

May 18, 2018

VIA EMAIL

Ms. Carol Knapp, Administrator
City of Bartow
Municipal Firefighters' Retirement Trust Fund
2404 West Russ Road
Avon Park, FL 33825

Re: City of Bartow Municipal Firefighters' Retirement Trust Fund
Section 112.664, Florida Statutes Compliance

Dear Carol:

Please find enclosed the annual disclosures that satisfy the October 1, 2017 financial reporting requirements made under Section 112.664.

Our office will submit this information electronically to the Department of Management Services. However, it is important for you to be aware that this report must also be made available on the Plan or Plan Sponsor's website, if such website exists. A deadline for this website publication is not made clear in the law.

In addition to the enclosed report, the Plan or Plan Sponsor's website must provide a link to the Division of Retirement's Actuarial Summary Fact Sheet for the Plan, and also report the previous five years' assumed and actual rates of return, along with their respective asset allocations. The Board should contact its Investment Consultant for this information.

If there are any questions, concerns, or comments about any of the items contained in this report, please feel free to contact me.

Respectfully submitted,

Foster & Foster, Inc.

By: 

Patrick T. Donlan, EA, ASA, MAAA
Enrolled Actuary #17-6595

PTD/lke
Enclosures

cc via email: H. Lee Dehner, Board Attorney

CITY OF BARTOW
MUNICIPAL FIREFIGHTERS' RETIREMENT TRUST FUND

SECTION 112.664, FLORIDA STATUTES
COMPLIANCE

With respect to the reporting standards for defined benefit retirement plans or systems contained in Section 112.664(1), F.S., the actuarial disclosures required under this section were prepared and completed by me or under my direct supervision and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, meet the requirements of Section 112.664(1), Florida Statutes, and Rule 60T-1.0035, Florida Administrative Code.

By: Patrick T. Donlan Date: 5/18/2018

Patrick T. Donlan, EA, ASA, MAAA
Enrolled Actuary #17-6595



When reviewing the following schedules, please note the following:

- 1) The purpose of producing this report is solely to satisfy the requirements set forth by Section 112.664, Florida Statutes, and is mandatory for every Florida public pension fund, excluding the Florida Retirement System (FRS).
- 2) None of the schedules shown have any impact on the funding requirements of the Plan. These schedules are for statutory compliance purposes only.
- 3) In the schedules that follow, the columns labeled “ACTUAL” represent the final recorded GASB 67/68 results. The columns labeled “HYPOTHETICAL” illustrate what the results would have been if different assumptions were used.
- 4) It is our opinion that the Plan’s actual assumptions utilized in the October 1, 2017 Actuarial Valuation Report, as adopted by the Board of Trustees, are reasonable individually and in the aggregate, and represent our best estimate of future Plan experience.
- 5) The “Number of Years Expected Benefit Payments Sustained” calculated in Section II: Asset Sustainability should not be interpreted as the number of years the Plan has left until it is insolvent. This calculation is required by 112.664, Florida Statutes, but the numeric result is irrelevant, since in its calculation we are to assume there will be no further contributions to the Fund. As long as the Actuarially Determined Contribution is made each year the Plan will never become insolvent.

SCHEDULE OF CHANGES IN NET PENSION LIABILITY
FISCAL YEAR SEPTEMBER 30, 2017

	ACTUAL	HYPOTHETICAL	
	8.00% RP-2000 Generational	6.00% RP-2000 Generational	10.00% RP-2000 Generational
<u>Total Pension Liability</u>			
Service Cost	250,467	401,834	160,633
Interest	874,820	842,167	879,723
Change in Excess State Money	21,629	21,629	21,629
Change in Funding Standard Account	-	-	-
Share Plan Allocation	-	-	-
Changes of Benefit Terms	-	-	-
Differences Between Expected and Actual Experience	(97,077)	(117,567)	(81,484)
Changes of Assumptions	-	-	-
Contributions - Buy Back	-	-	-
Benefit Payments, Including Refunds of Employee Contributions	(505,965)	(505,965)	(505,965)
Net Change in Total Pension Liability	543,874	642,098	474,536
Total Pension Liability - Beginning	11,129,521	14,079,032	9,081,340
Total Pension Liability - Ending (a)	<u>\$ 11,673,395</u>	<u>\$ 14,721,130</u>	<u>\$ 9,555,876</u>
<u>Plan Fiduciary Net Position</u>			
Contributions - Employer	423,994	423,994	423,994
Contributions - State	98,062	98,062	98,062
Contributions - Employee	21,525	21,525	21,525
Net Investment Income	1,037,172	1,037,172	1,037,172
Benefit Payments, Including Refunds of Employee Contributions	(505,965)	(505,965)	(505,965)
Administrative Expenses	(70,443)	(70,443)	(70,443)
Net Change in Plan Fiduciary Net Position	1,004,345	1,004,345	1,004,345
Plan Fiduciary Net Position - Beginning	8,600,616	8,600,616	8,600,616
Plan Fiduciary Net Position - Ending (b)	<u>\$ 9,604,961</u>	<u>\$ 9,604,961</u>	<u>\$ 9,604,961</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 2,068,434</u>	<u>\$ 5,116,169</u>	<u>\$ (49,085)</u>

PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Table 1
Plan Assumptions: 8.00% and RP-2000 Generational Mortality

Fiscal Year Beginning 10/1	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2017	9,604,961	-	522,720	-	747,488	9,829,729
2018	9,829,729	-	644,186	-	760,611	9,946,154
2019	9,946,154	-	740,368	-	766,078	9,971,864
2020	9,971,864	-	745,915	-	767,913	9,993,862
2021	9,993,862	-	789,744	-	767,919	9,972,037
2022	9,972,037	-	825,056	-	764,761	9,911,742
2023	9,911,742	-	899,128	-	756,974	9,769,588
2024	9,769,588	-	902,825	-	745,454	9,612,217
2025	9,612,217	-	899,131	-	733,012	9,446,098
2026	9,446,098	-	906,651	-	719,422	9,258,869
2027	9,258,869	-	913,599	-	704,166	9,049,436
2028	9,049,436	-	905,536	-	687,733	8,831,633
2029	8,831,633	-	933,834	-	669,177	8,566,976
2030	8,566,976	-	963,902	-	646,802	8,249,876
2031	8,249,876	-	966,835	-	621,317	7,904,358
2032	7,904,358	-	960,013	-	593,948	7,538,293
2033	7,538,293	-	948,002	-	565,143	7,155,434
2034	7,155,434	-	945,980	-	534,596	6,744,050
2035	6,744,050	-	941,508	-	501,864	6,304,406
2036	6,304,406	-	948,216	-	466,424	5,822,614
2037	5,822,614	-	942,563	-	428,107	5,308,158
2038	5,308,158	-	933,368	-	387,318	4,762,108
2039	4,762,108	-	916,837	-	344,295	4,189,566
2040	4,189,566	-	900,919	-	299,129	3,587,776
2041	3,587,776	-	887,258	-	251,532	2,952,050
2042	2,952,050	-	869,340	-	201,390	2,284,100
2043	2,284,100	-	849,912	-	148,732	1,582,920
2044	1,582,920	-	829,145	-	93,468	847,243
2045	847,243	-	806,705	-	35,511	76,049
2046	76,049	-	782,083	-	-	-

Number of Years Expected Benefit Payments Sustained: 29.10

This projection assumes no further contributions, assumes no further benefit accruals, and assumes Market Value of Assets earn 8.00% interest.

It is important to note that as long as the Actuarially Determined Contribution is made each year, the Plan will never become insolvent. Furthermore, State and local laws mandate that the Actuarially Determined Contribution be made each year.

PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Table 2
Hypothetical Assumptions: 6.00% and RP-2000 Generational Mortality

Fiscal Year Beginning 10/1	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2017	9,604,961	-	522,720	-	560,616	9,642,857
2018	9,642,857	-	644,186	-	559,246	9,557,917
2019	9,557,917	-	740,368	-	551,264	9,368,813
2020	9,368,813	-	745,915	-	539,751	9,162,649
2021	9,162,649	-	789,744	-	526,067	8,898,972
2022	8,898,972	-	825,056	-	509,187	8,583,103
2023	8,583,103	-	899,128	-	488,012	8,171,987
2024	8,171,987	-	902,825	-	463,234	7,732,396
2025	7,732,396	-	899,131	-	436,970	7,270,235
2026	7,270,235	-	906,651	-	409,015	6,772,599
2027	6,772,599	-	913,599	-	378,948	6,237,948
2028	6,237,948	-	905,536	-	347,111	5,679,523
2029	5,679,523	-	933,834	-	312,756	5,058,445
2030	5,058,445	-	963,902	-	274,590	4,369,133
2031	4,369,133	-	966,835	-	233,143	3,635,441
2032	3,635,441	-	960,013	-	189,326	2,864,754
2033	2,864,754	-	948,002	-	143,445	2,060,197
2034	2,060,197	-	945,980	-	95,232	1,209,449
2035	1,209,449	-	941,508	-	44,322	312,263
2036	312,263	-	948,216	-	-	-

Number of Years Expected Benefit Payments Sustained: 19.33

This projection assumes no further contributions, assumes no further benefit accruals, and assumes Market Value of Assets earn 6.00% interest.

It is important to note that as long as the Actuarially Determined Contribution is made each year, the Plan will never become insolvent. Furthermore, State and local laws mandate that the Actuarially Determined Contribution be made each year.

PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Table 3
Hypothetical Assumptions: 10.00% and RP-2000 Generational Mortality

Fiscal Year Beginning 10/1	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2017	9,604,961	-	522,720	-	934,360	10,016,601
2018	10,016,601	-	644,186	-	969,451	10,341,866
2019	10,341,866	-	740,368	-	997,168	10,598,666
2020	10,598,666	-	745,915	-	1,022,571	10,875,322
2021	10,875,322	-	789,744	-	1,048,045	11,133,623
2022	11,133,623	-	825,056	-	1,072,110	11,380,677
2023	11,380,677	-	899,128	-	1,093,111	11,574,660
2024	11,574,660	-	902,825	-	1,112,325	11,784,160
2025	11,784,160	-	899,131	-	1,133,459	12,018,488
2026	12,018,488	-	906,651	-	1,156,516	12,268,353
2027	12,268,353	-	913,599	-	1,181,155	12,535,909
2028	12,535,909	-	905,536	-	1,208,314	12,838,687
2029	12,838,687	-	933,834	-	1,237,177	13,142,030
2030	13,142,030	-	963,902	-	1,266,008	13,444,136
2031	13,444,136	-	966,835	-	1,296,072	13,773,373
2032	13,773,373	-	960,013	-	1,329,337	14,142,697
2033	14,142,697	-	948,002	-	1,366,870	14,561,565
2034	14,561,565	-	945,980	-	1,408,858	15,024,443
2035	15,024,443	-	941,508	-	1,455,369	15,538,304
2036	15,538,304	-	948,216	-	1,506,420	16,096,508
2037	16,096,508	-	942,563	-	1,562,523	16,716,468
2038	16,716,468	-	933,368	-	1,624,978	17,408,078
2039	17,408,078	-	916,837	-	1,694,966	18,186,207
2040	18,186,207	-	900,919	-	1,773,575	19,058,863
2041	19,058,863	-	887,258	-	1,861,523	20,033,128
2042	20,033,128	-	869,340	-	1,959,846	21,123,634
2043	21,123,634	-	849,912	-	2,069,868	22,343,590
2044	22,343,590	-	829,145	-	2,192,902	23,707,347
2045	23,707,347	-	806,705	-	2,330,399	25,231,041
2046	25,231,041	-	782,083	-	2,484,000	26,932,958
2047	26,932,958	-	756,972	-	2,655,447	28,831,433
2048	28,831,433	-	730,643	-	2,846,611	30,947,401
2049	30,947,401	-	703,244	-	3,059,578	33,303,735
2050	33,303,735	-	674,483	-	3,296,649	35,925,901
2051	35,925,901	-	644,415	-	3,560,369	38,841,855
2052	38,841,855	-	613,292	-	3,853,521	42,082,084
2053	42,082,084	-	581,037	-	4,179,157	45,680,204
2054	45,680,204	-	547,766	-	4,540,632	49,673,070
2055	49,673,070	-	513,436	-	4,941,635	54,101,269
2056	54,101,269	-	478,152	-	5,386,219	59,009,336
2057	59,009,336	-	442,145	-	5,878,826	64,446,017
2058	64,446,017	-	405,920	-	6,424,306	70,464,403
2059	70,464,403	-	370,317	-	7,027,924	77,122,010
2060	77,122,010	-	335,817	-	7,695,410	84,481,603
2061	84,481,603	-	302,792	-	8,433,021	92,611,832
2062	92,611,832	-	271,787	-	9,247,594	101,587,639
2063	101,587,639	-	243,095	-	10,146,609	111,491,153
2064	111,491,153	-	216,835	-	11,138,274	122,412,592
2065	122,412,592	-	193,413	-	12,231,589	134,450,768
2066	134,450,768	-	172,691	-	13,436,442	147,714,519

PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Table 3
Hypothetical Assumptions: 10.00% and RP-2000 Generational Mortality

Fiscal Year Beginning 10/1	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2067	147,714,519	-	154,331	-	14,763,735	162,323,923
2068	162,323,923	-	138,190	-	16,225,483	178,411,216
2069	178,411,216	-	123,904	-	17,834,926	196,122,238
2070	196,122,238	-	111,153	-	19,606,666	215,617,751
2071	215,617,751	-	99,652	-	21,556,793	237,074,892
2072	237,074,892	-	89,138	-	23,703,032	260,688,786
2073	260,688,786	-	79,376	-	26,064,910	286,674,320
2074	286,674,320	-	70,212	-	28,663,921	315,268,029
2075	315,268,029	-	61,608	-	31,523,723	346,730,144
2076	346,730,144	-	53,655	-	34,670,332	381,346,821
2077	381,346,821	-	46,415	-	38,132,361	419,432,767
2078	419,432,767	-	39,836	-	41,941,285	461,334,216
2079	461,334,216	-	33,910	-	46,131,726	507,432,032
2080	507,432,032	-	28,598	-	50,741,773	558,145,207
2081	558,145,207	-	23,838	-	55,813,329	613,934,698
2082	613,934,698	-	19,643	-	61,392,488	675,307,543
2083	675,307,543	-	16,014	-	67,529,954	742,821,483
2084	742,821,483	-	12,888	-	74,281,504	817,090,099
2085	817,090,099	-	10,199	-	81,708,500	898,788,400
2086	898,788,400	-	7,953	-	89,878,442	988,658,889
2087	988,658,889	-	6,116	-	98,865,583	1,087,518,356
2088	1,087,518,356	-	4,637	-	108,751,604	1,196,265,323
2089	1,196,265,323	-	3,464	-	119,626,359	1,315,888,218
2090	1,315,888,218	-	2,548	-	131,588,694	1,447,474,364
2091	1,447,474,364	-	1,846	-	144,747,344	1,592,219,862
2092	1,592,219,862	-	1,320	-	159,221,920	1,751,440,462
2093	1,751,440,462	-	932	-	175,144,000	1,926,583,530
2094	1,926,583,530	-	651	-	192,658,320	2,119,241,199
2095	2,119,241,199	-	453	-	211,924,097	2,331,164,843
2096	2,331,164,843	-	315	-	233,116,469	2,564,280,997
2097	2,564,280,997	-	218	-	256,428,089	2,820,708,868
2098	2,820,708,868	-	149	-	282,070,879	3,102,779,598
2099	3,102,779,598	-	100	-	310,277,955	3,413,057,453
2100	3,413,057,453	-	65	-	341,305,742	3,754,363,130
2101	3,754,363,130	-	42	-	375,436,311	4,129,799,399
2102	4,129,799,399	-	27	-	412,979,939	4,542,779,311
2103	4,542,779,311	-	17	-	454,277,930	4,997,057,224
2104	4,997,057,224	-	10	-	499,705,722	5,496,762,936
2105	5,496,762,936	-	6	-	549,676,293	6,046,439,223
2106	6,046,439,223	-	4	-	604,643,922	6,651,083,141
2107	6,651,083,141	-	2	-	665,108,314	7,316,191,453
2108	7,316,191,453	-	1	-	731,619,145	8,047,810,597
2109	8,047,810,597	-	1	-	804,781,060	8,852,591,656
2110	8,852,591,656	-	-	-	885,259,166	9,737,850,822

Number of Years Expected Benefit Payments Sustained: 999.99

This projection assumes no further contributions, assumes no further benefit accruals, and assumes Market Value of Assets earn 10.00% interest.

It is important to note that as long as the Actuarially Determined Contribution is made each year, the Plan will never become insolvent. Furthermore, State and local laws mandate that the Actuarially Determined Contribution be made each year.

ACTUAL AND HYPOTHETICAL CONTRIBUTIONS APPLICABLE TO THE FISCAL YEAR
ENDING SEPTEMBER 30, 2019

Valuation Date: 10/1/2017

	ACTUAL	HYPOTHETICAL	
	8.00% RP-2000 Generational	6.00% RP-2000 Generational	10.00% RP-2000 Generational
Total Required Contribution (Fixed \$)	\$639,353	\$1,027,962	\$386,804
Total Required Contribution (% of Payroll)	56.8%	91.3%	34.4%
Expected Member Contribution	22,505	22,505	22,505
Expected State Money	76,433	76,433	76,433
Expected Sponsor Contribution (Fixed \$)	\$540,415	\$929,024	\$287,866
Expected Sponsor Contribution (% of Payroll)	48.0%	82.5%	25.6%
<u>ASSETS</u>			
Actuarial Value	9,611,442	9,611,442	9,611,442
Market Value	9,604,961	9,604,961	9,604,961
<u>LIABILITIES</u>			
Present Value of Benefits			
Active Members			
Retirement Benefits	7,041,875	10,168,132	5,151,989
Disability Benefits	55,978	76,700	42,695
Death Benefits	33,989	44,421	26,629
Vested Benefits	236,599	412,116	143,819
Refund of Contributions	2,323	2,434	2,221
Service Retirees	5,302,917	6,436,703	4,489,565
Beneficiaries	349,376	414,977	300,555
Disability Retirees	155,393	185,411	133,199
Terminated Vested	304,343	422,404	230,547
Excess State Monies Reserve	213,388	213,388	213,388
Total:	13,696,181	18,376,686	10,734,607
Present Value of Future Salaries	7,750,620	8,733,912	6,973,718
Present Value of Future Member Contributions	155,012	174,678	139,474
Total Normal Cost	442,116	586,465	368,385
Present Value of Future Normal Costs (Entry Age Normal)	1,718,385	3,225,148	956,176
Total Actuarial Accrued Liability	11,977,795	15,151,538	9,778,430
Unfunded Actuarial Accrued Liability (UAAL)	1,039,439	4,213,182	(1,159,926)

ACTUAL AND HYPOTHETICAL CONTRIBUTIONS APPLICABLE TO THE FISCAL YEAR
ENDING SEPTEMBER 30, 2019

Valuation Date: 10/1/2017

	ACTUAL	HYPOTHETICAL	
	8.00% RP-2000 Generational	6.00% RP-2000 Generational	10.00% RP-2000 Generational
<u>PENSION COST</u>			
Normal Cost (with interest)	459,801	604,059	386,804
Administrative Expenses (with interest)	73,261	72,556	73,965
Payment Required To Amortize UAAL (with interest)	106,291	351,347	(118,112)
Total Required Contribution	\$639,353	\$1,027,962	\$386,804 ²

¹ The asset values and liabilities include accumulated Share Plan Balances as of 9/30/2017.

³ Per Florida Statutes, the Minimum Required Contribution may be no less than the Normal Cost.