451	12,043	6,860	1.93	132.73
		2021	36,790,783	4,678	7,865	0.74	58.58
	Water Damage and Freezing	2017	17,508,338	2,117	8,270	0.34	27.90
		2018	26,994,450	3,069	8,796	0.49	43.22
		2019	15,950,936	1,979	8,060	0.32	25.52
		2020	20,485,858	2,410	8,500	0.39	32.91
		2021	19,095,508	2,237	8,536	0.36	30.40
	All Other Physical Damage	2017	9,058,940	1,506	6,015	0.24	14.44
		2018	14,812,222	2,230	6,642	0.36	23.72
		2019	9,961,390	1,380	7,218	0.22	15.94
		2020	10,383,530	1,566	6,631	0.25	16.68
		2021	9,844,117	1,278	7,703	0.20	15.67
	Vandalism & Malicious Mischief	2017	804,212	189	4,255	0.03	1.28
		2018	1,178,311	228	5,168	0.04	1.89
		2019	1,331,409	215	6,193	0.03	2.13
		2020	1,533,281	205	7,479	0.03	2.46
		2021	1,529,044	205	7,459	0.03	2.43
Total	2017	55,199,515	8,831	6,251	1.41	87.97	
	2018	643,307,574	58,508	10,995	9.37	1,029.98	
	2019	87,945,773	11,836	7,430	1.89	140.69	
	2020	115,021,120	16,224	7,090	2.61	184.79	
	2021	67,259,452	8,398	8,009	1.34	107.08	

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

2. CREDIBILITY FACTOR DEVELOPMENT AND APPLICATION

The volume of North Carolina data is sufficiently large that it is fully credible in both the statewide and class rate level reviews.

To distribute the statewide change by territory, a credibility procedure was used on the five-year (non-hurricane for Extended Coverage) loss costs. The credibility standard used was based on the 'frequency with severity modification' model discussed in "Credibility of the Pure Premium" by Mayerson, Bowers and Jones. The full credibility standard is based on a normal distribution with a 90% probability of meeting the test and a 10% maximum departure from the expected value, translated to house years. The full credibility standards are 500,000 house years for Fire and 330,000 house years for Extended Coverage. Partial credibility (Z_p) is calculated using the square root rule:

$$Z_p = \sqrt{\frac{\text{Five Year House Years}}{\text{Full Credibility Standard}}} \quad (\text{truncated to one decimal place})$$

The Rate Bureau has used the same credibility procedure in all dwelling insurance rate filings made in the last three years.

See Section D and prefiled testimony of P. Anderson and P. Ericksen.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

3. LOSS DEVELOPMENT FACTOR DERIVATION AND APPLICATION ON BOTH PAID AND INCURRED BASES AND IN BOTH NUMBERS AND DOLLARS OF CLAIMS

See Section D and prefiled testimony of P. Ericksen.

Paragraphs (3)(a) through (3)(g) are not applicable to dwelling insurance.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

4. TRENDING FACTOR DEVELOPMENT AND APPLICATION

- (a) See Section D and prefiled testimony of P. Anderson and P. Ericksen. The Rate Bureau has used the same loss trend procedure in all dwelling insurance rate filings made in the last three years.
- (b) See prefiled testimony of P. Anderson and P. Ericksen.
- (c) Not applicable for dwelling insurance.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

5. CHANGES IN PREMIUM BASE RESULTING FROM RATING EXPOSURE TRENDS
- (a) See Section D and prefiled testimony of P. Anderson and P. Ericksen. The Rate Bureau has used the same exposure trend procedure in all dwelling insurance rate filings made in the last three years.
 - (b) Not applicable to dwelling insurance.

NORTH CAROLINA
DWELLING PROPERTY INSURANCE

6. LIMITING FACTOR DEVELOPMENT AND APPLICATION

- (a) There were no limitations.
- (b) There were no limitations.
- (c) There were no limitations.
- (d) There were no limitations.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

7. OVERHEAD EXPENSE DEVELOPMENT AND APPLICATION OF COMMISSION AND BROKERAGE, OTHER ACQUISITION EXPENSES, GENERAL EXPENSES, TAXES, LICENSES, AND FEES
- (a) Exhibit (7)(a) provides all information relating to expense provisions contained in the filing. The Rate Bureau has used the same procedure for overhead expense development and application of commission and brokerage, other acquisition expense, general expenses, taxes, licenses and fees in all dwelling insurance rate filings made in the last three years.
 - (b) Not applicable to dwelling insurance.
 - (c) Not applicable to dwelling insurance.

NORTH CAROLINA
DWELLING PROPERTY INSURANCE

The following provides a description of the derivation of dwelling insurance expense provisions. The underlying expense data are provided by the North Carolina Rate Bureau and are displayed on pages D-22-27.

The filed expense provision methodology makes a distinction between those provisions that require trending and those that do not. For example, since commission and brokerage, and taxes, licenses and fees vary directly with premium, no additional trend is required. In contrast, general expense, other acquisition expense, and loss adjustment expense do not vary directly with premium and are subject to trend.

The provisions for commission and brokerage expenses, 11.3% of written premium for Fire and 9.1% of written premium for Extended Coverage, and the provisions for taxes, licenses, and fees, 2.9% of written premium for Fire and 2.6% of written premium for Extended Coverage, are based on the data shown on pages D-22 and D-25 for the latest three years.

Since general expenses and other acquisition expenses are relative to earned premiums and loss adjustment expenses are relative to losses, separate trend factors are required for premiums, losses, and expenses.

General Expense and Other Acquisition Expense - Based on the 2019-2021 experience on pages D-22 and D-25, the selected loadings for general expenses are 5.0% of earned premium for Fire and 4.0% of earned premium for Extended Coverage, and the selected loadings for other acquisition expenses are 8.2% of earned premium for Fire and 7.0% of earned premium for Extended Coverage. Since these expenses are incurred throughout the twelve-month effective period, both the numerator and denominator of these factors are trended to 12/1/2024 (six months beyond the 6/1/2024 trend effective date).

The average date of payment of the 2019-2021 expenses used to calculate the provisions is 7/1/2020. Similarly, the average date of earning of the 2019-2021 premiums is 7/1/2020. Assuming policies are written with an effective period of one year, the average date of writing is therefore six months earlier, or 1/1/2020. The average date of writing of policies under the proposed rates, and the average date of payment of the expenses on these policies, is six months after the assumed effective date of 6/1/2024, or 12/1/2024. Therefore, the expenses in the numerator are projected 53 months (from 7/1/2020 to 12/1/2024) and the premiums in the denominator are projected 59 months (from 1/1/2020 to 12/1/2024).

The trend factor for expenses in the numerator is based on the rates of change inherent in the Consumer Price Index - All Items, the Consumer Price Index - All Items less Energy and the Compensation Cost Index, displayed on pages D-20-21. Based on a weighted average of the rates of change in these indices, an average annual change of 5.5% was selected. This average annual change is projected 53 months (from 7/1/2020 to 12/1/2024).

To trend the premiums in the denominator, the 2020 Premium Trend Factor is applied. The Premium Trend Factors are shown on page D-18.

NORTH CAROLINA**DWELLING PROPERTY INSURANCE**Loss Adjustment Expense

Fire: Based on the 2017-2021 experience shown on page D-24, loss adjustment expenses (both allocated and unallocated) average 8.7% of incurred losses, after excluding the highest- and lowest-valued years. The average date of loss in these data is 7/1/2019. Both the numerator and denominator are trended 71 months, from 7/1/2019 to 6/1/2025 (12 months beyond the trend effective date of 6/1/2024).

Extended Coverage: Based on the 2017-2021 experience shown on page D-27, loss adjustment expenses (both allocated and unallocated) average 12.6% of incurred losses, after excluding the highest- and lowest-valued years. The average date of loss in these data is 7/1/2019. Both the numerator and denominator are trended 71 months, from 7/1/2019 to 6/1/2025 (12 months beyond the trend effective date of 6/1/2024).

Please note that a separate loss adjustment expense factor is used for modeled hurricane losses. (See prefiled testimony of M. Mao.)

The trend factor used for expenses in the numerator is determined in a similar way as for general and other acquisition expenses. The 5.5% selected average annual change is projected 71 months for Fire and Extended Coverage (from 7/1/2019 to 6/1/2025).

To trend the losses in the denominator, the 2019 Loss Trend Factor is applied. The Loss Trend Factors are shown on page D-16.

No alternate expense trend methodology has been considered within the last three years.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

8. PERCENT RATE CHANGE

The overall statewide rate change by coverage is shown on page A-2. The statewide rate changes are applied uniformly by coverage amount, protection class, construction and deductible.

The proposed rate changes are dependent on the actual implementation date of the new rates, because any such change will affect all of the trending periods used in the filing. Any change in the trending periods will affect all of the losses, fixed expenses, and premiums used in the calculation of the rate level indication.

If the effective date were to be changed, advance notice of one hundred twenty (120) days is required for an orderly implementation of the change in rates. This is the amount of time required to calculate the new rates based on the new effective date and distribute the necessary information to member companies.

NORTH CAROLINA
DWELLING PROPERTY INSURANCE

9. FINAL PROPOSED RATES

The proposed rates are shown in Section B.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

10. INVESTMENT EARNINGS, CONSISTING OF INVESTMENT INCOME AND REALIZED PLUS UNREALIZED CAPITAL GAINS, FROM LOSS, LOSS EXPENSE AND UNEARNED PREMIUM RESERVES

(a) See attached Exhibit (10)(a) and the prefiled testimony of P. Anderson, P. Ericksen and G. Zanjani.

(b) Not applicable to dwelling insurance.

(c) Not applicable to dwelling insurance.

NORTH CAROLINA

DWELLING FIRE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

A. Unearned Premium Reserve

1.	Direct Earned Premium for Accident Year Ended 12/31/21	\$30,278,740
2.	Mean Unearned Premium Reserve, (1) x 0.4734	\$14,333,956
3.	Deduction for Prepaid Expenses	
	Commission and Brokerage	10.43%
	Taxes, Licenses and Fees	2.38%
	1/2 General Expenses	2.36%
	1/2 Other Acquisition	3.81%
	Total	18.98%
4.	(2) x (3)	\$2,720,585
5.	Net Subject to Investment, (2) - (4)	\$11,613,371

B. Delayed Remission of Premium (Agents' Balances)

1.	Direct Earned Premium (A-1)	\$30,278,740
2.	Average Agents' Balances	0.187
3.	Delayed Remission, (1) x (2)	\$5,662,124

C. Loss Reserve

1.	Direct Earned Premium (A-1)	\$30,278,740
2.	Expected Incurred Losses and Loss Adjustment Expense, (1) x 0.6174	\$18,694,094
3.	Expected Mean Loss Reserves, (2) x 0.539	\$10,076,117

D. Net Subject to Investment, (A-5) - (B-3) + (C-3) \$16,027,364

E. Average Rate of Return 2.63%

F. Investment Earnings on Net Subject to
Investment, (D) x (E) \$421,520

G. Average Rate of Return as a Percent of Direct
Earned Premium, (F) / (A-1) 1.39%

H. Average Rate of Return as a Percent of Direct Earned
Premium after Federal Income Taxes, (G) x (1 - 0.156) 1.17%

NORTH CAROLINA

DWELLING EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

A. Unearned Premium Reserve

1.	Direct Earned Premium for Accident Year Ended 12/31/21	\$69,830,692
2.	Mean Unearned Premium Reserve, (1) x 0.4869	\$34,000,564
3.	Deduction for Prepaid Expenses	
	Commission and Brokerage	9.16%
	Taxes, Licenses and Fees	2.18%
	1/2 General Expenses	2.53%
	1/2 Other Acquisition	4.29%
	Total	18.16%
4.	(2) x (3)	\$6,174,502
5.	Net Subject to Investment, (2) - (4)	\$27,826,062

B. Delayed Remission of Premium (Agents' Balances)

1.	Direct Earned Premium (A-1)	\$69,830,692
2.	Average Agents' Balances	0.167
3.	Delayed Remission, (1) x (2)	\$11,661,726

C. Loss Reserve

1.	Direct Earned Premium (A-1)	\$69,830,692
2.	Expected Incurred Losses and Loss Adjustment Expense, (1) x 0.2576	\$17,988,386
3.	Expected Mean Loss Reserves, (2) x 1.059	\$19,049,701

D. Net Subject to Investment, (A-5) - (B-3) + (C-3) \$35,214,037

E. Average Rate of Return 2.63%

F. Investment Earnings on Net Subject to
Investment, (D) x (E) \$926,129

G. Average Rate of Return as a Percent of Direct
Earned Premium, (F) / (A-1) 1.33%

H. Average Rate of Return as a Percent of Direct Earned
Premium after Federal Income Taxes, (G) x (1 - 0.156) 1.12%

NORTH CAROLINA

DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

EXPLANATORY NOTES

Line A-1

Direct earned premiums are the earned premiums for dwelling insurance in North Carolina from Statutory Page 14 of the Annual Statement.

Line A-2

The mean unearned premium reserve is determined by multiplying the direct earned premiums in line (1) by the ratio of the mean unearned premium reserve to the collected earned premium for calendar year ended 12/31/21 for all companies writing Dwelling insurance in North Carolina. These data are from Statutory Page 14 of the Annual Statement.

	<u>Fire</u>	<u>EC</u>
1. Collected Earned Premium for Calendar Year ended 12/31/21	\$271,086,817	\$342,884,781
2. Unearned Premium Reserve as of 12/31/20	\$121,594,938	\$159,573,973
3. Unearned Premium Reserve as of 12/31/21	\$135,060,657	\$174,314,994
4. Mean Unearned Premium Reserve, 1/2 [(2) + (3)]	\$128,327,798	\$166,944,484
5. Ratio, (4) ÷ (1)	0.4734	0.4869

Line A-3

Deduction for prepaid expenses:

Production costs and a large part of the other company expenses in connection with the writing and handling of dwelling policies, exclusive of claim adjustment expenses, are incurred when the policy is written and before the premium is paid. The deduction for these expenses is determined from data provided by the NCRB for the year ended 12/31/21.

Line B-2

Delayed remission of premium:

This deduction is necessary because of delay in remission and collection of premium to the companies, which amounts to approximately 50-75 days after the effective dates of the policies. Therefore, funds for the unearned premium reserve required during the initial days of all policies must be taken from the company's surplus.

1. Agents' balances for premiums due less than 90 days as a ratio to net written premium (based on data for all companies writing dwelling insurance in North Carolina)	0.1833	0.1631
2. Factor to include effect of agents' balances or uncollected premiums overdue for more than 90 days (based on data provided by A. M. Best)	1.021	1.021
3. Factor for agents' balances, (1) x (2)	0.187	0.167

NORTH CAROLINA

DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

EXPLANATORY NOTES

Line C-2

The expected loss and loss adjustment expense ratio reflects the expense provisions for the year ended 12/31/21.

Line C-3

The mean loss reserve is determined by multiplying the incurred losses in line (2) by the North Carolina ratio of the mean loss reserves to the incurred losses in 2021 for dwelling insurance. This ratio is based on North Carolina companies' Statutory Page 14 annual statement data and has been adjusted to include loss adjustment expense reserves.

	<u>Fire</u>	<u>EC</u>
1. Incurred Losses for Calendar Year 2021	\$712,873,576	\$99,395,485
2. Loss Reserves as of 12/31/20	\$61,323,461	\$109,778,079
3. Loss Reserves as of 12/31/21	\$683,476,545	\$94,123,057
4. Mean Loss Reserve 2021, 1/2 [(2) + (3)]	\$372,400,003	\$101,950,568
5. Ratio, (4) ÷ (1)	0.522	1.026
6. Ratio of LAE Reserves to Loss Reserves (a)	0.172	0.172
7. Ratio of Incurred LAE to Incurred Losses (a)	0.135	0.135
8. Loss and LAE Reserve, [(5)x(1.0+(6)))/(1.0+(7))]	0.539	1.059

(a) Based on 2021 All-Industry Insurance Expense Exhibit (source: A.M. Best)

Line E

The rate of return is the ratio of net investment income earned to mean cash and invested assets. Net investment income is computed for all companies writing dwelling insurance in North Carolina as follows:

<u>Year</u>	<u>Net Investment Income Earned</u>	<u>Mean Cash and Invested Assets</u>	<u>Rate of Return</u>
2021	\$56,623,774	\$2,156,814,823	2.63%

NORTH CAROLINA

DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

EXPLANATORY NOTES

Line H

The average rate of Federal income tax was determined by applying the average tax rate for net investment income and the current tax rate applicable to realized capital gains (or losses) to the rates of return as calculated above.

	<u>Rate of Return</u>	<u>Federal Income Tax Rate</u>
Net Investment Income Earned	2.63%	0.156

The average rate of Federal income tax was determined by applying current tax rates to the distribution of investment income earned for all companies. These data are for 2021 from Best's Aggregates and Averages, Underwriting and Investment Exhibit, Part 1, Column 8.

Bonds	Taxable	\$27,544,890	0.210
	Non-Taxable	\$6,758,330	-
	Sub-Total	\$34,303,220	0.169
Stocks	Taxable (a)	\$9,209,605	0.105
	Non-Taxable	\$3,215,338	-
	Sub-Total	\$12,424,943	0.078
Mortgage Loans		\$1,149,755	
Real Estate		\$1,995,897	
Collateral Loans		\$91	
Cash on Deposit		\$139,788	
Short Term Investments		\$46,945	
All Other		\$12,669,731	
Sub-Total		\$16,002,207	0.210
Total		\$62,730,370	0.161
Investment Deductions		\$6,106,693	0.210
Net Investment Income Earned		\$56,623,677	0.156

(a) Only 50% of dividend income on stock is subject to the full corporate income tax rate of 21%. The applicable tax rate is thus 10.5% (.21 x .5 = 10.5%)

NORTH CAROLINA

DWELLING FIRE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

A. Unearned Premium Reserve

1.	Direct Earned Premium for Accident Year Ended 12/31/20	\$31,625,054
2.	Mean Unearned Premium Reserve, (1) x 0.4803	\$15,189,513
3.	Deduction for Prepaid Expenses	
	Commission and Brokerage	10.98%
	Taxes, Licenses and Fees	2.45%
	1/2 General Expenses	2.68%
	1/2 Other Acquisition	3.37%
	Total	19.48%
4.	(2) x (3)	\$2,958,917
5.	Net Subject to Investment, (2) - (4)	\$12,230,596

B. Delayed Remission of Premium (Agents' Balances)

1.	Direct Earned Premium (A-1)	\$31,625,054
2.	Average Agents' Balances	0.195
3.	Delayed Remission, (1) x (2)	\$6,166,886

C. Loss Reserve

1.	Direct Earned Premium (A-1)	\$31,625,054
2.	Expected Incurred Losses and Loss Adjustment Expense, (1) x 0.6083	\$19,237,520
3.	Expected Mean Loss Reserves, (2) x 0.561	\$10,792,249

D. Net Subject to Investment, (A-5) - (B-3) + (C-3) \$16,855,959

E. Average Rate of Return 2.75%

F. Investment Earnings on Net Subject to
Investment, (D) x (E) \$463,539

G. Average Rate of Return as a Percent of Direct
Earned Premium, (F) / (A-1) 1.47%

H. Average Rate of Return as a Percent of Direct Earned
Premium after Federal Income Taxes, (G) x (1 - 0.156) 1.24%

NORTH CAROLINA

DWELLING EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

A. Unearned Premium Reserve

1.	Direct Earned Premium for Accident Year Ended 12/31/20	\$68,992,092
2.	Mean Unearned Premium Reserve, (1) x 0.4826	\$33,295,584
3.	Deduction for Prepaid Expenses	
	Commission and Brokerage	8.77%
	Taxes, Licenses and Fees	2.22%
	1/2 General Expenses	2.63%
	1/2 Other Acquisition	4.37%
	Total	17.99%
4.	(2) x (3)	\$5,989,876
5.	Net Subject to Investment, (2) - (4)	\$27,305,708

B. Delayed Remission of Premium (Agents' Balances)

1.	Direct Earned Premium (A-1)	\$68,992,092
2.	Average Agents' Balances	0.173
3.	Delayed Remission, (1) x (2)	\$11,935,632

C. Loss Reserve

1.	Direct Earned Premium (A-1)	\$68,992,092
2.	Expected Incurred Losses and Loss Adjustment Expense, (1) x 0.2581	\$17,806,859
3.	Expected Mean Loss Reserves, (2) x 0.998	\$17,771,245

D. Net Subject to Investment, (A-5) - (B-3) + (C-3) \$33,141,321

E. Average Rate of Return 2.75%

F. Investment Earnings on Net Subject to
Investment, (D) x (E) \$911,386

G. Average Rate of Return as a Percent of Direct
Earned Premium, (F) / (A-1) 1.32%

H. Average Rate of Return as a Percent of Direct Earned
Premium after Federal Income Taxes, (G) x (1 - 0.156) 1.11%

NORTH CAROLINA

DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

EXPLANATORY NOTES

Line A-1

Direct earned premiums are the earned premiums for dwelling insurance in North Carolina from Statutory Page 14 of the Annual Statement.

Line A-2

The mean unearned premium reserve is determined by multiplying the direct earned premiums in line (1) by the ratio of the mean unearned premium reserve to the collected earned premium for calendar year ended 12/31/20 for all companies writing Dwelling insurance in North Carolina. These data are from Statutory Page 14 of the Annual Statement.

	<u>Fire</u>	<u>EC</u>
1. Collected Earned Premium for Calendar Year ended 12/31/20	\$243,038,711	\$319,147,476
2. Unearned Premium Reserve as of 12/31/19	\$111,854,920	\$148,478,317
3. Unearned Premium Reserve as of 12/31/20	\$121,594,938	\$159,573,973
4. Mean Unearned Premium Reserve, 1/2 [(2) + (3)]	\$116,724,929	\$154,026,145
5. Ratio, (4) ÷ (1)	0.4803	0.4826

Line A-3

Deduction for prepaid expenses:

Production costs and a large part of the other company expenses in connection with the writing and handling of dwelling policies, exclusive of claim adjustment expenses, are incurred when the policy is written and before the premium is paid. The deduction for these expenses is determined from data provided by the NCRB for the year ended 12/31/20.

Line B-2

Delayed remission of premium:

This deduction is necessary because of delay in remission and collection of premium to the companies, which amounts to approximately 50-75 days after the effective dates of the policies. Therefore, funds for the unearned premium reserve required during the initial days of all policies must be taken from the company's surplus.

1. Agents' balances for premiums due less than 90 days as a ratio to net written premium (based on data for all companies writing dwelling insurance in North Carolina)	0.1907	0.1699
2. Factor to include effect of agents' balances or uncollected premiums overdue for more than 90 days (based on data provided by A. M. Best)	1.021	1.021
3. Factor for agents' balances, (1) x (2)	0.195	0.173

NORTH CAROLINA

DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

EXPLANATORY NOTES

Line C-2

The expected loss and loss adjustment expense ratio reflects the expense provisions for the year ended 12/31/20.

Line C-3

The mean loss reserve is determined by multiplying the incurred losses in line (2) by the North Carolina ratio of the mean loss reserves to the incurred losses in 2020 for dwelling insurance. This ratio is based on North Carolina companies' Statutory Page 14 annual statement data and has been adjusted to include loss adjustment expense reserves.

	<u>Fire</u>	<u>EC</u>
1. Incurred Losses for Calendar Year 2020	\$104,935,680	\$130,492,323
2. Loss Reserves as of 12/31/19	\$51,559,349	\$140,237,573
3. Loss Reserves as of 12/31/20	\$61,323,461	\$109,778,079
4. Mean Loss Reserve 2020, 1/2 [(2) + (3)]	\$56,441,405	\$125,007,826
5. Ratio, (4) ÷ (1)	0.538	0.958
6. Ratio of LAE Reserves to Loss Reserves (a)	0.188	0.188
7. Ratio of Incurred LAE to Incurred Losses (a)	0.140	0.140
8. Loss and LAE Reserve, [(5)x(1.0+(6)))/(1.0+(7))]	0.561	0.998

(a) Based on 2020 All-Industry Insurance Expense Exhibit (source: A.M. Best)

Line E

The rate of return is the ratio of net investment income earned to mean cash and invested assets. Net investment income is computed for all companies writing dwelling insurance in North Carolina as follows:

<u>Year</u>	<u>Net Investment Income Earned</u>	<u>Mean Cash and Invested Assets</u>	<u>Rate of Return</u>
2020	\$54,400,619	\$1,976,949,891	2.75%

NORTH CAROLINA

DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

EXPLANATORY NOTES

Line H

The average rate of Federal income tax was determined by applying the average tax rate for net investment income and the current tax rate applicable to realized capital gains (or losses) to the rates of return as calculated above.

		<u>Rate of Return</u>	<u>Federal Income Tax Rate</u>
Net Investment Income Earned		2.75%	0.156
The average rate of Federal income tax was determined by applying current tax rates to the distribution of investment income earned for all companies. These data are for 2020 from Best's Aggregates and Averages, Underwriting and Investment Exhibit, Part 1, Column 8.			
Bonds	Taxable	\$28,339,436	0.210
	Non-Taxable	\$7,246,012	-
	Sub-Total	\$35,585,448	0.167
Stocks	Taxable (a)	\$8,494,491	0.105
	Non-Taxable	\$2,429,550	-
	Sub-Total	\$10,924,041	0.082
Mortgage Loans		\$1,029,624	
Real Estate		\$1,999,576	
Collateral Loans		\$17,597	
Cash on Deposit		\$820,107	
Short Term Investments		(\$183,091)	
All Other		\$10,043,526	
Sub-Total		\$13,727,339	0.210
Total		\$60,236,828	0.161
Investment Deductions		\$5,836,159	0.210
Net Investment Income Earned		\$54,400,669	0.156

(a) Only 50% of dividend income on stock is subject to the full corporate income tax rate of 21%. The applicable tax rate is thus 10.5% (.21 x .5 = 10.5%)

NORTH CAROLINA

DWELLING FIRE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

A. Unearned Premium Reserve

1.	Direct Earned Premium for Accident Year Ended 12/31/19	\$41,820,529
2.	Mean Unearned Premium Reserve, (1) x 0.4813	\$20,128,221
3.	Deduction for Prepaid Expenses	
	Commission and Brokerage	12.45%
	Taxes, Licenses and Fees	2.40%
	1/2 General Expenses	2.18%
	1/2 Other Acquisition	3.55%
	Total	20.58%
4.	(2) x (3)	\$4,142,388
5.	Net Subject to Investment, (2) - (4)	\$15,985,833

B. Delayed Remission of Premium (Agents' Balances)

1.	Direct Earned Premium (A-1)	\$41,820,529
2.	Average Agents' Balances	0.201
3.	Delayed Remission, (1) x (2)	\$8,405,926

C. Loss Reserve

1.	Direct Earned Premium (A-1)	\$41,820,529
2.	Expected Incurred Losses and Loss Adjustment Expense, (1) x 0.5346	\$22,357,255
3.	Expected Mean Loss Reserves, (2) x 0.964	\$21,552,394

D. Net Subject to Investment, (A-5) - (B-3) + (C-3) \$29,132,301

E. Average Rate of Return 3.14%

F. Investment Earnings on Net Subject to
Investment, (D) x (E) \$914,754

G. Average Rate of Return as a Percent of Direct
Earned Premium, (F) / (A-1) 2.19%

H. Average Rate of Return as a Percent of Direct Earned
Premium after Federal Income Taxes, (G) x (1 - 0.159) 1.84%

NORTH CAROLINA

DWELLING EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

A. Unearned Premium Reserve

1.	Direct Earned Premium for Accident Year Ended 12/31/19	\$67,639,892
2.	Mean Unearned Premium Reserve, (1) x 0.4814	\$32,561,844
3.	Deduction for Prepaid Expenses	
	Commission and Brokerage	9.45%
	Taxes, Licenses and Fees	2.17%
	1/2 General Expenses	2.79%
	1/2 Other Acquisition	4.94%
	Total	19.35%
4.	(2) x (3)	\$6,300,717
5.	Net Subject to Investment, (2) - (4)	\$26,261,127

B. Delayed Remission of Premium (Agents' Balances)

1.	Direct Earned Premium (A-1)	\$67,639,892
2.	Average Agents' Balances	0.174
3.	Delayed Remission, (1) x (2)	\$11,769,341

C. Loss Reserve

1.	Direct Earned Premium (A-1)	\$67,639,892
2.	Expected Incurred Losses and Loss Adjustment Expense, (1) x 0.1095	\$7,406,568
3.	Expected Mean Loss Reserves, (2) x 4.566	\$33,818,389

D. Net Subject to Investment, (A-5) - (B-3) + (C-3) \$48,310,175

E. Average Rate of Return 3.14%

F. Investment Earnings on Net Subject to
Investment, (D) x (E) \$1,516,939

G. Average Rate of Return as a Percent of Direct
Earned Premium, (F) / (A-1) 2.24%

H. Average Rate of Return as a Percent of Direct Earned
Premium after Federal Income Taxes, (G) x (1 - 0.159) 1.88%

NORTH CAROLINA

DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

EXPLANATORY NOTES

Line A-1

Direct earned premiums are the earned premiums for dwelling insurance in North Carolina from Statutory Page 14 of the Annual Statement.

Line A-2

The mean unearned premium reserve is determined by multiplying the direct earned premiums in line (1) by the ratio of the mean unearned premium reserve to the collected earned premium for calendar year ended 12/31/19 for all companies writing Dwelling insurance in North Carolina. These data are from Statutory Page 14 of the Annual Statement.

	<u>Fire</u>	<u>EC</u>
1. Collected Earned Premium for Calendar Year ended 12/31/19	\$230,415,747	\$287,004,527
2. Unearned Premium Reserve as of 12/31/18	\$109,932,656	\$127,836,607
3. Unearned Premium Reserve as of 12/31/19	\$111,854,920	\$148,478,317
4. Mean Unearned Premium Reserve, $1/2 [(2) + (3)]$	\$110,893,788	\$138,157,462
5. Ratio, (4) \div (1)	0.4813	0.4814

Line A-3

Deduction for prepaid expenses:

Production costs and a large part of the other company expenses in connection with the writing and handling of dwelling policies, exclusive of claim adjustment expenses, are incurred when the policy is written and before the premium is paid. The deduction for these expenses is determined from data provided by the NCRB for the year ended 12/31/19.

Line B-2

Delayed remission of premium:

This deduction is necessary because of delay in remission and collection of premium to the companies, which amounts to approximately 50-75 days after the effective dates of the policies. Therefore, funds for the unearned premium reserve required during the initial days of all policies must be taken from the company's surplus.

1. Agents' balances for premiums due less than 90 days as a ratio to net written premium (based on data for all companies writing dwelling insurance in North Carolina)	0.1969	0.1709
2. Factor to include effect of agents' balances or uncollected premiums overdue for more than 90 days (based on data provided by A. M. Best)	1.021	1.021
3. Factor for agents' balances, (1) x (2)	0.201	0.174

NORTH CAROLINA

DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

EXPLANATORY NOTES

Line C-2

The expected loss and loss adjustment expense ratio reflects the expense provisions for the year ended 12/31/19.

Line C-3

The mean loss reserve is determined by multiplying the incurred losses in line (2) by the North Carolina ratio of the mean loss reserves to the incurred losses in 2019 for dwelling insurance. This ratio is based on North Carolina companies' Statutory Page 14 annual statement data and has been adjusted to include loss adjustment expense reserves.

	<u>Fire</u>	<u>EC</u>
1. Incurred Losses for Calendar Year 2019	\$67,537,148	\$64,562,157
2. Loss Reserves as of 12/31/18	\$71,679,352	\$417,341,717
3. Loss Reserves as of 12/31/19	\$51,559,349	\$140,237,573
4. Mean Loss Reserve 2019, 1/2 [(2) + (3)]	\$61,619,351	\$278,789,645
5. Ratio, (4) ÷ (1)	0.912	4.318
6. Ratio of LAE Reserves to Loss Reserves (a)	0.213	0.213
7. Ratio of Incurred LAE to Incurred Losses (a)	0.147	0.147
8. Loss and LAE Reserve, [(5)x(1.0+(6))]/(1.0+(7))]	0.964	4.566

(a) Based on 2019 All-Industry Insurance Expense Exhibit (source: A.M. Best)

Line E

The rate of return is the ratio of net investment income earned to mean cash and invested assets. Net investment income is computed for all companies writing dwelling insurance in North Carolina as follows:

<u>Year</u>	<u>Net Investment Income Earned</u>	<u>Mean Cash and Invested Assets</u>	<u>Rate of Return</u>
2019	\$57,196,091	\$1,824,395,370	3.14%

NORTH CAROLINA

DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

EXPLANATORY NOTES

Line H

The average rate of Federal income tax was determined by applying the average tax rate for net investment income and the current tax rate applicable to realized capital gains (or losses) to the rates of return as calculated above.

		<u>Rate of Return</u>	<u>Federal Income Tax Rate</u>
Net Investment Income Earned		3.14%	0.159
The average rate of Federal income tax was determined by applying current tax rates to the distribution of investment income earned for all companies. These data are for 2019 from Best's Aggregates and Averages, Underwriting and Investment Exhibit, Part 1, Column 8.			
Bonds	Taxable	\$29,410,180	0.210
	Non-Taxable	\$7,801,848	-
	Sub-Total	\$37,212,028	0.166
Stocks	Taxable (a)	\$8,917,321	0.105
	Non-Taxable	\$1,595,409	-
	Sub-Total	\$10,512,730	0.089
Mortgage Loans		\$996,462	
Real Estate		\$2,035,516	
Collateral Loans		\$202	
Cash on Deposit		\$2,501,850	
Short Term Investments		(\$92,602)	
All Other		\$9,880,010	
Sub-Total		\$15,321,438	0.210
Total		\$63,046,196	0.164
Investment Deductions		\$5,850,107	0.210
Net Investment Income Earned		\$57,196,089	0.159

(a) Only 50% of dividend income on stock is subject to the full corporate income tax rate of 21%. The applicable tax rate is thus 10.5% (.21 x .5 = 10.5%)

NORTH CAROLINA

DWELLING FIRE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

A. Unearned Premium Reserve

1.	Direct Earned Premium for Accident Year Ended 12/31/18	\$48,329,195
2.	Mean Unearned Premium Reserve, (1) x 0.4996	\$24,145,266
3.	Deduction for Prepaid Expenses	
	Commission and Brokerage	10.81%
	Taxes, Licenses and Fees	2.23%
	1/2 General Expenses	2.12%
	1/2 Other Acquisition	3.74%
	Total	18.90%
4.	(2) x (3)	\$4,563,455
5.	Net Subject to Investment, (2) - (4)	\$19,581,811

B. Delayed Remission of Premium (Agents' Balances)

1.	Direct Earned Premium (A-1)	\$48,329,195
2.	Average Agents' Balances	0.206
3.	Delayed Remission, (1) x (2)	\$9,955,814

C. Loss Reserve

1.	Direct Earned Premium (A-1)	\$48,329,195
2.	Expected Incurred Losses and Loss Adjustment Expense, (1) x 0.5514	\$26,648,718
3.	Expected Mean Loss Reserves, (2) x 0.494	\$13,164,467

D. Net Subject to Investment, (A-5) - (B-3) + (C-3) \$22,790,464

E. Average Rate of Return 3.33%

F. Investment Earnings on Net Subject to
Investment, (D) x (E) \$758,922

G. Average Rate of Return as a Percent of Direct
Earned Premium, (F) / (A-1) 1.57%

H. Average Rate of Return as a Percent of Direct Earned
Premium after Federal Income Taxes, (G) x (1 - 0.149) 1.34%

NORTH CAROLINA

DWELLING EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

A. Unearned Premium Reserve

1.	Direct Earned Premium for Accident Year Ended 12/31/18	\$60,468,266
2.	Mean Unearned Premium Reserve, (1) x 0.4755	\$28,752,660
3.	Deduction for Prepaid Expenses	
	Commission and Brokerage	8.94%
	Taxes, Licenses and Fees	1.99%
	1/2 General Expenses	2.34%
	1/2 Other Acquisition	4.23%
	Total	17.50%
4.	(2) x (3)	\$5,031,716
5.	Net Subject to Investment, (2) - (4)	\$23,720,944

B. Delayed Remission of Premium (Agents' Balances)

1.	Direct Earned Premium (A-1)	\$60,468,266
2.	Average Agents' Balances	0.185
3.	Delayed Remission, (1) x (2)	\$11,186,629

C. Loss Reserve

1.	Direct Earned Premium (A-1)	\$60,468,266
2.	Expected Incurred Losses and Loss Adjustment Expense, (1) x 0.1406	\$8,501,838
3.	Expected Mean Loss Reserves, (2) x 0.354	\$3,009,651

D. Net Subject to Investment, (A-5) - (B-3) + (C-3) \$15,543,966

E. Average Rate of Return 3.33%

F. Investment Earnings on Net Subject to
Investment, (D) x (E) \$517,614

G. Average Rate of Return as a Percent of Direct
Earned Premium, (F) / (A-1) 0.86%

H. Average Rate of Return as a Percent of Direct Earned
Premium after Federal Income Taxes, (G) x (1 - 0.149) 0.73%

NORTH CAROLINA

DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

EXPLANATORY NOTES

Line A-1

Direct earned premiums are the earned premiums for dwelling insurance in North Carolina from Statutory Page 14 of the Annual Statement.

Line A-2

The mean unearned premium reserve is determined by multiplying the direct earned premiums in line (1) by the ratio of the mean unearned premium reserve to the collected earned premium for calendar year ended 12/31/18 for all companies writing Dwelling insurance in North Carolina. These data are from Statutory Page 14 of the Annual Statement.

	<u>Fire</u>	<u>EC</u>
1. Collected Earned Premium for Calendar Year ended 12/31/18	\$222,636,051	\$261,481,286
2. Unearned Premium Reserve as of 12/31/17	\$112,545,362	\$120,812,171
3. Unearned Premium Reserve as of 12/31/18	\$109,932,656	\$127,836,607
4. Mean Unearned Premium Reserve, 1/2 [(2) + (3)]	\$111,239,009	\$124,324,389
5. Ratio, (4) ÷ (1)	0.4996	0.4755

Line A-3

Deduction for prepaid expenses:

Production costs and a large part of the other company expenses in connection with the writing and handling of dwelling policies, exclusive of claim adjustment expenses, are incurred when the policy is written and before the premium is paid. The deduction for these expenses is determined from data provided by the NCRB for the year ended 12/31/18.

Line B-2

Delayed remission of premium:

This deduction is necessary because of delay in remission and collection of premium to the companies, which amounts to approximately 50-75 days after the effective dates of the policies. Therefore, funds for the unearned premium reserve required during the initial days of all policies must be taken from the company's surplus.

1. Agents' balances for premiums due less than 90 days as a ratio to net written premium (based on data for all companies writing dwelling insurance in North Carolina)	0.2014	0.1809
2. Factor to include effect of agents' balances or uncollected premiums overdue for more than 90 days (based on data provided by A. M. Best)	1.021	1.021
3. Factor for agents' balances, (1) x (2)	0.206	0.185

NORTH CAROLINA

DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

EXPLANATORY NOTES

Line C-2

The expected loss and loss adjustment expense ratio reflects the expense provisions for the year ended 12/31/18.

Line C-3

The mean loss reserve is determined by multiplying the incurred losses in line (2) by the North Carolina ratio of the mean loss reserves to the incurred losses in 2018 for dwelling insurance. This ratio is based on North Carolina companies' Statutory Page 14 annual statement data and has been adjusted to include loss adjustment expense reserves.

	<u>Fire</u>	<u>EC</u>
1. Incurred Losses for Calendar Year 2018	\$147,266,683	\$703,738,774
2. Loss Reserves as of 12/31/17	\$66,350,617	\$55,475,077
3. Loss Reserves as of 12/31/18	\$71,679,352	\$417,341,717
4. Mean Loss Reserve 2018, 1/2 [(2) + (3)]	\$69,014,985	\$236,408,397
5. Ratio, (4) ÷ (1)	0.469	0.336
6. Ratio of LAE Reserves to Loss Reserves (a)	0.187	0.187
7. Ratio of Incurred LAE to Incurred Losses (a)	0.127	0.127
8. Loss and LAE Reserve, [(5)x(1.0+(6)))/(1.0+(7))]	0.494	0.354

(a) Based on 2018 All-Industry Insurance Expense Exhibit (source: A.M. Best)

Line E

The rate of return is the ratio of net investment income earned to mean cash and invested assets. Net investment income is computed for all companies writing dwelling insurance in North Carolina as follows:

<u>Year</u>	<u>Net Investment Income Earned</u>	<u>Mean Cash and Invested Assets</u>	<u>Rate of Return</u>
2018	\$57,671,849	\$1,734,094,329	3.33%

NORTH CAROLINA

DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

EXPLANATORY NOTES

Line H

The average rate of Federal income tax was determined by applying the average tax rate for net investment income and the current tax rate applicable to realized capital gains (or losses) to the rates of return as calculated above.

		<u>Rate of Return</u>	<u>Federal Income Tax Rate</u>
Net Investment Income Earned		3.33%	0.149
The average rate of Federal income tax was determined by applying current tax rates to the distribution of investment income earned for all companies. These data are for 2018 from Best's Aggregates and Averages, Underwriting and Investment Exhibit, Part 1, Column 8.			
Bonds	Taxable	\$26,161,755	0.210
	Non-Taxable	\$8,708,550	-
	Sub-Total	\$34,870,305	0.158
Stocks	Taxable (a)	\$7,974,536	0.105
	Non-Taxable	\$4,005,063	-
	Sub-Total	\$11,979,599	0.070
Mortgage Loans		\$908,739	
Real Estate		\$1,937,053	
Collateral Loans		\$5,854	
Cash on Deposit		\$1,985,735	
Short Term Investments		(\$116,536)	
All Other		\$12,020,161	
Sub-Total		\$16,741,006	0.210
Total		\$63,590,910	0.155
Investment Deductions		\$5,919,053	0.210
Net Investment Income Earned		\$57,671,857	0.149

(a) Only 50% of dividend income on stock is subject to the full corporate income tax rate of 21%. The applicable tax rate is thus 10.5% (.21 x .5 = 10.5%)

NORTH CAROLINA

DWELLING FIRE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

A. Unearned Premium Reserve

1.	Direct Earned Premium for Accident Year Ended 12/31/17	\$47,992,199
2.	Mean Unearned Premium Reserve, (1) x 0.5347	\$25,661,429
3.	Deduction for Prepaid Expenses	
	Commission and Brokerage	10.82%
	Taxes, Licenses and Fees	2.29%
	1/2 General Expenses	2.40%
	1/2 Other Acquisition	3.82%
	Total	19.33%
4.	(2) x (3)	\$4,960,354
5.	Net Subject to Investment, (2) - (4)	\$20,701,075

B. Delayed Remission of Premium (Agents' Balances)

1.	Direct Earned Premium (A-1)	\$47,992,199
2.	Average Agents' Balances	0.208
3.	Delayed Remission, (1) x (2)	\$9,982,377

C. Loss Reserve

1.	Direct Earned Premium (A-1)	\$47,992,199
2.	Expected Incurred Losses and Loss Adjustment Expense, (1) x 0.5437	\$26,093,359
3.	Expected Mean Loss Reserves, (2) x 0.522	\$13,620,733

D. Net Subject to Investment, (A-5) - (B-3) + (C-3) \$24,339,431

E. Average Rate of Return 3.05%

F. Investment Earnings on Net Subject to
Investment, (D) x (E) \$742,353

G. Average Rate of Return as a Percent of Direct
Earned Premium, (F) / (A-1) 1.55%

H. Average Rate of Return as a Percent of Direct Earned
Premium after Federal Income Taxes, (G) x (1 - 0.234) 1.19%

NORTH CAROLINA

DWELLING EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

A. Unearned Premium Reserve

1.	Direct Earned Premium for Accident Year Ended 12/31/17	\$62,065,299
2.	Mean Unearned Premium Reserve, (1) x 0.4914	\$30,498,888
3.	Deduction for Prepaid Expenses	
	Commission and Brokerage	9.25%
	Taxes, Licenses and Fees	2.23%
	1/2 General Expenses	2.22%
	1/2 Other Acquisition	3.85%
	Total	17.55%
4.	(2) x (3)	\$5,352,555
5.	Net Subject to Investment, (2) - (4)	\$25,146,333

B. Delayed Remission of Premium (Agents' Balances)

1.	Direct Earned Premium (A-1)	\$62,065,299
2.	Average Agents' Balances	0.189
3.	Delayed Remission, (1) x (2)	\$11,730,342

C. Loss Reserve

1.	Direct Earned Premium (A-1)	\$62,065,299
2.	Expected Incurred Losses and Loss Adjustment Expense, (1) x 0.1440	\$8,937,403
3.	Expected Mean Loss Reserves, (2) x 0.886	\$7,918,539

D. Net Subject to Investment, (A-5) - (B-3) + (C-3) \$21,334,530

E. Average Rate of Return 3.05%

F. Investment Earnings on Net Subject to
Investment, (D) x (E) \$650,703

G. Average Rate of Return as a Percent of Direct
Earned Premium, (F) / (A-1) 1.05%

H. Average Rate of Return as a Percent of Direct Earned
Premium after Federal Income Taxes, (G) x (1 - 0.234) 0.80%

NORTH CAROLINA

DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

EXPLANATORY NOTES

Line A-1

Direct earned premiums are the earned premiums for dwelling insurance in North Carolina from Statutory Page 14 of the Annual Statement.

Line A-2

The mean unearned premium reserve is determined by multiplying the direct earned premiums in line (1) by the ratio of the mean unearned premium reserve to the collected earned premium for calendar year ended 12/31/17 for all companies writing Dwelling insurance in North Carolina. These data are from Statutory Page 14 of the Annual Statement.

	<u>Fire</u>	<u>EC</u>
1. Collected Earned Premium for Calendar Year ended 12/31/17	\$213,782,422	\$249,790,305
2. Unearned Premium Reserve as of 12/31/16	\$116,086,201	\$124,686,420
3. Unearned Premium Reserve as of 12/31/17	\$112,545,362	\$120,812,171
4. Mean Unearned Premium Reserve, 1/2 [(2) + (3)]	\$114,315,782	\$122,749,296
5. Ratio, (4) ÷ (1)	0.5347	0.4914

Line A-3

Deduction for prepaid expenses:

Production costs and a large part of the other company expenses in connection with the writing and handling of dwelling policies, exclusive of claim adjustment expenses, are incurred when the policy is written and before the premium is paid. The deduction for these expenses is determined from data provided by the NCRB for the year ended 12/31/17.

Line B-2

Delayed remission of premium:

This deduction is necessary because of delay in remission and collection of premium to the companies, which amounts to approximately 50-75 days after the effective dates of the policies. Therefore, funds for the unearned premium reserve required during the initial days of all policies must be taken from the company's surplus.

1. Agents' balances for premiums due less than 90 days as a ratio to net written premium (based on data for all companies writing dwelling insurance in North Carolina)	0.2040	0.1855
2. Factor to include effect of agents' balances or uncollected premiums overdue for more than 90 days (based on data provided by A. M. Best)	1.021	1.021
3. Factor for agents' balances, (1) x (2)	0.208	0.189

NORTH CAROLINA

DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

EXPLANATORY NOTES

Line C-2

The expected loss and loss adjustment expense ratio reflects the expense provisions for the year ended 12/31/17.

Line C-3

The mean loss reserve is determined by multiplying the incurred losses in line (2) by the North Carolina ratio of the mean loss reserves to the incurred losses in 2017 for dwelling insurance. This ratio is based on North Carolina companies' Statutory Page 14 annual statement data and has been adjusted to include loss adjustment expense reserves.

	<u>Fire</u>	<u>EC</u>
1. Incurred Losses for Calendar Year 2017	\$123,225,922	\$74,001,415
2. Loss Reserves as of 12/31/16	\$55,733,023	\$68,978,451
3. Loss Reserves as of 12/31/17	\$66,350,617	\$55,475,077
4. Mean Loss Reserve 2017, 1/2 [(2) + (3)]	\$61,041,820	\$62,226,764
5. Ratio, (4) ÷ (1)	0.495	0.841
6. Ratio of LAE Reserves to Loss Reserves (a)	0.197	0.197
7. Ratio of Incurred LAE to Incurred Losses (a)	0.136	0.136
8. Loss and LAE Reserve, [(5)x(1.0+(6)))/(1.0+(7))]	0.522	0.886

(a) Based on 2017 All-Industry Insurance Expense Exhibit (source: A.M. Best)

Line E

The rate of return is the ratio of net investment income earned to mean cash and invested assets. Net investment income is computed for all companies writing dwelling insurance in North Carolina as follows:

<u>Year</u>	<u>Net Investment Income Earned</u>	<u>Mean Cash and Invested Assets</u>	<u>Rate of Return</u>
2017	\$51,111,117	\$1,677,388,358	3.05%

NORTH CAROLINA

DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

EXPLANATORY NOTES

Line H

The average rate of Federal income tax was determined by applying the average tax rate for net investment income and the current tax rate applicable to realized capital gains (or losses) to the rates of return as calculated above.

	<u>Rate of Return</u>	Federal Income <u>Tax Rate</u>
Net Investment Income Earned	3.05%	0.234

The average rate of Federal income tax was determined by applying current tax rates to the distribution of investment income earned for all companies. These data are for 2017 from Best's Aggregates and Averages, Underwriting and Investment Exhibit, Part 1, Column 8.

Bonds	Taxable	\$23,383,712	0.350
	Non-Taxable	\$9,714,629	-
	Sub-Total	\$33,098,341	0.247
Stocks	Taxable (a)	\$7,611,742	0.105
	Non-Taxable	\$1,789,178	-
	Sub-Total	\$9,400,920	0.085
Mortgage Loans		\$755,495	
Real Estate		\$1,839,630	
Collateral Loans		\$672	
Cash on Deposit		\$980,828	
Short Term Investments		(\$156,684)	
All Other		\$10,386,831	
Sub-Total		\$13,806,772	0.350
Total		\$56,306,033	0.245
Investment Deductions		\$5,186,760	0.350
Net Investment Income Earned		\$51,119,273	0.234

(a) Only 30% of dividend income on stock is subject to the full corporate income tax rate of 35%. The applicable tax rate is thus 10.5% (.35 x .3 = 10.5%)

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

11. IDENTIFICATION OF APPLICABLE STATISTICAL PLANS AND PROGRAMS AND A CERTIFICATION OF COMPLIANCE WITH THEM
 - (a) ISO Personal Lines Statistical Plan (Other Than Automobile)
ISO Personal Lines Statistical Agent Plan (Other Than Automobile)
ISO Call(s) for Dwelling Fire and Extended Coverage Statistics
ISO Call(s) for Dwelling Fire and Extended Coverage Statistical Agent Plan Statistics
ISS Personal Lines Statistical Plans - All Coverages
ISS Dwelling Fire and Extended Coverage Call(s)
AAIS Personal Lines Statistical Plan
AAIS Call(s) for Dwelling Fire and Extended Coverage Statistics
NISS Statistical Plan - All Coverages - Part IV, North Carolina
NISS Quarterly Call(s)
NISS Financial Reconciliation Call(s)
NAIC Annual Statements
NAIC Insurance Expense Exhibits
NCRB Call(s) for North Carolina Expense Experience
 - (b) The North Carolina Rate Bureau certifies that there is no evidence known to it or, insofar as it is aware following reasonable inquiry, to the statistical agencies involved that the data which were collected under the statistical plans identified in response (11) (a) above and used in the filing are not materially true and accurate representations of the experience of the companies whose data underlie such experience. While the Rate Bureau is aware that the collected data sometimes require corrections or adjustments, the Rate Bureau's review of the data, the data collection process, and the ratemaking process indicates that the aggregate data are reasonable and reliable for ratemaking purposes. See also the prefiled testimony of P. Ericksen.
 - (c) The attached Exhibit (11) (c) contains general descriptions of the editing procedures used to ensure data were collected in accordance with the applicable statistical plans.

NORTH CAROLINA**DWELLING PROPERTY INSURANCE**ISO Editing Procedures

1. Upon receipt of the data from each reporting company, checks are made to ensure that each record (i.e., the data reported for each exposure) has valid and readable information. This includes a check that the appropriate alpha-numeric codes have been utilized.
2. The records are then checked to ensure that each of the fields has a valid code in it (e.g., company numbers must be entered as four-digit numerals).
3. Relationship edits which evaluate the interrelationship between codes are then performed. For example, if a record indicates North Carolina, Homeowners, Form 3, checks are made to ascertain that applicable interrelationships are maintained.
4. Distributional edits are performed to make sure that the reporting company has not erred in miscoding its data into a single class, territory, or other rating criteria due a systems problem or other error.
5. The resulting combined data from all the company records are reconciled with Statutory Page 14 Annual Statement data for that company.
6. After all of the ISO data are aggregated, a consolidated review of the data is conducted to determine overall reasonableness and accuracy. In this procedure the data are compared with previous statewide and territory figures. Areas of concern are identified, and results are verified by checking back to the source data.

ISS Editing Procedures

The following narrative sets forth a general description of the editing procedures utilized by ISS to review North Carolina statistical data. All North Carolina experience submitted to the ISS by affiliated companies undergoes standard procedures to ensure that the data is reported in accordance with the ISS's approved statistical plans.

ISS's review of the data takes place on two levels: analysis of individual company data and analysis of the aggregate data of all the companies combined. These two separate functions will be treated in that order.

NORTH CAROLINA
DWELLING PROPERTY INSURANCE

ISS Editing Procedures (continued)

Analysis of Company Data

Analysis of company data includes: completeness checks, editing for valid coding and checking the distribution of data among the various data elements.

1. Completeness Checks (Balancing and Reconciliation):

Balancing and reconciliation procedures are used to determine completeness of reporting. Completeness means that the ISS has received and processed all of the data due to be filed with the ISS. First, totals of each company's processed data are compared to separate transmittal totals supplied by the company. This step ensures that ISS has processed completely the experience included in the company's submission of data and that no errors occur during this processing. As a second check for completeness, the reported statistical data is reconciled to Statutory Page 14 totals from the company's Annual Statement. It is a useful procedure in determining completeness because the annual statement represents an independent source of information.

2. Editing of Codes:

Format and Readability

Statistical data reported by affiliated companies must be filed in accordance with ISS's approved statistical plans. This includes the requirement that the data must conform to the specific formats and technical specifications in order for ISS to properly read and process these submissions. The initial edit is a test of each company's submission to ensure it has been reported using the proper record format and that it meets certain technical requirements for the line of insurance being reported. Key fields are tested to ensure that only numeric information has been reported in fields defined as numeric, and that the fields have been reported in the proper position in the record.

Relational Edits

The data items of information filed with the insurance company's experience are reported by using codes defined under ISS's statistical plans. For example, the various types of Policy Forms written on Homeowners policies in North Carolina are defined in the Personal Lines Statistical Plan. Each definition for each data element has a unique code assigned to it which distinguishes it from other definitions. All data items applicable to North Carolina are defined in a similar manner in each of ISS's statistical plans and have codes assigned to properly identify each definition.

All records reported to ISS are subjected to validation of the reported codes. This validation, called editing, is performed to assure that companies are reporting properly defined ISS Statistical Plan codes for North Carolina experience.

The purpose of the edit is to validate the statistical codes reported in each record. This validation is called a Relation Edit. A relational edit verifies that a reported code is valid in combination with one or more related data items. Relational edit tests are accomplished primarily through the use of specific edit tables applicable to each line of insurance.

NORTH CAROLINA**DWELLING PROPERTY INSURANCE**ISS Editing Procedures (continued)

In most cases, the experience data in the record is used in conjunction with the related codes and compared to an establishment or discontinued date for the code being validated. This ensures that specific codes are not being utilized beyond the range of time during which they are valid.

An example of a relational edit involves territory coding. Many territory code numbers are available under each statistical plan for various states, with various effective dates. However, only codes defined for North Carolina for the specific line being processed are valid in combination with North Carolina reported experience. Further, if a new code is erected, that code will be considered valid only if the date reported in the statistical record is equal or subsequent to the establishment date of the code.

3. Distributional Analysis:

The validation of the codes is not by itself sufficient to assure the credibility of company data. Having assured the reporting of valid codes, the statistical agent must verify that valid entries are indeed reliable. Therefore, the data is also reviewed for reasonable distributions. The primary focus of this review is to establish that the statistical data reported by the company is a credible reflection of the company's experience.

The distribution of company experience by specific data elements such as state, territory, policy form, and construction, for example, for the current reporting period is compared to company profiles of prior periods. In addition, ratios relevant to the line of insurance such as average premium, average loss, volume, loss ratio and loss frequency are compared to industry averages. This historical comparison can highlight changes in the pattern of reporting.

The distributional analysis serves as an additional verification that systematic errors are not introduced during the production of data files submitted to ISS by our affiliated companies. Disproportionate amounts of premiums and/or losses in a particular class or territory, for example, can be detected using this technique.

4. Validation of Aggregate Data

After the individual company has been reviewed, the data for all reporting companies is compiled to produce aggregate reports. The aggregate data represents the combined experience of many companies. This data is also subjected to similar review procedures. To ensure completeness, run to run control techniques are applied. This involves balancing the totals of the aggregate runs to previously verified control totals. In this manner the aggregate data is monitored to ensure the inclusion of the appropriate company data.

The aggregate data is also reviewed for credibility through distributional analysis similar to that performed on the individual company data. Earned exposures (where applicable) and premiums and incurred losses and claims are used to calculate pure premiums, claim frequencies and claim costs for comparison to past averages. The analysis of the aggregate data centers on determining consistency over time by comparing several years of experience, by coverage and class, or territory, for example. Through the application of these techniques, ISS is able to provide reliable insurance statistical data in North Carolina.

NORTH CAROLINA**DWELLING PROPERTY INSURANCE**NISS Editing Procedures

- a. Every report received is checked for completeness. Every submission must include (1) an affidavit; (2) a letter of transmittal setting forth company control totals for the data being sent; (3) the data submitted via the NISS website.
- b. Individual company submissions are balanced to the company letter of transmittal to ensure that all data have been received and processed. After all data has been received, the company reports are reconciled to the Annual Statement Statutory Page 14 amounts. The NISS Financial Reconciliation identifies any amounts needed to reconcile any differences between the company reported data and Annual Statement amounts.
- c. Every company record submitted to NISS is verified through NISS edit software for its coding accuracy and conformance with NISS record layouts and instructions. NISS edits verify the accuracy of each code for each data element. Where possible, each data element is subjected to a relational edit whereby it will be checked for accuracy in conjunction with another field.
- d. Individual company submissions are also subjected to a series of reasonability tests to determine that the current submission is consistent with previous company submissions, known changes in this line of business and statewide trends. NISS compares current year data to the previous year. This comparison is performed and analyzed by grouping data.
- e. After all of the NISS data are combined, a review of this consolidated data is also performed. The aggregate data is compared on a year to year basis to again verify its reasonableness, similar to those checks employed on an individual company submission.

AAIS Editing Procedures

The American Association of Insurance Services functions as an official statistical agent in the State of North Carolina for a number of lines of insurance, including Homeowners. In this capacity, it provides for the administration of statistical programs in accordance with approved statistical plans on behalf of the Commissioner of Insurance. These plans, which were filed according to the requirements of the State of North Carolina, serve to ensure a high quality of data reliability.

1. All statistical plans constitute permanent calls for data, which is due at AAIS within 60 days following the close of the period covered by the report.
2. The AAIS data collection procedure consists of several consecutive steps in order to further verify receipt of accurate and complete data from each company and ultimately aggregate the data into the final experience format.

NORTH CAROLINA**DWELLING PROPERTY INSURANCE**AAIS Editing Procedures (continued)

3. The data collection procedure begins with the company uploading their data file into the AAIS secure online Statistical Data Management Application (SDMA). The SDMA verifies certain key fields, calculates transmittal totals for verification, and houses the edit program. The key fields are company number, line of insurance, transaction code and report period (quarter and year). All invalid key fields must be corrected before the data proceeds to the next step. Once all key fields have been validated, the data moves on to the edit program.
4. The edit program has several functions and reports. They are:
 - a. Data is balanced to transmittal totals and submitting companies are verifying this upon submission of their data using our Statistical Data Management Application (SDMA).
 - b. Each statistical field is edited to the valid codes in the statistical plan for the line being processed. Many fields are also cross edited. An example is deductible type and amount. All invalid codes are identified with an asterisk to the right of the code.
 - c. Edit reports consist of a listing of invalid records, error summary report, month report, state report and field error detail report.
 - d. Data distributions are monitored by the Statistical Reporting staff in conjunction with AAIS Actuaries. Material quality problems are logged by the Data Governance Steering Committee and the offending affiliate is notified of the error.
 - e. Along with the edit and distribution reports, there are additional review procedures in place to identify procedural reporting errors that may exist (e.g., cancellations and coverage changes). A great deal of time is spent on this item because of its importance to the validity of the reported data.
 - f. The Statistical Data Management Application (SDMA) performs analysis of a company's data and provides the company with a customized letter stating that their data was accepted by AAIS. Throughout the submission and editing process, the SDMA provides a status for the submission indicating the type of action required. Depending on the severity of errors, companies are requested to make corrections or resubmit data.
5. AAIS provides assistance to all of its affiliated companies to ensure a continued high level of data quality. Statistical coding seminars designed to instruct company coders and respond to questions are scheduled annually. In addition to the seminars, AAIS has developed Statistical Training Manuals for some lines and pre-edit programs for company in-house use. Technical Services staff is available to train company personnel in all aspects of data collection, coding, statistical reporting and data processing.

NORTH CAROLINA
DWELLING PROPERTY INSURANCE

12. INVESTMENT EARNINGS ON CAPITAL AND SURPLUS

Not applicable to dwelling insurance.

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

13. LEVEL OF CAPITAL AND SURPLUS NEEDED TO SUPPORT PREMIUM WRITINGS WITHOUT ENDANGERING THE SOLVENCY OF MEMBER COMPANIES

- (a) The weighted average premium to surplus ratios (weighted by North Carolina Dwelling Fire and Extended Coverage Direct Premiums Written) for the calendar years 2013-2022 for the company groups which wrote the coverages in each of those years:

Year	Fire		Extended Coverage	
	Direct	Net	Direct	Net
2022	1.06	1.05	1.04	1.02
2021	0.90	0.87	0.86	0.84
2020	0.86	0.87	0.82	0.84
2019	0.92	0.93	0.88	0.91
2018	0.90	0.82	1.05	0.82
2017	0.85	0.86	0.85	0.87
2016	0.82	0.80	0.78	0.80
2015	0.82	0.78	0.78	0.78
2014	0.84	0.80	0.82	0.81
2013	0.89	0.86	0.85	0.85
Average	0.89	0.86	0.87	0.85

Note: These data are based on statutory filings as compiled by the NAIC.

- (b) The estimate of the future premium to surplus ratio is based on the 10-year average of the past premium to surplus ratios. See the pre-filed testimony of G. Zanjani.
- (c) The necessary level of capital and surplus to support particular coverages varies by line, and the Rate Bureau regards the ratios shown in (a) as indicative of levels typical within the industry for the lines of business covered by this filing. The actual level of capital and surplus needed to support premium writings without endangering the solvency of a company is dependent upon (among others) the financial structure and investments unique to each company, the relationship of the company with affiliated companies as a group (and the experience of the affiliated companies), the mix of business of each company, and the conditions of the economy as they affect each company's individual circumstances. The Rate Bureau is advised that the National Association of Insurance Commissioners, as one of several criteria, generally considers that a premium to surplus ratio for an individual company of 3 to 1 warrants close regulatory attention and monitoring with respect to the company's solvency position.
- (d) The Rate Bureau has determined the premium to surplus ratio for dwelling insurance in North Carolina based on the weighted average premium to surplus ratios for insurance groups writing dwelling insurance in North Carolina, where the weights are the actual premiums written for dwelling insurance. The premium to surplus ratios of the insurers actually writing this business in North Carolina is representative of the leverage relevant for this line and state. The Rate Bureau has not further allocated surplus within these insurers across lines and states in this or other filings in North Carolina.

NORTH CAROLINA
DWELLING PROPERTY INSURANCE

14. OTHER INFORMATION REQUIRED BY THE COMMISSIONER

- (a) See the pre-filed testimony of P. Ericksen, M. Mao, P. Anderson, and G. Zanjani.
- (b) Not applicable to dwelling insurance.
- (c) Not applicable to dwelling insurance.
- (d) See attached Exhibit 14(d).

NORTH CAROLINA

DWELLING PROPERTY INSURANCE

The following are changes in methodology or presentation used in this filing as compared to the methodologies or presentation used in the August 18, 2022 filing:

1. In this filing, the compensation for assessment risk analysis was performed by Aon using simulated event-level hurricane losses based on the most recent exposure year in a methodology essentially the same as the methodology used by Milliman in the 2019 Dwelling filing and filings prior to that. Due to the lack of such data (simulated event-level hurricane losses as described above), the compensation for assessment risk provision in the 2022 Dwelling filing was prepared and presented by Milliman based on historical compensation for assessment risk provisions in prior filings.

See also the pre-filed testimony of P. Ericksen, M. Mao, P. Anderson, and G. Zanjani.



Notice to Manualholders

PERSONAL LINES

DWELLING POLICY PROGRAM MANUAL – MULTISTATE RULES

NOTICE DP-MU-2014-RU-001

CAUTION

Refer to state Notices for announcement of the use of this revision in individual jurisdictions.

INSTRUCTIONS TO MANUALHOLDERS

If your company has adopted this revision, you should insert the enclosed page(s) into your manual.

EFFECTIVE DATE

Refer to individual state Notices for effective date language.

CHANGE(S)

This notice presents the 2014 revisions to the Dwelling Policy Program Manual – General Rules. The following rules were revised:

- Rule **102**. Perils Insured Against has been revised to more closely reflect coverages provided by the individual Dwelling Policy forms.
- Rule **104**. Protection Classification Information has been revised to refer manual users to the ISO Community Mitigation Classification (CMC) Manual when determining the ISO Public Protection Classification information.
- Rule **210**. Refer To Company has been revised to introduce a facultative reinsurance rule.
- Rule **402**. Coverage **C** – Personal Property In Buildings Subject To Commercial Class Rates Or Specific Rates has been revised to complement changes made in Division Five of the Commercial Lines Manual (CLM).
- Rule **501**. Coverage **B** – Other Structures has been revised to add instructions which advise that no entry is needed in the policy Declarations for Coverage **B** since this coverage is automatically provided on a blanket basis for up to 10% of the Coverage **A** limit in all Dwelling policy forms.
- Rule **502**. Coverage **D** – Fair Rental Value and Coverage **E** – Additional Living Expense has been revised to add instructions which advise that no entry is needed in the policy Declarations for Coverage **D** in Form **DP 00 01** and for Coverages **D** and **E** in Forms **DP 00 02** and **DP 00 03** since these coverages are automatically provided for up to 20% of the Coverage **A** limit available. In addition, we have made changes to complement the companion forms filing.
- Rule **505**. Building Items Condo Unit-owner – **DP 00 01** Or **DP 00 02** has been revised to delete Paragraph **B**. to complement a change in the companion forms filing.
- Rule **510**. Theft Coverage has been revised to change the base deductible for Theft Coverage to \$500 and introduce a new deductible factor for the \$250 option. In addition, the factors for \$1,000 and \$2,500 have been revised to correspond with this change.
- Rule **513**. Limited Water Back-up And Sump Discharge Or Overflow Coverage has been revised to reflect that increased limits of coverage are now available.
- Rule **515**. Motorized Golf Cart – Physical Loss Coverage has been revised to delete text referencing the separate deductible for each involved golf cart.
- Rule **517**. Limited Fungi, Wet Or Dry Rot, Or Bacteria Coverage has been revised to reinforce that the limits provided are on an aggregate basis and to delete text to condense and streamline the rule.

Rule **211**. Additional Insured has been introduced to complement Additional Insured Described Location Endorsement **DP 04 41**.

Exceptions to the General Rules were previously filed and implemented on an individual state basis for eventual multistate application. Now that the exceptions apply in most states, the following exceptions are being relocated to the General Rules:

- Rule **303**. Ordinance Or Law Coverage – All Forms (Table **303.B.3.a.(1)(a)** and Table **303.B.3.a.(2)**)
- Rule **406**. Deductibles, multistate text in Paragraphs **A.** and **B.**
- Rule **503**. Ordinance Or Law Coverage For Coverage **B** – Specific Structures, Building Items And Improvements, Alterations And Additions (Paragraph **C.2.**)
- Rule **509**. Earthquake Coverage (Paragraphs **E.3.**, **E.4.**, **E.5.** and **F.**)

The following rules have been revised to make minor editorial revisions:

- Rule **204**. Multiple Locations
- Rule **205**. Multiple Policies
- Rule **304**. Permitted Incidental Occupancies
- Rule **404**. Mobile Or Trailer Homes – **DP 00 01** Only
- Rule **407**. Automatic Increase In Insurance
- Rule **408**. Protective Devices
- Rule **409**. Actual Cash Value Loss Settlement Windstorm Or Hail Losses To Roof Surfacing – **DP 00 02**, **DP 00 03** And **DP 00 01** With **DP 00 08**
- Rule **410**. Building Code Effectiveness Grading
- Rule **504**. Improvements, Alterations And Additions Tenant And Co-op Unit-owner – **DP 00 01** Or **DP 00 02**
- Rule **511**. Sinkhole Collapse Coverage

COMPANION REVISION

We are simultaneously revising our forms, which are being distributed under separate Notices.

REVISED PAGE(S)

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DP-1 thru DP-23

PAGE CHECKLIST

Included in this distribution is a page checklist displaying the latest page numbers and edition dates.

REFERENCE INFORMATION (FOR COMPANY USE ONLY)

Circular Reference(s):

- Refer to individual state Notices for the approval/implementation circular references.
- LI-DP-2013-097 (07/01/2013) Dwelling Policy Program 2014 Multistate Loss Costs Revision To Be Submitted
- LI-DP-2013-096 (07/01/2013) Dwelling Policy Program 2014 Multistate Rules Revision To Be Submitted

Filing Reference(s):

- DP-2013-RRU13
- DP-2013-RLC13

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**DWELLING POLICY PROGRAM MANUAL
PAGE CHECKLIST – MULTISTATE**

THIS MANUAL PAGE CHECKLIST DISPLAYS THE LATEST PAGE INFORMATION AS OF 7-14.

NOTE: ALWAYS USE THE EDITION NUMBER TO DETERMINE THE LATEST PAGE.

IF YOUR MANUAL PAGES DO NOT COINCIDE WITH THIS LISTING, CONTACT CUSTOMER SUPPORT FOR THE NECESSARY MATERIAL TO UPDATE YOUR MANUAL.

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	NUMBER	DATE		NUMBER	DATE
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DP-i thru DP-viii	2nd	7-14			

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**DWELLING POLICY PROGRAM MANUAL
GENERAL RULES**

**PART I
COVERAGE AND DEFINITION TYPE RULES**

**RULE 100.
INTRODUCTION**

A. About The Dwelling Manual

The Dwelling Policy Program provides property and related coverages using the forms and endorsements referred to in this Manual. The rates, rules, forms and endorsements of the company shall apply in all cases not provided for in this Manual. This program does not apply to Farm Property. Refer to the company for its method of insuring farm property.

B. Manual Structure

1. Contents

The Dwelling Policy Program Manual contains the rules, classifications and rating provisions for the issuance of the Dwelling Policy. The Manual is divided into two sections, multistate general rules and state rules and rates.

The multistate general rules section contains rules common to most states. Any departures, additions, etc. to these rules, unique to individual jurisdictions, are contained in the state rules and rates section.

The general rules do **not** contain premiums, rates, charges or credits expressed in dollars and cents. They do, however, contain rating factors that are applied to state premiums.

2. General Rules

These rules are grouped into the following categories:

- a. Part I – Coverage And Definition Type Rules,
- b. Part II – Servicing Type Rules,
- c. Part III – Base Premium Computation Rules,
- d. Part IV – Adjusted Base Premium Computation Rules, and
- e. Part V – Additional Coverages And Increased Limits Rules.

3. State Rules And Rates/ISO Loss Costs

These rules are grouped into the following categories:

- a. Exceptions and Additional Rules,
- b. Special State Requirements,
- c. Territory Definitions,
- d. Key Premium/Key Factor Tables, and
- e. Premiums, Rates, Charges and Credits.

C. Company Rates/ISO Loss Costs

1. Definition

This Manual contains either ISO loss costs or individual company rates. A loss cost is that portion of the premium which covers only losses and the costs associated with settling losses.

2. Company Rates

All rules in this Manual are designed to be utilized with rates. All references in the rules and examples to rates and/or premiums (including base premiums) shall be interpreted to mean those established by the individual insurance company.

3. Loss Cost Conversion

Each insurance company must provide manualholders with either its own rates or with procedures to convert ISO loss costs to rates and/or premiums. If an insurer provides its own rates, use them in place of the ISO loss costs in this Manual. If an insurer does not provide its own rates, manualholders must convert ISO loss costs in this Manual to rates and/or premiums before applying any of the rules. Refer to the company for special instructions – including rounding procedures – on how to do this.

**RULE 101.
FORMS, COVERAGES, MINIMUM LIMITS OF LIABILITY**

A. Forms

The Dwelling Policy Program makes available the following policy forms:

1. Dwelling Property 1 Basic Form **DP 00 01**,
2. Dwelling Property 2 Broad Form **DP 00 02**, and
3. Dwelling Property 3 Special Form **DP 00 03**.

B. Coverages

1. Forms **DP 00 02** and **DP 00 03** provide the following coverages. These coverages are written as separate items in the policy or in separate policies:

- a. Coverage **A** – Dwelling
- b. Coverage **B** – Other Structures
- c. Coverage **C** – Personal Property
- d. Coverage **D** – Fair Rental Value
- e. Coverage **E** – Additional Living Expense

2. Form **DP 00 01** provides Coverages **A** through **D**; Coverage **E** is available by endorsement.

**DWELLING POLICY PROGRAM MANUAL
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**RULE 101.
FORMS, COVERAGES, MINIMUM LIMITS OF LIABILITY
(Cont'd)**

C. Minimum Limits Of Liability

The following coverages are subject to a minimum limit of liability:

Coverages	Minimum Limit
Coverage A – Dwelling	\$12,000 (Form DP 00 02) \$15,000 (Form DP 00 03)
Coverage C – Personal Property	\$4,000 without Coverage A (Forms DP 00 02 and DP 00 03)
There are no minimum limits for Form DP 00 01	

Table 101.C. Minimum Limits Of Liability

**RULE 102.
PERILS INSURED AGAINST**

The following is a general description of the coverages provided by the individual Dwelling Policy Forms. The policy should be consulted for exact contract conditions.

Perils	DP 00 01 Basic Form	DP 00 02 Broad Form	DP 00 03 Special Form
Fire or Lightning, Internal Explosion	Yes	Yes	Yes
Extended Coverage meaning Windstorm or Hail, Explosion, Riot or Civil Commotion, Aircraft, Vehicles, Smoke, Volcanic Eruption	Optional*	Yes	Yes
Vandalism or Malicious Mischief	Optional**	Yes	Yes
Damage by burglars, Falling objects, Weight of ice, snow or sleet, Accidental discharge or overflow of water or steam, Sudden and accidental tearing apart of a heating system or appliance for heating water, Freezing, Sudden and accidental damage from artificially generated electrical current.	No	Yes	Yes
Additional risks with certain exceptions	No	No	Yes***
* May only be written with the perils of Fire or Lightning, Internal Explosion ** May only be written with Extended Coverage *** Special Coverage (Coverages A and B)			

Table 102. Perils Insured Against

DWELLING POLICY PROGRAM MANUAL
GENERAL RULES

RULE 103.
ELIGIBILITY

A Dwelling Policy may be issued to provide insurance under:

- A. Coverage A** – on a dwelling building:
1. Used solely for residential purposes except that certain incidental occupancies or up to 5 roomers or boarders are permitted;
 2. Containing not more than four apartments; and
 3. Which may be in a townhouse or rowhouse structure; or
 4. In course of construction.
- B. Coverage A** – on a mobile or trailer home:
1. Using Form **DP 00 01** only;
 2. Used solely for residential purposes except that certain incidental occupancies or up to 5 roomers or boarders are permitted;
 3. Containing not more than one apartment;
 4. For a policy period of not longer than one year; and
 5. At the permanent location described in the policy.
- C. Coverage B:**
1. At the same location as the dwelling eligible for insurance under Coverage **A**;
 2. Not used for business purposes except a permitted incidental occupancy or when rented for use as a private garage;
 3. At a separate location when used in connection with the insured location but not for business purposes.
- D. Coverage C** in:
1. A dwelling, mobile or trailer home eligible under Coverage **A**; or
 2. A dwelling with rental apartments including furnishings, equipment and appliances in halls or utility rooms; or
 3. Any apartment, cooperative or condominium unit used as private living quarters of the insured or rented to others.

- E. Coverage D** for the loss of the fair rental value of:
1. A building eligible for insurance under Coverage **A** or **B**; or
 2. Private living quarters eligible under Coverage **C**.
- F. Coverage E** for the additional living expenses incurred to maintain the insured's household.

RULE 104.
PROTECTION CLASSIFICATION INFORMATION

Determine the ISO Public Protection Classification; refer to ISO's Community Mitigation Classifications (CMC) Manual, applicable to the municipality or classified area where the insured property is located.

RULE 105.
SEASONAL DWELLING DEFINITION

A seasonal dwelling is a dwelling with continuous unoccupancy of three or more consecutive months during any one year period.

**DWELLING POLICY PROGRAM MANUAL
GENERAL RULES**

**RULE 106.
CONSTRUCTION DEFINITIONS**

A. Frame

Exterior wall of wood or other combustible construction, including wood iron-clad, stucco on wood or plaster on combustible supports or aluminum or plastic siding over frame.

B. Masonry Veneer

Exterior walls of combustible construction veneered with brick or stone.

C. Masonry

Exterior walls constructed of masonry materials such as adobe, brick, concrete, gypsum block, hollow concrete block, stone, tile or similar materials and floors and roof of combustible construction. (Disregarding floors resting directly on the ground).

D. Superior Construction

1. Non-Combustible

Exterior walls and floors and roof constructed of, and supported by metal, asbestos, gypsum, or other noncombustible materials.

2. Masonry Non-Combustible

Exterior walls constructed of masonry materials (as described in Paragraph C.) and floors and roof of metal or other non-combustible materials.

3. Fire Resistive

Exterior walls and floors and roof constructed of masonry or other fire resistive materials.

E. Mixed (Masonry/Frame)

A combination of both frame and masonry construction shall be classed and coded as frame when the exterior walls of frame construction (including gables) exceed 33 1/3% of the total exterior wall area; otherwise class as masonry.

**RULE 107.
SINGLE AND SEPARATE BUILDINGS DEFINITION**

A. Single Building

All buildings or sections of buildings which are accessible through unprotected openings shall be considered as a single building.

B. Separate Building

1. Buildings which are separated by space shall be considered separate buildings.

2. Buildings or sections of buildings which are separated by:

a. A 6 inch reinforced concrete or an 8 inch masonry party wall; or

b. A documented minimum two hour non-combustible wall which has been laboratory tested for independent structural integrity under fire conditions;

which pierces or rises to the underside of the roof and which pierces or extends to the innerside of the exterior wall shall be considered separate buildings. Accessibility between buildings with independent walls or through masonry party walls described above shall be protected by at least a Class A Fire Door installed in a masonry wall section.

**RULE 108. – 200.
RESERVED FOR FUTURE USE**

**DWELLING POLICY PROGRAM MANUAL
GENERAL RULES**

**PART II
SERVICING TYPE RULES**

**RULE 201.
POLICY PERIOD**

The policy may be written for a period of:

- A.** One year and may be extended for successive policy periods by extension certificate based upon the forms, premiums and endorsements then in effect for the company.
- B.** Three years prepaid at three times the annual premium.
- C.** Three years in annual installments. Each annual installment shall be the annual premium then in effect for the company. Use Deferred Premium Payment Endorsement **DP 04 32**.

For maintaining common anniversary dates, a policy may be written for a period less than one year or less than three years on a pro rata basis.

**RULE 202.
CHANGES OR CANCELLATIONS**

If insurance is increased, cancelled or reduced, the additional or return premium shall be computed on a pro rata basis, subject to the minimum premium.

**RULE 203.
MANUAL PREMIUM REVISION**

A manual premium revision shall be made in accordance with the following procedures:

- A.** The effective date of such revision shall be as announced.
- B.** The revision shall apply to any policy or endorsement in the manner outlined in the announcement of the revision.
- C.** Unless otherwise provided at the time of the announcement of the premium revision, the revision shall not affect:
 - 1.** In-force policy forms, endorsements or premiums, until the policy is renewed; or
 - 2.** In the case of a Deferred Premium Payment Plan, in-force policy premiums, until the anniversary following the effective date of the revision.

**RULE 204.
MULTIPLE LOCATIONS**

A policy may be issued to provide insurance at more than one Described Location in the same state provided:

- A.** The same form and deductible applies at each location;
- B.** A separate policy Declarations page is completed for each location; or
- C.** The policy Declarations page is completed by:
 - 1.** Showing the total policy premium for all locations in the premium payments section.
 - 2.** Showing the deductible by entry of the deductible amount and adding "at each location".
 - 3.** Inserting the form number that applies.
 - 4.** Adding an appropriate reference to the Additional Dwelling Declarations or company equivalent.

**RULE 205.
MULTIPLE POLICIES**

A. Application

Insurance may be provided on the same property under two or more Dwelling policies in one or more companies as follows:

- 1.** The same form and endorsements must apply to all policies.
- 2.** The same deductible amount must apply to all policies.

B. Endorsement

Use Premium Sharing – Two Or More Policies Endorsement **DP 04 30**.

C. Premium

The premium for each policy is developed as follows:

- 1.** Compute the premium for the total limits of liability from the manual of the company issuing each policy.
- 2.** Allocate the premium determined in Paragraph **1.** based on the ratio of each policy's limit of liability to the total limits of liability for all policies.

**DWELLING POLICY PROGRAM MANUAL
GENERAL RULES**

**RULE 205.
MULTIPLE POLICIES (Cont'd)**

D. Example

The following example is a premium computation between two companies using a \$50,000 Coverage A Limit. The premiums shown are only for illustration.

Each Company's	Company A	Company B
Percentage share	70%	30%
Premium for \$50,000 Cov. A	\$240	\$200
Each Company's Policy Premium	168 (70% of 240)	60 (30% of 200)
Total Premium	(168 + 60) = 228	

Table 205.D. Example

**RULE 206.
MINIMUM PREMIUM**

- A. For prepaid policies a minimum **annual** premium shall be charged for each policy.
- B. When policies are written under a premium payment plan, no payment shall be less than the minimum premium for each annual period.
- C. The minimum premium may include all chargeable endorsements or coverages for Fire or Fire and Allied Lines if written at inception of the policy.
- D. The minimum annual premium shall **not** include charges for Theft or Earthquake Coverage, except when Earthquake is the only peril covered under the policy.
- E. Refer to company for minimum premium.

**RULE 207.
TRANSFER OR ASSIGNMENT**

Subject to the consent of the company, all rules of this Manual and any necessary adjustments of premium, a policy may be endorsed to effect:

- A. Transfer to another location within the same state; or
- B. Assignment from one insured to another in the event of transfer of title of the dwelling.

**RULE 208.
WAIVER OF PREMIUM**

- A. When a policy is endorsed after the inception date, an amount of additional or return premium may be waived.
- B. Refer to company for amount that may be waived.

**RULE 209.
WHOLE DOLLAR PREMIUM RULE**

Each premium shown on the policy and endorsements shall be rounded to the nearest whole dollar. A premium of fifty cents (\$.50) or more shall be rounded to the next higher whole dollar.

In the event of cancellation by the company, the return premium may be carried to the next higher whole dollar.

**RULE 210.
REFER TO COMPANY**

Refer to company for:

- A. Rating or classifying any risk for which there is no manual rate.
- B. Situations where a portion of the property coverage is reinsured on a facultative basis.

The following rating procedure is available for the determination of the applicable premium:

1. Manual rules and rates shall apply to the portion of the property limit of liability retained by the company.
2. For any portion of the limit(s) of liability obtained by means of facultative reinsurance, the premium shall be the facultative cost for such insurance increased by a charge up to but not exceeding 50% of the facultative cost.

With respect to premium developed in accordance with this Paragraph 2., the company is responsible for maintaining complete files, including all details relating to selection of the premium charge.

Whenever a risk is rated on a refer-to-company basis each company is responsible for complying with regulatory or statutory rate filing or disclosure requirements.

Note

Rates shall not be inadequate, excessive or unfairly discriminatory.

**RULE 211.
ADDITIONAL INSURED**

A. Coverage Description

1. In addition to the named insured shown in the Declarations, another person or organization may be considered an insured in this policy with respect to Coverage A – Dwelling and Coverage B – Other Structure at the Described Location listed in the Schedule, or elsewhere in the policy. The interest of such persons or organization and the Described Location to which it applies may be acknowledged by naming them in the endorsement referenced in Paragraph C.
2. Such persons or organizations are entitled to receive notification if the policy is canceled or nonrenewed by the insurer.

**DWELLING POLICY PROGRAM MANUAL
GENERAL RULES**

**RULE 211.
ADDITIONAL INSURED (Cont'd)**

B. Premium Computation

No additional charge is made for use of this endorsement.

C. Endorsement

Use Additional Insured Endorsement **DP 04 41**.

**RULES 212. – 300.
RESERVED FOR FUTURE USE**

**PART III
BASE PREMIUM COMPUTATION RULES**

**RULE 301.
BASE PREMIUM COMPUTATION**

To compute the Base Premium, use the Key Premiums and Key Factors that are displayed in Rule **301**. Refer to state company rates/ISO loss costs.

A. Fire (All Forms), Extended Coverage (DP 00 01), Broad Form (DP 00 02), Or Special Form (DP 00 03) For Coverage A – Dwelling/Coverage C – Personal Property

1. From the Key Premium Table in this Manual, select the Key Premium for the classifications or coverages that apply to the risk.
2. From the Key Factor Table in this Manual, determine the Key Factor for the desired limit of liability. If the desired limit of liability is not shown in the table, **interpolate** as illustrated in Paragraph **B**. of this rule.
3. Multiply the Key Premium by the Key Factor and round to the nearest whole dollar to develop the Base Premium (\$.50 or more rounded to the next higher whole dollar).

B. Interpolation Example

1. When the desired limit of liability is **less** than the highest limit shown, interpolate the Key Factors using the nearest limit above and below the desired limit, for example:
 - a. \$25,500 desired limit; the nearest limits are \$25,000 and \$26,000.
 - b. For \$25,000 the Key Factor is 1.082; for \$26,000 the Key Factor is 1.098. Figure the difference between the two Key Factors and divide by 10. This provides a factor per \$100.

$$\begin{array}{r} 1.098 \\ - 1.082 \\ \hline .016 \div 10 = .0016 \end{array}$$

- c. Multiply the factor per \$100 times five, and add 1.082: the Key Factor for \$25,000:

$$\begin{array}{r} .0016 \\ \times 5 \\ \hline .0080 + 1.082 = 1.090 \end{array}$$

- d. The result, 1.090, is the Key Factor for this example.
2. The factors shown in the interpolation example are for illustration only and are not necessarily the factors shown in the Key Factor Table of this Manual.

**RULE 302.
VANDALISM AND MALICIOUS MISCHIEF – DP 00 01**

Develop the Base Premium by multiplying the same limit of liability selected for Extended Coverage by the Vandalism and Malicious Mischief rate. Refer to state company rates/ISO loss costs.

**RULE 303.
ORDINANCE OR LAW COVERAGE – ALL FORMS**

A. Applicability By Form

1. DP 00 01

Coverage is **not** automatically included in this form but may be added by endorsement. See Paragraph **B**. for rating instructions.

2. DP 00 02 And DP 00 03

A limited amount of coverage is automatically included at each Described Location to pay for the increased costs necessary to comply with the enforcement of an ordinance or law. This amount is equal to 10% of the limit of liability that applies to:

- a. Coverage **A** or Unit-owner Building Items if the insured is an owner of a Described Location; or
- b. Coverage **B** if the insured is an owner of a Described Location which is not insured for Coverage **A** or Unit-owner Building Items; or
- c. Improvements, Alterations and Additions if the insured is a tenant of a Described Location.

This amount may be increased by endorsement. See Paragraph **B**. for rating instructions.

**DWELLING POLICY PROGRAM MANUAL
GENERAL RULES**

**RULE 303.
ORDINANCE OR LAW COVERAGE – ALL FORMS
(Cont'd)**

B. New Or Increased Coverage

1. Ordinance Or Law Coverage

The policy may be endorsed to add (Form **DP 00 01**) or increase (Form **DP 00 02/DP 00 03**) basic Ordinance or Law Coverage to accommodate the increased costs known or estimated by the insured for material and labor to repair or replace the damaged property and to demolish the undamaged portion of damaged property and clear the site of resulting debris according to the ordinance or law.

2. Endorsement

For Form **DP 00 01**, use Ordinance Or Law Coverage Endorsement **DP 04 74**. For Form **DP 00 02** or **DP 00 03**, use Ordinance Or Law – Increased Amount Of Coverage Endorsement **DP 04 71**.

3. Premium Determination

a. Described Location Including Coverage A

(1) Form DP 00 01

(a) Fire And Extended Coverage

The premium is computed by multiplying the Base Premium by the appropriate factor selected from the following table:

Percentage Of Coverage A	
Total Amount	Factors
10%	1.03
25%	1.08
50%	1.15
75%	1.23
100%	1.30
For each add'l 25% increment, add:	.08

Table 303.B.3.a.(1)(a) Factors

(b) Vandalism And Malicious Mischief

Multiply the rate per \$1,000 used to determine the Vandalism and Malicious Mischief Base Premium by the dollar amount of coverage added. Then multiply the result by .30.

(2) DP 00 02 Or DP 00 03 – Fire, Broad Or Special Forms

The premium is computed by multiplying the Base Premium by the appropriate factor selected from the following table:

Percentage Of Coverage A		
Increase In Amount	Total Amount	Factors
15%	25%	1.05
40%	50%	1.12
65%	75%	1.20
90%	100%	1.27
For each add'l 25% increment, add:		.08

Table 303.B.3.a.(2) Factors

b. Described Location Not Including Coverage A, But Including Coverage B – Specific Structures, Unit-owner Building Items, And/Or Improvements, Alterations And Additions

See Rule 503. for rating instructions.

**RULE 304.
PERMITTED INCIDENTAL OCCUPANCIES**

A. Coverage Description

- One of the incidental occupancies described in Paragraph **B.** is permitted in a premises eligible for coverage under a Dwelling Policy, if:
 - The policy provides insurance under Coverage **A, B** or **C**;
 - The incidental occupancy is operated by the insured who is the owner or a resident of the premises; and
 - There are no more than two persons at work in the incidental occupancy.
- Use Permitted Incidental Occupancies Endorsement **DP 04 20**.

B. Permitted Incidental Occupancies

- Offices, Schools or Studios meaning offices for business or professional purposes, and private schools or studios for music, dance, photography and other instructional purposes.
- Small Service Occupancies meaning occupancies primarily for service rather than sales. For example: barber or beauty shop, tailor or dressmaker, telephone exchanges or shoe repair shops using handwork only.
- Storage of merchandise if the value of the merchandise does not exceed \$10,000.

**DWELLING POLICY PROGRAM MANUAL
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**RULE 304.
PERMITTED INCIDENTAL OCCUPANCIES (Cont'd)**

C. Amount Of Insurance

The amounts of insurance for the contents of the incidental occupancy and merchandise in storage shall be stated as separate contents items in the policy Declarations.

D. Premium Computation

Determine the Coverage C Base Premium under Rule 301., using the single Key Factor for the total amount of insurance for:

1. Household personal property,
2. Contents of the incidental occupancy, and
3. Merchandise in storage.

**RULE 305.
LOSS SETTLEMENT OPTIONS**

A. Functional Replacement Cost Loss Settlement – Forms DP 00 02 And DP 00 03 Only

1. Introduction

The policy provides building loss settlement on a replacement cost basis if, at the time of loss, the amount of insurance on the damaged building represents at least 80% of the full replacement cost of the building immediately before the loss.

2. Coverage Description

The policy may be endorsed to provide building loss settlement exclusively on a functional replacement cost basis if, at the time of loss, the amount of insurance on the damaged building is 80% or more of the functional replacement cost of the building immediately before the loss. Functional Replacement Cost means the amount which it would cost to repair or replace the damaged building with less costly common construction materials and methods which are functionally equivalent to obsolete, antique or custom construction materials and methods.

3. Premium Computation

Develop the Base Premium in accordance with Rule 301. for the amount of insurance selected for this option.

4. Endorsement

Use Functional Replacement Cost Loss Settlement Endorsement **DP 05 30**.

B. Actual Cash Value Loss Settlement – Forms DP 00 02 And DP 00 03 Only

1. Introduction

The policy provides building loss settlement on a replacement cost basis if, at the time of loss, the amount of insurance on the damaged building represents at least 80% of the full replacement cost of the building immediately before the loss.

2. Coverage Description

The policy may be endorsed to provide building loss settlement exclusively on an actual cash value basis if, on the inception date of the policy, the Coverage A limit of liability selected by the insured is less than 80% of the full replacement cost of the dwelling.

3. Premium Computation

The premium is computed by multiplying the Base Premium by the appropriate factor from the following table:

Coverage A Limit Of Liability Equals Less Than _____% Of Replacement Value	Factor
80%, but not less than 50%	1.05
Less than 50%	1.10

Table 305.B.3. Factors

4. Endorsement

Use Actual Cash Value Loss Settlement Endorsement **DP 04 76**.

**RULES 306. – 400.
RESERVED FOR FUTURE USE**

**DWELLING POLICY PROGRAM MANUAL
GENERAL RULES**

**PART IV
ADJUSTED BASE PREMIUM COMPUTATION RULES**

**RULE 401.
SUPERIOR CONSTRUCTION**

A. Introduction

Refer to the Construction Definition rule in this Manual for details.

B. Extended Coverage Rating Classification

For Extended Coverage rating purposes a dwelling classified as:

1. Fire Resistive is considered Wind Resistive.
2. Masonry Non-Combustible is considered Semi-Wind Resistive.

C. Premium Computation

Multiply the Masonry Base Premium by the appropriate factor selected from the following table:

Classifications	Fire	E.C., Broad & Special Forms
Fire Resistive & Masonry Non-Combustible	.50	.50
Non-Combustible	.50	1.00

Table 401.C. Superior Construction Factors

**RULE 402.
COVERAGE C – PERSONAL PROPERTY IN BUILDINGS
SUBJECT TO COMMERCIAL CLASS RATES OR
SPECIFIC RATES**

A. Fire

If the building is classified in Division Five of the Commercial Lines Manual – Fire And Allied Lines, Rule **85.**, Paragraph **B.1.**, **B.2.**, **B.3.** or **B.4.**, use the appropriate factor selected from the following table:

Types Of Construction	B.1. Or B.2.*	All Other B.2. Classifications, B.3., B.4. Or Is Rated Specifically
1. Fire Resistive, Masonry Non-Comb. & Non-Comb. Multiply the Masonry Coverage C Base Premium by:	.50	1.00
2. All Other Construction Multiply the Masonry Coverage C or Frame Base Premium by:	1.00	2.00

* Hotels and Motels Without Restaurant Only

Table 402.A. Coverage C – Personal Property In Buildings

B. Extended Coverage, Vandalism And Malicious Mischief, Broad Or Special Form

Multiply the Coverage C Base Premium by 1.00.

**RULE 403.
DWELLING UNDER CONSTRUCTION**

A. Coverage Description

Two methods are provided for insuring this exposure.

1. Named Insured Is The Intended Occupant

A builder (contractor) may be designated as an additional insured. The policy may be cancelled upon completion of the dwelling. Use Dwelling Under Construction Endorsement **DP 11 43.**

2. Named Insured Is Not The Intended Occupant

The policy shall specify building is in course of construction and permission is granted to complete.

For other coverage bases, refer to the Commercial Lines Manual.

B. Premium Computation

1. Multiply the Coverage A Owner Occupied Base Premium by .65.
2. Multiply the Coverage A Non-Owner Occupied Base Premium by 1.00.

**RULE 404.
MOBILE OR TRAILER HOMES – DP 00 01 ONLY**

Refer to the state company rates/ISO loss costs.

Rule **410.** does not apply to Mobile or Trailer homes.

**RULE 405.
TOWNHOUSE OR ROWHOUSE**

A. Individual Family Units

Determine the total number of individual family units within a Fire Division. For example, a two family dwelling attached to a one family dwelling is considered **three** individual family units within a Fire Division if both dwellings are not separated by a fire wall. Four attached two family dwellings are considered **eight** individual family units within a Fire Division if they are not separated by fire walls. A policy may be issued for:

1. Coverage A when the dwelling contains one, two, three or four individual family units within a Fire Division.
2. Coverage C in a dwelling with one or more individual family units within a Fire Division.

**DWELLING POLICY PROGRAM MANUAL
GENERAL RULES**

**RULE 405.
TOWNHOUSE OR ROWHOUSE (Cont'd)**

B. Premium Computation

Number Of Individual Family Units	Use Coverage A* Or C Base Premium
1, 2, 3 or 4	1, 2, 3 or 4 families
5 or more	5 or more families
* Refer to Commercial Lines Manual for Building Coverage when it contains five or more individual family units within a Fire Division	

Table 405.B. Townhouse Or Rowhouse

**RULE 406.
DEDUCTIBLES**

All policies are subject to a deductible that applies to loss from all perils except Earthquake. A separate deductible type applies to Earthquake Coverage as described in Rule 509.

For Theft Coverage, the deductible amount may differ from the deductible amount that applies to Fire and Allied Lines perils.

Refer to the Earthquake and Theft Coverage rules for the applicable deductible provision.

A. Base Deductible

\$500 Deductible.

B. Optional Deductibles

1. All Perils Deductibles

To compute the premium for these options, multiply the Base Premium for the Base Deductible by the factors selected from the state exception pages.

2. Windstorm Or Hail Deductibles

When the policy covers the peril of Windstorm or Hail, the following deductible options may be used in conjunction with a deductible applicable to all other perils covered under Extended Coverage, Broad or Special Forms.

a. Percentage Deductibles

(1) Deductible Amounts

This option provides for higher Windstorm or Hail percentage deductibles of 1%, 2%, 5%, 7.5% and 10% of the limit of liability that applies to Coverage A, B, D or E, whichever is greatest, when the dollar amount of the percentage deductible selected exceeds the amount of the All Other Perils deductible. This option is not available for policies covering only personal property.

(2) Endorsement

Use Windstorm Or Hail Percentage Deductible Endorsement **DP 03 12**.

(3) Declarations Instructions

Enter, on the policy Declarations, the percentage amount that applies to Windstorm or Hail and the dollar amount that applies to All Other Perils. For example:

Deductible – Windstorm or Hail 2% of the Coverage A limit and \$500 for All Other Perils.

(4) Deductible Application

In the event of a Windstorm or Hail loss to covered property, the dollar amount is deducted from the total of the loss for all coverages.

(5) Coverage Options

The deductible factors for Coverage A, B, D or E and coverage options for buildings and non-building structures differ by the deductible percentage amounts that apply to Windstorm or Hail, deductible amounts that apply to other perils, and the Coverage A, B, D or E limit.

The deductible factors for Coverage C and other personal property coverage options differ by the deductible percentage amounts that apply to Windstorm or Hail and the deductible amounts that apply to other perils.

(6) Use Of Factors

The factors for the Windstorm or Hail Deductibles incorporate the factors for the All Perils Deductibles. Do not use the factors for the All Perils Deductibles when rating a policy with a higher Windstorm or Hail deductible.

(7) Deductible Factors

To compute the premium for this provision, multiply the Extended Coverage, Broad or Special Form Base Premium for the Base Deductible for each coverage insured under the policy by the factor selected from the state exception pages.

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**RULE 406.
DEDUCTIBLES (Cont'd)**

b. Higher Fixed-dollar Deductibles

(1) Deductible Amounts

This option provides for higher Windstorm or Hail fixed-dollar deductible amounts of \$1,000, \$2,000, \$5,000, \$7,500 and \$10,000 when the dollar amount of the higher fixed-dollar deductible selected exceeds the amount of the All Other Perils deductible. This option is not available for policies covering only personal property.

(2) Endorsement

An endorsement is not required.

(3) Declarations Instructions

Separately enter, on the policy Declarations, the deductible amounts that apply to Windstorm or Hail and All Other Perils. For example: \$1,000 for Windstorm or Hail and \$500 for All Other Perils.

(4) Deductible Application

In the event of a Windstorm or Hail loss to covered property, the dollar amount is deducted from the total of the loss for all coverages.

(5) Coverage Options

The deductible factors for Coverage **A**, **B**, **D** or **E** and coverage options for buildings and non-building structures differ by the deductible amounts that apply to Windstorm or Hail and to other perils and the Coverage **A**, **B**, **D** or **E** limit.

The deductible factors for Coverage **C** and other personal property coverage options differ by the deductible amounts that apply to Windstorm or Hail and other perils.

(6) Use Of Factors

The factors for the Windstorm or Hail Deductibles incorporate the factors for the All Perils Deductibles. Do not use the factors for the All Perils Deductibles when rating a policy with a higher Windstorm or Hail deductible.

(7) Deductible Factors

To compute the premium for this provision, multiply the Extended Coverage, Broad or Special Form Base Premium for the Base Deductible for each coverage insured under the policy by the factor selected from the state exception pages.

**RULE 407.
AUTOMATIC INCREASE IN INSURANCE**

A. Coverage Description

The policy may be endorsed to provide automatic annual increases in the Coverage **A** and **B** limits of liability.

B. Premium Computation

1. The premium is computed by multiplying the Base Premium by the appropriate factors selected from the following table as follows:

Amount Of Annual Increase	Factor
4%	1.02
6%	1.03
8%	1.04
Each Add'l 4% over 8% add:	.02

Table 407.B.1. Factors

2. The premium for a three-year policy is 3.2 times the annual policy premium.

C. Endorsement

Use Automatic Increase In Insurance Endorsement **DP 04 11**.

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**RULE 408.
PROTECTIVE DEVICES**

A. Protective Devices Factors

Approved and properly maintained installations of fire alarms and automatic sprinklers in the dwelling may be recognized for a reduced premium – computed by multiplying the Fire Base Premium by the selected factors below:

Protective Devices Factors

Type Of Installation*	Dwelling Factor	Mobile Or Trailer Home Factor
Central Station Reporting Fire Alarm	.90 to 1.00	.92 to 1.00
Fire Department Reporting Fire Alarm	.93 to 1.00	.95 to 1.00
Local Fire Alarm	.95	.97
Automatic Sprinklers In All Areas Including Attics, Bathrooms, Closets, Attached Structures	.80 to .90	.90 to .95
Automatic Sprinklers In All Areas Except Attic, Bathroom, Closet And Attached Structure Areas That Are Protected By A Fire Detector	.90 to 1.00	.95 to 1.00
* Refer to company for eligibility, types of systems and devices, installations, and available credits		

Table 408.A. Protective Devices Factors

B. Endorsement

Use Premises Alarm Or Fire Protection System Endorsement **DP 04 70.**

**RULE 409.
ACTUAL CASH VALUE LOSS SETTLEMENT
WINDSTORM OR HAIL LOSSES TO ROOF
SURFACING – DP 00 02, DP 00 03 AND DP 00 01 WITH
DP 00 08**

A. Introduction

The policy provides settlement for building losses on a repair or replacement cost basis, subject to certain conditions.

B. Coverage Description

The policy may be endorsed to provide loss settlement exclusively on an Actual Cash Value basis for roof surfacing when damage is caused by the peril of Windstorm or Hail.

C. Premium Determination

To develop a premium for this option, multiply the Extended Coverage, if applicable, and Broad or Special Form Base Premium by a factor of .98.

D. Endorsement

Use Actual Cash Value Loss Settlement Windstorm Or Hail Losses To Roof Surfacing Endorsement **DP 04 75.**

**RULE 410.
BUILDING CODE EFFECTIVENESS GRADING**

This rule does not apply to Mobile or Trailer homes.

A. General Information

1. The Building Code Effectiveness Grading Schedule (BCEGS) develops a grade of 1 to 10 for a community based on the adequacy of its building code and the effectiveness of its enforcement of that code. Policies which cover the perils of Windstorm or Hail or Earthquake may be eligible for special rating treatment, subject to the criteria in the following paragraphs. The BCEGS factor applies, where applicable, in addition to the Public Protection Classification factors.
2. In some communities, two BCEGS classifications may be assigned. One classification for personal lines indicated next to "PERS" will apply to one- and two-family dwelling buildings and/or personal property contained in such buildings. The other classification indicated next to "COML" will apply to all other buildings occupied for residential, commercial and/or manufacturing purposes, including personal and business property contained therein. The ISO Community Mitigation Classifications will indicate the application of each grade.
3. Refer to the ISO Community Mitigation Classifications (CMC) Manual for the BCEGS classifications for a community and their effective dates.

B. Community Grading

1. The BCEGS classification applies to any building that has an original certificate of occupancy dated the year of the effective date of the community grading, or later. A rating factor has been developed for each community classification.
2. If a community is regraded subsequent to its initial grading, the factor for the revised grade applies to buildings that have an original certificate of occupancy dated the year of the effective date of the revised grading, or later.
3. Where certificates of occupancy are not issued, equivalent documentation acceptable to the company may be used.
4. If, due to an addition or alteration, the original building is changed to comply with the latest building code, the factor for the community classification applicable at the time the reconstruction is completed will apply to such building.

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**RULE 410.
BUILDING CODE EFFECTIVENESS GRADING (Cont'd)**

5. The BCEGS classification may apply to Windstorm or Hail or Earthquake, or to both. Specific information is provided in the ISO Community Mitigation Classifications (CMC) Manual. If the grade in the manual does not apply to one of the perils, the factor should not be applied for that peril.

C. Individual Grading

Where buildings have been built in full conformance with the natural hazard mitigation elements of one of the nationally recognized building codes even though the community grade is greater than one, exception rating procedures may apply.

1. Any building may be classified as a 1 for Windstorm or Hail upon certification by a registered or licensed design professional, based on an on-site inspection, that such building is in compliance with one of the three nationally recognized building codes with respect to mitigation of the windstorm or hail hazard. This classification is effective only from the date of the certification.
2. Any building may be classified as a 1 for Earthquake upon certification by a registered or licensed design professional, based on an on-site inspection, that such building is in compliance with the earthquake mitigation elements of one of the three nationally recognized building codes. This classification is effective only from the date of the certification.

D. Ungraded Risks

Buildings which do **not** meet the criteria in Paragraph **B.** or **C.** for classification assignment are rated and coded as ungraded risks. Do not classify as a 10.

E. Premium Credit Computation

1. Community Grading

a. Windstorm Or Hail

Compute the premium credit as follows:

- (1) For buildings which are eligible under Paragraph **B.** of this rule, and for personal property inside such buildings, multiply the Key Premium for Extended Coverage (**DP 00 01**) by the applicable factor in Paragraph **E.1.c.(1)**; and
- (2) Multiply the result from Paragraph (1) by the Key Factor for the desired amount of insurance.

b. Earthquake

When Earthquake Endorsement **DP 04 69** is attached to the policy, multiply the Earthquake Base Premium by the appropriate factor in Paragraph **E.1.c.(2)** located in the state exceptions.

c. Credit Factors

Refer to state exceptions for state-specific factors.

2. Individual Grading

For any building classified as a 1 based upon certification as set forth in Paragraph **C.**, use the appropriate factor listed under Paragraph **E.1.c.** located in the state exceptions.

**RULES 411. – 499.
RESERVED FOR FUTURE USE**

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**PART V
ADDITIONAL COVERAGES AND INCREASED LIMITS
RULES**

**RULE 500.
MISCELLANEOUS LOSS COSTS**

This rule is reserved to provide rates for various rating rules in this Manual. Refer to state company rates/ISO loss costs.

**RULE 501.
COVERAGE B – OTHER STRUCTURES**

A. Coverage Description

Coverage for other structures described as covered under Coverage **B** is automatically provided on a blanket basis for up to 10% of the Coverage **A** limit.

1. Under Form **DP 00 01**, use of this option reduces the Coverage **A** limit for the same loss.
2. Under Form **DP 00 02** or **DP 00 03**, this limit is additional insurance.

The blanket limit may not be increased.

No entry is needed in the policy Declarations for this coverage to apply.

B. Specific Structures Coverage

Coverage may be purchased for specific structures. Enter the limit of liability and description of each structure in the policy Declarations. Refer to Paragraph **C**. for premium computation instructions.

C. Premium Computation

1. **Structure Rented To Others For Dwelling Purposes**

Rate each structure separately as a Coverage **A** Dwelling, Non-Owner-Occupied under Rule **301**.

2. **Structure Not Rented To Others For Dwelling Purposes**

- a. Policy includes Coverage **A** or structure does not have permitted incidental occupancy or is at same Described Location as the dwelling:

- (1) **Fire, Extended Coverage, Broad And Special Forms**

Refer to the state company rates/ISO loss costs Rule **500**. Miscellaneous Rates.

- (2) **Vandalism And Malicious Mischief (DP 00 01)**

Refer to the state company rates/ISO loss costs Rule **302**. Vandalism And Malicious Mischief.

- b. Policy does not include Coverage **A** or structure has permitted incidental occupancy or is not at same Described Location as the dwelling:

- (1) **Fire, Extended Coverage, Broad And Special Forms**

Rate each structure separately as a Coverage **A** item under Rule **301**. using the one Family Key Premium.

- (2) **Vandalism And Malicious Mischief (DP 00 01)**

Refer to the state company rates/ISO loss costs Rule **302**. Vandalism And Malicious Mischief.

**RULE 502.
COVERAGE D – FAIR RENTAL VALUE
COVERAGE E – ADDITIONAL LIVING EXPENSE**

A. Introduction

Coverage is automatically provided in the forms on a limited basis as follows:

1. **Form DP 00 01**

a. Coverage D

Up to 20% of the Coverage **A** limit is available. Use of this option reduces the Coverage **A** limit for the same loss. No entry is needed in the policy Declarations for this coverage to apply.

b. Coverage E

Not automatically included in form. It may be added as noted in Paragraph **B**.

2. **Form DP 00 02 Or DP 00 03**

Coverage **D** and **E** combined – Up to 20% of the Coverage **A** limit is available for Coverage **D** and Coverage **E** combined as additional insurance. No entry is needed in the policy Declarations for this coverage to apply.

B. Coverage Description

Coverage may be increased or added as follows for all forms:

1. **Coverage D**

- a. The amount recoverable each month under this coverage shall be based on the lost rental income less any expenses that do not continue during untenability.

- b. Enter amount of increase in the policy Declarations.

- c. For **DP 00 01**, the amount recoverable each month is limited to a fraction of the total rental value amount insured under the policy. This fraction is equal to one divided by the number of months dwelling is rented per year.

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**RULE 502.
COVERAGE D – FAIR RENTAL VALUE
COVERAGE E – ADDITIONAL LIVING EXPENSE (Cont'd)**

DP 00 01 Example

Factors
\$10,000 = Rental Value Coverage in Form (20% of Coverage A limit of \$50,000)
+2,000 = Additional Insurance (Shown under Coverage D in policy Declarations)
\$12,000 = Total Rental Value Amount Insured
Scenario A
If dwelling is rented for entire year, then fraction = 1/12. \$12,000 X 1/12 = Up to \$1,000 available each month.
Scenario B
If dwelling is rented 8 months per year, then fraction = 1/8. \$12,000 X 1/8 = Up to \$1,500 available each month.

Table 502.B.1.c. DP 00 01 Example

2. Coverage E

- a. Enter initial limit (**DP 00 01**) or amount of increase (**DP 00 02** or **DP 00 03**) in policy Declarations.
- b. For **DP 00 01**, the amount recoverable each month is limited to no more than 25% per month of the total additional living expense amount insured under the policy.
- c. For **DP 00 01**, use Additional Living Expense Endorsement **DP 04 14**.

C. Premium Computation

1. Policy Includes Coverage A Or Coverage C

a. Fire, Extended Coverage, Broad And Special Forms

Refer to the state company rates/ISO loss costs Rule **500**. Miscellaneous Rates.

b. Vandalism And Malicious Mischief (DP 00 01)

Refer to the state company rates/ISO loss costs Rule **302**. Vandalism And Malicious Mischief.

2. Policy Does Not Include Coverage A Or Coverage C

a. Fire, Extended Coverage, Broad And Special Forms

(1) One To Four Family Dwelling

Multiply the Coverage A Key Premium by the Coverage A Key Factor, for:

- (a) The Coverage D limit, times .53; or
- (b) The Coverage E limit, times 1.00

(2) Five Or More Family Dwelling

Calculate the premium as instructed above using the Four Family Key Premium.

b. Vandalism And Malicious Mischief (DP 00 01)

Refer to the state company rates/ISO loss costs Rule **302**. Vandalism And Malicious Mischief.

**RULE 503.
ORDINANCE OR LAW COVERAGE FOR COVERAGE B – SPECIFIC STRUCTURES, BUILDING ITEMS AND IMPROVEMENTS, ALTERATIONS AND ADDITIONS**

A. Coverage Description

1. DP 00 01

The policy may be endorsed to add an amount of Ordinance or Law Coverage equal to the amounts noted in Paragraphs 1. and 2.

2. DP 00 02 Or DP 00 03

The basic 10% of coverage may be initially increased to the amounts noted in Paragraphs **A.2.a.** and **b.**

- a. 50% of the total Coverage B or Unit-owner Building Items limit; or
- b. 100% of the Improvements, Alterations and Additions limit.

B. Increased Limits

These amounts may be further increased in 25% increments.

C. Premium Determination

1. The premium for this additional coverage is determined based on the dollar amount of coverage added for **DP 00 01**, or the dollar amount of increase, represented by the increased percentage selected above the basic limit for **DP 00 02** or **DP 00 03**.
2. Multiply state company rates/ISO loss costs Rule **500**. Miscellaneous Rates by .30.

**DWELLING POLICY PROGRAM MANUAL
GENERAL RULES**

**RULE 504.
IMPROVEMENTS, ALTERATIONS AND ADDITIONS
TENANT AND CO-OP UNIT-OWNER – DP 00 01 OR
DP 00 02**

A. Introduction

Named perils coverage is automatically provided in the forms for up to 10% of the Coverage **C** limit.

1. DP 00 01

Use of this option reduces the Coverage **C** limit for the same loss.

2. DP 00 02

This limit is additional insurance.

This limit may be increased for an additional premium.

B. Special Coverage

For Form **DP 00 02**, coverage may be extended to Special Coverage for an additional premium.

C. Stand Alone Coverage

Coverage may be written without Coverage **A, B, C, D** or **E**.

D. Premium Computation

1. Fire, Extended Coverage, Broad And Special Forms

a. If the policy includes Coverage **A, B, C, D** or **E**, refer to the state company rates/ISO loss costs Rule **500**. Miscellaneous Rates.

b. If the policy does not include Coverage **A, B, C, D** or **E**, multiply the Coverage **A**, Four Family, Owner-occupied Key Premium (for the territory, protection and construction applying to the Described Location) by the Coverage **A** Key Factor for the amount of insurance desired.

2. Vandalism And Malicious Mischief (DP 00 01)

Refer to the state company rates/ISO loss costs Rule **302**. Vandalism And Malicious Mischief.

E. Endorsement

1. To provide Named Perils Coverage, use Improvements, Alterations And Additions Endorsement **DP 04 31**.

2. To provide Special Coverage, use Improvements, Alterations And Additions Endorsement **DP 04 31** and Special Coverage Endorsement **DP 04 65**.

**RULE 505.
BUILDING ITEMS CONDO UNIT-OWNER – DP 00 01 OR
DP 00 02**

A. Coverage Description

Unit-owners building items are not covered in the forms.

However, for an additional premium, coverage is available on a Named Perils or Special Coverage basis.

B. Stand Alone Coverage

Coverage may be written without Coverage **A, B, C, D** or **E**.

C. Premium Computation

1. Fire, Extended Coverage, Broad And Special Forms

a. If the policy includes Coverage **A, B, C, D** or **E**, refer to the state company rates/ISO loss costs Rule **500**. Miscellaneous Rates.

b. If the policy does not include Coverage **A, B, C, D** or **E**, multiply the Coverage **A**, Four Family, Owner-occupied Key Premium (for the territory, protection and construction applying to the Described Location) by the Coverage **A** Key Factor for the amount of insurance desired.

2. Vandalism And Malicious Mischief (DP 00 01)

Refer to the state company rates/ISO loss costs Rule **302**. Vandalism And Malicious Mischief.

D. Endorsement

1. To provide Named Perils Coverage, use Form **DP 00 01** or **DP 00 02** and Unit-owners Coverage Endorsement **DP 17 66**.

2. To provide Special Coverage, use Form **DP 00 02** and Unit-owners Coverage Endorsement **DP 17 66** and Special Coverage Endorsement **DP 04 65**.

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**RULE 506.
LOSS ASSESSMENT PROPERTY COVERAGE CO-OP
OR CONDO UNIT-OWNER OR TENANT – DP 00 01 OR
DP 00 02 DWELLING BUILDING OWNER – ALL FORMS**

A. Coverage Description

1. Coverage for property loss assessment, for which the insured may be liable, is not included in the forms.
2. Coverage is available for an additional premium for all insured perils.
3. When coverage is desired for the peril of Earthquake, refer to Rule **509.C.** for policy writing and rating instructions.

B. Stand Alone Coverage

Coverage may be written without Coverage **A, B, C, D** or **E.**

C. Endorsement

Use Loss Assessment Property Coverage Endorsement **DP 04 63.**

D. Premium Computation

1. **Fire, Extended Coverage, Broad And Special Forms**
 - a. If the policy includes Coverage **A, B, C, D** or **E**, refer to the state company rates/ISO loss costs Rule **500.** Miscellaneous Rates.
 - b. If the policy does not include Coverage **A, B, C, D,** or **E**, multiply the Coverage **A.**, Four Family, Owner-Occupied Key Premium (for the territory, protection and construction applying to the described location) by the Coverage **A** Key Factor for the amount of insurance desired.
2. **Vandalism And Malicious Mischief (DP 00 01)**

Refer to the state company rates/ISO loss costs Rule **302.** Vandalism And Malicious Mischief.

**RULE 507.
FIRE DEPARTMENT SERVICE CHARGE**

The limit of \$500 may be increased subject to the rules and rates of the company.

**RULE 508.
TREES, SHRUBS AND OTHER PLANTS**

A. Form DP 00 01

1. Coverage Description

Coverage for trees, shrubs and other plants is not provided in this form. However, for an additional premium, coverage is available for specified perils on two bases, with and without the peril of windstorm or hail. Coverage is limited to a \$500 per item maximum.

Declare on the endorsement or elsewhere in the policy, as directed by the company, whether the peril of windstorm or hail applies.

2. Stand Alone Coverage

This coverage may be written without Coverage **A, B, C, D** or **E.**

3. Endorsement

Use Trees, Shrubs And Other Plants Endorsement **DP 04 17.**

B. Forms DP 00 02 Or DP 00 03

1. Coverage Description

Up to 5% of the Coverage **A** limit is available in the form (subject to a \$500 per item maximum) for specified perils as additional insurance.

2. Windstorm Or Hail Coverage

Coverage for Windstorm or Hail is available up to 5% of Coverage **A** limit (subject to a \$500 per item maximum) for an additional premium.

3. Endorsement

Use Windstorm Or Hail Endorsement **DP 04 18.**

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**RULE 508.
TREES, SHRUBS AND OTHER PLANTS (Cont'd)**

C. Premium Computation

1. Fire, Extended Coverage, Broad And Special Forms

Refer to state company rates/ISO loss costs Rule **508**.

2. Vandalism And Malicious Mischief (DP 00 01)

Refer to state company rates/ISO loss costs Rule **302**. Vandalism And Malicious Mischief.

**RULE 509.
EARTHQUAKE COVERAGE**

A. Coverage Description

The policy may be endorsed to provide coverage against a loss resulting from the peril of Earthquake. This peril shall apply to all Property Coverages for the same limits provided in the policy. When added to the Fire policy, this peril shall apply to the same coverages and for the same limits that apply to the peril of Fire. Use Earthquake Endorsement **DP 04 69**.

B. Earthquake Only Coverage

When a policy is written to cover only the peril of Earthquake:

1. Use Form **DP 00 01** for Actual Cash Value Loss Settlement or **DP 00 02** for Replacement Cost;
2. Use Earthquake And Volcanic Eruption Endorsement **DP 16 13**; and
3. Multiply the rates in this rule by a **factor** of 1.10.

C. Loss Assessment Coverage

When the policy is extended to cover loss assessment resulting from loss by this peril, the limit of liability shall be based on the insured's proportionate interest in total value of all collectively owned buildings and structures of the corporation or association of property owners. Refer to company for rates. Use Loss Assessment Coverage For Earthquake Endorsement **DP 04 68**.

D. Deductible

Deductible percentage amounts of 5%, 10%, 15%, 20% and 25% of the limit of liability for Coverage **A** and Coverage **C** are included in this rule.

In the event of an Earthquake loss to covered property, the dollar amount is deducted from the total of the loss for Coverages **A**, **B** and **C**.

Earthquake rates/loss costs are displayed for the 5% and 10% deductible in the state company rates/ISO loss costs Rule **509**. Credit factors for deductible percentage amounts of 15%, 20% and 25% are provided in Paragraph **F. Premium For Higher Deductibles** of this rule.

E. Premium For Base Deductible

Develop the Base Premium as follows:

1. Determine whether Construction Table **A**, **B**, and/or **C** applies for the appropriate deductible. Refer to state company rates/ISO loss costs.
2. Determine the Earthquake territory according to the ZIP code of the residence premises from the State Territory Definitions section in this manual.
3. Add the results of the following three steps:
 - a. Multiply the Coverage **A** limit by the state company rates/ISO loss costs for Coverage **A** in the table;
 - b. Multiply the Coverage **C** limit by the state company rates/ISO loss costs for Coverage **C** in the table; and
 - c. Multiply the sum of the Additional Coverage **D** and **E** limits by the state company rates/ISO loss costs for Coverages **D** and **E** in the table.
4. For Building or Non-building Structure Items – All Forms:

Multiply the state company rates/ISO loss costs for Coverage **B** in the table by the appropriate limit of liability for the following Other Building Coverage options, as applicable, and add to the applicable premium determined in Paragraph **E.3**.

 - a. Coverage **B** – Specific Structures;
 - b. Improvements, Alterations and Additions – Increased Limits;
 - c. Building Items Coverage;
5. For Ordinance or Law – Basic and Increased Limit – All Forms:

When the basic Ordinance or Law Coverage limit is added or increased, the earthquake premium is developed based on the added or increased limit of insurance.

- a. For Forms **DP 00 01**, **DP 00 02** and **DP 00 03**, multiply the rate determined in Paragraph **E.3.a.** by the appropriate factor selected from Rule **303.B.3.a.**
- b. For Coverage **B** – Specific Structures, Improvements, Alterations and Additions and Building Items Coverage, the premium for this additional coverage is determined based on the dollar amount of added or increased coverage, represented by the increased percentage amount selected above the basic limit. The rate for each additional \$1,000 of insurance is determined as follows: multiply the state company rates/ISO loss costs for Coverage **B** in the table by .30 and add to the applicable premium determined in Paragraph **E**.

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**RULE 509.
EARTHQUAKE COVERAGE (Cont'd)**

F. Premium For Higher Deductibles

Multiply the Earthquake base premium determined in Paragraph **E.** for the 10% deductible by the appropriate factor from the following table:

Deductible Percentage	Frame	Masonry	Superior
15%	.80	.85	.75
20%	.65	.70	.60
25%	.50	.60	.45

Table 509.F. Higher Deductibles Factors

G. Building Code Effectiveness Grading

Refer to General Rule **410.** Building Code Effectiveness Grading for information which may affect Earthquake rating.

**RULE 510.
THEFT COVERAGE**

A. Introduction

A Fire policy insuring Coverage **A** or **C** may be extended, for an additional premium, to provide On and Off-Premises Coverage for the perils of Theft and Vandalism and Malicious Mischief (V.&M.M.) resulting from theft.

1. Owner-Occupied Dwellings, Co-Op Or Condo Units; And Apartments Occupied By Tenant (Named Insured)

a. Coverage Description

The policy may be extended to provide On or Off-Premises Coverage.

b. Minimum Limit Of Liability

The minimum limit of liability is \$1,000 each for On and Off-Premises Coverage.

c. Off-Premises Coverage

Off-Premises Coverage is **only** available when On-Premises Coverage is purchased.

The limit of liability shall not be greater than that selected for On-Premises Coverage.

d. Endorsement

Use Broad Theft Coverage Endorsement **DP 04 72.**

2. Non-Owner-Occupied Dwellings, Co-op Or Condo Units; And Apartments Occupied By Tenant (Other Than Named Insured)

a. Coverage Description

The policy may be extended to provide On-Premises Coverage **only.**

b. Limit Of Liability

The minimum limit of liability is \$1,000.

c. Endorsement

Use Limited Theft Coverage Endorsement **DP 04 73.**

B. Premium Computation

Refer to state company rates/ISO loss costs for the Base Deductible.

Compute the premiums separately for each premises in the manner and sequence that follows:

1. Theft And Vandalism And Malicious Mischief

a. Owner-Occupied Dwellings

Compute the premiums for the desired limit of liability separately for On and Off-Premises Coverage.

b. Non-Owner-Occupied Dwellings, (On-Premises Only)

Multiply the On-Premises premium computed above by a factor of 1.50.

2. Burglar Alarm Discount (On-Premises Only)

a. Approved and properly maintained installations of burglar alarms in the dwelling may be recognized for a reduced premium – developed by applying the selected factors to the premiums computed in Paragraph **B.1.a.** or **B.1.b.**

Type Of Installation*	Factor
Central Station Reporting Burglar Alarm	.95 to 1.00
Police Station Reporting Burglar Alarm	.97 to 1.00
Local Burglar Alarm	.98

* Refer to company for eligibility, types of systems and devices, installations and available credits.

Table 510.B.2.a. Factors

b. Use Premises Alarm Or Fire Protection System Endorsement **DP 04 70.**

C. Deductibles

1. Base Deductible

\$500 Deductible.

**DWELLING POLICY PROGRAM MANUAL
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**RULE 510.
THEFT COVERAGE (Cont'd)**

2. Optional Deductibles

To compute the premium for this provision, multiply the premium for the Base Deductible computed in Paragraph **B.1.** by the factor listed in the following table:

Deductible*	Factor
\$ 100	1.26
\$ 250	1.05
\$ 1,000	.84
\$ 2,500	.68

* Refer to the state company rates pages for the minimum annual additional premium charge that applies per policy.

Table 510.C.2 Factors

**RULE 511.
SINKHOLE COLLAPSE COVERAGE**

A. Coverage Description

The policy may be endorsed to provide Sinkhole Collapse Coverage.

B. Premium Computation

1. Refer to state company rates/ISO loss costs; and
2. Multiply the rate per \$1,000 by:
 - a. Coverage **A**, **B** and/or **C** amounts of insurance;
 - b. Improvements, Alterations and Additions – Increased Limits;
 - c. Other Building or Structure Options (for example, Bldg. Items Coverage);
 - d. Other Personal Property Coverage Options (for example, Merchandise in Storage); or
 - e. Ordinance or Law Coverage, basic amount and, if applicable, increased amount of coverage.

C. Endorsement

Use Sinkhole Collapse Endorsement **DP 04 99**.

**RULE 512.
WINDSTORM OR HAIL COVERAGE – AWNINGS, SIGNS
AND OUTDOOR RADIO AND TELEVISION EQUIPMENT**

A. Coverage Description

The peril of Windstorm or Hail does **not** cover:

1. Awnings, Signs and Outdoor Radio and Television Equipment in **DP 00 01** or **DP 00 02**;
2. Outdoor Radio and Television Equipment in **DP 00 03**;

whether or not attached to a Dwelling Building or Other Structure.

B. Premium Computation

Coverage may be provided for an additional premium. Refer to the state company rates/ISO loss costs.

C. Endorsement

Use Windstorm Or Hail – Radio And Television Antennas, Awnings And Signs Endorsement **DP 04 19**.

**RULE 513.
LIMITED WATER BACK-UP AND SUMP DISCHARGE OR
OVERFLOW COVERAGE**

A. Coverage Description

The policy forms exclude coverage for loss resulting from water or waterborne material which backs up through sewers or drains or which overflows or is discharged from a sump, sump pump or related equipment.

When the optional Limited Water Back-up And Sump Discharge Or Overflow Coverage endorsement is attached to the policy, coverage is provided with respect to direct physical loss, not caused by the negligence of an insured, to property covered, caused by water or waterborne material which originates from within the dwelling on the Described Location and backs up through sewers or drains or which overflows or is discharged from a sump, sump pump or related equipment. The basic limit is \$5,000. Unless increased limits are selected, the basic limit must be entered on the coverage endorsement or the policy Declarations.

B. Increased Limits

The limit may be increased to \$10,000, \$15,000, \$20,000 or \$25,000. The limit selected is entered on the coverage endorsement or the policy Declarations.

C. Premium Computation

Refer to state company rates/ISO loss costs.

D. Endorsement

Use Limited Water Back-up And Sump Discharge Or Overflow Coverage Endorsement **DP 04 95**.

**DWELLING POLICY PROGRAM MANUAL
GENERAL RULES**

**RULE 514.
ASSISTED LIVING CARE COVERAGE**

A. Introduction

The policy provides coverage to named insureds and resident relatives who are members of the insured's household.

B. Coverage Description

1. The policy may be endorsed to provide personal property and additional living expense coverage to a person regularly residing in an Assisted Living Care facility, provided such person:
 - a. Is related to an insured by blood, marriage or adoption; and
 - b. Is not a member of that insured's household.
2. An assisted living care facility is a facility that provides assisted living services such as dining, therapy, medical supervision, housekeeping and social activities. It is **not** a hospice, prison or rehabilitation facility.
3. The endorsement provides the following basic limits of coverage:
 - a. \$10,000 for Coverage **C** – Personal Property with limitations ranging from \$100 to \$500 for certain items of property; and
 - b. \$6,000, at \$500 per month, for Additional Living Expenses.

C. Premium

Refer to state company rates/ISO loss costs.

D. Endorsement

Use Assisted Living Care Coverage Endorsement **DP 04 59**.

**RULE 515.
MOTORIZED GOLF CART – PHYSICAL LOSS
COVERAGE**

A. Coverage Description

The policy may be endorsed to provide coverage for physical loss to a motorized golf cart, including permanently installed accessories, equipment and parts, owned by an insured.

Also covered, for an amount equal to 10% of the limit of the highest scheduled cart, are accessories, equipment or parts designed or made solely for the cart that are **not** permanently installed provided such property is at the Described Location or in or upon the cart off the Described Location at the time of loss.

Coverage for loss caused by collision is optional and only applies if declared on the schedule of the endorsement.

B. Eligibility

To be eligible for coverage, the motorized golf cart shall be of the type designed to carry up to four people on a golf course for the purpose of playing golf and shall not have been built, or modified after manufacture, to exceed a speed of 25 m.p.h. on level ground.

Read the endorsement for all conditions of coverage.

C. Limit Of Liability

The limit of liability shall be selected by the insured. However, that limit should be representative of the actual cash value of the motorized golf cart including any permanently installed accessories, etc.

D. Deductible

A \$500 deductible replaces any other deductible in the policy with respect to any one loss covered under the endorsement.

E. Premium Computation

Rate each cart separately using the rate per \$500 of insurance. Refer to state company rates/ISO loss costs.

F. Endorsement

Use Owned Motorized Golf Cart – Physical Loss Coverage Endorsement **DP 05 28**.

**RULE 516.
GRAVEMARKERS**

A. Coverage Description

Coverage for gravemarkers, including mausoleums, is not included in the forms. The policy may be endorsed to provide \$5,000 in coverage for gravemarkers, including mausoleums, on the Described Location.

B. Premium Computation

1. Fire, Extended Coverage, Broad And Special Forms

Refer to the state company rates/ISO loss costs Rule **500**. Miscellaneous Rates.

2. Vandalism And Malicious Mischief (DP 00 01)

Refer to the state company rates/ISO loss costs Rule **302**. Vandalism And Malicious Mischief.

C. Endorsement

Use Gravemarkers Endorsement **DP 04 58**.

**DWELLING POLICY PROGRAM MANUAL
GENERAL RULES**

**RULE 517.
LIMITED FUNGI, WET OR DRY ROT, OR BACTERIA
COVERAGE**

A. Coverage Description

When the optional Limited Fungi, Wet Or Dry Rot, Or Bacteria Coverage Endorsement is attached to the policy, limited amounts of insurance are automatically provided as follows:

\$10,000, on an aggregate basis, to pay for loss and associated costs to covered real or personal property, owned by an insured, that is damaged by fungi, wet or dry rot, or bacteria on the Described Location as defined in the coverage endorsement. If the basic limit is selected, it is entered on the coverage endorsement or the policy Declarations.

This Coverage applies only for the policy period in which the loss or costs occur.

If more than one location is insured under this policy, enter the address of such locations on this endorsement or the policy Declarations.

B. Increased Limits

Limits may be increased to \$25,000 or \$50,000. The limit selected is entered on the coverage endorsement or the policy Declarations.

C. Premium Computation

1. Basic Limits

There is no premium adjustment.

2. Increased Limits

Refer to state company rates/ISO loss costs for an additional charge.

D. Endorsement

Use Limited Fungi, Wet Or Dry Rot, Or Bacteria Coverage Endorsement **DP 04 22**.

**RULES 518. – 600.
RESERVED FOR FUTURE USE**



Notice to Manualholders

PERSONAL LINES

DWELLING POLICY PROGRAM MANUAL – NORTH CAROLINA RULES

NOTICE DP-NC-2023-RU-001

REFERENCE INFORMATION (FOR COMPANY USE ONLY)

Circular Reference(s):

- P-23-1 (01/31/2023) Revised Dwelling Fire and Extended Coverage Insurance Rates – North Carolina

Filing Reference(s):

- NCRI-133353490 (Bureau)

ADDITIONAL RULE(S)

**RULE A1.
SPECIAL STATE REQUIREMENTS**

A. Special Provisions Endorsement DP 32 32

Use this endorsement with all Dwelling Policies.

B. Windstorm Exterior Paint And Waterproofing Exclusion Endorsement DP 32 61

Use this endorsement with **all** Dwelling Policies covering Extended Coverage in Territories 110 and 120.

C. Company Rates/State Rates

References in the manual to "state company rates" means "state rates" in North Carolina.

D. Flood, Earthquake, Mudslide, Mudflow, Landslide, Or Windstorm Or Hail Insurance Notice

North Carolina law provides that an insurer selling property insurance that does not provide coverage for the perils of flood, earthquake, mudslide, mudflow, landslide, or windstorm or hail shall provide a specific notice (a "warning" set forth in the related statute) to the policyholder as to which of the listed perils are not covered under the policy.

The required notice must be:

1. Provided upon issuance and renewal of each policy;
2. In Times New Roman 16-point font or another equivalent font; and
3. Must be included in the policy on a separate page immediately before the Declarations page.

The following warning, citing which peril is not covered, must be furnished with each new policy and upon each renewal:

"WARNING: THIS PROPERTY INSURANCE POLICY DOES NOT PROTECT YOU AGAINST LOSSES FROM [FLOODS], [EARTHQUAKES], [MUDSLIDES], [MUDFLOWS], [LANDSLIDES], [WINDSTORM OR HAIL]. YOU SHOULD CONTACT YOUR INSURANCE COMPANY OR AGENT TO DISCUSS YOUR OPTIONS FOR OBTAINING COVERAGE FOR THESE LOSSES. THIS IS NOT A COMPLETE LISTING OF ALL OF THE CAUSES OF LOSSES NOT COVERED UNDER YOUR POLICY. YOU SHOULD READ YOUR ENTIRE POLICY TO UNDERSTAND WHAT IS COVERED AND WHAT IS NOT COVERED."

E. North Carolina Endorsement DP 32 46

Use this endorsement with all Dwelling Policies.

**RULE A2.
RESTRICTION OF INDIVIDUAL POLICIES**

If a Dwelling Policy would not be issued because of unusual circumstances or exposures, the named insured may request a restriction of the policy provided no reduction in premium is allowed. Such request shall be referred to the company.

**RULE A3.
WINDSTORM OR HAIL EXCLUSION – TERRITORIES
110, 120, 130, 140, 150 AND 160 ONLY**

A. Introduction

The peril of Windstorm or Hail may be excluded if:

1. The property is located in an area eligible for such coverage from the North Carolina Insurance Underwriting Association; and
2. A Windstorm or Hail Rejection Form is secured and maintained by the company.

B. Premium Computation

1. To compute the Extended Coverage Non-seasonal or Seasonal Base Premium or the Broad or Special Form Non-seasonal Base Premium:
 - (a) Determine the Extended Coverage, Broad or Special Form Key Premium as described in Rule **301**.
 - (b) Subtract the Windstorm Or Hail Exclusion Credit shown on the state rates from the Extended Coverage, Broad or Special Form Key Premium.
 - (c) Multiply the Extended Coverage, Broad or Special Form Key Premium excluding Windstorm or Hail Coverage developed in Paragraph **B.1.(b)** by the Key Factor for the desired limit of liability.
2. To compute the Seasonal Broad or Special Form Base Premium:
 - (a) Determine the **DP 00 01** Extended Coverage Key Premium as described in Rule **301**.
 - (b) Multiply the **DP 00 01** Extended Coverage Key Premium by the appropriate Seasonal factor shown in Table **301.A.#42(R)** or Table **301.A.#45(R)** to determine the Seasonal Broad or Special Form Key Premium.
 - (c) Subtract the Windstorm Or Hail Exclusion Base Credit shown on the state rates from the Seasonal Broad or Special Form Key Premium determined in Paragraph **B.2.(b)**.
 - (d) Multiply the Seasonal Broad or Special Form Key Premium excluding Windstorm Or Hail Coverage developed in Paragraph **B.2.(c)** by the Key Factor for the desired limit of liability.

**RULE A3.
WINDSTORM OR HAIL EXCLUSION – TERRITORIES
110, 120, 130, 140, 150 AND 160 ONLY (Cont'd)**

C. Endorsement

Use Windstorm Or Hail Exclusion – North Carolina Endorsement **DP 32 87**.

When Windstorm Or Hail Exclusion – North Carolina Endorsement **DP 32 87** is attached to the policy, enter the following in Declarations:

"This policy does not provide coverage for the peril of Windstorm or Hail."

**RULE A4.
REPLACEMENT COST COVERAGE – DP 00 01 ONLY**

A. The policy may be endorsed to provide replacement cost coverage on buildings without deduction for depreciation.

B. This rule is intended to have limited application. Use it **only** on those **DP 00 01** policies that currently use it. Do **not** use it on any new policies.

Use Replacement Cost – North Carolina Endorsement **DP 32 62**.

**RULE A5.
INSTALLMENT PAYMENT PLAN**

When an annual policy is issued on an installment basis, the following rules apply:

A. The first installment shall be due on the effective date of the policy and the due date of the last installment shall be no later than one month prior to the policy anniversary date.

B. The premium calculated for the first installment payment, exclusive of installment charges, shall not be less than the pro rata charge for the period from the inception date of the policy to the due date of the next installment.

C. Refer to the state rates for the additional charge that shall be made for each installment.

**RULE A6.
UNPROTECTED DWELLINGS – PROTECTION CLASS 9,
9E, 9S OR 10**

A. Unprotected Dwellings

Unprotected dwellings are dwellings located in areas:

1. With no fire protection, in which case, Class 10 premiums apply; or
2. Designated as protection Class 9, 9E, 9S or 10, in which case, the premiums shown for these classifications apply.

B. Seasonal Dwelling

1. When the heating, plumbing and telephone facilities are suspended during the period of seasonal unoccupancy, attach Seasonal Dwelling – North Carolina Endorsement **DP 32 47** to the policy.
2. To determine the premium, multiply the premium developed in Paragraph **A.** by a factor of 1.10.

C. Vacancy Period Extension

The policy provides coverage for a vacant dwelling only if the period of vacancy does not exceed 60 consecutive days. This period may be extended by use of one of the two following options:

1. Vacancy And/Or Unoccupancy Permit Unprotected Dwellings – North Carolina Endorsement **DP 32 52**

The additional premium for this option shall be the lower of the following calculations:

- a. Multiply the limits of liability shown in the policy for Coverages **A, B** and **C** and for other coverages by the rate displayed on the state rates Table **A6.C.1.a.(R)**.
- b. Multiply the policy premium for all perils and coverages by a factor of .10 for each additional 30 consecutive day period (or fraction thereof) of vacancy.

2. Two Thirds Vacancy Clause Unprotected Dwellings – North Carolina Endorsement **DP 32 53**

There is no additional premium for this option, but, during the additional period of vacancy, policy limits are reduced by 33 1/3%.

D. Unoccupancy Period Extension

The policy provides coverage for an unoccupied dwelling only if the period of unoccupancy does not exceed 90 consecutive days. This period may be extended – at no additional charge – for successive periods of up to:

1. 90 consecutive days each, for non-seasonal dwellings, or
2. 10 months each, for seasonal dwellings.

Use Vacancy And/Or Unoccupancy Permit – Unprotected Dwellings – North Carolina Endorsement **DP 32 52**.

**RULE A7.
PRIMARY INSURANCE NOTICE**

A. Endorsement

Coverage	DP 00 01	DP 00 02 And DP 00 03
A	DP 32 80	DP 32 83
B	DP 32 81	DP 32 84
C	DP 32 82	DP 32 85

Table A7.A. Primary Insurance Notice

Use the appropriate Primary Insurance Endorsement(s), specified in Table **A7.A.**, only with a North Carolina Joint Underwriting Association (NCJUA) or North Carolina Insurance Underwriting Association (NCIUA) policy insuring a dwelling building covered under Coverage **A**, structures covered under Coverage **B** or personal property covered under Coverage **C**.

These endorsements replace the Other Insurance Condition in the policy form and make the NCJUA or NCIUA policy primary insurance for the insured property specified on the endorsement. Primary Insurance may be written for Coverages **A**, **B** and/or **C**. When a Primary Insurance Endorsement is not attached to the policy, the Other Insurance Condition in the policy form is unchanged.

B. Rating

1. Primary Insurance

- a. When the Coverage **A**, **B** or **C** Limit of Liability is less than 100% of actual cash value or replacement value, divide the selected limit by the ACV or replacement value, whichever applies. The result is the "Percent of Total Value".
- b. Go to the First Loss Table and select the factor that corresponds to the "Percent of Total Value" computed in Paragraph **1.a**.
- c. Multiply the total value of the dwelling (actual or replacement) by the factor selected in Paragraph **1.b**.
- d. Use the resulting product as the limit for computing the Coverage **A**, **B** or **C** premium.

2. Coverage A Example

Replacement Value of Dwelling: \$6,000,000

Primary Policy – Coverage **A** Limit: \$1,500,000

- a. Divide Coverage **A** Limit by Replacement Value limit ($\$1,500,000/\$6,000,000 = 25\%$ or 25.00 Percent of Total Value).
- b. Find Factor that corresponds to Percent of Total Value.
- c. Multiply Replacement Value by Factor from Column **2** ($\$6,000,000)(.712) = \$4,272,000$.
- d. Use resulting product to compute Coverage **A** premium. (Rate the policy as if \$4,272,000 is the Coverage **A** limit to be insured.)

Note

This procedure is used to determine the appropriate exposure basis for primary insurance. It does not increase the amount of coverage available.

RULE A7.
PRIMARY INSURANCE NOTICE Cont'd)

FIRST LOSS TABLE

(Used When Primary Coverage Provided)

% Of Total Value	Factor
1.00	.224
1.10	.229
1.20	.235
1.30	.241
1.40	.247
1.50	.252
1.60	.258
1.70	.264
1.80	.270
1.90	.275
2.00	.281
2.10	.284
2.20	.287
2.30	.290
2.40	.293
2.50	.296
2.60	.298
2.70	.301
2.80	.304
2.90	.307
3.00	.310
3.10	.316
3.20	.321
3.30	.327
3.40	.333
3.50	.339
3.60	.344
3.70	.350
3.80	.356
3.90	.362
4.00	.367
4.10	.373
4.20	.379
4.30	.385
4.40	.390
4.50	.396
4.60	.402
4.70	.408
4.80	.413
4.90	.419
5.00	.425
6.00	.448
7.00	.471
7.50	.482
8.00	.494
9.00	.517

% Of Total Value	Factor
10.00	.540
11.00	.551
12.00	.563
13.00	.574
14.00	.586
15.00	.597
16.00	.609
17.00	.620
18.00	.632
19.00	.643
20.00	.655
21.00	.660
22.00	.678
23.00	.689
24.00	.701
25.00	.712
26.00	.720
27.00	.721
28.00	.734
29.00	.741
30.00	.748
31.00	.756
32.00	.763
33.00	.770
34.00	.773
35.00	.776
36.00	.780
37.00	.784
38.00	.788
39.00	.792
40.00	.795
41.00	.799
42.00	.802
43.00	.804
44.00	.808
45.00	.811
46.00	.815
47.00	.818
48.00	.821
49.00	.824
50.00	.827
51.00	.830
52.00	.832
53.00	.834
54.00	.837
55.00	.839

% Of Total Value	Factor
56.00	.841
57.00	.844
58.00	.846
59.00	.848
60.00	.850
61.00	.853
62.00	.855
63.00	.857
64.00	.860
65.00	.862
66.00	.864
67.00	.867
68.00	.869
69.00	.871
70.00	.873
71.00	.876
72.00	.878
73.00	.880
74.00	.883
75.00	.885
76.00	.890
77.00	.894
78.00	.899
79.00	.903
80.00	.908
81.00	.913
82.00	.917
83.00	.922
84.00	.926
85.00	.931
86.00	.936
87.00	.940
88.00	.945
89.00	.949
90.00	.954
91.00	.959
92.00	.963
93.00	.968
94.00	.972
95.00	.977
96.00	.982
97.00	.986
98.00	.991
99.00	.995
100.00	1.000

**RULE A8.
OPTIONAL RATING CHARACTERISTICS**

Companies may use the following optional rating characteristics or any combination of such optional rating characteristics and Bureau filed characteristics to determine rates, as long as applicable legal requirements are satisfied. The resulting premium shall not exceed the premium that would have been determined using the rates, rating plans, classifications, schedules, rules and standards promulgated by the Bureau, except as provided by statute. The rating factor for any combination of the following optional risk characteristics cannot exceed 1.00, unless the resulting premium does not exceed the Bureau premium.

- A.** Policy characteristics not otherwise recognized in this manual. Examples include: account or multi-policy credit; tiers; continuity of coverage; coverages purchased; intra-agency transfers; payment history; payment options; prior insurance; and new and renewal status.
- B.** Policyholder/Insured personal characteristics not otherwise recognized in this manual. Examples include: smoker/non-smoker status; credit information; loss history; loss prevention training/education; age; work status; marital status; number of years owned; household composition; and good student/education.
- C.** Dwelling characteristics not otherwise recognized in this manual. Examples include: gated community; retirement community; limited access community; revitalized/renovated home; security, safety or loss deterrent systems or devices; age of home; and construction type and quality.
- D.** Affinity group or other group not otherwise recognized in this manual.
- E.** Any other rating characteristics or combination of characteristics if filed by a company and approved by the Commissioner.

**RULE A9.
WINDSTORM MITIGATION PROGRAM**

A. Introduction

With respect to risks located in Territories 110, 120, 130, 140, 150 and 160, premium credits shall be made available for insureds who build, rebuild or retrofit certain residential dwellings, in accordance with specified standards, to better resist hurricanes and other catastrophic windstorm events.

B. Eligibility

- 1.** A dwelling may be eligible for a premium credit if:
 - a.** The dwelling has been designed and constructed in conformity with, and has been certified as meeting, the Hurricane, Tornado and Hail and High Wind requirements of the Hurricane Fortified for Safer Living® (Fortified) program promulgated by the Institute for Business and Home Safety® (IBHS) prior to March 31, 2019;
 - b.** The dwelling has been certified as meeting, either the Bronze, Silver or Gold hurricane mitigation measures in the Hurricane Fortified for Existing Homes® program promulgated by the IBHS prior to March 31, 2019;
 - c.** The dwelling has been designed and constructed in conformity with, and has been certified as meeting, the Hurricane, Tornado and Hail and High Wind requirements of the FORTIFIED for Safer Living® program promulgated by the IBHS for use on or after March 31, 2019;
 - d.** The dwelling has been certified as meeting either the Roof, Silver or Gold hurricane mitigation measures in the FORTIFIED Home™ program promulgated by the IBHS for use on or after March 31, 2019;
 - e.** The dwelling contains Opening Protection in accordance with the qualification requirements set forth in Paragraph **D.1.c.**; or
 - f.** The dwelling contains a Total Hip Roof.
- 2.** The provisions of this rule do not apply:
 - a.** To condominiums or tenant policies.
 - b.** If the policy excludes the peril of Windstorm or Hail.
 - c.** To dwellings under construction.
 - d.** To Coverage **C** – Personal Property unless the policy also provides Coverage **A** – Dwelling.
 - e.** To mobile homes certified under the Hurricane Fortified for Safer Living® or Hurricane Fortified for Existing Homes® programs promulgated by the IBHS prior to March 31, 2019.

**RULE A9.
WINDSTORM MITIGATION PROGRAM (Cont'd)**

3. To be eligible for a premium credit, mitigation features are not required for adjacent structures including, but not limited to, detached garages, storage sheds, barns, apartments, etc. located on the insured premises.

C. Proof of Compliance

The named insured must submit proof that the windstorm loss mitigation features and/or construction techniques have been implemented for each of the following:

1. **IBHS Hurricane Fortified for Safer Living®**
The named insured shall provide a copy of the proper designation certificate from the IBHS issued for the dwelling.
2. **IBHS Hurricane Fortified for Existing Homes®**
The named insured shall provide a copy of the proper designation certificate from the IBHS issued for the dwelling. The credit will apply for five years from the date of designation. In order to continue receiving the mitigation credit after five years, the dwelling must be re-inspected and re-designated by the IBHS. If the IBHS designation expires, the applicable mitigation credit will expire upon renewal.
3. **IBHS FORTIFIED for Safer Living®**
The named insured shall provide a copy of the proper designation certificate from the IBHS issued for the dwelling.
4. **IBHS FORTIFIED Home™**
The named insured shall provide a copy of the proper designation certificate from the IBHS issued for the dwelling. The credit will apply for five years from the date of designation. In order to continue receiving the mitigation credit after five years, the dwelling must be re-inspected and re-designated by the IBHS. If the IBHS designation expires, the applicable mitigation credit will expire upon renewal.
5. **Opening Protection**
The existence of Opening Protection may be verified by proof of installation.
6. **Total Hip Roof**
The existence of a hip roof may be verified through photographs of the roof.

D. Description of Mitigation Credit Tables

With respect to dwellings to which this rule applies and subject to all other provisions of this Windstorm Mitigation Program, the following approved and properly maintained windstorm mitigation features shall be recognized for a premium credit.

1. Mitigation Features

- a. **IBHS Hurricane Fortified Homes (designations prior to March 31, 2019):**
 - (1) A home designated by the IBHS as Hurricane Fortified for Safer Living®.
 - (2) A home designated by the IBHS as Hurricane Fortified for Existing Homes®, including:
 - (i) Hurricane Fortified for Existing Homes Bronze, Option 1
 - (ii) Hurricane Fortified for Existing Homes Bronze, Option 2
 - (iii) Hurricane Fortified for Existing Homes Silver, Option 1
 - (iv) Hurricane Fortified for Existing Homes Silver, Option 2
 - (v) Hurricane Fortified for Existing Homes Gold, Option 1
 - (vi) Hurricane Fortified for Existing Homes Gold, Option 2
- b. **IBHS FORTIFIED programs (designations on or after March 31, 2019):**
 - (1) A home designated by the IBHS as FORTIFIED for Safer Living®.
 - (2) A home designated by the IBHS as FORTIFIED Home™, including:
 - (i) FORTIFIED Roof – Hurricane – Existing Roof
 - (ii) FORTIFIED Roof – Hurricane – New Roof
 - (iii) FORTIFIED Home – Hurricane – Silver – Existing Roof
 - (iv) FORTIFIED Home – Hurricane – Silver – New Roof
 - (v) FORTIFIED Home – Hurricane – Gold – Existing Roof
 - (vi) FORTIFIED Home – Hurricane – Gold – New Roof
- c. **Opening Protection**
 - (1) Building opening protective features must have been certified as having met the Large Missile Test (Missile D) of the American Society for Testing and Materials ASTM E 1886 (standard test method) and ASTM E 1996 (standard specification) or other standards that are determined to be equivalent, including the American Architectural Manufacturers Association (AAMA), AAMA 506 or the Florida Building Code Testing Application Standards TAS 201 and 203. Such opening protective features shall be considered qualified.

**RULE A9.
WINDSTORM MITIGATION PROGRAM (Cont'd)**

(2) Qualifying opening protection must be present at all exterior envelope openings (such as windows, garage doors, sliding doors, swinging doors, glass block, door sidelights, and skylights) on the dwelling structure. For the credit to apply, the following conditions must be met:

(i) In accordance with the qualification requirements set forth in Paragraph **D.1.c.(1)**:

(a) All exterior building envelope openings with glazing (e.g. glass) shall have qualified impact-resistant and wind pressure-resistant opening protection;

(b) All exterior building envelope openings without glazing shall have qualified wind pressure-resistant opening protection; and

(c) All garage doors (with and without glazing) shall meet or exceed a qualified minimum pressure resistance.

(ii) Opening protection must be installed by a qualified contractor, according to the manufacturer's specifications.

(iii) Impact-resistant protective devices must not be made of wood structural panels, such as OSB or plywood, or be homemade.

d. Total Hip Roof

A Total Hip Roof is a roof that slopes in four directions such that the end formed by the intersection of slopes is a triangle.

E. Premium Determination

1. To compute the Extended Coverage Non-seasonal or Seasonal Base Premium or the Broad or Special Form Non-seasonal Base Premium:

a. Determine the Extended Coverage, Broad or Special Form Key Premium as described in Rule **301**.

b. Subtract the Coverage **A** Windstorm Loss Mitigation Credit shown on the state rates from the Coverage **A** Extended Coverage, Broad or Special Form Key Premium. If applicable, also subtract the Coverage **C** Windstorm Loss Mitigation Credit, shown on the state rates from the Coverage **C** Extended Coverage, Broad or Special Form Key Premium.

c. Multiply the Extended Coverage, Broad or Special Form Key Premium excluding Windstorm Loss Mitigation Coverage developed in Paragraph **E.1.b.** by the Key Factor for the desired limit of liability.

2. To compute the Seasonal Broad or Special Form Base Premium:

a. Determine the **DP 00 01** Extended Coverage Key Premium as described in Rule **301**.

b. Multiply the **DP 00 01** Extended Coverage Key Premium by the appropriate Seasonal factor shown in Table **301.A.#42(R)** or Table **301.A.#45(R)** to determine the Seasonal Broad or Special Form Key Premium.

c. Subtract the Coverage **A** Windstorm Loss Mitigation Credit shown in the state rates from the Coverage **A** Seasonal Broad or Special Form Key Premium determined in Paragraph **E.2.b.** If applicable, also subtract the Coverage **C** Windstorm Loss Mitigation Credit, shown on the state rates from the Coverage **C** Seasonal Broad or Special Form Key Premium.

d. Multiply the Seasonal Broad or Special Form Key Premium excluding Windstorm Loss Mitigation Coverage developed in Paragraph **E.2.c.** by the Key Factor for the desired limit of liability.

3. Mitigation Feature credits cannot be combined, except for Total Hip Roof and Opening Protection.

4. If mitigation measures are installed midterm, premium adjustment is required on a pro rata basis.

**RULE A10.
FORTIFIED ROOF – HURRICANE – NEW ROOF
EXPENSE COVERAGES****A. Coverage Description**

FORTIFIED Home™ is an engineering and building standard developed by the Insurance Institute for Business & Home Safety (IBHS) to mitigate wind-related hurricane damage. The program also includes evaluation and inspection requirements to ensure the technical standards are properly implemented, resulting in the designation of a home as meeting the FORTIFIED Home requirements.

With respect to a risk located in Territory **110, 120, 130, 140, 150** or **160**, a policy may be endorsed to provide the following optional coverages:

1. FORTIFIED Roof – Hurricane – New Roof Expense Coverage

This coverage will pay up to \$5,000, without application of a deductible, for certain expenses necessary to obtain the **FORTIFIED Roof – Hurricane – New Roof** designation from the IBHS for the roof of the insured dwelling damaged by a covered peril, which requires the roof to be fully replaced. This coverage applies only if:

- a. The amount of the covered loss to the roof covering of the insured dwelling is greater than 50% of the replacement cost value of the entire roof covering;
- b. The roof sheathing on that dwelling is (or was immediately prior to the loss) a minimum of 7/16-inch Oriented Strand Board (OSB) or plywood; and
- c. That dwelling is not (or was not immediately prior to the loss) on an unreinforced dry stacked foundation or is otherwise ineligible for FORTIFIED Home Review as defined by the IBHS.

2. IBHS Certified Evaluator Expense Coverage

If the **FORTIFIED Roof – Hurricane – New Roof** Expense Coverage described in Paragraph **A.1.** does not apply, this coverage will pay up to \$600, without application of a deductible, for the direct expenses incurred by the named insured for the services of an IBHS certified evaluator. This coverage applies only if:

- a. The entire roof covering of the insured dwelling is replaced to the **FORTIFIED Roof – Hurricane – New Roof** standard as recognized by the IBHS during the policy period;
- b. The named insured obtains the IBHS designation **FORTIFIED Roof – Hurricane – New Roof** from the IBHS; and
- c. Satisfactory proof of the IBHS designation **FORTIFIED Roof – Hurricane – New Roof** for the insured dwelling is submitted to the insurer.

The insured will be responsible for arranging and coordinating the roof replacement work, as well as the inspections, assessments and verifications required by the IBHS. Nothing in Rule **A10.** is intended to change the applicable loss settlement provisions of the policy, other than to pay the IBHS costs as referenced previously in Rule **A10.**, subject to the maximum coverage limits of the endorsement.

C. Premium

1. Multiply the Fire Coverage **A** Base Premium by .006.
2. For policies with Extended Coverage, including Windstorm or Hail Coverage, multiply the Extended Coverage **A** Base Premium by .042.
3. For policies with Extended Coverage, excluding Windstorm or Hail Coverage, multiply the Extended Coverage **A** Base Premium by .019.

D. Endorsement

Use **FORTIFIED Roof – Hurricane – New Roof** Expense Coverages – North Carolina Endorsement **DP 32 04.**

**RULE A11.
AGE OF CONSTRUCTION**

- A. Determine the age of construction based on the calendar year that the dwelling was completed and first occupied. If the year first occupied is different than the year completed, the later year would apply.
- B. Multiply the Coverage **A** Base Premium by the appropriate factor selected from the following table:

Age Of Construction	Fire	E.C., Broad & Special Forms
0*	0.860	0.860
1	0.869	0.869
2	0.878	0.878
3	0.886	0.886
4	0.895	0.895
5	0.904	0.904
6	0.914	0.914
7	0.923	0.923
8	0.932	0.932
9	0.941	0.941
10	0.951	0.951
11	0.961	0.961
12	0.970	0.970
13	0.980	0.980
14	0.990	0.990
15+	1.000	1.000

* Age 0 applies to homes built within the last year as well as homes under construction.
 + Applies to dwellings built at least 15 years ago.

Table A11.B. Age Of Construction Factors

**PART I
COVERAGE AND DEFINITION TYPE RULES**

**RULE 100.
INTRODUCTION**

Paragraph **C.** does not apply.

**RULE 103.
ELIGIBILITY**

Paragraphs **B.1** and **B.4.** are replaced by the following:

1. Using Form **DP 00 01** only or **DP 00 02** in conjunction with Actual Cash Value Loss Settlement Endorsement **DP 04 76**;
4. For a policy period of not longer than three years; and

**PART II
SERVICING TYPE RULES**

**RULE 201.
POLICY PERIOD**

Paragraph **C.** is replaced by the following:

- C.** Three years in annual installments. Each annual installment shall be the annual premium then in effect for the company.

**RULE 206.
MINIMUM PREMIUM**

Paragraphs **D.** and **E.** are replaced by the following:

- D.** Refer to state company rates for the minimum premium.

**RULE 208.
WAIVER OF PREMIUM**

Paragraph **B.** is replaced by the following:

- B.** Refer to state company rates for amount that may be waived.

**RULE 210.
REFER TO COMPANY**

Rule **210.** is replaced by the following:

Whenever a risk is rated on a refer to company basis each company is responsible for complying with regulatory or statutory rate filing requirements.

**PART III
BASE PREMIUM COMPUTATION RULES**

**RULE 302.
VANDALISM AND MALICIOUS MISCHIEF – DP 00 01**

The following is added to Rule **302.:**

The 60 day limit of vacancy may be extended. The charge for the additional period of vacancy shall be based on the difference between the premiums for vacant and non-vacant buildings, and shall be figured pro rata for the period allowed in the endorsement.

Use Vandalism And Malicious Mischief Vacancy Endorsement **DP 04 40.**

**RULE 303.
ORDINANCE OR LAW COVERAGE – ALL FORMS**

Paragraph **B.3.a.** is replaced by the following:

B. New Or Increased Coverage

3. Premium Determination

a. Described Location Including Coverage A

(1) Form DP 00 01

(a) Fire And Extended Coverage

The premium is computed by multiplying the Base Premium by the appropriate factor selected from the following table:

Percentage Of Coverage A	
Total Amount	Factors
10%	1.10
25%	1.25
50%	1.45
75%	1.70
100%	1.90
For each add'l 25% increment, add:	.20

Table 303.B.3.a.(1)(a) Factors

(b) Vandalism And Malicious Mischief

Multiply the rate per \$1,000 used to determine the Vandalism and Malicious Mischief Base Premium, by the dollar amount of coverage added.

**RULE 303.
ORDINANCE OR LAW COVERAGE – ALL FORMS
(Cont'd)**

(2) DP 00 02 Or DP 00 03 – Fire, Broad Or Special Forms

The premium is computed by multiplying the Base Premium by the appropriate factor selected from the following table:

Percentage Of Coverage A		
Increase In Amount	Total Amount	Factors
15%	25%	1.15
40%	50%	1.35
65%	75%	1.60
90%	100%	1.80
For each add'l 25% increment, add		.20

Table 303.B.3.a.(2) Factors

**RULE 305.
LOSS SETTLEMENT OPTIONS**

Paragraph **A.4.** is replaced by the following:

A. Functional Replacement Cost Loss Settlement – Forms DP 00 02 And DP 00 03 Only

4. Endorsement

Use Functional Replacement Cost Loss Settlement – North Carolina Endorsement **DP 32 63.**

Paragraph **B.** is replaced by the following:

B. Actual Cash Value Loss Settlement – Forms DP 00 02 And DP 00 03 Only

1. Introduction

The policy provides building loss settlement on a replacement cost basis if, at the time of loss, the amount of insurance on the damaged building represents at least 80% of the full replacement cost of the building immediately before the loss.

2. Coverage Description

The policy may be endorsed to provide building loss settlement exclusively on an actual cash value basis if, on the inception date of the policy, the Coverage **A** limit of liability selected by the insured is less than 80% of the full replacement cost of the dwelling.

3. Mobile Or Trailer Home

When written in conjunction with this endorsement, Form **DP 00 02** may be used to insure a mobile or trailer home.

To develop the Base Premium, multiply the premium developed in Rule **301.** by a factor of .98.

4. Dwelling Building Other Than Mobile Or Trailer Home

The premium is computed as follows:

- a. Multiply the Coverage **A** limit of liability by the appropriate factor from the following table and round to the nearest \$1,000:

% Of Replacement Value*	Factor
20%	4.00
30%	2.67
40%	2.00
50%	1.60
60%	1.33
70%	1.14

Table 305.B.4.a. Factors

- b. Develop a Base Premium in accordance with Rule **301.** for the amount of insurance computed in Paragraph **B.4.a.**
- c. Multiply the premium determined in Paragraph **B.4.b.** by the appropriate factor from the following table:

% Of Replacement Value*	Factor
20%	.73
30%	.74
40%	.75
50%	.76
60%	.77
70%	.78
80%	.80

Table 305.B.4.c. Factors

5. Endorsement

Use Actual Cash Value Loss Settlement Endorsement **DP 04 76.**

**PART IV
ADJUSTED BASE PREMIUM COMPUTATION RULES**

**RULE 401.
SUPERIOR CONSTRUCTION**

Table **401.C.** is replaced by the following:

Classifications	Fire	E.C., Broad & Special Forms
Fire Resistive & Masonry Non-combustible	.50	.75
Non-combustible	.50	1.00

Table 401.C. Superior Construction Factors

RULE 404.
MOBILE OR TRAILER HOMES – DP 00 01 ONLY OR
DP 00 02 WITH DP 04 76

The title of Rule **404.**, Mobile Or Trailer Homes – DP 00 01, is replaced by the preceding title.

RULE 406.
DEDUCTIBLES

The introductory text in Rule **406.** is replaced by the following:

All policies are subject to a deductible that applies to loss from all perils, except Earthquake. A separate deductible type applies to Earthquake Coverage as described in Rule **509.**

Refer to the Earthquake Coverage rule for the applicable deductible provision.

The following is added to Paragraph **B.1.:**

Fire				
Coverage A, B, D Or E And Coverage Options For Buildings And Non-building Structures				
Deductible Amount	Coverage A, B, D Or E Limit			
	Up To \$125,000	\$125,001 To \$175,000	\$175,001 To \$250,000	\$250,001 And Above
\$ 100*	1.080	1.070	1.060	1.050
250*	1.040	1.035	1.030	1.025
1,000	0.981	0.987	0.988	0.992
1,500	0.965	0.976	0.978	0.986
2,000	0.949	0.964	0.969	0.979
2,500	0.933	0.953	0.959	0.973
3,000	0.919	0.944	0.951	0.967
4,000	0.892	0.925	0.935	0.956
5,000	0.865	0.906	0.919	0.945
7,500	0.809	0.866	0.884	0.922
10,000	0.759	0.829	0.854	0.901
1%	1.016	0.976	0.967	0.959

* Refer to state rates for the minimum annual additional premium charge that applies per location for all \$100 and \$250 Fire Deductibles.

Table 406.B.1.#1 Fire Coverage A, B, D Or E Deductibles

**RULE 406.
DEDUCTIBLES (Cont'd)**

Fire	
Coverage C And Other Personal Property Coverage Options	
Deductible Amount	Factor
\$ 100*	1.070
250*	1.035
1,000	0.989
1,500	0.980
2,000	0.970
2,500	0.961
3,000	0.953
4,000	0.938
5,000	0.923
7,500	0.891
10,000	0.862
1%	1.057

* Refer to state rates for the minimum annual additional premium charge that applies per location for all \$100 and \$250 Fire Deductibles.

Table 406.B.1.#2 Fire Coverage C Deductibles

Territories 110, 120, 130, 140, 150 And 160 (Beach & Coastal)				
E.C., V. & M.M., Broad And Special Forms				
Coverage A, B, D Or E And Coverage Options For Buildings And Non-building Structures				
Deductible Amount	Coverage A, B, D Or E Limit			
	Up To \$125,000	\$125,001 To \$175,000	\$175,001 To \$250,000	\$250,001 And Above
\$ 100*	1.072	1.047	1.035	1.022
250*	1.040	1.027	1.021	1.011
1,000	0.935	0.957	0.967	0.980
1,500	0.890	0.924	0.941	0.965
2,000	0.845	0.890	0.914	0.950
2,500	0.800	0.857	0.888	0.935
3,000	0.773	0.834	0.869	0.923
4,000	0.719	0.787	0.830	0.898
5,000	0.665	0.741	0.791	0.874
7,500	0.582	0.660	0.719	0.825
10,000	0.530	0.599	0.662	0.784
1%	0.997	0.924	0.910	0.901

* Refer to state rates for the minimum annual additional premium charge that applies per location for all \$100 and \$250 E.C., V. & M.M., Broad And Special Forms Deductibles.

**Table 406.B.1.#3 E.C., V. & M.M., Broad And Special
Forms Coverage A, B, D Or E Deductibles**

RULE 406.
DEDUCTIBLES (Cont'd)

Territories 110, 120, 130, 140, 150 And 160 (Beach & Coastal)	
E.C., V. & M.M., Broad And Special Forms	
Coverage C And Other Personal Property Coverage Options	
Deductible Amount	Factor
\$ 100*	1.030
250*	1.016
1,000	0.973
1,500	0.952
2,000	0.931
2,500	0.910
3,000	0.895
4,000	0.864
5,000	0.833
7,500	0.775
10,000	0.728
1%	1.021

* Refer to state rates for the minimum annual additional premium charge that applies per location for all \$100 and \$250 E.C., V. & M.M., Broad And Special Forms Deductibles.

**Table 406.B.1.#4 E.C., V. & M.M., Broad And Special
Forms Coverage C Deductibles**

Territories 170 – 390 (Inland)				
E.C., V. & M.M., Broad And Special Forms				
Coverage A, B, D Or E And Coverage Options For Buildings And Non-building Structures				
Deductible Amount	Coverage A, B, D Or E Limit			
	Up To \$125,000	\$125,001 To \$175,000	\$175,001 To \$250,000	\$250,001 And Above
\$ 100*	1.108	1.083	1.073	1.056
250*	1.060	1.047	1.044	1.034
1,000	0.910	0.928	0.939	0.948
1,500	0.849	0.876	0.893	0.911
2,000	0.788	0.825	0.848	0.875
2,500	0.727	0.773	0.802	0.838
3,000	0.691	0.739	0.771	0.813
4,000	0.620	0.671	0.708	0.762
5,000	0.548	0.603	0.645	0.711
7,500	0.451	0.500	0.541	0.621
10,000	0.393	0.436	0.472	0.555
1%	0.997	0.877	0.840	0.780

* Refer to state rates for the minimum annual additional premium charge that applies per location for all \$100 and \$250 E.C., V. & M.M., Broad And Special Forms Deductibles.

**Table 406.B.1.#5 E.C., V. & M.M., Broad And Special
Forms Coverage A, B, D Or E Deductibles**

**RULE 406.
DEDUCTIBLES (Cont'd)**

Territories 170 – 390 (Inland)	
E.C., V. & M.M., Broad And Special Forms	
Coverage C And Other Personal Property Coverage Options	
Deductible Amount	Factor
\$ 100*	1.077
250*	1.045
1,000	0.936
1,500	0.891
2,000	0.845
2,500	0.800
3,000	0.770
4,000	0.711
5,000	0.651
7,500	0.555
10,000	0.489
1%	1.067
* Refer to state rates for the minimum annual additional premium charge that applies per location for all \$100 and \$250 E.C., V. & M.M., Broad And Special Forms Deductibles.	

Table 406.B.1.#6 E.C., V. & M.M., Broad And Special Forms Coverage C Deductibles

The introductory text in Paragraph **B.2.** is replaced by the following:

B. Optional Deductibles

2. Windstorm Or Hail Deductibles

When the policy covers the peril of Windstorm or Hail, the following deductible options may be used in conjunction with a deductible applicable to all other perils covered under Extended Coverage, Broad or Special Forms. They may not be used on a policy in conjunction with a Named Storm deductible as described in Paragraph 3.

Paragraph **B.2.a.(1)** is replaced by the following:

a. Percentage Deductibles

(1) Deductible Amounts

This option provides for higher Windstorm or Hail percentage deductibles of 1%, 2%, 3%, 4%, 5%, 7.5% and 10% of the limit of liability that applies to Coverage **A, B, D** or **E**, whichever is greatest, when the dollar amount of the percentage deductible selected exceeds the amount of the All Other Perils deductible. This option is not available for policies covering only personal property.

RULE 406.
DEDUCTIBLES (Cont'd)

Paragraph **B.2.a.(7)** is replaced by the following:

(7) Deductible Factors

When the property is located in an area serviced by the North Carolina Insurance Underwriting Association (NCIUA – Territories 110, 120, 130, 140, 150 and 160), additional calculations must be performed to ensure that the premium credit applied to the deductible is **not** greater than the premium credit that would be applied if the peril of Windstorm or Hail were excluded from the policy.

(a) Property **Not Located in Area Serviced by the NCIUA**

To compute the premium for this provision, multiply the Extended Coverage, Broad or Special Form Base Premium for the Base Deductible for each coverage insured under the policy by the factor selected for the desired windstorm or hail deductible options from the following tables.

(b) Property **Is Located in Area Serviced by the NCIUA**

To determine if an "adjusted deductible credit" or the calculated deductible credit applies, complete each of the following steps:

Step 1. Multiply the windstorm or hail exclusion credit shown in the state rates, under Additional Rule **A3**. Windstorm Or Hail Exclusion – Territories 110, 120, 130, 140, 150 And 160 Only, by the Key Factor for the same amount of insurance used to determine the Extended Coverage, Broad or Special Form Base Premium.

Step 2. Multiply the result determined in Step 1. by .9 to determine the "adjusted deductible credit".

Step 3. Select the factor for the desired windstorm or hail deductible option from the following tables and subtract the factor from unity (1.00).

Step 4. Multiply the factor determined in Step 3. by the Extended Coverage, Broad or Special Form Base Premium. The result is the windstorm or hail deductible credit.

Step 5. Compare the results in Steps 2. and 4. If the result in:

Step 2. is **less than** the result in Step 4., to compute the premium, subtract the "adjusted deductible credit" from the Extended Coverage, Broad or Special Form Base Premium.

Step 2. is **greater than or equal to** Step 4., multiply the Extended Coverage, Broad or Special Form Base Premium by the factor for the desired windstorm or hail deductible option.

**RULE 406.
DEDUCTIBLES (Cont'd)**

Territories 110, 120, 130, 140, 150 And 160 (Beach & Coastal)					
Coverage A, B, D Or E And Coverage Options For Buildings And Non-building Structures					
Windstorm Or Hail Deductible Percentage	All Other Perils Deductible Amount	Coverage A, B, D Or E Limit			
		Up To \$125,000	\$125,001 To \$175,000	\$175,001 To \$250,000	\$250,001 And Above
1%	\$ 100	0.956	0.926	0.916	0.899
	250	0.952	0.925	0.915	0.898
	500	0.946	0.924	0.913	0.897
	1,000	0.933	0.921	0.911	0.895
	1,500	–	0.918	0.909	0.890
	2,000	–	–	0.907	0.884
	2,500	–	–	–	0.879
	3,000	–	–	–	0.879
	4,000	–	–	–	0.878
	5,000	–	–	–	0.878
	7,500	–	–	–	0.872
	10,000	–	–	–	0.855
1%	–	–	–	–	
2%	\$ 100	0.868	0.841	0.832	0.818
	250	0.866	0.840	0.832	0.817
	500	0.863	0.838	0.830	0.816
	1,000	0.856	0.836	0.828	0.815
	1,500	0.849	0.834	0.826	0.813
	2,000	0.842	0.832	0.825	0.812
	2,500	–	0.830	0.823	0.810
	3,000	–	0.828	0.821	0.809
	4,000	–	–	0.818	0.807
	5,000	–	–	–	0.805
	7,500	–	–	–	0.797
	10,000	–	–	–	0.792
1%	0.862	0.834	0.824	0.807	
3%	\$ 100	0.814	0.787	0.780	0.767
	250	0.812	0.786	0.779	0.766
	500	0.809	0.785	0.778	0.765
	1,000	0.803	0.782	0.775	0.764
	1,500	0.797	0.780	0.774	0.762
	2,000	0.791	0.778	0.772	0.761
	2,500	0.785	0.776	0.770	0.759
	3,000	0.779	0.775	0.769	0.758
	4,000	–	0.771	0.766	0.756
	5,000	–	0.768	0.763	0.754
	7,500	–	–	–	0.747
	10,000	–	–	–	0.743
1%	0.808	0.780	0.772	0.756	

RULE 406.
DEDUCTIBLES (Cont'd)

Territories 110, 120, 130, 140, 150 And 160 (Beach & Coastal)					
Coverage A, B, D Or E And Coverage Options For Buildings And Non-building Structures					
Windstorm Or Hail Deductible Percentage	All Other Perils Deductible Amount	Coverage A, B, D Or E Limit			
		Up To \$125,000	\$125,001 To \$175,000	\$175,001 To \$250,000	\$250,001 And Above
4%	\$ 100	0.759	0.734	0.727	0.716
	250	0.758	0.733	0.727	0.715
	500	0.755	0.731	0.725	0.714
	1,000	0.750	0.729	0.723	0.712
	1,500	0.745	0.727	0.721	0.711
	2,000	0.740	0.725	0.719	0.709
	2,500	0.736	0.723	0.718	0.708
	3,000	0.731	0.721	0.716	0.707
	4,000	0.721	0.718	0.714	0.705
	5,000	–	0.715	0.711	0.703
	7,500	–	–	0.704	0.698
	10,000	–	–	–	0.695
1%	0.754	0.727	0.719	0.705	
5%	\$ 100	0.705	0.680	0.675	0.665
	250	0.704	0.679	0.674	0.664
	500	0.701	0.678	0.673	0.663
	1,000	0.697	0.675	0.670	0.661
	1,500	0.693	0.673	0.668	0.660
	2,000	0.690	0.671	0.667	0.658
	2,500	0.686	0.669	0.665	0.657
	3,000	0.683	0.668	0.664	0.656
	4,000	0.677	0.665	0.661	0.654
	5,000	0.671	0.663	0.659	0.652
	7,500	–	0.657	0.655	0.648
	10,000	–	–	0.651	0.646
1%	0.701	0.673	0.666	0.654	
7.5%	\$ 100	0.622	0.599	0.594	0.585
	250	0.620	0.598	0.593	0.585
	500	0.618	0.596	0.592	0.584
	1,000	0.615	0.594	0.590	0.582
	1,500	0.612	0.592	0.588	0.580
	2,000	0.609	0.590	0.587	0.579
	2,500	0.606	0.588	0.585	0.577
	3,000	0.604	0.587	0.584	0.576
	4,000	0.599	0.584	0.581	0.574
	5,000	0.594	0.581	0.578	0.572
	7,500	0.585	0.578	0.574	0.569
	10,000	–	0.574	0.572	0.566
1%	0.618	0.592	0.586	0.574	

**RULE 406.
DEDUCTIBLES (Cont'd)**

Territories 110, 120, 130, 140, 150 And 160 (Beach & Coastal)					
Coverage A, B, D Or E And Coverage Options For Buildings And Non-building Structures					
Windstorm Or Hail Deductible Percentage	All Other Perils Deductible Amount	Coverage A, B, D Or E Limit			
		Up To \$125,000	\$125,001 To \$175,000	\$175,001 To \$250,000	\$250,001 And Above
10%	\$ 100	0.557	0.535	0.531	0.522
	250	0.555	0.534	0.530	0.522
	500	0.553	0.533	0.529	0.521
	1,000	0.550	0.530	0.527	0.519
	1,500	0.547	0.528	0.525	0.518
	2,000	0.545	0.526	0.523	0.516
	2,500	0.542	0.524	0.521	0.515
	3,000	0.540	0.523	0.520	0.514
	4,000	0.536	0.520	0.517	0.512
	5,000	0.532	0.518	0.515	0.510
	7,500	0.524	0.514	0.511	0.506
	10,000	0.518	0.511	0.509	0.504
1%	0.553	0.528	0.523	0.512	

Table 406.B.2.a.(7)#1 Coverage A, B, D Or E Windstorm Or Hail Percentage Deductibles

Territories 110, 120, 130, 140, 150 And 160 (Beach & Coastal)													
Coverage C And Other Personal Property Coverage Options*													
Windstorm Or Hail Deductible Percentage	All Other Perils Deductible Amount												
	\$100	\$250	\$500	\$1,000	\$1,500	\$2,000	\$2,500	\$3,000	\$4,000	\$5,000	\$7,500	\$10,000	1%
1 %	0.909	0.908	0.906	0.902	0.898	0.894	0.890	0.887	0.882	0.876	0.870	0.853	—
2	0.827	0.826	0.825	0.822	0.820	0.817	0.815	0.813	0.808	0.804	0.795	0.791	0.826
3	0.775	0.774	0.773	0.770	0.768	0.766	0.764	0.762	0.758	0.754	0.747	0.742	0.774
4	0.723	0.722	0.721	0.719	0.717	0.715	0.713	0.711	0.708	0.705	0.698	0.694	0.722
5	0.671	0.670	0.669	0.667	0.665	0.664	0.662	0.661	0.658	0.655	0.650	0.645	0.670
7.5	0.591	0.590	0.589	0.587	0.585	0.584	0.582	0.581	0.578	0.575	0.571	0.568	0.590
10	0.528	0.527	0.526	0.523	0.521	0.520	0.518	0.517	0.515	0.513	0.508	0.505	0.527

* Only use when policy also covers building or non-building structures.

Table 406.B.2.a.(7)#2 Coverage C And Other Personal Property Windstorm Or Hail Percentage Deductibles

RULE 406.
DEDUCTIBLES (Cont'd)

Territories 170 – 390 (Inland)					
Coverage A, B, D Or E And Coverage Options For Buildings And Non-building Structures					
Windstorm Or Hail Deductible Percentage	All Other Perils Deductible Amount	Coverage A, B, D Or E Limit			
		Up To \$125,000	\$125,001 To \$175,000	\$175,001 To \$250,000	\$250,001 And Above
1%	\$ 100	0.990	0.947	0.926	0.885
	250	0.975	0.937	0.917	0.878
	500	0.949	0.921	0.902	0.867
	1,000	0.903	0.893	0.878	0.848
	1,500	–	0.865	0.854	0.833
	2,000	–	–	0.830	0.817
	2,500	–	–	–	0.802
	3,000	–	–	–	0.784
	4,000	–	–	–	0.747
	5,000	–	–	–	0.711
	7,500	–	–	–	0.654
	10,000	–	–	–	0.608
1%	–	–	–	–	
2%	\$ 100	0.916	0.866	0.843	0.802
	250	0.902	0.855	0.833	0.795
	500	0.879	0.840	0.819	0.784
	1,000	0.841	0.812	0.794	0.765
	1,500	0.803	0.791	0.775	0.749
	2,000	0.765	0.769	0.756	0.734
	2,500	–	0.748	0.737	0.718
	3,000	–	0.727	0.718	0.707
	4,000	–	–	0.680	0.686
	5,000	–	–	–	0.664
	7,500	–	–	–	0.605
	10,000	–	–	–	0.567
1%	0.874	0.791	0.753	0.693	
3%	\$ 100	0.872	0.821	0.799	0.764
	250	0.858	0.810	0.789	0.757
	500	0.836	0.795	0.775	0.746
	1,000	0.799	0.767	0.750	0.727
	1,500	0.765	0.745	0.731	0.711
	2,000	0.730	0.724	0.712	0.696
	2,500	0.696	0.703	0.693	0.680
	3,000	0.662	0.684	0.676	0.669
	4,000	–	0.646	0.642	0.647
	5,000	–	0.608	0.608	0.626
	7,500	–	–	–	0.574
	10,000	–	–	–	0.539
1%	0.831	0.746	0.709	0.655	

**RULE 406.
DEDUCTIBLES (Cont'd)**

Territories 170 – 390 (Inland)					
Coverage A, B, D Or E And Coverage Options For Buildings And Non-building Structures					
Windstorm Or Hail Deductible Percentage	All Other Perils Deductible Amount	Coverage A, B, D Or E Limit			
		Up To \$125,000	\$125,001 To \$175,000	\$175,001 To \$250,000	\$250,001 And Above
4%	\$ 100	0.829	0.775	0.755	0.726
	250	0.815	0.765	0.745	0.719
	500	0.792	0.750	0.731	0.707
	1,000	0.757	0.721	0.707	0.688
	1,500	0.726	0.700	0.687	0.673
	2,000	0.696	0.679	0.668	0.657
	2,500	0.665	0.657	0.649	0.642
	3,000	0.634	0.641	0.634	0.631
	4,000	0.573	0.608	0.604	0.609
	5,000	–	0.575	0.573	0.587
	7,500	–	–	0.498	0.542
	10,000	–	–	–	0.511
1%	0.788	0.700	0.665	0.617	
5%	\$ 100	0.785	0.730	0.711	0.688
	250	0.771	0.720	0.701	0.681
	500	0.749	0.705	0.687	0.669
	1,000	0.715	0.676	0.663	0.650
	1,500	0.688	0.655	0.644	0.635
	2,500	0.634	0.612	0.605	0.604
	3,000	0.615	0.598	0.592	0.593
	4,000	0.578	0.570	0.565	0.571
	5,000	0.540	0.542	0.539	0.549
	7,500	–	0.495	0.496	0.511
	10,000	–	–	0.464	0.483
	1%	0.745	0.655	0.621	0.579
7.5%	\$ 100	0.729	0.681	0.667	0.650
	250	0.715	0.670	0.658	0.643
	500	0.693	0.655	0.643	0.632
	1,000	0.659	0.626	0.619	0.613
	1,500	0.633	0.605	0.600	0.597
	2,000	0.608	0.584	0.580	0.582
	2,500	0.582	0.563	0.561	0.566
	3,000	0.565	0.549	0.548	0.555
	4,000	0.532	0.520	0.521	0.534
	5,000	0.498	0.492	0.495	0.512
	7,500	0.444	0.449	0.453	0.474
	10,000	–	0.421	0.423	0.446
1%	0.689	0.605	0.577	0.541	

**RULE 406.
DEDUCTIBLES (Cont'd)**

Territories 170 – 390 (Inland)					
Coverage A, B, D Or E And Coverage Options For Buildings And Non-building Structures					
Windstorm Or Hail Deductible Percentage	All Other Perils Deductible Amount	Coverage A, B, D Or E Limit			
		Up To \$125,000	\$125,001 To \$175,000	\$175,001 To \$250,000	\$250,001 And Above
10%	\$ 100	0.692	0.650	0.640	0.626
	250	0.678	0.639	0.630	0.619
	500	0.656	0.624	0.616	0.608
	1,000	0.623	0.596	0.591	0.589
	1,500	0.598	0.575	0.572	0.573
	2,000	0.573	0.553	0.553	0.558
	2,500	0.548	0.532	0.534	0.542
	3,000	0.532	0.518	0.521	0.531
	4,000	0.499	0.489	0.494	0.509
	5,000	0.466	0.461	0.468	0.487
	7,500	0.417	0.419	0.425	0.449
	10,000	0.384	0.391	0.396	0.422
1%	0.652	0.575	0.550	0.517	

Table 406.B.2.a.(7)#3 Coverage A, B, D Or E Windstorm Or Hail Percentage Deductibles

Territories 170 – 390 (Inland)													
Coverage C And Other Personal Property Coverage Options*													
Windstorm Or Hail Deductible Percentage	All Other Perils Deductible Amount												
	\$100	\$250	\$500	\$1,000	\$1,500	\$2,000	\$2,500	\$3,000	\$4,000	\$5,000	\$7,500	\$10,000	1%
1 %	0.927	0.917	0.901	0.873	0.845	0.817	0.789	0.770	0.731	0.693	0.634	0.587	–
2	0.845	0.836	0.821	0.796	0.775	0.754	0.733	0.716	0.681	0.646	0.585	0.548	0.842
3	0.803	0.794	0.779	0.754	0.734	0.714	0.694	0.678	0.646	0.614	0.558	0.522	0.800
4	0.761	0.751	0.737	0.713	0.693	0.674	0.655	0.640	0.611	0.582	0.531	0.495	0.758
5	0.719	0.709	0.695	0.671	0.653	0.634	0.616	0.603	0.576	0.550	0.504	0.469	0.716
7.5	0.674	0.665	0.650	0.626	0.608	0.591	0.573	0.560	0.535	0.510	0.467	0.436	0.671
10	0.646	0.636	0.621	0.598	0.580	0.563	0.545	0.533	0.508	0.483	0.441	0.412	0.643

* Only use when policy also covers building or non-building structures.

Table 406.B.2.a.(7)#4 Coverage C And Other Personal Property Windstorm Or Hail Percentage Deductibles

RULE 406.
DEDUCTIBLES (Cont'd)

Paragraph **B.2.b.(7)** is replaced by the following:

b. Higher Fixed-dollar Deductibles

(7) Deductible Factors

When the property is located in an area serviced by the North Carolina Insurance Underwriting Association (NCIUA – Territories 110, 120, 130, 140, 150 and 160), additional calculations must be performed to ensure that the premium credit applied to the deductible is **not** greater than the premium credit that would be applied if the peril of Windstorm or Hail were excluded from the policy.

(a) Property **Not Located in Area Serviced by the NCIUA**

Multiply the Extended Coverage, Broad or Special Form Base Premium for the Base Deductible for each coverage insured under the policy by the factor selected for the desired windstorm or hail deductible options from the following tables.

(b) Property **Is Located in Area Serviced by the NCIUA**

To determine if an "adjusted deductible credit" or the calculated deductible credit applies, complete each of the following steps:

Step 1. Multiply the windstorm or hail exclusion credit shown in the state rates under Additional Rule **A3**. Windstorm Or Hail Exclusion – Territories 110, 120, 130, 140 150 And 160 Only, by the Key Factor, for the same amount of insurance used to determine the Extended Coverage, Broad or Special Form Base Premium.

Step 2. Multiply the result determined in Step 1. by .9 to determine the "adjusted deductible credit".

Step 3. Select the factor for the desired windstorm or hail deductible option from the following tables and subtract the factor from unity (1.00).

Step 4. Multiply the factor determined in Step 3. by the Extended Coverage, Broad or Special Form Base Premium. The result is the windstorm or hail deductible credit.

Step 5. Compare the results in Steps 2. and 4. If the result in:

Step 2. is **less than** the result in Step 4., to compute the premium, subtract the "adjusted deductible credit" from the Extended Coverage, Broad or Special Form Base Premium.

Step 2. is **greater than or equal to** Step 4., multiply the Extended Coverage, Broad or Special Form Base Premium by the factor for the desired windstorm or hail deductible option.

RULE 406.
DEDUCTIBLES (Cont'd)

Territories 110, 120, 130, 140, 150 And 160 (Beach & Coastal)					
Coverage A, B, D Or E And Coverage Options For Buildings And Non-building Structures					
Windstorm Or Hail Deductible Amount	All Other Perils Deductible Amount	Coverage A, B, D Or E Limit			
		Up To \$125,000	\$125,001 To \$175,000	\$175,001 To \$250,000	\$250,001 And Above
\$ 1,000	\$ 100	0.942	0.962	0.972	0.984
	250	0.940	0.961	0.971	0.983
	500	0.938	0.959	0.970	0.982
2,000	\$ 100	0.850	0.896	0.921	0.955
	250	0.849	0.895	0.920	0.954
	500	0.847	0.893	0.918	0.953
	1,000	0.843	0.891	0.916	0.952
	1,500	0.839	0.889	0.914	0.951
5,000	\$ 100	0.685	0.758	0.807	0.887
	250	0.683	0.757	0.806	0.886
	500	0.681	0.756	0.805	0.885
	1,000	0.678	0.753	0.803	0.883
	1,500	0.676	0.751	0.801	0.882
	2,000	0.674	0.749	0.799	0.880
	2,500	0.672	0.747	0.797	0.879
	3,000	0.670	0.745	0.795	0.878
7,500	\$ 100	0.666	0.741	0.791	0.875
	250	0.606	0.681	0.738	0.841
	500	0.605	0.680	0.738	0.841
	1,000	0.603	0.679	0.736	0.840
	1,500	0.600	0.676	0.734	0.838
	2,000	0.598	0.674	0.732	0.836
	2,500	0.595	0.672	0.731	0.835
	3,000	0.593	0.670	0.729	0.833
	4,000	0.592	0.669	0.728	0.832
10,000	\$ 100	0.589	0.666	0.725	0.830
	250	0.586	0.664	0.723	0.828
	500	0.556	0.623	0.684	0.803
	1,000	0.555	0.622	0.684	0.802
	1,500	0.553	0.621	0.682	0.801
	2,000	0.550	0.618	0.680	0.799
	2,500	0.548	0.616	0.678	0.798
	3,000	0.545	0.614	0.677	0.796
	4,000	0.543	0.612	0.675	0.795
	5,000	0.542	0.611	0.674	0.794
7,500	0.539	0.608	0.671	0.792	
	5,000	0.536	0.606	0.669	0.790
	7,500	0.532	0.602	0.665	0.786

**Table 406.B.2.b.(7)#1 Coverage A, B, D Or E Windstorm
Or Hail Fixed-dollar Deductibles**

**RULE 406.
DEDUCTIBLES (Cont'd)**

Territories 110, 120, 130, 140, 150 And 160 (Beach & Coastal)											
Coverage C And Other Personal Property Coverage Options*											
Windstorm Or Hail Deductible Amount	All Other Perils Deductible Amount										
	\$100	\$250	\$500	\$1,000	\$1,500	\$2,000	\$2,500	\$3,000	\$4,000	\$5,000	\$7,500
\$ 1,000	0.977	0.977	0.975	–	–	–	–	–	–	–	–
2,000	0.937	0.936	0.935	0.933	0.931	–	–	–	–	–	–
5,000	0.848	0.847	0.846	0.844	0.842	0.841	0.839	0.837	0.834	–	–
7,500	0.793	0.792	0.791	0.789	0.787	0.786	0.784	0.783	0.780	0.778	–
10,000	0.750	0.749	0.747	0.745	0.743	0.742	0.740	0.739	0.737	0.735	0.731

* Only use when policy also covers building or non-building structures.

Table 406.B.2.b.(7)#2 Coverage C And Other Personal Property Windstorm Or Hail Fixed-dollar Deductibles

Territories 170 – 390 (Inland)					
Coverage A, B, D Or E And Coverage Options For Buildings And Non-building Structures					
Windstorm Or Hail Deductible Amount	All Other Perils Deductible Amount	Coverage A, B, D Or E Limit			
		Up To \$125,000	\$125,001 To \$175,000	\$175,001 To \$250,000	\$250,001 And Above
\$ 1,000	\$ 100	0.979	0.983	0.987	0.985
	250	0.965	0.972	0.978	0.978
	500	0.943	0.957	0.963	0.967
2,000	\$ 100	0.900	0.917	0.930	0.940
	250	0.886	0.907	0.921	0.933
	500	0.864	0.892	0.906	0.922
	1,000	0.831	0.863	0.882	0.903
	1,500	0.798	0.834	0.858	0.884
5,000	\$ 100	0.766	0.791	0.817	0.849
	250	0.752	0.781	0.808	0.842
	500	0.730	0.766	0.793	0.831
	1,000	0.697	0.737	0.769	0.812
	1,500	0.673	0.716	0.750	0.796
	2,000	0.648	0.694	0.730	0.781
	2,500	0.624	0.673	0.711	0.765
	3,000	0.600	0.652	0.692	0.749
4,000	0.551	0.609	0.653	0.718	

RULE 406.
DEDUCTIBLES (Cont'd)

Territories 170 – 390 (Inland)					
Coverage A, B, D Or E And Coverage Options For Buildings And Non-building Structures					
Windstorm Or Hail Deductible Amount	All Other Perils Deductible Amount	Coverage A, B, D Or E Limit			
		Up To \$125,000	\$125,001 To \$175,000	\$175,001 To \$250,000	\$250,001 And Above
7,500	\$ 100	0.712	0.731	0.756	0.797
	250	0.698	0.721	0.747	0.790
	500	0.676	0.706	0.732	0.779
	1,000	0.643	0.677	0.708	0.760
	1,500	0.618	0.656	0.689	0.744
	2,000	0.594	0.634	0.669	0.729
	2,500	0.569	0.613	0.650	0.713
	3,000	0.554	0.599	0.637	0.702
	4,000	0.524	0.571	0.610	0.681
10,000	\$ 100	0.681	0.695	0.716	0.759
	250	0.666	0.684	0.706	0.752
	500	0.645	0.669	0.692	0.741
	1,000	0.611	0.640	0.668	0.722
	1,500	0.587	0.619	0.649	0.706
	2,000	0.562	0.598	0.629	0.691
	2,500	0.538	0.577	0.610	0.675
	3,000	0.523	0.563	0.597	0.664
	4,000	0.492	0.534	0.570	0.642
	5,000	0.462	0.506	0.544	0.620
	7,500	0.420	0.463	0.501	0.582

Table 406.B.2.b.(7)#3 Coverage A, B, D Or E Windstorm Or Hail Fixed-dollar Deductibles

Territories 170 – 390 (Inland)											
Coverage C And Other Personal Property Coverage Options*											
Windstorm Or Hail Deductible Amounts	All Other Perils Deductible Amount										
	\$100	\$250	\$500	\$1,000	\$1,500	\$2,000	\$2,500	\$3,000	\$4,000	\$5,000	\$7,500
\$ 1,000	0.983	0.974	0.959	–	–	–	–	–	–	–	–
2,000	0.924	0.915	0.900	0.877	0.854	–	–	–	–	–	–
5,000	0.813	0.803	0.789	0.765	0.747	0.730	0.712	0.694	0.659	–	–
7,500	0.756	0.747	0.732	0.708	0.690	0.673	0.655	0.643	0.619	0.595	–
10,000	0.718	0.709	0.694	0.671	0.653	0.636	0.618	0.606	0.581	0.557	0.517

* Only use when policy also covers building or non-building structures.

Table 406.B.2.b.(7)#4 Coverage C And Other Personal Property Windstorm Or Hail Fixed-dollar Deductibles

**RULE 406.
DEDUCTIBLES (Cont'd)**

The following is added to Paragraph **B.**:

3. Named Storm Deductibles – Territories 110, 120, 130, 140, 150 And 160

When the policy covers the peril of Windstorm or Hail, the following deductible options may be used in the listed territories in conjunction with the deductible applicable to all other Perils under Extended Coverage, Broad or Special Forms. They may not be used on a policy in conjunction with a Windstorm or Hail deductible as described in Paragraph 2.

a. Percentage Deductibles – Territories 110, 120, 130, 140, 150 And 160 Only

(1) Deductible Amounts

This option provides for higher Named Storm percentage deductibles of 1%, 2%, 5%, 7.5% and 10% of the limit of liability that applies to Coverage **A, B, D** or **E**, whichever is greatest, when the dollar amount of the percentage deductible selected exceeds the amount of the All Other Perils deductible. This option is not available for policies covering only personal property.

(2) Endorsement

Use Named Storm Deductible – North Carolina Endorsement **DP 32 18**.

(3) Declarations Instructions

Enter, on the policy Declarations, the percentage amount that applies to Named Storm and the dollar amount that applies to All Other Section I Perils. For example:

Deductible – Named Storm 2% of Coverage **A** limit and \$500 for all other perils.

(4) Deductible Application

In the event of a Named Storm loss to covered property, the dollar amount is deducted from the total of the loss for all coverages.

(5) Coverage Options

The deductible factors for Coverage **A, B, D** or **E** and Coverage Options For Buildings and Non-building Structures differ by the deductible percentage amounts that apply to Named Storm, deductible amounts that apply to other perils and the Coverage **A, B, D** or **E** limit.

The deductible factors for Coverage **C** and Other Personal Property Coverage Options differ by the deductible percentage amounts that apply to Named Storm and the deductible amounts that apply to other perils.

(6) Use Of Factors

The factors displayed in Paragraph **B.3.a.(7)** incorporate the factors for the All Perils Deductibles. Do not use the factors for the All Perils Deductibles when rating a policy with a higher Named Storm deductible.

(7) Deductible Factors

When the property is located in an area serviced by the North Carolina Insurance Underwriting Association (NCIUA – Territories 110, 120, 130, 140, 150 and 160), additional calculations must be performed to ensure that the premium credit applied for the deductible is **not** greater than the premium credit that would be applied if the peril of Windstorm or Hail were excluded from the policy.

To determine if an "adjusted deductible credit" or the calculated deductible credit applies, complete each of the following steps:

Step 1. Multiply the windstorm or hail exclusion credit shown in the state rate pages, under Additional Rule **A3**, Windstorm Or Hail Exclusion – Territories 110, 120, 130, 140, 150 and 160 Only, by the Key Factor for the same amount of insurance used to determine the Extended Coverage, Broad or Special Form Base Premium.

Step 2. Multiply the result determined in Step 1. by .9 to determine the "adjusted deductible credit".

Step 3. Select the factor for the desired named storm deductible option from the following table and subtract that factor from unity (1.00).

Step 4. Multiply the factor determined in Step 3. by the Extended Coverage, Broad or Special Form Base Premium. The result is the named storm deductible credit.

Step 5. Compare the results in Steps 2. and 4. If the result in:

Step 2. is **less** than the result in Step 4., to compute the premium, subtract the "adjusted deductible credit" from the Extended Coverage, Broad or Special Form Base Premium.

Step 2. is **greater than or equal to** the result in Step 4., multiply the Extended Coverage, Broad or Special Form Base Premium by the factor for the desired named storm deductible option.

RULE 406.
DEDUCTIBLES (Cont'd)

Territories 110, 120, 130, 140, 150 And 160 (Beach & Coastal)					
Coverage A, B, D Or E And Coverage Options For Buildings And Non-building Structures					
Named Storm Deductible Percentage	All Other Perils Deductible Amounts	Coverage A, B, D Or E Limit			
		Up To \$125,000	\$125,001 To \$175,000	\$175,001 To \$250,000	\$250,001 And Above
1%	\$ 100	0.958	0.928	0.918	0.902
	250	0.954	0.927	0.917	0.901
	500	0.947	0.925	0.915	0.900
	1,000	0.933	0.922	0.912	0.897
	1,500	–	0.919	0.910	0.893
	2,000	–	–	0.908	0.889
	2,500	–	–	–	0.886
	3,000	–	–	–	0.884
	4,000	–	–	–	0.881
	5,000	–	–	–	0.878
	7,500	–	–	–	0.872
	10,000	–	–	–	0.855
1%	–	–	–	–	
2%	\$ 100	0.872	0.845	0.837	0.824
	250	0.869	0.844	0.836	0.823
	500	0.865	0.842	0.834	0.821
	1,000	0.857	0.838	0.831	0.819
	1,500	0.850	0.835	0.828	0.817
	2,000	0.843	0.833	0.826	0.815
	2,500	–	0.831	0.824	0.813
	3,000	–	0.829	0.822	0.811
	4,000	–	–	0.819	0.809
	5,000	–	–	–	0.806
	7,500	–	–	–	0.798
	10,000	–	–	–	0.792
1%	0.866	0.835	0.826	0.809	
5%	\$ 100	0.711	0.688	0.683	0.673
	250	0.709	0.687	0.682	0.672
	500	0.707	0.685	0.680	0.671
	1,000	0.702	0.681	0.677	0.668
	1,500	0.697	0.678	0.674	0.666
	2,000	0.693	0.676	0.672	0.664
	2,500	0.689	0.674	0.670	0.663
	3,000	0.685	0.672	0.668	0.662
	4,000	0.678	0.668	0.665	0.659
	5,000	0.671	0.665	0.662	0.656
	7,500	–	0.657	0.656	0.651
	10,000	–	–	0.652	0.647
1%	0.708	0.678	0.672	0.659	

**RULE 406.
DEDUCTIBLES (Cont'd)**

Territories 110, 120, 130, 140, 150 And 160 (Beach & Coastal)					
Coverage A, B, D Or E And Coverage Options For Buildings And Non-building Structures					
Named Storm Deductible Percentage	All Other Perils Deductible Amounts	Coverage A, B, D Or E Limit			
		Up To \$125,000	\$125,001 To \$175,000	\$175,001 To \$250,000	\$250,001 And Above
7.5%	\$ 100	0.629	0.608	0.603	0.594
	250	0.628	0.606	0.602	0.594
	500	0.625	0.605	0.600	0.592
	1,000	0.621	0.601	0.597	0.590
	1,500	0.617	0.598	0.594	0.588
	2,000	0.613	0.595	0.592	0.586
	2,500	0.609	0.593	0.590	0.584
	3,000	0.606	0.591	0.588	0.582
	4,000	0.600	0.587	0.585	0.579
	5,000	0.595	0.584	0.582	0.577
	7,500	0.585	0.579	0.577	0.572
10,000	–	0.575	0.573	0.569	
1%	0.625	0.598	0.592	0.579	
10%	\$ 100	0.565	0.545	0.541	0.532
	250	0.563	0.543	0.539	0.531
	500	0.561	0.541	0.538	0.530
	1,000	0.557	0.538	0.535	0.527
	1,500	0.553	0.535	0.532	0.525
	2,000	0.549	0.532	0.530	0.523
	2,500	0.546	0.530	0.528	0.521
	3,000	0.543	0.528	0.526	0.519
	4,000	0.538	0.524	0.522	0.517
	5,000	0.534	0.521	0.519	0.515
	7,500	0.525	0.516	0.514	0.510
10,000	0.519	0.512	0.510	0.506	
1%	0.561	0.535	0.530	0.517	

Table 406.B.3.a.(7)#1 Coverage A, B, D Or E Named Storm Percentage Deductibles

Territories 110, 120, 130, 140, 150 And 160 (Beach & Coastal)													
Coverage C And Other Personal Property Coverage Options*													
Named Storm Deductible Percentage	All Other Perils Deductible Amount												
	\$100	\$250	\$500	\$1,000	\$1,500	\$2,000	\$2,500	\$3,000	\$4,000	\$5,000	\$7,500	\$10,000	1%
1 %	0.912	0.910	0.908	0.904	0.899	0.894	0.890	0.887	0.882	0.876	0.869	0.852	–
2	0.832	0.831	0.829	0.825	0.822	0.819	0.817	0.814	0.809	0.804	0.795	0.790	0.831
5	0.679	0.678	0.676	0.673	0.670	0.668	0.666	0.664	0.661	0.658	0.651	0.646	0.678
7.5	0.600	0.599	0.597	0.594	0.591	0.589	0.587	0.585	0.582	0.579	0.573	0.569	0.599
10	0.537	0.536	0.534	0.531	0.529	0.527	0.525	0.523	0.519	0.516	0.511	0.507	0.536

* Only use when policy also covers building or non-building structures.

Table 406.B.3.a.(7)#2 Coverage C And Other Personal Property Named Storm Percentage Deductibles

RULE 406.
DEDUCTIBLES (Cont'd)**b. Higher Fixed-dollar Deductibles – Territories 110, 120, 130, 140, 150 and 160 Only****(1) Deductible Amounts**

This option provides for higher Named Storm Fixed-dollar deductible amounts of \$1,000, \$2,000, \$5,000, \$7,500 and \$10,000 when the dollar amount of the higher fixed-dollar deductible selected exceeds the amount of the All Other Perils deductible. This option is not available for policies covering only personal property.

(2) Endorsement

Use Named Storm Deductible – North Carolina Endorsement **DP 32 18**.

(3) Declarations Instructions

Enter, on the policy Declarations, the deductible amounts that apply to Named Storm and All Other Perils. For example: \$1,000 for Named Storm and \$500 for All Other Perils.

(4) Deductible Application

In the event of a Named Storm loss to covered property, the dollar amount is deducted from the total of the loss for all coverages.

(5) Coverage Options

The deductible factors for Coverage **A**, **B**, **D** or **E** and Coverage Options For Buildings And Non-building Structures differ by the deductible amounts that apply to Named Storm and to other perils and the Coverage **A**, **B**, **D** or **E** limit.

The deductible factors for Coverage **C** and Other Personal Property Coverage Options differ by the deductible amounts that apply to Named Storm and to other perils.

(6) Use Of Factors

The factors displayed in Paragraph **B.3.b.(7)** incorporate the factors for the All Perils Deductibles. Do not use the factors for the All Perils Deductibles when rating a policy with a higher Named Storm deductible.

(7) Deductible Factors

When the property is located in an area serviced by the North Carolina Insurance Underwriting Association (NCIUA – Territories 110, 120, 130, 140, 150 and 160), additional calculations must be performed to ensure that the premium credit applied for the deductible is not greater than the premium credit that would be applied if the peril of Windstorm or Hail were excluded from the policy.

To determine if an "adjusted deductible credit" or the calculated deductible credit applies, complete each of the following steps:

Step 1. Multiply the windstorm or hail exclusion credit shown in the state rate pages, under Additional Rule **A3**, Windstorm Or Hail Exclusion – Territories 110, 120, 130, 140, 150 And 160 Only, by the Key Factor for the same amount of insurance used to determine the Extended Coverage, Broad or Special Form Base Premium.

Step 2. Multiply the result determined in Step 1. by .9 to determine the "adjusted deductible credit".

Step 3. Select the factor for the desired named storm deductible option from the following table and subtract that factor from unity (1.00).

Step 4. Multiply the factor determined in Step 3. by the Extended Coverage, Broad or Special Form Base Premium. The result is the named storm deductible credit.

Step 5. Compare the results in Steps 2. and 4. If the result in:

Step 2. is **less** than the result in Step 4., to compute the premium, subtract the "adjusted deductible credit" from the Extended Coverage, Broad or Special Form Base Premium.

Step 2. is **greater than or equal to** the result in Step 4., multiply the Extended Coverage, Broad or Special Form Base Premium by the factor for the desired named storm deductible option.

**RULE 406.
DEDUCTIBLES (Cont'd)**

Territories 110, 120, 130, 140, 150 And 160 (Beach & Coastal)					
Coverage A, B, D Or E And Coverage Options For Buildings And Non-building Structures					
Named Storm Deductible Amount	All Other Perils Deductible Amounts	Coverage A, B, D Or E Limit			
		Up To \$125,000	\$125,001 To \$175,000	\$175,001 To \$250,000	\$250,001 And Above
\$ 1,000	\$ 100	0.943	0.963	0.973	0.985
	250	0.942	0.962	0.972	0.984
	500	0.939	0.960	0.970	0.983
2,000	\$ 100	0.853	0.899	0.923	0.957
	250	0.852	0.897	0.922	0.956
	500	0.849	0.895	0.920	0.955
	1,000	0.845	0.892	0.917	0.953
	1,500	0.841	0.890	0.915	0.952
5,000	\$ 100	0.692	0.764	0.812	0.891
	250	0.690	0.763	0.811	0.890
	500	0.687	0.761	0.810	0.889
	1,000	0.683	0.757	0.807	0.887
	1,500	0.680	0.754	0.804	0.885
	2,000	0.677	0.752	0.802	0.883
	2,500	0.674	0.750	0.800	0.881
	3,000	0.671	0.748	0.798	0.879
7,500	\$ 100	0.667	0.744	0.794	0.876
	250	0.614	0.689	0.745	0.847
	500	0.613	0.687	0.744	0.846
	1,000	0.610	0.686	0.743	0.845
	1,500	0.606	0.682	0.740	0.842
	2,000	0.603	0.679	0.737	0.840
	2,500	0.600	0.676	0.735	0.838
	3,000	0.597	0.674	0.733	0.837
	4,000	0.595	0.672	0.731	0.836
10,000	\$ 100	0.591	0.668	0.727	0.833
	250	0.587	0.665	0.724	0.830
	500	0.565	0.631	0.692	0.809
	1,000	0.563	0.630	0.691	0.809
	1,500	0.561	0.628	0.690	0.807
	2,000	0.557	0.625	0.687	0.805
	2,500	0.554	0.622	0.684	0.803
	3,000	0.551	0.619	0.682	0.801
	4,000	0.548	0.617	0.680	0.799
	5,000	0.546	0.615	0.678	0.797
7,500	0.542	0.611	0.674	0.794	
5,000	0.538	0.608	0.671	0.792	
7,500	0.533	0.602	0.666	0.787	

Table 406.B.3.b.(7)#1 Coverage A, B, D Or E Named Storm Higher Fixed-dollar Deductibles

RULE 406.
DEDUCTIBLES (Cont'd)

Territories 110, 120, 130, 140, 150 And 160 (Beach & Coastal)											
Coverage C And Other Personal Property Coverage Options*											
Named Storm Deductible Amount	All Other Perils Deductible Amount										
	\$100	\$250	\$500	\$1,000	\$1,500	\$2,000	\$2,500	\$3,000	\$4,000	\$5,000	\$7,500
\$ 1,000	0.979	0.978	0.976	–	–	–	–	–	–	–	–
2,000	0.940	0.939	0.937	0.934	0.932	–	–	–	–	–	–
5,000	0.853	0.852	0.850	0.848	0.845	0.843	0.841	0.839	0.835	–	–
7,500	0.800	0.799	0.797	0.794	0.792	0.790	0.788	0.786	0.783	0.780	–
10,000	0.757	0.756	0.754	0.752	0.749	0.747	0.745	0.743	0.740	0.737	0.732

* Only use when policy also covers building or non-building structures.

Table 406.B.3.b.(7)#2 Coverage C And Other Personal Property Named Storm Higher Fixed-dollar Deductibles

**RULE 407.
AUTOMATIC INCREASE IN INSURANCE**

Rule 407. is replaced by the following:

A. Automatic Increase In Insurance Endorsement – DP 32 11

1. The policy may be endorsed to provide automatic annual increases in the Coverage **A**, **B** and **C** limits of liability. Apply a factor to the Base Premium as follows:

Amount Of Annual Increase	Factor
4%	1.02
6%	1.03
8%	1.04
Each Additional 4% over 8% add:	.02

Table 407.A.1. Factors

2. The premium for a 3 year policy is 3.2 times the annual policy premium.
3. Use Automatic Increase In Insurance Endorsement **DP 32 11**.

B. Inflation Guard Endorsement – DP 32 70

1. The policy may be extended to automatically adjust the limit of liability applicable to Coverage **A** under the Dwelling Policy. This limit will be adjusted at the same rate as the change in the Index shown on the Declarations, billing notice or named on the form.
2. There is no additional charge for this endorsement. Companies electing to use this endorsement must use it exclusively and are required to notify the North Carolina Rate Bureau of their election.
3. The following Indexes have been approved by the Department of Insurance and may be used with the approved Inflation Guard Endorsement:
 - (a) Marshall & Swift Boeckh (MS/B) Residential Cost Index published by the American Appraisal Company, Inc.;
 - (b) Composite Construction Cost Index published by the U.S. Department of Commerce;
 - (c) Consumer Price Index published by the U.S. Department of Labor;
 - (d) Marshall & Swift Boeckh (MS/B) Construction Cost Index published Marshall & Swift Boeckh (MS/B);
 - (e) RSMMeans CostWorks Valuator published by RSMMeans.
 - (f) Xactware Inflation Index published by Xactware Solutions, Inc.
4. Use Inflation Guard Endorsement **DP 32 70**.

**RULE 408.
ALARMS, SMOKE DETECTORS, FIRE EXTINGUISHERS
AND AUTOMATIC SPRINKLERS**

The title of Rule 408. Protective Devices is replaced by the preceding title.

Rule 408. is replaced by the following:

- A. Approved and properly maintained installations of fire alarms, smoke detectors, automatic sprinklers and fire extinguishers in the dwelling may be recognized for a reduced premium – computed by multiplying the fire Base Premium by the selected factors as follows.

Type Of Installation*	Dwelling Factor	Mobile Or Trailer Home Factor
Central Station Reporting Fire Alarm	.90	.92
Fire Department Reporting Fire Alarm	.93	.95
Local Fire Alarm Smoke Detectors	.95	.97
Automatic Sprinklers in all areas including attics, bathrooms, closets, attached structures	.80	.90
Automatic Sprinklers in all areas except attic, bathroom, closet and attached structure areas that are protected by a fire detector	.90	.95
Fire Extinguishers	.95	.95
* Refer to Company for eligibility, types of systems and devices, installation, and available credits.		

Table 408.A. Protective Devices Factors

- B. A premium credit for Fire Extinguishers shall be allowed if the dwelling has, installed on each floor and basement in a readily accessible place, at least:
 1. One fire extinguisher classified and labeled as 2-A (classified as A-1 prior to July 1, 1956), or
 2. Two fire extinguishers classified and labeled as 1-A (classified as A-2 prior to July, 1956).

The extinguishers must be maintained in good, working order.
- C. Use Premises Alarm Or Fire Protection System Endorsement **DP 32 50**.

**RULE 409.
ACTUAL CASH VALUE LOSS SETTLEMENT
WINDSTORM OR HAIL LOSSES TO ROOF SURFACING
– DP 00 02, DP 00 03 AND DP 00 01 WITH DP 00 08**

Rule 409. does not apply.

**RULE 410.
BUILDING CODE EFFECTIVENESS GRADING**

Rule 410. does not apply.

**PART V
ADDITIONAL COVERAGES AND INCREASED LIMITS
RULES**

**RULE 502.
COVERAGE D – FAIR RENTAL VALUE COVERAGE E –
ADDITIONAL LIVING EXPENSE**

Paragraph **A.** is replaced by the following:

A. Introduction

Coverage is automatically provided in the forms on a limited basis as follows:

1. Form DP 00 01

a. Coverage D

Up to 10% of the Coverage **A** limit is available. Use of this option reduces the Coverage **A** limit for the same loss. No entry is needed in the policy Declarations for this coverage to apply.

b. Coverage E

Not automatically included in form. It may be added as noted in Paragraph **B.**

2. Form DP 00 02 Or DP 00 03

Coverage **D** and **E** combined – Up to 10% of the Coverage **A** limit is available for Coverage **D** and Coverage **E** combined as additional insurance. No entry is needed in the policy Declarations for this coverage to apply.

Table 502.B.1.c. is replaced by the following:

DP 00 01 Example

Factors
\$5,200 = Rental Value Coverage in Form (10% of Coverage A limit of \$52,000)
+2,000 = Additional Insurance (Shown under Coverage D in policy Declarations)
\$7,200 = Total Rental Value Amount Insured
Scenario A
If dwelling is rented for entire year, then fraction = 1/12. \$7,200 X 1/12 = Up to \$600 available each month.
Scenario B
If dwelling is rented 8 months per year, then fraction = 1/8. \$7,200 X 1/8 = Up to \$900 available each month.

Table 502.B.1.c. DP 00 01 Example

**RULE 503.
ORDINANCE OR LAW COVERAGE FOR COVERAGE B –
SPECIFIC STRUCTURES, BUILDING ITEMS AND
IMPROVEMENTS, ALTERATIONS AND ADDITIONS**

Paragraph **C.2.** is replaced by the following:

C. Premium Determination

2. Refer to the state company rates/ISO loss costs Rule 500. Miscellaneous Rates.

**RULE 507.
FIRE DEPARTMENT SERVICE CHARGE**

Rule 507. is replaced by the following:

The limit of \$500 provided under the policy may be increased. Refer to the state rates.

**RULE 509.
EARTHQUAKE COVERAGE**

Rule 509. is replaced by the following:

A. Coverage Description

When added to the Fire policy, this peril shall apply to the same coverages and for the same limits that apply to the peril of Fire.

Use Earthquake Coverage Endorsement **DP 04 69.**

B. Loss Assessment Coverage

When the policy is extended to cover loss assessment resulting from loss by this peril, the limit of liability shall be based on the insured's proportionate interest in total value of all collectively owned buildings and structures of the corporation or association of property owners. Refer to company for rates.

Use Loss Assessment Coverage For Earthquake Endorsement **DP 04 68.**

C. Deductible

The base deductible is 5% of the limit of liability for Coverage **A, B** or **C**, whichever is greatest and is subject to a \$500 minimum.

This deductible may be increased for a premium credit. In the event of an Earthquake loss to covered property, the dollar amount is deducted from the total of the loss for Coverages **A, B** and **C.**

D. Premium For Base Deductible

Develop the premium as follows:

1. From the state rates:
 - a. Determine the Earthquake Zone;
 - b. Determine if Rate Table **A**, and/or **B** applies;
 - c. Select the rate according to construction from the Rate Table; and

**RULE 509.
EARTHQUAKE COVERAGE (Cont'd)**

2. Multiply the rate determined in Paragraph **D.1.c.** by the amounts of insurance for:
 - a. Coverages **A, B, C, D** and **E**;
 - b. Improvements, Alterations and Additions – Increased Limits;
 - c. Other Building Coverage options (i.e. Bldg. Items Coverage);
 - d. Other Personal Property Coverage (i.e. Merchandise in Storage);
 - e. Ordinance or Law total amount of insurance (includes basic, and if applicable, increased amounts).

E. Premium For Higher Deductibles

Multiply the Base Premium determined in Paragraph **D.** by a factor from the following table:

Deductible Percentage	Frame And Superior	Masonry
10%	.89	.95
15%	.78	.89
20%	.67	.84
25%	.56	.79

Table 509.E. Higher Deductibles Factors

**RULE 510.
THEFT COVERAGE**

This rule is deleted.

Refer to the Theft Insurance program filed by or on behalf of the company insuring the risk.

**RULE 512.
WINDSTORM OR HAIL COVERAGE – MISCELLANEOUS PROPERTIES**

The title of Rule **512.** Windstorm Or Hail Coverage - Awnings, Signs And Outdoor Radio And Television Equipment is replaced by the preceding title.

Rule **512.** is replaced by the following:

A. Property Not Covered

The peril of Windstorm or Hail does **not** cover damage to the following properties whether attached to or separated from a dwelling or other structure on the Described Location:

1. Signs or cloth awnings, including their supports;
2. Radio or television antennas or aerials, including their lead-in wiring, masts or towers;
3. Swimming pools;

4. Screens, including their supports, around a swimming pool, patio or other areas;
5. Fences, property line and similar walls, including seawalls;
6. Bathhouses, cabanas, greenhouses, hothouses, pergolas, slathouses, trellises;
7. Outdoor equipment used to service the Described Location; or
8. Structures located over water, whether or not permanently attached to the ground, including the property in or on the structure.

B. Endorsement

Damage to these properties may be covered for an additional premium. Separately describe each property item and corresponding limit of liability on Windstorm Or Hail – Miscellaneous Properties Endorsement **DP 32 19** or the Declarations.

C. Greenhouses And/Or Hothouses

1. When the structure, greenhouse (hothouse) glass and any flowers and plants contained in the structure are insured as a single item:
 - a. Include, in the limit of liability for each structure, the value of all glass, as computed in Paragraph **1.c.**, and the value of any flowers and plants in that structure;
 - b. Add the "Glass Condition of Insurance", in Paragraph **3.a.** of this rule, to Windstorm Or Hail – Miscellaneous Properties Endorsement **DP 32 19** or the Declarations; and
 - c. Specify, in the "Glass Condition of Insurance", the dollar amount of all glass being insured. This amount is determined by multiplying the agreed value per square foot of glass by the number of square feet of all insured glass.
2. When the structure, greenhouse (hothouse) glass or the flowers and plants contained in the structure are **separately** insured, specify the limit of liability **separately** for each structure, all glass and the flowers and plants in that structure.

When glass is separately insured:

- a. Add the "Glass Condition of Insurance", in Paragraph **3.b.** of this rule, to Windstorm Or Hail – Miscellaneous Properties Endorsement **DP 32 19** or the Declarations; and
- b. Specify, in the "Glass Condition of Insurance", the agreed value per square foot of glass and the number of square feet of all glass. The limit of liability of all glass being insured is determined by multiplying these two amounts.

RULE 512.
WINDSTORM OR HAIL COVERAGE – MISCELLANEOUS
PROPERTIES (Cont'd)

3. Glass Condition of Insurance

- a.** Use this Condition when glass is **not** separately insured:

"Windstorm or Hail Coverage for Greenhouse (Hothouse) Glass

It is understood by you and us that, in the event greenhouse (hothouse) glass is broken or destroyed by the peril of Windstorm or Hail, we will pay no more than the least of the following amounts:

- A.** \$____. This dollar amount for greenhouse (hothouse) glass is determined by multiplying:

1. The agreed value per square foot of greenhouse (hothouse) glass, \$____, by
2. The number of square feet of all insured greenhouse (hothouse) glass, ____;

- B.** An amount computed by:

1. Dividing the number of square feet of all broken or destroyed greenhouse (hothouse) glass by the total number of square feet of insured greenhouse (hothouse) glass, and
2. Multiplying the amount computed in **B.1.** above by the dollar amount for greenhouse (hothouse) glass stated in **A.** above; or

- C.** The actual cost to repair or replace the broken or destroyed greenhouse (hothouse) glass.

Also, if greenhouse (hothouse) glass is covered by other insurance, we will pay no more than the proportion of a loss that the dollar amount for such greenhouse (hothouse) glass stated in **A.** above bears to the total amount of insurance covering that glass".

- b.** Use this Condition when glass is separately insured:

"Windstorm or Hail Coverage for Greenhouse (Hothouse) Glass

It is understood by you and us that, in the event greenhouse (hothouse) glass is broken or destroyed by the peril of Windstorm or Hail, we will pay no more than the least of the following amounts:

- A.** The limit of liability declared above for greenhouse (hothouse) glass, which is determined by multiplying:

1. The agreed value per square foot of greenhouse (hothouse) glass, \$____, by
2. The number of square feet of all insured greenhouse (hothouse) glass, ____;

- B.** An amount computed by:

1. Dividing the number of square feet of all broken or destroyed greenhouse (hothouse) glass by the total number of square feet of insured greenhouse (hothouse) glass, and
2. Multiplying the amount computed in **B.1.** above by the limit of liability for greenhouse (hothouse) glass declared above; or

- C.** The actual cost to repair or replace the broken or destroyed greenhouse (hothouse) glass.

Also, if greenhouse (hothouse) glass is covered by other insurance, we will pay no more than the proportion of loss that our limit of liability for such greenhouse (hothouse) glass bears to the total amount of insurance covering that glass".

D. Premium

Refer to the state rates.

**RULE 515.
MOTORIZED GOLF CART – PHYSICAL LOSS
COVERAGE**

Rule **515.** does not apply.

**RULE 517.
LIMITED FUNGI, WET OR DRY ROT, OR BACTERIA
COVERAGE**

Rule **517.** does not apply.

ADDITIONAL RULE(S)

**RULE A3.
WINDSTORM OR HAIL EXCLUSION – TERRITORIES
110, 120, 130, 140, 150 AND 160 ONLY**

Territory	Const.*	Building Credit	Contents Credit
110	M	\$ 159	\$ 19
	F	168	20
	MH	210	25
120	M	189	26
	F	199	27
	MH	248	34
130	M	118	21
	F	124	22
	MH	155	27
140	M	133	18
	F	140	19
	MH	175	23
150	M	112	9
	F	118	9
	MH	147	11
160	M	114	11
	F	120	12
	MH	149	15

* M = Masonry, F = Frame. MH = Mobile Homes.
Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Table A3.B.2.(R) Windstorm Or Hail Exclusion – Territories 110, 120, 130, 140, 150 And 160 Only

**RULE A5.
INSTALLMENT PAYMENT PLAN**

C. The additional charge per installment is \$3.00.

**RULE A6.
UNPROTECTED DWELLINGS – PROTECTION CLASS 9,
9E, 9S OR 10**

Rates Per \$1,000	
Additional rate of insurance	\$ 1.50

Table A6.C.1.a.(R) Unprotected Dwellings – Protection Class 9, 9E, 9S Or 10

**RULE A9.
WINDSTORM MITIGATION PROGRAM**

Mitigation Feature	Const.	Territory 110	Territory 120	Territory 130	Territory 140	Territory 150	Territory 160
Total Hip Roof	M	\$ 9	\$ 10	\$ 7	\$ 7	\$ 6	\$ 4
	F	9	10	7	7	6	4
Opening Protection	M	9	10	7	7	6	4
	F	9	10	7	7	6	4
Total Hip Roof and Opening Protection	M	18	19	11	11	11	10
	F	19	20	12	12	12	11
IBHS Designation prior to March 31, 2019:							
<i>Hurricane Fortified for Safer Living®</i>	M	29	34	12	23	14	19
	F	30	36	13	24	15	20
<i>Hurricane Fortified for Existing Homes® Bronze Option 1</i>	M	7	8	3	3	4	3
	F	7	8	3	3	4	3
<i>Hurricane Fortified for Existing Homes® Bronze Option 2</i>	M	10	11	7	9	6	7
	F	11	12	7	9	6	7
<i>Hurricane Fortified for Existing Homes® Silver Option 1</i>	M	18	22	9	14	7	11
	F	19	23	9	15	7	12
<i>Hurricane Fortified for Existing Homes® Silver Option 2</i>	M	22	25	10	17	10	13
	F	23	26	10	18	10	14
<i>Hurricane Fortified for Existing Homes® Gold Option 1</i>	M	22	25	11	17	11	13
	F	23	26	12	18	12	14
<i>Hurricane Fortified for Existing Homes® Gold Option 2</i>	M	24	29	12	22	12	18
	F	25	31	13	23	13	19
IBHS Designation on or after March 31, 2019:							
<i>FORTIFIED for Safer Living®</i>	M	29	34	12	23	14	19
	F	30	36	13	24	15	20
FORTIFIED Roof – Hurricane – Existing Roof	M	7	8	3	3	4	3
	F	7	8	3	3	4	3
FORTIFIED Roof – Hurricane – New Roof	M	10	11	7	9	6	7
	F	11	12	7	9	6	7
FORTIFIED Home – Hurricane – Silver – Existing Roof	M	18	22	9	14	7	11
	F	19	23	9	15	7	12
FORTIFIED Home – Hurricane – Silver – New Roof	M	22	25	10	17	10	13
	F	23	26	10	18	10	14
FORTIFIED Home – Hurricane – Gold – Existing Roof	M	22	25	11	17	11	13
	F	23	26	12	18	12	14
FORTIFIED Home – Hurricane – Gold – New Roof	M	24	29	12	22	12	18
	F	25	31	13	23	13	19

Table A9.E.#1(R) – Windstorm Loss Mitigation Credit – Coverage A – Dwelling

**RULE A9.
WINDSTORM MITIGATION PROGRAM (Cont'd)**

Mitigation Feature	Const.	Territory 110	Territory 120	Territory 130	Territory 140	Territory 150	Territory 160
Total Hip Roof	M	\$ 1	\$ 2	\$ 2	\$ 1	\$ 1	\$ 1
	F	1	2	2	1	1	1
Opening Protection	M	1	2	2	1	1	1
	F	1	2	2	1	1	1
Total Hip Roof and Opening Protection	M	1	3	2	1	1	1
	F	1	3	2	1	1	1
IBHS Designation prior to March 31, 2019:							
<i>Hurricane Fortified for Safer Living®</i>	M	4	6	3	4	2	3
	F	4	6	3	4	2	3
<i>Hurricane Fortified for Existing Homes® Bronze Option 1</i>	M	1	2	2	1	1	1
	F	1	2	2	1	1	1
<i>Hurricane Fortified for Existing Homes® Bronze Option 2</i>	M	1	3	2	1	1	1
	F	1	3	2	1	1	1
<i>Hurricane Fortified for Existing Homes® Silver Option 1</i>	M	2	3	2	3	1	2
	F	2	3	2	3	1	2
<i>Hurricane Fortified for Existing Homes® Silver Option 2</i>	M	2	5	2	3	1	2
	F	2	5	2	3	1	2
<i>Hurricane Fortified for Existing Homes® Gold Option 1</i>	M	3	5	2	3	1	2
	F	3	5	2	3	1	2
<i>Hurricane Fortified for Existing Homes® Gold Option 2</i>	M	3	5	3	3	2	2
	F	3	5	3	3	2	2
IBHS Designation on or after March 31, 2019:							
<i>FORTIFIED for Safer Living®</i>	M	4	6	3	4	2	3
	F	4	6	3	4	2	3
FORTIFIED Roof – Hurricane – Existing Roof	M	1	2	2	1	1	1
	F	1	2	2	1	1	1
FORTIFIED Roof – Hurricane – New Roof	M	1	3	2	1	1	1
	F	1	3	2	1	1	1
FORTIFIED Home – Hurricane – Silver – Existing Roof	M	2	3	2	3	1	2
	F	2	3	2	3	1	2
FORTIFIED Home – Hurricane – Silver – New Roof	M	2	5	2	3	1	2
	F	2	5	2	3	1	2
FORTIFIED Home – Hurricane – Gold – Existing Roof	M	3	5	2	3	1	2
	F	3	5	2	3	1	2
FORTIFIED Home – Hurricane – Gold – New Roof	M	3	5	3	3	2	2
	F	3	5	3	3	2	2

Table A9.E.#2(R) – Windstorm Loss Mitigation Credit – Coverage C – Personal Property

**RULE 206.
MINIMUM PREMIUM**

D. Minimum Premium – \$50.

**RULE 208.
WAIVER OF PREMIUM**

B. Amount that may be waived – \$3 or less.

**RULE 301.
BASE PREMIUM COMPUTATION**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 110, 120, 130				
Fire – Coverage A – All Forms – Non-seasonal And Seasonal				
Protection Class	Const.*	1 – 5 Families		
		Territory 110	Territory 120	Territory 130
1	M	\$ 11	\$ 11	\$ 21
	F	16	16	29
2	M	12	12	21
	F	16	16	29
3	M	12	12	22
	F	16	16	30
4	M	12	12	22
	F	17	17	30
5	M	12	12	23
	F	17	17	32
6	M	13	13	24
	F	18	18	34
7	M	14	14	26
	F	19	19	36
8	M	16	16	30
	F	22	22	41
8B, 9, 9E, 9S	M	18	18	34
	F	24	24	45
10	M	22	22	41
	F	30	30	55

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Table 301.A.#1(R) Fire – Coverage A – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage A	Limit Of Liability (000's)	Coverage A
\$ 1*	.38	\$ 27	1.48
2	.42	28	1.52
3	.47	29	1.56
4	.51	30	1.60
5	.56	31	1.64
6	.60	32	1.68
7	.65	33	1.72
8	.69	34	1.76
9	.74	35	1.80
10	.78	36	1.84
11	.82	37	1.88
12	.87	38	1.92
13	.92	39	1.96
14	.96	40	2.00
15	1.00	41	2.04
16	1.04	42	2.08
17	1.08	43	2.12
18	1.12	44	2.16
19	1.16	45	2.20
20	1.20	46	2.24
21	1.24	47	2.28
22	1.28	48	2.32
23	1.32	49	2.36
24	1.36	50	2.40
25	1.40	Each Additional \$1,000	.04
26	1.44		

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#2(R) Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 140, 150, 160				
Fire – Coverage A – All Forms – Non-seasonal And Seasonal				
Protection Class	Const.*	1 – 5 Families		
		Territory 140	Territory 150	Territory 160
1	M	\$ 19	\$ 21	\$ 23
	F	26	29	31
2	M	19	21	23
	F	26	29	32
3	M	20	21	24
	F	27	30	33
4	M	20	22	24
	F	27	30	33
5	M	21	22	24
	F	29	31	34
6	M	22	25	26
	F	31	33	36
7	M	23	26	28
	F	33	35	38
8	M	27	30	33
	F	37	41	44
8B, 9, 9E, 9S	M	30	33	36
	F	41	45	48
10	M	37	40	43
	F	50	56	59

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Table 301.A.#3(R) Fire – Coverage A – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage A	Limit Of Liability (000's)	Coverage A
\$ 1*	.38	\$ 27	1.48
2	.42	28	1.52
3	.47	29	1.56
4	.51	30	1.60
5	.56	31	1.64
6	.60	32	1.68
7	.65	33	1.72
8	.69	34	1.76
9	.74	35	1.80
10	.78	36	1.84
11	.82	37	1.88
12	.87	38	1.92
13	.92	39	1.96
14	.96	40	2.00
15	1.00	41	2.04
16	1.04	42	2.08
17	1.08	43	2.12
18	1.12	44	2.16
19	1.16	45	2.20
20	1.20	46	2.24
21	1.24	47	2.28
22	1.28	48	2.32
23	1.32	49	2.36
24	1.36	50	2.40
25	1.40	Each Additional \$1,000	.04
26	1.44		

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#4(R) Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 170, 180, 190				
Fire – Coverage A – All Forms – Non-seasonal And Seasonal				
Protection Class	Const.*	1 – 5 Families		
		Territory 170	Territory 180	Territory 190
1	M	\$ 31	\$ 30	\$ 33
	F	41	41	45
2	M	31	31	34
	F	42	42	46
3	M	32	32	34
	F	43	43	47
4	M	33	32	35
	F	44	44	48
5	M	33	33	36
	F	45	45	49
6	M	36	36	38
	F	48	48	52
7	M	38	37	40
	F	51	51	55
8	M	43	43	47
	F	58	60	64
8B, 9, 9E, 9S	M	47	47	51
	F	64	65	70
10	M	58	59	63
	F	79	80	86

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Table 301.A.#5(R) Fire – Coverage A – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage A	Limit Of Liability (000's)	Coverage A
\$ 1*	.38	\$ 27	1.48
2	.42	28	1.52
3	.47	29	1.56
4	.51	30	1.60
5	.56	31	1.64
6	.60	32	1.68
7	.65	33	1.72
8	.69	34	1.76
9	.74	35	1.80
10	.78	36	1.84
11	.82	37	1.88
12	.87	38	1.92
13	.92	39	1.96
14	.96	40	2.00
15	1.00	41	2.04
16	1.04	42	2.08
17	1.08	43	2.12
18	1.12	44	2.16
19	1.16	45	2.20
20	1.20	46	2.24
21	1.24	47	2.28
22	1.28	48	2.32
23	1.32	49	2.36
24	1.36	50	2.40
25	1.40	Each Additional \$1,000	.04
26	1.44		

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#6(R) Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 200, 210, 220				
Fire – Coverage A – All Forms – Non-seasonal And Seasonal				
Protection Class	Const.*	1 – 5 Families		
		Territory 200	Territory 210	Territory 220
1	M	\$ 43	\$ 31	\$ 29
	F	59	42	39
2	M	44	31	29
	F	60	43	40
3	M	45	32	30
	F	62	43	40
4	M	46	32	30
	F	63	44	41
5	M	47	33	31
	F	64	45	42
6	M	51	35	33
	F	69	48	45
7	M	54	37	35
	F	72	52	49
8	M	61	43	40
	F	84	58	55
8B, 9, 9E, 9S	M	67	47	44
	F	92	65	61
10	M	83	58	55
	F	112	79	75

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Table 301.A.#7(R) Fire – Coverage A – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage A	Limit Of Liability (000's)	Coverage A
\$ 1*	.38	\$ 27	1.48
2	.42	28	1.52
3	.47	29	1.56
4	.51	30	1.60
5	.56	31	1.64
6	.60	32	1.68
7	.65	33	1.72
8	.69	34	1.76
9	.74	35	1.80
10	.78	36	1.84
11	.82	37	1.88
12	.87	38	1.92
13	.92	39	1.96
14	.96	40	2.00
15	1.00	41	2.04
16	1.04	42	2.08
17	1.08	43	2.12
18	1.12	44	2.16
19	1.16	45	2.20
20	1.20	46	2.24
21	1.24	47	2.28
22	1.28	48	2.32
23	1.32	49	2.36
24	1.36	50	2.40
25	1.40	Each Additional \$1,000	.04
26	1.44		

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#8(R) Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 230, 240, 250				
Fire – Coverage A – All Forms – Non-seasonal And Seasonal				
Protection Class	Const.*	1 – 5 Families		
		Territory 230	Territory 240	Territory 250
1	M	\$ 46	\$ 30	\$ 27
	F	63	42	36
2	M	47	31	27
	F	64	42	37
3	M	48	32	28
	F	65	43	37
4	M	49	32	28
	F	67	44	38
5	M	50	33	29
	F	68	45	39
6	M	54	35	31
	F	73	48	42
7	M	56	37	33
	F	78	51	44
8	M	65	43	37
	F	89	59	50
8B, 9, 9E, 9S	M	71	47	41
	F	99	64	56
10	M	87	58	50
	F	120	80	69

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Table 301.A.#9(R) Fire – Coverage A – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage A	Limit Of Liability (000's)	Coverage A
\$ 1*	.38	\$ 27	1.48
2	.42	28	1.52
3	.47	29	1.56
4	.51	30	1.60
5	.56	31	1.64
6	.60	32	1.68
7	.65	33	1.72
8	.69	34	1.76
9	.74	35	1.80
10	.78	36	1.84
11	.82	37	1.88
12	.87	38	1.92
13	.92	39	1.96
14	.96	40	2.00
15	1.00	41	2.04
16	1.04	42	2.08
17	1.08	43	2.12
18	1.12	44	2.16
19	1.16	45	2.20
20	1.20	46	2.24
21	1.24	47	2.28
22	1.28	48	2.32
23	1.32	49	2.36
24	1.36	50	2.40
25	1.40	Each Additional \$1,000	.04
26	1.44		

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#10(R) Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 260, 270, 280				
Fire – Coverage A – All Forms – Non-seasonal And Seasonal				
Protection Class	Const.*	1 – 5 Families		
		Territory 260	Territory 270	Territory 280
1	M	\$ 33	\$ 19	\$ 19
	F	44	28	26
2	M	33	20	19
	F	45	28	26
3	M	34	20	20
	F	46	29	27
4	M	35	21	20
	F	47	29	27
5	M	35	21	21
	F	48	30	28
6	M	38	24	22
	F	52	32	30
7	M	40	25	23
	F	54	34	32
8	M	46	29	27
	F	62	39	36
8B, 9, 9E, 9S	M	50	32	29
	F	68	43	40
10	M	61	39	36
	F	84	52	50

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Table 301.A.#11(R) Fire – Coverage A – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage A	Limit Of Liability (000's)	Coverage A
\$ 1*	.38	\$ 27	1.48
2	.42	28	1.52
3	.47	29	1.56
4	.51	30	1.60
5	.56	31	1.64
6	.60	32	1.68
7	.65	33	1.72
8	.69	34	1.76
9	.74	35	1.80
10	.78	36	1.84
11	.82	37	1.88
12	.87	38	1.92
13	.92	39	1.96
14	.96	40	2.00
15	1.00	41	2.04
16	1.04	42	2.08
17	1.08	43	2.12
18	1.12	44	2.16
19	1.16	45	2.20
20	1.20	46	2.24
21	1.24	47	2.28
22	1.28	48	2.32
23	1.32	49	2.36
24	1.36	50	2.40
25	1.40	Each Additional \$1,000	.04
26	1.44		

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#12(R) Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 290, 300, 310				
Fire – Coverage A – All Forms – Non-seasonal And Seasonal				
Protection Class	Const.*	1 – 5 Families		
		Territory 290	Territory 300	Territory 310
1	M	\$ 25	\$ 33	\$ 24
	F	33	45	32
2	M	25	33	24
	F	34	46	33
3	M	26	34	25
	F	35	47	34
4	M	26	35	25
	F	35	48	34
5	M	27	35	26
	F	36	49	35
6	M	29	39	28
	F	39	53	38
7	M	30	41	29
	F	41	55	40
8	M	34	47	33
	F	47	64	46
8B, 9, 9E, 9S	M	38	51	37
	F	51	70	50
10	M	46	63	45
	F	62	86	61

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Table 301.A.#13(R) Fire – Coverage A – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage A	Limit Of Liability (000's)	Coverage A
\$ 1*	.38	\$ 27	1.48
2	.42	28	1.52
3	.47	29	1.56
4	.51	30	1.60
5	.56	31	1.64
6	.60	32	1.68
7	.65	33	1.72
8	.69	34	1.76
9	.74	35	1.80
10	.78	36	1.84
11	.82	37	1.88
12	.87	38	1.92
13	.92	39	1.96
14	.96	40	2.00
15	1.00	41	2.04
16	1.04	42	2.08
17	1.08	43	2.12
18	1.12	44	2.16
19	1.16	45	2.20
20	1.20	46	2.24
21	1.24	47	2.28
22	1.28	48	2.32
23	1.32	49	2.36
24	1.36	50	2.40
25	1.40	Each Addi-	
26	1.44	tional \$1,000	.04

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#14(R) Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 320, 330, 340				
Fire – Coverage A – All Forms – Non-seasonal And Seasonal				
Protection Class	Const.*	1 – 5 Families		
		Territory 320	Territory 330	Territory 340
1	M	\$ 24	\$ 25	\$ 22
	F	33	35	30
2	M	24	26	22
	F	34	36	30
3	M	25	26	23
	F	35	37	31
4	M	25	27	23
	F	35	37	31
5	M	26	27	24
	F	36	38	32
6	M	29	30	25
	F	39	41	34
7	M	30	32	27
	F	41	43	36
8	M	34	36	31
	F	47	50	41
8B, 9, 9E, 9S	M	38	40	34
	F	52	55	45
10	M	47	49	41
	F	64	67	57

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Table 301.A.#15(R) Fire – Coverage A – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage A	Limit Of Liability (000's)	Coverage A
\$ 1*	.38	\$ 27	1.48
2	.42	28	1.52
3	.47	29	1.56
4	.51	30	1.60
5	.56	31	1.64
6	.60	32	1.68
7	.65	33	1.72
8	.69	34	1.76
9	.74	35	1.80
10	.78	36	1.84
11	.82	37	1.88
12	.87	38	1.92
13	.92	39	1.96
14	.96	40	2.00
15	1.00	41	2.04
16	1.04	42	2.08
17	1.08	43	2.12
18	1.12	44	2.16
19	1.16	45	2.20
20	1.20	46	2.24
21	1.24	47	2.28
22	1.28	48	2.32
23	1.32	49	2.36
24	1.36	50	2.40
25	1.40	Each Additional \$1,000	.04
26	1.44		

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#16(R) Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 350, 360, 370				
Fire – Coverage A – All Forms – Non-seasonal And Seasonal				
Protection Class	Const.*	1 – 5 Families		
		Territory 350	Territory 360	Territory 370
1	M	\$ 25	\$ 21	\$ 23
	F	34	28	30
2	M	25	21	23
	F	35	28	31
3	M	26	21	24
	F	36	29	32
4	M	26	22	24
	F	36	29	32
5	M	27	22	24
	F	37	30	33
6	M	30	24	26
	F	40	32	35
7	M	31	25	28
	F	42	34	37
8	M	35	29	32
	F	49	39	43
8B, 9, 9E, 9S	M	39	32	35
	F	53	43	47
10	M	48	38	42
	F	64	53	58

Table 301.A.#17(R) Fire – Coverage A – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage A	Limit Of Liability (000's)	Coverage A
\$ 1*	.38	\$ 27	1.48
2	.42	28	1.52
3	.47	29	1.56
4	.51	30	1.60
5	.56	31	1.64
6	.60	32	1.68
7	.65	33	1.72
8	.69	34	1.76
9	.74	35	1.80
10	.78	36	1.84
11	.82	37	1.88
12	.87	38	1.92
13	.92	39	1.96
14	.96	40	2.00
15	1.00	41	2.04
16	1.04	42	2.08
17	1.08	43	2.12
18	1.12	44	2.16
19	1.16	45	2.20
20	1.20	46	2.24
21	1.24	47	2.28
22	1.28	48	2.32
23	1.32	49	2.36
24	1.36	50	2.40
25	1.40	Each Addi-	
26	1.44	tional \$1,000	.04

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#18(R) Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 380, 390			
Fire – Coverage A – All Forms – Non-seasonal And Seasonal			
Protection Class	Const.*	1 – 5 Families	
		Territory 380	Territory 390
1	M	\$ 21	\$ 21
	F	28	29
2	M	21	22
	F	28	29
3	M	21	22
	F	29	30
4	M	22	23
	F	29	30
5	M	22	23
	F	30	31
6	M	24	25
	F	32	33
7	M	25	26
	F	34	35
8	M	29	30
	F	39	40
8B, 9, 9E, 9S	M	32	33
	F	44	44
10	M	38	40
	F	54	55

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Table 301.A.#19(R) Fire – Coverage A – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage A	Limit Of Liability (000's)	Coverage A
\$ 1*	.38	\$ 27	1.48
2	.42	28	1.52
3	.47	29	1.56
4	.51	30	1.60
5	.56	31	1.64
6	.60	32	1.68
7	.65	33	1.72
8	.69	34	1.76
9	.74	35	1.80
10	.78	36	1.84
11	.82	37	1.88
12	.87	38	1.92
13	.92	39	1.96
14	.96	40	2.00
15	1.00	41	2.04
16	1.04	42	2.08
17	1.08	43	2.12
18	1.12	44	2.16
19	1.16	45	2.20
20	1.20	46	2.24
21	1.24	47	2.28
22	1.28	48	2.32
23	1.32	49	2.36
24	1.36	50	2.40
25	1.40	Each Additional \$1,000	.04
26	1.44		

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#20(R) Fire – Coverage A – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 110, 120, 130				
Fire – Coverage C – All Forms – Non-seasonal And Seasonal				
Protection Class	Const.*	1 – 5 Families		
		Territory 110	Territory 120	Territory 130
1	M	\$ 3	\$ 3	\$ 6
	F	4	4	8
2	M	3	3	6
	F	4	4	8
3	M	3	3	6
	F	4	4	9
4	M	3	3	6
	F	4	4	9
5	M	3	3	7
	F	4	4	9
6	M	3	3	7
	F	4	4	10
7	M	3	3	7
	F	5	5	10
8	M	4	4	9
	F	5	5	12
8B, 9, 9E, 9S	M	4	4	9
	F	6	6	13
10	M	5	5	12
	F	7	7	16

Table 301.A.#21(R) Fire – Coverage C – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage C	Limit Of Liability (000's)	Coverage C
\$ 1*	.35	\$ 27	3.73
2	.48	28	3.86
3	.61	29	3.99
4	.74	30	4.12
5	.87	31	4.25
6	1.00	32	4.38
7	1.13	33	4.51
8	1.26	34	4.64
9	1.39	35	4.77
10	1.52	36	4.90
11	1.65	37	5.03
12	1.78	38	5.16
13	1.91	39	5.29
14	2.04	40	5.42
15	2.17	41	5.55
16	2.30	42	5.68
17	2.43	43	5.81
18	2.56	44	5.94
19	2.69	45	6.07
20	2.82	46	6.20
21	2.95	47	6.33
22	3.08	48	6.46
23	3.21	49	6.59
24	3.34	50	6.72
25	3.47	Each Addi-	
26	3.60	tional \$1,000	.13

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#22(R) Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 140, 150, 160				
Fire – Coverage C – All Forms – Non-seasonal And Seasonal				
Protection Class	Const.*	1 – 5 Families		
		Territory 140	Territory 150	Territory 160
1	M	\$ 6	\$ 6	\$ 7
	F	8	8	10
2	M	6	6	8
	F	8	8	10
3	M	6	6	8
	F	9	9	11
4	M	6	6	8
	F	9	9	11
5	M	7	7	8
	F	9	9	11
6	M	7	7	9
	F	10	10	12
7	M	7	7	9
	F	10	10	12
8	M	9	9	10
	F	12	12	14
8B, 9, 9E, 9S	M	9	9	12
	F	13	13	16
10	M	12	12	14
	F	16	16	19

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Table 301.A.#23(R) Fire – Coverage C – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage C	Limit Of Liability (000's)	Coverage C
\$ 1*	.35	\$ 27	3.73
2	.48	28	3.86
3	.61	29	3.99
4	.74	30	4.12
5	.87	31	4.25
6	1.00	32	4.38
7	1.13	33	4.51
8	1.26	34	4.64
9	1.39	35	4.77
10	1.52	36	4.90
11	1.65	37	5.03
12	1.78	38	5.16
13	1.91	39	5.29
14	2.04	40	5.42
15	2.17	41	5.55
16	2.30	42	5.68
17	2.43	43	5.81
18	2.56	44	5.94
19	2.69	45	6.07
20	2.82	46	6.20
21	2.95	47	6.33
22	3.08	48	6.46
23	3.21	49	6.59
24	3.34	50	6.72
25	3.47	Each Additional \$1,000	
26	3.60		.13

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#24(R) Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 170, 180, 190				
Fire – Coverage C – All Forms – Non-seasonal And Seasonal				
Protection Class	Const.*	1 – 5 Families		
		Territory 170	Territory 180	Territory 190
1	M	\$ 9	\$ 9	\$ 9
	F	12	13	13
2	M	9	10	10
	F	12	13	13
3	M	9	10	10
	F	12	13	13
4	M	9	10	10
	F	13	14	14
5	M	10	10	10
	F	13	14	14
6	M	10	11	11
	F	14	15	15
7	M	11	12	12
	F	15	16	16
8	M	12	13	13
	F	17	18	18
8B, 9, 9E, 9S	M	14	15	15
	F	19	20	20
10	M	17	18	18
	F	23	25	25

Table 301.A.#25(R) Fire – Coverage C – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage C	Limit Of Liability (000's)	Coverage C
\$ 1*	.35	\$ 27	3.73
2	.48	28	3.86
3	.61	29	3.99
4	.74	30	4.12
5	.87	31	4.25
6	1.00	32	4.38
7	1.13	33	4.51
8	1.26	34	4.64
9	1.39	35	4.77
10	1.52	36	4.90
11	1.65	37	5.03
12	1.78	38	5.16
13	1.91	39	5.29
14	2.04	40	5.42
15	2.17	41	5.55
16	2.30	42	5.68
17	2.43	43	5.81
18	2.56	44	5.94
19	2.69	45	6.07
20	2.82	46	6.20
21	2.95	47	6.33
22	3.08	48	6.46
23	3.21	49	6.59
24	3.34	50	6.72
25	3.47	Each Addi-	
26	3.60	tional \$1,000	.13

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#26(R) Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 200, 210, 220				
Fire – Coverage C – All Forms – Non-seasonal And Seasonal				
Protection Class	Const.*	1 – 5 Families		
		Territory 200	Territory 210	Territory 220
1	M	\$ 11	\$ 9	\$ 8
	F	15	12	11
2	M	11	9	8
	F	15	12	11
3	M	11	9	8
	F	15	12	12
4	M	12	9	9
	F	16	13	12
5	M	12	10	9
	F	16	13	12
6	M	13	10	9
	F	17	14	13
7	M	13	11	10
	F	18	15	14
8	M	15	12	11
	F	21	17	16
8B, 9, 9E, 9S	M	17	14	13
	F	23	19	17
10	M	21	17	15
	F	28	23	21

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Table 301.A.#27(R) Fire – Coverage C – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage C	Limit Of Liability (000's)	Coverage C
\$ 1*	.35	\$ 27	3.73
2	.48	28	3.86
3	.61	29	3.99
4	.74	30	4.12
5	.87	31	4.25
6	1.00	32	4.38
7	1.13	33	4.51
8	1.26	34	4.64
9	1.39	35	4.77
10	1.52	36	4.90
11	1.65	37	5.03
12	1.78	38	5.16
13	1.91	39	5.29
14	2.04	40	5.42
15	2.17	41	5.55
16	2.30	42	5.68
17	2.43	43	5.81
18	2.56	44	5.94
19	2.69	45	6.07
20	2.82	46	6.20
21	2.95	47	6.33
22	3.08	48	6.46
23	3.21	49	6.59
24	3.34	50	6.72
25	3.47	Each Addi-	
26	3.60	tional \$1,000	.13

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#28(R) Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 230, 240, 250				
Fire – Coverage C – All Forms – Non-seasonal And Seasonal				
Protection Class	Const.*	1 – 5 Families		
		Territory 230	Territory 240	Territory 250
1	M	\$ 11	\$ 9	\$ 8
	F	16	12	11
2	M	12	9	8
	F	16	12	11
3	M	12	9	8
	F	16	12	12
4	M	12	9	9
	F	17	13	12
5	M	12	10	9
	F	17	13	12
6	M	13	10	9
	F	18	14	13
7	M	14	11	10
	F	19	15	14
8	M	16	12	11
	F	22	17	16
8B, 9, 9E, 9S	M	18	14	13
	F	24	19	17
10	M	22	17	15
	F	30	23	21

Table 301.A.#29(R) Fire – Coverage C – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage C	Limit Of Liability (000's)	Coverage C
\$ 1*	.35	\$ 27	3.73
2	.48	28	3.86
3	.61	29	3.99
4	.74	30	4.12
5	.87	31	4.25
6	1.00	32	4.38
7	1.13	33	4.51
8	1.26	34	4.64
9	1.39	35	4.77
10	1.52	36	4.90
11	1.65	37	5.03
12	1.78	38	5.16
13	1.91	39	5.29
14	2.04	40	5.42
15	2.17	41	5.55
16	2.30	42	5.68
17	2.43	43	5.81
18	2.56	44	5.94
19	2.69	45	6.07
20	2.82	46	6.20
21	2.95	47	6.33
22	3.08	48	6.46
23	3.21	49	6.59
24	3.34	50	6.72
25	3.47	Each Addi-	
26	3.60	tional \$1,000	.13

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#30(R) Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 260, 270, 280				
Fire – Coverage C – All Forms – Non-seasonal And Seasonal				
Protection Class	Const.*	1 – 5 Families		
		Territory 260	Territory 270	Territory 280
1	M	\$ 9	\$ 7	\$ 6
	F	12	9	8
2	M	9	7	6
	F	12	9	8
3	M	9	7	6
	F	12	10	9
4	M	9	7	6
	F	13	10	9
5	M	10	7	7
	F	13	10	9
6	M	10	8	7
	F	14	11	10
7	M	11	8	7
	F	15	11	10
8	M	12	10	9
	F	17	13	12
8B, 9, 9E, 9S	M	14	11	9
	F	19	14	13
10	M	17	13	12
	F	23	18	16

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Table 301.A.#31(R) Fire – Coverage C – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage C	Limit Of Liability (000's)	Coverage C
\$ 1*	.35	\$ 27	3.73
2	.48	28	3.86
3	.61	29	3.99
4	.74	30	4.12
5	.87	31	4.25
6	1.00	32	4.38
7	1.13	33	4.51
8	1.26	34	4.64
9	1.39	35	4.77
10	1.52	36	4.90
11	1.65	37	5.03
12	1.78	38	5.16
13	1.91	39	5.29
14	2.04	40	5.42
15	2.17	41	5.55
16	2.30	42	5.68
17	2.43	43	5.81
18	2.56	44	5.94
19	2.69	45	6.07
20	2.82	46	6.20
21	2.95	47	6.33
22	3.08	48	6.46
23	3.21	49	6.59
24	3.34	50	6.72
25	3.47	Each Additional \$1,000	
26	3.60		.13

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#32(R) Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 290, 300, 310				
Fire – Coverage C – All Forms – Non-seasonal And Seasonal				
Protection Class	Const.*	1 – 5 Families		
		Territory 290	Territory 300	Territory 310
1	M	\$ 7	\$ 10	\$ 7
	F	10	14	10
2	M	8	10	8
	F	10	14	10
3	M	8	11	8
	F	11	14	11
4	M	8	11	8
	F	11	15	11
5	M	8	11	8
	F	11	15	11
6	M	9	12	9
	F	12	16	12
7	M	9	12	9
	F	12	17	12
8	M	10	14	10
	F	14	20	14
8B, 9, 9E, 9S	M	12	16	12
	F	16	21	16
10	M	14	19	14
	F	19	26	19

Table 301.A.#33(R) Fire – Coverage C – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage C	Limit Of Liability (000's)	Coverage C
\$ 1*	.35	\$ 27	3.73
2	.48	28	3.86
3	.61	29	3.99
4	.74	30	4.12
5	.87	31	4.25
6	1.00	32	4.38
7	1.13	33	4.51
8	1.26	34	4.64
9	1.39	35	4.77
10	1.52	36	4.90
11	1.65	37	5.03
12	1.78	38	5.16
13	1.91	39	5.29
14	2.04	40	5.42
15	2.17	41	5.55
16	2.30	42	5.68
17	2.43	43	5.81
18	2.56	44	5.94
19	2.69	45	6.07
20	2.82	46	6.20
21	2.95	47	6.33
22	3.08	48	6.46
23	3.21	49	6.59
24	3.34	50	6.72
25	3.47	Each Addi-	
26	3.60	tional \$1,000	.13

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#34(R) Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 320, 330, 340				
Fire – Coverage C – All Forms – Non-seasonal And Seasonal				
Protection Class	Const.*	1 – 5 Families		
		Territory 320	Territory 330	Territory 340
1	M	\$ 7	\$ 8	\$ 6
	F	10	11	8
2	M	8	8	6
	F	10	11	8
3	M	8	8	6
	F	11	12	9
4	M	8	9	6
	F	11	12	9
5	M	8	9	7
	F	11	12	9
6	M	9	9	7
	F	12	13	10
7	M	9	10	7
	F	12	14	10
8	M	10	11	9
	F	14	16	12
8B, 9, 9E, 9S	M	12	13	9
	F	16	17	13
10	M	14	15	12
	F	19	21	16

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Table 301.A.#35(R) Fire – Coverage C – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage C	Limit Of Liability (000's)	Coverage C
\$ 1*	.35	\$ 27	3.73
2	.48	28	3.86
3	.61	29	3.99
4	.74	30	4.12
5	.87	31	4.25
6	1.00	32	4.38
7	1.13	33	4.51
8	1.26	34	4.64
9	1.39	35	4.77
10	1.52	36	4.90
11	1.65	37	5.03
12	1.78	38	5.16
13	1.91	39	5.29
14	2.04	40	5.42
15	2.17	41	5.55
16	2.30	42	5.68
17	2.43	43	5.81
18	2.56	44	5.94
19	2.69	45	6.07
20	2.82	46	6.20
21	2.95	47	6.33
22	3.08	48	6.46
23	3.21	49	6.59
24	3.34	50	6.72
25	3.47	Each Addi-	
26	3.60	tional \$1,000	.13

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#36(R) Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 350, 360, 370				
Fire – Coverage C – All Forms – Non-seasonal And Seasonal				
Protection Class	Const.*	1 – 5 Families		
		Territory 350	Territory 360	Territory 370
1	M	\$ 7	\$ 6	\$ 7
	F	10	8	9
2	M	8	6	7
	F	10	8	9
3	M	8	6	7
	F	11	9	10
4	M	8	6	7
	F	11	9	10
5	M	8	7	7
	F	11	9	10
6	M	9	7	8
	F	12	10	11
7	M	9	7	8
	F	12	10	11
8	M	10	9	10
	F	14	12	13
8B, 9, 9E, 9S	M	12	9	11
	F	16	13	14
10	M	14	12	13
	F	19	16	18

Table 301.A.#37(R) Fire – Coverage C – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage C	Limit Of Liability (000's)	Coverage C
\$ 1*	.35	\$ 27	3.73
2	.48	28	3.86
3	.61	29	3.99
4	.74	30	4.12
5	.87	31	4.25
6	1.00	32	4.38
7	1.13	33	4.51
8	1.26	34	4.64
9	1.39	35	4.77
10	1.52	36	4.90
11	1.65	37	5.03
12	1.78	38	5.16
13	1.91	39	5.29
14	2.04	40	5.42
15	2.17	41	5.55
16	2.30	42	5.68
17	2.43	43	5.81
18	2.56	44	5.94
19	2.69	45	6.07
20	2.82	46	6.20
21	2.95	47	6.33
22	3.08	48	6.46
23	3.21	49	6.59
24	3.34	50	6.72
25	3.47	Each Addi-	
26	3.60	tional \$1,000	.13

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#38(R) Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Owner-occupied And Non-owner-occupied Key Premiums – Territories 380, 390			
Fire – Coverage C – All Forms – Non-seasonal And Seasonal			
Protection Class	Const.*	1 – 5 Families	
		Territory 380	Territory 390
1	M	\$ 6	7
	F	8	9
2	M	6	7
	F	8	9
3	M	6	7
	F	9	10
4	M	6	7
	F	9	10
5	M	7	7
	F	9	10
6	M	7	8
	F	10	11
7	M	7	8
	F	10	11
8	M	9	10
	F	12	13
8B, 9, 9E, 9S	M	9	11
	F	13	14
10	M	12	13
	F	16	18

* M = Masonry, F = Frame. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame.

Table 301.A.#39(R) Fire – Coverage C – All Forms – Non-seasonal And Seasonal Owner-occupied And Non-owner-occupied Key Premiums

Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal			
Key Factors			
Limit Of Liability (000's)	Coverage C	Limit Of Liability (000's)	Coverage C
\$ 1*	.35	\$ 27	3.73
2	.48	28	3.86
3	.61	29	3.99
4	.74	30	4.12
5	.87	31	4.25
6	1.00	32	4.38
7	1.13	33	4.51
8	1.26	34	4.64
9	1.39	35	4.77
10	1.52	36	4.90
11	1.65	37	5.03
12	1.78	38	5.16
13	1.91	39	5.29
14	2.04	40	5.42
15	2.17	41	5.55
16	2.30	42	5.68
17	2.43	43	5.81
18	2.56	44	5.94
19	2.69	45	6.07
20	2.82	46	6.20
21	2.95	47	6.33
22	3.08	48	6.46
23	3.21	49	6.59
24	3.34	50	6.72
25	3.47	Each Addi-	
26	3.60	tional \$1,000	.13

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#40(R) Fire – Coverage C – All Forms Owner And Non-owner-occupied – Non-seasonal And Seasonal Key Factors

**RULE 301.
BASE PREMIUM COMPUTATION (Cont'd)**

Extended Coverage, Broad And Special Forms – Coverage A Key Premiums*				
Territory	Const.*	Forms		
		DP 00 01	DP 00 02	DP 00 03
110	M	204	216	225
	F	215	227	238
	MH	269	286	n/a
120	M	229	243	252
	F	241	256	266
	MH	302	321	n/a
130	M	164	174	181
	F	173	183	191
	MH	216	230	n/a
140	M	178	189	196
	F	188	199	206
	MH	234	250	n/a
150	M	149	158	165
	F	157	167	174
	MH	197	209	n/a
160	M	156	165	171
	F	163	173	180
	MH	205	218	n/a
170	M	72	97	108
	F	76	102	113
	MH	95	128	n/a
180	M	80	109	121
	F	84	114	125
	MH	105	142	n/a
190	M	82	112	125
	F	87	119	131
	MH	110	147	n/a
200	M	103	140	155
	F	109	146	164
	MH	136	184	n/a
210	M	68	90	101
	F	71	95	106
	MH	88	119	n/a
220	M	60	80	90
	F	63	86	95
	MH	79	107	n/a
230	M	94	127	143
	F	100	136	151
	MH	125	167	n/a
240	M	60	81	90
	F	64	86	95
	MH	80	107	n/a

Extended Coverage, Broad And Special Forms – Coverage A Key Premiums*				
Territory	Const.*	Forms		
		DP 00 01	DP 00 02	DP 00 03
250	M	63	84	94
	F	66	88	100
	MH	83	112	n/a
260	M	59	80	89
	F	61	83	92
	MH	78	104	n/a
270	M	44	59	67
	F	47	63	71
	MH	58	78	n/a
280	M	44	58	66
	F	46	63	70
	MH	57	77	n/a
290	M	54	72	81
	F	57	77	86
	MH	71	96	n/a
300	M	51	70	77
	F	53	73	82
	MH	69	92	n/a
310	M	36	48	55
	F	38	51	58
	MH	48	66	n/a
320	M	39	53	59
	F	42	56	62
	MH	53	71	n/a
330	M	43	57	64
	F	45	60	68
	MH	56	75	n/a
340	M	35	47	53
	F	36	48	55
	MH	45	61	n/a
350	M	36	48	55
	F	37	50	56
	MH	47	63	n/a
360	M	35	47	53
	F	36	48	55
	MH	45	61	n/a
370	M	35	47	53
	F	37	51	57
	MH	47	64	n/a
380	M	32	43	47
	F	33	44	51
	MH	42	56	n/a

**RULE 301.
PREMIUM COMPUTATION (Cont'd)**

Extended Coverage, Broad And Special Forms – Coverage A Key Premiums*				
Territory	Const.*	Forms		
		DP 00 01	DP 00 02	DP 00 03
390	M	32	43	47
	F	33	44	50
	MH	42	56	n/a

* **DP 00 01** Key Premiums are Non-seasonal and Seasonal. **DP 00 02** and **DP 00 03** Key Premiums are Non-seasonal only and include the charge for Extended Coverage and Vandalism and Malicious Mischief perils. M = Masonry, F = Frame, MH = Mobile Home. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame. **DP 00 02** Key Premiums for MH should be used in conjunction with Actual Cash Value Loss Settlement Endorsement **DP 04 76** Only; see Rule **305**.

Table 301.A.#41(R) Extended Coverage, Broad And Special Forms – Coverage A Key Premiums

To develop the Seasonal Base Premiums, multiply the following factors by the **DP 00 01** Extended Coverage Base Premiums:

Territories	DP 00 02	DP 00 03
110-160	1.10	1.20
170-390	1.50	1.55

Table 301.A.#42(R) Extended Coverage, Broad And Special Forms – Coverage A Seasonal Key Premiums Forms DP 00 02 And DP 00 03

Extended Coverage, Broad And Special Forms – Coverage A			
Key Factors			
Limit Of Liability (000's)	Coverage A	Limit Of Liability (000's)	Coverage A
\$ 1*	.24	\$ 27	1.64
2	.29	28	1.69
3	.34	29	1.74
4	.40	30	1.79
5	.45	31	1.84
6	.51	32	1.89
7	.56	33	1.94
8	.62	34	1.99
9	.67	35	2.04
10	.72	36	2.09
11	.78	37	2.14
12	.83	38	2.19
13	.89	39	2.24
14	.94	40	2.29

Extended Coverage, Broad And Special Forms – Coverage A			
Key Factors			
Limit Of Liability (000's)	Coverage A	Limit Of Liability (000's)	Coverage A
15	1.00	41	2.34
16	1.05	42	2.39
17	1.10	43	2.44
18	1.16	44	2.49
19	1.21	45	2.54
20	1.27	46	2.59
21	1.32	47	2.64
22	1.37	48	2.69
23	1.43	49	2.74
24	1.48	50	2.79
25	1.54	Each Additional \$1,000	.05
26	1.59		

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#43(R) Extended Coverage, Broad And Special Forms – Coverage A Key Factors

Extended Coverage, Broad And Special Forms – Coverage C Key Premiums*				
Territory	Const.*	Forms		
		DP 00 01	DP 00 02	DP 00 03
110	M	28	29	31
	F	29	31	32
	MH	38	40	n/a
120	M	34	37	38
	F	35	38	40
	MH	45	47	n/a
130	M	25	26	27
	F	26	27	28
	MH	33	34	n/a
140	M	25	26	27
	F	26	27	28
	MH	33	34	n/a
150	M	11	12	12
	F	12	13	13
	MH	15	16	n/a
160	M	14	15	15
	F	15	16	16
	MH	19	20	n/a
170	M	6	8	9
	F	6	8	9
	MH	7	9	n/a

**RULE 301.
PREMIUM COMPUTATION (Cont'd)**

Extended Coverage, Broad And Special Forms – Coverage C Key Premiums*				
Territory	Const.*	Forms		
		DP 00 01	DP 00 02	DP 00 03
180	M	7	9	10
	F	7	9	10
	MH	9	12	n/a
190	M	10	12	16
	F	10	12	16
	MH	12	17	n/a
200	M	13	20	21
	F	13	20	21
	MH	18	25	n/a
210	M	4	6	7
	F	4	6	7
	MH	6	8	n/a
220	M	3	4	6
	F	3	4	6
	MH	4	6	n/a
230	M	11	14	17
	F	11	14	17
	MH	13	19	n/a
240	M	3	4	6
	F	3	4	6
	MH	4	6	n/a
250	M	3	4	6
	F	3	4	6
	MH	4	6	n/a
260	M	2	3	3
	F	2	3	3
	MH	3	4	n/a
270	M	2	3	3
	F	2	3	3
	MH	3	4	n/a
280	M	2	3	3
	F	2	3	3
	MH	3	4	n/a
290	M	2	3	3
	F	2	3	3
	MH	3	3	n/a
300	M	4	6	7
	F	4	6	7
	MH	6	8	n/a

Extended Coverage, Broad And Special Forms – Coverage C Key Premiums*				
Territory	Const.*	Forms		
		DP 00 01	DP 00 02	DP 00 03
310	M	1	1	2
	F	1	1	2
	MH	1	1	n/a
320	M	1	1	2
	F	1	1	2
	MH	1	1	n/a
330	M	1	1	2
	F	1	1	2
	MH	1	1	n/a
340	M	1	1	2
	F	1	1	2
	MH	1	1	n/a
350	M	1	1	2
	F	1	1	2
	MH	1	1	n/a
360	M	2	3	3
	F	2	3	3
	MH	3	3	n/a
370	M	2	3	3
	F	2	3	3
	MH	3	3	n/a
380	M	1	1	2
	F	1	1	2
	MH	1	1	n/a
390	M	1	1	2
	F	1	1	2
	MH	1	1	n/a

* **DP 00 01** Key Premiums are Non-seasonal and Seasonal. **DP 00 02** and **DP 00 03** Key Premiums are Non-seasonal only and include the charge for Extended Coverage and Vandalism and Malicious Mischief perils. M = Masonry, F = Frame, MH = Mobile Home. Masonry Veneer is rated as masonry. Aluminum or plastic siding over frame is rated as frame. **DP 00 02** Key Premiums for MH should be used in conjunction with Actual Cash Value Loss Settlement Endorsement **DP 04 76** Only; see Rule **305**.

Table 301.A.#44(R) Extended Coverage, Broad And Special Forms – Coverage C Key Premiums

**RULE 301.
PREMIUM COMPUTATION (Cont'd)**

To develop the Seasonal Base Premiums, multiply the following factors by the **DP 00 01** Extended Coverage Base Premiums:

Territories	DP 00 02	DP 00 03
110-160	1.10	1.20
170-390	1.50	1.55

Table 301.A.#45(R) Extended Coverage, Broad And Special Forms – Coverage C Seasonal Key Premiums Forms DP 00 02 And DP 00 03

Extended Coverage, Broad And Special Forms – Coverage C			
Key Factors			
Limit Of Liability (000's)	Coverage C	Limit Of Liability (000's)	Coverage C
\$ 1*	.17	\$ 27	4.51
2	.33	28	4.68
3	.50	29	4.85
4	.67	30	5.02
5	.83	31	5.19
6	1.00	32	5.36
7	1.17	33	5.53
8	1.34	34	5.70
9	1.50	35	5.87
10	1.67	36	6.04
11	1.84	37	6.21
12	2.00	38	6.38
13	2.17	39	6.55
14	2.33	40	6.72
15	2.50	41	6.89
16	2.67	42	7.06
17	2.84	43	7.23
18	3.00	44	7.40
19	3.17	45	7.57
20	3.34	46	7.74
21	3.51	47	7.91
22	3.67	48	8.08
23	3.84	49	8.25
24	4.00	50	8.42
25	4.17	Each Addi-	
26	4.34	tional \$1,000	.17

* Use this limit of liability to develop premiums for policy amounts less than \$1,000.

Table 301.A.#46(R) Extended Coverage, Broad And Special Forms – Coverage C Key Factors

**RULE 302.
VANDALISM AND MALICIOUS MISCHIEF – (DP 00 01)**

Rates Per \$1,000	
Not Seasonal or Vacant	\$.17
Seasonal and Not Vacant	1.40
Vacant	9.30
In Course of Construction	.19

Table 302.(R) Vandalism And Malicious Mischief (DP 00 01)

**RULE 404.
MOBILE OR TRAILER HOMES – (DP 00 01 ONLY OR DP 00 02 WITH DP 04 76)**

Multiply the Frame Construction, Coverage **A** or **C** Base Premium by .9 for Fire and multiply the Mobile Home Construction, Coverage **A** or **C** Base Premium by 1.00 for Extended Coverage.

**RULE 406.
DEDUCTIBLES**

B. Optional Deductibles

The Minimum Additional Charge is \$25.00.

**RULE 500.
MISCELLANEOUS LOSS COSTS**

Rates Per \$1,000*	
Exposure	Rates
A. Fire: Protection Class 1 – 8	\$ 2.50
Fire: Protection Class 8B, 9, 9E, 9S & 10	4.50
B. Extended Coverage (DP 00 01)	1.00
C. Broad Form (DP 00 02)	1.50
D. Special Form (DP 00 03)	2.00
E. Broad Form (DP 00 02) with Endorsement DP 04 65	2.00
* These rates apply to all occupancies, territories, construction and protection classifications, unless otherwise specified. Rates for A. are cumulative with either B. , C. , D. , or E.	

Table 500.(R) Miscellaneous Rates

**RULE 507.
FIRE DEPARTMENT SERVICE CHARGE**

The Additional Rate per \$1,000 of insurance is \$15.00.

**RULE 508.
TREES, SHRUBS AND OTHER PLANTS**

C. Premium Computation

1. Fire, Extended Coverage, Broad And Special Forms

The rates in the following table apply to all occupancies, territories, construction and protection classifications, unless otherwise specified:

Fire (DP 00 01)		
Protection Class	Rates Per \$1,000	
1 – 8	\$ 2.50	
8B, 9, 9E, 9S & 10	4.50	
Extended Coverage (DP 00 01) – All Specified Perils		
Territory	Rates Per \$1,000	
	Including Wind Or Hail	Excluding Wind Or Hail
110-120	\$ 57.00	\$ 1.00
130-160	29.00	1.00
170-290	15.00	1.00
300-390	13.10	1.00
Windstorm Or Hail (DP 00 02 And DP 00 03)		
Territory	Rates Per \$1,000	
110-120	\$ 56.00	
130-160	28.00	
170-290	14.00	
300-390	12.10	

Table 508.C.1.(R) Premium Computation

**RULE 509.
EARTHQUAKE COVERAGE**

D. Premium For Base Deductible

Rate per \$1000				
	Zone	Frame*	Masonry*	Superior
Table A				
Coverages A, B, D				
Or E	3	\$.36	\$ 1.72	\$.68
Improvements, etc.	4	.23	1.05	.39
& Other Building Options	5	.18	.57	.27
Table B				
Coverage C & Other	3	\$.36	\$ 1.43	\$.36
Personal Property	4	.23	.82	.23
Options	5	.18	.57	.18
* If exterior Masonry Veneer is covered, rate as Masonry; if not covered – rate as Frame.				
Zone Definitions				
Zone 3				
Anson	Davie	Richmond		
Brunswick	Gaston	Robeson		
Cabarrus	Iredell	Rowan		
Catawba	Lincoln	Scotland		
Cleveland	Mecklenburg	Stanly		
Columbus	Montgomery	Union		
Zone 4				
Alexander	Forsyth	Pender		
Alleghany	Graham	Polk		
Ashe	Haywood	Randolph		
Avery	Henderson	Rutherford		
Bladen	Hoke	Surry		
Buncombe	Jackson	Swain		
Burke	Macon	Transylvania		
Caldwell	Madison	Watauga		
Cherokee	McDowell	Wilkes		
Clay	Mitchell	Yadkin		
Cumberland	Moore	Yancey		
Davidson	New Hanover			
Zone 5				
Balance of State				

Table 509.D.1.(R) Premium For Base Deductible 5% Deductible

**RULE 511.
SINKHOLE COLLAPSE COVERAGE**

Rates Per \$1,000	
Cov. A or B and Other Bldg. Options	\$.30
Cov. C or Personal Property Options	.10

Table 511.B.1.(R) Premium Computation

**RULE 512.
WINDSTORM OR HAIL COVERAGE – MISCELLANEOUS
PROPERTIES**

Rates Per \$1,000				
	Territories			
	110-120	130-160	170-290	300-390
1. Signs				
All Metal	\$ 33.60	\$ 16.80	\$ 12.10	\$ 11.20
Other Construction	112.00	56.00	44.30	38.70
2. Cloth Awnings	56.00	28.00	14.00	12.10
3. Radio Or Television Equipment	112.00	56.00	44.30	32.70
4. Swimming Pools – Construction Of Pool And Related Structures*				
Masonry, Uncovered	.94	.47	.37	.28
Masonry, With Combustible Superstructures (Including Roof) And/Or Fencing – Pool Only	.94	.47	.37	.28
Masonry, With Combustible Superstructures (Including Roof) And/Or Fencing – Superstructure And/Or Fencing	32.60	16.30	11.20	8.40
Other Construction With Or Without Roof	32.60	16.30	11.20	8.40
Inflated Enclosure Or Covering Of Plastic Material	168.00	84.00	65.30	56.00
5. Screens (Including Supports)	32.60	16.30	11.20	8.40
6. Fences And Walls				
Masonry, Iron Or Reinforced Concrete	2.80	1.40	1.12	1.03
Other Construction	56.00	28.00	14.00	12.10
7. Bathhouses, Cabanas, Pergolas, Slathouses, Trellises; Structures Over Water				
Masonry	4.67	2.33	1.49	1.31
Other Construction – Fully Enclosed	6.53	3.27	1.96	1.68
Other Construction – Not Fully Enclosed	17.72	8.86	7.00	6.53
8. Outdoor Equipment	4.80	2.40	2.12	2.03
9. Greenhouses Or Hothouses				
Structures Including Glass, Flowers And Plants	130.60	65.30	61.10	60.60
If insured separately: Structure	11.56	5.78	4.67	4.48
Glass	66.20	33.10	31.30	30.80
Flowers And Plants	87.80	43.90	40.60	40.10
* If any part of a pool's enclosure or roof is made of plastic film or cloth, supported on wood framing, the entire pool is subject to the rates displayed for Inflated Enclosure or Covering of Plastic Material.				

Table 512.D.(R) Premium Windstorm Or Hail Coverage – Miscellaneous Properties

**RULE 513.
LIMITED WATER BACK-UP AND SUMP DISCHARGE OR
OVERFLOW COVERAGE**

C. Premium Computation

Charge per location is:

Limit	Rate
\$ 5,000	\$ 8.00
10,000	15.00
15,000	19.00
20,000	22.00
25,000	24.00

Table 513.C.(R) Premium Computation

**RULE 514.
ASSISTED LIVING CARE**

C. Premium

For Basic Limits, the rate per unit is \$55.38.

For increased Coverage **C** Limit, the rate per \$1,000 is \$6.38.

1. TERRITORY ASSIGNMENTS

If a territory shown is defined in terms of United States Postal Service (USPS) ZIP code:

- A.** Determine the applicable rating territory based on the location of the dwelling.
- B.** An insured's rates shall not be changed solely because the USPS changed his or her ZIP code and the physical boundaries of a rating territory shall be determined by the ZIP code boundaries in effect at the time of the latest rate filing defining the territory.

Territory boundaries in North Carolina are concurrent with USPS ZIP code boundaries in effect as of **July 1, 2013**. If the USPS introduces a new ZIP code or realigns a ZIP code boundary after **July 1, 2013**, the new ZIP code may not yet be listed in Rule **2.C**. If this is the case, assign the rating territory based on the ZIP code boundary that formerly applied to the dwelling before the USPS changed the ZIP code.

2. TERRITORY DEFINITIONS – (For all Coverages and Perils Other than Earthquake).

Assign the applicable territory using the following order of priority:

A. Counties

County of	Code
Alamance	310
Alexander	340
Alleghany	360
Anson	300
Ashe	360
Avery	370
Beaufort	150
Bertie	180
Bladen	230
Buncombe	360
Burke	360
Cabarrus	320
Caldwell	360
Camden	150
Caswell	310
Catawba	360
Chatham	280
Cherokee	390
Chowan	150
Clay	390
Cleveland	350
Columbus	200
Craven	150
Cumberland	220

County of	Code
Currituck (other than Beach Areas)	130
Dare (other than Beach Areas)	130
Davidson	320
Davie	310
Duplin	190
Durham	270
Edgecombe	210
Forsyth	310
Franklin	240
Gaston	350
Gates	170
Graham	390
Granville	260
Greene	180
Guilford	310
Halifax	240
Harnett	250
Haywood	380
Henderson	360
Hertford	170
Hoke	250
Hyde (other than Beach Areas)	130
Iredell	340
Jackson	390
Johnston	240
Jones	150
Lee	290
Lenoir	190
Lincoln	350
Macon	390
Madison	380
Martin	180
McDowell	360
Mecklenburg	340
Mitchell	370
Montgomery	300
Moore	290

County of	Code
Nash	240
Northampton	240
Orange	280
Pamlico	130
Pasquotank	150
Perquimans	150
Person	260
Pitt	180
Polk	360
Randolph	320
Richmond	300
Robeson	230
Rockingham	310
Rowan	320
Rutherford	350
Sampson	220
Scotland	250
Stanly	340
Stokes	310
Surry	310
Swain	380
Transylvania	380
Tyrrell	150
Union	340
Vance	260
Wake	270
Warren	260
Washington	150
Watauga	360
Wayne	180
Wilkes	340
Wilson	210
Yadkin	330
Yancey	360

B. Beach Areas

Beach Area – Localities south and east of the Inland Waterway from the South Carolina Line to Fort Macon (Beaufort Inlet), thence south and east of Core, Pamlico, Roanoke and Currituck Sounds to the Virginia Line, being those portions of land generally known as the "Outer Banks".

Beach Areas in Currituck, Dare and Hyde Counties: 110

Beach Areas in Brunswick, Carteret, New Hanover, Onslow and Pender Counties: 120

C. Other Than Beach Areas of Brunswick, Carteret, New Hanover, Onslow and Pender Counties

For areas of Brunswick, Carteret, New Hanover, Onslow and Pender Counties, other than the Beach Areas, refer to the following ZIP codes. If portions of these ZIP codes fall in Counties other than Brunswick, Carteret, New Hanover, Onslow and Pender Counties use the territory code for those counties.

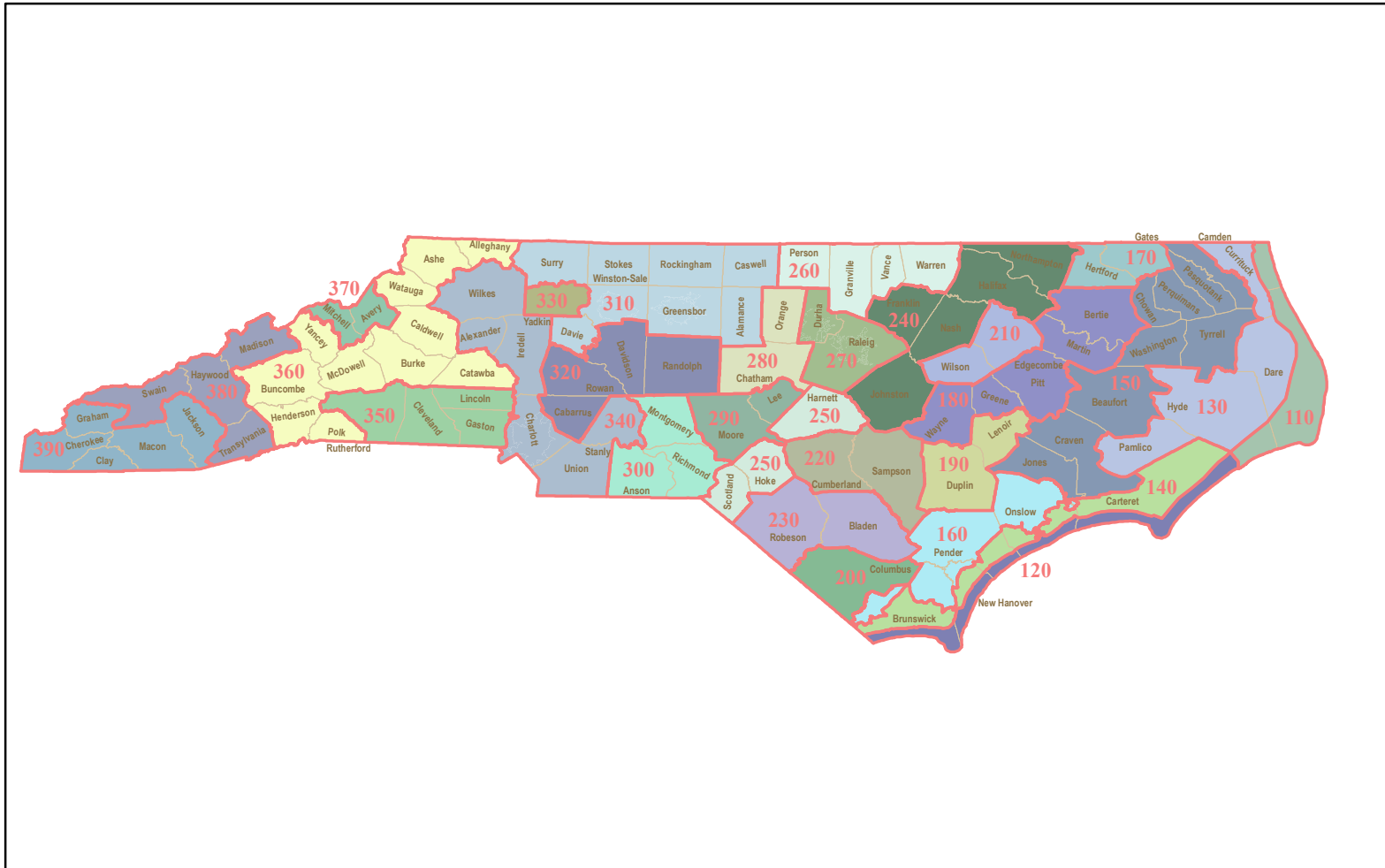
1. Eastern Coastal Territory

ZIP Code	USPS ZIP Code Name	Code
28403	Wilmington	140
28404	Wilmington	140
28405	Wilmington	140
28406	Wilmington	140
28407	Wilmington	140
28408	Wilmington	140
28409	Wilmington	140
28410	Wilmington	140
28411	Wilmington	140
28412	Wilmington	140
28422	Bolivia	140
28428	Carolina Beach	140
28443	Hampstead	140
28445	Holly Ridge	140
28459	Shallotte	140
28460	Sneads Ferry	140
28461	Southport	140
28462	Supply	140
28467	Calabash	140
28468	Sunset Beach	140
28469	Ocean Isle Beach	140
28470	Shallotte	140
28480	Wrightsville Beach	140
28511	Atlantic	140
28516	Beaufort	140
28520	Cedar Island	140
28524	Davis	140
28528	Gloucester	140
28531	Harkers Island	140
28532	Havelock	140
28533	Cherry Point	140
28539	Hubert	140
28553	Marshallberg	140
28557	Morehead City	140
28570	Newport	140
28577	Sealevel	140
28579	Smyrna	140
28581	Stacy	140
28584	Swansboro	140
28589	Williston	140

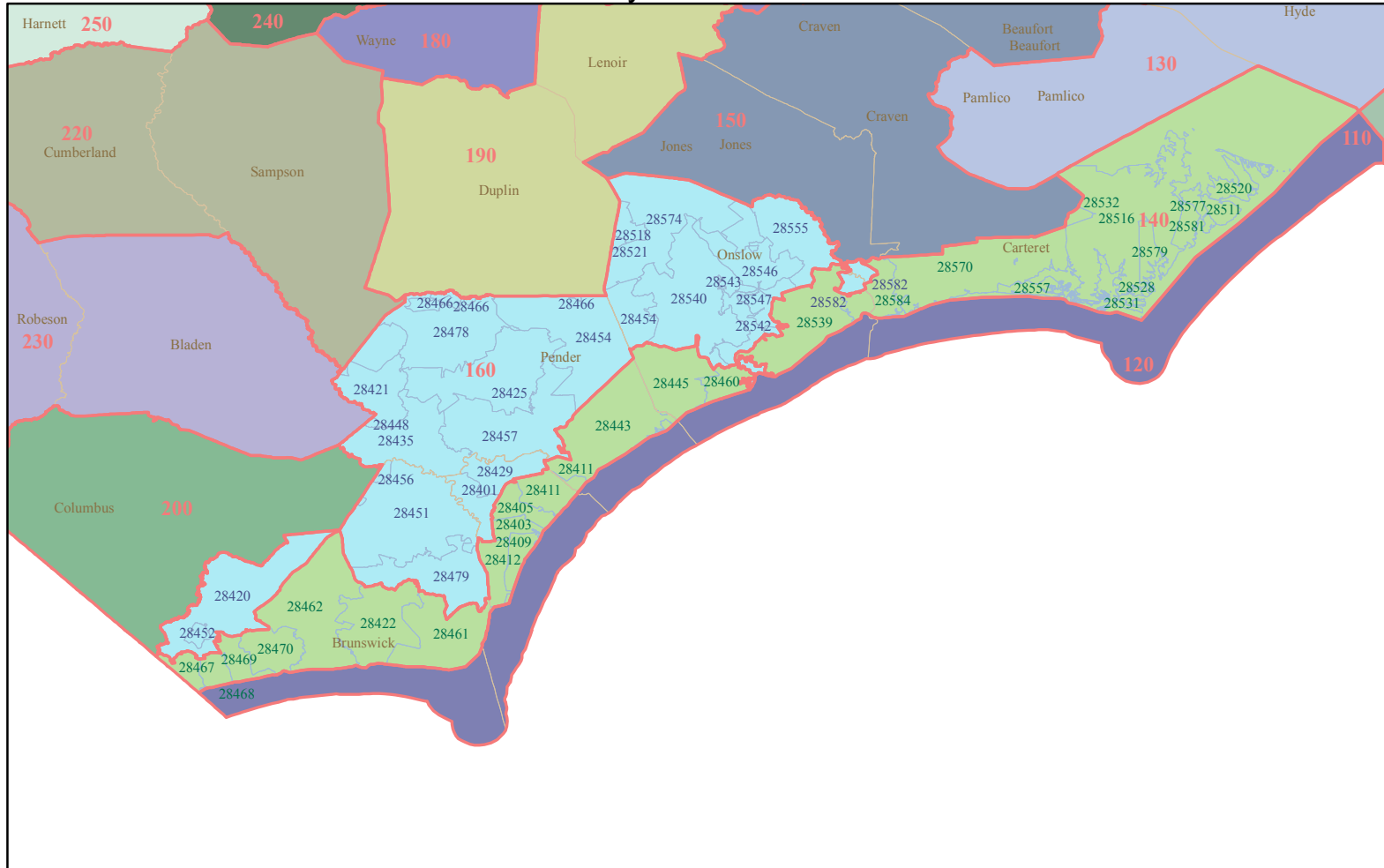
2. Western Coastal Territory

ZIP Code	USPS ZIP Code Name	Code
28401	Wilmington	160
28402	Wilmington	160
28420	Ash	160
28421	Atkinson	160
28425	Burgaw	160
28429	Castle Hayne	160
28435	Currie	160
28436	Delco	160
28447	Ivanhoe	160
28448	Kelly	160
28451	Leland	160
28452	Longwood	160
28454	Maple Hill	160
28456	Riegelwood	160
28457	Rocky Point	160
28466	Wallace	160
28478	Willard	160
28479	Winnabow	160
28518	Beulaville	160
28521	Chinquapin	160
28540	Jacksonville	160
28541	Jacksonville	160
28542	Camp Lejeune	160
28543	Tarawa Terrace	160
28544	Midway Park	160
28545	McCutcheon Field	160
28546	Jacksonville	160
28547	Camp Lejeune	160
28555	Maysville	160
28574	Richlands	160
28582	Stella	160

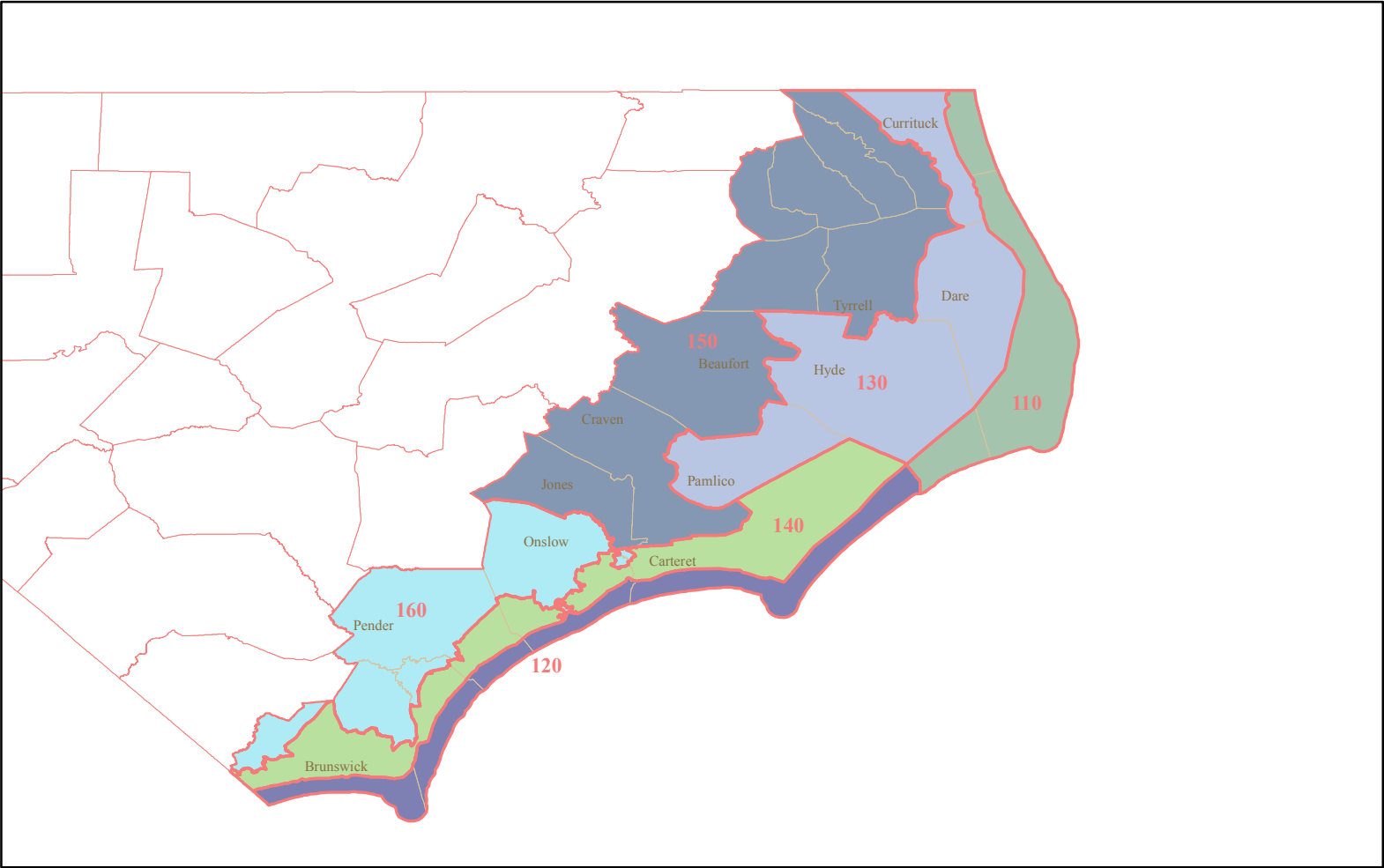
Dwelling and Homeowner Territories Statewide



Dwelling and Homeowner Territories Southern Beach and Coastal Area By ZIP Code Effective 6-1-15



Dwelling and Homeowner Territories
Beach and Coastal Area
Effective 6-1-15



**PRE-FILED TESTIMONY
OF
JOANNA BILIOURIS**

JULY 2023

**2023 NORTH CAROLINA DWELLING INSURANCE RATE FILING
BY THE NORTH CAROLINA RATE BUREAU**

Q. Would you state your full name and business address?

A. My name is Joanna Biliouris. My business address is 2910 Sumner Blvd, Raleigh, North Carolina 27616.

Q. Are you employed by the North Carolina Rate Bureau ("Bureau")?

A. Yes.

Q. In what capacity?

A. I am the General Manager.

Q. What is the Bureau's function with respect to rates for residential Dwelling insurance?

A. The Bureau promulgates rates for residential dwelling insurance in North Carolina.

Q. Can you identify Exhibits RB-1 through RB-27?

A. Yes. Exhibit RB-1 sets forth the filed rates for the residential dwelling market in North Carolina, as well as the data and calculations underlying those rates and the dwelling rate manual changes that accompany the filed rate changes. RB-1 also includes the supplemental data and exhibits required by statute and by regulation for this filing. Exhibit RB-2 is the current residential dwelling rate manual. Exhibits RB-3 through RB-27 contain the required accompanying pre-filed testimony and exhibits. Together, these materials constitute a filing (the "Filing") that is dated July 13, 2023 submitted by the Bureau to the Honorable Mike Causey, Commissioner of Insurance, with respect to residential dwelling rates in North Carolina.

Q. Do you know how the expense data underlying the Filing were compiled?

A. Yes. The underwriting expense provisions included in the Filing were derived from the results of a special call for expense experience that is issued on an annual basis to all member companies of the Bureau. The responses received from that special call were compiled, reviewed, and furnished to Insurance Services Office ("ISO") for incorporation into the Filing.

Q. Was the information from the special call for expense experience that was furnished to ISO and utilized in the Filing correct and accurate to the best of your knowledge, information and belief?

A. Yes.

Q. To the extent that actuarial expertise was necessary in the preparation of this Filing, where did the Bureau obtain that expertise?

A. Actuarial expertise was obtained from ISO and Milliman. ISO is retained by the Bureau to provide actuarial services for, among numerous other tasks, preparation of this Filing. The individual company representatives serving on the Bureau's Property Rating Subcommittee are mostly actuaries. The Bureau's Property Rating Subcommittee reviewed the data underlying the Filing and made recommendations to the Property Committee, which then made recommendations to the Bureau's Governing Committee as to the items contained in the Filing. In addition, the Bureau has an actuary on its staff who assisted in the review and the preparation of the Filing.

Q. Can you identify Exhibit RB-2 entitled the North Carolina Dwelling Policy Program Manual?

A. Yes. The North Carolina Dwelling Policy Program Manual marked Exhibit RB-2 is the current manual of the rules, rates, and classifications used to write residential dwelling insurance in North Carolina. The manual and any approved amendments are on file with the North Carolina Department of Insurance and a copy is maintained at the offices of the Bureau.

Q. What is the proposed effective date of the rates in the Filing?

A. The rate review was prepared with the assumption that the effective date of any rate changes would be June 1, 2024, and therefore that is the "assumed effective date" in the Filing materials.

Q. Does the Filing submitted to the Commissioner include, to the extent available, the information to be furnished in connection with filings under Article 36 of Chapter 58 of the General Statutes?

A. Yes. Those data that were available have been submitted to the Commissioner as part of the Filing. As shown and explained in that submission, some data were not collected or, if collected, were not retrievable from the statistical data in the form requested. The individual circumstances with respect to such data are explained in the submission.

Q. Does that conclude your pre-filed testimony?

A. Yes.

**PREFILED TESTIMONY
OF
PAUL ERICKSEN**

**2023 DWELLING INSURANCE
RATE FILING BY THE
NORTH CAROLINA RATE BUREAU**

Q: Please state your name and business address.

A: My name is Paul Ericksen. My business address is Insurance Services Office, 545 Washington Boulevard, Jersey City, New Jersey.

Q: Please describe your educational background and your background in actuarial science.

A: I graduated from Princeton University in 1992 with a B.A. in mathematics.

I became a Fellow of the Casualty Actuarial Society (CAS) in 1995 and am a member of the American Academy of Actuaries (AAA). I am in good standing with those organizations.

I served as a member of the CAS Examination Committee from 1996 through 2009, and I have given multiple presentations at CAS meetings.

Q: By whom are you employed?

A: I am employed by Insurance Services Office (ISO) and started employment at ISO in 1992.

Q: What are your current responsibilities at ISO?

A: I lead the Actuarial Consulting unit at ISO. ISO's Actuarial Consulting unit specializes in providing a wide array of consulting services to individual companies. I have been responsible for managing, overseeing, and developing customized actuarial analyses including ratemaking, reserving, and other miscellaneous studies. I have provided services to insurers, captives, managing general agents, law firms, and insurance departments.

Q: What is your employment background?

A: I started my career in 1992 as an actuarial assistant in the increased limits division of ISO. In 1993, I left ISO and spent a year as a consulting actuary in the New York office of Milliman, working primarily on medical malpractice projects. I returned to ISO in 1994 as an actuarial associate in the Financial Analysis division. In 1999, I

transferred to ISO's Actuarial Consulting unit and assisted clients as a consulting actuary. In 2007, I was promoted to Principal of the Actuarial Consulting unit.

During the past 24 years that I have provided actuarial consulting services, I have worked on a wide range of projects involving several different lines of insurance within the property/casualty insurance industry. I have prepared rate analyses for homeowners, dwelling, and other lines of insurance. I have also conducted reserve analyses as the Appointed Actuary for several insurers.

A large part of my consulting experience has dealt with property insurance in areas of the country that have exposure to hurricane losses. For example, I was the Appointed Actuary for Citizens Property Insurance Corporation of Florida ("Citizens") for four years (2004, 2005, 2007 and 2009), and was also responsible for preparing rate analyses for Citizens' homeowners, mobile home, dwelling, and commercial property programs. Citizens is the insurer of last resort in Florida, and has been one of the largest property insurers in the state. In addition to work performed on behalf of Citizens, I have also conducted ratemaking and reserving projects for several voluntary insurers that write homeowners and dwelling business in Florida. I have developed indicated rates for both multi-peril policies and wind-only policies. I have extensive experience working with multiple hurricane models (including both AIR and RMS) and developing provisions for the cost of reinsurance.

In North Carolina, I have provided actuarial consulting services to both the North Carolina Insurance Underwriting Association ("NCIUA") and the North Carolina Joint Underwriting Association ("NCJUA"). Those organizations rely upon the rates set in filings by the North Carolina Rate Bureau ("Bureau").

Q: Are you familiar with dwelling insurance ratemaking in North Carolina and other states?

A: Yes. ISO has provided actuarial consulting services to the Bureau on North Carolina dwelling rate filings since the Bureau was created. I have extensive knowledge of the methodologies employed by ISO and the Bureau in this filing as well as in past Bureau dwelling filings. I provided written testimony in support of the Bureau's 2019, 2020, and 2022 dwelling rate filings.

As part of a consulting assignment that I performed for the NCIUA and NCJUA, I have also reviewed prior filings by the Bureau on which ISO provided actuarial consulting and filing preparation assistance. I have prepared many dwelling rate analyses in several different states. In addition, I have testified as an expert witness in support of my clients' dwelling rate filings in various hearings that were held in Florida and Massachusetts. In Florida, I have testified in support of rate filings submitted by Citizens.

Q. Based on your experience with other states, from the standpoint of individual companies, how does ratemaking in North Carolina differ from other states?

A. In almost every other state, each company files its own dwelling rates independently. However, in North Carolina, the Bureau has the responsibility to file rates on behalf of the entire industry. The filing process in North Carolina establishes a system of "Bureau rates" (often called "manual" rates) for use on all dwelling policies written in the state.

In essence, the Bureau makes rates based on the aggregate policyholder attributes and loss experience of all the dwelling policies written in the state. Those policies include characteristics such as the dollar amount of insurance written on each home, the geographic location of the home, the protection class of the area in which the house is located, the type of construction, the deductible amount, etc.

Once the Bureau rate has been set through the filing and approval process, Bureau companies must charge that rate unless they file their own deviations with the Commissioner or engage in the consent to rate process. A company's proposed premium may exceed the Bureau rate through the consent to rate process only if that higher premium is charged in accordance with rules adopted by the Commissioner.

Q: What work has ISO performed with respect to the Bureau's 2023 dwelling rate filing in North Carolina?

A: First, ISO, as a licensed statistical agent in North Carolina, collects dwelling insurance data from a significant number of the companies writing that line in North Carolina, as well as from the North Carolina Insurance Underwriting Association (commonly called the "NCIUA" or the "Beach Plan") and the North Carolina Joint Underwriting Association (commonly called the "NCJUA" or the "Fair Plan") which are the residual market mechanisms.

Second, ISO collects, reviews and compiles data from three other statistical organizations licensed in North Carolina that collect residential dwelling data from Bureau member companies. All companies writing dwelling insurance in North Carolina must report to one of these four organizations. The other three organizations are: the Independent Statistical Service (ISS), the American Association of Insurance Services (AAIS) and the National Independent Statistical Service (NISS).

Third, ISO provides consulting actuarial services directly to the Bureau. As in the past, ISO staff compiled the ratemaking data to be reviewed by the Bureau's Property Rating Subcommittee, Property Committee and Governing Committee in preparation of rate reviews and filings.

Fourth, ISO staff put together much of the data, information and calculations contained in Exhibit RB-1. This lengthy process was performed under the direction of the Bureau committees. ISO staff attended meetings of those Bureau committees.

Finally, I have reviewed the filed rates to determine if they are calculated in accordance with the CAS guidance, including the Statement of Principles Regarding Property and Casualty Insurance Ratemaking and the Actuarial Standards of Practice. In accordance with Actuarial Standard of Practice No. 17 Expert Testimony by Actuaries, I conducted my review in terms of reasonableness rather than solely in terms of whether there is precise agreement on each issue. In addition, I applied the applicable rate standards set forth in Article 36 of Chapter 58 of the North Carolina General Statutes, including but not limited to N.C.G.S. 58-36-10, i.e., that rates must not be excessive, inadequate or unfairly discriminatory and that certain statutory rating factors must be considered.

Q: Please describe the overall ratemaking equation in the Filing.

A: The approach in this Filing is consistent with prior property filings of the Bureau. Premiums should equal expected losses, plus expected expenses, plus a margin for a fair and reasonable profit. This is the fundamental insurance ratemaking equation to comply with the statutory ratemaking standard. In this Filing, the required base rate per policy is developed by adding the appropriate profit and contingencies to the estimated costs associated with the policy. The required base rate is then compared to the current base rate to determine the "indicated" rate change. For residential dwelling filings, this is done separately for the two types of coverage afforded by the policy, the Fire portion and the Extended Coverage portion.

The indicated rate change is the actuarially sound percentage change necessary to make the rates comply with the statutory standards that they not be excessive, inadequate or unfairly discriminatory.

Q: What is the source of the data utilized in Exhibit RB-1?

A: The Bureau has the statutory responsibility of filing forms and making rates for all residential dwelling insurance policies written in North Carolina (with the exception of such policies that may be written by county farm mutuals pursuant to N.C.G.S. 58-36-50). For purposes of Bureau rate filings for residential dwelling, all dwelling loss and exposure data written on NCRB policy forms in the state is consolidated to essentially assume a single insurance entity (often called the "hypothetical one company"). ISO, on behalf of the Bureau, combines the data as to those policies in its filings as if there were a single company with the aggregate loss experience of all those policies. Rates are then analyzed in rate filings as if those rates were being made for this hypothetical one company. The ratemaking data reflected in Exhibit RB-1 is, in general, based on the aggregate dwelling experience of the

individual insurance companies that write residential dwelling policies in North Carolina, together with the experience written on dwelling insurance policies in the residual market as described below. Those entities submit their data to one of the four statistical agents described above. The four statistical agents subject each entity's data to a series of verification edits and then consolidate the individual company data. The non-ISO statistical agents then transmit their consolidated data to ISO for final review and consolidation with the ISO data. After consolidating the data, ISO produces exhibits of the combined data in a format and detail necessary for review by the Bureau committees and ultimately for use in rate filings.

The latest year of available statistical data used in the Filing is 2021. In 2021, the total earned premium (at current rate level) for the Fire portion of dwelling policies was approximately \$75 million. In 2020, the total earned premium (at current rate level) for the Extended Coverage portion of dwelling policies was approximately \$281 million. These dollar amounts include both residual market mechanisms that write residential dwelling policies.

The statistical agents are licensed by the Commissioner of Insurance in North Carolina. They have collected, reviewed, compiled and submitted the data underlying this filing in the regular course of their business responsibilities. Note that the statistical data provided by NISS has been excluded from the NCRB's dwelling rate analysis since over 98% of its reported premium is not written using the Rate Bureau's policy program.

Also, let me note that, any time I reference dwelling insurance, dwelling policies, or dwelling experience in this testimony, I am referring to residential dwelling insurance written using the Bureau's program.

- Q. Please describe what are commonly called the "Beach Plan" and the "FAIR Plan" and the role of their loss data in this filing?
- A. They are both residual market organizations that write policies for those policyholders who can't obtain insurance in the voluntary market.

The term "Beach Plan" is a commonly used name for the North Carolina Insurance Underwriting Association. It is a residual market organization created by the North Carolina legislature in Article 45 of Chapter 58. It writes dwelling, homeowners, and other types of insurance for policyholders in the 18 coastal counties. It uses forms, rules and rates filed by the Bureau. Although voluntary insurers have chosen not to accept the risk of writing policies that have been written by the Beach Plan, North Carolina law requires voluntary insurers to pay any losses that exceed the Beach Plan's resources, up to an aggregate statutory cap of \$1 billion annually. The significance of such non-recoupable assessments on the companies is discussed later in my testimony.

The Beach Plan uses the same dwelling forms that are used by voluntary companies. Those forms have been prepared and filed by the Bureau on behalf of all member companies. The Beach Plan writes policies in its own name. The Beach Plan receives and retains premiums, adjusts losses, reports statistics and operates in a manner similar to voluntary insurance companies in many respects. It uses dwelling forms and rates filed by the Bureau, except that it applies a 5% statutory surcharge on the wind and hail rate where it writes only the wind and hail coverage on dwelling policies. When the Beach Plan reports its statistical data to ISO, ISO reviews those statistical data in the same manner that it does for voluntary companies.

The second residual market mechanism in North Carolina is the called the North Carolina Joint Underwriting Association or Fair Access to Insurance Requirements organization (commonly called the "FAIR Plan.") It writes in all areas of the state except the beach. It writes dwelling fire and extended coverage policies but does not write homeowners policies. No surcharge is applied to FAIR Plan policies. Full residential dwelling policies written by the Beach Plan and FAIR Plan are written at the Bureau rate.

When a prospective policyholder seeks dwelling insurance, it is not predetermined whether the policyholder will be written by the Beach Plan or FAIR Plan, or instead by a voluntary company. Policyholders can switch back and forth between the residual market and a voluntary company depending on which option works best for them and depending on whether a voluntary company will write them. In computing the exposures and the loss experience of the hypothetical one company in North Carolina for which rates are being made in this Filing, the exposures and loss experience of the Beach Plan and the FAIR Plan must be combined with the rest of the data as if the Beach Plan and FAIR Plan were private insurance companies.

North Carolina statutes distinguish between the "beach" and "coastal" areas under the Beach Plan's jurisdiction. In the 18 beach and coastal counties, the residual market is the largest writer of dwelling policies. Approximately 96% of dwelling premium in the "beach" territories (territories 110 and 120) was written by the Beach Plan in 2021. In the "coastal" territories (territories 130, 140, 150 and 160), approximately 80% of the dwelling premium was written in either the Beach Plan or the FAIR Plan. Also, dwelling policies have increasingly been written by the FAIR Plan in the rest of the state. In the inland territories making up the rest of the state, approximately 46% of the dwelling premium was written by the FAIR Plan. This means that the residual market is also the largest writer of dwelling policies in the inland territories. On a statewide basis, approximately 64% of dwelling premium was written in either the Beach Plan or FAIR Plan in 2021. This represents an increase from the 62% statewide market share observed in 2020.

Individual companies can charge more or less than the approved Bureau rates through consent to rate and deviations, respectively. Such actions by individual companies are outside of the Bureau's jurisdiction. In recent years, there has also been a significant growth in the use of consent to rate, by which companies may charge higher premiums on individual policies through compliance with the consent to rate procedures.

Over the years, the Beach Plan's and FAIR Plan's large market shares reflects the fact that voluntary companies are unwilling to write in areas of the state where the manual rate level is inadequate. This inadequacy has generally been more pronounced in the beach and coastal areas. However, in recent years, the increasing market share of the FAIR Plan in the inland territories reflects a growing inadequacy of the manual rates there as well. But for this significant and growing manual rate level inadequacy, with numerous companies competing in the state, normal competitive market forces would prevail and companies would write more dwelling insurance voluntarily. In the beach and coastal areas, this high market share has occurred despite the fact that the legislature intended the Beach Plan to be the "market of last resort" in those areas.

Loss and exposure data from these two residual market organizations have always been included in Bureau property filings for the line of insurance (the homeowners line of insurance or the dwelling fire and extended coverage line of insurance) under review, in the same manner as loss and exposure data from voluntary insurance companies that write that line of insurance. It is actuarially appropriate and necessary to include the residual market data with the voluntary data to ensure that the rates developed are representative of the entire market, since every policy has the potential to be written in the voluntary market.

The inadequacy of dwelling rates creates a dilemma for the Beach Plan and FAIR Plan. On the one hand, the inadequate rates diminish their ability to build up sufficient surplus in the "good" years when there are no hurricanes in order to provide a cushion to pay losses in the "bad" years when severe hurricanes occur. Even in the good years, they have to pay claims for higher frequency insured events such as fires, etc.

The Beach Plan's and FAIR Plan's approach has been to purchase both reinsurance and catastrophe bonds. Whatever amounts they spend in the reinsurance and catastrophe bond markets is at the expense of building up their surplus in those years when hurricanes do not affect North Carolina.

Q. What are some of the other consequences of the inadequacy of Bureau manual rates, both at the coast and in the rest of the state?

A. The prospect of Beach Plan and FAIR Plan assessments affects the willingness of a company to write property insurance in North Carolina. A company knows that, following a powerful hurricane, it will be subject to residual market assessments for

huge losses on business that the company did not choose to write in the first place, and those assessments are based on the company's market share throughout the state. Therefore, companies that elect to write in the state must consider the extent that they will do so in various areas of the state, particularly in the beach and coastal territories where the risk of hurricane losses is greater.

Q: What statistical data supporting the filing are contained in Exhibit RB-1?

A: In general, the supporting data for the rate level changes are contained in Section C. The most recent five years of experience are displayed in Section C. Using five years is consistent with prior filings, North Carolina statutes, and generally accepted ratemaking practices.

The loss experience used in the filing is what we call "accident year" experience for the years ended December 31, 2017 through December 31, 2021. This is the most recent five years of data available. I can explain what is meant by accident year experience by providing an example. The losses for the accident year ended December 31, 2021 consist of all losses caused by accidents which occurred during the one-year period ended December 31, 2021. If an accident occurred on December 29, 2021 and resulted in either a loss being paid or a reserve being established after January 1, 2022, that loss would be a part of the accident year losses for the period ended December 31, 2021. The basis for assigning losses to individual accident years is the date the accident occurred. The term "accident year" is an insurance accounting term that includes the various incidents that give rise to a dwelling insurance claim, including fires, hurricanes, tornados, etc. during a 12-month period.

Q: What is the reason for using five years of data to determine the indicated rate level change?

A: Ratemaking is prospective in nature. The objective is to set rates at the level that is sufficient to pay expected losses, expected expenses, and to allow insurance companies to earn a reasonable margin for profit. This is the fundamental equation in insurance ratemaking for determining an adequate rate level; i.e., a rate level that is not "excessive, inadequate or unfairly discriminatory" as required by law.

Rates are set for the period when they will be in effect, which is often the year after the effective date of the filing. The assumed effective date for this filing is June 1, 2024. Historical loss data are generally used for the purpose of projecting expected losses. The North Carolina statutes allow the Bureau to review five years of experience in its rate level filings in addition to other factors that are to be considered. For non-catastrophic types of loss, the use of five years of data balances the stability of the rates with responsiveness to more recent conditions. For catastrophic hurricane losses, the average of modeled losses from two hurricane models is used.

Traditional ratemaking for the fire coverage of a dwelling policy has relied on five years of experience with weights of 0.10, 0.15, 0.20, 0.25 and 0.30 being given to each year respectively. For the Fire portion of the policy, accident year 2021, the most recent year for which data is available, receives a weight of 30%. Accident year 2020 receives a weight of 25%. Accident year 2019 receives a weight of 20%. Accident year 2018 receives a weight of 15%. Accident year 2017 receives a weight of 10%. Those weights are used in this filing as in past Bureau dwelling filings. The weights used by the Bureau are identical to those used by ISO in all other states for dwelling Fire insurance. These weights are generally accepted in all jurisdictions in which ISO makes dwelling filings. For the extended coverage portion of the dwelling policy, which by nature is more likely to be unstable because of weather events, equal weights are given to each year to help promote stability. This treatment is a common and accepted ratemaking practice used countrywide.

Q: How is the Bureau proposing to implement the indicated rate changes?

A: The Bureau's Governing Committee has decided to file the indicated territory rate changes for both Fire and Extended Coverage. Page A-3 shows the indicated and filed rate changes, separately for Fire and Extended Coverage.

Q: Please turn to page C-2 of Exhibit RB-1. Would you explain what that page shows?

A: Page C-2 is what is called a statewide rate level calculation for the Fire portion of a dwelling policy in North Carolina. Page C-2 determines the actuarially indicated rate level change for dwelling Fire. The data shown are for business written in the voluntary market and business written by the North Carolina Beach and FAIR Plans.

The overall dwelling program to which this filing applies consists of both a Fire and an Extended Coverage ("EC") component. Page C-2 shows the calculation of the indicated rate change for the Fire component, and Page C-4 shows the corresponding indicated rate change for the EC component. I will first focus on describing Page C-2. However, later parts of my testimony will refer to the EC calculations on Page C-4.

Q: Referring to column 1 on page C-2, what are "Adjusted Incurred Losses"?

A: The incurred losses in column 1 are the losses from insured events that occurred during each of the five respective accident years. The figure includes losses which have already been paid, losses which are not yet paid and are represented by outstanding claim reserves, and losses which have been incurred but for which no individual reserve yet exists because they have not yet been reported.

Q: Have the losses as shown in column (1) been adjusted in any way?

A: Yes, as explained below, there are two adjustments. First, these losses have been adjusted to a common \$500 deductible level. Second, these losses have been developed to ultimate by applying loss development factors.

Q: Please explain what is done to adjust losses to a common deductible level.

A: In order to properly analyze losses for ratemaking, it is necessary to adjust losses from all policies to some common deductible level. The common deductible level that is assumed for dwelling is the base deductible of \$500. Loss elimination ratios (LERs) are applied to the reported losses in order to account for the difference between the reported deductible and the assumed common deductible.

Q: What is the purpose of adjusting the reported losses by applying loss development factors?

A: The losses in column 1 of page C-2 include losses from events which have happened but which have not yet been reported. Such events are included by what is known as an adjustment for IBNR (incurred but not reported) losses.

In addition, adjustments must be made to reflect that loss payments occur over time. The losses, as they are reported to statistical agents, cover all accidents which occur during the respective accident years ended December 31. When they are reported to the statistical agent, they are evaluated as of March 31 of the next year. As of March 31, some of the losses have already been paid and some have not. Those that have not are represented by loss reserves. Loss reserves are estimates of what will ultimately be paid on these outstanding claims.

Since we want the losses used in the filing to be as accurate as possible, we look at history to see how losses have changed, or “developed,” from the time they were initially reported to the time they were ultimately paid. For example, if we want to evaluate how losses reported in 2021 will eventually turn out, we look back and see what has happened in the past. If historically there has been a 5% increase in the dollar amount of losses from the time they were initially reported as reserves until the time they were ultimately paid, we would logically assume that the same development will hold true for losses incurred during the accident year ended December 31, 2021. Accordingly, we would make an adjustment by increasing the losses as they are initially reported to us by 5%.

Q: What causes losses to change or develop as you have described?

A: Changes to the reserve portion of the losses typically result from the fact that the ultimate loss payments turn out to be more or less than estimated at the time of the initial report that led to the reserve. Another factor that could lead to changes in losses is the late reporting of claims. For example, if a loss event occurred in late December of any given year and for some reason was not timely reported to the company by the end of the year, it might very well be that the losses as initially

reported would not include any provision for that particular claim. By next year's evaluation, however, the claim would have worked its way into the system and the total loss would include either the paid amount or the reserved amount for that particular claim. This would cause an upward development in the losses as initially reported.

Q: Please refer to page D-12 of RB-1 and explain how the loss development factors used in the filing were calculated.

A: Page D-12 shows the calculation of loss development factors for the fire portion of a dwelling policy. The top section of that page shows the incurred losses evaluated as of 15, 27, 39, 51, 63, 75 and 87 months for the accident years for which available data are shown. In calculating loss development factors, we have used the data of companies reporting to ISO. For instance, the 15-month entry for the accident year ended December 31, 2016 is \$11,975,398. This is the first evaluation of the losses caused by loss events which occurred during the year which ended December 31, 2016. The evaluation was made as of March 31, 2017, 15 months after the beginning of the accident year. Twelve months later (March 31, 2018) the losses caused by accidents which occurred during the year ended December 31, 2016 had decreased to \$11,674,797. This is the evaluation as of 27 months after the beginning of the accident year. This decrease represents a reduction in losses, or negative development, of -2.5% (or 0.975) as shown in the column under Link Ratios located lower on that page labeled "27:15." As shown on page D-12, we have looked at the development from 15 months to 27 months for eleven different years. The average development for those years was 0.963, or -3.7%.

Q: Does page D-12 also show development figures for periods longer than 27 months?

A: Yes. We also calculate loss development factors for the periods from 27 months to 39 months, 39 months to 51 months, 51 months to 63 months, 63 months to 75 months, and 75 months to 87 months. Studies have shown that for dwelling fire virtually all losses have been paid by the time of the evaluation at 87 months after the beginning of an accident year. For example, by the time of the 75-month evaluation, the losses for the accident year ended December 31, 2016 had become \$11,529,440. This amount is the same as the value of the losses for the same accident year evaluated as of 63 months. The average development over the period 63 months to 75 months for the years for which the data are available was 1.000, or 0.0%.

Q: Please explain how the loss development factor used to determine the ultimate payment value of the accident year ended December 31, 2021 losses was determined.

A: For dwelling fire, the loss development factors for each of the applicable periods, as shown on page D-12, are:

<u>Development Period</u>	<u>Factor</u>
15 to 27	0.963
27 to 39	0.997
39 to 51	0.998
51 to 63	1.000
63 to 75	1.000
75 to 87	1.000

If you multiply all of these factors together, you will get a factor of 0.958 to apply to the year ended December 31, 2021 losses.

Q: Please refer to column (2) of page C-2. With reference to the column headed "Adjusted Incurred Losses Including LAE," please tell us what the figure 48,908,271 represents.

A: These are the losses and loss adjustment expenses associated with claims that occurred in the accident year ended December 31, 2021. It is equal to the adjusted incurred losses found in Column (1), multiplied by a trended loss adjustment expense factor of 1.083.

Q: How is the trended loss adjustment expense factor of 1.083 developed?

A: Each year the Bureau sends a call to its member companies for expense-related data. These calls showed that loss adjustment expenses for the calendar years December 31, 2017, December 31, 2018, December 31, 2019, December 31, 2020 and December 31, 2021, after dropping the high and low values, averaged 8.7% for the period, as shown on page D-24.

This factor of 8.7% must be adjusted for the change in cost levels of the items that go into loss adjustment expenses. These expenses include items such as adjusters' salaries, rents and overhead items related to claims settlement. In essence, these items will vary as general economic trends vary.

Q: Please explain how the expense trend used to adjust the loss adjustment expense factor is developed.

A: The expense trend used to adjust the loss adjustment expense factor is based on an analysis of the Current Expense Index, which is an index based on a 50% weighting to the Compensation Cost Index, a 25% weight to the all items CPI (less energy) and a 25% weight to the all items CPI (including energy). The latest available information for marine, fire and casualty insurance was used. The data for this index are shown on pages D-20-21. Based on an analysis of these data, an annual rate of change of 5.5% was selected by the Property Rating Subcommittee of the Bureau.

Q: Please explain the development and application of the expense trend factor in arriving at the loss adjustment expense factor.

A: The loss adjustment expense factor of 8.7% is equal to the five-year average (excluding the high and low values). As such, the factor is representative of the time period corresponding to July 1, 2019.

Since the Loss Adjustment Expense ratio is at the cost level corresponding to July 1, 2019, it is necessary to project this cost to the average date of accident for the period during which our rates are assumed to be effective, June 1, 2025 (one year beyond our assumed effective date of June 1, 2024). This calculation is displayed on page D-28.

Q: What other adjustments must be made to the Loss Adjustment Expense factor in order to use it?

A: The Loss Adjustment Expense Factor is determined as the ratio of loss adjustment expenses to losses. Having adjusted the expense portion of the factor in the numerator, we also need to adjust the losses in the denominator by the relevant loss trend. This calculation is performed on page D-28.

Q: Please explain the purpose of trending losses.

A: Since ratemaking is prospective in nature, historical losses need to be adjusted to reflect the cost levels anticipated to prevail during the period that the proposed rates are expected to be in effect. This adjustment to historical losses is made by applying loss trend factors. For the calculations in this filing, the assumed effective date is June 1, 2024. Historical losses are trended to reflect an average accident date of June 1, 2025 (which is one year after the assumed effective date of June 1, 2024). The loss trend factors are shown in Column (3) of page C-2 of Exhibit RB-1.

Q: Please describe how the loss trend factors are calculated for non-hurricane losses.

A: For non-hurricane losses, loss trend factors are calculated on pages D-14 to D-16 of Exhibit RB-1.

Page D-14 shows historical growth in claim frequencies, loss severities, and pure premiums that occurred during the historical experience period for fire. Based on this information, the Bureau's Property Rating Subcommittee selected annual rates of change in frequencies, severities, and pure premiums. Separate annual rates of change were selected for two different time periods –the historical time period and the prospective time period. Annual rates of change for the historical time period are used to trend the historical loss experience to the average accident date of the latest year (July 1, 2021). Annual rates of change for the prospective time period

are used to trend losses from the latest year to an average accident date of June 1, 2025 (which is one year after the assumed effective date of June 1, 2024).

When selecting the prospective annual trend for loss severities, the Bureau's Property Rating Subcommittee considered the impact of increases in inflation that have occurred after the time period associated with the historical experience period. The historical experience period that reflects accident years 2017 through 2021 wouldn't capture the impact of higher rates of inflation observed during 2022 and 2023.

Page D-16 shows how the selected annual change in losses was converted to loss trend factors that can be applied to each of the accident years. The loss trend factors shown in Column (7) reflect the combined impact of loss trend over the historical and the prospective time periods. These loss trend factors also appear in Column (3) of page C-2.

Q: Please explain the purpose of premium trend factors in Column (5) of page C-2.

A: Since ratemaking is prospective in nature, it is important to adjust historical experience so that it will be reflective of future conditions. Due to the impact of inflation, insureds generally purchase higher policy limits over time. Premium trend factors are used to adjust historical experience to reflect subsequent changes in average policy limits over time.

Q: Please describe the calculation of the premium trend factors in Column (5) of page C-2.

A: The premium trend procedure is based on the annual growth in average policy amount relativities during the experience period. This procedure is displayed on pages D-17 and D-18.

The premium trend factors are calculated in a two-step process. The first step involves calculating Current Amount Factors for each year. The Current Amount Factors trend the average policy amount relativity from a given historical year to the average date of writing for the latest accident year of the review (January 1, 2021).

The Current Amount Factors are calculated by taking the ratio of the average policy size relativity for the most recent year to the average policy size relativity for each of the five years in the experience period. For a given year, the average policy size relativity is calculated by taking a weighted average of the policy size relativity factor for each amount of insurance, using the exposures for each amount of insurance as weights.

The second step involves accounting for the trend in average policy size relativities from January 1, 2021 (which is the average date of writing for accident year 2021) to December 1, 2024 (which is six months beyond the assumed effective date of

June 1, 2024). The prospective annual change in policy size relativities was selected by the Bureau's Property Rating Subcommittee after reviewing the fitted annual rate of change in policy size relativities during the historical experience period. As with loss trend, the Bureau's Property Rating Subcommittee selected prospective annual changes in policy size relativities after considering the effect of increases in inflation that have occurred after the time period associated with the historical experience period.

Q: Could you please explain the average rating factor Column (7) on page C-2?

A: Column (7) is the average rating factor for the policies purchased in each year. The average rating factor is the ratio of the average rate at manual level to the average current base rate. For example, let's assume that the current territory base rate for frame construction with \$75,000 buildings coverage is \$100, that the rating factor for masonry is 0.9 and that the rating factor to purchase an additional \$25,000 of coverage A is 1.2. Then the average rating factor for a \$100,000 masonry policy is calculated as:

$$(100 * 1.2 * 0.9) / 100 = 1.08$$

This factor is needed to adjust the average trended loss costs in Column (6) to a base class level. Since most policyholders do not purchase exactly the base amount of coverage, the average trended loss cost is divided by the average rating factor to convert this average trended loss cost into a trended base class loss cost which is shown in Column (8). The derivation of the average rating factors for fire is shown on pages D-32 to D-41.

Q: Please explain the Weighted Trended Base Class Loss Cost, page C-2 Line 10.

A: Line 10 is the resulting Weighted Trended Base Class Loss Cost obtained by applying the accident year weights shown in Column (9) to the Trended Base Class Loss Cost for each year shown in Column (8). This Weighted Trended Base Class Loss Cost is the forecasted Base Class Loss Cost for policies written during the one-year period after the assumed effective date of June 1, 2024.

Q: Please explain credibility on Line 11, page C-2.

A: Line 11 is the credibility of the experience based on the number of house years during the 5-year period. The full credibility standard is based on a procedure that considers the frequency of claims and the variability of the size of those claims. The procedure is explained in a CAS Proceedings Paper "Credibility of the Pure Premium" by Mayerson, Jones and Bowers. The full credibility standard is based on a normal distribution with a 90% probability of the pure premium being within 10% of the expected value. The full credibility standard for Fire is 500,000 house years and 330,000 house years for Extended Coverage.

Q: Please explain what Line 12 entitled “trended fixed expense per policy” on page C-2 refers to and what it represents.

A: Line 12 “trended fixed expense per policy” refers to the amount of the prospective premium dollar needed to cover general and other acquisition expenses on policies written in the prospective period. General expenses along with other acquisition expenses constitute the so-called fixed expenses. They are fixed in that they do not vary as a direct function of the premium dollar. For example, the cost of office equipment, rent and other overhead-type expenses are fixed expenses. Expenses such as commissions and premium taxes, on the other hand, are examples of expenses that rise or fall directly with premium.

The number shown on Line 12, \$3.57, represents the dollars of general and other acquisition expenses trended to the levels anticipated to prevail during the prospective period. This is appropriate because general and other acquisition expenses are normally incurred at the time a policy is written.

Q: Please explain how the figure \$3.57 on Line 12 of page C-2 was derived.

A: The derivation of the figure \$3.57 is shown on page D-28. Based on reviewing the 2019 to 2021 experience on page D-22, the Bureau’s Property Rating Subcommittee selected an untrended general expense ratio of 0.050 and an untrended other acquisition expense ratio of 0.082.

In order to trend these to the cost levels anticipated to prevail, we project these forward to the prospective period. The average selected expense trend of 5.5% is applied over the time period from July 1, 2020 (the average date of the experience on which the general expense ratio is based) to December 1, 2024 (the average date of writing under the proposed rates). Since this ratio is relative to premium, we must also project the amount of insurance from 2020 levels to the level anticipated to be in effect on business written between June 1, 2024 and May 31, 2025. This is done by using the Premium Trend Factor for 2020 of 1.238, which I have previously discussed.

This trended fixed expense ratio is then multiplied by the latest year current base rate of \$26.48. The result is a statewide dwelling fire fixed expense loading of \$3.57.

Q: What does Line 13 show on page C-2?

A: Line 13 is a combination of the Trended Base Class Loss Cost and the Trended General Expense and Other Acquisition expenses. The figure \$23.13 is the dollar amount that is required to cover the portion of the base rate that is needed to cover anticipated losses, loss adjustment expenses, general expenses and other acquisition expenses.

Q: What does Line 14 on page C-2 show?

A: Line 14 takes into account the variable expenses, which include commission and brokerage, taxes, licenses and fees, profit, contingencies and dividends. From page D-22, we see that the commission and brokerage ratio is 11.3% and the taxes, licenses and fees ratio is 2.9%. The provision for dividends is 0.4%. The provision for underwriting profit is 8.5%. The contingency provision is 1.0%.

As in past dwelling filings, Bureau committees reviewed the latest available policyholder dividends payment data as well as the multi-year history of companies consistently paying dividends to policyholders. The Bureau's subcommittee concluded that a factor for expected dividends is appropriate to include in this filing. The data contained on page D-22 show that the dividends, though constituting a small percentage of premium, have been paid consistently and in material amounts over the years. Based on these facts, the Bureau has included a provision of 0.4% of premium to reflect anticipated dividends during the experience period. Given the consistency of the historical data as to the payment of dividends, this is a reasonable assumption. Reflecting dividends in a filing by a rating bureau is an actuarially sound methodology, and doing so is consistent with the Statement of Principles Regarding Property and Casualty Insurance Company Ratemaking, which provides that rates should contemplate the cost of policyholder dividends. Policyholder dividends are returns of premium to a company's policyholders and are not the same as dividends that publicly traded stock companies (owned by shareholders) pay to their shareholders. If dividends were not reflected in the Bureau's rates, the profit level in the filing would not be achieved because of dividends paid to policyholders.

The 8.5% underwriting profit provision was selected by the Bureau's committees based on reviewing the analysis by Dr. George Zanjani. This filing also contains a 1% provision for contingencies. The profit and contingency factors are applied equally across the state.

The items known as variable expenses are reflected in Line 14. They vary in direct proportion with the premium dollar.

Combining variable expenses, profit, contingencies, and dividends results in 24.1 cents of every premium dollar being paid for these expenses. The remaining 75.9 cents pays for losses, loss adjustment expenses, general expenses and other acquisition expenses.

Q: What is the source of the percentages on page D-22 with respect to commissions and brokerage and taxes, licenses, and fees?

A: The Bureau conducts special expense data calls annually. Companies individually complete the special expense call, which includes reporting expense dollars as well as premiums at collected level and adjusted to manual level. The Bureau checks

and compiles this information for all companies and sends it to ISO for use in the rate review and the Filing. The percentages on page D-22 were calculated from the 2017, 2018, 2019, 2020 and 2021 North Carolina expense calls for data undertaken by the Bureau.

The percentages for Commissions and Brokerage, and Taxes, Licenses, and Fees are a function of written premium. The determination of whether to select expenses as a percentage of written premium or as a percentage of earned premium is influenced by which premium best matches the time at which the expenses are incurred. For commissions & brokerage, the selection was 11.3% for Fire and 9.1% for Extended Coverage (see pages D-22 and D-25). For taxes, licenses and fees, the selection was 2.9% for Fire and 2.6% for Extended Coverage (see pages D-22 and D-25). General and other acquisition expenses are determined based on a ratio to earned premium at manual level. The North Carolina special calls for 2017, 2018, 2019, 2020, and 2021 were used for these as well. The selected general expense provision was 5.0% for Fire and 4.0% for Extended Coverage (see pages D-22 and D-25). The selected other acquisition expense provision was 8.2% for Fire and 7.0% for Extended Coverage (see pages D-22 and D-25). These selections are then adjusted by ISO to reflect trend.

Q: What is the source of the percentage on page D-22 for contingencies?

A: The Bureau committees selected that factor, and I agree with it. A 1% factor has been consistently employed in past Bureau property insurance rate filings. A 1% contingency factor is a standard factor that has been used for many years across the country in property insurance ratemaking. The factor was selected by the Bureau committees based upon recognition of the systematic bias that causes actual underwriting results, analyzed over time, to be worse than the provision assumed in the rates. Reasons for this bias are many.

One reason is that property insurance involves many risks, but not all of them are observable in the experience or adequately recognized in normal ratemaking.

In addition, the writing of property insurance in North Carolina is subject to law changes, court interpretations, jury verdicts and judicial decisions that expand losses beyond what was contemplated when the policies were written. In addition, major unexpected losses can and do come from large and infrequent events of a type and magnitude that are not reflected in the experience period. One historical example is the sudden surge of mold claims around the early 2000's that far exceeded the amounts seen in experience periods.

Additional considerations justifying a contingency factor include the delay, uncertainty and difficulty in obtaining needed rate increases in North Carolina. In North Carolina and a very few other states, insurance companies writing dwelling insurance are required to go through rating bureaus in order to achieve needed rate

increases. This regulatory system can cause significant delay in obtaining needed rate level increases. North Carolina differs from states that rely more on competition to set rates. The system in this state requires that data be collected from many companies writing dwelling insurance and then aggregated and analyzed prior to making a filing for adequate rates on behalf of all companies. As the physical size of this 2023 filing demonstrates, the amount of information required to be submitted is massive, and it takes significant time to compile that information. Mr. Anderson of Milliman (see his pre-filed testimony and exhibits) has concluded that a 1% contingency provision is fully supported by this single issue regarding the delay in obtaining needed rate increases in North Carolina.

Q: Would you explain Line 15 on page C-2 entitled “Base Class Rate Excluding Comp. for Assess. Risk & Dev.”?

A: The net base rate per policy is calculated by dividing the Loss and Fixed Expenses in Line 13 by the expected loss and expense ratio in line 14. This is the net base rate before incorporating the factors for deviations and the compensation for assessment risk per policy.

Q: Would you explain Line 16 on page C-2 entitled “Compensation for Assessment Risk per Policy”?

A: Compensation for assessment risk is a provision that is calculated by Ms. Mao of Aon (see her prefiled testimony and exhibits) to reflect the cost to voluntary market insurers of maintaining sufficient capital to pay the assessments for residual market losses, to the extent required by law. If the two residual market mechanisms (the Beach Plan and the FAIR Plan) do not have sufficient capital, reinsurance and reserves to pay losses for a catastrophic hurricane event or series of events, then companies writing homeowners, dwelling and other lines of property insurance in the voluntary market will be assessed for such losses even if they had chosen not to write in the coastal or beach areas where the losses occurred. In effect, the voluntary market companies are being required to provide free reinsurance to the residual market and its policyholders who can only find coverage in the residual market. The voluntary market companies must therefore maintain capital sufficient to cover such losses, in addition to their own losses, even though those companies have elected not to write the policies that generate those losses. The compensation for assessment risk factor is the provision that must be included in the rates in order to compensate voluntary market insurers for bearing this risk of assessments from the Beach/FAIR Plans.

As a result of legislative action in 2009, some of the exposure of the voluntary market companies to residual market assessments has been capped at one billion dollars per year. Aon’s analysis of the necessary compensation for the risk of residual market assessments incorporates this cap.

It should be noted that the \$1 billion cap only applies to assessments by the Beach Plan (which writes business in the beach and coastal areas) and does not apply to assessments to pay for losses in the FAIR Plan (which writes business in all areas of the state except the beach areas). In the recent several years, the FAIR Plan has rapidly increased its writings statewide. As the number of policies and amount of uncapped exposure in the FAIR Plan grows, that growth could impact the compensation for assessment risk. Those policies are vulnerable to losses from catastrophic hurricanes, and companies are subject to unlimited assessments from these losses.

The compensation for assessment risk amount of 0.50 per policy is calculated by first multiplying the 1.6% provision by the current average statewide base rate of 26.68, resulting in a value of 0.43. To be incorporated in the rates, however, this provision must be adjusted to account for the commissions and taxes, licenses and fees that the companies will need to pay on this additional premium. That is done by dividing the 0.43 by 1 minus the sum of commission and brokerage expense and taxes, licenses and fees expense as shown below.

$$\frac{0.43}{1 - 0.113 - 0.029} = 0.50$$

Q: What is the source of the percentages used on Line 18 for anticipated deviations?

A: As in past dwelling filings, the Bureau committees reviewed deviations. Deviations are a cost of doing business in North Carolina for the insurers that have them approved by the Department. They are a cost of risk transfer and therefore need to be contemplated in the rates according to the Statement of Principles Regarding Property and Casualty Insurance Ratemaking. They constitute “savings” that must be considered pursuant to statute. Companies are required to report their approved deviations. If rates were set without contemplating deviations, the industry would not achieve the profit provision included in the rates. The Bureau reviewed deviations in conjunction with consent to rate data and surcharges on dwelling policies written in the Beach Plan. The Bureau and ISO believe that it is actuarially appropriate for filings made by rating bureaus to contain a factor to reflect expected deviations and other variations from the manual rate that would result in the filed profit level not being achieved. The Bureau also recognizes that the reflection of expected deviations has been a contentious issue in previous rate filings. However, in this filing the Bureau elected to file a provision of zero for deviations.

Q: Would you explain Line 20 on page C-2 entitled “Required Base Class Rate per Policy”?

A: Line 20 is the required base rate that is needed to ensure that sufficient revenue is collected to cover the losses and expenses that are expected to result from the policies written during the year following the effective date of this filing.

Q: Would you explain line 21 on page C-2 entitled “Current Average Base Class Rate”?

A: Line 21 is the current average base class rate for Fire on all dwelling policies included in the review. This rate assumes that each policyholder is buying only the base coverage.

Q: Would you explain Line 22 on page C-2 entitled “Indicated Rate Level Change”?

A: Line 22 is the percentage change in the current rates that will be necessary to make the rates adequate for the cost levels that are expected to prevail in the one-year period following the effective date of the filing. The percentage change is determined by taking the required base rate per policy on Line 20 and dividing it by the current base rate from Line 19. This results in an indicated rate level change of 16.1% for the fire portion of dwelling policies.

Q. How are these changes distributed by class?

A. On page C-7, the calculations of the indicated change for fire buildings and contents classes are shown. Column (1) displays the Trended Adjusted Incurred Losses for each of the two classes - buildings and contents. The losses shown are for the latest five years. Column (2) gives the Five-Year Earned House Years total, which is the sum of the exposures by class for the five-year period. Column (3) provides the Trended Average Rating Factor. Column (4) gives the Base Class Loss Cost for each class and total. This loss cost is obtained by dividing the five-year total trended adjusted incurred losses by the five-year total house years times the trended average rating factor. Column (5) is the credibility assigned to each class’s experience, based on the full credibility standard of 500,000 house years for fire. Column (6) is the Credibility Weighted Loss Cost for each class. The complement of credibility for use in this calculation is the Total Base Class Loss Cost multiplied by the ratio of the current base rate for each class to the total current base rate.

The statewide credibility weighted loss cost is obtained by weighting the class credibility weighted loss cost by the individual class house years. Column (7) provides the Indicated Base Loss Cost by class.

This is the statewide base loss cost adjusted by the class relativity indicated by the credibility weighted loss cost. Column (8) shows the Current Base Rate by class. Column (9) displays the Expected Loss and Fixed Expense Ratio. The Indicated Base Rate is shown in Column (10). The indicated base rate is the sum of the loss cost and fixed expenses divided by the expected loss and fixed expense ratio. Column (11) is the Compensation for Assessment Risk Per Policy. Column (12) is the Base Rate Excluding Deviations. Column (14) is the deviation amount per policy that is needed to be reflected in the required base rate. Column (15) is the sum of the indicated base rate before deviations in Column (12) and the deviation amount in

Column (14). Column (17) shows the Indicated Base Rate Change by class. Column (18) shows the Indicated Rate Change Balanced to Statewide Level. This rate change balances to the indicated statewide change of 16.1%.

Q: Does the filing contain a revision to the present territory rate levels?

A: Yes. In connection with the statewide rate level change we have been discussing, new territory rate changes are displayed on page A-3 for the fire portion of dwelling.

The development of the indicated relative change by territory is completed in such a way that the overall effect is to balance to the indicated statewide change. The allocation of the statewide rate change to individual territories is done on pages C-9 and C-10 for the fire portion of dwelling.

Q: How has the Bureau treated general and other acquisition expense by territory?

A: General and other acquisition expenses are treated as fixed expenses. The trended fixed expense per policy by territory is calculated by first distributing the statewide trended fixed expense ratio to each territory. This is accomplished by multiplying the statewide trended fixed expense ratio by the ratio of the statewide latest-year average rate to the territory latest-year average rate. Finally, the trended fixed expense per policy by territory is calculated as the product of the territory trended fixed expense ratio and the latest-year average territory base rate. This calculation is shown on pages D-29 and D-30 of the filing.

Q: Please turn to page C-4 of Exhibit RB-1. Would you explain what that page shows?

A: Page C-4 shows the statewide rate level calculation for the extended coverage portion on a dwelling policy in North Carolina. As page C-2 did for fire, Page C-4 determines the actuarially indicated rate level change for dwelling extended coverage.

Q: Is the indicated statewide rate change for extended coverage calculated in the same general manner as for fire?

A. Although the statewide methodology for extended coverage is similar to that used for fire, there are three main areas where the methodology differs for these two coverages. First, actual hurricane losses for extended coverage, while reviewed and considered, have been excluded from the losses shown in Column (1) and are later replaced by the "Trended Modeled Hurricane Base Class Loss Cost", which is displayed in Line 13 of page C-4. Second, the actual excess non-modeled losses in Column (2) have been replaced by an excess factor loading included in Column (3) of page C-4. The excess loss factor is shown on page D-47. Third, a provision for the net cost of reinsurance is included in Line 20 of page C-4.

- Q. Other than on page C-4, have actual hurricane losses been excluded anywhere else in the filing?
- A. Yes, they have been excluded in the development of the indications for extended coverage by class and by territory, and in the calculation of the non-hurricane excess factor.
- Q. How have these hurricane losses been identified in order to be excluded?
- A. The method to remove hurricane losses from the derivation of the excess factor depends on the detail of the available data during different periods of time.

For the beginning of the period through 1995, territory losses by month are available for ISO data only. The territory non-hurricane losses for this period are calculated as follows: first, the average losses for the month in which the hurricane occurred are calculated based on the non-hurricane years. The average monthly losses are then added to the eleven remaining months of the hurricane year and divided by the hurricane year annual losses resulting in a non-hurricane adjustment factor. This factor is then applied to either reported losses or adjusted losses by territory for all statistical agents to obtain non-hurricane losses. For hurricanes, wind losses are sometimes reported as water losses or "all other" property damage losses. To accurately estimate the non-hurricane losses, the above non-hurricane factors are calculated for water and all other property damage and then applied to the water losses and the all other property damage losses.

For the period 1996 to 2002, based on information from NOAA and other sources, the specific dates on which a given hurricane was active in North Carolina are determined. The loss experience for ISO is then examined by date and cause-of-loss. Wind losses and losses for other weather-related perils which occurred on these dates are assumed to be hurricane losses. For ISO data, the percentage of hurricane losses to total losses is calculated. To estimate the hurricane losses for statistical agents other than ISO, the percentage of hurricane losses in the ISO data (relative to the ISO yearly total) is applied to the total loss amounts for the other statistical agents.

For the period 2003 to 2020, the data described above (for the period from 1996 to 2002) is also available from ISS and has been examined together with the ISO data. For the combined ISO and ISS data, the percentage of hurricane losses to total losses is calculated. To estimate the hurricane losses for statistical agents other than ISO and ISS, the combined percentage of hurricane losses from ISO and ISS data (relative to the ISO and ISS yearly total) is applied to the total loss amounts for the other statistical agents.

Actual hurricane losses of \$264,976 were removed from 2017; \$579,145,860 were removed from 2018; \$27,023,335 were removed from 2019; \$30,753,098

were removed from 2020; and \$2,715,663 were removed from 2021. This information is shown in a footnote on page C-4.

Q. Do you have an opinion as to whether the incurred losses excluding hurricanes shown in Column (1) on page C-4 of Exhibit RB-1 accurately represent the anticipated value of dwelling extended coverage incurred losses, excluding actual hurricane losses, that resulted from claims which took place during each of the years ended December 31 in North Carolina?

A. Yes, I do.

Q. What is that opinion?

A. I believe that the losses excluding actual hurricane losses shown in Column (1) do accurately represent the expected ultimate value of those losses.

Q: Please explain the figure contained on Line 13 of page C-4 labeled "Trended Modeled Hurricane Base Class Loss Cost".

A: That figure is the expected hurricane losses for a base risk written during the prospective time period. Aon provided the average modeled hurricane losses from running two hurricane simulation models -- one developed by AIR Worldwide (AIR) and one developed by Risk Management Solutions (RMS). The average modeled hurricane losses were then loaded with catastrophe loss adjustment expenses (LAE). To obtain an average loss cost value, the modeled loss amounts are divided by earned house years for calendar year 2021. To convert the average trended modeled hurricane losses with LAE to base class level, it is divided by the latest year trended average rating factor. The trended average rating factor is calculated as the product of 2021 average rating factor and the premium trend factor for calendar year 2021. The derivation of the modeled hurricane base class loss cost is shown on page D-79.

Q: How were the modeled hurricane losses calibrated so they would be applicable to the prospective time period that the proposed rates will be in effect?

A: The exposures that were used in the hurricane model runs were trended to six months beyond the assumed effective date of June 1, 2024. Page D-19 shows the calculation of the annual rate of change that was used to trend the exposures that were used as inputs to the hurricane models.

Q: Did the Bureau consider actual hurricane losses?

A: Yes. The actual hurricane losses during the five years of experience were reviewed and considered; however, as has been done in prior Bureau filings, those losses have been excluded from the historical losses used in the filing and have been replaced by modeled losses.

Q. Why were models used to develop the projected hurricane losses instead of using actual hurricane losses?

A. The catastrophic nature of the hurricane peril makes it a very volatile peril in terms of loss severity, frequency and location of occurrence. Catastrophe losses in general tend to be high severity, low frequency events. Since we use five years of loss experience data in dwelling ratemaking calculations, it is likely that there will be scenarios ranging from no hurricane losses to extremely severe hurricane losses during the experience period. Also, if a hurricane were to hit a particular area of the state, the losses might be reflected only in that area of the state, with little or no reflection in other areas of the state. Therefore, if we analyze hurricane losses without any adjustment, the indicated rate level need will be subject to large yearly fluctuations resulting in rates beyond the actuarially sound level.

Devastating hurricanes are relatively uncommon events compared to other causes of loss. The occurrence or non-occurrence of actual hurricane events is not predictive of the range of hurricane events that can occur or the probability of their occurrence. In addition, there is not enough experience with hurricanes since accurate insurance loss records began to be maintained for actuaries to employ actual losses as opposed to models. For the older years, much of the past insurance data is outdated for the purpose of examining hurricane exposure and is of limited utility in projecting future hurricane losses. It includes losses from hurricanes that occurred when housing patterns were different, population density was lower, houses were built differently, building codes were different, construction prices were different, houses had fewer and less expensive contents, and labor costs and practices were different, etc.

The hurricane models are based on publicly available scientific data, mathematical and empirical models, and the experience of engineering, geological, meteorological, economic and insurance experts. Actual hurricane loss experience is also used to calibrate the models. The models are run for a large number of simulated events (e.g. 100K years) to estimate what would be the expected long-term average hurricane losses for a given risk profile. The modeled hurricane losses are accurate, stable, and represent projections of the long-term average annual hurricane losses. There are several advantages of using models to project hurricane losses over using actual hurricane losses, including the following. First, the models improve the accuracy of hurricane loss projection in a long-term average view as described above. Second, replacing the volatile actual hurricane losses with modeled hurricane losses will smooth out the periodic spikes in the indications following hurricanes. Hurricane modeling is the widely accepted and most accurate way of considering the hurricane exposure. Modeling has become the standard practice in the insurance industry for insurers to estimate long term expected hurricane losses for ratemaking purposes, and has been widely accepted by the regulatory bodies in the United States. Modeling is also uniformly employed in the reinsurance industry, financial markets and meteorological field to determine

expected prospective hurricane losses. Scientists who work on the models update those models frequently to reflect the latest understanding of meteorological science.

An example of the need and value of models in producing stable loss costs can be seen from the hurricane season of 2018. In 2018, North Carolina was significantly impacted by Hurricane Florence. If the current rate analysis included the losses due to Hurricane Florence, rather than losses generated by hurricane models, rates would spike. Conversely, if the rates were based on there being no major hurricane strikes during the preceding five-year experience period, it would not be actuarially appropriate to assume that the absence of hurricane losses would be the expectation for a future prospective rating period.

From a practical and public policy standpoint, raising rates significantly following a devastating and often tragic hurricane is the worst time for the policyholder. The use of simulation models produces a stable and actuarially sound projection of the true loss potential both in terms of statewide exposure values and in terms of territorial distribution of that exposure. Modeling is far preferable to any analysis based on the happenstance nature of historical hurricane loss data.

The Property Rating Subcommittee and ISO Staff have examined actual hurricane losses in North Carolina and have excluded those losses from the incurred losses in filings for a number of years. As done for the 2022 dwelling filing, we have replaced the actual hurricane losses with the average modeled hurricane losses from two hurricane models for the rate review underlying this filing, which I deem to be the actuarially sound practice for the hurricane peril.

- Q. Does the Filing in any manner require policyholders in North Carolina to pay the losses or subsidize the rates of policyholders in other states, particularly hurricane prone states such as the Gulf Coast states?
- A. No, it would be actuarially inappropriate to do so. Each state is evaluated separately, and rates in North Carolina are based only on North Carolina's loss potential. Imposing such a subsidy would not be fair to North Carolina policyholders and would not be permitted by North Carolina regulators. There is a greater risk of hurricane losses in Florida and some other Gulf states than in North Carolina, and it would not be fair or actuarially sound for North Carolina policyholders to pay for those losses or subsidize the insurance costs for persons in those areas. For the same reason, it would not be fair or actuarially sound for the Bureau to attempt to spread the hurricane exposure of the hypothetical one company in North Carolina to persons in other states such as in the Midwest where there is little hurricane exposure. Policyholders and regulators in Iowa, for example, would not be willing to share that risk. To summarize, using other states' losses to determine North Carolina rates is unfair and inequitable, and the Bureau does not do this for these reasons.

Q: As an actuary, how have you determined that it is reasonable to rely on output from the hurricane models for purposes of the Bureau's dwelling rate filing?

A. Hurricane models incorporate specialized knowledge (including meteorology and engineering) that is outside the area of expertise of most actuaries, including myself. Actuarial Standard of Practice ("ASOP") 38 titled "Using Models Outside the Actuary's Area of Expertise (Property Casualty)" provides guidance to actuaries in this situation.

I have reviewed the pre-filed testimony of Minchong Mao, including her statement of compliance with ASOP 38 for both the RMS and AIR hurricane models for purposes of the Bureau's dwelling rate filing. Ms. Mao is employed by Aon and is an FCAS with extensive experience using catastrophe models. As documented in her testimony, Ms. Mao has conducted an evaluation of the RMS and AIR hurricane models and has concluded that the modeled hurricane losses are reasonable and appropriate projections of expected hurricane losses for use by the Bureau in its dwelling rate filing.

In addition to relying on the work conducted by Ms. Mao, I have independently evaluated the RMS and AIR hurricane models for purposes of compliance with ASOP 38 with respect to including output from the RMS and AIR hurricane models as part of the Bureau's dwelling rate filing. Some of the conclusions of my ASOP 38 investigation include the following:

- Both the RMS and AIR models were developed and maintained by experts in a wide range of disciplines. This is illustrated by the numerous employees with expertise in key aspects of the models, including meteorology, vulnerability, actuarial science, statistics, and computer science.
- Both the RMS and AIR models have gone through rigorous external review, including being found acceptable by the Florida Commission on Hurricane Loss Projection Methodology.
- Results from the RMS and AIR models yield projected hurricane frequencies and severities that are reasonable when compared to actual hurricane experience observed in North Carolina.

Q. Who performed the hurricane modeling for the Bureau?

A. Aon.

Q. What did the Bureau furnish to Aon to enable Aon to perform its analysis?

A. At the direction of the Bureau, ISO furnished to Aon the North Carolina extended coverage insurance exposure data on the total number of earned house years and

earned insurance years by territory for the most recent year in the experience period. The data provided to Aon are correct to the best of my knowledge, information and belief.

ISO provided both actual (un-trended) and trended coverage limits to Aon. As discussed earlier in my testimony, the trended exposures were used as inputs when Aon ran the hurricane models.

Q. How were modeled hurricane losses derived?

A. Aon ran two hurricane models, one from RMS and one from AIR. These two models are the most widely used and relied upon hurricane models. The use of multiple models is required by statute starting with filings made on or after October 1, 2017, though I understand that the Bureau started using two models with its dwelling filing in 2016.

The hurricane models simulate many years of hurricanes and resulting losses for the portfolio of North Carolina exposures. The results of the two models were averaged by Aon. The Property Rating Subcommittee reviewed the blended model results provided by Aon and found them to be actuarially sound. By averaging the two models, the Bureau has elected to give each model equal weight. Given the legislature's mandate to use more than one model, it would be inappropriate to employ the results of just a single model. Using an average of the two models also produces an unbiased estimate for future hurricane losses.

Aon accounted for loss adjustment expenses (LAE). Aon's data shows that LAE, as a percentage of hurricane losses, is lower than the LAE percentage for non-hurricane losses. Therefore, after review of Aon's data, the Property Rating Subcommittee selected a 6% LAE provision to be applied to the modeled hurricane losses.

The modeled hurricane losses (including LAE) are shown on page D-79.

Q. How is the amount of insurance in effect determined?

A. For the purpose of developing the hurricane loss cost, the amount of insurance that is in effect is determined as the sum of the various internal limits found in the extended coverage portion of a dwelling policy. There are four coverages involved: Coverage A (building), Coverage B (other structures), Coverage C (contents) and Coverage D (loss of use). The total amount of coverage can vary by policy form. For DP form 1 (Basic Form), the total limit for buildings is the Coverage A amount, and neither Coverage B nor Coverage D provides additional limits because any Coverage B or D losses are applied against the Coverage A limit. The coverage C limit is as reported on the individual policy record.

For DP form 2 (Broad Form) and DP form 3 (Special Form), the total limit for buildings is the sum of Coverage A, Coverage B, and Coverage D limits. The Coverage B limit is 10% of Coverage A, and the Coverage D limit is also 10% of Coverage A. The coverage C limit is as reported on the individual policy record. These differences in total amounts were reflected by Aon in running the models.

Q: You referred earlier to a separate procedure for dealing with non-hurricane excess losses. Please describe that procedure.

A: At a high-level, the excess procedure involves removing actual excess non-hurricane losses during the 5-year experience period and replacing these values with a provision that is based on reviewing a much longer 30-year time period.

An adjustment was made to the non-hurricane losses in the years in which there were very severe storms such as tornadoes, thunderstorms and other damaging wind storms. The adjustment caps average losses by territory in years where abnormally high losses coincide with severe non-hurricane storm activity. The adjustment relies on a factor developed by using a statewide average. As a result of this procedure, a long-term excess factor of 1.056 was calculated and therefore applied to the losses. This calculation is shown on page D-47. This general procedure has been employed in past dwelling filings and is customarily employed to smooth out and appropriately reflect prospective non-hurricane wind losses.

Q: Was it necessary to exclude hurricane losses in calculating the excess factor?

A: Yes, it is necessary to exclude hurricane losses when calculating the excess factor because the provision for hurricane losses is developed separately by way of hurricane models. Hurricane losses have been excluded in the calculation of the excess factor as derived on page D-47.

Q: What is the source of the \$37.68 for net cost of reinsurance in Line 20 of page C-4?

A: The source of the \$37.68 for net cost of reinsurance is an analysis performed for the Bureau by Aon. In that analysis, Aon determined the expected net cost of reinsurance for the composite one company writing dwelling insurance in North Carolina. Companies buy catastrophe reinsurance due to North Carolina's significant hurricane exposure. The net cost of that reinsurance is the expense and profit component of the reinsurance premium paid by insurers (the loss component is in the direct losses used in the overall rate determination). More details of the analysis are included in the testimony of other witnesses.

The Bureau relies upon the data that Aon has accumulated as to the actual cost of purchasing reinsurance in the current reinsurance market. Aon is one of the largest reinsurance brokers in the world.

To calculate the net cost of reinsurance per policy, the amount of total dollars of reinsurance is divided by the number of house years for 2021 times the 2021 trended average rating factor. This quantity is then divided by the expected loss and fixed expense ratio. For extended coverage, the actual calculation is:

$$\frac{175,463,573}{628,095 * 9.494 * 0.781} = 37.68$$

Q. Can reinsurance payments by each company writing in North Carolina be allocated and aggregated for use in this Filing?

A. No. It is not possible to measure reinsurance costs of the various insurance companies applicable specifically to dwelling insurance written in North Carolina. The first reason is that companies often do not enter reinsurance treaties exclusive to only one line of insurance. The approximately 40 individual insurance companies writing dwelling insurance in North Carolina have hundreds of different treaties that cover many different lines of insurance (automobile, commercial property, other residential property, etc.) as well as dwelling. Second, reinsurance treaties often are not exclusive to just North Carolina or for only one peril. Companies negotiate reinsurance treaties in many different geographical areas (portion of a state, single state, multiple states, Atlantic Basin areas, countrywide, international, etc.), and covering many different perils (such as automobile flooding, hurricanes, direct earthquake losses, tornados, wildfires, etc.). Finally, reinsurance for a given set of risk exposure (such as North Carolina Residential Dwelling) is often not limited to one treaty. An individual company will purchase reinsurance from different reinsurers for different layers of loss under different types of treaties, or also use catastrophe bonds for different layers of loss. For these reasons, it is not feasible to measure reinsurance costs specific to North Carolina, much less specific to the line of dwelling insurance, in each individual treaty or bond or for each individual company.

It is important to note that the calculation of the net cost of reinsurance in this Filing relates exclusively to the residential dwelling loss costs in North Carolina. It would not be appropriate for North Carolina insureds to assume the reinsurance costs of exposures in other states and vice-versa. Aon's database is based on actual reinsurance transactions and on conditions in the current reinsurance market and is updated regularly to reflect changes in actual market conditions. Aon's database and expertise are a great source of information as to actual reinsurance practices and costs for the hypothetical one company writing residential dwelling insurance in North Carolina.

Q. Are the remaining portions of the rate level calculation for extended coverage similar to that for fire insurance?

A. Yes, they are.

- Q: Does the filing revise the credits for the Windstorm or Hail Exclusion and for Wind Mitigation?
- A: Yes. The filing revises the credits for the Windstorm or Hail Exclusion and for Wind Mitigation that are available in Territories 110, 120, 130, 140, 150 and 160. The derivation of these credits is shown on pages C-16 to C-20.
- Q: Please turn to page A-2 of Exhibit RB-1 and explain what is shown on that page.
- A: Page A-2 of Exhibit RB-1 shows the indicated and filed statewide rate level changes.
- Q: What is shown on Page A-3 of Exhibit RB-1?
- A: Page A-3 shows the indicated and filed rate level change for each territory for Fire and for Extended Coverage. Separate rate changes are shown for fire buildings, fire contents, extended coverage buildings, and extended coverage contents.
- Q: Do you have an opinion as to whether the data utilized and the methods of calculating the indicated rate level changes and other changes contained in the filing are actuarially sound and reliable and if so, what is that opinion?
- A: Yes, I have an opinion. In my opinion, the data utilized and the ratemaking methodologies used by the Bureau are based on and consistent with generally accepted actuarial principles and procedures, and the indicated rates are actuarially sound and reliable. In my opinion, the ratemaking methodology is actuarially sound and produces indicated rates that meet the statutory standard of being not excessive, inadequate or unfairly discriminatory.
- Q: Do you have an opinion as to whether the indicated rate level changes contained in Exhibit RB-1 are fully justified and, if so, what is that opinion?
- A: In my opinion, the indicated rate level changes are fully justified and are not excessive or unfairly discriminatory in any respect.
- Q: Are there any qualifications you wish to attach to your opinion?
- A: Yes. In reaching my opinion, I have relied on the accuracy of the data supplied by the Bureau, by the various statistical agents, by the individual companies that reported their data to ISO and the other statistical agents, and by the Beach Plan and FAIR Plan. I have relied on Dr. Zanjani for the determination of the appropriate profit. I have relied on Aon for the net cost of reinsurance component of the rates, and for the calculation of the compensation for assessment risk component of the rates. Additionally, I have relied upon Aon for the blended output of the AIR and RMS models. I have relied on Ms. Mao for her review of the AIR and RMS hurricane models and her testimony that supports the

provision for the net cost of reinsurance and the provision for the compensation for assessment risk. I have also relied upon and concur with the decisions and the actuarial judgments of the persons on the Bureau's committees, who in many cases are actuaries. I have also reviewed, approved and rely on the work conducted by ISO staff with regards to the preparation of the ISO portions of the rate filing. I have applied appropriate actuarial standards when reviewing these various data sources.

Q: Does that conclude your testimony?

A: Yes, it does.

PAUL ERICKSEN, FCAS, MAAA
PRINCIPAL, ACTUARIAL CONSULTING
INSURANCE SERVICES OFFICE

CURRENT RESPONSIBILITIES

Leads actuarial consulting at Insurance Services Office, Inc. Responsible for providing actuarial consulting services to a wide array of clients including property/casualty insurers, residual market insurers, captives, managing general agents, law firms, and insurance departments. He has 31 years of actuarial experience in the insurance industry.

Responsible for a wide array of customized actuarial analyses prepared for individual clients, including ratemaking, reserving, program development, and other miscellaneous studies. Testified at several venues on behalf of his clients.

PROFESSIONAL EXPERIENCE

2007 to 2023: Principal of Actuarial Consulting at ISO
1999 to 2006: Consulting Actuary in the Actuarial Consulting unit of ISO
1994 to 1998: Senior Actuarial Associate in the Financial Analysis unit of ISO
1993: Consulting Actuary in the New York office of Milliman
1992: Actuarial Assistant in the Increased Limits unit of ISO

PROFESSIONAL DESIGNATIONS AND ACTIVITIES

Became a Fellow of the Casualty Actuarial Society in 1995, and is a Member of the American Academy of Actuaries.

Member of the CAS Examination Committee from 1996 through 2009.

Gave multiple presentations at CAS Meetings, including a presentation titled “The Actuary as an Expert Witness” at the following venues:

- CAS Ratemaking and Project Management Seminar in March of 2013
- Casualty Actuaries of New England in September of 2011
- CAS Ratemaking and Project Management Seminar in March of 2011

EDUCATION

Graduated from Princeton University in 1992 with a B.A. in mathematics.

EXPERT WITNESS TESTIFYING

Cases involving expert witness testimony regarding property insurance ratemaking:

- Prepared written testimony in support of the NCRB's 2018 and 2020 Homeowners rate filings and the 2019, 2020 and 2022 Dwelling rate filings.
- In 2008, provided expert witness testimony to the insurance subcommittee of the Florida House of Representatives regarding the adequacy of rates charged by Citizens Property Insurance Corporation. Citizens is the residual market insurer in Florida for property insurance and has been the largest writer of Homeowners insurance in the state.
- Testified at several rate hearings in support of filings submitted by Citizens Property Insurance Corporation.
- From 2005 through the present, provided extensive expert witness testimony on behalf of the Massachusetts Fair Plan regarding their Homeowners, Dwelling and Commercial Property rate filings. The Massachusetts Fair Plan is the insurer of last resort for property insurance in Massachusetts with a large coastal exposure.
- In 2007, provided expert witness testimony during a wind-only voluntary insurer's successful rate arbitration case where they were awarded a 75.4% rate increase to their hurricane rates.
- Provided expert witness testimony involving a civil litigation case.

SELECT WORK EXPERIENCES

Preparation of Homeowners, Dwelling, and Personal Auto Rate Analyses:

- Developed comprehensive actuarial rate analyses that his clients have filed with regulatory authorities.
- Experience with using output from multiple hurricane models (including AIR, RMS, and other models).
- Developed actuarial support for the provision for the cost of catastrophe reinsurance.
- Developed indicated underwriting profit provisions.

Preparation of New Homeowners and Personal Auto Programs:

- Developed the rating structure and actuarial support for new Homeowners and Personal Auto programs. This work involved companies expanding into new states, along with established insurers that wanted to replace their existing program.

Reserve Analyses:

- Prepared loss reserve analyses for both Property/Casualty insurers and self-insured entities, with an emphasis in property insurance.
- Appointed Actuary for Citizens for four years (2004, 2005, 2007, 2009)
- Appointed Actuary for Heritage Property & Casualty Insurance Company (a large publicly traded Homeowners insurer that concentrates in the Florida market) from 2012 through 2019.
- Responsible for annual reserve analysis for a large national Commercial Auto trucking company.

1 **PRE-FILED DIRECT TESTIMONY OF MINCHONG MAO**

2
3 **2023 DWELLING INSURANCE RATE FILING**

4 **by the**
5 **NORTH CAROLINA RATE BUREAU**

6
7
8 **Q. Please state your full name and business address for the record.**

9
10 A. My name is Minchong Mao. My business address is Aon, 200 East Randolph
11 Street, 11th Floor, Chicago, Illinois 60601.

12
13 **Q. What is your involvement in this matter?**

14
15 A. My employer, Aon, has been retained by the North Carolina Rate Bureau
16 (NCRB) to provide catastrophe modeling and reinsurance analytics with respect
17 to the expected hurricane losses utilized in the NCRB 2023 Dwelling Insurance
18 rate filing. I am part of the catastrophe analytics team at Aon that performed
19 these services.

20
21 **Q. What is Aon?**

22 A. Aon is a leading global professional services firm that provides advice and
23 solutions to clients focused on risk, retirement, and health. Aon is one of the
24 world's largest reinsurance brokers and has extensive experience in catastrophe
25 modeling.

1 **Q. What are your primary responsibilities for Aon?**

2

3 A. I am a Senior Managing Director and a Catastrophe Actuary at Aon's
4 Reinsurance Solutions - Catastrophe Risk Analytics group. I manage an analytics
5 group within the Catastrophe Management area which focuses on catastrophe
6 actuarial and predictive analytics as it relates to ratemaking and underwriting.

7 I advise clients on catastrophe actuarial services, such as rate indications, rate
8 filing strategy, underwriting strategy, and use of catastrophe models in risk
9 management. I am responsible for Aon's compliance with ASOP 38 regarding
10 use of catastrophe models. I am a consulting actuary for Aon's in-house model,
11 Impact Forecasting, LLC. I work with a group of catastrophe modelers to provide
12 catastrophe modeling support for reinsurance placements. Our client services
13 include but are not limited to support for multi-model analytics, customized view
14 of risks, catastrophe pricing, catastrophe risk selections, data augmentation,
15 model evaluation, real-time event response, portfolio optimization, actuarial
16 support, reinsurance cost allocations, and rating agency questionnaire support.

17

18 **Q. Describe your professional and educational background.**

19

20 A. I have been with Aon since September 2018. Prior to joining Aon, I worked at
21 State Farm Insurance Companies for over 17 years from 2001 to 2018 where I
22 led the catastrophe modeling functions since 2005. During my tenure at State
23 Farm, I was responsible for State Farm's use of catastrophe models in pricing,

1 underwriting, claims, reinsurance, securitization, enterprise risk management,
2 and rating agency reporting.

3

4 I had 2 years of ratemaking experience as a pricing actuary for Homeowner lines
5 at State Farm. I am familiar with the development and implementation of
6 property insurance rates and rules. I understand the challenges for an insurer to
7 balance rate adequacy and competitiveness and to meet financial objectives at
8 the same time.

9

10 I have a Bachelor's degree in Biochemical Engineering from Beijing University of
11 Chemical Technology, a Master's degree in Chemistry from Eastern Illinois
12 University, and a Master's degree in Computer Science from the University of
13 Missouri - Columbia.

14

15 **Q. Are you a member of any professional actuarial organizations?**

16

17 A. Yes. I am a Fellow of the Casualty Actuarial Society (FCAS) and a Member of
18 the American Academy of Actuaries (MAAA). I am a Certified Catastrophe Risk
19 Management Professional (CCRMP), a new designation created by the CAS
20 Institute (iCAS) and International Society of Catastrophe Managers (ISCM). I am
21 currently serving on the Casualty Actuarial Society's Climate Change Committee,
22 the American Academy of Actuaries' Extreme Event Risk Committee, and on the

1 advisory board for CCRMP designation. I am in good standing with the
2 requirements of all of these organizations.

3

4 I am part of a working group that authored the following monographs for the
5 American Academy of Actuaries:

- 6 • The National Flood Insurance Program: Challenges and Solutions (2017)
- 7 • Uses of Catastrophe Model Output (2018)
- 8 • Wildfire: An Issue Paper - Lessons Learned from the 2017–2018
9 California Events (2019)

10 I am one of the recipients of the Casualty Actuarial Society's Above and Beyond
11 Achievement Award in 2019 to recognize my leadership and contributions to
12 establish the CCRMP designation for the insurance industry.

13

14 **Q. Please describe your relevant experience and qualifications for this**
15 **proceeding.**

16

17 A. I started practicing in the catastrophe risk management field in 2005. During
18 my tenure at State Farm, I managed State Farm's catastrophe modeling function
19 from 2005 to 2018. I managed vendor relationships with AIR, EQECAT, ARA,
20 and RMS. I provided filing support and helped my employer through many
21 regulatory challenges related to the use of models in insurance operations. I
22 provided actuarial opinions on State Farm's use of catastrophe models. I
23 established the due diligence and model validation framework to ensure

1 catastrophe modeling practices at State Farm met the actuarial standards and
2 complied with laws and regulatory requirements. My team provided various
3 catastrophe risk measures and analytics for State Farm Fire and affiliates for
4 ratemaking, exposure management, claims, ERM, rating agency reporting,
5 reinsurance and securitization purposes.

6

7 From 2010 to 2013, I was a member of an advisory group to the Insurance
8 Bureau of Canada (IBC) and the Office of the Superintendent of Financial
9 Institutions (OSFI) to provide expert opinions on insurance and the economic
10 impact of major earthquakes in Canada. From 2011 to 2013, I was a member of
11 an advisory group for IBC and OSFI to revise OSFI Guideline B-9 (Earthquake
12 Exposure Management Sound Practice Guideline for insurance companies). I
13 led a State Farm team to establish the compliance framework to meet OSFI B-9
14 regulation requirements.

15

16 In January 2015, I was appointed by Florida CFO Jeff Atwater to serve on the
17 Florida Commission on Hurricane Loss Projection Methodology (FCHLPM) as
18 the industry actuary. From January 2015 to September 2018, I represented the
19 property insurance industry on the FCHLPM to review and accept hurricane
20 models for use in ratemaking in the State of Florida. My term on the FCHLPM
21 ended in September 2018 due to my job change.

22

1 The hurricane models used for this rate filing, Verisk (also known as, as
2 hereinafter referred to as "AIR") Touchstone V9 (a.k.a Touchstone 2021) and
3 RMS RiskLink V21, are both certified by FCHLPM.

4

5 **Q. What does the FCHLPM do?**

6

7 A. FCHLPM scrutinizes hurricane models and authorizes their use in Florida rate
8 filings and has done so over many years. FCHLPM retains experts in relevant
9 fields who review the meteorological, wind engineering, damageability, claims,
10 statistical, computer programming, economic and other aspects of modeling in
11 great detail. Over the years, FCHLPM has recognized advancements in various
12 scientific disciplines related to hurricane modeling and has required modelers to
13 incorporate such advancements. FCHLPM approves only those models that
14 meet its rigorous standards.

15

16 **Q. Please describe how ASOP 38 is applicable in this rate filing?**

17

18 A. The Actuarial Standard of Practice Number 38 (ASOP 38) has been in effect
19 since December 2000. ASOP 38 was created, to some extent, to address the
20 use of stochastic computer hurricane simulation models in the insurance
21 ratemaking process. ASOP 38 established certain requirements for actuaries
22 who use output from a model that is outside of that actuary's area of expertise.
23 Hurricane models are developed by a group of experts including meteorologists,

1 structural engineers, actuaries, statisticians, and computer scientists. Some
2 model components are outside of the area of expertise of actuaries. Due to the
3 models' complexity and reliance on different science disciplines, as well as the
4 relative newness of their use in establishing property insurance rates at the time,
5 many actuaries are not as knowledgeable about these models as they are about
6 the traditional ratemaking methodologies.

7

8 Hurricane models are utilized to establish the hurricane loss costs and
9 reinsurance cost allocation for this NCRB filing. Therefore, compliance with
10 ASOP 38 is relevant to the filing.

11

12 **Q. Is Aon's use of catastrophe models in compliance with ASOP 38?**

13

14 A. Yes, Aon's catastrophe modeling practice in general and as it relates to this
15 NCRB filing is in compliance with ASOP 38. ASOP 38 provides guidance to the
16 actuary in using models that incorporate specialized knowledge outside the
17 actuary's own area of expertise when developing an actuarial work product and
18 has been included as Exhibit RB-9. When using such a model, the standard
19 requires that the actuary perform five specific tasks:

20

21 a. Determine the appropriate level of reliance on experts;

22 b. Have a basic understanding of the catastrophe model;

- 1 c. Evaluate whether the catastrophe model is appropriate for the intended
2 purpose;
- 3 d. Determine that appropriate validation of the catastrophe model and output has
4 occurred; and
- 5 e. Determine the appropriate use of the catastrophe model and output.

6

7 In addition to relying on vendors' experts, Aon has an in-house model evaluation
8 team. This team consists of members with advanced degrees in meteorology,
9 structural engineering, and statistics. Soon after models are released, the model
10 evaluation team performs sensitivity testing to identify key drivers of model
11 changes and potential anomalies. I work closely with the model evaluation team
12 at Aon to ensure the sensitivity testing covers all aspects of ASOP 38
13 requirements. I review the testing results through an analytics dashboard. I
14 document my reviews for each peril model. Upon completion of the review, I sign
15 an ASOP 38 attestation. Copies of the current ASOP 38 attestations for the AIR
16 and RMS models are included in the filing as Exhibits RB-10 and RB-11,
17 respectively.

18

19 **Q. Describe the role of Aon Reinsurance Solutions Analytics and**
20 **Catastrophe Risk Analytics.**

21

22 A. Aon Reinsurance Solutions Analytics (a.k.a Reinsurance Analytics) provides
23 consultative services to Aon's clients who place catastrophe reinsurance through

1 Aon. These clients are primary insurers selling property insurance products in
2 catastrophe prone areas. Aon Reinsurance Analytics provides value added
3 service that is above and beyond reinsurance brokering transactions. Our client
4 services include but are not limited to support for multi-model analytics,
5 customized view of risks, catastrophe pricing, catastrophe risk selections, data
6 augmentation, model evaluation, real-time event response, portfolio optimization,
7 reinsurance cost allocations, actuarial support, and rating agency questionnaire
8 support.

9

10 Within the Reinsurance Analytics division, there is a team specialized in
11 catastrophe risk analytics. I am part of the catastrophe risk analytics team that
12 provides clients with catastrophe risk management information and assists
13 clients with their reinsurance purchasing decisions.

14

15 **Q. Describe your experience with catastrophe models.**

16

17 A. From 2005 to 2006, I performed the catastrophe modeling analyst's role,
18 which includes hands-on experience with multiple models - from data preparation
19 to running the models to post model aggregation. My daily work involved data
20 preparation and converting exposure data into model input files. I gained
21 knowledge about how different models handle building characteristics and
22 insurance terms. I used RMS RiskLink, AIR, and EQECAT models on a daily
23 basis. I developed an understanding of the models' back end database and
24 output. I performed post model analysis and wrote computer programs to

1 develop risk metrics such as probable maximum loss (PMLs), average annual
2 losses (AALs), and total value at risk (TVaR) to help State Farm assess and
3 manage catastrophe risks. Later in my career, I assembled a team and
4 supervised many modeling tasks delegated to my colleagues. I continued to
5 provide guidance and managed the day to day work of the catastrophe modeling
6 unit.

7

8 **Q. Describe your experience with catastrophe reinsurance.**

9

10 A. My experience with reinsurance started in 2005 at State Farm. State Farm is
11 a reinsurance buyer, and I was a part of the company's reinsurance buying team.
12 I supported the reinsurance function at multiple levels. My work included using
13 catastrophe model output and financial information to help my employer in
14 structuring reinsurance, conducting technical pricing, drafting and reviewing
15 reinsurance contracts, and participating in reinsurance buying trips. I evaluated
16 catastrophe risks and cost of capital from both ceding and assuming parties. I
17 worked closely with our reinsurance broker to validate our view of risks using
18 external benchmarks. At Aon, I work directly with our clients who are seeking to
19 purchase catastrophe reinsurance. Output from models is used by our brokers,
20 clients, and capital markets to determine the reinsurance structure and pricing.
21 We customize reinsurance solutions based on clients' risk appetite and risk
22 profile.

23

1 **Q. Do you speak on topics pertaining to catastrophe modeling?**

2

3 A. Yes. I have presented at CAS Ratemaking, Product and Modeling
4 Conferences. I am a frequent speaker at Reinsurance Association of America's
5 annual catastrophe modeling conference. My topics have included model
6 blending, model regulation, and wildfire modeling, among others. From 2012 to
7 2018, I was a visiting instructor for the Illinois State University Math Department
8 Actuarial Science program. I presented catastrophe modeling and regulatory
9 topics to actuarial students. From 2016 to 2018, I was a member of the planning
10 committee for the Reinsurance Association of America's annual catastrophe
11 modeling conference. I organized and moderated panels and engaged speakers
12 to cover a variety of catastrophe topics.

13

14 **Q. Would you please explain why you provide this testimony?**

15

16 A. I manage Aon's Catastrophe Actuarial and Predictive Analytics team that
17 developed the provisions for the modeled hurricane losses, the net cost of
18 reinsurance, and the compensation for assessment risk used in this filing. I am
19 responsible for the work product provided to NCRB on those items for this filing.

20

21 **Q. What was Aon's role in this filing with respect to expected hurricane**
22 **losses?**

23

1 A. Aon performed data validation and shared control totals with NCRB; Aon's
2 catastrophe modelers ran AIR Touchstone V9 (a.k.a Touchstone V2021) and
3 RMS RiskLink V21 models based on exposure data provided by NCRB; Aon
4 blended the model results for NCRB based on well-established methodology and
5 provided the modeled average annual loss to NCRB; Aon conducted industry
6 research, recommended, and applied catastrophe loss adjustment factors for
7 NCRB.

8

9 **Q. Are catastrophe simulation models commonly used by insurers for**
10 **ratemaking in catastrophe-exposed lines and jurisdictions?**

11

12 A. Yes, catastrophe models have become the standard method of estimating
13 catastrophe risk in rate filings and reinsurance. Hurricane losses are so extreme
14 and volatile that, for many years now, the accepted actuarial procedure for
15 estimating catastrophe risk in rate filings and in the reinsurance market has been
16 through the use of catastrophe models rather than actual hurricane losses. Such
17 volatility is greatly compounded in hurricane prone states such as North Carolina.
18 In North Carolina and other hurricane prone states, a significant percentage of
19 the prospective long-term average annual losses in certain territories of the state
20 are caused by intense hurricanes, which are relatively infrequent but are
21 devastating when they do occur. It would be actuarially unsound to rely on a few
22 years of actual hurricane losses to estimate prospective hurricane losses
23 because of the volatility of these losses driven by low frequency and high

1 severity. We have provided data and analysis from the use of catastrophe
2 models for Aon clients to use in their rate filings in multiple states.

3

4 **Q. Did the NCRB ask Aon to run the AIR and RMS models?**

5

6 A. Yes. Aon ran AIR Touchstone and RMS RiskLink for the NCRB under the
7 NCRB's direction. AIR and RMS are the most commonly used catastrophe
8 models in the insurance and reinsurance industries. Aon runs these two models
9 on all of Aon clients' exposure data pertinent to reinsurance transactions. The
10 majority of Aon's clients use either one or both models when evaluating their
11 catastrophe risk.

12

13 **Q. Why did the NCRB ask Aon to run two models?**

14

15 A. My understanding is that the NCRB has been using two models since 2016
16 and also that running two models complies with N.C.G.S. 58-36-10(3), which
17 became effective in 2017 and requires the NCRB to present data from more than
18 one model if modeled hurricane losses are based upon a commercial hurricane
19 simulation model.

20

21 **Q. How are losses from the two models blended?**

22

23 A. We run the individual models independently and determine the appropriate
24 loss costs and reinsurance cost allocation for each model. The blended results

1 from the two models are derived by taking the straight average, thus weighting
2 the models equally.

3

4 **Q. Is it common that modeled losses will differ between the various model**
5 **vendors?**

6

7 A. Yes. Catastrophe models are complex. When modeling vendors develop a
8 hurricane model, they start with similar underlying information, such as the
9 National Hurricane Center's historical hurricane dataset, land use/land cover
10 database, similar wind engineering principles and statistical theories. However,
11 there are differences between modeling vendors in their approaches to
12 interpreting and supplementing the data to build a robust model. Different
13 assumptions and judgments are made by model developers. Vendors may also
14 use claims data from different data sources to calibrate their model. These
15 varying assumptions, judgments, and methodologies will result in different model
16 results. Model results deviate more at location level than at the state level.
17 When models generate different results, it does not necessarily mean any model
18 is wrong. The spread among different views of the same risk reflects the
19 inherent uncertainties of catastrophe modeling.

20

21 Given the number of variables involved in the development of a catastrophe
22 model and the degree of uncertainty associated with each variable, we would not
23 expect that two independently developed models would result in the same output
24 or conclusions on a given set of data.

1

2 **Q. Does the use of catastrophe models produce artificially high rate levels?**

3

4 A. No. Models help stabilize rate levels. Without modeling, rate levels would
5 fluctuate wildly following the occurrence or non-occurrence of significant
6 hurricanes. Modeling is relied upon by all stakeholders in insurance,
7 reinsurance, catastrophe bond, and other financial transactions to give the best
8 and most unbiased projection of future hurricane losses. Different parties to
9 those transactions often have opposing economic interests, but they all rely on
10 models in their negotiations with each other.

11

12 **Q. How do the models change over time?**

13

14 A. Catastrophe models are built based on state of the art science and
15 technology. As science continues to evolve and computing powers continue to
16 advance, modeling technology is updated and improved. In addition, research
17 into historical and recent events, updates to building practices and building
18 codes, and data from engineering experiments also provides insights to enable
19 model developers to enhance their models. Each modeling vendor takes a
20 different approach on how frequently it updates its models and which perils and
21 regions will be updated. As noted above, because different assumptions and
22 judgements are made when information is applied, the impact of an update could
23 vary greatly between models. Changes due to model updates are to be
24 expected.

1

2 **Q. Is using multiple models to determine catastrophe risk actuarially**
3 **sound?**

4

5 A. Yes. Using multiple models allows users to incorporate different views of risk
6 into their exposure management. Using multiple models can effectively mitigate
7 modeling volatility and smooth out significant model changes. Using multiple
8 models is a practice endorsed by major rating agencies such as AM Best and
9 S&P.

10

11 **Q. How does the NCRB exposure data impact model output?**

12

13 A. The following data factors would impact model output:

- 14 • Changes in coverage and/or policy conditions such as deductible and
15 limits, and the underlying policies-in-force
- 16 • Changes in an insurer's portfolio composition, such as geographic
17 concentration
- 18 • Changes in building characteristics, such as loss mitigation features and
19 age of roof
- 20 • Changes in data quality, such as replacing unknown building
21 characteristics with known building characteristics

22

23 **Q. Please describe the client data that was employed as input for the model**
24 **runs?**

1

2 A. The underlying exposure data was provided to Aon by the NCRB. To the best
3 of my knowledge, the data was compiled on behalf of the NCRB by Insurance
4 Services Office (ISO). NCRB's exposure data sent to Aon consisted of the
5 trended aggregate exposure information for all residential Dwelling risks in North
6 Carolina, including those written voluntarily by insurance companies and those
7 written by the residual market (NCIUA and NCJUA). NCRB instructed Aon to run
8 the models using the aggregate data at zip code and territory level for the entire
9 North Carolina portfolio in a single model run. Model results were aggregated by
10 territory, policy form, and coverage.

11

12 **Q. Please describe what Aon Reinsurance Solutions then did with the data**
13 **provided by the NCRB.**

14

15 A. We reviewed the data received from the NCRB for completeness and
16 reasonableness before we input it into the AIR and RMS models. Since the two
17 models have different formats for inputting data, we worked with the NCRB to
18 assure that the exposure data was properly and consistently mapped in the
19 required format for each model. NCRB provided earned insurance years (EIY),
20 which is the sum of primary coverage amount expressed in thousands, and
21 earned house years (EHY), which is the number of risks. Limit by coverage is
22 calculated from EIY and EHY as instructed by the NCRB. A comparison of this
23 year's data with last year's data was conducted. Any anomalies were
24 investigated.

1

2 The next step was to input the data and run the models. We ran the AIR
3 Standard model using the 100K event catalogue and the RMS Historical model
4 (both are long term views of the hurricane risk) to determine the modeled
5 hurricane loss cost. We also ran the AIR Warm Sea Surface Temperature
6 (WSST) model using the 10K event catalogue and the RMS Medium Term Rate
7 model (both are near term views of hurricane risk) to analyze the cost of
8 reinsurance. It is a standard practice throughout the reinsurance industry to rely
9 upon the models we used to determine modeled hurricane loss cost and
10 reinsurance placements, and this has been true since the 1990s.

11

12 After the models were run, we reviewed each model's output separately to
13 ensure data integrity. We then blended the results of the two models by taking a
14 straight average of the results. Additional reviews were conducted of the
15 blended results to ensure that the blending procedures were correctly performed
16 and that the blended results were reasonable. The blended modeled hurricane
17 loss results were provided to the NCRB for use in its Dwelling rate review.
18 Exhibit RB-8 sets forth the blended modeled hurricane losses resulting from the
19 work I have described. Based on my knowledge and experience, and the input
20 data provided by the NCRB, these modeled hurricane losses are reasonable and
21 appropriate projections of expected hurricane losses for use by the NCRB in its
22 Dwelling rate review and rate filing.

23

1 Also, we employed the modeled hurricane losses as part of our work in
2 determining and allocating the cost of reinsurance.

3

4 **Q. What are the differences and similarities between using the AIR
5 Touchstone's 10K event set and the 100K event set?**

6

7 AIR Touchstone's 10K hurricane event set is a subset of the 100K event set.
8 These two event sets are designed to have the same theoretical frequency and
9 intensity distributions in coastal segments, and to produce similar results with
10 minimal variabilities. Using the 10K event set provides benefits in performance
11 and storage. AIR Touchstone's 10K event set is standard for use in a majority of
12 catastrophe modeling exercises – including reinsurance renewal data distribution
13 for quoting and placement purposes. The 100K event set is used to determine
14 hurricane loss costs for ratemaking purposes.

15

16 **Q. Did Aon make adjustments to the modeled results?**

17

18 Yes. A 6% loss adjustment expense (LAE) factor was applied to modeled
19 losses. This factor was recommended by Aon based on a broad industry study
20 at the state level. The results of that study are shown in Exhibit RB-14. The
21 application of the LAE factor was reviewed and approved by the NCRB, and the
22 6% catastrophe LAE factor was selected by the NCRB.

23

1 **Q. What is demand surge?**

2

3 A. Demand surge is a social economic phenomenon defined by the Actuarial
4 Standards Board as 'a sudden and usually temporary increase in the cost of
5 materials, services and labor due to the increased demand for them following a
6 catastrophe.' Demand surge usually occurs after large-scale disasters such as
7 earthquakes, tsunamis, cyclones or flooding. The models incorporate demand
8 surge into their loss estimates.

9

10 **Q. Should model output include demand surge?**

11

12 A. All applications of catastrophe model output should reflect demand surge.
13 Demand surge is a real social economic phenomenon. Insurance companies'
14 claims experience includes the effect of demand surge. Excluding demand surge
15 would underestimate catastrophe losses.

16

17 **Q. Does the model output used in this filing include demand surge?**

18

19 A. Yes. As is the customary and accepted practice in the insurance, reinsurance,
20 and catastrophe bond industries, the models were run with aggregate demand
21 surge (AIR) and loss amplification (RMS) included. The FCHLPM has approved
22 the use of aggregate demand surge and loss amplification for the AIR and RMS
23 models, respectively. These aspects of the models account for the expected

1 additional cost for supplies and labor if a very large hurricane event or series of
2 events occurs. Experience demonstrates that when such catastrophic events
3 have occurred, there is significant increase in demand for the limited supply of
4 plywood, shingles, labor, hotel rooms and other necessities. The high demand
5 for specialized labor often requires contractors to come in from out of state.
6 Fundamental economic principles dictate that such a spike in demand increases
7 prices, and consequently results in larger than normal claims payments in the
8 aggregate. Additionally, there are delays in repairing properties, which can
9 directly lead to longer stays in hotels, and there are other increased costs beyond
10 those that occur after smaller hurricanes. Loss amplification also factors in
11 claims inflation. Claims adjusters may not investigate every claim if it is under a
12 certain threshold, given the volume of claims they have to settle post-event in a
13 limited amount of time.

14

15 **Q. Does any state prohibit the inclusion of demand surge in modeled**
16 **losses for rate filings?**

17

18 A. I am not aware of any prohibitions against the use of demand surge in rate
19 filings in any jurisdiction. The South Carolina Department of Insurance Bulletin
20 2014-03 states "Demand surge may be included in the modeled results as long
21 as the company provides the impact it has on the modeled losses." The Florida
22 Commission on Hurricane Loss Projection Methodologies' actuarial standards

1 require hurricane models to incorporate demand surge based on relevant data
2 and actuarially sound methods and assumptions.

3

4 **Q. North Carolina has laws prohibiting “price gouging” following a
5 hurricane. Does that eliminate demand surge?**

6

7 A. No. Florida has a similar law (Title XXXIII 501.160). Demand surge can and
8 does occur due to supply and demand economics in situations that would not be
9 considered price gouging and/or that would not be prevented by statutes
10 prohibiting price gouging.

11

12 **Q. Does it make sense for North Carolina hurricane losses to include
13 demand surge for very large events impacting other states even if those
14 events were less significant in North Carolina?**

15

16 A. Yes, the intent of the model is to reflect economic conditions that will influence
17 construction prices and other aspects of insured loss (such as, for example, the
18 increased period of time a carrier has to pay for hotel rooms for insureds while
19 their damaged homes are repaired) in the time period shortly after a catastrophe
20 event occurs. Since labor and materials resources are exchanged by people
21 across state lines, we believe the demand surge effect on prices in other states
22 will have an effect in North Carolina.

23

1 **Q. You noted earlier that you and your team developed the provision in the**
2 **filing for the net cost of reinsurance. First, what is reinsurance?**

3

4 A. Simply, reinsurance is insurance for insurers. When insurers are aware of
5 scenarios in which the potential losses are greater than the company is willing or
6 able to tolerate, they will frequently purchase reinsurance to mitigate the risk in
7 those situations. For similar reasons, insurers may issue catastrophe bonds to
8 protect themselves in those situations. Essentially the insurers will use a portion
9 of the premium to purchase reinsurance. This is common across the industry.

10

11 **Q. What is catastrophe reinsurance, who buys it, and why do they buy it?**

12

13 A. Catastrophe reinsurance is a contract purchased by a primary insurance
14 company and sold by a reinsurer, or a group of reinsurers, to transfer risk from
15 loss due to large catastrophic events. Large catastrophe losses present a very
16 real risk to the long-term viability of Dwelling insurers and their ability to follow
17 through on their promise to policyholders to pay losses when they occur. There
18 are numerous scenarios where the potential losses due to a single hurricane are
19 far greater than the entire premium collected by all the companies for the entire
20 state of North Carolina. To remain viable long-term and protect against
21 insolvency, the industry must purchase reinsurance to help cover this risk.

22

1 The most common type of contract used for catastrophe risk is called “Portfolio
2 Excess of Loss”, a.k.a. “Portfolio XOL”, or just “XOL”. A single XOL contract has
3 an “attachment” and a “limit”. An XOL covers the amount of portfolio loss caused
4 by a single event in the amount which exceeds the XOL attachment with a
5 maximum equal to the XOL limit. In some instances, there is co-participation,
6 which means that only a percentage of the amount of loss in the XOL layer is
7 covered. Portfolio XOL contracts (a.k.a. “treaties” since there are typically
8 multiple reinsurers involved) cover the first event within a year of coverage. It is
9 standard practice to write into the treaty a provision for the primary carrier to
10 automatically purchase a “reinstatement” if they have a loss which triggers a
11 reinsurance payment. The reinstatement premium allows for the full limit to be
12 reinstated after the first event uses up the limit provided. There are cases where
13 a limit is provided and if an event exhausts that limit, then there is no coverage
14 available for the remainder of the contract period. It is typical of primary carriers
15 to buy multiple treaties that stack on top of each other. In other words, a treaty
16 will have an attachment equal to the attachment plus limit of another treaty.
17 Primary carriers buy reinsurance to ensure the company is financially viable after
18 very large and uncommon to rare events.

19

20 The costs associated with this catastrophe reinsurance are costs of doing
21 business in the state. To reflect the portion of those costs that is not already
22 covered in the Filing, a provision for the net cost or reinsurance is included in the
23 Filing.

1 **Q. What was your role in this filing with respect to Net Cost of**
2 **Reinsurance?**

3 A. I worked with my colleagues within the Aon Catastrophe Actuarial team to
4 determine a suitable provision for the net cost of reinsurance for the state overall
5 and an allocation of that cost by territory and policy form. The provision used
6 exposure data from all the Dwelling risks in the state so that a cost provision
7 would be appropriate to use in a uniform rate schedule applicable to all insurers
8 in the state.

9

10 **Q. Please describe how the reinsurance program was designed and priced**
11 **for purposes of NCRB rate filings? Do you think it is reasonable?**

12

13 A. Yes, the Aon Catastrophe Actuarial team designed the reinsurance program
14 for this rate filing. I manage this team and I am responsible for its work product.
15 The basis of the reinsurance program structure and pricing is determined by an
16 analysis of reinsurance programs placed by Aon for its reinsurance clients.
17 Three components of the analysis are described here.

18

19 **Program attachment and total limit** describes the total amount of reinsurance
20 coverage. Since companies vary substantially in size, so does their limit
21 purchase and attachment for their bottom layers. To normalize for company size,
22 we looked at the frequency with which a single event would trigger a recovery
23 and the frequency with which a single event would exhaust the limit of the entire
24 program for each company. This was calculated separately for the AIR and the

1 RMS models. We then calculated the median attachment and exhaustion
2 (exhaustion = bottom layer attachment + total program limit) frequencies by
3 model and by region (Southeast and Nationwide). The frequencies for
4 attachment and exhaustion were averaged across the regions, which resulted in
5 attachment and exhaustion frequency by model. Using portfolio loss distributions
6 by model for the portfolio in the filing, we calculated the dollar amount of
7 attachment and exhaustion (and therefore limit) by model. The attachment of the
8 reinsurance program in the filing is the average of the AIR indicated attachment
9 and RMS indicated attachment. The exhaustion of the reinsurance program in
10 the filing is the average of the AIR indicated exhaustion and the RMS indicated
11 exhaustion.

12 **Reinsurance Market Pricing Model** For AIR and RMS, a log-linear regression
13 model was built to calculate fitted reinsurance price based on modeled expected
14 ceded loss. Using these regression models, an indicated price for any layer can
15 be calculated based on each catastrophe model (AIR and RMS). The selected
16 prices by layer used in this rate filing are the averages of the AIR indicated prices
17 and the RMS indicated prices.

18

19 Note: Because insight into reinsurance market pricing is an important proprietary
20 asset for Aon, the log-linear models are considered a trade secret and therefore
21 not disclosed in this public filing.

22

1 **Program Structure.** After the market pricing model is determined along with the
2 program's attachment and limit, the program is then broken into layers. We run
3 an optimization analysis to find the five-layer cat program that has the lowest
4 deposit premium. The method is designed to calculate an indicated reinsurance
5 premium that is as low as possible, subject to the market pricing model and
6 program attachment and limit specifications.

7

8 The reinsurance structure determined by the method described above is shown
9 in Exhibit RB-12. The pricing with loss analysis is shown in Exhibit RB-13.

10

11 **Q. Have you seen reinsurance costs going up in recent years? Has Aon**
12 **applied any smoothing methods to stabilize the reinsurance cost provision**
13 **for NCRB?**

14

15 A. The global reinsurance market has experienced some extraordinary volatilities
16 since 2019. Aon noticed that reinsurance prices have increased significantly in
17 the US for the past three years, initially driven by Florida in the Southeast region,
18 but the upward trend has spread to countrywide since 2021.

19

20 We believe it is prudent to apply a smoothing methodology to stabilize North
21 Carolina's reinsurance cost analysis. Rate on Line (ROL) for the 2023 rate fling
22 was determined by the average of the 2023 and 2022 market pricing parameters.

23

24 **Q. How was the net cost of reinsurance calculated?**

25

1 Net cost of reinsurance is Deposit Premium + Expected Reinstatement Premium
2 - Expected Ceded Loss & LAE. The reinsurance program, the loss distribution
3 from the portfolio as determined by event loss tables (ELTs) from cat models,
4 and the LAE assumptions are input into a DFA (Dynamic Financial Analysis)
5 program to calculate the average ceded loss and LAE and average reinstatement
6 premium over a specified number of simulated years. The loss distribution which
7 is produced by the AIR model is already in the form of simulated loss experience
8 for 100,000 years. The DFA program calculates for each year the total
9 reinsurance recoveries and reinstatement premium paid. The program then
10 calculates the average annual ceded loss & LAE and the average reinstatement
11 premium. The loss distribution from RMS models is a list of possible catastrophic
12 events. Instead of providing specific year and amount of loss from each event,
13 each event has a parametric distribution for frequency and severity. The DFA
14 program creates a simulation of 1,000,000 years of loss experience to make a
15 table containing year, event id, and specific amount of loss. From that point the
16 calculation works the same as for the AIR model.

17

18 For the NCRB filing, our analysis shows that expected reinsurance premium is
19 \$225,356,474, expected ceded loss & LAE is \$49,892,901, and the net cost of
20 reinsurance is \$175,463,572, as shown on Exhibit RB-16 and the summary on
21 Exhibit RB-13. Allocation by territory is done using the method described above.

22

23 **Q. How was the reinsurance premium allocated?**

24

1 A. Reinsurance premium by layer is allocated to a territory based on that
2 territory's share of expected ceded loss and loss adjustment expense (LAE) by
3 layer. Exhibit RB-13 shows the total expected ceded loss and LAE by layer and
4 Exhibit RB-15 shows the proportion of hurricane peril reinsurance premium,
5 ceded average annual loss, and reinsurance margin (a.k.a. "net cost of
6 reinsurance") allocated to each territory segment for each layer. Other perils
7 were used in the calculation, but because they contributed such a small amount
8 of expected ceded loss they were not shown on the exhibits. Exhibit RB-16
9 shows the dollar amount of reinsurance margin allocated by territory and policy
10 form.

11

12 **Q. Given your experience in catastrophe reinsurance, do you find this**
13 **approach to be reasonable?**

14 A. Yes. Aon's approach is based on detailed information on current reinsurance
15 market rates and underlying model output. The smoothing techniques helped
16 stabilize the results.

17

18 **Q. Do you know whether the Rate Bureau has used in its 2023 Dwelling**
19 **filing the Aon net cost of reinsurance results you provided?**

20

21 A. Yes, I am advised that the Rate Bureau has used in the filing both our
22 statewide net cost of reinsurance results and those results allocated to the
23 territory level.

24

1 **Q. Are you aware of the following provisions in the North Carolina statutes,**
2 **in N.C.G.S. 58-36-10(7):**

3 *Property insurance rates established under this Article may include a provision to*
4 *reflect the cost of reinsurance to protect against catastrophic exposure within this*
5 *State. Amounts to be paid to reinsurers, ceding commissions paid or to be paid*
6 *to insurers by reinsurers, expected reinsurance recoveries, North Carolina*
7 *exposure to catastrophic events relative to other states' exposure, and any other*
8 *relevant information may be considered when determining the provision to reflect*
9 *the cost of reinsurance.*

10

11 A. Yes, I am. This NC statute provision is consistent with ASOP 53, Estimating
12 Future Costs of Prospective Property/Casualty Risk Transfer and Risk Retention,
13 which “applies to actuaries when performing actuarial services with respect to
14 developing or reviewing future cost estimates (commonly known as actuarial
15 indications) for prospective property/casualty risk transfer and risk retention. For
16 example, this standard applies when actuaries are developing future cost
17 estimates underlying product prices, estimating funding requirements for self-
18 insured programs and captives, and developing reinsurance prices.”

19

20 **Q. Do you have an opinion whether the analysis you and Aon have**
21 **performed on behalf of the Rate Bureau on the net cost of reinsurance for**
22 **this filing has taken into consideration the provisions of that statute?**

23

24 A. Yes. Based on my experience with hurricane models and using modeled
25 hurricane losses along with my experience with catastrophe reinsurance and
26 determining catastrophe reinsurance costs for rate filings, it is my opinion that the

1 net cost of reinsurance analysis for this filing properly considers all of the items
2 set forth by the statute. Further, based on my experience in the actual
3 marketplace, it is my opinion that a reasonable and appropriate provision for the
4 net cost of reinsurance must be incorporated into Dwelling insurance rates in
5 North Carolina for those rates to properly reflect and protect against the
6 catastrophe exposure in this state.

7

8 **Q. Do you have an opinion regarding the appropriateness of the net cost of**
9 **reinsurance provision incorporated into this Dwelling filing?**

10

11 A. Yes. Based on my experience with hurricane models and using modeled
12 hurricane losses along with my experience with catastrophe reinsurance and
13 determining catastrophe reinsurance costs for rate filings, it is my opinion that the
14 provision for the net cost of reinsurance in the filing, at the statewide and territory
15 levels, is reasonable and appropriate.

16

17 **Q. Earlier, you stated that you and your team developed the compensation**
18 **for assessment risk provision in the filing. Why did Aon develop that**
19 **provision instead of Milliman?**

20

21 A. Due to new restrictions imposed by one of the catastrophe modeling
22 companies, Milliman has been unable in recent years to obtain some of the data
23 it typically used in its analysis of the compensation for assessment risk. Mr.
24 Anderson has addressed these challenges in his testimony in recent filings. Aon
25 is very familiar with the questions related to compensation for assessment risk,

1 and we routinely perform a very similar analysis for our clients. After consultation
2 with Rate Bureau staff, Milliman, and the Rate Bureau's Property Rating
3 Subcommittee, we all agreed that Aon would perform the compensation for
4 assessment risk analysis for this rate review and filing.

5

6 **Q. Can you please describe the issues related to the Compensation for**
7 **Assessment Risk?**

8

9 A. Property insurance written in the residual market in North Carolina presents
10 considerable risk for primary insurers that write property insurance. The North
11 Carolina Insurance Underwriting Association (i.e., the Coastal Property Insurance
12 Pool, or "Beach Plan") and the North Carolina Joint Underwriting Association
13 (i.e., the FAIR Plan) together serve as that residual market. The Beach Plan and
14 FAIR Plan provide property insurance when policyholders are unable to purchase
15 insurance coverage from companies in the voluntary market. In states like North
16 Carolina with significant exposure to catastrophic events and/or where the
17 availability of insurance is limited in voluntary market, property insurance residual
18 markets may grow to represent a sizable portion of the total insured risk. In
19 North Carolina, the Beach Plan and FAIR Plan have become the predominant
20 writers of dwelling insurance in both the 18 coastal counties and the rest of the
21 state.

22

23 Similar to insurance companies writing voluntary business, the Beach and FAIR
24 Plans use the premiums collected from policies they issue to fund the losses and
25 expenses attributable to the coverages they insure. When premiums are greater

1 than losses and expenses during a given year, the Beach Plan and the FAIR
2 Plan accumulate surplus. That surplus is available to pay losses in the event that
3 future losses and expenses exceed collected premiums plus investment income.
4 However, if the surplus of either the Beach Plan or FAIR Plan is exhausted, then
5 additional losses of that entity are passed through to property insurers in North
6 Carolina in the form of an assessment. The potential overall industry
7 assessment from the Beach Plan for any single year is capped at \$1 billion, but
8 the potential assessment from the FAIR Plan is unlimited. If losses in the Beach
9 Plan exceed the retained surplus, the \$1 billion industry assessment, and any
10 other resources of the Beach Plan (such as reinsurance), any additional losses
11 are passed through directly to residential property insurance policyholders in
12 North Carolina.

13

14 This risk of potential assessment by the Beach Plan and/or FAIR Plan on
15 property insurers in North Carolina requires that those companies be
16 compensated for the additional risk to their capital. To quantify this risk, Aon has
17 applied a procedure previously developed by Milliman and adopted by NCRB to
18 incorporate a provision in property insurance rates (homeowners insurance,
19 dwelling insurance, and mobile home insurance) that compensates insurers for
20 that risk.

21

1 **Q. Can you please explain the procedure you used to determine the needed**
2 **Compensation for Assessment Risk?**

3

4 A. Yes. There are two steps in the methodology to quantify the compensation for
5 assessment risk. The first step is to calculate the magnitude of the exposure
6 itself, and the second step is to determine the fair compensation to be paid to
7 insurers for being required to bear that risk.

8

9 To quantify the magnitude of the exposure, it is necessary to estimate the
10 expected value of the assessments on insurers arising from catastrophic losses
11 incurred by the Beach Plan and/or FAIR Plan. Because an assessment on
12 insurers results only after either the Beach Plan or FAIR Plan has exhausted
13 other resources available to pay losses, we needed to determine the likelihood of
14 that occurring as well as the amount by which the losses exceed those other
15 resources.

16

17 Aon quantified the risk of assessment by the Beach Plan and FAIR Plan using a
18 methodology similar to that developed by Milliman and presented in previous
19 filings. First, Aon collected the Beach Plan's and FAIR plan's exposure at county
20 level from the Beach Plan's and FAIR plan's websites for the 2022-2023 storm
21 season. Then we reviewed the Beach Plan's and FAIR plan's reinsurance
22 programs in place for the 2022-2023 storm season, along with assumptions of
23 the Beach Plan's and FAIR plan's accumulated surplus available for the season.

1 The accumulated surplus and available reinsurance are the “other resources”
2 that are available to pay for hurricane losses during the 2022-2023 storm season.
3 Aon then ran the AIR and RMS hurricane models on the Beach Plan’s and FAIR
4 Plan’s exposures for the 2022-2023 storm season, calibrated modeled event
5 losses based on the published PML information available on the Beach Plan’s
6 and FAIR plan’s websites, and evaluated the impact of reinsurance on each
7 modeled event. Aon utilized its in-house dynamic simulation model ReMetrica to
8 calculate the Beach Plan and FAIR plan deficits after applying their reinsurance
9 and surplus. For each adjusted modeled loss, ReMetrica determined the amount
10 of loss that would be covered by reinsurance and the remaining losses that
11 would be funded either from the Beach Plan’s or FAIR plan’s accumulated
12 surplus, through assessments on property insurers in the state, or ultimately
13 through assessments on North Carolina property insurance policyholders. We
14 subtracted the accumulated surplus of the Beach Plan and FAIR Plan from the
15 losses remaining after reinsurance, limited the assessable losses due to the
16 Beach Plan exposures to \$1 billion, and calculated the average assessment on
17 property insurers across all events simulated by the models. This average
18 assessment on property insurers is equal to the expected value of the losses that
19 would be funded through assessments on North Carolina property insurers.

20

21 As I mentioned earlier, this calculation produces a measure of the magnitude of
22 the assessment exposure. That is, it represents the risk to insurers’ capital that
23 is associated with the exposure to Beach Plan or FAIR Plan assessments. The

1 next step is to use the method previously developed by Milliman to measure the
2 fair compensation to insurers for bearing this risk.

3

4 **Q. Can you please explain how you measured the compensation needed for**
5 **bearing this risk?**

6

7 A. Yes. To measure the fair compensation for bearing this risk, we relied on
8 publicly available data that quantifies the market price of catastrophe risk, taken
9 from recently-issued insurance linked securities. Insurance linked securities
10 (ILS) are securities such as catastrophe bonds, which have conditional payoffs
11 that are very similar to reinsurance. Investors purchase these securities at
12 significant yield premiums compared to risk-free bonds because the investors are
13 exposed to loss of principal and interest if certain “insured events” occur.

14

15 **Q. What kind of ILS data are available and how is this information used to**
16 **determine the compensation for assessment risk?**

17

18 A. We relied on insurance linked security yield information to price the
19 Compensation for Assessment Risk. Lane Financial, LLC is a firm that has
20 specialized in the analysis of insurance linked securities. In the past, Lane
21 published a table of data each year that summarized a variety of information that
22 can be used to evaluate the fair compensation for bearing catastrophe risk. For
23 each ILS in the table, Lane published the following data: the yield on the

1 security; the excess return over the risk-free rate; the probability that the security
2 will suffer a loss; and the expected value of loss anticipated on the security.
3 These data elements provide the foundation for the analysis of the proper
4 compensation for bearing the risk of Beach Plan or FAIR Plan assessments.
5 However, Lane has not published the insurance linked securities table since
6 March 2022.

7

8 Aon also collects and aggregates insurance linked securities information similar
9 to the information published by Lane. For each insurance linked security in Aon's
10 table, the following data are available: the peril and region the insurance linked
11 security covers; the yield on the security; the excess return over the risk-free
12 rate; the probability that the security will be attaching; and the expected value of
13 loss anticipated on the security. For the 2023 CAR study, the 2013 – 2021
14 information utilized was from Lane Financial and the 2022 data utilized was from
15 Aon.

16

17 There are a number of defined terms that are useful in describing the mechanics
18 of the compensation for assessment risk analysis.

- 19 ■ The "*yield spread*" is the difference between the yield on a particular ILS and
20 the risk-free rate. If a \$100 million bond is issued with a yield spread of 10%,
21 this implies that the insurer issuing the bond would pay \$10 million in interest
22 in excess of the interest at the risk-free rate to encourage investors to
23 purchase such a security.

- 1 ▪ Continuing with the example of the \$100 million bond above, now assume
2 that the distribution of hurricane losses is such that, based on the probability
3 and amount of potential hurricane losses, an investor would anticipate having
4 an average loss of \$2 million per year. This amount is identified as the
5 “expected loss.”
- 6 ▪ Since the investor in this example receives compensation of \$10 million in
7 excess of the risk-free rate for bearing the risk of loss, the “expected profit” to
8 the investor is \$8 million (i.e., \$10 million in interest in excess of the interest at
9 the risk-free rate minus \$2 million of expected losses).
- 10 ▪ Finally, the “profit multiple” is the ratio of expected profit to expected loss. In
11 the above example, the profit multiple would be \$8 million of expected profit
12 divided by \$2 million of expected loss, or a profit multiple of 4.0.
- 13 The profit multiples derived from insurance linked securities provide an estimate
14 of the compensation that investors require to bear catastrophe risk. This
15 information tells us what investment returns are required by capital providers in
16 order to take on the risk of loss from a catastrophic event. One particularly
17 important feature of this metric is that it is a measure of compensation per dollar
18 of expected loss. As a result, because the first step of our analysis determines
19 the expected value of losses that would be funded through assessments, the
20 profit multiple can be applied to those expected values to develop an estimate of
21 the fair compensation for bearing such risk. This is the measure of risk we relied
22 upon in evaluating the fair compensation for property insurers whose capital is
23 exposed to Beach Plan and/or FAIR Plan assessments.

1

2 **Q. Generally speaking, which insurance linked securities have larger risk**
3 **premiums and higher profit multiples?**

4

5 A. For exposures such as catastrophic events, securities that have a lower
6 probability of incurring a loss have greater volatility and, as a result, have larger
7 risk premiums. Securities with larger risk premiums have a larger ratio of
8 expected profit to expected loss and, as such, have higher profit multiples.

9

10 **Q. Have you developed any exhibits that summarize the calculations used**
11 **to develop the fair compensation to insurers for bearing the risk of Beach**
12 **Plan and/or FAIR Plan assessments?**

13

14 A. Yes. Exhibit RB-17 contains ten pages of information required to develop the
15 fair compensation for bearing Beach Plan and FAIR Plan assessment risk.

16 ▪ Page 1 of Exhibit RB-17 shows the curve fit to the ILS profit multiples
17 based on all catastrophe-related securities issued in the last ten years. As
18 I explained earlier, nine years of ILS data came from Lane's and one year
19 of ILS data came from Aon. This exhibit also includes the equation of the
20 fitted curve, which can be used to determine the profit multiple for any
21 layer to which insurer capital is exposed.

22 ▪ Page 2 of Exhibit RB-17 shows a summary of the Beach Plan's
23 reinsurance program, and Page 6 shows a similar summary of the FAIR

1 Plan's reinsurance program, both for 2022. These summaries include the
2 various layers of reinsurance purchased and the coverage levels within
3 those layers.

4 ■ Pages 3 and 7 display the profit multiples calculated for each layer of the
5 Beach Plan's and FAIR Plan's loss distributions, based on the equation
6 shown on Page 1. In order to determine the fair compensation to
7 voluntary insurers for bearing the risk of assessments, we need to
8 determine which layers contain losses that will be funded by assessments,
9 as well as the corresponding expected losses within those layers. The
10 profit multiples can then be applied to the expected losses to determine
11 the appropriate compensation per dollar of expected loss in each layer.

12 ■ Pages 4 and 8 illustrate how potential losses for the Beach Plan
13 Residential Account and FAIR Plan are funded. (The Beach Plan
14 determines losses and assesses voluntary insurers separately for each
15 account, while the FAIR Plan has only one account.) Because of the \$1
16 billion annual cap on Beach Plan assessments, any amounts needed to
17 pay claims in excess of the assessable amounts are to be collected
18 through surcharges on property insurance policyholders statewide. For
19 each event simulated by the hurricane models, losses are separated by
20 account (Beach Plan Residential, Beach Plan Commercial, FAIR Plan
21 Residential, and FAIR Plan Commercial). The losses for each account
22 are then divided into layers based on the source of funding for those
23 losses – Beach Plan or FAIR Plan surplus, assessments on voluntary

1 insurers, private reinsurance, and ultimately any additional amounts in the
2 Beach Plan to be covered by policyholder surcharges. Finally, the losses
3 associated with each event are accumulated in each of the loss layers to
4 determine expected values.

- 5 ■ Pages 4 and 8 illustrate the funding of potential losses within each layer.
6 Since the purpose of this analysis is to determine the fair compensation
7 for the risk of assessments on private insurers, the analysis must take into
8 account the probability of losses occurring within each layer and the
9 expected value of the losses that will be borne by private insurers. Pages
10 5 and 9 of Exhibit RB-17 provide that analysis. Those pages show the
11 expected value of the losses that would be covered by the Beach Plan
12 Residential and FAIR Plan accounts, and the average annual amount of
13 those losses that would be assessed to private insurers. Pages 5 and 9
14 also display the average profit multiples associated with each layer of the
15 loss distribution, and the product of the indicated profit multiples times the
16 expected losses within each layer. The sum of those values is the
17 indicated compensation for assessment risk for each account.
- 18 ■ The final step in the calculation is to determine the appropriate provision to
19 be included in the dwelling insurance rates to compensate insurers for the
20 risk of Beach Plan and/or FAIR Plan assessments. This provision is
21 expressed as a percent of premium and is developed on Page 10 of
22 Exhibit RB-17. Since assessments for Beach Plan and/or FAIR Plan
23 losses are applied to all property insurance lines in the state, the table on

1 Exhibit RB-17, Page 10 shows the development of a provision that will
2 produce an amount of revenue equal to the total required compensation of
3 \$120.23 million when incorporated into the rates for homeowners, dwelling
4 and mobile home insurance in North Carolina. As shown on this exhibit,
5 that provision is 3.2% of total property insurance premium in the state.

6 **Q. Did you make any adjustments to the 3.2% compensation for**
7 **assessment risk provision for North Carolina property insurance?**

8

9 A. Yes. Based on discussions during the rate review process, the Rate Bureau
10 was made aware that some reinsurance contracts provide coverage for residual
11 market assessments, including the potential non-recoupable assessments from
12 the Beach Plan and FAIR Plan. As a result, it is possible that the reinsurance
13 contracts purchased by North Carolina property insurance companies may
14 include some coverage for assessments such that the exposure to Beach Plan
15 and/or FAIR Plan assessments is no longer fully retained by the primary carrier.
16 Given this information and the information that not all companies buy reinsurance
17 that includes coverage for residual market assessments, the Rate Bureau made
18 the assumption that 50% of the North Carolina property insurance companies'
19 exposure to assessments from the Beach Plan and/or FAIR Plan is retained by
20 the companies.

21

1 As a result, we multiplied this expected 50% market share by the 3.2% full
2 compensation for assessment risk provision to determine an overall
3 compensation for assessment risk provision of 1.6%.

4

5 **Q. In your opinion, is it appropriate to include a 1.6% provision for the**
6 **compensation for assessment risk in dwelling insurance rates in North**
7 **Carolina?**

8

9 A. Yes. Insurance companies writing dwelling policies in North Carolina are
10 exposed to the risk of Beach Plan and FAIR Plan assessments as a result of
11 writing voluntary market property insurance in the state. Those insurance
12 companies are entitled to receive fair compensation for bearing that risk, and it is
13 appropriate to include that compensation in the dwelling rates. The
14 compensation for assessment risk methodology we used here relies on a widely
15 accepted measure of compensation to determine a provision that will fairly
16 compensate insurers for bearing this additional risk to their capital. Moreover,
17 the North Carolina statutes provide that prospective exposure to non-recoupable
18 assessments shall be considered as an appropriate factor in the making of rates
19 by the Rate Bureau.

20

21 **Q. Does that conclude your testimony?**

22

23 A. Yes.

Minchong Mao, FCAS, CCRMP, MAAA, Actuary

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Chicago, IL 60601
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Email: minchong.mao@aon.com

Summary

- Over twenty years of experience with insurance, reinsurance, catastrophe risk management, actuarial pricing and management at State Farm Insurance Companies and Aon plc
- Commission Member, actuary representing the property insurance industry on the Florida Commission on Hurricane Loss Projection Methodology (FCHLPM) 2015-2018
- Strong leadership, work ethic, communication and teamwork skills
- Deep knowledge and experience in Insurance operations, including Actuary, Underwriting, and Claims.
- Extensive experience and understanding with catastrophe models, underlying science and methodologies

Experience

Senior Managing Director, Actuary
Aon Reinsurance Solutions
April 2021– Present

Managing Director, Actuary
Aon Reinsurance Solutions
September 2018– April 2021

Major Responsibilities include:

- Manage the catastrophe actuarial and predictive analytics group within Aon Reinsurance Solutions which focuses on supporting Aon clients' ratemaking and underwriting needs.
- Implement and sign off Aon's ASOP 38 compliance framework.
- Provide rate filing support for Aon's clients through regulatory challenges.
- Serve on Impact Forecasting leadership steering committee to oversee Impact Forecasting's product strategies and priorities.
- Serve as Aon Impact Forecasting's signatory actuary during Florida Commission on Hurricane Loss Projection Methodology submissions.
- Manage Homeowner Return on Equity (ROE) Outlook study. Aon's Homeowners ROE Outlook calculates risk-adjusted returns for the US homeowners industry, provides the insurance industry with market reality diagnostics and profitability insights.
- Manage Residual Market Industry study. This product provides a holistic view of the residual market's impact on the property insurance industry and the individual company's risk profile.
- Serve as Aon's key corporate contact for China business development and expansion.

Catastrophe Modeling Manager, Actuary
 State Farm Insurance Companies
 Feb. 2005– Sept. 2018
 Major Responsibilities included:

- Manage State Farm's catastrophe modeling unit. State Farm's catastrophe modeling practice grew into the industry's leading practice with high quality and productivity under my leadership.
- Manage vendor relationships with AIR, EQECAT, ARA, and RMS. Negotiate contract terms and conditions, engage vendors' support through regulatory challenges.
- Provide Actuarial opinions on State Farm's use of catastrophe models. Oversee the due diligence and model validation work to ensure catastrophe modeling practices at State Farm meet the Actuarial Standards and comply with laws and regulatory requirements.
- Serve as a resource to the Corporate Law department for litigation and legislative issues.
- Provide various catastrophe risk measures and analytics (PML, TVaR, Standard Deviations, etc.) for State Farm Fire and Affiliates for exposure management and reinsurance purposes.
- Provide catastrophe information to rating agencies such as AM Best, S&P and Moody's.
- Develop and deploy hazard analysis tools across the Enterprise for exposure underwriting and management.
- Utilize catastrophe data in Dynamic Financial Analysis projects to analyze capital adequacy and capital allocation; develop simulation tools to incorporate catastrophe risk into Enterprise Risk Management.
- Provide exposure information, technical support, risk analysis and documentation reviews for all State Farm's issuances of catastrophe bonds.
- Lead State Farm's compliance work to meet Office of the Superintendent of Financial Institutions (OSFI) B-9 - Earthquake Sound Practice requirements.
- Monitor modeling regulations in several jurisdictions (FL, LA, SC, HI, MD, etc.). Work with State Farm counsel to provide revisions to bills related to coastal issues and catastrophe risk management during legislative sessions.
- Represent the Actuarial department on State Farm Enterprise Catastrophe Response Team. Provide real time analysis for actual catastrophe events to assist Catastrophe Claims' resources deployment, Catastrophe Reserving and communicate with Senior Management about the potential impact.
- Serve as a homeowner pricing manager for Mississippi for two years, with major responsibilities including:
 - Manage the development and implementation of rates and rules for several personal lines which satisfy the financial objectives of the enterprise.
 - Coordinate the analyses of actuarial ratemaking process
 - Review rate proposals.
 - Serve as a key Actuarial resource for Market Areas and regulators.

Actuarial/Statistics/Modeling Analyst
 Jan 2001– Feb. 2005

- Conducted homeowner rate revisions for Maine, Kansas, and Mississippi.
- Developed and maintained State Farm's rate revision tool for property lines.

Other Professional Activities

- 2015 – 2018, Commission Member, Industry Actuary, Florida Commission on

Hurricane Loss Projection Methodology (FCHLPM). I was appointed by Florida CFO Jeff Atwater to this position in Jan. 2015.

- 2010 – 2013, advisory group member to the Insurance Bureau of Canada (IBC) and Office of the Superintendent of Financial Institutions (OSFI) to provide expert opinions on a study for insurance and economic impact of major earthquakes in Canada.
- 2011- 2013, advisory group member for the Insurance Bureau of Canada (IBC) and Office of the Superintendent of Financial Institutions (OSFI) to revise OSFI Guideline B-9 (Earthquake Exposure Management Sound Practice Guideline for insurance companies).
- 2012-2016, organized nine State Farm senior executives delegation (including State Farm's CEO, COO, CFO, CMO, General Counsel, CTO, CSO) visits to China. Established relationship and set up meetings with Chinese regulators and senior executives of top Chinese insurance companies. Participated in discussions, served as advisor and interpreter for State Farm delegations.
- 2012-2018, visiting instructor for Illinois State University Math Department Actuarial Science program. Present catastrophe modeling and regularity topics to actuarial graduate students.
- 2014- 2018, board member of the International Society of Catastrophe Managers (ISCM). Promote education and career development for Catastrophe Modeling professionals.
- 2016- Present, co-chair of a taskforce to create a credential and certificate program for catastrophe risk management professionals on behalf of Institute of Casualty Actuarial Society (iCAS) and International Society of Catastrophe Managers (ISCM).
- 2016- Present, Member of Property /Casualty Extreme Events Committee, American Academy of Actuaries. This committee identifies issues relevant to the treatment of extreme catastrophe risks including sizing, insurability, pricing, funding, reserving, capital management, and loss mitigation. The committee also monitors federal and state catastrophe legislation and interacts with NAIC on these issues.
- 2016 – 2018, member of planning committee for the Reinsurance Association of America's annual catastrophe modeling conference.
- 2016 – Present, member of CAS Climate Change Committee. This committee recommends, supports and performs research on climate change and assesses the potential risk management implications for the insurance industry.

Designations

- Fellow of Casualty Actuarial Society (FCAS, 2007)
- Certified Catastrophe Risk Management Professional (CCRMP, 2019)
- Associate of Society of Actuaries (ASA, 2010) Currently, I am not an active member at SOA.
- Member of American Academy of Actuaries (MAAA,2005)
- Microsoft Certified Solution Developer (MCSD)
- Microsoft Certified Professional (MCP)

Education

- Master's degree in Computer Science, University of Missouri-Columbia, 2000
- Master's degree in Chemistry, Eastern Illinois University, 1997
- Bachelor's degree in Chemical Engineering, Beijing University of Chemical Technology, 1993

Award

- Special Achievement awards for excellent performance and exceptional business achievements, Property and Casualty Actuarial Department, State Farm Insurance in 2002, 2009, 2011, 2012, 2014, 2015, and 2016.
- Casualty Actuarial Society (CAS) Above and Beyond Achievement Award in 2019 to recognize my leadership role to establish Certified Catastrophe Risk Management Professional (CCRMP) designation for CAS Institute. The "Above & Beyond Achievement Award" is made annually, to one or more members of the CAS, who have made extraordinary contributions to the society.

Publications

- As a member of the American Academy of Actuaries Flood Working Group, I am one of the authors for the **Monograph on Issues Surrounding National Flood Insurance Program - The National Flood Insurance Program: Challenges and Solutions**. *American Academy of Actuaries*, April, 2017
- Akram Hazeen, Yan Zhang, Minchong Mao, Craig A. Wheeler, and Mark E. McGuire, **6-[(4-Hydroxy-phen-yl)diazenyl]-1,10-phenanthroline-1-ium chloride monohydrate**, *US National Library of Medicine, National Institutes of Health (NIH)*, Dec. 1, 2011.
- As a member of the American Academy of Actuaries Flood Working Group, I am one of the authors of the following Monographs:

The National Flood Insurance Program: Challenges and Solutions (2017)
American Academy of Actuaries, April, 2017

Uses of Catastrophe Model Output (2018). American Academy of Actuaries,
July, 2018

Wildfire: An Issue Paper - Lessons Learned from the 2017–2018
California Events (2019), American Academy of Actuaries, June, 2019

Reference

- Available upon request.

North Carolina Rate Bureau
Gross Modeled Hurricane Expected Losses including Cat LAE

Territory	Total Loss
110	20,534,086
120	23,193,356
130	2,507,769
140	21,004,893
150	4,747,762
160	5,336,009
170	268,885
180	3,229,865
190	1,715,607
200	1,065,397
210	758,050
220	2,915,283
230	1,759,724
240	1,774,390
250	1,179,696
260	452,477
270	1,895,095
280	340,794
290	436,618
300	418,720
310	1,271,946
320	686,907
330	36,541
340	1,258,985
350	409,519
360	520,418
370	23,023
380	54,969
390	46,669
Grand Total	99,843,453

Modeled hurricane expected losses for North Carolina Rate Bureau, net of limits and deductibles. Results include demand surge and exclude storm surge. Losses represent 50/50 blend of AIRv9 100k Standard event set and RMSv21 Historical event set. Results also include provisions for LAE.

North Carolina Rate Bureau
Gross Modeled Hurricane Expected Losses including Cat LAE

Territory	Policy Form 1	Policy Form 2	Total Loss
110	1,474,666	19,059,420	20,534,086
120	4,207,330	18,986,026	23,193,356
130	959,565	1,548,204	2,507,769
140	7,819,219	13,185,674	21,004,893
150	2,044,698	2,703,064	4,747,762
160	1,926,452	3,409,557	5,336,009
170	142,015	126,870	268,885
180	1,544,504	1,685,361	3,229,865
190	969,503	746,104	1,715,607
200	739,512	325,885	1,065,397
210	391,551	366,499	758,050
220	942,500	1,972,783	2,915,283
230	1,371,108	388,616	1,759,724
240	940,557	833,833	1,774,390
250	516,145	663,551	1,179,696
260	280,240	172,237	452,477
270	213,132	1,681,963	1,895,095
280	100,072	240,722	340,794
290	160,618	276,000	436,618
300	239,484	179,236	418,720
310	353,775	918,171	1,271,946
320	263,805	423,102	686,907
330	21,950	14,591	36,541
340	267,889	991,096	1,258,985
350	147,485	262,034	409,519
360	229,785	290,633	520,418
370	12,791	10,232	23,023
380	24,287	30,682	54,969
390	20,108	26,561	46,669
Grand Total	28,324,746	71,518,707	99,843,453

Modeled hurricane expected losses for North Carolina Rate Bureau, net of limits and deductibles. Results include demand surge and exclude storm surge. Losses represent 50/50 blend of AIRv9 100k Standard event set and RMSv21 Historical event set. Results also include provisions for LAE.



ACTUARIAL STANDARDS BOARD

**Actuarial Standard
of Practice
No. 38**

Revised Edition

**Catastrophe Modeling
(for All Practice Areas)**

**Developed by the
Catastrophe Modeling Task Force of the
General Committee of the
Actuarial Standards Board**

**Adopted by the
Actuarial Standards Board
July 2021**

Doc. No. 201

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July 2021

TO: Members of Actuarial Organizations Governed by the Standards of Practice of the Actuarial Standards Board and Other Persons Interested in Catastrophe Modeling (for All Practice Areas)

FROM: Actuarial Standards Board (ASB)

SUBJ: Actuarial Standard of Practice (ASOP) No. 38

This document contains the revision of ASOP No. 38, *Catastrophe Modeling (for All Practice Areas)*.

History of the Standard

The ASB first began work on a standard for modeling in the late 1990s. Motivated primarily to address the role catastrophe modeling of earthquakes and hurricanes played in casualty ratemaking, this work was focused on the use of specialized models where the actuary would have to rely on a model that was developed by professionals other than actuaries. As a result of this work, the ASB approved ASOP No. 38, *Using Models Outside the Actuary's Area of Expertise*, in June 2000 with the scope of the standard limited to the Property/Casualty area of practice. At the time, this was the only ASOP that specifically addresses modeling.

Over the ensuing years, the number and importance of modeling applications in actuarial science has increased, with the results of actuarial models often entering financial statements directly. Recognizing this trend, the ASB asked the Life Committee in 2010 to begin work on an ASOP focused on modeling. The Life Committee formed a task force to address this issue and, in February 2012, a discussion draft titled *Modeling in Life Insurance and Annuities* was released. Nineteen comment letters were received.

Based upon this feedback and numerous other discussions on the topic of modeling, in December 2012 the ASB created two multidisciplinary task forces under the direction of the General Committee: i) a general Modeling Task Force, charged with developing an ASOP to address modeling applications in all practice areas, and ii) a Task Force to consider expanding ASOP No. 38 to all practice areas while focusing exclusively on using catastrophe models.

An exposure draft titled *Modeling* was released in June 2013 with a scope that provides guidance to actuaries when selecting, designing, building, modifying, developing, or using models when performing actuarial services. ASOP No. 56, *Modeling*, was adopted by the ASB in December 2019. Changes have been made to this exposure draft of ASOP No. 38 to be consistent with ASOP No. 56 and other recent ASOPs.

The exposure draft of this revision of ASOP No. 38 was the work of the Catastrophe Modeling Task Force, whose membership has experience in life insurance, health insurance, property/casualty insurance, and enterprise risk management.

At the direction of the ASB, this standard was developed to apply to all practice areas and all forms of catastrophe models, including natural catastrophes such as hurricanes, earthquakes, and severe convective storms, and other catastrophes such as terrorist acts and pandemics.

Exposure Draft

The exposure draft was approved in September 2020 with a comment deadline of January 15, 2021. Four comment letters were received and considered in making changes that were reflected in the final ASOP.

Notable Changes from the Exposure Draft

Notable changes made to the exposure draft are summarized below. Additional changes were made to improve readability, clarity, or consistency.

1. Section 1.2, Scope, was revised to provide additional guidance to actuaries whose actuarial services involve reviewing or evaluating models.
2. In section 2, Definitions, the definition of “catastrophe model” was expanded to include a definition of model.
3. Section 3.2, Appropriate Reliance on Experts (now titled Catastrophe Models Developed by Experts), was revised to adopt language from ASOP No. 56, section 3.5(b).
4. An existing ASOP No. 38 example regarding validation to evaluate results derived from other models was reinserted into section 3.5.
5. A disclosure requirement for the extent of reliance on experts was added to section 4.1(b) and (c).

Notable Changes from the Existing ASOP

A cumulative summary of the notable changes from the existing ASOP are summarized below. Notable changes do not include additional changes made to improve readability, clarity, or consistency.

1. The ASOP was revised to apply to catastrophe models only and to all practice areas.
2. The scope was expanded to include the activities “selecting, reviewing, and evaluating” models in addition to the existing activity of “using” a model when performing actuarial services.
3. The scope was expanded to clarify that if the actuary determines that the guidance in the ASOP conflicts with the guidance in ASOP No. 56, the guidance of this ASOP will govern.

4. A new section specifically addressing reliance on data or other information supplied by others (section 3.8) was added.
5. The guidance on documentation (section 3.9) was updated and expanded to be consistent with current ASOPs.

The ASB thanks everyone who took the time to contribute comments and suggestions on the exposure draft.

The ASB would like to posthumously thank Martin M. Simons for his contribution to the ASOP No. 38 task force.

The ASB voted in July 2021 to adopt this standard.

Catastrophe Modeling Task Force

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General Committee of the ASB

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The Actuarial Standards Board (ASB) sets standards for appropriate actuarial practice in the United States through the development and promulgation of Actuarial Standards of Practice (ASOPs). These ASOPs describe the procedures an actuary should follow when performing actuarial services and identify what the actuary should disclose when communicating the results of those services.

ACTUARIAL STANDARD OF PRACTICE NO. 38

CATASTROPHE MODELING
(FOR ALL PRACTICE AREAS)

STANDARD OF PRACTICE

Section 1. Purpose, Scope, Cross References, and Effective Date

- 1.1 Purpose—This actuarial standard of practice (ASOP or standard) provides guidance to actuaries when performing actuarial services with respect to selecting, using, reviewing, or evaluating **catastrophe models**.
- 1.2 Scope—This ASOP applies to actuaries in any practice area when performing actuarial services with respect to selecting, using, reviewing, or evaluating **catastrophe models** to assess risk, including but not limited to **models** of hurricanes, earthquakes, severe convective storms, terrorist acts, and pandemics. This standard applies to the selection, use, review, or evaluation of **catastrophe models**, whether or not they are proprietary in nature.

If the actuary's actuarial services involve reviewing or evaluating **catastrophe models**, the reviewing or evaluating actuary should apply the guidance in this standard to the extent practicable within the scope of the actuary's assignment.

In addition to this standard, the actuary should follow the guidance in ASOP No. 56, *Modeling*, when selecting, using, reviewing, or evaluating **catastrophe models**. If the actuary determines that the guidance in this ASOP conflicts with the guidance in ASOP No. 56, the guidance of this ASOP will govern.

This standard does not apply to **models** of operational risks. This standard also does not apply to **models** of economic risks that deal with instances of extreme events such as hyperinflation or a stock market collapse.

This standard also does not apply when the actuary is only designing, developing, or modifying a **catastrophe model** (or a portion of a **catastrophe model**).

If the actuary departs from the guidance set forth in this ASOP in order to comply with applicable law (statutes, regulations, and other legally binding authority), or for any other reason, the actuary should refer to section 4. If a conflict exists between this standard and applicable law, the actuary should comply with applicable law.

- 1.3 Cross References—When this ASOP refers to the provisions of other documents, the reference includes the referenced documents as they may be amended or restated in the future, and any successor to them, by whatever name called. If any amended or restated document differs materially from the originally referenced document, the actuary should consider the guidance in this ASOP to the extent it is applicable and appropriate.
- 1.4 Effective Date—This standard is effective for work performed on or after December 1, 2021.

Section 2. Definitions

The terms below are defined for use in this actuarial standard of practice and appear in bold throughout the ASOP.

- 2.1 Assumption—A type of explicit **input** to a **catastrophe model** that is derived from **data**, represents possibilities based on professional judgment, or may be prescribed by law or others. When derived from **data**, an **assumption** may be statistical, financial, economic, mathematical, or scientific in nature, and may be described as a **parameter**.
- 2.2 Catastrophe Model—A **model** of low-frequency events with high-severity or widespread potential effects. **Catastrophe models** may be used to explain a system, to study effects of different components, or to derive estimates.
- 2.3 Data—Facts or information that are either direct **input** to a **catastrophe model** or inform the selection of **input**. **Data** may be collected from sources such as records, experience, experiments, surveys, observations, benefit plan or policy provisions, or **output** from other **models**.
- 2.4 Expert—One who is qualified by knowledge, skill, experience, training, or education to render an opinion concerning the matter at hand.
- 2.5 Input—**Data** or **assumptions** used in a **catastrophe model** to produce **output**.
- 2.6 Intended Purpose—The goal or question, whether generalized or specific, addressed by the **catastrophe model** within the context of the assignment.
- 2.7 Model—A simplified representation of relationships among real world variables, entities, or events using statistical, financial, economic, mathematical, non-quantitative, or scientific concepts and equations. A **model** consists of three components: an information **input** component, which delivers **data** and **assumptions** to the **model**; a processing

component, which transforms **input** into **output**; and a results component, which translates the **output** into useful business information.

- 2.8 Output—The results of the **catastrophe model** including, but not limited to, point estimates, likely or possible ranges, and **data** or **assumptions** (as **input** for other **models**), behavioral expectations, or qualitative criteria on which decisions could be based.
- 2.9 Parameter—A type of statistical, financial, economic, mathematical, or scientific value that is used as **input** to **catastrophe models**. Examples of **parameters** include expected values in probability distributions and coefficients of formula variables.

Section 3. Analysis of Issues and Recommended Practices

- 3.1 Introduction—In performing actuarial services, the actuary may find it appropriate to select, use, review, or evaluate **catastrophe models**. When selecting, using, reviewing or evaluating a **catastrophe model**, the actuary should do the following:
- a. determine the appropriate level of reliance on **experts**;
 - b. have a basic understanding of the **catastrophe model**;
 - c. evaluate whether the **catastrophe model** is appropriate for the **intended purpose**;
 - d. determine that appropriate validation of the **catastrophe model** and **output** has occurred; and
 - e. determine the appropriate use of the **catastrophe model** and **output**.

The actuary's level of effort in understanding and evaluating a **catastrophe model** should be consistent with the **intended purpose** and the **catastrophe model output's** materiality to the results of the actuarial analysis.

- 3.2 Catastrophe Models Developed by Experts—When selecting, using, reviewing, or evaluating a **catastrophe model** developed by **experts**, the actuary should take into account the following:
- a. whether the individual or individuals who developed the **catastrophe model** are **experts** in the applicable field;
 - b. the extent to which the **catastrophe model** has been reviewed or validated by **experts** in the applicable field, including known differences of opinion among

experts concerning aspects of the **catastrophe model** that could be material to the actuary's use of the **catastrophe model**; and

- c. whether there are industry or regulatory standards that apply to the **catastrophe model** or to the testing or validation of the **catastrophe model**, and whether the **catastrophe model** has been certified as having met such standards.

The actuary may rely on **experts** in the applicable field in the evaluation of items in section 3.2(a)-(c) and should disclose the extent of such reliance.

- 3.3 Understanding of the Catastrophe Model—The actuary should be familiar with the basic components of the **catastrophe model** and understand both the user **input** and the **catastrophe model output**, as discussed below.

- 3.3.1 Catastrophe Model Components—The actuary should be familiar with the basic components of the **catastrophe model** and have an understanding of how such components interrelate within the **catastrophe model**. In addition, the actuary should identify which fields of expertise were used in developing or updating the **catastrophe model** and should make a reasonable effort to determine if the **catastrophe model** is based on generally accepted practices within the applicable fields of expertise. The actuary should also be familiar with how the **catastrophe model** was tested or validated and the level of independent **expert** review and testing.

- 3.3.2 User Input—The actuary should take reasonable steps to confirm that the precision and accuracy of the user **input** are consistent with the **intended purpose** and should refer, as applicable, to ASOP No. 23, *Data Quality*, when selecting, using, or evaluating **data** used in the **catastrophe model**. Certain user **input** may be required to produce **catastrophe model output** for the specific application. User **input** can include **assumptions** or **data**. If the **catastrophe model** requires user **input**, the actuary should evaluate the reasonableness of the user **input** and should have an understanding of the relationship between the user **input** and **catastrophe model output**.

- 3.3.3 Catastrophe Model Output—The actuary should determine that the **catastrophe model output** is consistent with the **intended purpose**.

- 3.4 Appropriateness of the Catastrophe Model for the Intended Purpose—The actuary should evaluate whether the **catastrophe model** is appropriate for the **intended purpose** and take into account the following:

- 3.4.1. Applicability of Historical Data—To the extent historical **data** are used in the development of the **catastrophe model** or the establishment of **catastrophe model parameters**, the actuary should take into account the adequacy of the historical **data** in representing the range of reasonably expected outcomes consistent with current knowledge about the phenomena being analyzed.
- 3.4.2. Developments in Relevant Fields—The actuary should make a reasonable effort to be aware of significant developments in relevant fields of expertise that are likely to materially affect the **catastrophe model**.
- 3.5 Output Validation— The actuary should validate that the **output** reasonably represents that which is being modeled. Depending on the **intended purpose**, **output** validation may include the following:
- a. comparing **output** to those of an alternative **model(s)**, where appropriate;
 - b. comparing the **output** produced by the **catastrophe model** with historical observations, if applicable;
 - c. comparing the consistency and reasonableness of relationships within the **output**; and
 - d. evaluating the reasonableness of changes in the **output** due to variations in the user **input**.
- 3.6 Appropriate Use of the Catastrophe Model and Output—The actuary should evaluate the reasonableness of the **catastrophe model output**, considering the **input** and the **intended purpose**. The actuary should take into account the limitations of the **catastrophe model** and use professional judgment to determine whether it is appropriate to use the **catastrophe model output**. The actuary should also use professional judgment to determine whether any adjustments to the **catastrophe model output** are needed to meet the **intended purpose**. The actuary should disclose any such adjustments in accordance with section 4.1.
- 3.7 Reliance on Another Actuary—The actuary may rely on another actuary who has selected, used, reviewed, or evaluated the **catastrophe model**. However, the relying actuary should be reasonably satisfied that the other actuary is qualified to select, use, review, or evaluate the **catastrophe model** in accordance with applicable ASOPs, and the **catastrophe model** is appropriate for the **intended purpose**. The actuary should disclose the extent of any such reliance.

- 3.8 Reliance on Data or Other Information Supplied by Others—When relying on **data** or other information supplied by others, the actuary should refer to ASOP No. 23 and ASOP No. 41, *Actuarial Communications*, for guidance.
- 3.9 Documentation—The actuary should consider preparing and retaining documentation to support compliance with the requirements of section 3 and the disclosure requirements of section 4. If preparing documentation, the actuary should prepare such documentation in a form such that another actuary qualified in the same practice area could assess the reasonableness of the actuary’s work and should document the steps taken to comply with this standard in light of proprietary aspects of the **catastrophe model**, if any. The degree of such documentation should be based on the professional judgment of the actuary and may vary with the complexity and purpose of the actuarial services. In addition, the actuary should refer to ASOP No. 41 for guidance related to the retention of file material other than that which is to be disclosed under section 4.

Section 4. Communications and Disclosures

- 4.1 Required Disclosures in an Actuarial Report—When issuing an actuarial report to which this standard applies, the actuary should refer to ASOP Nos. 23, 41, and 56. In addition, the actuary should disclose the following in such actuarial reports, as appropriate:
- a. the **catastrophe model** used and the **intended purpose**;
 - b. the methodology used to validate the **catastrophe model** developed by **experts** (see section 3.2);
 - c. the extent of reliance on **experts** (see section 3.2);
 - d. a description of the user **input** that was incorporated into the **catastrophe model** (see section 3.3.2);
 - e. a description of adjustments made to the **catastrophe model output** (see section 3.6); and
 - f. the extent of any reliance placed upon the work of another actuary (see section 3.7).
- 4.2 Additional Disclosures in an Actuarial Report—The actuary also should include disclosures in accordance with ASOP No. 41 in an actuarial report for the following circumstances:
- a. if any material **assumption** or method was prescribed by applicable law;

- b. if the actuary states reliance on other sources and thereby disclaims responsibility for any material **assumption** or method selected by a party other than the actuary; and
 - c. if in the actuary’s professional judgment, the actuary has deviated materially from the guidance of this ASOP.
- 4.3 Confidential Information—Nothing in this ASOP is intended to require the actuary to disclose confidential information.

Appendix 8

Background and Current Practices

Note: This appendix is provided for informational purposes and is not part of the standard of practice.

Background

Hurricane Andrew in 1992 and the Northridge Earthquake in 1994 led actuaries involved in evaluating hurricane and earthquake exposures to recognize the severe inadequacy of the traditional, empirical actuarial methods used for ratemaking for these exposures. Recognizing the need to replace these methods, many actuaries began using stochastic computer simulation models for their actuarial analysis of hurricane and earthquake exposure. Computer simulation models had been commonly used for some time by actuaries and others for the purpose of evaluating probable maximum loss but had not been widely used for ratemaking.

Over time, the output from catastrophe models became commonly used by property/casualty actuaries in developing rates for catastrophic perils as well as many other risk management purposes.

Current Practices

Catastrophe models are now widely used by actuaries in all practice areas for risk management analyses and calculating expected losses due to hurricanes, earthquakes, and terrorist acts. More recently, catastrophe models have also been developed to simulate wildfires, severe convective storms, tsunamis, and pandemics.

In addition, due to changes in regulations and financial reporting requirements, the number and importance of modeling applications in actuarial science has increased, with the results of actuarial models often entering financial statements directly.

Lastly, due to the evolution of enterprise risk management (ERM) practices and regulations, there has been increased use of catastrophe modeling as part of insurer stress testing and risk management across all practice areas. This trend is likely to continue to evolve and heighten in light of the emergence of the novel coronavirus and the COVID-19 pandemic.

Appendix 2

Comments on the Exposure Draft and Responses

The exposure draft of the proposed revision of ASOP No. 38, *Catastrophe Modeling (for All Practice Areas)*, was issued in September 2020 with a comment deadline of January 15, 2021. Four comment letters were received, some of which were submitted on behalf of multiple commentators, such as by firms or committees. For purposes of this appendix, the term “commentator” may refer to more than one person associated with a particular comment letter. The ASOP No. 38 Task Force carefully considered all comments received, and the ASB reviewed (and modified, where appropriate) the changes proposed by the ASOP No. 38 Task Force and the ASB General Committee.

Summarized below are the significant issues and questions contained in the comment letters and the responses. Minor wording or punctuation changes that were suggested but not significant are not reflected in the appendix, although they may have been adopted.

The term “reviewers” in appendix 2 includes the ASOP No. 38 Task Force, the ASB General Committee, and the ASB. Also, the section numbers and titles used in appendix 2 refer to those in the exposure draft, which are then cross referenced with those in the final ASOP.

SECTION 1. PURPOSE, SCOPE, CROSS REFERENCES, AND EFFECTIVE DATE	
Section 1.2, Scope	
Comment	One commentator requested a clearer definition of what is excluded from the scope of ASOP No. 38, noting that catastrophe models can be used to infer economic impacts beyond direct claims and that novel catastrophic perils may fall into a gray area in which ASOP No. 38 may or may not apply.
Response	The reviewers believe the guidance is appropriate and made no change in response to this comment. The reviewers note that section 1.2 does not limit the reason why a catastrophe model is used to perform actuarial services or whether the catastrophe model is a mature or novel catastrophe model.
Comment	One commentator suggested that section 1.2 should state that the guidance in the standard applies to the extent practicable within the scope of the actuary’s assignment when the actuary is reviewing or evaluating a catastrophe model.
Response	The reviewers agree and made the change.
Comment	One commentator suggested that “review or evaluation” be removed from the scope of the standard or alternatively that the scope be changed to exclude an actuary performing a regulatory review.
Response	The reviewers believe the revised guidance is appropriate and made no change in response to this comment.

Comment	One commentator recommended that section 1.2 should state that the application of the standard be based on the actuary’s professional judgement as to the materiality of the model output for the intended user.
Response	The reviewers believe the guidance is appropriate and made no change in response to this comment. The reviewers note that section 3.1 addresses materiality.
Comment	One commentator recommended that section 1.2 should state that the guidance in the standard applies only to the extent of the actuary’s responsibilities and adopt the language from ASOP No. 56 section 1.2.
Response	The reviewers believe the guidance is appropriate and made no change in response to this comment.
Comment	One commentator suggested that the scope of the standard be expanded to include elements similar to ASOP No. 56.
Response	The reviewers believe the revised guidance is appropriate and made no change in response to this comment.
Comment	Several commentators questioned what constituted a conflict between ASOP No. 38 and ASOP No. 56 versus what constituted a difference and asked how potential conflicts are meant to be resolved.
Response	The reviewers believe the revised guidance is appropriate and made no change in response to this comment. The reviewers note that ASOP No. 1, <i>Introductory Standard of Practice</i> , section 4.4, states, “When an actuary believes that multiple ASOPs have conflicting provisions when applied to a specific situation and none provide explicit guidance concerning which governs, the actuary should apply professional judgment and may wish to contact the ABCD for confidential guidance on appropriate practice.”
SECTION 2. DEFINITIONS	
Section 2.2, Catastrophe Model	
Comment	Two commentators suggested clarifying the definition of catastrophe model.
Response	The reviewers agree and made changes similar to those suggested by the commentators to improve clarity.
Comment	One commentator suggested a definition for “model” be added to ASOP No. 38.
Response	The reviewers agree and made the change.
SECTION 3. ANALYSIS OF ISSUES AND RECOMMENDED PRACTICES	
Section 3.1, Introduction	
Comment	One commentator suggested that the use of the term “validation” used in sections 3.1(d) and 3.5 be clarified to distinguish if the terms are being used differently.
Response	The reviewers believe the guidance is appropriate and made no change in response to this comment. The reviewers note section 3.1 introduces validation and section 3.5 provides details on the validation of catastrophe model output.

Section 3.2, Appropriate Reliance on Experts (now titled Catastrophe Models Developed by Experts)	
Comment	One commentator recommended changing “should consider” to “may consider” regarding the appropriate level of reliance on experts to be consistent with the corresponding language in ASOP No. 56, section 3.5.
Response	The reviewers believe the guidance is appropriate and made no change in response to this comment.
Comment	One commentator recommended changing the language in section 3.2(b) to mirror ASOP No. 56, section 3.5(b).
Response	The reviewers agree and made the change.
Comment	One commentator noted that this section, does not include the language of ASOP No. 56, section 3.5(d), which considers whether the science underlying the expertise is likely to produce useful models for the intended purpose.
Response	The reviewers believe the guidance is appropriate and made no change in response to this comment.
Comment	One commentator recommended that ASOP No. 38 be expanded to require disclosure of reliance on experts.
Response	The reviewers agree and made the change.
Comment	One commentator suggested that the ASOP be expanded to explicitly allow reliance on an expert to select, use, review, or evaluate the catastrophe model.
Response	The reviewers believe the guidance is appropriate and consistent with the suggestion, and made no change in response to this comment.
Section 3.5, Appropriate Validation (now titled Output Validation)	
Comment	One commentator requested that results derived from alternate models or methods, where available and appropriate, which is part of current ASOP No. 38, be added.
Response	The reviewers partially agree and modified the language.
Section 3.7, Reliance on Another Actuary	
Comment	One commentator suggested that ASOP No. 56 be added to the requirements for reliance on another actuary.
Response	The reviewers believe the revised guidance is appropriate and made no change in response to this comment.



Statement of Compliance with Actuarial Standard of Practice 38

Minchong Mao, FCAS, MAAA

Background

Actuarial Standard of Practice 38 provides guidance to the actuary in using models that incorporate specialized knowledge outside the actuary's own area of expertise when developing an actuarial work product. When using such a model, the standard requires that the actuary perform five specific tasks, as described below using the numbering system of the standard. This document certifies that Minchong Mao, FCAS, MAAA, has performed these tasks for the catastrophe loss model(s) relied upon in the actuarial work product to which it is attached. It is intended that actuaries utilizing the actuarial work product in their insurance ratemaking efforts can rely on my model evaluation in accordance with Section 3.7 of the standard of practice. In July 2021, Actuarial Standards Board(ASB) adopted revision of ASOP No. 38. This document reflected the most current requirements in the 2021 revision.

Model Versions Covered by this document

- AIR Hurricane model for the United States v17.0.0 utilized in Touchstone versions 2020, 2021 and later, released in 2021
- AIR Severe Thunderstorm Model for the United States v7.0 implemented in Touchstone version 5, 6, 7, 8, 2020, 2021 and later
- AIR Winter Storm Model for the United States v1.5 implemented in Touchstone version 5, 6, 7, 8, 2020, 2021 and later
- AIR Wildfire Model for the United States v2 implemented in Touchstone version 6, 7, 8, 2020, 2021 and later
- AIR Earthquake and Fire Following Model for the United States v10.1 implemented in Touchstone version 6, 7, 8, 2020, 2021 and later. This version included Time Dependent Earthquake Hazard Adjustment.

3.2 Appropriate Reliance on Experts

Catastrophe Models Developed by Experts—When selecting, using, reviewing, or evaluating a catastrophe model developed by experts, the actuary should take into account the following:

- a. whether the individual or individuals who developed the catastrophe model are experts in the applicable field;*
- b. the extent to which the catastrophe model has been reviewed or validated by experts concerning aspects of the catastrophe model that could be material to the actuary's use of the catastrophe model; and*
- c. whether there are industry or regulatory standards that apply to the catastrophe model or to the testing or validation of the catastrophe model, and whether the catastrophe model has been certified as having met such standards.*



For those aspects of the model that are outside my area of expertise, I have relied on the list of experts provided by the modeler. Please see the modeler's ASOP 38 document and supporting documentation for additional information.

- a. The individuals listed as employees of the modeler appear to be experts in their respective fields.
- b. The modeler has provided documentation of reviews by outside experts. Many of these reviewers are well-recognized experts in their fields. I have reviewed the findings of the outside experts and found no significant differences of opinion with respect to the validity of the model.
- c. Standards for catastrophe loss models have been promulgated by a few states. Most notably, the Florida Commission on Hurricane Loss Projection Methodology was created to review catastrophe loss models. The model(s) used in this work product, or derivatives thereof, have been certified by the Florida Commission on Hurricane Loss Projection Methodology.

3.3 Understanding of the Model

The actuary should be familiar with the basic components of the catastrophe model and understand both the user input and the catastrophe model output, as discussed below.

I have reviewed the modeler's ASOP 38 document and supporting documentation describing the model's components, input, and output, as well as other documentation, to comply with this requirement. In addition, I have specialized in actuarial applications of catastrophe model output since 2005.

3.3.1 Catastrophe Model Components—The actuary should be familiar with the basic components of the catastrophe model and have an understanding of how such components interrelate within the catastrophe model. In addition, the actuary should identify which fields of expertise were used in developing or updating the catastrophe model and should make a reasonable effort to determine if the catastrophe model is based on generally accepted practices within the applicable fields of expertise. The actuary should also be familiar with how the catastrophe model was tested or validated and the level of independent expert review and testing.

I am reasonably familiar with the basic components of the model and have a basic understanding of how such components interrelate within the model. I have identified the fields of expertise used in developing and updating the model and have determined that the model is based on generally accepted practices within the applicable fields of expertise. I am reasonably familiar with how the model was validated and have reviewed the documentation of reviews by outside experts.

3.3.2 User Input—The actuary should take reasonable steps to confirm that the precision and accuracy of the user input are consistent with the intended purpose and should refer, as applicable, to ASOP No. 23, Data Quality, when selecting, using, or evaluating data used in the catastrophe model. Certain user input may be required to produce catastrophe model output for the specific application. User input can include assumptions or data. If the catastrophe model requires user input, the actuary should evaluate the reasonableness of the user input and should have an understanding of the relationship between the user input and catastrophe model output.

I understand the user input required to produce model output, including the level of detail required to produce results that are consistent with insurance ratemaking and risk management applications.



3.3.3 Catastrophe Model Output—The actuary should determine that the catastrophe model output is consistent with the intended purpose.

I have determined that the model output is consistent with the insurance ratemaking applications for which it was used. We most often use event loss detail in our work, so we are always careful that our results balance to the model's prepared exhibits.

3.4 Appropriateness of the Model for the Intended Application

The actuary should evaluate whether the catastrophe model is appropriate for the intended purpose and take into account the following:

3.4.1. Applicability of Historical Data—To the extent historical data are used in the development of the catastrophe model or the establishment of catastrophe model parameters, the actuary should take into account the adequacy of the historical data in representing the range of reasonably expected outcomes consistent with current knowledge about the phenomena being analyzed.

3.4.2. Developments in Relevant Fields—The actuary should make a reasonable effort to be aware of significant developments in relevant fields of expertise that are likely to materially affect the catastrophe model.

The catastrophe model(s) we have relied upon were developed for purposes related to the management of risk. I have evaluated the model(s) in light of available alternatives and determined that the catastrophe loss model is the most appropriate method of estimating expected catastrophe loss distributions for insurance ratemaking.

Some additional considerations include the following:

3.4.1. Applicability of Historical Data: Historical data is relied upon extensively in the development and validation of catastrophe loss models. Smoothing procedures are applied in cases where reasonably foreseeable events are underrepresented in the historical data.

3.4.2. Developments in Relevant Fields: Catastrophe loss models are typically updated on an annual basis in order to incorporate the most current scientific research and information from recent catastrophe events.

I have made a reasonable effort to be aware of significant developments in the relevant fields of expertise. In particular, meteorological studies related to the current period of elevated hurricane activity are important in determining which of a model's frequency assumptions should be utilized in insurance ratemaking applications involving hurricane-exposed risk portfolios. Aon maintains a documentation library containing current research in the science of catastrophe perils.

3.5 Output Validation

The actuary should validate that the output reasonably represents that which is being modeled. Depending on the intended purpose, output validation may include the following:

- a. comparing output to those of an alternative model(s), where appropriate;*
- b. comparing the output produced by the catastrophe model with historical observations, if applicable;*
- c. comparing the consistency and reasonableness of relationships within the output; and*
- d. evaluating the reasonableness of changes in the output due to variations in the user input.*

a. Aon conducts extensive testing of each model that we license whenever a new model is released. Output from Model output is checked for reasonability against other models and for consistency with the modeler's representations as to changes incorporated in the current version. I have reviewed the results of these tests and found the model used in this analysis to provide reasonable output.

b. Catastrophes, by their nature, involve significant uncertainty in the amount of insured losses they produce. In light of this uncertainty, the model has been shown to produce reasonable estimates of losses incurred from historical events.

I have reviewed the modeler's ASOP 38 document and supporting documentation describing comparisons of model output to historical observations and found that the model produces reasonable estimates.

c. I have reviewed the relationships among output results and found them to be consistent and reasonable.

d. Aon conducts extensive testing of each model that we license with respect to the sensitivity of model output to variations in the user input and model assumptions. I have reviewed the results of these tests and obtained an understanding of the model's sensitivity.

3.6 Appropriate Use of the Model

The actuary should evaluate the reasonableness of the catastrophe model output, considering the input and the intended purpose. The actuary should take into account the limitations of the catastrophe model and use professional judgment to determine whether it is appropriate to use the catastrophe model output. The actuary should also use professional judgment to determine whether any adjustments to the catastrophe model output are needed to meet the intended purpose. The actuary should disclose any such adjustments in accordance with section 4.1.

In my professional judgment, it is appropriate to use the model results, without adjustment, for the purposes of the actuarial work product to which this document is attached.



3.7 Reliance on Another Actuary

The actuary may rely on another actuary who has selected, used, reviewed, or evaluated the catastrophe model. However, the relying actuary should be reasonably satisfied that the other actuary is qualified to select, use, review, or evaluate the catastrophe model in accordance with applicable ASOPs, and the catastrophe model is appropriate for the intended purpose. The actuary should disclose the extent of any such reliance.

Actuaries utilizing the actuarial work product to which this document is attached can rely on my complete evaluation of the model(s) used as described above. In doing so, they should document the extent of such reliance in their work.

Minchong Mao FCAS, MAAA

A handwritten signature in black ink that reads "Minchong Mao".

Nov. 1 2021



Statement of Compliance with Actuarial Standard of Practice 38

Minchong Mao, FCAS, MAAA

Background

Actuarial Standard of Practice 38 provides guidance to the actuary in using models that incorporate specialized knowledge outside the actuary's own area of expertise when developing an actuarial work product. When using such a model, the standard requires that the actuary perform five specific tasks, as described below using the numbering system of the standard. This document certifies that Minchong Mao, FCAS, MAAA, has performed these tasks for the catastrophe loss model(s) relied upon in the actuarial work product to which it is attached. It is intended that actuaries utilizing the actuarial work product in their insurance ratemaking efforts can rely on my model evaluation in accordance with Section 3.7 of the standard of practice. In July 2021, Actuarial Standards Board(ASB) adopted revision of ASOP No. 38. This document reflected the most current requirements in the 2021 revision.

Model Versions Covered by this document

- RMS North Atlantic Hurricane Model v21, released in 2021, implemented in RiskLink V21
- RMS North America Earthquake Model v17.0, released in 2017, implemented in RiskLink V17, 18, 18.1 and 21
- RMS Sever Convective Strom Model for the United States, released in 2014, implemented in RiskLink V17,18, 18.1 and 21
- RMS Winter Storm Model for the United States, release in 2013, implemented in RiskLink V17,18, 18.1 and 21

3.2 Appropriate Reliance on Experts

Catastrophe Models Developed by Experts—When selecting, using, reviewing, or evaluating a catastrophe model developed by experts, the actuary should take into account the following:

- a. whether the individual or individuals who developed the catastrophe model are experts in the applicable field;*
- b. the extent to which the catastrophe model has been reviewed or validated by experts concerning aspects of the catastrophe model that could be material to the actuary's use of the catastrophe model; and*
- c. whether there are industry or regulatory standards that apply to the catastrophe model or to the testing or validation of the catastrophe model, and whether the catastrophe model has been certified as having met such standards.*

For those aspects of the model that are outside my area of expertise, I have relied on the list of experts provided by the modeler. Please see the modeler's ASOP 38 document and supporting documentation for additional information.



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- a. The individuals listed as employees of the modeler appear to be experts in their respective fields.
- b. The modeler has provided documentation of reviews by outside experts. Many of these reviewers are well-recognized experts in their fields. I have reviewed the findings of the outside experts and found no significant differences of opinion with respect to the validity of the model.
- c. Standards for catastrophe loss models have been promulgated by a few states. Most notably, the Florida Commission on Hurricane Loss Projection Methodology was created to review catastrophe loss models. The model(s) used in this work product, or derivatives thereof, have been certified by the Florida Commission on Hurricane Loss Projection Methodology.

3.3 Understanding of the Model

The actuary should be familiar with the basic components of the catastrophe model and understand both the user input and the catastrophe model output, as discussed below.

I have reviewed the modeler's ASOP 38 document and supporting documentation describing the model's components, input, and output, as well as other documentation, to comply with this requirement. In addition, I have specialized in actuarial applications of catastrophe model output since 2005.

3.3.1 Catastrophe Model Components—The actuary should be familiar with the basic components of the catastrophe model and have an understanding of how such components interrelate within the catastrophe model. In addition, the actuary should identify which fields of expertise were used in developing or updating the catastrophe model and should make a reasonable effort to determine if the catastrophe model is based on generally accepted practices within the applicable fields of expertise. The actuary should also be familiar with how the catastrophe model was tested or validated and the level of independent expert review and testing.

I am reasonably familiar with the basic components of the model and have a basic understanding of how such components interrelate within the model. I have identified the fields of expertise used in developing and updating the model and have determined that the model is based on generally accepted practices within the applicable fields of expertise. I am reasonably familiar with how the model was validated and have reviewed the documentation of reviews by outside experts.

3.3.2 User Input—The actuary should take reasonable steps to confirm that the precision and accuracy of the user input are consistent with the intended purpose and should refer, as applicable, to ASOP No. 23, Data Quality, when selecting, using, or evaluating data used in the catastrophe model. Certain user input may be required to produce catastrophe model output for the specific application. User input can include assumptions or data. If the catastrophe model requires user input, the actuary should evaluate the reasonableness of the user input and should have an understanding of the relationship between the user input and catastrophe model output.

I understand the user input required to produce model output, including the level of detail required to produce results that are consistent with insurance ratemaking and risk management applications.

3.3.3 Catastrophe Model Output—The actuary should determine that the catastrophe model output is consistent with the intended purpose.



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I have determined that the model output is consistent with the insurance ratemaking applications for which it was used. We most often use event loss detail in our work, so we are always careful that our results balance to the model's prepared exhibits.

3.4 Appropriateness of the Model for the Intended Application

The actuary should evaluate whether the catastrophe model is appropriate for the intended purpose and take into account the following:

3.4.1. Applicability of Historical Data—To the extent historical data are used in the development of the catastrophe model or the establishment of catastrophe model parameters, the actuary should take into account the adequacy of the historical data in representing the range of reasonably expected outcomes consistent with current knowledge about the phenomena being analyzed.

3.4.2. Developments in Relevant Fields—The actuary should make a reasonable effort to be aware of significant developments in relevant fields of expertise that are likely to materially affect the catastrophe model.

The catastrophe model(s) we have relied upon were developed for purposes related to the management of risk. I have evaluated the model(s) in light of available alternatives and determined that the catastrophe loss model is the most appropriate method of estimating expected catastrophe loss distributions for insurance ratemaking.

Some additional considerations include the following:

3.4.1. Applicability of Historical Data: Historical data is relied upon extensively in the development and validation of catastrophe loss models. Smoothing procedures are applied in cases where reasonably foreseeable events are underrepresented in the historical data.

3.4.2. Developments in Relevant Fields: Catastrophe loss models are typically updated on an annual basis in order to incorporate the most current scientific research and information from recent catastrophe events.

I have made a reasonable effort to be aware of significant developments in the relevant fields of expertise. In particular, meteorological studies related to the current period of elevated hurricane activity are important in determining which of a model's frequency assumptions should be utilized in insurance ratemaking applications involving hurricane-exposed risk portfolios. Aon maintains a documentation library containing current research in the science of catastrophe perils.

3.5 Output Validation

The actuary should validate that the output reasonably represents that which is being modeled. Depending on the intended purpose, output validation may include the following:

a. comparing output to those of an alternative model(s), where appropriate;



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- b. comparing the output produced by the catastrophe model with historical observations, if applicable;*
- c. comparing the consistency and reasonableness of relationships within the output; and*
- d. evaluating the reasonableness of changes in the output due to variations in the user input.*

a. Aon conducts extensive testing of each model that we license whenever a new model is released. Output from Model output is checked for reasonability against other models and for consistency with the modeler's representations as to changes incorporated in the current version. I have reviewed the results of these tests and found the model used in this analysis to provide reasonable output.

b. Catastrophes, by their nature, involve significant uncertainty in the amount of insured losses they produce. In light of this uncertainty, the model has been shown to produce reasonable estimates of losses incurred from historical events.

I have reviewed the modeler's ASOP 38 document and supporting documentation describing comparisons of model output to historical observations and found that the model produces reasonable estimates.

c. I have reviewed the relationships among output results and found them to be consistent and reasonable.

d. Aon conducts extensive testing of each model that we license with respect to the sensitivity of model output to variations in the user input and model assumptions. I have reviewed the results of these tests and obtained an understanding of the model's sensitivity.

3.6 Appropriate Use of the Model

The actuary should evaluate the reasonableness of the catastrophe model output, considering the input and the intended purpose. The actuary should take into account the limitations of the catastrophe model and use professional judgment to determine whether it is appropriate to use the catastrophe model output. The actuary should also use professional judgment to determine whether any adjustments to the catastrophe model output are needed to meet the intended purpose. The actuary should disclose any such adjustments in accordance with section 4.1.

In my professional judgment, it is appropriate to use the model results, without adjustment, for the purposes of the actuarial work product to which this document is attached.

3.7 Reliance on Another Actuary

The actuary may rely on another actuary who has selected, used, reviewed, or evaluated the catastrophe model. However, the relying actuary should be reasonably satisfied that the other actuary is qualified to select, use, review, or evaluate the catastrophe model in accordance with applicable ASOPs, and the



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catastrophe model is appropriate for the intended purpose. The actuary should disclose the extent of any such reliance.

Actuaries utilizing the actuarial work product to which this document is attached can rely on my complete evaluation of the model(s) used as described above. In doing so, they should document the extent of such reliance in their work.

Minchong Mao FCAS, MAAA

A handwritten signature in black ink that reads "Minchong Mao". The signature is written in a cursive style.

Nov. 1 2021

Support for Selected Reinsurance Structure

Layer	Return Periods	
	Attachment	Exhaustion
853M XS 1964M	158	318
600M XS 1364M	86	158
500M XS 864M	44	86
400M XS 464M	20	44
200M XS 264M	12	20

The table above shows the All Peril 50/50 RMSv21/TSv9 historical/long term blend attachment and exhaustion points which combine modeled loss with Catastrophe LAE for the North Carolina Rate Bureau portfolio, along with the selected reinsurance program.

Reinsurance Program Summary

Reinsurance Layer	Rate-On-Line	Deposit Premium	Reinstatement Premium	Expected Total Premium	Expected Ceded Loss	Net Cost of Reinsurance
853M XS 1964M	4.50%	38,214	205	38,419	4,601	33,818
600M XS 1364M	6.60%	39,840	409	40,249	6,229	34,020
500M XS 864M	9.30%	46,700	885	47,585	9,654	37,931
400M XS 464M	13.80%	55,000	2,029	57,029	15,218	41,811
200M XS 264M	19.70%	39,420	2,654	42,074	14,191	27,883
Total		219,174	6,182	225,356	49,893	175,463

Dollar amounts are in thousands

The table above shows indicated rates-on-line for the filing's reinsurance structure along with analysis of modeled catastrophe losses. Rate-on-Line values have been selected using the current Loss-On-Line approach, which is a benchmarking analysis done using reinsurance treaties placed by Aon.

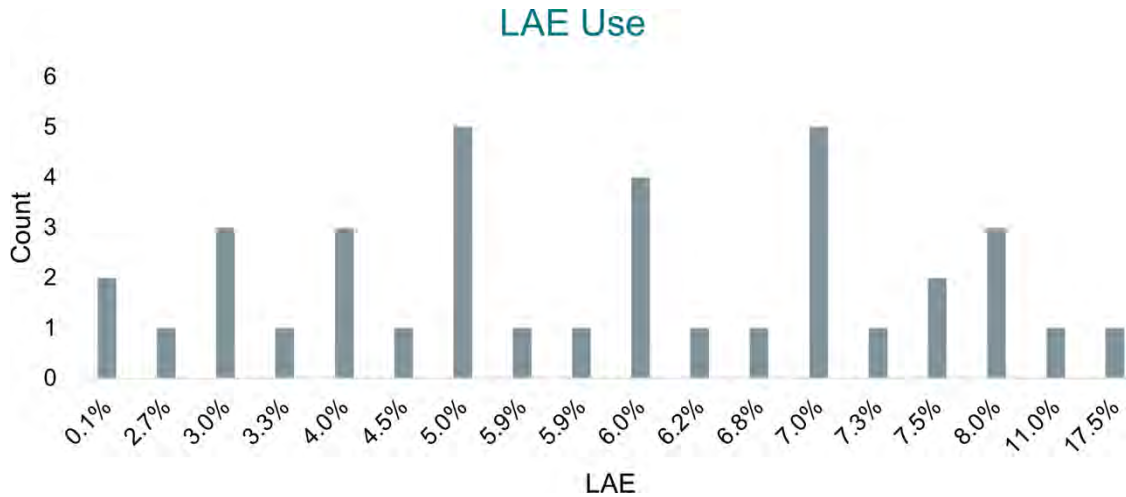
Deposit Premium is Rate-On-Line * Layer Limit

Expected Ceded Loss and Expected Reinstatement premium are the average annual amounts of each based on a simulation of catastrophe losses subject to the reinsurance program.

Expected Total Premium = Deposit Premium + Expected Reinstatement Premium

Net Cost of Reinsurance = Expected Total Premium - Expected Ceded Loss

North Carolina Rate Bureau Dwelling Insurance Rate Filing Support for Selected Catastrophe LAE Factor



This chart shows Catastrophe LAE factors applied to modeled catastrophe event losses in AM Best SRQ Submissions by Aon clients in 2022

- Factors were rounded to the nearest 0.5
- A weighted average was used where factors varied by peril
- Multiple factors were counted where factors varied by company within a group
- Reflects all clients that included a provision for LAE

The mean factor is 6.00%, the median is 6.00%, and the mode is 5.00%.

North Carolina Rate Bureau
Reinsurance Cost Allocation
CY 2021
RMSv21/TSv9

Layer 1: 200M XS 264M

Peril/Territory	Premium	Ceded AAL	Reins Margin
HU	98.57%	98.41%	98.64%
110	20.22%	19.78%	20.44%
120	22.57%	22.63%	22.54%
130	2.59%	2.55%	2.61%
140	20.36%	20.78%	20.15%
150	5.00%	5.01%	4.99%
160	5.38%	5.35%	5.40%
170	0.29%	0.29%	0.29%
180	3.41%	3.39%	3.43%
190	1.78%	1.76%	1.79%
200	1.09%	1.06%	1.11%
210	0.80%	0.79%	0.80%
220	2.94%	2.88%	2.98%
230	1.75%	1.74%	1.76%
240	1.85%	1.84%	1.86%
250	1.18%	1.16%	1.19%
260	0.46%	0.47%	0.46%
270	1.92%	1.92%	1.93%
280	0.34%	0.34%	0.33%
290	0.43%	0.43%	0.44%
300	0.41%	0.40%	0.41%
310	1.21%	1.22%	1.21%
320	0.64%	0.64%	0.64%
330	0.03%	0.03%	0.03%
340	1.15%	1.15%	1.15%
350	0.33%	0.34%	0.33%
360	0.37%	0.38%	0.36%
370	0.02%	0.02%	0.02%
380	0.02%	0.03%	0.02%
390	0.02%	0.02%	0.02%
OW	1.23%	1.43%	1.13%
WT	0.20%	0.16%	0.22%
Grand Total	100.00%	100.00%	100.00%

North Carolina Rate Bureau
Reinsurance Cost Allocation
CY 2021
RMSv21/TSv9

Layer 2: 400M XS 464M

Peril/Territory	Premium	Ceded AAL	Reins Margin
HU	99.54%	99.48%	99.57%
110	18.14%	17.39%	18.42%
120	23.64%	23.87%	23.55%
130	2.40%	2.33%	2.43%
140	21.10%	21.82%	20.84%
150	4.91%	4.91%	4.91%
160	5.78%	5.78%	5.78%
170	0.27%	0.27%	0.27%
180	3.53%	3.49%	3.54%
190	1.88%	1.87%	1.89%
200	1.15%	1.12%	1.17%
210	0.83%	0.82%	0.84%
220	3.20%	3.12%	3.23%
230	1.86%	1.86%	1.86%
240	1.94%	1.93%	1.94%
250	1.27%	1.25%	1.27%
260	0.49%	0.50%	0.48%
270	2.09%	2.09%	2.10%
280	0.37%	0.37%	0.37%
290	0.47%	0.46%	0.47%
300	0.42%	0.41%	0.42%
310	1.31%	1.31%	1.30%
320	0.66%	0.66%	0.66%
330	0.03%	0.03%	0.03%
340	1.10%	1.09%	1.11%
350	0.30%	0.31%	0.30%
360	0.34%	0.35%	0.33%
370	0.01%	0.02%	0.01%
380	0.02%	0.02%	0.02%
390	0.01%	0.01%	0.01%
OW	0.36%	0.45%	0.32%
WT	0.10%	0.07%	0.11%
Grand Total	100.00%	100.00%	100.00%

North Carolina Rate Bureau
Reinsurance Cost Allocation
CY 2021
RMSv21/TSv9

Layer 3: 500M XS 864M

Peril/Territory	Premium	Ceded AAL	Reins Margin
HU	99.92%	99.91%	99.93%
110	15.75%	14.60%	16.04%
120	25.00%	25.42%	24.89%
130	2.15%	2.04%	2.18%
140	21.91%	22.92%	21.66%
150	4.69%	4.63%	4.71%
160	6.19%	6.21%	6.19%
170	0.25%	0.25%	0.25%
180	3.56%	3.53%	3.57%
190	1.96%	1.97%	1.96%
200	1.21%	1.19%	1.22%
210	0.84%	0.84%	0.85%
220	3.42%	3.35%	3.44%
230	1.94%	1.96%	1.94%
240	1.97%	1.98%	1.97%
250	1.34%	1.32%	1.34%
260	0.49%	0.50%	0.48%
270	2.21%	2.22%	2.21%
280	0.39%	0.40%	0.39%
290	0.50%	0.49%	0.50%
300	0.42%	0.41%	0.43%
310	1.36%	1.37%	1.36%
320	0.67%	0.66%	0.67%
330	0.03%	0.03%	0.03%
340	1.04%	1.00%	1.05%
350	0.27%	0.27%	0.27%
360	0.30%	0.32%	0.30%
370	0.01%	0.02%	0.01%
380	0.02%	0.02%	0.02%
390	0.01%	0.01%	0.01%
OW	0.05%	0.07%	0.05%
WT	0.02%	0.01%	0.02%
Grand Total	100.00%	100.00%	100.00%

North Carolina Rate Bureau
Reinsurance Cost Allocation
CY 2021
RMSv21/TSv9

Layer 4: 600M XS 1364M

Peril/Territory	Premium	Ceded AAL	Reins Margin
HU	100.00%	100.00%	100.00%
110	13.63%	12.09%	13.91%
120	25.93%	26.46%	25.83%
130	1.97%	1.80%	2.00%
140	22.48%	23.61%	22.27%
150	4.52%	4.37%	4.54%
160	6.53%	6.58%	6.52%
170	0.24%	0.23%	0.24%
180	3.58%	3.55%	3.59%
190	2.03%	2.05%	2.03%
200	1.24%	1.23%	1.24%
210	0.86%	0.85%	0.86%
220	3.60%	3.59%	3.60%
230	2.02%	2.07%	2.01%
240	2.01%	2.03%	2.01%
250	1.40%	1.41%	1.40%
260	0.50%	0.52%	0.49%
270	2.34%	2.37%	2.33%
280	0.41%	0.43%	0.41%
290	0.53%	0.52%	0.53%
300	0.44%	0.42%	0.44%
310	1.44%	1.47%	1.43%
320	0.69%	0.70%	0.69%
330	0.03%	0.04%	0.03%
340	1.02%	1.01%	1.03%
350	0.24%	0.25%	0.24%
360	0.28%	0.31%	0.28%
370	0.01%	0.01%	0.01%
380	0.02%	0.02%	0.01%
390	0.01%	0.01%	0.01%
Grand Total	100.00%	100.00%	100.00%

North Carolina Rate Bureau
Reinsurance Cost Allocation
CY 2021
RMSv21/TSv9

Layer 5: 853M XS 1964M

Peril/Territory	Premium	Ceded AAL	Reins Margin
HU	100.00%	100.00%	100.00%
110	12.10%	9.96%	12.39%
120	26.48%	27.22%	26.38%
130	1.83%	1.58%	1.86%
140	23.01%	24.25%	22.84%
150	4.33%	4.05%	4.37%
160	6.89%	6.99%	6.88%
170	0.22%	0.20%	0.22%
180	3.59%	3.53%	3.60%
190	2.12%	2.14%	2.12%
200	1.25%	1.27%	1.24%
210	0.87%	0.86%	0.87%
220	3.75%	3.85%	3.73%
230	2.05%	2.15%	2.04%
240	2.03%	2.06%	2.02%
250	1.44%	1.49%	1.43%
260	0.50%	0.53%	0.50%
270	2.41%	2.49%	2.39%
280	0.42%	0.45%	0.42%
290	0.54%	0.55%	0.54%
300	0.44%	0.44%	0.44%
310	1.46%	1.55%	1.45%
320	0.71%	0.74%	0.70%
330	0.03%	0.04%	0.03%
340	0.99%	1.01%	0.99%
350	0.23%	0.25%	0.23%
360	0.28%	0.32%	0.27%
370	0.01%	0.02%	0.01%
380	0.02%	0.02%	0.01%
390	0.01%	0.01%	0.01%
Grand Total	100.00%	100.00%	100.00%

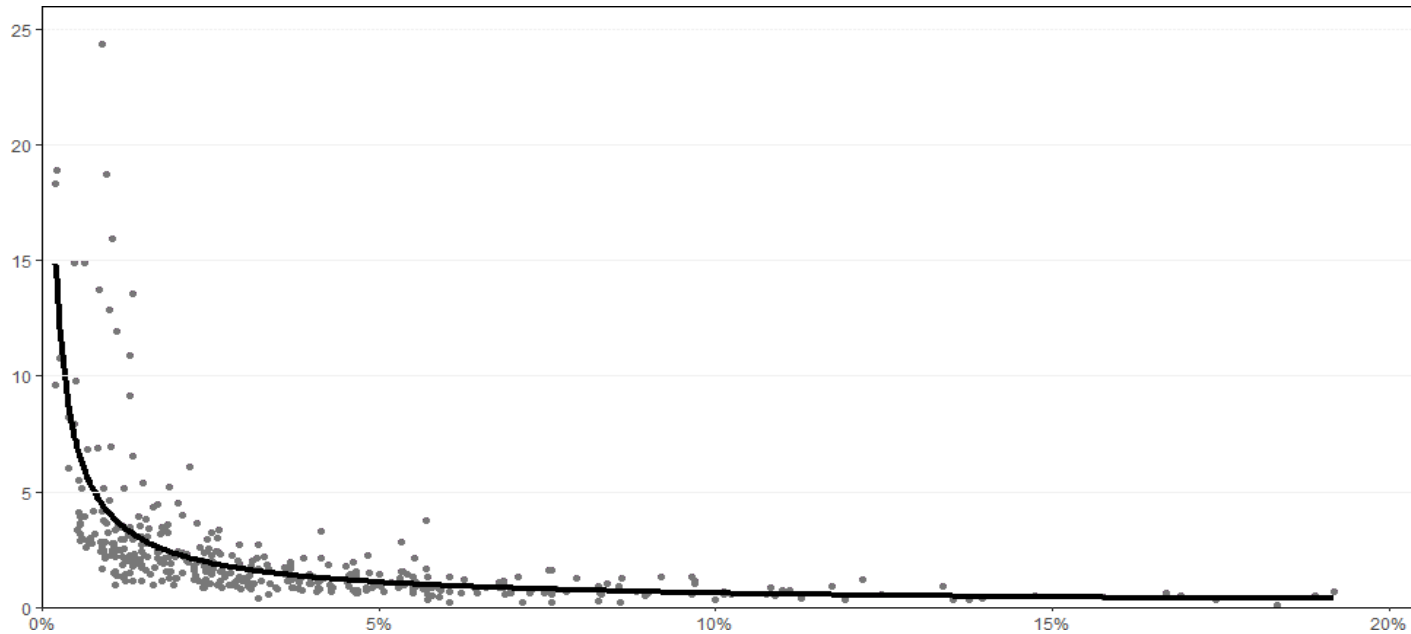
**North Carolina Rate Bureau
Reinsurance Margin Allocation
CY 2021
RMSv21/TSv9**

Territory	Policy Form 1	Policy Form 2	Total
110	1,858,644	26,631,739	28,490,383
120	6,653,900	36,674,871	43,328,771
130	1,396,839	2,483,711	3,880,550
140	12,808,461	25,058,598	37,867,058
150	3,377,351	4,893,379	8,270,730
160	3,720,567	7,134,719	10,855,286
170	232,343	213,060	445,403
180	2,888,632	3,354,366	6,242,999
190	1,905,189	1,534,852	3,440,041
200	1,435,060	668,007	2,103,067
210	751,152	730,943	1,482,095
220	1,869,828	4,205,167	6,074,994
230	2,592,737	783,432	3,376,168
240	1,785,765	1,664,800	3,450,565
250	986,284	1,363,673	2,349,958
260	519,102	332,359	851,461
270	424,617	3,466,525	3,891,142
280	189,783	489,889	679,673
290	309,535	564,586	874,121
300	416,241	336,405	752,645
310	646,899	1,785,852	2,432,750
320	445,666	752,509	1,198,176
330	34,757	24,293	59,050
340	393,968	1,524,324	1,918,292
350	170,786	327,050	497,836
360	246,349	325,633	571,981
370	12,990	11,450	24,440
380	14,401	19,610	34,011
390	8,046	11,880	19,926
Total	48,095,892	127,367,682	175,463,572

**North Carolina Insurance Underwriting Association (NCIUA) -- Beach Plan
North Carolina Joint Underwriting Association (NCJUA) -- FAIR Plan**

Catastrophe Bond Profit Multiples

Profit Multiples by Probability of Loss



Source: Lane Financial LLC, Annual Securitization Reviews (<http://lanefinancialllc.com>) and Aon ILS Cat bond data.

Notes: Based on near-term cat bonds issued from January 2013 to March 2022.

Includes all U.S. bonds with a probability of first loss between 0.05% and 20.0%; excludes bonds with no stated profit multiples.

Equation of the fitted curve:

$$y = 0.09154 x^{-0.82495}$$

Equation to determine average Profit Multiple over specific interval:

$$\text{Avg PM} = \frac{b}{a} \int_a^b dx / x^b$$

North Carolina Insurance Underwriting Association (NCIUA) -- Beach Plan

Summary of 2022 Reinsurance Structure

Risk Finance Structure ⁽¹⁾	Attachment Point (\$ Millions)	Exhaustion Point (\$ Millions)	Coverage
Reinsurance Layer 1	\$1,450	\$1,650	29.5%
Reinsurance Layer 2	\$1,650	\$1,850	64.5%
Reinsurance Layer 3	\$1,850	\$2,550	89.9%
Reinsurance Layer 4	\$2,550	\$2,650	100.0%
Reinsurance Layer 5	\$2,650	\$3,150	100.0%
Reinsurance Layer 6	\$3,150	\$3,425	100.0%

Source: https://www.ncjua-nciua.org/html/mbr_co.htm

Note: The above reinsurance covers aggregate losses for all Beach Plan accounts combined (Residential & Commercial).

(1) Each layer of reinsurance provides Annual Aggregate coverage, which implies that a reinstatement provision is not applicable.

North Carolina Insurance Underwriting Association (NCIUA) -- Beach Plan

Determination of Average Profit Multiple by Layer of Loss
(\$ in Millions)

<u>Annual Aggregate Layer</u>	<u>Source of Funding</u>	<u>Total Beach Plan</u>		<u>Attachment Probability</u>	<u>Exhaustion Probability</u>	<u>Indicated Profit Multiple</u>
		<u>Layer Attachment</u>	<u>Layer Exhaustion ⁽¹⁾</u>			
\$0 to 733	Surplus	\$0	\$733	47.90%	7.05%	0.32
\$733 to 1,450	Company Assessments	\$733	\$1,450	7.05%	3.55%	1.06
\$1,450 to 1,650	Reinsurance Layer 1 + Company Assessments	\$1,450	\$1,650	3.55%	3.05%	1.53
\$1,650 to 1,850	Reinsurance Layer 2 + Company Assessments	\$1,650	\$1,850	3.05%	2.70%	1.71
\$1,850 to 2,550	Reinsurance Layer 3 + Company Assessments	\$1,850	\$2,550	2.70%	1.75%	2.14
\$2,550 to 2,650	Reinsurance Layer 4	\$2,550	\$2,650	1.75%	1.70%	2.61
\$2,650 to 3,150	Reinsurance Layer 5	\$2,650	\$3,150	1.70%	1.30%	2.94
\$3,150 to 3,425	Reinsurance Layer 6	\$3,150	\$3,425	1.30%	1.10%	3.52
\$3,425 & Higher	Policyholder Surcharges	\$3,425	\$41,308	1.10%	0.0010%	15.27

(1) The Layer Exhaustion for the highest layer assumes 100K year return period and is consistent with prior year's analysis.

**North Carolina Insurance Underwriting Association (NCIUA) -- Beach Plan
Residential Accounts Only**

Illustration of How Hurricane Losses are Funded
Voluntary Market Assessments Limited to \$1 Billion on All Beach Plan Accounts Combined
(\$ in Millions)

<u>Annual Aggregate Layer</u>	<u>Total Beach Plan</u>			<u>Beach Plan: Residential Share of Layer</u>	<u>Hurricane Losses Funded by:</u>			
	<u>Layer Attachment</u>	<u>Layer Exhaustion</u>	<u>Total Losses in Layer</u>		<u>Beach Plan Surplus</u>	<u>Private Reinsurance</u>	<u>Assessment on Member Companies ⁽¹⁾</u>	<u>Policyholder Surcharges</u>
\$0 to 733	\$0	\$733	\$733	\$655.7	\$655.7	-	-	-
\$733 to 1,450	\$733	\$1,450	\$717	\$641.4	-	-	\$641.4	-
\$1,450 to 1,650	\$1,450	\$1,650	\$200	\$178.9	-	\$52.7	\$126.2	-
\$1,650 to 1,850	\$1,650	\$1,850	\$200	\$178.9	-	\$115.3	\$63.6	-
\$1,850 to 2,550	\$1,850	\$2,550	\$700	\$626.2	-	\$563.1	\$63.0	-
\$2,550 to 2,650	\$2,550	\$2,650	\$100	\$89.5	-	\$89.5	-	-
\$2,650 to 3,150	\$2,650	\$3,150	\$500	\$447.3	-	\$447.3	-	-
\$3,150 to 3,425	\$3,150	\$3,425	\$275	\$246.0	-	\$246.0	-	-
\$3,425 & Higher	\$3,425	\$41,308	\$37,883	\$33,887.3	-	-	-	\$33,887.3
Total					\$655.7	\$1513.9	\$894.2	\$33,887.3

(1) Total losses paid by Member Companies (\$894.2 M) reflects the Residential portion of the \$1 Billion Beach Plan assessment on the total Voluntary Market.

**North Carolina Insurance Underwriting Association (NCIUA) -- Beach Plan
Residential Accounts Only**

Determination of the Cost of Reinsurance Provided to the NCIUA by the Voluntary Market
Voluntary Market Assessments Limited to \$1 Billion on All Beach Plan Accounts Combined
(\$ in Millions)

<u>Annual Aggregate Layer</u>	<u>Beach Plan: Residential Share of Layer</u>	<u>Potential Assessment Paid by Member Companies</u> ⁽¹⁾	<u>Expected Losses</u> ⁽²⁾		<u>Indicated Profit Multiple</u> ⁽⁴⁾	<u>Cost of Funding Assessments</u> ⁽⁵⁾
			<u>Total</u>	<u>Exposed</u> ⁽³⁾		
\$0 to 733	\$655.7	-	\$93.12	-	0.32	-
\$733 to 1,450	\$641.4	\$641.4	\$31.71	\$31.71	1.06	\$33.71
\$1,450 to 1,650	\$178.9	\$126.2	\$5.88	\$4.15	1.53	\$6.35
\$1,650 to 1,850	\$178.9	\$63.6	\$5.14	\$1.83	1.71	\$3.13
\$1,850 to 2,550	\$626.2	\$63.0	\$13.70	\$1.38	2.14	\$2.95
\$2,550 to 2,650	\$89.5	-	\$1.56	-	2.61	-
\$2,650 to 3,150	\$447.3	-	\$6.76	-	2.94	-
\$3,150 to 3,425	\$246.0	-	\$2.99	-	3.52	-
\$3,425 & Higher	\$33,887.3	-	\$26.52	-	15.27	-
Total		\$894.2	\$187.40	\$39.07		\$46.13

(1) Page 4.

(2) From AIR & RMS hurricane models.

(3) Expected loss subject to Beach Plan assessments of Voluntary Market.

(4) See Page 3.

(5) = Exposed Expected Losses x Profit Multiple (based on Cat Bond data).

North Carolina Joint Underwriting Association (NCJUA) -- FAIR Plan**Summary of 2022 Reinsurance Structure**

<u>Risk Structure (1)</u>	<u>Attachment Point (in million)</u>	<u>Exhaustion Point (in million)</u>	<u>Coverage</u>
Reinsurance Layer 1	\$111	\$221	100.0%

Source: https://www.ncjua-nciua.org/html/mbr_co.htm

Notes: The above reinsurance covers aggregate losses for all FAIR Plan accounts combined (Residential & Commercial).

(1) Each layer of reinsurance provides Annual Aggregate coverage, which implies that a reinstatement provision is not applicable.

North Carolina Joint Underwriting Association (NCJUA) -- FAIR Plan

Determination of Average Profit Multiple by Layer of Loss

(\$ in Millions)

<u>Annual Aggregate Layer</u>	<u>Source of Funding</u>	<u>Total FAIR Plan</u>		<u>Attachment Probability</u>	<u>Exhaustion Probability</u>	<u>Indicated Profit Multiple</u>
		<u>Layer Attachment</u>	<u>Layer Exhaustion ⁽¹⁾</u>			
\$0 to 11	Surplus	\$0	\$11	54.35%	23.40%	0.21
\$11 to 111	Company Assessments	\$11	\$111	23.40%	7.55%	0.46
\$111 to 221	Reinsurance	\$111	\$221	7.55%	4.10%	0.98
\$221 & Higher	Company Assessments	\$221	\$5,587	4.10%	0.0010%	5.59

(1) The Layer Exhaustion for the highest layer assumes 100K year return period and is consistent with prior year's analysis.

**North Carolina Joint Underwriting Association (NCJUA) -- FAIR Plan
Residential Accounts Only**

Illustration of How Hurricane Losses are Funded
Reflecting Unlimited Industry Exposure to FAIR Plan Assessments
(\$ in Millions)

<u>Annual Aggregate Layer</u>	<u>Total FAIR Plan</u>			<u>FAIR Plan: Residential Share of Layer</u>	<u>Hurricane Losses Funded by:</u>		
	<u>Layer Attachment</u>	<u>Layer Exhaustion</u>	<u>Total Losses in Layer</u>		<u>FAIR Plan Surplus</u>	<u>Private Reinsurance</u>	<u>Assessment on Member Companies</u>
\$0 to 11	\$0	\$11	\$11	\$10.2	\$10.2	-	-
\$11 to 111	\$11	\$111	\$100	\$92.3	-	-	\$92.3
\$111 to 221	\$111	\$221	\$110	\$101.5	-	\$101.5	-
\$221 & Higher	\$221	\$5,587	\$5,366	\$4953.1	-	-	\$4,953.1
Total					\$10.2	\$101.5	\$5,045.4

**North Carolina Joint Underwriting Association (NCJUA) -- FAIR Plan
Residential Accounts Only**

Determination of the Cost of Reinsurance Provided to the NCJUA by the Voluntary Market
Reflecting Unlimited Industry Exposure to FAIR Plan Assessments
(\$ in Millions)

<u>Annual Aggregate Layer</u>	<u>FAIR Plan: Residential Share of Layer</u>	<u>Potential Assessment Paid by Member Companies</u> ⁽¹⁾	<u>Expected Losses</u> ⁽²⁾		<u>Indicated Profit Multiple</u> ⁽⁴⁾	<u>Cost of Funding Assessments</u> ⁽⁵⁾
			<u>Total</u>	<u>Exposed</u> ⁽³⁾		
\$0 to 11	\$10.2	-	\$2.91	-	0.21	-
\$11 to 111	\$92.3	\$92.3	11.65	\$11.65	0.46	\$5.36
\$111 to 221	\$101.5	-	5.60	-	0.98	-
\$221 & Higher	\$4953.1	\$4953.1	12.29	12.29	5.59	\$68.74
Total		\$5045.4	\$32.45	\$23.94		\$74.10

(1) See Page 8.

(2) From AIR & RMS hurricane models.

(3) Expected loss subject to FAIR Plan assessments of Voluntary Market.

(4) See Page 7.

(5) = Exposed Expected Losses x Profit Multiple (based on Cat Bond data).

**North Carolina Insurance Underwriting Association (NCIUA) -- Beach Plan
North Carolina Joint Underwriting Association (NCJUA) -- FAIR Plan
Residential Accounts Only**

**Determination of the Compensation for Bearing the Risk of Beach Plan & FAIR Plan Assessments
(\$ in Millions)**

(1) Cost of Reinsurance Provided by the Voluntary Market to the Residential Accounts in the NCIUA (Beach Plan):	\$46.13
(2) Cost of Reinsurance Provided by the Voluntary Market to the Residential Accounts in the NCJUA (FAIR Plan):	\$74.10
(3) Total Cost of Reinsurance Provided by the Voluntary Market to the Residential Accounts in the NCIUA & NCJUA:	\$120.23

<u>Policy Form</u>	(4) Estimated 2022 Industry Written Premium @ Manual Rates	(5) = (4) / Total (4) % of Total Industry Premium	(6) = (3) x (5) Allocated Compensation for Risk of Assessment	(7) = (6) / (4) Compensation for Assessment Risk as % of 2022 Manual Premium
Homeowners	\$3,300.1	87.7%	\$105.47	3.2%
Dwelling Fire & EC	\$306.1	8.1%	\$9.78	3.2%
Mobile Home	\$155.7	4.1%	\$4.98	3.2%
Total	\$3,761.9	100.0%	\$120.23	3.2%

(8) Estimated Market Share of Companies that Retain Assessment Risk

50%

(9) Retained Compensation for Assessment Risk Provision:

1.6%

(1) From Page 5.

(2) From Page 9.

(3) = (1) + (2)

(4) Industry Written Premium includes NCIUA and NCJUA.

(8) NCRB Property Rating Sub-Committee selection

(9) = (7) * (8)

**PREFILED TESTIMONY
OF
PAUL D. ANDERSON**

**2023 DWELLING PROPERTY INSURANCE RATE FILING BY THE
NORTH CAROLINA RATE BUREAU
JULY 2023**

Q. Please state your name and business address.

A. My name is Paul D. Anderson. My business address is 17335 Golf Parkway, Brookfield, WI 53045.

Q. By whom are you employed?

A. I am employed by Milliman, Inc. (Milliman) and have been employed by Milliman since February 1, 2007.

Q. What is your educational background?

A. I received a Bachelor of Science in Actuarial Science from Drake University in Des Moines, Iowa in 1993.

Q. Do you have any additional certifications or qualifications?

A. Yes. I have been a Fellow of the Casualty Actuarial Society (CAS) since 2002 and a Certified Specialist in Predictive Analytics of the CAS Institute (iCAS) since 2018. Since 2002, I have served on several committees of the Casualty Actuarial Society, including the following:

- Syllabus & Examination Committee: April 2004 to July 2006;
- Volunteer Support Task Force: February 2012 to April 2013;
- Volunteer Resources Committee: April 2013 to March 2020;
- Vehicle Technology & Impact on Loss Trends Planning Committee: October 2017 to August 2018;
- Participation Survey Task Force: January 2018 to January 2019;
- Crash Course in Vehicle Technology & Driverless Cars Committee (chairperson): February 2020 to Present; and
- Volunteer Resources Advisory Committee: June 2020 to Present.

I have also been a member of the American Academy of Actuaries since 2002 and meet all of the continuing education requirements of that organization as well as those of the Casualty Actuarial Society.

Q. What is your employment background?

A. I was employed by Allstate Insurance Company from June 1993 until January 2007. While at Allstate, I held various actuarial roles. I began my career as an Auto Pricing Analyst and, over time, I assumed increasing responsibility in various departments that included Property Pricing, Auto Pricing, Property Research, and Auto Research. On the pricing teams, I assisted in developing rates for property and auto insurance products in most states across the country. On the research teams, I assisted in developing new property and auto risk classification plans to be implemented by Allstate's pricing teams. From 2006 until January 2007, I served as a Senior Manager for Allstate's Eastern region, which included assisting in the oversight of the pricing strategies for approximately half the country, including North Carolina.

In February 2007 I began my career at Milliman. Since 2007, I have completed, managed, or overseen numerous property and auto pricing analyses for a variety of clients. My clients have included small single-state insurance companies, industry-leading national insurance companies, start-up InsurTech insurance companies, government entities, the North Carolina Rate Bureau, and other entities with similar coastal property exposure in states such as Florida, Hawaii, and Texas. These client assignments have included such projects as pricing analyses to evaluate overall rate adequacy, predictive modeling assignments to develop new risk classification plans, and analyses of catastrophe losses to evaluate the adequacy and allocation of property premiums corresponding to catastrophe risk.

Q. What is Milliman?

A. Milliman is among the world's largest providers of actuarial, risk management, and related technology and data solutions. Milliman was founded in Seattle in 1947 as Milliman & Robertson and today has offices in principal cities worldwide, covering markets in North America, Latin America, Europe, Asia and the Pacific, the Middle East, and Africa. Milliman employs more than 4,800 people, including actuaries and specialists ranging from clinicians to economists. The firm has consulting practices in employee benefits, financial services, healthcare, life insurance, and property and casualty insurance. Milliman serves the full spectrum of business, education, financial, governmental, union, and nonprofit organizations.

Q. What are your current responsibilities at Milliman?

A. I am responsible for managing and overseeing the personal lines and insurance-related predictive analytics portion of Milliman's Milwaukee Casualty practice. The personal lines and predictive analytics team conducts a variety of property and auto pricing, product development, and predictive modeling assignments, primarily for insurance companies. Over the last five years, we have completed property analyses for nearly every state in the country, including North Carolina.

Q. Were you engaged to provide actuarial services to the North Carolina Rate Bureau (the Rate Bureau) in relation to its 2023 dwelling rate filing?

A. Yes, I was.

Q. What was the scope of that engagement?

A. Milliman was engaged for several aspects of the 2023 dwelling rate filing. My role was to review the contingency provision in this filing. I was also engaged to conduct an independent review and provide feedback on the actuarial analyses underlying the filing. In this role, I participated in many of the discussions in which ISO presented preliminary data and analyses to the Rate Bureau. In addition, my role also included participating in the Rate Bureau's Property Rating Subcommittee meetings in which the 2023 dwelling filing was discussed. During these discussions, I offered feedback and insights to assist in the Subcommittee's selections and decisions related to this filing.

Q. Is your firm being compensated for this engagement?

A. Yes, it is.

Q. Is that compensation in any way contingent on the provision of favorable testimony in support of the proposed filing?

A. No, it is not.

Q. Have you completed your review of the 2023 dwelling rate filing?

A. Yes, I have.

Q. Were there any constraints placed on your review, such as limited or delayed access to data or limited time that may have hindered your complete review?

A. No, I was provided all the data and information that were necessary, and I had adequate time for a complete review. My review was not limited in any way.

Q. What is the overall indicated change in dwelling rates in this filing?

A. This filing shows the need for an overall 50.6% statewide average rate increase. This includes a 16.1% change to Fire rates and a 59.8% change to Extended Coverage rates.

Q. Please describe the overall ratemaking methodology that underlies the filing.

- A. The approach in this filing is generally consistent with prior dwelling filings submitted by the Rate Bureau. Consistent with the *Statement of Principles Regarding Property and Casualty Insurance Ratemaking* as published by the Casualty Actuarial Society, the indicated rates reflect the expected value of future costs associated with insuring residential real property on dwelling policies. These expected costs include claims, claim settlement expenses, operational and administrative expenses, and the cost of capital. I also note that the dwelling insurance addressed in this filing is insurance on residential real property using Rate Bureau forms, rules, and rates, and that is what I am addressing when I refer to dwelling insurance in this testimony.

The statewide rate-level indications for dwelling insurance are developed based on a loss cost methodology (instead of a loss ratio methodology). The indicated rate-level change is calculated for each segment by comparing the required base class rate per policy to the current average base class rate. The required base class rate per policy is calculated by first projecting the losses and loss adjustment expenses for the policy period for which the filed rates are expected to be in effect. For Extended Coverage, losses are projected excluding historical hurricane losses. In addition to the exclusion of historical hurricane losses, the projected losses for Extended Coverage are adjusted to remove excess losses and an excess factor is applied based on an average of the excess losses over 30 years of historical experience. Base class loss costs are calculated by dividing the adjusted incurred losses and loss adjustment expenses for each historical accident year by the corresponding earned house years and trended average rating factors. The base class loss costs by year are weighted together to develop a weighted trended base class loss cost for Fire and a weighted trended non-hurricane base class loss cost for Extended Coverage. For the Extended Coverage portion of the filing, a trended modeled hurricane base class loss cost is also developed and added to the weighted trended non-hurricane base class loss cost to determine the total base class loss cost.

Following the development of the base class loss cost, a per-policy fixed expense provision and other expected underwriting expenses associated with issuing dwelling insurance policies are incorporated to determine the required base class rate per policy. These expected underwriting expenses include provisions for underwriting profit, contingencies, dividends, compensation for assessment risk, net cost of reinsurance, and deviations. As mentioned above, the required base class rate per policy is compared to the current average base class rate to develop the overall statewide indicated rate-level change. This comparison of the required and current base class rates is consistent with the *Statement of Principles* referenced above, is commonly used throughout the industry, and as such, is an actuarially sound method of developing an indicated rate-level change.

Q. Are there any changes in the ratemaking methodology or presentation in the filing as compared to prior filings?

- A. The 2023 dwelling filing is generally consistent with prior filings, but there is one component of this filing that relies on a different approach as compared to the 2022 dwelling filing.

In this filing, the Rate Bureau determined the compensation for assessment risk provision in a different manner than in the 2022 dwelling filing. In prior filings, the Rate Bureau retained Milliman to develop the compensation for assessment risk provision. Due to the lack of availability of the detailed data required for the 2022 dwelling filing, Milliman relied on historical compensation for assessment risk provisions to determine the provision for the 2022 filing. With this filing, Aon confirmed that they had access to the necessary detailed data and, as such, the Rate Bureau retained Aon to develop the compensation for assessment risk provision. Aon used simulated event-level hurricane losses based on the most recent exposure year and replicated the methodology used by Milliman in the 2019 dwelling filing.

This change in approach is reasonable, actuarially sound, and has minimal impact on the rate-level indications.

Q. How are the expected losses determined?

- A. This filing uses the latest available five years of historical loss experience to determine expected losses other than hurricane losses. These five years include accident years ending December 31, 2017 through December 31, 2021. Using five years of experience is consistent with North Carolina statutes and prior dwelling Fire and Extended Coverage rate filings. It is also consistent with generally accepted ratemaking practices because the use of five years of historical experience balances stability of the overall rate level with responsiveness to the most recent conditions. Because severe weather-related events can cause volatility in the loss experience, hurricane losses and excess losses (for Extended Coverage only) have been removed from the historical loss experience. Each year of losses has been developed to ultimate amounts and has been adjusted to a common \$500 deductible level. Losses are developed to ultimate because the final incurred losses for an accident year are often different from initial loss estimates due to the late reporting of claims or as yet unknown settlement amounts on known claims.

After these initial adjustments, a provision for excess losses is applied to each accident year for Extended Coverage, and a provision for loss adjustment expenses is applied to each accident year for all dwelling forms. The excess factor of 1.056 for the Extended Coverage section of the filing is determined using ISO's standard excess loss procedure, using a 30-year experience period as noted earlier. This procedure evaluates historical non-hurricane loss experience back to

1992 to develop a ratio of the long-term average excess loss ratio to the long-term average normal loss ratio.

Following these additional adjustments, in order to reflect the expected change in costs, the losses are trended from the midpoint of each experience period to the policy period for which the filed rates are assumed to be in effect. Similar to prior dwelling filings, historical claim frequency, loss severity, and pure premium experience were considered in the evaluation of loss trends. The historical experience is adjusted to the prospective period using selected loss trends that are based on the data described above.

In addition to reflecting a loss trend, a premium trend is also determined by combining current amount factors with premium projection factors for each accident year. The current amount factors are developed by comparing the average policy size relativity for each accident year to the comparable relativity for the most recent year in the experience period. The premium projection factors are calculated based on the fitted annual change in the average policy size relativity for each policy form.

In my opinion, the selections and methodologies referenced above, including the excess factor, the loss adjustment expense factors, the loss trend factors, and the premium trend factors, are reasonable and actuarially sound.

After adjusting the losses for each of the items mentioned above, each year's trended losses and loss adjustment expenses are divided by the earned house years to determine the average trended loss cost. The average trended loss costs are converted to trended base class loss costs by dividing by the average rating factor applicable to each accident year. Finally, these base class loss costs are weighted together to develop a weighted trended base class loss cost for Fire and a weighted trended non-hurricane base class loss cost for Extended Coverage. The weights applied to each accident year differ between Fire and Extended Coverage because there tends to be more variation in the Extended Coverage loss costs as compared to the Fire loss costs. As a result, to avoid giving too much weight to an unusually high or low loss cost, an even distribution of weights is applied to the historical experience for Extended Coverage. By contrast, a distribution that assigns more weight to the more recent years is used for Fire, since that segment typically has more stable base class loss costs.

In my opinion, the methodology used to develop average loss costs and the weights assigned to each of the dwelling policy forms are reasonable and are consistent with widely used actuarial ratemaking practices.

Q. In the previous response, you mentioned a loss adjustment expense provision. How are the dwelling provisions for loss adjustment expense determined?

- A. The allocated and unallocated loss adjustment expenses are included with non-hurricane losses by applying a trended loss adjustment expense factor. Using information received from the Rate Bureau's data call for expense experience, loss adjustment expenses are summarized for calendar years 2017 through 2021. Consistent with prior dwelling filings, a three-year average is calculated after removing the highest and lowest ratio of expenses to losses from the five years of historical expense experience referenced above. By excluding the highest and lowest ratios observed in the historical experience period, this methodology reduces the volatility in the average loss adjustment expense ratio that may result from variation in the underlying incurred losses from year to year. After the average loss adjustment expense ratio is calculated, it is adjusted to reflect the difference in the loss adjustment expense trend and the loss trend.

A separate provision for hurricane-related loss adjustment expenses is included in the modeled hurricane losses based on data and a recommendation provided by Aon.

Q. In your opinion, are the provisions for loss adjustment expenses reasonable?

- A. Yes, the loss adjustment expense provisions are reasonable. It is common practice in the industry to use an average of historical experience to determine a loss adjustment expense provision, and it is reasonable to adjust that provision for expected differences in the loss adjustment expense trend and the loss trend, as we have done here.

Q. Is credibility considered in the rate-level indication?

- A. Yes, credibility is considered. At the statewide level, based on the volume of data supporting the statewide rate-level indications, both Fire and Extended Coverage are considered fully credible. The full credibility standards are 500,000 house years for Fire and 330,000 house years for Extended Coverage. When the territorial rate-level indications are calculated, partial credibility is determined using the square root rule, which is a long-standing actuarial methodology used throughout the industry.

Q. How is hurricane exposure reflected in each policy form's rate-level indication?

- A. Similar to the Rate Bureau's 2022 dwelling filing, this filing reflects hurricane exposure in the Extended Coverage rate-level indications by using modeled hurricane losses rather than actual hurricane loss experience. Although there are actual hurricane losses in the experience period, the hurricane and excess losses have been removed from the historical loss experience, as noted in my testimony above. Actual hurricane losses have a significant amount of variability even when evaluating twenty or more years of historical loss experience in a state. As such, it

is universally accepted by the property and casualty insurance industry that hurricane models provide the most reliable approach to determining anticipated average annual hurricane losses over an extended time period. Hurricane models can be used to simulate 100,000 or more years of events, which provides a broader perspective on potential insured losses as compared to only evaluating the last several decades of losses. This broader perspective provides a more reliable estimate of the average frequency and severity of insured hurricane losses. Similarly, it provides a more reliable estimate of the frequency and severity of rare, but very severe events that may not have occurred within the last 100 years of recorded history, but have the potential to occur next year.

Q. How is the provision for expected hurricane losses determined?

A. The provision for average annual hurricane losses in this filing is consistent with the 2022 dwelling filing in that expected hurricane losses are developed through the use of hurricane models of two independent catastrophe modelers. To facilitate the use of two hurricane models, the Rate Bureau retained Aon to run both models and to develop modeled hurricane losses using the blended results of these two models. I reviewed the exposure data provided as input to each model, and it is my opinion that the data were reasonable and consistent with other sections of this filing. I am also familiar with the assumptions selected as inputs to each model, and it is my opinion that the assumptions were applied consistently in both the AIR and RMS models such that the resulting output of both models is comparable. However, because Aon ran both models, I am relying on the work and opinion of Minchong Mao of Aon as they relate to specific details about the modeling process. The reliance on Aon to run both models and to develop modeled hurricane losses using the blended results of these two models is consistent with the 2022 dwelling filing.

The Rate Bureau requested that Aon combine the results of the two hurricane models by averaging the results from each model. This approach of giving equal weight to each model is intuitive, easy to understand, and the most reasonable method of blending two hurricane models. This blending approach (i.e., averaging) is also a common practice among insurance companies that consider multiple hurricane models. Based on my review of the blended model results, it is my opinion that the resulting hurricane losses reflected in this filing are reasonable and can be relied upon for the various purposes for which modeled hurricane losses are used in this filing. Additionally, since both models are equally credible, it is also my opinion that assigning equal weight to each model is the most reliable blending method and the most actuarially sound approach to consider two hurricane models.

Q. What model versions and modeling assumptions were used to develop estimated hurricane losses?

- A. The current AIR model is Touchstone v9 and the current RMS model is RiskLink v21. To develop the expected hurricane losses, Aon relied on AIR's Standard event set and on RMS' Historical event set. These event sets were used instead of AIR's Warm Sea-Surface Temperature (WSST) event set and RMS' Medium-Term Rate event set. Although many primary insurance companies consider the WSST and Medium-Term Rate event sets when developing expected hurricane losses for indicated rates in states other than North Carolina, the event sets selected for this filing are reasonable and actuarially sound.

Both the AIR and RMS models were run with aggregate demand surge included, which was identified as loss amplification in the RMS model. This standard procedure accounts for the expected additional cost for labor and materials after a very large hurricane occurs. Historical experience shows that, when major catastrophic events occur, the increased demand for building materials, labor, temporary housing, and other basic necessities can exceed the supply of these same items, which consequently increases their cost. Running models with demand surge is consistent with the Rate Bureau's prior dwelling filings and is the common practice by insurance companies when developing rates based on modeled hurricane losses. Although the demand surge component of each model was used in this filing, the storm surge component of each model was not used to develop hurricane losses.

Q. Were any other calculations applied to the hurricane losses derived from the models?

- A. Yes. Before providing the blended hurricane losses, Aon applied a hurricane-specific provision for loss adjustment expense. After Aon provided the modeled hurricane losses (including LAE), ISO calculated a trended modeled hurricane base class loss cost for the Extended Coverage segment. The trended modeled hurricane base class loss cost has been adjusted for LAE and trended such that the resulting amount is evaluated at a point in time consistent with the amount developed for the weighted trended non-hurricane base class loss cost.

Q. How are the provisions for commission and brokerage determined?

- A. The provisions for commission and brokerage are determined based on the latest three-year average of the ratio of each segment's commission and brokerage expense relative to each segment's actual written premium (i.e., written premium including deviations). Deviations are included in the premium amounts underlying this calculation in order to be consistent with the actual calculation of commission and brokerage amounts paid by individual companies within the industry.

Q. In your opinion, are the provisions for commission and brokerage reasonable?

A. Yes, the commission and brokerage provisions are reasonable. It is common practice in the industry to use a three-year average to determine a commission and brokerage provision.

Q. How are the provisions for taxes, licenses, and fees determined?

A. The provisions for taxes, licenses, and fees are determined based on the latest three-year average of the ratio of each segment's taxes, licenses, and fees expense relative to each segment's actual written premium (i.e., written premium including deviations). Deviations are included in the premium amounts underlying this calculation in order to be consistent with the actual calculation of taxes, licenses, and fees paid by individual companies within the industry.

Q. In your opinion, are the provisions for taxes, licenses, and fees reasonable?

A. Yes, the taxes, licenses, and fees provisions are reasonable. As with the commission and brokerage provisions, it is common practice in the industry to use a three-year average to determine a taxes, licenses, and fees provision.

Q. How are the provisions for other acquisition expense determined?

A. The provisions for other acquisition expense are determined by evaluating the latest five years of each segment's other acquisition expense and each segment's earned premium at current manual level (i.e., earned premium excluding deviations). Due to recent changes in each segment's ratio of other acquisition expense relative to earned premium, the selected provision for Fire is based on all five years of experience and the selected provision for Extended Coverage is based on the latest three years of experience.

The selected other acquisition expense provisions are then added to the selected general expense provisions and trended from the midpoint of the three-year historical experience period to the midpoint of the trend period based on an expense trend derived from cost indices. Following this, the trended fixed expense provisions are adjusted for premium trend and applied to the latest-year average base class rates to develop a trended fixed expense per policy for Fire and for Extended Coverage.

Q. In your opinion, are the provisions for other acquisition expense reasonable?

A. Yes, the other acquisition expense provisions are reasonable. It is common practice in the industry to evaluate five years of experience to determine an other acquisition expense provision after giving consideration to recent changes in the ratio of other acquisition expense relative to earned premium, and to trend fixed expense provisions to account for inflation.

Q. How are the provisions for general expense determined?

- A. The provisions for general expense are determined based on the latest three-year average of the ratio of each segment's general expense relative to each segment's earned premium at current manual level (i.e., earned premium excluding deviations).

As noted above, the selected general expense provisions are then added to the selected other acquisition expense provisions and trended from the midpoint of the three-year historical experience period to the midpoint of the trend period based on an expense trend derived from cost indices. The trended fixed expense provisions are adjusted for premium trend and applied to the latest-year average base class rates to develop a trended fixed expense per policy for Fire and for Extended Coverage.

Q. In your opinion, are the provisions for general expense reasonable?

- A. Yes, the general expense provisions are reasonable. It is common practice in the industry to use a three-year average to determine a general expense provision, and to trend fixed expense provisions to account for inflation.

Q. Is a provision for dividends included in the filing?

- A. Yes, the Rate Bureau reviewed historical data for Fire and Extended Coverage and developed provisions for expected dividends separately for each segment. The Rate Bureau evaluated five years of historical experience and selected provisions for dividends of 0.40% for Fire and 0.70% for Extended Coverage. These provisions were based on five-year average ratios of the total dividends issued by dwelling insurers in North Carolina to the total direct written premium of those same companies.

The Actuarial Standard of Practice (ASOP) No. 29 regarding *Expense Provisions in Property/Casualty Insurance Ratemaking* states:

The Statement of Principles Regarding Property and Casualty Insurance Ratemaking of the Casualty Actuarial Society (CAS) classifies dividends as an expense to operations. When the actuary determines that dividends are a reasonably expected expense and are associated with the risk transfer, the actuary may include a provision in the rate for the expected amount of dividends. In making this determination, the actuary should consider the following: the company's dividend payment history, its current dividend policy or practice, whether dividends are related to loss experience, the capitalization of the company, and other considerations affecting the payment of dividends.

As stated in ASOP NO. 29, dividends are classified as an operating expense. In addition to the above excerpt from the *Statement of Principles Regarding Property and Casualty Insurance Ratemaking*, the Statement also provides that indicated rates should reflect the expected costs associated with insuring dwelling policies, including all operating expenses. As such, since dividends are classified as an operating expense, it is consistent with the *Statement of Principles Regarding Property and Casualty Insurance Ratemaking* and ASOP No. 29 to include a provision for dividends in the proposed rates reflected in this filing.

Q. In your opinion, are the provisions for dividends reasonable?

- A. Yes, the provisions for dividends are reasonable. It is reasonable and actuarially sound to calculate a five-year average ratio to determine a provision for dividends, and to treat this provision in a similar manner as a variable underwriting expense.

By reviewing five years of historical experience to determine provisions for dividends, the Rate Bureau is complying with the *Statement of Principles Regarding Property and Casualty Insurance Ratemaking* by considering the dividend payment history and ensuring that the selected provisions are reasonably expected expenses.

Q. Is a contingency provision included in the filing?

- A. Yes, the Rate Bureau is including a 1% contingency provision in this filing. This is consistent with the prior dwelling rate filings submitted by the Rate Bureau.

In addition to being consistent with prior Rate Bureau filings, the use of a contingency provision is common within the property and casualty insurance industry. According to the *Actuarial Standard of Practice No. 30: Treatment of Profit and Contingency Provisions and the Cost of Capital in Property/Casualty Insurance Ratemaking*, “the actuary should include a contingency provision if the assumptions used in the ratemaking process produce cost estimates that are not expected to equal average actual costs, and if this difference cannot be eliminated by changes in other components of the ratemaking process.” There are several reasons why expected cost estimates may not be equal to actual costs. Some of these reasons include adverse court decisions, extension of coverage for unforeseen or unintended exposures, regulatory delay or reduction in filed rate changes, and unexpected large losses not sufficiently recognized in the normal ratemaking process. For these reasons, among others, a contingency provision is appropriate and necessary in my opinion.

Included with this filing as Exhibit RB-20 is an exhibit I prepared that summarizes the estimated impact of delays in the filing process within the State of North Carolina. The delay in obtaining rate changes, whether caused by the regulatory review process or other delays inherent in the filing process, is merely one of several items listed above that supports the use of a contingency provision in a

rate-level indication. Exhibit RB-20 lists the 21 property rate filings submitted by the Rate Bureau between 2008 and 2022. For each filing, I compared the effective date assumed in the rate filing to the actual effective date. This difference, which reflects the delay due to the filing process, ranges from 0 months in the 2019 dwelling filing, to 22 months in the 2011 dwelling filing. After determining the length of delay for each filing, I applied the net trend (i.e., the loss trend offset by the premium trend) in that filing for the number of months of delay to determine the estimated impact of the delay in the filing process on the overall rate level. The estimated impact of delay varies across the 21 filings, ranging from -1.9% in the 2021 MH(C) mobile homeowners filing to +5.9% in the 2008 MH(C) mobile homeowners filing, with an average impact of +1.0%.

Based on prior filings submitted by the Rate Bureau, my experience with property filings submitted by insurance companies in other states, and the 1.0% estimated impact of delays in the North Carolina filing process, it is my opinion that a 1% contingency provision is reasonable, consistent with common actuarial practice, and appropriate based on fundamental actuarial principles. Again, the impact of delays in the filing process is only one of many reasons that justifies a contingency provision.

Q. Are you providing expert testimony concerning the underwriting profit provision?

A. No, I am relying on the work and opinion of Dr. Zanjani as to the underwriting profit provision. The scope of my analysis and testimony relates to other aspects of the proposed rate filing.

Q. Are you providing expert testimony concerning the development of the compensation for assessment risk provision?

A. No, as noted earlier in my testimony, with this filing, the Rate Bureau retained Aon to develop the compensation for assessment risk provision. Because Milliman developed this provision in previous property filings submitted by the Rate Bureau, I reviewed Aon's methodology and results to ensure that the compensation for assessment risk provision in this filing is consistent with previous filings. However, because Aon completed the analysis to determine this provision, I am relying on the work and opinion of Minchong Mao of Aon as to the underlying details and development of the compensation for assessment risk provision. The scope of my analysis and testimony relates to other aspects of the proposed rate filing.

Q. In your opinion, is it appropriate to include a 1.6% provision for the compensation for assessment risk in dwelling rates in North Carolina?

A. Yes. Insurance companies writing dwelling policies in North Carolina are exposed to the risk of Beach Plan or FAIR Plan assessments as a result of writing voluntary market property insurance in the state. As such, for those insurance companies

that retain this exposure, they are entitled to receive fair compensation for bearing that risk and it is appropriate to include that compensation in the dwelling rates. The current provision is based on an analysis completed by Aon that relies on a widely accepted measure of compensation that will fairly compensate insurers for bearing this additional risk to their capital. Moreover, the North Carolina statutes provide that prospective exposure to non-recoupable assessments shall be considered as an appropriate factor in the making of rates by the Rate Bureau.

Q. Earlier, when describing the overall ratemaking methodology that underlies this filing, you said that the expected underwriting expenses include a provision for the net cost of reinsurance. Can you please explain this issue?

A. Yes. Dwelling insurance is one of several types of coverages that has exposure to potential catastrophic events. In such coverages (dwelling, homeowners, and other property coverages), individual catastrophic events can result in significant losses that exceed the amount of liability the typical insurer can reasonably assume for solvency and financial stability considerations and that can jeopardize the insurer's ability to pay claims. As a result, in these lines of business, insurers routinely purchase reinsurance to mitigate their exposure to extreme events. In order to accurately reflect the expected costs associated with insuring property policies, as discussed in the *Statement of Principles Regarding Property and Casualty Insurance Ratemaking*, it is appropriate to include the cost of this reinsurance in the ratemaking process for these lines of insurance.

Q. Please elaborate on why it is appropriate to include a provision for the net cost of reinsurance in dwelling rates in North Carolina?

A. Insurance companies writing dwelling policies in North Carolina incur a significant cost for bearing the risk of properties exposed to catastrophic events. Regardless of whether the risk of catastrophic losses is retained by the primary insurer or transferred to a reinsurer, the market cost of bearing that risk is a legitimate cost of the risk transfer inherent in the purchase of property insurance and must be included in the rates. As I mentioned, this is a foundational actuarial principle included in the *Statement of Principles Regarding Property and Casualty Insurance Ratemaking*. As such, the net cost of reinsurance should be included in the North Carolina dwelling rates and the North Carolina statutes specifically authorize the inclusion of this provision.

Q. How does this filing reflect the net cost of reinsurance?

A. For many years, the Rate Bureau has included a provision for the net cost of reinsurance. For this filing, the Rate Bureau engaged Aon, one of the world's largest reinsurance brokers, to develop the provision for the net cost of reinsurance. It is my understanding that Aon was retained by the Rate Bureau based on their ability to access relevant data and experience from the reinsurance

market, their expertise with catastrophe-related issues, and their prominence in the reinsurance industry.

Q. In your opinion, is it appropriate to allocate reinsurance costs within North Carolina in a way that is proportional to risk?

A. Yes. The risk associated with insuring properties exposed to catastrophic events varies geographically within North Carolina. As such, the cost for bearing that risk should be allocated proportionally to the measurement of risk. In its analysis of reinsurance costs for this filing, Aon provides the statewide provision for the net reinsurance cost and allocates the reinsurance costs to each policy form and each territory. This allocation is appropriate and consistent with the objective of producing rates that are not inadequate, not excessive, and not unfairly discriminatory across policyholders.

Q. Are you providing expert testimony concerning the development of the net cost of reinsurance provision?

A. No, I am relying on the work and opinion of Minchong Mao of Aon as to the development of the net cost of reinsurance provision.

Q. Is a provision for deviations included in the filing?

A. No, the Rate Bureau reviewed historical data and considered whether to apply a provision for deviations but elected not to include one in this filing.

Q. Does the filing review the rate-level adequacy by class?

A. Yes. With this filing, the Rate Bureau developed indicated rate-level changes by class (i.e., Buildings or Contents) using a similar methodology as the statewide indication. A base class loss cost is calculated for each class using the historical loss experience. In addition, a credibility value is assigned to each class based on the number of house years underlying each loss cost. As mentioned above, the full credibility standards are 500,000 house years for Fire and 330,000 house years for Extended Coverage. Using the credibility for each class, a credibility-weighted loss cost is determined by class. Additional calculations are applied to each class to reflect expenses, dividends, and reinsurance in a similar manner as applied at a statewide level. The result of these calculations is an indicated rate change by class.

In my opinion, the methodology used to develop the indicated rate change by class is reasonable and is consistent with widely used actuarial ratemaking practices.

Q. Does the filing review the rate-level adequacy by territory?

- A. Yes. With this filing, the Rate Bureau developed indicated rate-level changes by territory using a similar methodology as the statewide indication. A base class loss cost is calculated for each territory using the historical loss experience. In addition, a credibility value is assigned to each territory based on the number of house years underlying each loss cost. As mentioned above, the full credibility standards are 500,000 house years for Fire and 330,000 house years for Extended Coverage. Using the credibility for each territory, a credibility-weighted base class loss cost is determined by territory. Additional calculations are applied to each territory to reflect expenses, dividends, and reinsurance in a similar manner as applied at a statewide level. The result of these calculations is an indicated rate-level change by territory, which is allocated to each class based on the statewide indicated rate change by class.

In my opinion, the methodology used to develop the indicated rate-level change by territory and by class is reasonable and is consistent with widely used actuarial ratemaking practices.

Q. Does the filing review the wind exclusion credits and wind mitigation credits?

- A. Yes. Based on the indicated rates by territory (for Territories 110 to 160) and by class that are being proposed with this filing, the wind exclusion credits and wind mitigation credits are being updated in a corresponding manner. Using the underlying formula for the statewide rate-level indication, an adjustment is made to the appropriate components of the indication formula to reflect the non-wind losses as a percent of the total losses. The indicated non-wind rate is subtracted from the indicated overall rate to determine the indicated wind exclusion credit for each territory. The wind mitigation credits for Territories 110 to 160 are being revised in a manner proportional to the wind exclusion credits.

In my opinion, the methodology used to develop the revised wind exclusion credits and wind mitigation credits is reasonable and is consistent with widely used actuarial ratemaking practices.

Q. Does the filing review any other rating factors used in the premium calculation process?

- A. No. The only changes reflected in this filing are to base rates, wind exclusion credits, and wind mitigation credits as discussed above.

Q. What are the indicated rate levels for this filing?

- A. The indicated rate level is the actuarially sound and correct rate level for each territory, each segment, and each class. It is the indicated rate change by territory that is needed to cover the expected losses and expenses while still providing a fair and reasonable profit. The indicated rate level is also the rate level that

complies with the statutory requirement that rates not be excessive, inadequate, or unfairly discriminatory.

For Extended Coverage, the statewide indicated rate-level change is 59.8%. Due to differences by territory in historical loss experience, modeled hurricane losses, and other expenses, the indicated change by territory varies throughout the state. For many of the western territories, the indicated change is less than 59.8%, but for several of the territories closer to the coast, the indicated change is greater than 59.8%. The indicated rate-level change by territory is further divided into an indicated Buildings rate-level change and an indicated Contents rate-level change based on the indicated rate change by class (discussed above) relative to the total indicated rate change. For Extended Coverage, the statewide indicated Contents rate-level change is significantly lower than the statewide indicated Buildings rate-level change. As such, the indicated Contents rate-level change for each territory is also significantly lower than the corresponding indicated Buildings rate-level change.

For Fire, the statewide indicated rate-level change is 16.1%. Similar to the Extended Coverage segment, the indicated change by territory varies across the state, but the variation is less significant. Also similar to the Extended Coverage segment, the indicated rate-level change by territory is further divided by class such that the indicated Contents rate-level changes are lower than the indicated Buildings rate-level changes in each territory. When the indicated rate changes for Fire and Extended Coverage are combined, the total statewide indicated dwelling rate-level change is 50.6% and a few territories have a combined indicated rate-level change in excess of 60%.

In my opinion, the Rate Bureau's indicated rate changes for Fire and Extended Coverage are reasonable, actuarially sound, and appropriately reflect the expected costs for dwelling insurance in North Carolina.

Q. What are the filed rate levels for this filing?

A. In this filing, the filed rate levels are equal to the indicated rate levels for each segment, each class, and each territory.

Q. I understand that you are not providing an opinion concerning the underwriting profit (profit) provision, the compensation for assessment risk (CAR) provision, or the net cost of reinsurance (NCOR) provision. If I ask you to assume that the provisions for profit, CAR, and NCOR are reasonable and actuarially sound, then in your opinion, is the overall rate-level indication shown in the dwelling filing by the North Carolina Rate Bureau reasonable and actuarially sound?

A. Yes, if I assume that the provisions for profit, CAR, and NCOR are reasonable, then in my opinion, the overall dwelling rate-level indication shown by the Rate

Bureau, and the rate-level indications for each segment, each class, and each territory, are reasonable and actuarially sound.

Q. Assuming that the provisions for profit, CAR, and NCOR are reasonable, do you have an opinion whether the proposed rates reasonably provide for the expected costs for dwelling insurance in North Carolina?

A. Yes, if I assume that the provisions for profit, CAR, and NCOR are reasonable, then in my opinion, the proposed rates in this filing reasonably reflect the expected costs for dwelling insurance in North Carolina.

Q. Assuming that the provisions for profit, CAR, and NCOR are reasonable, what is your opinion on whether the proposed dwelling rates are not excessive, not inadequate, and not unfairly discriminatory?

A. If I assume that the provisions for profit, CAR, and NCOR are reasonable, then in my opinion, the proposed dwelling rates in this filing are not excessive, not inadequate, and not unfairly discriminatory.

Q. Does this conclude your testimony?

A. Yes, it does.

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SUMMARY

Property & Casualty (P&C) actuary with more than 30 years of experience in actuarial applications and related fields including ratemaking, product development, predictive modeling, state pricing, field proposals, rate filings, actuarial and statistical research, classification analysis, data analytics, and economic modeling. Experienced in Private Passenger Automobile (including preferred, standard, and non-standard), Personal Property (including homeowners, renters, condominium owners, mobile home, and dwelling), other miscellaneous Personal Lines (including boats, motorcycles, recreational vehicles, and personal umbrella), and various Commercial Lines of Business. Has sound knowledge of product development, product pricing, product implementation, and project management for Personal Lines products. Has working knowledge of other key insurance functions including claims, corporate finance, marketing, reinsurance, sales, and underwriting. Has demonstrated the ability to lead and manage teams of employees to achieve desired business results in various capacities. Has unique combination of analytic ability, business intuition, project management, leadership, and communication skills.

EMPLOYMENT HISTORY

Milliman, Inc. Brookfield, Wisconsin	2007 - Present
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Principal and Consulting Actuary

Specialize in personal lines insurance company clients and predictive analytics of both personal and commercial lines of insurance. Experience has included ratemaking and pricing analyses for insurance companies, product development and implementation, classification analysis using multivariate statistical techniques, catastrophe reinsurance analysis, loss reserving, segmentation analysis to support sales and marketing initiatives, impact analysis of proposed state and federal legislation, and merger and acquisition analysis. Has also provided expert testimony to support Auto and Property regulatory issues.

Allstate Insurance Company Northbrook, Illinois	1993 - 2007
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Senior Manager – Auto & Property Pricing (2006-2007)

Oversaw and directed all personal lines Auto and Property pricing, rate filings, and other actuarial work related to the pricing function for 10 states accounting for over \$4 billion of premium. Assisted in the oversight of all personal lines actuarial work related to the pricing function for an additional 12 states. Served as the primary department expert on all Property pricing initiatives. Directly managed a staff of 10 to 12 employees and participated in the leadership team that oversaw the management of a department with more than 130 employees.

Team Leader – Property & Specialty Lines Research (2005-2006)

Managed all research projects for personal lines Property and for Specialty Lines, all of which were completed using multivariate statistical analyses. Measured the impact of rating algorithm changes as they were implemented in various states. Oversaw the enhancement and improvement of analysis techniques used within the team. Led a team of 8 to 10 staff.

Research Manager (1999-2001, 2003-2005)

At different times, managed research teams for personal lines Auto, Economics & Modeling, and personal lines Property. Oversaw the development of countrywide pricing models based on multivariate statistical techniques, the evaluation of risk characteristics to be used as new rating elements, and the development of implementation tools to be used by pricing teams. Oversaw the development of Auto and Property economic models that measured the lifetime profitability of personal lines insurance customers. Led teams of staff ranging in size from 3 to 6 analysts.

Pricing Manager (1997-1999, 2001-2003)

Managed all personal lines Auto and Property pricing, rate filings, and other actuarial work related to the pricing function for California. Managed all personal lines Property pricing, rate filings, and other actuarial work related to the pricing function for 14 states including Alabama, Florida, Louisiana, and Mississippi. Led teams of staff ranging in size from 3 to 6 analysts.

Pricing Analyst, Research Analyst (1993-1997)

Produced rate proposals, rate filings, and quarterly rate-level indications for various states. Retrieved, manipulated, and analyzed large volumes of data to evaluate countrywide rating plans using multivariate statistical analyses.

EXPERT WITNESS EXPERIENCE

Pre-filed Expert Testimony – Various Private Passenger Automobile and Residential Property Insurance

Rate Filings submitted by the North Carolina Rate Bureau

- *2023 Private Passenger Automobile Insurance Filing*
- *2022 Mobile Homeowners MH(C) Insurance Filing*
- *2022 Mobile Homeowners MH(F) Insurance Filing*
- *2022 Dwelling Insurance Filing*
- *2021 Mobile Homeowners MH(C) Insurance Filing*
- *2021 Mobile Homeowners MH(F) Insurance Filing*
- *2020 Dwelling Insurance Filing*
- *2020 Homeowners Insurance Filing*
- *2019 Dwelling Insurance Filing*
- *2019 Mobile Homeowners MH(C) Insurance Filing*
- *2019 Mobile Homeowners MH(F) Insurance Filing*
- *2019 Private Passenger Automobile Insurance Filing*
- *2018 Homeowners Insurance Filing*
- *2018 Dwelling Insurance Filing*
- *2017 Homeowners Insurance Filing*
- *2016 Dwelling Insurance Filing*

EDUCATION

BS in Actuarial Science from Drake University, Des Moines, Iowa

PROFESSIONAL QUALIFICATIONS

Certified Specialist in Predictive Analytics (CSPA), 2018
Fellow of the Casualty Actuarial Society (FCAS), 2002
Member of the American Academy of Actuaries (MAAA), 2002
Associate of the Casualty Actuarial Society (ACAS), 1998
Member of the Midwest Actuarial Forum, 1998

PROFESSIONAL ACTIVITIES

Volunteer Chairperson, CAS Crash Course Seminar Task Force, 2021 - Present
Member, CAS Volunteer Resources Task Force, 2021 - Present
Chairperson, CAS Crash Course in Vehicle Technology & Driverless Cars Committee, 2020 - 2021
Member, CAS Volunteer Resources Advisory Committee, 2020 - 2021
Member, CAS Participation Survey Task Force, 2018 - 2019
Member, Vehicle Technology & Impact on Loss Trends Planning Committee, 2017 - 2018
Member, iCAS Predictive Analytics Syllabus Committee, 2017 - 2018
Member, CAS Volunteer Resources Committee, 2013 - 2020
Member, CAS Volunteer Support Task Force, 2012 - 2013
Member, CAS Examination Committee, 2004 - 2006

PUBLICATIONS

"Keep on trucking: COVID-19 and its impact on commercial auto", Milliman Insight, April 2020.
"PIP PIP hooray! The changing Michigan auto market", Milliman Insight, April 2020.
"Nowhere to drive: The impact of COVID-19 on the auto insurance industry", Milliman Insight, March 2020.
"Better Visibility: Predictive modeling helps to steady medical malpractice underwriting", Best's Review, February 2008.

PRESENTATIONS

Numerous presentations at Casualty Actuarial Society (CAS) and other Property & Casualty insurance industry meetings and seminars from 2007 through the present with a focus on personal lines Auto and Property issues, as well as predictive analytics topics.

**NORTH CAROLINA
DWELLING PROPERTY INSURANCE**

Estimated Impact of Delays in Rate Filing Process

NCRB Rate Filing	Policy Type / Coverage	Premium Weight	(1)	(2)	(3)	(4)	(5)	(6)
			Assumed Effective Date	Actual Effective Date	# of Months of Delay	Selected Loss Trend	Selected Premium Trend	Estimated Impact of Delay in Filing Process
2022 MH(C)	Mobile Home Structures	\$64,510,959	7/1/23	10/1/23	3	12.0%	3.2%	2.1%
	Adjacent Structures	5,337,948	7/1/23	10/1/23	3	6.0%	5.0%	0.2%
	Personal Effects Liability	11,872,318 2,467,108	7/1/23 7/1/23	10/1/23 10/1/23	3 3	2.8% 8.0%	4.8% 1.0%	-0.5% 1.7%
	Total	\$84,188,333						1.6%
2022 MH(F)	Owners	\$47,454,596	7/1/23	10/1/23	3	9.0%	3.8%	1.2%
	Tenants	114,906	7/1/23	10/1/23	3	2.8%	1.2%	0.4%
	Total	\$47,569,502						1.2%
2022 Dwelling	Fire	\$71,710,360	2/1/23	6/1/23	4	6.5%	5.0%	0.5%
	EC	246,871,993	2/1/23	6/1/23	4	7.0%	5.0%	0.6%
	Total	\$318,582,353						0.6%
2020 HO	Owners	\$2,161,073,789	8/1/21	6/1/22	10	6.0%	1.1%	4.0%
	Tenants	76,318,464	8/1/21	6/1/22	10	0.5%	-2.0%	2.1%
	Condos	31,251,398	8/1/21	6/1/22	10	5.0%	0.0%	4.1%
	Total	\$2,268,643,651						4.0%
2021 MH(C)	Mobile Home Structures	\$55,402,780	11/1/21	5/1/22	6	-2.0%	2.7%	-2.3%
	Adjacent Structures	4,435,898	11/1/21	5/1/22	6	10.2%	4.4%	2.7%
	Personal Effects Liability	10,600,963 2,198,331	11/1/21 11/1/21	5/1/22 5/1/22	6 6	-2.0% 8.0%	4.4% 0.7%	-3.1% 3.5%
	Total	\$72,637,972						-1.9%
2021 MH(F)	Owners	\$41,984,133	11/1/21	5/1/22	6	1.0%	2.7%	-0.8%
	Tenants	95,516	11/1/21	5/1/22	6	-2.0%	1.0%	-1.5%
	Total	\$42,079,649						-0.8%
2020 Dwelling	Fire	\$71,555,474	9/1/21	11/1/21	2	0.0%	1.2%	-0.2%
	EC	229,061,439	9/1/21	11/1/21	2	9.0%	1.5%	1.2%
	Total	\$300,616,913						0.9%
2019 Dwelling	Fire	\$83,923,771	7/1/20	7/1/20	0	2.0%	1.1%	0.0%
	EC	241,506,295	7/1/20	7/1/20	0	3.2%	0.8%	0.0%
	Total	\$325,430,066						0.0%
2019 MH(C)	Mobile Home Structures	\$52,069,226	2/1/20	6/1/20	4	3.5%	1.6%	0.6%
	Adjacent Structures	4,212,665	2/1/20	6/1/20	4	4.0%	2.8%	0.4%
	Personal Effects	10,255,303	2/1/20	6/1/20	4	2.0%	4.1%	-0.7%
	Liability	2,410,058	2/1/20	6/1/20	4	5.0%	n/a	1.6%
	Total	\$68,947,252						0.5%
2019 MH(F)	Owners	\$51,661,941	2/1/20	6/1/20	4	0.7%	-0.5%	0.4%
	Tenants	66,881	2/1/20	6/1/20	4	2.0%	2.1%	0.0%
	Total	\$51,728,822						0.4%
2018 HO	Owners	\$2,017,285,314	10/1/19	5/1/20	7	4.6%	1.0%	2.0%
	Tenants	72,370,871	10/1/19	5/1/20	7	-3.1%	-1.4%	-1.0%
	Condos	29,047,171	10/1/19	5/1/20	7	1.9%	0.2%	1.0%
	Total	\$2,118,703,356						1.9%
2018 Dwelling	Fire	\$102,088,428	6/1/18	2/1/19	8	0.2%	2.3%	-1.3%
	EC	187,663,877	6/1/18	2/1/19	8	0.4%	2.1%	-1.1%
	Total	\$289,752,305						-1.2%
2017 HO	Owners	\$2,010,516,565	6/1/18	10/1/18	4	3.1%	1.1%	0.7%
	Tenants	62,551,401	6/1/18	10/1/18	4	-3.1%	-1.0%	-0.7%
	Condos	24,591,783	6/1/18	10/1/18	4	1.9%	0.5%	0.5%
	Total	\$2,097,659,749						0.6%
2014 HO	Owners	\$2,257,970,589	7/1/14	6/1/15	11	5.3%	2.3%	2.7%
	Tenants	45,065,871	7/1/14	6/1/15	11	2.9%	-1.0%	3.6%
	Condos	22,629,842	7/1/14	6/1/15	11	5.4%	0.0%	5.0%
	Total	\$2,325,666,302						2.7%

**NORTH CAROLINA
DWELLING PROPERTY INSURANCE**

Estimated Impact of Delays in Rate Filing Process

NCRB Rate Filing	Policy Type / Coverage	Premium Weight	(1) Assumed Effective Date	(2) Actual Effective Date	(3) # of Months of Delay	(4) Selected Loss Trend	(5) Selected Premium Trend	(6) Estimated Impact of Delay in Filing Process
2014 MH(C)	Property	\$77,349,418	6/1/15	10/1/15	4	3.0%	2.8%	0.1%
	Liability	1,546,804	6/1/15	10/1/15	4	2.8%	n/a	0.9%
	Total	\$78,896,222						0.1%
2014 MH(F)	Owners	\$44,750,216	6/1/15	10/1/15	4	4.6%	2.2%	0.8%
	Tenants	100,658	6/1/15	10/1/15	4	2.5%	-0.2%	0.9%
	Total	\$44,850,874						0.8%
2012 HO	Owners	\$2,168,814,729	6/1/13	7/1/13	1	5.4%	3.0%	0.2%
	Tenants	32,405,190	6/1/13	7/1/13	1	4.0%	0.0%	0.3%
	Condos	18,252,996	6/1/13	7/1/13	1	4.0%	2.0%	0.2%
	Total	\$2,219,472,915						0.2%
2011 Dwelling	Fire	\$84,664,174	6/1/11	4/1/13	22	3.6%	2.9%	1.3%
	EC	150,823,062	6/1/11	4/1/13	22	4.1%	2.8%	2.3%
	Total	\$235,487,236						2.0%
2008 HO	Owners	\$1,498,766,325	1/1/09	5/1/09	4	4.4%	3.9%	0.2%
	Tenants	24,074,875	1/1/09	5/1/09	4	0.2%	2.7%	-0.8%
	Condos	13,213,524	1/1/09	5/1/09	4	0.2%	2.9%	-0.9%
	Total	\$1,536,054,724						0.1%
2008 MH(C)	Property	\$76,284,985	10/1/07	12/1/08	14	7.5%	2.4%	5.9%
	Liability	1,161,840	10/1/07	12/1/08	14	4.0%	n/a	4.7%
	Total	\$77,446,825						5.9%
2008 MH(F)	Owners	\$43,659,180	10/1/07	12/1/08	14	6.6%	5.8%	0.9%
	Tenants	158,638	10/1/07	12/1/08	14	0.4%	-4.1%	5.5%
	Total	\$43,817,818						0.9%

Average Estimated Impact of Delays in Filing Process: 1.0%

(1), (4), (5) From historical NCRB rate filings

(2) From historical NCRB settlement agreements or circulars

(6) = $\frac{[1 + (4)]}{[1 + (5)]} \wedge \left\{ \frac{[(2) - (1)]}{365} \right\} - 1$

**PREFILED TESTIMONY
OF
GEORGE ZANJANI**

DWELLING INSURANCE RATE FILING

**NORTH CAROLINA RATE BUREAU
JULY, 2023**

I. Qualifications and Summary

Q: What is your name, occupation, and business address?

A: My name is George Zanjani. I am Professor of Finance and the holder of the Frank Park Samford Chair of Insurance at the University of Alabama. My business address is 1074 Alderwood Lane NE, Marietta, Georgia 30068.

Q: Please describe your educational and employment background.

A: A complete curriculum vitae is attached as Exhibit RB-22 with this testimony. To summarize, my undergraduate studies were at Stanford University from 1987-1990, where I earned an A.B./B.S in Economics and Biology. I joined the commercial lines actuarial department of Fireman's Fund Insurance Companies in 1990 as an Assistant Actuarial Analyst. Upon leaving in 1994, I was a Senior Actuarial Analyst, an Associate of the Casualty Actuarial Society, and the head of the company's Workers Compensation actuarial unit. I did my graduate studies in Economics at the University of Chicago, earning a Ph.D. in 2000. I joined the Research Department of the Federal Reserve Bank of New York in the Capital Markets Function as a Research Economist in 2000, leaving as a Senior Economist in 2008. I joined the Robinson College of Business of Georgia State University in 2008 as an Associate Professor of Risk Management and Insurance and was honored as the inaugural holder of the AAMGA Distinguished Chair in Risk Management and Insurance in 2011. I started my current position in 2017.

Q: Please elaborate on some of your professional activities.

A: My professional career has been focused on insurance. After four years of actuarial work in commercial lines insurance, my dissertation addressed the economics of insurance pricing. I specialized on insurance issues while at the Federal Reserve Bank of New York. In particular, I served for the Bank on the Presidential Working Group on Financial Markets during its review of the renewal of the Terrorism Risk Insurance Act in 2006 and on the Committee on the Global Financial System Task Force on Institutional Investors, Global Savings, and Asset Allocation.

My academic service activities include 1) service as referee for various academic journals, 2) service as an associate editor of the *Journal of Insurance Issues*, and 3) (current) service as a senior editor for the *Journal of Risk and Insurance* and an associate editor for *Insurance: Mathematics and Economics*. In addition, I have served on the Board of the American Risk and

Insurance Association and served as President of that association. I have also served as President of the Risk Theory Society. I currently serve on the International Research Advisory Board of National Chengchi University.

As an academic, I continue to write on insurance pricing, participate in academic conferences on insurance, and engage in various sponsored research and consulting activities related to insurance. The latter activities include two research projects on capital allocation and a third on loss reserving, all sponsored by the Casualty Actuarial Society, and a project on the financial crisis and the insurance industry sponsored by the Society of Actuaries in 2009. In addition, I have taught various courses at the undergraduate and graduate levels over the past decade, including classes on financial risk management, risk modeling, and property-casualty insurance.

Q: Have you published any papers or books?

A: Yes. I have published various articles, book chapters, reviews, and white papers on insurance pricing and other aspects of insurance markets. Published or forthcoming work includes articles on insurance topics in the *American Economic Review*, *Insurance: Mathematics and Economics*, the *Journal of Banking and Finance*, the *Journal of Financial Economics*, the *Journal of Public Economics*, the *Journal of Risk and Insurance*, *Management Science*, and the *North American Actuarial Journal*. My co-authors and I have two chapters in the 2013 edition of the Handbook of Insurance, one on capital allocation for insurance companies, and the other on the financial pricing of insurance. Two papers have won awards for their contributions to the field of actuarial science: I received the 2010 ARIA award from the Casualty Actuarial Society and shared the 2015 Charles A. Hachemeister Prize (also from the Casualty Actuarial Society) with a co-author.

Q: Are you a member of any professional organizations?

A: I am a member of the American Economic Association, the American Finance Association, the American Risk and Insurance Association, the European Group of Risk and Insurance Economists, and the Risk Theory Society. I am also an Associate of the Casualty Actuarial Society. I served on the Board of Directors of the American Risk and Insurance Association from 2007 to 2014 and served as President in 2012-2013. I served as President of the Risk Theory Society in 2012.

Q: Have you ever testified in insurance rate regulatory proceedings?

A: Yes. I have offered testimony in Workers Compensation insurance rate filings in Florida (2015 and 2017), Massachusetts (2020, 2022, and 2023), and Virginia (2016). In addition, I have supplied testimony for various rate filings in North Carolina starting in 2019, including Workers Compensation, Private Passenger Auto, Homeowners, Mobile Homeowners, Flood, and Dwelling.

Q: What was the nature of your testimony in those previous cases?

A: In the Florida, Massachusetts, and Virginia cases, I offered testimony on the underwriting profit factors used in the rates. Specifically, I evaluated the suitability of the methods and assumptions used to develop those factors, as well as whether the rate of return on capital

implied by those factors was reasonable. For the North Carolina filings, I estimated the rate of return on capital implied by the selected underwriting profit factors and assessed whether that rate of return was reasonable.

Q: What is the purpose of your testimony?

A: I was asked by the North Carolina Rate Bureau, as a financial economist with expertise in insurance, 1) to assist the Bureau with the underwriting profit factor selection, 2) to determine the expected return on insurance net worth implicit in the filing, and 3) to assess whether the expected return on net worth constitutes a reasonable rate of return and thus whether the selected underwriting profit factor satisfies North Carolina's statutory requirements.

Q: Please summarize the main findings of your testimony.

A: The first task was to determine the range for a reasonable rate of return on capital. I started by creating a set of estimates of the cost of insurance equity relevant for the North Carolina Dwelling Fire and Extended Coverage insurance markets. I consulted various third party estimates of the cost of equity for the property-casualty insurance industry. I also generated my own estimates using a single-factor risk premium approach, where the cost of equity was determined by 1) the historical excess return of the overall stock market over bonds, 2) the historical correlation of the equity prices of the firms serving the North Carolina Dwelling Fire and Extended Coverage markets with the overall stock market, and 3) the current level of bond yields. Finally, I adjusted the cost of equity to account for the significant presence of private companies in the North Carolina market. The cost of equity estimates resulting from this exercise ranged from about 10.1% to 19.7% for the Dwelling Fire market and 10.4% to 20.0% for the Dwelling Extended Coverage market.

Next, I calculated a weighted average cost of capital (WACC) by estimating the fraction of debt in the typical insurance holding company capital structure and weighting together the cost of equity with cost of debt based on this fraction. The WACC estimates from this exercise ranged from about 9.1% to 16.7% for the Dwelling Fire market and 9.3% to 17.0% for the Dwelling Extended Coverage market.

The next task was to determine the projected rate of return on capital associated with the selected underwriting profit provision. Using a pro forma return model similar to that used in previous filings, I analyzed how the selected underwriting profit provisions used in the filing translate into expected returns on net worth. Consistent with previous filings, and with North Carolina law stipulating that the investment income earned on capital and surplus is not to be considered in determining the appropriate rate of return for the insurance industry, I refer to the expected return on net worth without including investment income on capital and surplus as the *statutory return*. When calculating the expected return on net worth including investment income earned on capital and surplus, I refer to the figure as the *total return*. My calculations are detailed in Exhibits RB-23 and RB-24 and are summarized below:

Return Definition	Fire	Extended Coverage
Statutory Return	7.19%	7.14%
Total Return	10.84%	10.73%

I next considered adjustments to the model that, in my opinion, produce a more accurate representation of the rate of return produced by the selected underwriting profit factor. Specifically, I adjusted the prospective portfolio yields to reflect current market conditions, as opposed to the average of current market yields and embedded yields, and I also adjusted the portfolio allocation to more closely reflect the assets supporting Dwelling coverages in North Carolina. These changes increase the statutory return to 7.51% and the total return to 11.84% in the Dwelling Fire market. In the Dwelling Extended Coverage market, the statutory return would increase to 7.44%, and the total return increases to 11.70%.

I then compared the projected returns on capital associated with the selected underwriting factors with the cost of equity and WACC ranges described above. The projected total returns fell comfortably within the range of cost of equity estimates and within the range of WACC estimates. I therefore conclude that the projected total returns in both the Dwelling Fire and Dwelling Extended Coverage markets are reasonable and not excessive. The statutory returns fell below the lower end of the ranges of cost of equity estimates and of the WACC estimates. Thus, I conclude that the statutory returns are not excessive. The conclusions still hold after adjusting the prospective yields as described above.

II. Expected Return on Net Worth

Q: In general terms, how did you determine the expected return on net worth implied by the underwriting profit provision used in the filing?

A: I used a *pro forma* return model similar to that used in previous filings in North Carolina. The model accounts for underwriting income, installment payment income, investment income on unearned premium and loss/loss adjustment expense (LAE) reserves, and taxes as a percentage of premium. Total after-tax income from these sources (as a percentage of premium) is then related to net worth (as a percentage of premium) to obtain an expected return on net worth.

Q: What do you mean by *pro forma*?

A: The model is *pro forma* in the sense that it assumes 1) that the indicated rate change will be implemented and 2) that all loss, expense, and investment return realizations will coincide with their projected expected values.

The results of the model and supporting information are presented in Exhibits RB-23 and RB-24.

Q: Could you state what you mean by “net worth”?

A: Net worth is the book value of equity of a company under Generally Accepted Accounting Principles (GAAP) rather than Statutory Accounting Principles (SAP).

Q: Did you account for investment income on capital and surplus in calculating the expected return?

A: It is my understanding that North Carolina law provides that insurance rates are to be set such that those rates are expected to provide a return to insurers that is equal to the returns of

industries of comparable risk and that, in calculating that expected return, the investment income on capital and surplus is to be excluded from consideration. Therefore, I present the expected return projected to result from the selected underwriting profit provision excluding investment income on capital and surplus. However, for informational purposes, I also present the expected return projected to result from the selected underwriting profit provision including investment income on capital and surplus.

Q: Would you please elaborate on the elements of the return and how they are calculated?

A: The return is composed of underwriting profit (Line 2 of Exhibits RB-23/RB-24, Pages 1 and 1A), installment fee income (Line 3 of Exhibits RB-23/RB-24, Pages 1 and 1A) and investment gain on insurance transaction (Line 7 of Exhibits RB-23/RB-24, Pages 1 and 1A). In the calculation that includes investment income on surplus for informational purposes, I additionally include investment gain on surplus (Line 8 of Exhibits RB-23/RB-24, Page 1A). (Please note that, in my exhibits and sometimes in my testimony, I refer to investment income on surplus as a shorthand reference to investment income on capital and surplus.) All of the foregoing income components are adjusted for taxes. The components are discussed in greater detail below:

Underwriting profit - As a matter of arithmetic and definition, the underwriting profit as a percentage of premium matches the underwriting profit provision selected by the NCRB. It is the percentage of premium left over after accounting for the loss and expense provisions, with the projected loss and LAE ratio and fixed expense (Other Acquisition and General) ratios being adjusted to reflect the indicated rate change. Installment fee income is based on the average installment charges as a percentage of premium over the past five years (Exhibits RB-23/RB-24, Page 3). The underwriting profit and installment fee income is assumed to be taxed at the current corporate rate of 21% (Line 4 of Exhibits RB-23/RB-24, Pages 1 and 1A), as revised in the Tax Cut and Jobs Act of 2017. I also account for additional tax liabilities relating to IRS rules regarding the treatment of unearned premium reserves and of loss reserves (Line 5 of Exhibits RB-23/RB-24, Pages 1 and 1A). Details of the calculation of these additional tax liabilities are found on Pages 4 to 6 of Exhibits RB-23/RB-24.

Net Investment Gain on Insurance Transaction – This portion of the return reflects investment income on investible funds generated by the insurance transaction. Specifically, this quantity is estimated as the product of an investment yield and the average loss/LAE and unearned premium reserves. An adjustment is made for investment income on agents' balances (specifically, to account for the fact that agents' balances, which are premiums held by agents and not yet remitted to the company, are not available for investment by the insurance company). In the case of Dwelling Extended Coverage analyzed in Exhibit RB-24, where a provision for reinsurance is included in the rate, I also adjust for investment income on reinsurance balances. This accounts for the additional income that the company receives on funds that have not yet been remitted to the reinsurer, as well as the investment income that it is not able to collect on funds that have not yet been recovered from the reinsurer. The details of the estimation of investible reserves and the pre-tax investment income generated from those reserves are found on Pages 7 to 9 of Exhibits RB-23 and 24. The tax liability is based on a weighted average of estimated tax rates on the different sources of investment income, with the weights based on the composition of the overall North Carolina industry portfolio.

Investment Gain on Surplus – This portion of the return reflects investment income generated from surplus. The pre-tax investment yield is applied to investible surplus, the amount of which is based on the ten-year average premium-to-surplus ratio for groups writing Dwelling insurance in North Carolina from Page 14 of Exhibits RB-23/RB-24. The tax liability is again based on a weighted average of estimated tax rates on the different sources of investment income, with the weights based on the composition of the overall North Carolina industry portfolio.

These components of after-tax return, all denominated as a percent of premium, are then summed and related to net worth. This is accomplished by multiplying the returns as percent of premium by the product of the premium-to-surplus ratio from Page 14 of Exhibits RB-23/RB-24 and the inverse of the industry-wide net worth-to-surplus ratio from Page 15 of Exhibits RB-23/RB-24.

Q: Please explain how the investment yield is calculated.

A: My understanding is that the accepted approach in North Carolina, based on a decision by the Commissioner in the 1990's, is to estimate the investment yield as an average of the "embedded yield" based on the industry statutory annual statement reports and a "current yield" based on current market rates. I have followed this convention in the analysis presented in Exhibits RB-23/RB-24, though I contemplate the consequences of this convention in more detail later in my testimony.

For the current yield, I start with the weighted average invested asset portfolio for the North Carolina insurance market (using total North Carolina DPW for weights) and use various sources to estimate the current market yields for those assets. Sources for current market rates, and a summary of the overall calculation, are provided on Page 11 of Exhibit RB-23/RB-24. For each of the bond subcategories, I obtain a maturity distribution for the North Carolina industry portfolio in that subcategory from the Schedule D summary exhibits and match each maturity level from the exhibits to a corresponding bond yield of similar maturity, so that the average yield shown on Page 11 is a weighted average across maturities according to the North Carolina industry portfolio. The overall pre-tax current yield on the industry portfolio as thus determined is 5.90%. The embedded yield calculations, based on the actual investment income reported by the industry, are shown on Pages 12 and 13 of Exhibits RB-23/RB-24; the pre-tax embedded yield is 3.32%. For the pro forma calculations, I average these two figures to obtain 4.61% (shown on Page 10 of Exhibits RB-23/RB-24).

The tax liability for investment income is determined for each asset class, reflecting tax advantages as appropriate on municipal bond interest, preferred and common stock dividends, and capital gains on stock. The expected return on equity is split into a capital gain and dividend component, for tax purposes, based on the experience of the S&P 500 over the 1998-2022 period.

Q: What is the expected return on net worth?

A: To calculate the implied return on insurance company equity, components of after-tax return are summed and related to net worth, which, as a percentage of premium, is calculated based on the product of the premium-to-surplus ratio from Page 14 of Exhibits RB-23/RB-24 and the

inverse of the industry-wide net worth-to-surplus ratio from Page 15 of Exhibits RB-23/RB-24. This approach indicates that the selected underwriting profit factor of 8.5%, if achieved, would yield an expected statutory return on net worth of 7.19% (without including investment income on surplus) and a total return on net worth of 10.84% (when including investment income on surplus) in the Dwelling Fire market. The corresponding figures for the 8.5% underwriting profit factor selected for Dwelling Extended Coverage are a statutory return of 7.14% and a total return of 10.73%.

Q: Have you considered the impact of any other alternative assumptions on your estimates?

A: Yes, I have considered the impact of basing the investment yield on current yields alone rather than an average of current yields and embedded yields. I have also considered the impact of basing the portfolio allocation on the actual investment portfolios of companies writing Fire and Allied lines in North Carolina, based on the premiums written in those lines.

The practice of averaging embedded yields with current yields makes little difference when the yields are relatively close together. But there is a significant divergence between the current yields on investments and embedded yields. The pre-tax current yield is 5.90%, and the pre-tax embedded yield is 3.32%. The current yield, in my opinion, is the better indicator of investment yields for a prospective ratemaking exercise, where the relevant questions concern the terms on which money will be invested today and in the future. As for the portfolio allocation, I believe the weighted average allocation based on North Carolina Fire and Allied premiums gives a closer approximation to the allocation supporting North Carolina Dwelling business. The current yield, based on this alternative asset allocation, is 5.61%.

If we calculate the returns on net worth using this current yield alone, rather than the average of the current yield and embedded yield, the statutory rate of return increases to 7.51% in the Dwelling Fire market and 7.44% in the Dwelling Extended Coverage market; the total rate of return increases to 11.84% in the Dwelling Fire market and 11.70% in the Dwelling Extended Coverage market.

Q: How was the underwriting profit factor determined?

A: The Bureau selected the 8.5% provision for both Fire and Extended Coverage. I participated in the Bureau's Property Rating Subcommittee meeting for the discussion of the profit portion of the rate review. I described for the Subcommittee my pro forma profit analysis and provided an array of underwriting profit provisions and their associated returns on net worth, both without including investment income on surplus and including investment income on surplus. The returns shown in that array spanned the ranges for the cost of equity and the WACC that I had established and viewed as reasonable, which I will describe in more detail below. Following my presentation and the Subcommittee discussion, the Subcommittee selected the underwriting profit factor.

III. Rate of Return on Capital

Q: What steps did you take in the course of assessing whether the returns described above would produce a reasonable rate of return on capital?

A: I first established ranges for reasonable estimates of the cost of capital. I then compared the estimated statutory and total returns on net worth determined in Section II above to these cost of capital ranges.

Q: How did you establish ranges for reasonable estimates of the cost of capital?

A: The cost of capital for an industry is a difficult figure to pin down, and part of my approach is based on a belief in the wisdom of crowds. I started by gathering various third-party estimates of the cost of capital for property-casualty firms associated with publicly traded holding companies. I also made an independent set of estimates of the same tailored specifically for the North Carolina Dwelling markets. I then made adjustments to all of these estimates to account for the presence of private companies in the North Carolina market.

Q: Please describe the third-party estimate sources and methodologies.

A: Kroll (a consultancy that took over the pioneering Ibbotson Cost of Capital franchise) and Damodaran Online (an open-access website maintained by Aswath Damodaran, a valuation expert affiliated with New York University) both publish estimates for the property-casualty industry. Kroll updates the estimates quarterly (the estimates reported below are from 3/31/2023), while Damodaran Online updates the estimates annually (1/1/2023).

Kroll reports estimates from a variety of methodologies. Some estimates are produced using factor models, where the industry's sensitivity to a pricing factor (or sensitivities to a set of factors) are measured and used to generate a cost of capital. For example, single factor models (such as the CAPM) typically mark the overall stock market return in excess of a "base" fixed income return as the pricing factor. The cost of capital is generated in this case by estimating a risk premium for each factor, adjusting that risk premium to account for the sensitivity of the industry in question to that factor, and then adding the adjusted risk premium to the current yield of the "base" fixed income instrument to produce a cost of capital. In addition to CAPM estimates, Kroll also reports a "CAPM + size premium" estimate to recognize the higher cost of capital endured by smaller firms and thus correct for the average size of firms within an industry. The "Buildup Method" employs a related approach, adding a size premium and an industry premium to the standard market risk premium. The Fama-French-5-factor model extends the single risk factor framework of the CAPM to a five factor risk framework, thus pricing an industry's equity on the basis of its sensitivity to four additional factors in addition to overall market returns. Kroll also utilizes discounted cash flow (DCF) models, where free cash flow or dividends are forecasted into the future, with the cost of capital estimate being the implied discount rate on the future cash flows that explains the current equity valuation. In general, the two classes of methods---factor models and DCF models---are perhaps the two most widely accepted and widely deployed methods for estimating the cost of equity.

Damodaran reports estimates from a single-factor CAPM model. However, rather than estimating the risk premium associated with the stock market on the basis of simple averages of historical excess returns (as is typically done), he attempts to modify the premium to account for the current level of stock market valuation. This distinction is one example of the substantial variation in implementation of factor models, which can have significant effects on the estimates. There is also substantial methodological variation in implementation of the DCF

model, which is estimated with different time period stages, with time-varying growth rates. All of this underscores the importance of consulting multiple sources of estimates and testing sensitivities where possible.

The approaches described above all produce estimates of the cost of equity. In the case of Damodaran Online, I updated the 10-year Treasury yield used as the reference point in the calculation to be consistent with 10-year yield used in the other parts of the filing. In each case, the cost of equity is then weighted together with an estimated cost of debt for the industry to produce a WACC for publicly traded firms. The weights are based on the composition of the capital structure (equity versus debt) for the industry.

Q: Please describe how you derived your independent estimates of the cost of equity capital for publicly traded firms.

A: I used a single factor model, also referred to as a “risk premium” approach in previous filings in North Carolina. This approach estimates the cost of equity as

$$r + \beta * (ERP)$$

where r is the current yield on a reference fixed income instrument, ERP is the estimated expected excess return of the stock market over that fixed income yield, and β is the estimated covariation between the equity of the property-casualty industry and the overall stock market (more precisely, the covariance of property-casualty equities with the S&P 500, divided by the variance of the S&P 500).

For the reference interest rate, I tried four different fixed income assets---the 3-month Treasury Bill, the 10-year Treasury Note, the Moody’s Seasoned Aaa Corporate Bond Index, and the Moody’s Seasoned Baa Corporate Bond Index. In each case, I estimated the equity risk premium as the average excess return of the S&P 500 over the return on the reference fixed income asset over the 1928-2022 period. To calculate the average returns, I used the formula from Blume (1974)¹ by weighting together the arithmetic average and the geometric average, as in:

$$\left[\frac{N - T}{N - 1} (1 + \pi_A) + \frac{T - 1}{N - 1} (1 + \pi_G) \right]^{\frac{1}{T}}$$

where N is the sample size, T is the return horizon (corresponding to the maturity of the fixed income asset), π_A is the arithmetic average return in the sample, and π_G is the geometric average return in the sample.

For β (beta), I estimated a weighted average beta for the North Carolina Dwelling Fire and Extended Coverage markets. For each publicly traded holding company associated with an operating subsidiary underwriting Dwelling insurance in North Carolina in 2021, I pulled the betas provided by S&P Global (based on 1-year and 3-year daily returns). I then calculated

¹ Blume, M.E. (1974), “Unbiased Estimates of Long-Run Expected Rates of Return,” *Journal of the American Statistical Association* (September), pp. 634-8.

weighted averages based on 2022 North Carolina Dwelling Fire DPW and 2022 Dwelling Extended Coverage DPW.

Given current yields for the reference fixed income assets and estimates for the equity risk premium and beta, I then calculate a cost of equity according to the formula given above.

Next, I estimated a WACC for the North Carolina market. For the capital structure, I estimated weighted average debt percentages for the North Carolina Dwelling Fire and Extended Coverage markets. For each publicly traded holding company, I calculated the percentage of debt in the capital structure based on the latest fiscal year report. For the cost of debt, I used the figure for the industry from Damodaran Online. I again calculated weighted averages separately for the Dwelling Fire and the Dwelling Extended Coverage markets, based on the North Carolina DPW in those respective markets.

Q: What were the results?

A: The following table lists the cost of equity and the WACC for publicly traded companies, including the estimates I produced and those reported by Kroll and Damodaran Online for the property-casualty industry.

Cost of Capital Estimates for Publicly Traded Firms						
Source	Method	Market	Dwelling Fire		Dwelling EC	
			Cost of Equity	WACC	Cost of Equity	WACC
Kroll	CAPM	Property-Casualty	8.3	7.5	8.3	7.5
Kroll	CAPM + Size Premium	Property-Casualty	8.5	7.7	8.5	7.7
Kroll	Build-Up	Property-Casualty	9.4	8.4	9.4	8.4
Kroll	DCF (1-stage)	Property-Casualty	12.9	11.2	12.9	11.2
Kroll	DCF (3-stage)	Property-Casualty	15.8	13.6	15.8	13.6
Kroll	Fama-French 5-factor	Property-Casualty	9.2	8.3	9.2	8.3
Damodaran Online	Implied Premium		8.36	7.58	8.36	7.58
Zanjani	Risk Premium over T-Bill	North Carolina Dwelling	10.7 - 11.6	9.6 - 10.3	10.9 - 11.9	9.7 - 10.5
Zanjani	Risk Premium over T-Note	North Carolina Dwelling	8.1 - 8.8	7.4 - 8.0	8.2 - 9.0	7.5 - 8.2
Zanjani	Risk Premium over Baa Bond	North Carolina Dwelling	8.7 - 9.2	7.9 - 8.3	8.8 - 9.3	8.0 - 8.4
Zanjani	Risk Premium over Aaa Bond	North Carolina Dwelling	8.4 - 9.0	7.7 - 8.2	8.5 - 9.2	7.8 - 8.3

The ranges associated with my own estimates are driven by differences between the 1-year and 3-year betas.

To illustrate a calculation, the upper bound of the cost of equity for my “Risk Premium over T-Bill” method is:

$$5.02\% + 0.804 \times 8.19\% = 11.6\%,$$

where 5.02% is the three month average T-Bill rate on 5/3/2023 (measured as the average of the rate on 5/3, 4/3, and 3/3), .804 is the 3-year weighted average beta for the North Carolina Dwelling Fire market, and 8.19% is the average risk premium of the equity market over the T-Bill rate. The upper bound for the WACC is:

$$(1 - .1643) \times 11.6\% + .1643 \times 3.91\% = 10.3\%,$$

where .1643 is the weighted average share of debt in the capital structure for the North Carolina Dwelling Fire market, 11.6% is the cost of equity as calculated in the previous step, and 3.91% is the after-tax cost of debt as estimated using Damodaran Online.

Note that the estimates for capital structure and the cost of debt differ across sources, so the relationship between the cost of equity and the WACC for Kroll and Damodaran Online will not follow the exact formula listed above.

Q: Do you believe any adjustments are necessary to the estimated cost of equity in the context of this filing?

A: Yes. All of the foregoing estimates are based on the data of publicly traded companies, which have the easiest access to financing and thus the lowest costs of capital. However, I found that operating companies affiliated with publicly traded holding companies only wrote about 26.5% of the 2022 direct premiums written for North Carolina Dwelling Fire insurance; for Dwelling Extended Coverage, the figure was 21.1%. The remainder in both markets was underwritten by companies associated with private, often mutual, ownership---a segment well-known to have more difficulty in accessing the capital markets. The industry average cost of equity needs to be adjusted upward to account for this non-public ownership.

Q: How much higher is the cost of equity for non-public firms?

A: Research dating back at least as far as the 1960's has demonstrated that private equity trades at a substantial discount to public equity. The discount is thought to derive from a variety of factors, including the illiquid nature of private equity stakes (also known as a "lack of marketability") as well as information, monitoring, and control issues. The discount translates into a higher cost of equity. For example, if a public firm's cost of equity is estimated at 10% and the equity of a comparable private firm is selling at a 20% discount to that of the public firm, the private firm's cost of equity would be estimated as:

$$12.5\% = 10\% / (1 - 20\%)$$

The discount is difficult to estimate. Exhibit RB-25 summarizes some of the academic research on the private firm discount. Studies have taken a variety of approaches to measurement. "IPO" studies compare the prices of pre-IPO share transactions in a private company with post-IPO share prices after the company is public. "Acquisition" studies compare the valuations of acquired private companies versus the valuations of acquired public companies. "Restricted stock" and "private placement" studies compare the prices of restricted stock issued by public companies with the prices of their traded shares.

All the approaches have their flaws. IPO studies, for example, are thought to have a bias toward overstating the discount because of the differences in timing of transactions. Restricted stock and private placement studies tend to understate the discount: Since they confine their attention to public companies, they do not account for factors other than the discount for lack of marketability (DLOM), and, moreover, the actual restrictions on marketability for private

placements have been loosened significantly over the years by the Securities and Exchange Commission.

On balance, however, the studies point to a substantial discount. For purposes of this testimony, I use a discount of 25%, which is slightly below the average of the averages of the three groups in Exhibit RB-25 (when taking the midpoint of the ranges for the studies with ranges of estimates).

Q: How would this affect the estimated cost of equity for the industry?

A: Assuming a 25% private company discount and a X% market share for non-public companies (where X% is 26.5% in Dwelling Fire and 21.1% in Dwelling Extended Coverage), I calculate the adjusted estimate of the cost of equity as a weighted average of the private cost of equity and the public cost of equity:

$$(1 - X\%) * \left(\frac{COE}{(1 - 0.25)} \right) + (X\%) * (COE),$$

where *COE* is the estimated cost of equity for public companies. The adjusted estimate of the cost of equity is then weighted together with the cost of debt to produce an adjusted WACC. The adjusted estimates are as follows:

Cost of Capital Estimates, Adjusted for Non-Public Ownership						
Source	Method	Market	Dwelling Fire		Dwelling EC	
			Cost of Equity	WACC	Cost of Equity	WACC
Kroll	CAPM	Property-Casualty	10.3	9.2	10.5	9.3
Kroll	CAPM + Size Premium	Property-Casualty	10.6	9.4	10.7	9.5
Kroll	Build-Up	Property-Casualty	11.7	10.3	11.9	10.4
Kroll	DCF (1-stage)	Property-Casualty	16.1	13.8	16.3	14.0
Kroll	DCF (3-stage)	Property-Casualty	19.7	16.7	20.0	17.0
Kroll	Fama-French 5-factor	Property-Casualty	11.5	10.1	11.6	10.2
Damodaran Online	Implied Premium		10.4	9.3	10.6	9.4
Zanjani	Risk Premium over T-Bill	North Carolina Dwelling	13.4 - 14.4	11.8 - 12.7	13.7 - 15.0	12.1 - 13.1
Zanjani	Risk Premium over T-Note	North Carolina Dwelling	10.1 - 11.0	9.1 - 9.8	10.4 - 11.4	9.3 - 10.1
Zanjani	Risk Premium over Baa Bond	North Carolina Dwelling	10.8 - 11.4	9.7 - 10.2	11.1 - 11.8	9.9 - 10.4
Zanjani	Risk Premium over Aaa Bond	North Carolina Dwelling	10.5 - 11.2	9.4 - 10.0	10.8 - 11.6	9.6 - 10.3

Q: How do these figures speak to the issue of whether or not the pro forma expected return on net worth is reasonable and not excessive?

A: There are at least two schools of thought on this issue.

The first is that the “net worth” in the pro forma return exhibit should be interpreted as an equity investment akin to the equity considered in the cost of equity analysis. Thus, it should be entitled to a similar rate of return. Under this school of thought, the return on net worth calculated in the previous section should be compared directly with the figures in the table

above. If one does this, the projected total returns are, in my opinion, reasonable and not excessive. Before making the adjustments to the investment return projections that I believe are appropriate for the North Carolina Dwelling Fire market, the projected total return of 10.84% is within the span of estimates, which range from 10.1% to 19.7%. If one instead focuses on the statutory return by excluding investment income on surplus, the projected return is below the lower end of the range of estimates---so it is clearly not excessive and arguably below the level warranted for this market. When adjusting the prospective investment yield to the current yield (rather than the average of current and embedded yields) and accounting for the investment portfolio more closely tailored to the North Carolina Dwelling market, the total return rises to 11.84%, and the statutory return rises to 7.51%. Thus, the previous conclusions are unchanged after considering this adjustment.

For the Dwelling Extended Coverage market, the total return of 10.73% is toward the lower end of the span of estimates in the table, which range from 10.4% to 20.0%. Thus, the total return seems reasonable and not excessive. The statutory return of 7.14% is below the lower end of the range of estimates, so it clearly does not seem excessive and is arguably lower than the level warranted for this market. These conclusions also hold after making the prospective adjustments similar to those for the Dwelling Fire market described above.

A second school of thought is that, although the capital of the operating subsidiaries may be fully financed by equity, the holding companies are the source of that equity. Thus, one should "look through" the operating subsidiaries to the level of the holding companies to determine a cost of capital, which is important because the holding companies---unlike the insurance subsidiaries---typically hold significant debt in the capital structure. Holding companies that are typically classified as property-casualty companies have, in recent history and on average, had in the neighborhood of 20% debt. Thus, the cost of capital for the holding company is, under this school of thought, calculated as a weighted average of the cost of equity and the cost of debt, with the weights based on each component's share of the capital structure. The result is the WACC discussed above, which, as can be seen above, is typically lower than the cost of equity due to the lower cost of debt. On the other hand, the market value of the capital of the holding company will be different from the book value of the capital invested in the insurance subsidiaries. Thus, a particular return on net worth at the level of the operating subsidiary will translate into a lower (higher) return on holding company capital if the market value of the holding company capital exceeds (is less than) the net worth of the insurance subsidiaries.

The market-to-net worth ratio of the public companies underwriting Dwelling Insurance in North Carolina is typically well above 1. However, even if one sets this ratio to 1, the total return of 10.84% for Dwelling Fire falls comfortably within the range of estimates (9.1% to 16.7%) for that market. The same assessment applies to the total return of 10.73% for Dwelling Extended Coverage, which also falls comfortably within the range of estimates (9.3% to 17.0%) for that market. By this standard, the total returns are reasonable and not excessive. The same conclusions apply when making adjustments to account for the asset distribution relevant for this line of business and the current yields in the marketplace (rather than embedded yields).

The statutory returns of 7.19% in the Dwelling Fire market and 7.14% in the Dwelling Extended Coverage market are below the lower end of the range of WACC estimates. Thus, if investment

income on surplus is excluded from consideration, the projected statutory returns are still obviously not excessive, though they could be argued to be below the levels warranted for these markets. The same conclusions apply when making adjustments to account for the asset distribution relevant for this line of business and the current yields in the marketplace (rather than embedded yields).

IV. Conclusion

Q: Based on your knowledge and experience and on the studies and analyses you have performed, have you come to any conclusions regarding the underwriting profit factor selected by the Bureau and used in its indicated rate level calculations in this filing?

A: Yes. When using the pro forma return model with inputs selected in a manner consistent with previous filings, I found that the expected statutory return on net worth implied by the selected 8.5% underwriting profit factor was 7.19% (not including investment income on surplus) in the Dwelling Fire market; the expected total return on net worth was 10.84% (including investment income on surplus). For Dwelling Extended Coverage, the corresponding figures were 7.14% and 10.73%. When adjusting the prospective investment yield to reflect current market conditions and a portfolio allocation more tailored to the North Carolina Dwelling market, the expected statutory and total returns rose. After reviewing the cost of capital estimates for the industry produced by third parties and producing my own estimates tailored to the North Carolina markets, and adjusting all estimates for the presence of private companies, I found the expected returns on net worth resulting from the selected underwriting profit factors to be consistent with a reasonable and not excessive return on invested capital when viewed from the perspective of total return (including investment income on surplus). The statutory returns (not including investment income on surplus) were below the lower bounds of the estimate ranges I produced and thus were clearly not excessive. From an economic perspective, I believe that the selected underwriting profit factors are reasonable and not excessive.

An important caveat to this analysis, however, is that all conclusions are predicated on the assumption that the indicated rate level is achieved. In the event that a lower rate level is implemented, the expected rate of return could be inadequate.

Q. Does that conclude your testimony?

A. Yes.

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Education

Ph.D., Economics, University of Chicago, 2000
ACAS, Casualty Actuarial Society, 1994
A.B./B.S., Economics and Biology, Stanford University, 1990

Work Experience

University of Alabama (Tuscaloosa, Alabama)

Professor of Finance and Frank Park Samford Chair of Insurance, 2017-

Georgia State University (Atlanta, Georgia)

AAMGA Distinguished Chair in Risk Management & Insurance, 2011-2017
Associate Professor, 2008-2017

Nanyang Technological University (Singapore)

Visiting Senior Research Fellow, 2011-12, 2013-2014

Federal Reserve Bank of New York (New York, New York)

Senior Economist, 2006-2008
Economist, 2000-2006

Fireman's Fund Insurance Companies (Novato, California)

Senior Actuarial Analyst, 1993-94
Actuarial Analyst, 1991-1993
Assistant Actuarial Analyst, 1990-1991

Publications: Refereed Scholarly

"Economic Capital and RAROC in a Dynamic Model," (with Daniel Bauer), *Journal of Banking and Finance*, 125: Article 106071, (2021) [Winner of Casualty Actuarial Society Hachemeister Prize, 2015]

"Capital Allocation Techniques: Review and Comparison," (with Daniel Bauer and Qiheng Guo), *Variance*, 14(2), (2021)

- “Dynamic Capital Allocation with Irreversible Investments,” (with Daniel Bauer, Shinichi Kamiya, and Xiaohu Ping), *Insurance: Mathematics and Economics* 85: 138-52, (2019)
- “What Drives Tort Reform Legislation? Economics and Politics of the State Decisions to Restrict Liability Torts,” (with Yiling Deng), *Journal of Risk & Insurance* 85: 959-991, (2018)
- “Egalitarian Equivalent Capital Allocation,” (with Shinichi Kamiya), *North American Actuarial Journal* 21: 382-96, (2017)
- “The Marginal Cost of Risk, Risk Measures, and Capital Allocation,” (with Daniel Bauer), *Management Science* 62: 1431-1457 (2016)
- “Economic Analysis of Risk and Uncertainty Induced by Health Shocks: A Review and Extension,” (with Tomas J. Philipson), in *Handbook of the Economics of Risk and Uncertainty*, Volume 1, Mark J. Machina and W. Kip Viscusi (eds.), North Holland: Elsevier (2014)
- “Capital Allocation and Its Discontents,” (with Daniel Bauer), in *Handbook of Insurance* (2nd edition), Georges Dionne (ed.), New York: Springer (2013)
- “Financial Pricing of Insurance,” (with Daniel Bauer and Richard D. Phillips), in *Handbook of Insurance* (2nd edition), Georges Dionne (ed.), New York: Springer (2013)
- “Insurance Risk, Risk Measures, and Capital Allocation: Navigating a Copernican Shift,” (with Michael R. Powers), *Annual Review of Financial Economics* 5: 201-223 (2013)
- “Catastrophe Bonds, Reinsurance, and the Optimal Collateralization of Risk Transfer,” (with Darius Lakdawalla), *Journal of Risk & Insurance* 79, pp. 449-76 (2012)
- “An Economic Approach to Capital Allocation,” *Journal of Risk and Insurance* 77, pp. 523-549 (2010) [Winner of Casualty Actuarial Society ARIA Award, 2010]
- “Federal Financial Exposure to Catastrophic Risk,” (with J. David Cummins and Michael Suher), in *Measuring and Managing Federal Financial Risk*, Deborah Lucas (ed.), Chicago: University of Chicago Press (2010)
- “Public versus Private Underwriting of Catastrophe Risk: Lessons from the California Earthquake Authority,” in *Risking House and Home: Disasters, Cities, Public Policy*, John M. Quigley and Larry A. Rosenthal (eds.), Berkeley: Berkeley Public Policy Press (2008)
- “Regulation, Capital, and the Evolution of Organizational Form in U.S. Life Insurance,” *American Economic Review* 97, pp. 973-983 (2007)

"Insurance, Self Protection, and the Economics of Terrorism," (with Darius Lakdawalla), *Journal of Public Economics* 89, pp. 1891-1905 (2005)

"Terrorism Insurance Policy and the Public Good," (with Darius Lakdawalla), *St. John's Journal of Legal Commentary* 18, pp. 463-469 (2004)

"The Production and Regulation of Health Insurance: Limiting Opportunism in Proprietary and Non-Proprietary Organizations," (with Tomas Philipson) in *Individual Decisions for Health*, Bjorn Lindgren (ed.), pp. 194-206, Routledge International Studies in Health Economics, Routledge: London (2003)

"Pricing and Capital Allocation in Catastrophe Insurance," *Journal of Financial Economics* 65, pp. 283-305 (2002) [reprinted in *Insurance and Risk Management Volume I: Economics of Insurance Markets*, Gregory Niehaus (ed.), Northampton: Edward Elgar Publishing, (2008)]

Publications: Professional/Practitioner

Book review of "Moral Hazard in Health Insurance," *Journal of Economic Literature* 53, pp. 682-3 (2015)

"Microinsurance Lessons from History," (with Rick Koven), *Microinsurance Learning and Knowledge (MILK)* (2013)

"Institutional Investors and Asset Allocations: Accounting and Regulation of Private Defined Benefit Pension Plans and Other Institutional Investors in the United States, Mexico, and Australia," (with John Broadbent, Michael Palumbo, and Julio Santaella), *CGFS Publication No. 27, Working Group on Institutional Investors, Global Savings, and Asset Allocation* (2006)

"An Overview of Political Risk Insurance" (with Kausar Hamdani and Elise Liebers), *CGFS Publication No. 22, Working Group on Foreign Direct Investment in the Financial Sector of Emerging Market Economies* (2005)

Work in Progress

"Life Insurance and Annuity Pricing During the Financial Crisis, Revisited," (with Daniel Bauer, Lars Powell, and Boheng Su), working paper, 2022

"Dynamic Capital Allocation in General Insurance," (with Daniel Bauer and Qiheng Guo), working paper, 2022

"The Ignorance of Crowds: Understanding Reserving Errors in the Liability Crisis of 1997-2001," (with Eren Cifci, Qianlong Liu, Steve Mildenhall, Lars Powell, and Kenny Wunder), working paper, 2022

- “Market Discipline and Guaranty Funds in Life Insurance,” (with Martin Grace, Shinichi Kamiya, and Robert W. Klein), working paper, 2019
- “The Effect of Government Guarantees on Market Discipline in the Property-Casualty Insurance Industry,” (with Yiling Deng, Ty Leverty, and Kenny Wunder), working paper, 2019
- “An Integrated Approach to Measuring Asset and Liability Risks in Financial Institutions,” (with Daniel Bauer), working paper, 2019
- “Optimal Insurance Contracts with Insurer Background Risk,” (with Xiaohu Ping), working paper, 2015
- “The Effect of Banking Crises: Evidence from Non-Life Insurance Consumption,” (with Shinichi Kamiya and Jackie Li), working paper, 2015
- “Bankruptcy in the Core and Periphery of Financial Groups: The Case of the Property-Casualty Insurance Industry” working paper, 2010
- “The Rise and Fall of the Fraternal Life Insurer: Law and Organizational Form in U.S. Life Insurance, 1870-1920,” working paper, (*revise and resubmit, Journal of Law & Economics*), 2007
- “Organizational Form and the Underwriting Cycle: Theory with Evidence from the Pennsylvania Fire Insurance Market, 1873-1909,” working paper, 2004
- “Consumption versus Production of Insurance,” (with Tomas Philipson), *NBER Working Paper #6225*, 1997

External Research Projects and Consulting

- 2023 Expert Witness, Workers’ Compensation Rate Filings, Massachusetts
- 2022 Expert Witness, Insurance Rate Filings, North Carolina
- 2021 Expert Witness, *Golson v. Provident Life*, Alabama
- 2021 Expert Witness, Workers’ Compensation Rate Filings, Massachusetts
- 2021 Expert Witness, Insurance Rate Filings, North Carolina
- 2020 Expert Witness, Insurance Rate Filings, North Carolina
- 2019 NCCI Review of Cost of Capital Methodology
- 2019 Expert Witness, Workers’ Compensation Rate Filings, Massachusetts
- 2019 Expert Witness, Insurance Rate Filings, North Carolina
- 2018 NCCI Review of TCJA
- 2017 Expert Witness, Workers’ Compensation Rate Hearing, Florida
- 2016 Expert Witness, Assigned Risk Workers’ Compensation Rate Hearing, Virginia
- 2015 Expert Witness, Workers’ Compensation Rate Hearing, Florida
- 2015 NCCI Revision of Underwriting Profit and Contingency Internal Rate of Return Model
- 2015 An Extension of the Project on the Costs of Holding Capital, sponsored by the CAS
- 2013 Microinsurance Centre Lessons from History Project
- 2012 Allocation of the Costs of Holding Capital, sponsored by the CAS,

- 2011 CRO Risk Index Project, co-sponsored by SOA and Bloomberg, co-founder
- 2009 "The Financial Crisis and Lessons for Insurers," \$50,000 SOA grant, role: report co-author

Papers Presented at Professional Meetings

- 2022 "Understanding Loss Reserving Errors in the Liability Catastrophe of 1997-2001," Conference in Honor of J.David Cummins and Mary Weiss, Temple University, Philadelphia
- 2020 "Life Insurance and Annuity Pricing During the Financial Crisis, Revisited" WRIEC, virtual meeting
- 2019 "An Integrated Approach to Measuring Asset and Liability Risks in Financial Institutions," EGRIE Annual Meeting, Rome, Italy
- 2019 "An Integrated Approach to Measuring Asset and Liability Risks in Financial Institutions," ARIA Annual Meeting, San Francisco, CA
- 2019 "An Integrated Approach to Measuring Asset and Liability Risks in Financial Institutions," RTS Annual Seminar, Tuscaloosa, AL
- 2017 "The Effect of Government Guarantees on Market Discipline in the Property-Casualty Insurance Industry," NBER Insurance Project Workshop, Boston, MA
- 2015 "The Marginal Cost of Risk in a Multi-Period Model," NBER Insurance Project Workshop, Stanford, CA
- 2015 "The Marginal Cost of Risk in a Multi-Period Model," CAS Annual Meeting, Philadelphia, PA
- 2015 "Dynamic Capital Allocation," IME Annual Conference, Liverpool UK
- 2015 "What Drives Tort Reform Legislation? Economics and Politics of the State Decisions to Restrict Liability Torts," ASSA Annual Meeting, Boston, MA
- 2014 "The Marginal Cost of Risk in a Multi-Period Model," CAS Centennial, New York, NY
- 2014 "Market Discipline and Guaranty Funds in Life Insurance," EGRIE Annual Seminar, St. Gallen, CH
- 2014 "Dynamic Capital Allocation with Irreversible Investments," EGRIE Annual Seminar, St. Gallen, CH
- 2014 "What Drives Tort Reform Legislation? Economics and Politics of the State Decisions to Restrict Liability Torts," ARIA Annual Meeting, Seattle, WA
- 2014 "The Marginal Cost of Risk in a Multi-Period Model," ARIA Annual Meeting, Seattle, WA
- 2014 "Market Discipline and Guaranty Funds in Life Insurance," ARIA Annual Meeting, Seattle, WA
- 2014 "The Marginal Cost of Risk in a Multi-Period Model," IME Conference, Shanghai, CN
- 2014 "The Effect of Banking Crises: Evidence from Non-Life Insurance Consumption," Risk Theory Seminar, Munich, Germany
- 2013 "The Effect of Banking Crises: Evidence from Non-Life Insurance Consumption," ASSA Annual Meeting, Philadelphia, PA
- 2013 "Optimal Insurance Contracts with Insurer Background Risk," EGRIE Annual Meeting, Paris, FR
- 2013 "The Effect of Banking Crises: Evidence from Non-Life Insurance Consumption," ARIA Annual Meeting, Washington D.C.
- 2013 "The Marginal Cost of Risk, Risk Measures, and Capital Allocation," IRFRC Catastrophe Risk Conference, Singapore
- 2013 "Optimal Insurance Contracts with Insurer Background Risk," ARIA Annual Meeting, Washington D.C.
- 2013 "The Marginal Cost of Risk, Risk Measures, and Capital Allocation," CEAR/ETH Indices of Risk and New Risk Measures Conference, Zurich, CH
- 2012 "The Marginal Cost of Risk, Risk Measures, and Capital Allocation," CAS Spring Meeting, Phoenix, AZ
- 2012 "The Marginal Cost of Risk, Risk Measures, and Capital Allocation," Symposium: Risk and Catastrophic Events, State College, PA
- 2012 "The Marginal Cost of Risk, Risk Measures, and Capital Allocation," ASSA Annual Meeting, Chicago, IL
- 2011 "The Marginal Cost of Risk, Risk Measures, and Capital Allocation," NBER Insurance Project Workshop, Cambridge, MA
- 2010 "Bankruptcy in the Core and Periphery of Financial Groups: The Case of the Property-Casualty Insurance Industry," ASSA Annual Meeting, Atlanta, GA
- 2009 "Bankruptcy in the Core and Periphery of Financial Groups: The Case of the Property-Casualty Insurance Industry," Risk Management and Corporate Governance Conference, Loyola University of Chicago
- 2009 "Bankruptcy in the Core and Periphery of Financial Groups: The Case of the Property-Casualty Insurance Industry," ARIA Annual Meeting, Providence, RI

- 2008 “An Economic Approach to Capital Allocation,” Risk Theory Society, Annual Meeting, Fort Collins, CO
- 2007 “Federal Financial Exposure to Catastrophic Risk,” ARIA Annual Meeting, Quebec City, CA
- 2007 “Catastrophe Bonds, Reinsurance, and the Optimal Collateralization of Risk Transfer,” EFMA Annual Meeting, Vienna, AT
- 2007 “Catastrophe Bonds, Reinsurance, and the Optimal Collateralization of Risk Transfer,” 5th Infiniti Conference on International Financial Integration, Dublin, IE
- 2007 “Federal Financial Exposure to Catastrophic Risk,” NBER Conference on Measuring and Managing Federal Financial Risk, Evanston, IL
- 2006 Insuring Catastrophic Losses: The Status of TRIA and Proposed Natural Disaster Backstops, Wash., D.C.
- 2006 “Catastrophe Bonds, Reinsurance, and the Optimal Collateralization of Risk Transfer,” Risk Theory Society, Annual Meeting, Richmond, VA
- 2006 “Public versus Private Underwriting of Catastrophe Risk: Lessons from the California Earthquake Authority,” Berkeley Symposium on Real Estate, Catastrophic Risk, and Public Policy
- 2006 “Catastrophe Bonds, Reinsurance, and the Optimal Collateralization of Risk Transfer,” NBER Insurance Project Workshop, Cambridge, MA
- 2005 “Regulation, Capital, and the Evolution of Organizational Form in U.S. Life Insurance,” NBER Insurance Project Workshop, Cambridge, MA
- 2004 “The Rise and Fall of the Fraternal Life Insurer: Law and Organizational Form in U.S. Life Insurance,” NBER Insurance Project Workshop, Cambridge, MA
- 2004 “Regulation, Capital, and the Evolution of Organizational Form in U.S. Life Insurance,” American Finance Association, Annual Meeting, San Diego, CA
- 2003 “Insurance, Self-Protection, and the Economics of Terrorism,” Risk Theory Society, Annual Meeting, Atlanta, GA
- 2003 “Terrorism Insurance Policy and the Public Good,” St. John’s Journal of Legal Commentary 10th Annual Legal Symposium: Terrorism and its Impact on Insurance: Legislative Responses and Coverage Issues, Queens, NY
- 2003 “Insurance, Self-Protection, and the Economics of Terrorism,” NBER Insurance Project Workshop, Cambridge, MA
- 2002 “Pricing and Capital Allocation in Catastrophe Insurance,” CAS Risk and Capital Management Seminar, Toronto, CA
- 2002 “Market Discipline and Government Guarantees in U.S. Life Insurance,” Risk Theory Society, Annual Meeting, Urbana-Champaign, IL
- 2001 “Pricing and Capital Allocation in Catastrophe Insurance,” Risk Theory Society, Annual Meeting, Montreal

Other Conferences Talks and Panel Participation

- 2018 Surplus Lines Automation Conference, Florida
- 2017 International Conference on Business Sciences, Cairo University, Egypt
- 2016 IIF Insurance Colloquium, Basel, Switzerland
- 2016 Surplus Lines Association of California, California (keynote)
- 2014 Surplus Lines Automation Conference, Florida
- 2011 PRMIA Annual Risk Leadership Conference, Atlanta, GA
- 2011 7th International Microinsurance Conference, Rio de Janeiro, Brazil
- 2010 Property Loss Research Bureau Eastern Adjusters Conference, Atlanta, GA (keynote)
- 2008 NCOIL Annual Meeting, Duck Key, FL
- 2007 Capital Markets Symposium on Securitizing Insurance Risk, New York, NY
- 2006 Insuring Catastrophic Losses: The Status of TRIA and Proposed Natural Disaster Backstops, Wash., D.C.
- 2006 Catastrophe Bonds and Insurance Linked Securities Summit, New York, NY
- 2005 12th Annual International Conference Promoting Business Ethics, New York, NY

Service Activities in Academic and Professional Organizations

Senior Editor, *Journal of Risk and Insurance* (2019-)

Associate Editor, *Insurance: Mathematics and Economics* (2022-)
International Research Advisory Board, Risk and Insurance Research Center, NCCU, Taiwan
American Risk & Insurance Association President (2012-13)
Risk Theory Society President (2011-2012)
American Risk & Insurance Association Board Member (2007-2014)
Editorial Board, *Journal of Insurance Issues* (2012-2014)
Huebner Colloquium Panelist (2016-2019)

External Committees

American Risk & Insurance Association Program Committee, various years; ARIA Nominations Committee, 2015, 2016, 2018; Kulp-Wright Book Award Committee, 2005

Discussant: *ARIA Annual Meeting, Los Angeles, 2022; WRIEC 2020; EGRIE Annual Meeting, Rome, 2019; ARIA Annual Meeting, San Francisco, 2019; ARIA Annual Meeting, Chicago, 2018; ARIA Annual Meeting, Boston, 2016; SIFR Insurance Conference, Stockholm, 2015; EGRIE Annual Seminar, St. Gallen, 2014; ARIA Annual Meeting, Seattle, 2014; ARIA Annual Meeting, San Diego, 2011; CEAR Workshop on Insurance for the Poor, Atlanta, 2010; CEAR Workshop on Risk Perception and Subjective Beliefs, Atlanta, 2010; Midwest Finance Association Annual Meeting, Chicago, 2009; 5th Infiniti Conference, Dublin, 2007; EFMA Annual Meeting, Vienna, 2007; AEA Annual Meeting, San Diego, 2004*

Session Chair: *ARIA Annual Meeting, Chicago, 2018, ARC, Atlanta, 2017; IME, Atlanta, 2017; ARIA Annual Meeting, San Diego, 2011; Midwest Finance Association Annual Meeting, Chicago, 2009; ARIA Annual Meeting, Quebec City, 2007; EFMA Annual Meeting, Vienna, 2007;*

Referee for *Asia-Pacific Journal of Risk and Insurance, Astin Bulletin, Australian Social Monitor, Contemporary Economic Policy, Current Issues in Economics and Finance, Defense and Peace Economics, European Economic Review, Financial Review, Geneva Papers: Issues and Practice, Geneva Risk and Insurance Review, Health Affairs, Insurance: Mathematics and Economics, Journal of Banking and Finance, Journal of Business, Journal of Finance, Journal of Financial Intermediation, Journal of Financial Services Research, Journal of Law and Economics, Journal of Mathematical Economics, Journal of Money, Credit, and Banking, Journal of Political Economy, Journal of Risk and Insurance, Management Science, Mathematical Social Sciences, North American Actuarial Journal, Proceedings of the National Academy of Sciences, Review of Financial Studies, Risk Management and Insurance Review, Scandinavian Actuarial Journal, and Science.*

Working Group Participation

Committee on the Global Financial System, Working Group on Institutional Investors, Global Savings, and Asset Allocation (2006); Presidential Working Group on Financial Markets, Working Group on Terrorism Insurance (2006)

Continuing Education Activities

2004-2007	Central Banking Seminar, Federal Reserve Bank of New York, Topics: Introduction to U.S. Financial Markets; Introduction to Non-bank Financial Institutions
2009	Texas Farm Bureau Program, Georgia State University, Topic: Securitization, the Insurance Industry, and the Panic of 2007

2009-2012 Horst K. Jannott Visiting Fellows Program, Georgia State University, Topics: Securitization, the Insurance Industry, and the Panic of 2007; Introduction to Statistics

NCRB - Pro Forma Statutory Rate of Return Dwelling Fire			
	Pre-Tax	Tax Liability	Post-Tax
1 Premiums	100.00%		
Loss & LAE	64.15%		
Commissions	11.30%		
Other Acquisition & General	11.53%		
Taxes, Licenses, & Fees	2.90%		
Policyholder Dividends	0.40%		
Compensation for Assessment Risk	1.23%		
2 Pro Forma Underwriting Profit	8.50%		
3 Installment Fee Income	0.58%		
4 Regular Tax		1.91%	
5 Additional Tax Due to IRS Treatment of Reserves		-0.14%	
6 Total Return from Underwriting Post-Tax			7.32%
7 Investment Gain on Insurance Transaction	3.58%		
Less Investment Income on Agents Balances	0.92%		
Net Investment Gain on Insurance Transaction	2.66%	0.44%	2.22%
8 Total Return as a Percent of Premium (post-tax)			9.53%
9 Premium-to-Net Worth Ratio			0.75
10 Total Return as a Percent of Net Worth (post-tax)			7.19%

Lines (1) to (8) are expressed as a percentage of premium.

Assumptions and Parameters

(a) Underwriting Income Tax Rate	21.00%
(b) Investment Income Tax Rate	16.68%
(c) Pre-tax Investment Yield	4.61%
(d) Premium-to-Surplus Ratio	0.86
(e) Net Worth-to-Surplus Ratio	1.14
(f) Installment Fee Income	0.58%
(g) Additional Tax Due to IRS Treatment of Loss Reserves and UEPR	-0.14%
(h) Compensation for Assessment Risk	1.23%

Notes to Exhibit RB-23 Page 1

- 1 The expense provisions are those used in the filing, adjusted for the indicated rate change.
- 2 Selected by North Carolina Rate Bureau
- 3 See Exhibit RB-23, Page 3
- 4 $[(2) + (3)] \times (a)$
- 5 See Exhibit RB-23, Pages 4-6
- 6 $(2) + (3) - (4) - (5)$
- 7 Investment income on agents balances is calculated as $0.1953 \times 1.021 \times (c)$, where 0.1953 is the factor for agents balances held for less than 90 days and 1.021 is a factor to correct for overdue balances. The figures are sourced from North Carolina Rate Bureau and ISO.
- 8 $(6) + (7)$
- 9 $(d) / (e)$
- 10 $(8) \times (9)$

Assumptions

- (a) Current corporate tax rate, based on the Tax Cut and Jobs Act of 2017.
- (b) See Exhibit RB-23, Pages 11-13. Calculated as $1 - \text{average post-tax yield} / \text{average pre-tax yield}$.
- (c) See Exhibit RB-23, Page 10
- (d) See Exhibit RB-23, Page 14
- (e) See Exhibit RB-23, Page 15
- (f) See Exhibit RB-23, Page 3
- (g) See Exhibit RB-23, Pages 4-6
- (h) Compensation for Assessment Risk based on the analysis incorporated in the filing, adjusted for the indicated rate change.

NCRB - Pro Forma Statutory Rate of Return (Including Investment Income on Surplus) Dwelling Fire			
	Pre-Tax	Tax Liability	Post-Tax
1 Premiums	100.00%		
Loss & LAE	64.15%		
Commissions	11.30%		
Other Acquisition & General	11.53%		
Taxes, Licenses, & Fees	2.90%		
Policyholder Dividends	0.40%		
Compensation for Assessment Risk	1.23%		
2 Pro Forma Underwriting Profit	8.50%		
3 Installment Fee Income	0.58%		
4 Regular Tax		1.91%	
5 Additional Tax Due to IRS Treatment of Reserves		-0.14%	
6 Total Return from Underwriting Post-Tax			7.32%
7 Investment Gain on Insurance Transaction	3.58%		
Less Investment Income on Agents Balances	0.92%		
Net Investment Gain on Insurance Transaction	2.66%	0.44%	2.22%
8 Investment Gain on Surplus	5.79%	0.97%	4.82%
9 Total Return as a Percent of Premium (post-tax)			14.36%
10 Premium-to-Net Worth Ratio			0.75
11 Total Return as a Percent of Net Worth (post-tax)			10.84%
<i>Lines (1) to (8) are expressed as a percentage of premium.</i>			

Assumptions and Parameters

(a) Underwriting Income Tax Rate	21.00%
(b) Investment Income Tax Rate	16.68%
(c) Pre-tax Investment Yield	4.61%
(d) Premium-to-Surplus Ratio	0.86
(e) Net Worth-to-Surplus Ratio	1.14
(f) Installment Fee Income	0.58%
(g) Additional Tax Due to IRS Treatment of Loss Reserves and UEPR	-0.14%
(h) Compensation for Assessment Risk	1.23%

Notes to Exhibit RB-23 Page 1A

- 1 The expense provisions are those used in the filing, adjusted for the indicated rate change.
- 2 Selected by North Carolina Rate Bureau
- 3 See Exhibit RB-23, Page 3
- 4 $[(2) + (3)] \times (a)$
- 5 See Exhibit RB-23, Pages 4-6
- 6 $(2) + (3) - (4) - (5)$
- 7 Investment income on agents balances is calculated as $0.1953 \times 1.021 \times (c)$, where 0.1953 is the factor for agents balances held for less than 90 days and 1.021 is a factor to correct for overdue balances. The figures are sourced from North Carolina Rate Bureau and ISO.
- 8 $(c) \times [1 / (d) + 0.1948 \times 0.4734]$, where 0.1948 is the prepaid expense ratio from Page 7 and 0.4734 is the UEPR ratio from Page 7.
- 9 $(6) + (7) + (8)$
- 10 $(d) / (e)$
- 11 $(9) \times (10)$

Assumptions

- (a) Current corporate tax rate, based on the Tax Cut and Jobs Act of 2017.
- (b) See Exhibit RB-23, Pages 11-13. Calculated as $1 - \text{average post-tax yield} / \text{average pre-tax yield}$.
- (c) See Exhibit RB-23, Page 10
- (d) See Exhibit RB-23, Page 14
- (e) See Exhibit RB-23, Page 15
- (f) See Exhibit RB-23, Page 3
- (g) See Exhibit RB-23, Pages 4-6
- (h) Compensation for Assessment Risk based on the analysis incorporated in the filing, adjusted for the indicated rate change.

**NORTH CAROLINA
Dwelling Fire
INSTALLMENT CHARGES AS A PERCENT OF PREMIUM**

Year	Percentage
2021	0.55%
2020	0.62%
2019	0.51%
2018	0.58%
2017	0.64%
Average	0.58%

Source: NCRB

**North Carolina
Dwelling Fire
Calculation of Additional Tax Liability**

1. Collected Earned Premium for Current Year	100.00%
2. Unearned Premium Reserve 12/31/Current	49.82%
3. Unearned Premium Reserve 12/31/Prior	52.62%
4. Increase: (2) - (3)	-2.80%
5. 20% of Increase = Taxable Income	-0.56%
6. Additional Tax Liability due to Unearned Premium Reserve	-0.12%
7. Unpaid Loss Current Year	39.52%
8. Discounted Unpaid Loss Prior Year	38.63%
9. Unpaid Loss Prior Year	41.73%
10. Discounted Unpaid Loss Prior Year	40.72%
11. Additional Income	-0.12%
12. Additional Tax Liability due to Loss Reserve Discounting	-0.03%
13. Total Additional Tax Liabilities (6) + (12)	-0.14%

**NORTH CAROLINA
Dwelling Fire
Calculation of Taxable Income**

Calculation of Unpaid Loss for Current Accident Year (AY)					Calculation of Discounted Unpaid Loss for Current AY			Calculation of Discounted Unpaid Loss for Prior AY			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
AY Avg Acc Date	AY Pay Pattern	Percent Unpaid	Total Losses	Unpaid Losses	AY at 12/31 yr t	Discount Factor	Discounted Unpaid Loss	AY at 12/31/yr t-1	Unpaid Losses	Discount Factor	Discounted Unpaid Loss
0.5	55.61%	44.39%	64.149	28.47	2022	0.977793	27.8406				
1.5	89.33%	10.67%	67.751	7.23	2021	0.97229	7.0268	2021	30.071	0.975958	29.3485
2.5	94.67%	5.33%	71.554	3.82	2020	0.984834	3.7585	2020	7.633	0.97011	7.4047
3.5	100.00%	0.00%	75.571	0.00	2019	0.984785	0.0000	2019	4.031	0.984785	3.9694
4.5	100.00%	0.00%	79.814	0.00	2018	0.985513	0.0000	2018	0.000	0.985513	0.0000
5.5	100.00%	0.00%	84.295	0.00	2017	0	0.0000	2017	0.000	0.985513	0.0000
6.5	100.00%	0.00%	89.028	0.00	2016	0	0.0000	2016	0.000	0	0.0000
7.5	100.00%	0.00%	94.026	0.00	2015	0	0.0000	2015	0.000	0	0.0000
								2014	0.000	0	0.0000
Totals				39.52	38.63			41.73		40.72	

Notes to Pages 4 and 5Page 4

- 2 Page 8, line (2) divided by Page 8, line (1)
- 3 (2) divided by 1 plus the 10 year average growth rate of Dwelling Fire premiums in North Carolina.
- 4 (2) - (3)
- 5 (4) x 20%
- 6 (5) x current corporate tax rate
- 7 Unpaid current-year losses at year-end as a percent of current year premium.
Sum of Page 5, Column (5)
- 8 Discounted unpaid current-year losses at year-end as a percent of current year premium.
Sum of Page 5, Column (8)
- 9 Unpaid prior-year losses at year-end as a percent of current year premium.
Sum of Page 5, Column (10)
- 10 Discounted unpaid prior-year losses at year-end as a percent of current year premium.
Sum of Page 5, Column (12)
- 11 Change in loss reserve discount: [(7) - (8)] - [(9) - (10)]
- 12 (11) x current corporate tax rate
- 13 (6) + (12)

Page 5

- 1 Midpoint of number of years since end of accident period
- 2 Special Property payout pattern from IRS Rev. Proc 2016-58
- 3 1 - (2)
- 4 Latest period losses are based on projected loss ratio from Page 1. For previous years,
losses are detrended at the 10 year average premium growth rate for Dwelling Fire in North Carolina.
- 5 (3) x (4)
- 6 Accident Year at current year end
- 7 IRS discount factors for Special Property from Rev. Proc 2023-10
- 8 (5) x (7)
- 9 Accident Year at prior year end
- 10 Column (3), previous period x Column (4), current period
- 11 IRS discount factors for Special Property from Rev. Proc 2021-54
- 12 (10) x (11)

NCRB Investment Income Calculation		
Dwelling Fire		
Projected Investment Earnings on Loss, Loss		
Adjustment Expense and Unearned Premium Reserves		
A. UNEARNED PREMIUM RESERVES		
1. Direct Earned Premiums		1,000,000
2. Mean Unearned Premium Reserve	47.34%	473,400
3. Deductions for Prepaid Expenses		
Commissions & Brokerage	11.30%	
Taxes, Licenses, & Fees (5/6)	2.42%	
Other Acquisition & General (1/2)	5.76%	
Total	19.48%	
4. Deduction for Prepaid Expense: (2) x (3)		92,218
5. Net Unearned Premium Reserve Subject to Investment (2) - (4)		381,182
B. Loss and Loss Expense Reserves		
1. Direct Earned Premiums		1,000,000
2. Expected Incurred Loss & LAE-to-Premium Ratio	64.15%	641,491
3. Expected Mean Loss and LAE Reserve-to-Incurred Ratio	61.52%	394,660
C. Net Policyholder Funds Subject to Investment (A5 + B3)		775,841
D. Average Rate of Return		4.61%
E. Investment Earnings from Net Reserves: (C) x (D)		35,794
F. Average Rate of Return as a Percent of Direct Earned Premiums: (E) / (A1)		3.58%

**NORTH CAROLINA
Dwelling Fire**

**ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES**

EXPLANATORY NOTES

Line A-1

Calculations displayed are per million of direct earned premiums.

Line A-2

The mean unearned premium reserve (UEPR) is determined by multiplying the direct earned premiums in line A-1 by the ratio of the mean unearned premium reserve to the direct earned premium for the current calendar year ended 12/31. The data are for North Carolina Fire insurance (from statutory Page 14 of the Annual Statement) for all companies which wrote Dwelling Fire in the most recent calendar year.

1 NC Fire Direct Earned Premium for most recent calendar year	271,086,817
2 NC Fire UEPR at end of most recent calendar year	135,060,657
3 NC Fire UEPR at end of previous calendar year	121,594,938
4 Mean NC Fire UEPR	128,327,798
5 Ratio [(4) / (1)]	47.34%

Line A-3

Deduction for prepaid expenses

Certain production expenses, such as commissions and reinsurance, are assumed to be incurred when the policy is written and before the premium is paid. In addition, half of Other Acquisition and General expenses and 5/6 of Taxes, Licenses and Fees are assumed to be prepaid.

**NORTH CAROLINA
Dwelling Fire**

**ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES**

EXPLANATORY NOTES

Line B-2

The expected loss and loss adjustment expense ratio is consistent with the expense provisions used in the filing.

Line B-3

The mean loss reserve is calculated by multiplying the incurred losses in line B-2 by the ratio for mean loss reserves to incurred losses. The latter figures are based on total statutory Page 14 figures for North Carolina Fire direct losses incurred and direct losses unpaid for all companies writing Dwelling Fire in North Carolina in 2021. The adjustment for loss expense reserves is based on nationwide industry aggregates for the Homeowners line.

6 Direct Losses Incurred	2017	123,225,922
7 Direct Losses Incurred	2018	147,266,683
8 Direct Losses Incurred	2019	67,537,148
9 Direct Losses Incurred	2020	104,935,680
10 Direct Losses Incurred	2021	712,873,576
11 Direct Losses Unpaid	2016	55,733,024
12 Direct Losses Unpaid	2017	66,350,617
13 Direct Losses Unpaid	2018	71,679,352
14 Direct Losses Unpaid	2019	51,559,349
15 Direct Losses Unpaid	2020	61,323,461
16 Direct Losses Unpaid	2021	683,476,545
17 Mean Loss Reserve	2017	61,041,821
18 Mean Loss Reserve	2018	69,014,985
19 Mean Loss Reserve	2019	61,619,351
20 Mean Loss Reserve	2020	56,441,405
21 Mean Loss Reserve	2021	372,400,003
22 Ratio	2017	0.495
23 Ratio	2018	0.469
24 Ratio	2019	0.912
25 Ratio	2020	0.538
26 Ratio	2021	0.522
27 Average Loss Reserve		0.587
28 Ratio of LAE Reserves to Loss Reserves		0.191
29 Ratio of Incurred LAE to Incurred Loss		0.137
30 Loss & LAE Reserve [(27) x (1+(28))/(1+(29))]		0.615

**NORTH CAROLINA
Dwelling Fire**

**ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES**

EXPLANATORY NOTES

Line E

The average rate of return is the average of the pretax current yield calculated on Page 11 and the pretax embedded yield. The embedded yield (see Page 12) is the sum of the ratio of investment income to invested assets for the most recent year plus the ten year average ratio of capital gains to invested assets (see Page 13). The current yield is the estimated currently available rate of return (including both income and capital gains) on the industry investment portfolio (see Page 11).

Embedded Yield	3.32%
Current Yield	5.90%
Average	4.61%

Portfolio Yield and Tax Rate - Current Yield				
Investable Asset	Percent of Assets	Estimated Prospective Pre-Tax Return	Tax Rate	Estimated Prospective Post-Tax Return
Bonds				
US Gov't	9.73%	4.06%	21.00%	3.21%
Municipal	21.05%	2.73%	5.25%	2.59%
Industrial	34.16%	4.94%	21.00%	3.90%
Preferred Stock	0.46%	6.46%	13.13%	5.61%
Common Stock	18.38%	13.21%	19.44%	10.64%
Mortgage Loans	1.32%	6.39%	21.00%	5.05%
Real Estate	0.76%	7.04%	21.00%	5.56%
Cash & Short-term Investments	5.43%	5.02%	21.00%	3.97%
Other Long Term Investments	8.71%	7.44%	18.70%	6.05%
Rate of Return Before Expenses	100.00%	6.17%	18.64%	5.02%
Investment Expenses		0.27%	21.00%	0.21%
Portfolio Rate of Return		5.90%	18.53%	4.81%

Sources

Preferred Stock	Current yield on iShares Preferred Stock Index ETF, 5/4/23
Real Estate	REIT Sector WACC; source: Damodaran Online, using 3.593 for Treasury bond yield
Cash	3 month Treasury rate, averaged over 3 months (source: US Treasury)
Municipal	Maturity weighted avg of 3 month avg MBIS Investment Grade yield curve; linearly interpolated
Industrial	Three month average of HQM par yields (source: FRED); linearly interpolated
Treasury	Three month average of Treasury yields; linearly interpolated (source: US Treasury)
Common Stock	0.0819 ERP (source: Damodaran Online) plus 3 month average T-Bill Rate
Other LTI	Average of yields on bond portfolio, preferred stock, common stock, mortgages, and real estate.
Investment Expenses	Investment Expenses from statutory Page 12 of the Annual Statement (Exhibit of Net Investment Income) divided by the average of the last two years' Cash and Invested Assets from statutory Page 2 of the Annual Statement (Assets), as compiled in A.M. Best's Aggregates and Averages.

Portfolio Yield and Tax Rate			
Embedded Yield			
		Income	Tax Rate
Bonds			
	Taxable	27,541,921	21.00%
	Non-Taxable	6,758,270	5.25%
Stocks			
	Taxable	9,208,921	13.13%
	Non-Taxable	3,215,338	5.25%
Mortgage Loans		1,149,755	21.00%
Real Estate		1,995,863	21.00%
Contract Loans		91	21.00%
Cash & Short Term Inv		138,807	21.00%
All Other		12,716,678	21.00%
Total		62,725,644	17.34%
Inv. Expenses		6,106,110	21.00%
Net Inv. Income		56,619,534	16.95%
Mean Invested Assets		2,156,355,790	
Inv. Inc. Yield Rate		2.63%	16.95%
Capital Gains (10 yr. avg.)		0.70%	0.00%
(% of Inv. Assets)			
Invest. Yield Rate (pre-tax)		3.32%	13.39%
Invest. Yield Rate (post-tax)		2.88%	

Source: A.M. Best's Aggregates and Averages, 2022 Edition, statutory Page 12 of the Annual Statement - Exhibit of Net Investment Income (Column 2 - Earned During Year). For capital gains, see Exhibit RB-23, Page 13.

**Realized Capital Gains or Losses
As a Percentage of Mean Invested Assets
(Amounts in Thousands of Dollars)**

Calendar Year	Mean Invested Assets	Realized Capital Gains Amount	Percent
2012	1,400,656,619	9,035,405	0.65%
2013	1,473,600,834	12,163,890	0.83%
2014	1,543,882,375	12,093,078	0.78%
2015	1,567,611,077	9,887,732	0.63%
2016	1,596,937,470	8,086,268	0.51%
2017	1,676,831,258	15,725,303	0.94%
2018	1,733,729,297	10,825,733	0.62%
2019	1,822,857,949	11,238,484	0.62%
2020	1,975,605,647	10,933,304	0.55%
2021	2,156,355,790	18,153,320	0.84%
Total	16,948,068,313	118,142,517	0.70%

"Mean Invested Assets" is the average of current and prior year values for Cash & Invested Assets from statutory Page 2 of the Annual Statement (Assets). Source for data is 2012-2022 editions of A.M. Best's Aggregates and Averages. Figures are net of capital gains taxes.

North Carolina**Dwelling Fire****Premium-to-Surplus Ratios**

Year	Ratio
2022	1.05
2021	0.87
2020	0.87
2019	0.93
2018	0.82
2017	0.86
2016	0.80
2015	0.78
2014	0.80
2013	0.86
Average	0.86

Data from NAIC Statutory Filings for all groups writing Dwelling Fire insurance in North Carolina. Weighted average is calculated using North Carolina Dwelling Fire insurance premiums.

**North Carolina
Dwelling Fire
Calculation of Ratio of GAAP Net Worth to Statutory Surplus**

	2017	2018	2019	2020	2021
Policyholder Surplus	750,700,298,191	742,079,084,495	847,278,658,173	910,066,482,410	1,028,834,642,825
+ Deferred Acquisition Costs	34,674,341,556	43,991,738,565	46,002,606,289	48,118,482,109	51,883,319,641
+ Non-Admitted DTA Provision	5,482,491,430	6,314,927,861	6,045,409,090	6,001,020,602	5,674,496,962
+ Non-admitted Assets (non-tax part)	46,932,629,941	46,502,063,197	50,520,441,190	51,971,123,366	62,815,925,708
+ Provision for Reinsurance	2,595,884,443	2,737,598,756	2,944,031,835	3,290,710,172	3,665,749,561
+ Provision for FASB 115(after-tax)	14,432,773,013	912,505,274	32,483,869,271	57,249,505,836	30,528,918,187
- Surplus Notes	(11,859,500,848)	(11,660,367,237)	(11,606,263,627)	(13,225,869,920)	(13,699,558,971)
GAAP-adjusted Net Worth	842,958,917,726	830,877,550,911	973,668,752,221	1,063,471,454,574	1,169,703,493,912
Ratio of Net Worth to Surplus	1.123	1.120	1.149	1.169	1.137
Five Year Average	1.139				

Source: ISO

NCRB - Pro Forma Statutory Rate of Return Dwelling Insurance - Extended Coverage			
	Pre-Tax	Tax Liability	Post-Tax
1 Premiums	100.00%		
Loss & LAE	39.81%		
Commissions	9.10%		
Other Acquisition & General	6.91%		
Taxes, Licenses, & Fees	2.60%		
Policyholder Dividends	0.70%		
Net Cost of Reinsurance	31.49%		
Compensation for Assessment Risk	0.89%		
2 Pro Forma Underwriting Profit	8.50%		
3 Installment Fee Income	0.58%		
4 Regular Tax		1.91%	
5 Additional Tax Due to IRS Treatment of Reserves		0.03%	
6 Total Return from Underwriting Post-Tax			7.15%
7 Investment Gain on Insurance Transaction	3.24%		
Less Investment Income on Agent and Reinsurance Balances	0.62%		
Net Investment Gain on Insurance Transaction	2.61%	0.44%	2.18%
8 Total Return as a Percent of Premium (post-tax)			9.33%
9 Premium-to-Net Worth Ratio			0.77
10 Total Return as a Percent of Net Worth (post-tax)			7.14%

Lines (1) to (8) are expressed as a percentage of premium.

Assumptions and Parameters

(a) Underwriting Income Tax Rate	21.00%
(b) Investment Income Tax Rate	16.68%
(c) Pre-tax Investment Yield	4.61%
(d) Premium-to-Surplus Ratio	0.872739
(e) Net Worth-to-Surplus Ratio	1.139
(f) Installment Fee Income	0.58%
(g) Additional Tax Due to IRS Treatment of Loss Reserves and UEPR	0.03%
(h) Net Cost of Reinsurance	31.49%
(i) Compensation for Assessment Risk	0.89%

Notes to Exhibit RB-24 Page 1

- 1 The expense provisions are those used in the filing, adjusted for the indicated rate change.
- 2 Selected by North Carolina Rate Bureau
- 3 See Exhibit RB-24, Page 3
- 4 $[(2) + (3)] \times (a)$
- 5 See Exhibit RB-24, Pages 4-6
- 6 $(2) + (3) - (4) - (5)$
- 7 Investment income on agents balances is calculated as $0.1741 \times 1.021 \times (c)$, where 0.1741 is a factor for agents balances held for less than 90 days and 1.021 is a factor to correct for overdue balances. From this figure, we deduct investment income on net reinsurance balances, which we estimate at 0.105 of the total cost of reinsurance times (c). The estimate for net reinsurance balances is based on ceded balances payable plus funds held plus other amounts due reinsurers minus reinsurance recoverables. These amounts are taken from the aggregated Schedule F as reported in the latest available edition of A.M. Best Aggregates & Averages.
- 8 $(6) + (7)$
- 9 $(d) / (e)$
- 10 $(8) \times (9)$

Assumptions

- (a) Current corporate tax rate, based on the Tax Cut and Jobs Act of 2017.
- (b) See Exhibit RB-24, Pages 11-13. Calculated as $1 - \text{average post-tax yield} / \text{average pre-tax yield}$.
- (c) See Exhibit RB-24, Page 10
- (d) See Exhibit RB-24, Page 14
- (e) See Exhibit RB-24, Page 15
- (f) See Exhibit RB-24, Page 3
- (g) See Exhibit RB-24, Pages 4-6
- (h) Net Cost of Reinsurance based on the analysis incorporated in the filing, adjusted for the indicated rate change.
- (i) Compensation for Assessment Risk based on the analysis incorporated in the filing, adjusted for the indicated rate change.

NCRB - Pro Forma Statutory Rate of Return (Including Investment Income on Surplus) Dwelling Insurance - Extended Coverage			
	Pre-Tax	Tax Liability	Post-Tax
1 Premiums	100.00%		
Loss & LAE	39.81%		
Commissions	9.10%		
Other Acquisition & General	6.91%		
Taxes, Licenses, & Fees	2.60%		
Policyholder Dividends	0.70%		
Net Cost of Reinsurance	31.49%		
Compensation for Assessment Risk	0.89%		
2 Pro Forma Underwriting Profit	8.50%		
3 Installment Fee Income	0.58%		
4 Regular Tax		1.91%	
5 Additional Tax Due to IRS Treatment of Reserves		0.03%	
6 Total Return from Underwriting Post-Tax			7.15%
7 Investment Gain on Insurance Transaction	3.24%		
Less Investment Income on Agent and Reinsurance Balances	0.62%		
Net Investment Gain on Insurance Transaction	2.61%	0.44%	2.18%
8 Investment Gain on Surplus	5.62%	0.94%	4.68%
9 Total Return as a Percent of Premium (post-tax)			14.01%
10 Premium-to-Net Worth Ratio			0.77
11 Total Return as a Percent of Net Worth (post-tax)			10.73%
<i>Lines (1) to (8) are expressed as a percentage of premium.</i>			

Assumptions and Parameters

(a) Underwriting Income Tax Rate	21.00%
(b) Investment Income Tax Rate	16.68%
(c) Pre-tax Investment Yield	4.61%
(d) Premium-to-Surplus Ratio	0.87
(e) Net Worth-to-Surplus Ratio	1.139
(f) Installment Fee Income	0.58%
(g) Additional Tax Due to IRS Treatment of Loss Reserves and UEPR	0.03%
(h) Net Cost of Reinsurance	31.49%
(i) Compensation for Assessment Risk	0.89%

Notes to Exhibit RB-24 Page 1A

- 1 The expense provisions are those used in filing, adjusted for the indicated rate change.
- 2 Selected by North Carolina Rate Bureau
- 3 See Exhibit RB-24, Page 3
- 4 $[(2) + (3)] \times (a)$
- 5 See Exhibit RB-24, Pages 4-6
- 6 $(2) + (3) - (4) - (5)$
- 7 Investment income on agents balances is calculated as $0.1741 \times 1.021 \times (c)$, where 0.1741 is a factor for agents balances held for less than 90 days and 1.021 is a factor to correct for overdue balances. From this figure, we deduct investment income on net reinsurance balances, which we estimate at 0.105 of the total cost of reinsurance times (c). The estimate for net reinsurance balances is based on ceded balances payable plus funds held plus other amounts due reinsurers minus reinsurance recoverables. These amounts are taken from the aggregated Schedule F as reported in the latest available edition of A.M. Best Aggregates & Averages.
- 8 $(c) \times [1 / (d) + 0.1473 \times 0.4869]$, where 0.1473 is the prepaid expense ratio minus the total cost of reinsurance from Page 7 and 0.4869 is the UEPR ratio from Page 7.
- 9 $(6) + (7) + (8)$
- 10 $(d) / (e)$
- 11 $(9) \times (10)$

Assumptions

- (a) Current corporate tax rate, based on the Tax Cut and Jobs Act of 2017.
- (b) See Exhibit RB-24, Pages 11-13. Calculated as $1 - \text{average post-tax yield} / \text{average pre-tax yield}$.
- (c) See Exhibit RB-24, Page 10
- (d) See Exhibit RB-24, Page 14
- (e) See Exhibit RB-24, Page 15
- (f) See Exhibit RB-24, Page 3
- (g) See Exhibit RB-24, Pages 4-6
- (h) Net Cost of Reinsurance based on the analysis incorporated in the filing, adjusted for the indicated rate change.
- (i) Compensation for Assessment Risk based on the analysis incorporated in the filing, adjusted for the indicated rate change.

NORTH CAROLINA
Dwelling Insurance - Extended Coverage
INSTALLMENT CHARGES AS A PERCENT OF PREMIUM

Year	Percentage
2021	0.55%
2020	0.62%
2019	0.51%
2018	0.58%
2017	0.64%
Selected Value	0.58%

Source: NCRB

**North Carolina
Dwelling Insurance - Extended Coverage
Calculation of Additional Tax Liability**

1. Collected Earned Premium for Current Year	100.00%
2. Unearned (Net) Premium Reserve 12/31/Current	30.28%
3. Unearned (Net) Premium Reserve 12/31/Prior	29.57%
4. Increase: (2) - (3)	0.71%
5. 20% of Increase = Taxable Income	0.14%
6. Additional Tax Liability due to Unearned Premium Reserve	0.03%
7. Unpaid Loss Current Year	18.48%
8. Discounted Unpaid Loss Prior Year	18.06%
9. Unpaid Loss Prior Year	18.04%
10. Discounted Unpaid Loss Prior Year	17.60%
11. Additional Income	-0.02%
12. Additional Tax Liability due to Loss Reserve Discounting	0.00%
13. Total Additional Tax Liabilities (6) + (12)	0.03%

**NORTH CAROLINA
Dwelling Insurance - Extended Coverage
Calculation of Taxable Income**

Calculation of Unpaid Loss for Current Accident Year (AY)					Calculation of Discounted Unpaid Loss for Current AY			Calculation of Discounted Unpaid Loss for Prior AY			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
AY Avg Acc Date	AY Pay Pattern	Percent Unpaid	Total Losses	Unpaid Losses	AY at 12/31 yr t	Discount Factor	Discounted Unpaid Loss	AY at 12/31/yr t-1	Unpaid Losses	Discount Factor	Discounted Unpaid Loss
0.5	55.61%	44.39%	39.811	17.67	2022	0.977793	17.2781				
1.5	89.33%	10.67%	38.870	4.15	2021	0.97229	4.0314	2021	17.253	0.975958	16.8378
2.5	94.67%	5.33%	37.951	2.02	2020	0.984834	1.9934	2020	4.048	0.97011	3.9273
3.5	100.00%	0.00%	37.053	0.00	2019	0.984785	0.0000	2019	1.976	0.984785	1.9462
4.5	100.00%	0.00%	36.177	0.00	2018	0.985513	0.0000	2018	0.000	0.985513	0.0000
5.5	100.00%	0.00%	35.321	0.00	2017	0	0.0000	2017	0.000	0.985513	0.0000
6.5	100.00%	0.00%	34.486	0.00	2016	0	0.0000	2016	0.000	0	0.0000
7.5	100.00%	0.00%	33.670	0.00	2015	0	0.0000	2015	0.000	0	0.0000
								2014	0.000	0	0.0000
Totals				23.84	23.30			23.28		22.71	

Notes to Pages 4 and 5

Page 4

- 2 [Page 8, line (2) divided by Page 8, line (1)] times one minus the Cost of Reinsurance from Page 7
- 3 (2) divided by 1 plus the 10 year average growth rate of Dwelling Insurance - Extended Coverage premiums in North Carolina.
- 4 (2) - (3)
- 5 (4) x 20%
- 6 (5) x current corporate tax rate
- 7 Unpaid current-year losses at year-end as a percent of current year premium.
Sum of Page 5, Column (5) x (ratio of the net loss and LAE ratio from Page 7 to the direct loss and LAE ratio from Page 1)
- 8 Discounted unpaid current-year losses at year-end as a percent of current year premium.
Sum of Page 5, Column (8) x (ratio of the net loss and LAE ratio from Page 7 to the direct loss and LAE ratio from Page 1)
- 9 Unpaid prior-year losses at year-end as a percent of current year premium.
Sum of Page 5, Column (10) x (ratio of the net loss and LAE ratio from Page 7 to the direct loss and LAE ratio from Page 1)
- 10 Discounted unpaid prior-year losses at year-end as a percent of current year premium.
Sum of Page 5, Column (12) x (ratio of the net loss and LAE ratio from Page 7 to the direct loss and LAE ratio from Page 1)
- 11 Change in loss reserve discount: [(7) - (8)] - [(9) - (10)]
- 12 (11) x current corporate tax rate
- 13 (6) + (12)

Page 5

- 1 Midpoint of number of years since end of accident period
- 2 Special Property payout pattern from IRS Rev. Proc 2016-58
- 3 1 - (2)
- 4 Latest period losses are based on projected loss ratio from Page 1. For previous years, losses are detrended at the 10 year average premium growth rate for Dwelling Insurance - Extended Coverage in North Carolina.
- 5 (3) x (4)
- 6 Accident Year at current year end
- 7 IRS discount factors for Special Property from Rev. Proc 2023-10
- 8 (5) x (7)
- 9 Accident Year at prior year end
- 10 Column (3), previous period x Column (4), current period
- 11 IRS discount factors for Special Property from Rev. Proc 2021-54
- 12 (10) x (11)

**NCRB Investment Income Calculation
Dwelling Insurance - Extended Coverage**

**Projected Investment Earnings on Loss, Loss
Adjustment Expense and Unearned Premium Reserves**

A. UNEARNED PREMIUM RESERVES

1. Direct Earned Premiums		1,000,000
2. Mean Unearned Premium Reserve	48.69%	486,900
3. Deductions for Prepaid Expenses		
Commissions & Brokerage	9.10%	
Taxes, Licenses, & Fees (5/6)	2.17%	
Other Acquisition & General (1/2)	3.46%	
Cost of Reinsurance	40.44%	
Total	55.17%	
4. Deduction for Prepaid Expense: (2) x (3)		268,623
5. Net Unearned Premium Reserve Subject to Investment (2) - (4)		218,277

B. Loss and Loss Expense Reserves

1. Direct Earned Premiums		1,000,000
2. Expected Net Incurred Loss & LAE-to-Direct Premium Ratio	30.86%	308,572
3. Expected Mean Loss and LAE Reserve-to-Incurred Ratio	156.68%	483,461

C. Net Policyholder Funds Subject to Investment (A5 + B3) 701,739

D. Average Rate of Return 4.61%

E. Investment Earnings from Net Reserves: (C) x (D) 32,375

F. Average Rate of Return as a Percent of Direct Earned Premiums: (E) / (A1) 3.24%

NORTH CAROLINA
Dwelling Insurance - Extended Coverage

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

EXPLANATORY NOTES

Line A-1

Calculations displayed are per million of direct earned premiums.

Line A-2

The mean unearned premium reserve (UEPR) is determined by multiplying the direct earned premiums in line A-1 by the ratio of the mean unearned premium reserve to the direct earned premium for the current calendar year ended 12/31. The data are for North Carolina Allied Lines insurance (from statutory Page 14 of the Annual Statement) for all companies which wrote Dwelling Insurance - Extended Coverage in the most recent calendar year.

1 NC Allied Lines Direct Earned Premium for most recent calendar year	342,884,781
2 NC Allied Lines UEPR at end of most recent calendar year	174,314,994
3 NC Allied Lines UEPR at end of previous calendar year	159,573,973
4 Mean NC Allied Lines UEPR	166,944,484
5 Ratio [(4) / (1)]	48.69%

Line A-3

Deduction for prepaid expenses

Certain production expenses, such as commissions and reinsurance, are assumed to be incurred when the policy is written and before the premium is paid. In addition, half of Other Acquisition and General expenses and 5/6 of Taxes, Licenses and Fees are assumed to be prepaid.

NORTH CAROLINA
Dwelling Insurance - Extended Coverage

**ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES**

EXPLANATORY NOTES

Line B-2

Ratio is calculated as the expected direct loss and LAE ratio from Page 1 minus the difference between the total cost of reinsurance from Line A-3 and the net cost of reinsurance from Page 1.

Line B-3

The mean loss reserve is calculated by multiplying the incurred losses in line B-2 by the ratio for mean loss reserves to incurred losses. The latter figures are based on total statutory Page 14 figures for NC Allied Lines direct losses incurred and direct losses unpaid for all companies writing Dwelling Insurance - Extended Coverage in North Carolina in 2021. The adjustment for loss expense reserves is based on nationwide industry aggregates for the Homeowners line.

6 Direct Losses Incurred	2017	74,001,415
7 Direct Losses Incurred	2018	703,738,774
8 Direct Losses Incurred	2019	64,562,157
9 Direct Losses Incurred	2020	130,492,323
10 Direct Losses Incurred	2021	99,395,485
11 Direct Losses Unpaid	2016	68,978,452
12 Direct Losses Unpaid	2017	55,475,077
13 Direct Losses Unpaid	2018	417,341,717
14 Direct Losses Unpaid	2019	140,237,570
15 Direct Losses Unpaid	2020	109,778,079
16 Direct Losses Unpaid	2021	94,123,057
17 Mean Loss Reserve	2017	62,226,765
18 Mean Loss Reserve	2018	236,408,397
19 Mean Loss Reserve	2019	278,789,644
20 Mean Loss Reserve	2020	125,007,825
21 Mean Loss Reserve	2021	101,950,568
22 Ratio	2017	0.841
23 Ratio	2018	0.336
24 Ratio	2019	4.318
25 Ratio	2020	0.958
26 Ratio	2021	1.026
27 Average Loss Reserve		1.496
28 Ratio of LAE Reserves to Loss Reserves		0.191
29 Ratio of Incurred LAE to Incurred Loss		0.137
30 Loss & LAE Reserve [(27) x (1+(28))/(1+(29))]		1.567

NORTH CAROLINA
Dwelling Insurance - Extended Coverage

**ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES**

EXPLANATORY NOTES

Line E

The average rate of return is the average of the pretax current yield calculated on Page 11 and the pretax embedded yield. The embedded yield (see Page 12) is the sum of the ratio of investment income to invested assets for the most recent year plus the ten year average ratio of capital gains to invested assets (see Page 13). The current yield is the estimated currently available rate of return (including both income and capital gains) on the industry investment portfolio (see Page 11).

Embedded Yield	3.32%
Current Yield	5.90%
Average	4.61%

Portfolio Yield and Tax Rate - Current Yield				
Investable Asset	Percent of Assets	Estimated Prospective Pre-Tax Return	Tax Rate	Estimated Prospective Post-Tax Return
Bonds				
US Gov't	9.73%	4.06%	21.00%	3.21%
Municipal	21.05%	2.73%	5.25%	2.59%
Industrial	34.16%	4.94%	21.00%	3.90%
Preferred Stock	0.46%	6.46%	13.13%	5.61%
Common Stock	18.38%	13.21%	19.44%	10.64%
Mortgage Loans	1.32%	6.39%	21.00%	5.05%
Real Estate	0.76%	7.04%	21.00%	5.56%
Cash & Short-term Investments	5.43%	5.02%	21.00%	3.97%
Other Long-Term Investments	8.71%	7.44%	18.70%	6.05%
Rate of Return Before Expenses	100.00%	6.17%	18.64%	5.02%
Investment Expenses		0.27%	21.00%	0.21%
Portfolio Rate of Return		5.90%	18.53%	4.81%

Sources

Preferred Stock	Current yield on iShares Preferred Stock Index ETF, 5/4/23
Real Estate	REIT Sector WACC; source: Damodaran Online, using 3.593 for Treasury bond yield
Cash	3 month Treasury rate, averaged over 3 months (source: US Treasury)
Municipal	Maturity weighted avg of 3 month avg MBIS Investment Grade yield curve; linearly interpolated
Industrial	Three month average of HQM par yields (source: FRED); linearly interpolated
Treasury	Three month average of Treasury yields; linearly interpolated (source: US Treasury)
Common Stock	0.0819 ERP (source: Damodaran Online) plus 3 month average T-Bill Rate
Other LTI	Average of yields on bond portfolio, preferred stock, common stock, mortgages, and real estate.
Investment Expenses	Investment Expenses from statutory Page 12 of the Annual Statement (Exhibit of Net Investment Income) divided by the average of the last two years' Cash and Invested Assets from statutory Page 2 of the Annual Statement (Assets), as compiled in A.M. Best's Aggregates and Averages.

Portfolio Yield and Tax Rate Embedded Yield			
		Income	Tax Rate
Bonds			
	Taxable	27,541,921	21.00%
	Non-Taxable	6,758,270	5.25%
Stocks			
	Taxable	9,208,921	13.13%
	Non-Taxable	3,215,338	5.25%
Mortgage Loans		1,149,755	21.00%
Real Estate		1,995,863	21.00%
Contract Loans		91	21.00%
Cash & Short Term Inv		138,807	21.00%
All Other		12,716,678	21.00%
Total		62,725,644	17.34%
Inv. Expenses		6,106,110	21.00%
Net Inv. Income		56,619,534	16.95%
Mean Invested Assets		2,156,355,790	
Inv. Inc. Yield Rate		2.63%	16.95%
Capital Gains (10 yr. avg.) (% of Inv. Assets)		0.70%	0.00%
Invest. Yield Rate (pre-tax)		3.32%	13.39%
Invest. Yield Rate (post-tax)		2.88%	

Source: A.M. Best's Aggregates and Averages, 2022 Edition, statutory Page 12 of the Annual Statement - Exhibit of Net Investment Income (Column 2 - Earned During Year). For capital gains, see Exhibit RB-24, Page 13.

**Realized Capital Gains or Losses
As a Percentage of Mean Invested Assets
(Amounts in Thousands of Dollars)**

Calendar Year	Mean Invested Assets	Realized Capital Gains Amount	Percent
2012	1,400,656,619	9,035,405	0.65%
2013	1,473,600,834	12,163,890	0.83%
2014	1,543,882,375	12,093,078	0.78%
2015	1,567,611,077	9,887,732	0.63%
2016	1,596,937,470	8,086,268	0.51%
2017	1,676,831,258	15,725,303	0.94%
2018	1,733,729,297	10,825,733	0.62%
2019	1,822,857,949	11,238,484	0.62%
2020	1,975,605,647	10,933,304	0.55%
2021	2,156,355,790	18,153,320	0.84%
Total	16,948,068,313	118,142,517	0.70%

"Mean Invested Assets" is the average of current and prior year values for Cash & Invested Assets from statutory Page 2 of the Annual Statement (Assets). Source for data is 2012-2022 editions of A.M. Best's Aggregates and Averages. Figures are net of capital gains taxes.

North Carolina**Dwelling Insurance - Extended Coverage****Premium-to-Surplus Ratios**

Year	Ratio
2022	1.04
2021	0.86
2020	0.82
2019	0.88
2018	1.05
2017	0.85
2016	0.78
2015	0.78
2014	0.82
2013	0.85
Average	0.87

Data from NAIC Statutory Filings for all groups writing Dwelling Insurance - Extended Coverage insurance in North Carolina. Weighted average is calculated using North Carolina Dwelling Insurance - Extended Coverage insurance premiums.

North Carolina
Dwelling Insurance - Extended Coverage
Calculation of Ratio of GAAP Net Worth to Statutory Surplus

	2017	2018	2019	2020	2021
Policyholder Surplus	750,700,298,191	742,079,084,495	847,278,658,173	910,066,482,410	1,028,834,642,825
+ Deferred Acquisition Costs	34,674,341,556	43,991,738,565	46,002,606,289	48,118,482,109	51,883,319,641
+ Non-Admitted DTA Provision	5,482,491,430	6,314,927,861	6,045,409,090	6,001,020,602	5,674,496,962
+ Non-admitted Assets (non-tax part)	46,932,629,941	46,502,063,197	50,520,441,190	51,971,123,366	62,815,925,708
+ Provision for Reinsurance	2,595,884,443	2,737,598,756	2,944,031,835	3,290,710,172	3,665,749,561
+ Provision for FASB 115(after-tax)	14,432,773,013	912,505,274	32,483,869,271	57,249,505,836	30,528,918,187
- Surplus Notes	(11,859,500,848)	(11,660,367,237)	(11,606,263,627)	(13,225,869,920)	(13,699,558,971)
GAAP-adjusted Net Worth	842,958,917,726	830,877,550,911	973,668,752,221	1,063,471,454,574	1,169,703,493,912
Ratio of Net Worth to Surplus	1.12	1.12	1.15	1.17	1.14
Five Year Average	1.139				

Source: ISO

Sample of Findings on the Private Company Discount

Study	Years	Discount	Type
Emory (1994)	1992-1993	45%	IPO
Willamette Management Associates (various)	1975-1997	29% to 60%	IPO
Garland and Reilly (2004)	1998-2002	35%	IPO
Larcker et al. (2018)	2017	39% to 47%	IPO
Koeplin et al. (2000)	1984-1998	20% to 30%	Acquisitions
Block (2007)	1999-2006	20% to 25%	Acquisitions
Officer (2007)	1979-2003	15% to 30%	Acquisitions
Paglia and Harjoto (2010)	1993-2008	65% to 70%	Acquisitions
Jaffe et al. (2018)	1985-2014	0%	Acquisitions
Lohrey (2020)	2005-2015	48% to 62%	Acquisitions
Silber (1991)	1981-1988	34%	Restricted Stock
Johnson (1999)	1991-1995	20%	Restricted Stock
Bajaj et al. (2001)	1990-1995	7%	Private placements
Comment (2012)	2004-2010	5% to 6%	Private placements
Finnerty (2013)	1991-1997	21%	Private placements
Finnerty (2013)	1997-2007	15%	Private placements
Chen et al. (2015)	1999-2012	10%	Private placements

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* The Willamette research studies were unpublished but reported in *Business Valuation Discounts and Premiums*, Chapter 5, by Shannon Pratt (New York: John Wiley & Sons, Inc., p. 85).