

July 7, 2017

VIA EMAIL

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

Re: City of Bartow Municipal Police Officers' Retirement Trust Fund  
Senate Bill 534 (Section 112.664, Florida Statutes) Compliance

Dear Carol:

Please find enclosed the annual disclosures that satisfy the October 1, 2016 financial reporting requirements made under Section 112.664.

Our office will submit this information electronically to the Department of Management Services by the January 11, 2016 deadline. 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 POLICE OFFICERS' 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: 7/7/2017

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, 2016 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.

**GASB 67: SCHEDULE OF CHANGES IN NET PENSION LIABILITY**  
**FISCAL YEAR SEPTEMBER 30, 2016**

	ACTUAL	HYPOTHETICAL	
	8.00% RP-2000 Generational	6.00% RP-2000 Generational	10.00% RP-2000 Generational
<b>Total Pension Liability</b>			
Service Cost	409,524	650,930	289,113
Interest	1,545,529	1,527,366	1,622,376
Change in Excess State Money	(58,130)	(58,130)	(58,130)
Changes of Benefit Terms	6,935	12,345	4,818
Differences Between Expected and Actual Experience	(232,824)	(348,133)	(223,344)
Changes of Assumptions	539,060	(121,152)	(118,250)
Contributions - Buy Back	7,200	7,200	7,200
Benefit Payments, Including Refunds of Employee Contributions	(895,977)	(895,977)	(895,977)
Net Change in Total Pension Liability	1,321,317	774,449	627,806
Total Pension Liability - Beginning	19,409,796	25,299,964	16,436,968
Total Pension Liability - Ending (a)	\$ 20,731,113	\$ 26,074,413	\$ 17,064,774
<b>Plan Fiduciary Net Position</b>			
Contributions - Employer	726,104	726,104	726,104
Contributions - State	132,660	132,660	132,660
Contributions - Employee	67,572	67,572	67,572
Contributions - Buy Back	7,200	7,200	7,200
Net Investment Income	1,601,372	1,601,372	1,601,372
Benefit Payments, Including Refunds of Employee Contributions	(895,977)	(895,977)	(895,977)
Administrative Expenses	(73,390)	(73,390)	(73,390)
Net Change in Plan Fiduciary Net Position	1,565,541	1,565,541	1,565,541
Plan Fiduciary Net Position - Beginning	15,518,973	15,518,973	15,518,973
Plan Fiduciary Net Position - Ending (b)	\$ 17,084,514	\$ 17,084,514	\$ 17,084,514
Net Pension Liability - Ending (a) - (b)	\$ 3,646,599	\$ 8,989,899	\$ (19,740)

**GASB 68: PENSION EXPENSE**  
**FISCAL YEAR SEPTEMBER 30, 2016**

	ACTUAL	HYPOTHETICAL	
	8.00%	6.00%	10.00%
Pension Expense	\$ 929,703	\$ 1,443,290	\$ 631,631

## 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
2016	17,047,777	-	1,568,948	-	1,301,064	16,779,893
2017	16,779,893	-	1,306,848	-	1,290,118	16,763,163
2018	16,763,163	-	1,446,788	-	1,283,182	16,599,557
2019	16,599,557	-	1,487,055	-	1,268,482	16,380,984
2020	16,380,984	-	1,521,659	-	1,249,612	16,108,937
2021	16,108,937	-	1,585,128	-	1,225,310	15,749,119
2022	15,749,119	-	1,614,425	-	1,195,353	15,330,047
2023	15,330,047	-	1,624,952	-	1,161,406	14,866,501
2024	14,866,501	-	1,662,038	-	1,122,839	14,327,302
2025	14,327,302	-	1,671,334	-	1,079,331	13,735,299
2026	13,735,299	-	1,698,159	-	1,030,898	13,068,038
2027	13,068,038	-	1,705,150	-	977,237	12,340,125
2028	12,340,125	-	1,705,044	-	919,008	11,554,089
2029	11,554,089	-	1,707,138	-	856,042	10,702,993
2030	10,702,993	-	1,710,085	-	787,836	9,780,744
2031	9,780,744	-	1,712,379	-	713,964	8,782,329
2032	8,782,329	-	1,727,140	-	633,501	7,688,690
2033	7,688,690	-	1,730,250	-	545,885	6,504,325
2034	6,504,325	-	1,719,082	-	451,583	5,236,826
2035	5,236,826	-	1,709,256	-	350,576	3,878,146
2036	3,878,146	-	1,692,994	-	242,532	2,427,684
2037	2,427,684	-	1,674,825	-	127,222	880,081
2038	880,081	-	1,654,523	-	-	-

\*All DROP Balances paid in 2016.

Number of Years Expected Benefit Payments Sustained: 22.53

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
2016	17,047,777	-	1,568,948	-	975,798	16,454,627
2017	16,454,627	-	1,306,848	-	948,072	16,095,851
2018	16,095,851	-	1,446,788	-	922,347	15,571,410
2019	15,571,410	-	1,487,055	-	889,673	14,974,028
2020	14,974,028	-	1,521,659	-	852,792	14,305,161
2021	14,305,161	-	1,585,128	-	810,756	13,530,789
2022	13,530,789	-	1,614,425	-	763,415	12,679,779
2023	12,679,779	-	1,624,952	-	712,038	11,766,865
2024	11,766,865	-	1,662,038	-	656,151	10,760,978
2025	10,760,978	-	1,671,334	-	595,519	9,685,163
2026	9,685,163	-	1,698,159	-	530,165	8,517,169
2027	8,517,169	-	1,705,150	-	459,876	7,271,895
2028	7,271,895	-	1,705,044	-	385,162	5,952,013
2029	5,952,013	-	1,707,138	-	305,907	4,550,782
2030	4,550,782	-	1,710,085	-	221,744	3,062,441
2031	3,062,441	-	1,712,379	-	132,375	1,482,437
2032	1,482,437	-	1,727,140	-	-	-

\*All DROP Balances paid in 2016.

Number of Years Expected Benefit Payments Sustained: 16.86

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
2016	17,047,777	-	1,568,948	-	1,626,330	17,105,159
2017	17,105,159	-	1,306,848	-	1,645,174	17,443,485
2018	17,443,485	-	1,446,788	-	1,672,009	17,668,706
2019	17,668,706	-	1,487,055	-	1,692,518	17,874,169
2020	17,874,169	-	1,521,659	-	1,711,334	18,063,844
2021	18,063,844	-	1,585,128	-	1,727,128	18,205,844
2022	18,205,844	-	1,614,425	-	1,739,863	18,331,282
2023	18,331,282	-	1,624,952	-	1,751,881	18,458,211
2024	18,458,211	-	1,662,038	-	1,762,719	18,558,892
2025	18,558,892	-	1,671,334	-	1,772,323	18,659,881
2026	18,659,881	-	1,698,159	-	1,781,080	18,742,802
2027	18,742,802	-	1,705,150	-	1,789,023	18,826,675
2028	18,826,675	-	1,705,044	-	1,797,415	18,919,046
2029	18,919,046	-	1,707,138	-	1,806,548	19,018,456
2030	19,018,456	-	1,710,085	-	1,816,341	19,124,712
2031	19,124,712	-	1,712,379	-	1,826,852	19,239,185
2032	19,239,185	-	1,727,140	-	1,837,562	19,349,607
2033	19,349,607	-	1,730,250	-	1,848,448	19,467,805
2034	19,467,805	-	1,719,082	-	1,860,826	19,609,549
2035	19,609,549	-	1,709,256	-	1,875,492	19,775,785
2036	19,775,785	-	1,692,994	-	1,892,929	19,975,720
2037	19,975,720	-	1,674,825	-	1,913,831	20,214,726
2038	20,214,726	-	1,654,523	-	1,938,746	20,498,949
2039	20,498,949	-	1,628,422	-	1,968,474	20,839,001
2040	20,839,001	-	1,598,625	-	2,003,969	21,244,345
2041	21,244,345	-	1,566,134	-	2,046,128	21,724,339
2042	21,724,339	-	1,530,616	-	2,095,903	22,289,626
2043	22,289,626	-	1,491,053	-	2,154,410	22,952,983
2044	22,952,983	-	1,447,271	-	2,222,935	23,728,647
2045	23,728,647	-	1,401,537	-	2,302,788	24,629,898
2046	24,629,898	-	1,354,509	-	2,395,264	25,670,653
2047	25,670,653	-	1,305,171	-	2,501,807	26,867,289
2048	26,867,289	-	1,254,443	-	2,624,007	28,236,853
2049	28,236,853	-	1,202,926	-	2,763,539	29,797,466
2050	29,797,466	-	1,150,834	-	2,922,205	31,568,837
2051	31,568,837	-	1,099,147	-	3,101,926	33,571,616
2052	33,571,616	-	1,047,872	-	3,304,768	35,828,512
2053	35,828,512	-	997,067	-	3,532,998	38,364,443
2054	38,364,443	-	946,918	-	3,789,098	41,206,623
2055	41,206,623	-	897,389	-	4,075,793	44,385,027
2056	44,385,027	-	848,692	-	4,396,068	47,932,403
2057	47,932,403	-	800,748	-	4,753,203	51,884,858
2058	51,884,858	-	753,395	-	5,150,816	56,282,279
2059	56,282,279	-	706,759	-	5,592,890	61,168,410
2060	61,168,410	-	660,867	-	6,083,798	66,591,341
2061	66,591,341	-	615,840	-	6,628,342	72,603,843
2062	72,603,843	-	571,572	-	7,231,806	79,264,077
2063	79,264,077	-	527,918	-	7,900,012	86,636,171
2064	86,636,171	-	484,900	-	8,639,372	94,790,643
2065	94,790,643	-	442,678	-	9,456,930	103,804,895

## 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
2066	103,804,895	-	401,207	-	10,360,429	113,764,117
2067	113,764,117	-	360,550	-	11,358,384	124,761,951
2068	124,761,951	-	321,091	-	12,460,141	136,901,001
2069	136,901,001	-	283,121	-	13,675,944	150,293,824
2070	150,293,824	-	247,077	-	15,017,029	165,063,776
2071	165,063,776	-	213,459	-	16,495,705	181,346,022
2072	181,346,022	-	182,520	-	18,125,476	199,288,978
2073	199,288,978	-	154,385	-	19,921,179	219,055,772
2074	219,055,772	-	129,121	-	21,899,121	240,825,772
2075	240,825,772	-	106,768	-	24,077,239	264,796,243
2076	264,796,243	-	87,342	-	26,475,257	291,184,158
2077	291,184,158	-	70,725	-	29,114,880	320,228,313
2078	320,228,313	-	56,786	-	32,019,992	352,191,519
2079	352,191,519	-	45,182	-	35,216,893	387,363,230
2080	387,363,230	-	35,667	-	38,734,540	426,062,103
2081	426,062,103	-	27,957	-	42,604,812	468,638,958
2082	468,638,958	-	21,776	-	46,862,807	515,479,989
2083	515,479,989	-	16,832	-	51,547,157	567,010,314
2084	567,010,314	-	12,927	-	56,700,385	623,697,772
2085	623,697,772	-	9,855	-	62,369,284	686,057,201
2086	686,057,201	-	7,467	-	68,605,347	754,655,081
2087	754,655,081	-	5,620	-	75,465,227	830,114,688
2088	830,114,688	-	4,198	-	83,011,259	913,121,749
2089	913,121,749	-	3,110	-	91,312,019	1,004,430,658
2090	1,004,430,658	-	2,293	-	100,442,951	1,104,871,316
2091	1,104,871,316	-	1,679	-	110,487,048	1,215,356,685
2092	1,215,356,685	-	1,222	-	121,535,607	1,336,891,070
2093	1,336,891,070	-	881	-	133,689,063	1,470,579,252
2094	1,470,579,252	-	629	-	147,057,894	1,617,636,517
2095	1,617,636,517	-	443	-	161,763,630	1,779,399,704
2096	1,779,399,704	-	306	-	177,939,955	1,957,339,353
2097	1,957,339,353	-	206	-	195,733,925	2,153,073,072
2098	2,153,073,072	-	136	-	215,307,300	2,368,380,236
2099	2,368,380,236	-	87	-	236,838,019	2,605,218,168
2100	2,605,218,168	-	55	-	260,521,814	2,865,739,927
2101	2,865,739,927	-	34	-	286,573,991	3,152,313,884
2102	3,152,313,884	-	21	-	315,231,387	3,467,545,250
2103	3,467,545,250	-	13	-	346,754,524	3,814,299,761
2104	3,814,299,761	-	7	-	381,429,976	4,195,729,730
2105	4,195,729,730	-	4	-	419,572,973	4,615,302,699
2106	4,615,302,699	-	3	-	461,530,270	5,076,832,966
2107	5,076,832,966	-	2	-	507,683,297	5,584,516,261
2108	5,584,516,261	-	1	-	558,451,626	6,142,967,886
2109	6,142,967,886	-	1	-	614,296,789	6,757,264,674
2110	6,757,264,674	-	-	-	675,726,467	7,432,991,141

\*All DROP Balances paid in 2016.

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, 2018

Valuation Date: 10/1/2016

	ACTUAL	HYPOTHETICAL	
	8.00% RP-2000 Generational	6.00% RP-2000 Generational	10.00% RP-2000 Generational
Total Required Contribution (Fixed \$)	\$966,098	\$1,517,838	\$507,671
Total Required Contribution (% of Payroll)	59.1%	92.9%	31.0%
Expected Member Contribution	65,365	65,365	65,365
Expected State Money	131,635	131,635	131,635
Expected Sponsor Contribution (Fixed \$)	\$769,098	\$1,320,838	\$310,671
Expected Sponsor Contribution (% of Payroll)	47.0%	80.8%	18.9%
<b>ASSETS</b>			
Actuarial Value <sup>1</sup>	17,470,698	17,470,698	17,470,698
Market Value <sup>1</sup>	17,047,777	17,047,777	17,047,777
<b>LIABILITIES</b>			
Present Value of Benefits			
Active Members			
Retirement Benefits	6,914,484	9,794,748	5,139,919
Disability Benefits	368,269	495,076	285,246
Death Benefits	45,309	58,582	35,864
Vested Benefits	638,636	970,669	443,621
Refund of Contributions	20,022	20,682	19,407
Service Retirees	10,351,656	12,723,527	8,681,667
DROP Retirees <sup>1</sup>	2,975,320	3,676,769	2,503,455
Beneficiaries	167,191	191,645	147,927
Disability Retirees	725,772	882,814	613,523
Terminated Vested	594,973	746,996	489,016
Excess State Monies Reserve	1,025	1,025	1,025
Total:	22,802,657	29,562,533	18,360,670
Present Value of Future Salaries	8,657,161	9,440,912	8,002,148
Present Value of Future Member Contributions	346,286	377,636	320,086
Total Normal Cost	397,729	608,556	271,461
Present Value of Future Normal Costs (Entry Age Normal)	2,018,332	3,388,116	1,264,404
Total Actuarial Accrued Liability <sup>1</sup>	20,784,325	26,174,417	17,096,266
Unfunded Actuarial Accrued Liability (UAAL)	3,313,627	8,703,719	(374,432)

ACTUAL AND HYPOTHETICAL CONTRIBUTIONS APPLICABLE TO THE FISCAL YEAR  
ENDING SEPTEMBER 30, 2018

Valuation Date: 10/1/2016

	ACTUAL	HYPOTHETICAL	
	8.00% RP-2000 Generational	6.00% RP-2000 Generational	10.00% RP-2000 Generational
<b><u>PENSION COST</u></b>			
Normal Cost (with interest)	413,638	626,813	285,034
Administrative Expenses (with interest)	76,326	75,592	77,060
Payment Required To Amortize UAAL (with interest)	476,134	815,433	145,577
Total Required Contribution	\$966,098	\$1,517,838	\$507,671

<sup>1</sup> The asset values and liabilities for DROP Members include accumulated DROP Balances as of 9/30/2016.