



May 11, 2016

Mr. James F. Fisher
Secretary to the Board of Trustees
City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida
Hampton Professional Center
1951 NW 150th Avenue – Suite 104
Pembroke Pines, Florida 33028

Re: October 1, 2015 Chapter 112.664 Compliance Report

Dear Jim:

As requested, we are pleased to enclose fifteen (15) bound copies and one (1) unbound copy of the updated October 1, 2015 Chapter 112.664 Compliance Report for the City Pension Fund for Firefighters and Police Officers in the City of Pembroke Pines, Florida.

As required, we will timely upload the required data to the State's online portal.

Please note we understand the following items must be posted on the Fund's website and must be posted on any website containing budget information relating to the City or actuarial or performance information relating to the Fund:

- this compliance report
- most recent financial statement
- most recent actuarial valuation report
- a link to the Division of Retirement Actuarial Summary Fact Sheet
http://www.dms.myflorida.com/workforce_operations/retirement/local_retirement_plans/local_retirement_section/actuarial_summary_fact_sheets
- for the previous five years - a side-by-side comparison of the Fund's assumed rate of return compared to the actual rate of return as well as the percentages of cash, equity, bond and alternative investments in the Fund portfolio
- the Fund's funded ratio as determined in the most recent actuarial valuation – 69.3% on a market value of assets basis as of October 1, 2015

We appreciate the opportunity to work with the Board on this important assignment.

If you should have any questions concerning the above, please do not hesitate to contact us.

Sincerest regards,

Lawrence F. Wilson, A.S.A.
Senior Consultant and Actuary

Enclosures

CITY PENSION FUND FOR FIREFIGHTERS AND POLICE OFFICERS
IN THE CITY OF PEMBROKE PINES, FLORIDA

CHAPTER 112.664, F.S. COMPLIANCE REPORT

In Connection with the October 1, 2015 Funding Actuarial Valuation Report
and the Fund's Financial Reporting for the Year Ended September 30, 2015



May 11, 2016

Board of Trustees
c/o Mr. James F. Fisher
Plan Administrator
City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida
Hampton Professional Center
1951 NW 150th Avenue – Suite 104
Pembroke Pines, Florida 33028

Re: October 1, 2015 Chapter 112.664 Compliance Report

Dear Board Members:

Gabriel, Roeder, Smith & Company (GRS) has been engaged by the Board of Trustees (Board) of the City Pension Fund for Firefighters and Police Officers in the City of Pembroke Pines, Florida (Fund) to prepare a disclosure report to satisfy the requirements set forth in Chapter 112.664, F.S. and as further required pursuant to Chapter 60T-1.0035, F.A.C.

This report was prepared at the request of the Board and is intended for use by the Board and those designated or approved by the Board. This report may be provided to parties other than the Board only in its entirety and only with the permission of the Board.

The purpose of the report is to provide the required information specified in Chapter 112.664, F.S. and to supplement this information with additional exhibits. This report should not be relied on for any purpose other than the purpose described above.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: Fund experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Fund's funded status); and changes in Fund provisions or applicable law. The scope of this engagement does not include an analysis of the potential range of such measurements.

This report was based upon information furnished by the City and the Board concerning Fund benefits, Fund provisions and Fund members as used in the corresponding Actuarial Valuation Reports for the Valuation Dates indicated. Financial information was provided by the City and Board as of September 30, 2015. We reviewed the information provided for internal and year-

to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by the City and Board.

Except where specific assumptions are required by Chapter 112.664, F.S, this report was prepared using actuarial assumptions adopted by the Board as described in Section C. The Board's assumptions are based on the results of an actuarial Experience Study for the period October 1, 2009 – September 30, 2014 and represent an estimate of future Fund experience. For purposes of this report only, future DROP interest credits are assumed not to exceed the investment return assumption.

The investment return assumption of 2% higher than the investment return assumption utilized in the Actuarial Valuation Report does not represent an estimate of future Fund experience nor observation of the estimates inherent in market data. This assumption is provided as a counterpart to the Chapter 112.664, F.S. requirement to utilize an investment return assumption of 2% lower than the investment return assumption utilized in the Actuarial Valuation Report. Inclusion of an investment return 2% higher than the investment return assumption utilized in the Actuarial Valuation Report shows a more complete assessment of the potential range of results as opposed to the *one-sided* range required by statute.

If all actuarial assumptions are met and if all current and future minimum required contributions are paid Fund assets will be sufficient to pay all Fund benefits. Fund minimum required contributions are determined in compliance with the requirements of the Florida Protection of Public Employee Retirement Benefits Act, Firefighters Retirement Chapter 175 and Police Officers Retirement Chapter 185 with normal cost determined as a level percent of covered payroll and a level percent amortization payment using an initial amortization period of 30 years.

The Fund's funded ratio as of October 1, 2015 is 69.3% defined as the ratio of the market value of Fund assets to the actuarial accrued liability.

The Fund's funded ratio and the GASB Net Pension Liability may not be appropriate for assessing the sufficiency of Fund assets to meet the estimated cost of settling benefit obligations but may be appropriate for assessing the need for or the amount of future contributions.

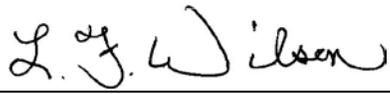
The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing actuaries are independent of the Fund sponsor.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and presents the actuarial position of the Fund as of the valuation date as required by statute. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

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), F.S., and Section 60T-1.0035, F.A.C.

Respectfully submitted,

GABRIEL, ROEDER, SMITH AND COMPANY

By 
Lawrence F. Wilson, M.A.A.A
Enrolled Actuary No. 14-02802
Senior Consultant & Actuary
Date: May 11, 2016

By 
Jennifer M. Borregard, M.A.A.A
Enrolled Actuary No. 14-07624
Consultant & Actuary

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SECTION A

CHAPTER 112.664, F.S. RESULTS

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

Net Pension Liability

Using Financial Reporting Assumptions per GASB Statements No. 67 and No. 68

Measurement Date	9/30/2015
A. <u>Total Pension Liability (TPL)</u>	
Service Cost	\$ 10,619,978
Interest	53,286,992
Benefit Changes	765,470
Difference Between Actual and Expected Experience	(3,834,368)
Assumption Changes	0
Benefit Payments	(26,957,754)
Contribution Refunds	(112,757)
Other	0
Net Change in Total Pension Liability	33,767,561
Total Pension Liability - (beginning of year)	671,557,750
Total Pension Liability - (end of year)	\$ 705,325,311
 B. <u>Fund Fiduciary Net Position</u>	
Contributions - City	\$ 23,719,361
Contributions - State	2,470,921
Contributions - Member	3,065,485
Net Investment Income	9,650,600
Benefit Payments	(26,957,754)
Contribution Refunds	(112,757)
Administrative Expenses	(597,262)
Other	72,859
Net Change in Fund Fiduciary Net Position	11,311,453
Fund Fiduciary Net Position - (beginning of year)	483,895,286
Fund Fiduciary Net Position - (end of year)	\$ 495,206,739
 C. <u>Net Pension Liability (NPL) - (end of year): (A) - (B)</u>	 \$ 210,118,572
 Valuation Date	 10/1/2014

Certain Key Assumptions

Investment Return Assumption 8.0%

Mortality Table:

Healthy Members: RP-2000 Combined Healthy Participant Mortality Tables with Blue Collar Adjustment, separate rates for males and females, with fully generational mortality improvements projected to each future decrement date with Scale AA. Disabled Members: RP-2000 Disabled Mortality Tables, separate rates for males and females, with fully generational mortality improvements projected to each future decrement date with Scale AA.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

Net Pension Liability

Using Assumptions Required Under 112.664(1)(a), F.S.

Measurement Date	9/30/2015
A. <u>Total Pension Liability (TPL)</u>	
Service Cost	\$ 10,744,466
Interest	53,817,893
Benefit Changes	771,552
Difference Between Actual and Expected Experience	(4,184,416)
Assumption Changes	0
Benefit Payments	(26,957,754)
Contribution Refunds	(112,757)
Other	0
Net Change in Total Pension Liability	34,078,984
Total Pension Liability - (beginning of year)	678,413,492
Total Pension Liability - (end of year)	\$ 712,492,476
 B. <u>Fund Fiduciary Net Position</u>	
Contributions - City	\$ 23,719,361
Contributions - State	2,470,921
Contributions - Member	3,065,485
Net Investment Income	9,650,600
Benefit Payments	(26,957,754)
Contribution Refunds	(112,757)
Administrative Expenses	(597,262)
Other	72,859
Net Change in Fund Fiduciary Net Position	11,311,453
Fund Fiduciary Net Position - (beginning of year)	483,895,286
Fund Fiduciary Net Position - (end of year)	\$ 495,206,739
 C. <u>Net Pension Liability (NPL) - (end of year): (A) - (B)</u>	\$ 217,285,737
 Valuation Date	10/1/2014

Certain Key Assumptions

Investment Return Assumption 8.0%

Mortality Table:

RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with fully generational mortality improvements projected to each future payment date with Scale AA.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Net Pension Liability
Using Assumptions Required Under 112.664(1)(b), F.S.**

	9/30/2015
Measurement Date	
A. <u>Total Pension Liability (TPL)</u>	
Service Cost	\$ 17,193,056
Interest	51,842,277
Benefit Changes	981,511
Difference Between Actual and Expected Experience	(3,507,775)
Assumption Changes	0
Benefit Payments	(26,957,754)
Contribution Refunds	(112,757)
Other	0
Net Change in Total Pension Liability	39,438,558
Total Pension Liability - (beginning of year)	864,381,746
Total Pension Liability - (end of year)	\$ 903,820,304
B. <u>Fund Fiduciary Net Position</u>	
Contributions - City	\$ 23,719,361
Contributions - State	2,470,921
Contributions - Member	3,065,485
Net Investment Income	9,650,600
Benefit Payments	(26,957,754)
Contribution Refunds	(112,757)
Administrative Expenses	(597,262)
Other	72,859
Net Change in Fund Fiduciary Net Position	11,311,453
Fund Fiduciary Net Position - (beginning of year)	483,895,286
Fund Fiduciary Net Position - (end of year)	\$ 495,206,739
C. <u>Net Pension Liability (NPL) - (end of year): (A) - (B)</u>	\$ 408,613,565

Valuation Date 10/1/2014

Certain Key Assumptions

Investment Return Assumption 6.0%

Mortality Table:

RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with fully generational mortality improvements projected to each future payment date with Scale AA.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

Net Pension Liability

Using Assumptions Required Under 112.664(1)(a), F.S. Plus 2% on Investment Return Assumption

Measurement Date	9/30/2015
A. <u>Total Pension Liability (TPL)</u>	
Service Cost	\$ 6,990,844
Interest	54,803,956
Benefit Changes	634,825
Difference Between Actual and Expected Experience	(5,306,622)
Assumption Changes	0
Benefit Payments	(26,957,754)
Contribution Refunds	(112,757)
Other	0
Net Change in Total Pension Liability	30,052,492
Total Pension Liability - (beginning of year)	556,752,795
Total Pension Liability - (end of year)	\$ 586,805,287
 B. <u>Fund Fiduciary Net Position</u>	
Contributions - City	\$ 23,719,361
Contributions - State	2,470,921
Contributions - Member	3,065,485
Net Investment Income	9,650,600
Benefit Payments	(26,957,754)
Contribution Refunds	(112,757)
Administrative Expenses	(597,262)
Other	72,859
Net Change in Fund Fiduciary Net Position	11,311,453
Fund Fiduciary Net Position - (beginning of year)	483,895,286
Fund Fiduciary Net Position - (end of year)	\$ 495,206,739
 C. <u>Net Pension Liability (NPL) - (end of year): (A) - (B)</u>	 \$ 91,598,548
 Valuation Date	 10/1/2014

Certain Key Assumptions

Investment Return Assumption 10.0%

Mortality Table:

RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with fully generational mortality improvements projected to each future payment date with Scale AA.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Asset and Benefit Payment Projection
Not Reflecting Any Future Contributions**

Using Financial Reporting Assumptions per GASB Statements No. 67 and No. 68

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2016	388,590,726	29,682,650	28,438,278	389,835,098
2017	389,835,098	29,660,886	31,274,141	388,221,843
2018	388,221,843	29,443,600	33,366,102	384,299,341
2019	384,299,341	29,064,840	34,938,508	378,425,673
2020	378,425,673	28,537,172	36,365,030	370,597,815
2021	370,597,815	27,841,302	38,093,334	360,345,783
2022	360,345,783	26,956,412	39,734,650	347,567,545
2023	347,567,545	25,867,385	41,453,589	331,981,341
2024	331,981,341	24,563,002	42,987,460	313,556,883
2025	313,556,883	23,042,942	44,287,172	292,312,653
2026	292,312,653	21,295,717	45,657,236	267,951,134
2027	267,951,134	19,306,440	46,891,658	240,365,916
2028	240,365,916	17,067,223	47,977,032	209,456,107
2029	209,456,107	14,568,727	48,944,304	175,080,530
2030	175,080,530	11,796,236	49,875,536	137,001,230
2031	137,001,230	8,731,838	50,747,096	94,985,972
2032	94,985,972	5,356,651	51,568,884	48,773,739
2033	48,773,739	1,662,112	52,340,713	-
2034	-	-	53,093,108	-
2035	-	-	53,817,460	-
2036	-	-	54,509,396	-
2037	-	-	55,185,512	-
2038	-	-	55,788,470	-
2039	-	-	56,363,140	-
2040	-	-	56,843,132	-

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits reflecting no contributions from the City, Members or State: 17.92

Certain Key Assumptions

Investment return assumption 7.95%

Mortality Table:

Healthy Members: RP-2000 Combined Healthy Participant Mortality Tables with Blue Collar Adjustment, separate rates for males and females, with fully generational mortality improvements projected to each future decrement date with Scale AA. Disabled Members: RP-2000 Disabled Mortality Tables, separate rates for males and females, with fully generational mortality improvements projected to each future decrement date with Scale AA.

Note: As required in Section 112.664(c) of the Florida Statutes, the projection of Fund assets does not include future contributions from the City, Member or State. For this reason, this projection should not be viewed as representative of the amount of time the Fund can sustain benefit payments. Under the Government Accounting Standards Board standards which include City, Member and State contributions, the Fund is expected to be able to pay all future benefit payments.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Asset and Benefit Payment Projection
Not Reflecting Any Future Contributions
Using Assumptions Required Under 112.664(1)(a), F.S.**

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2016	388,590,726	29,684,266	28,400,311	389,874,681
2017	389,874,681	29,665,060	31,250,009	388,289,732
2018	388,289,732	29,448,857	33,369,396	384,369,193
2019	384,369,193	29,068,756	34,976,977	378,460,972
2020	378,460,972	28,536,528	36,446,098	370,551,402
2021	370,551,402	27,831,865	38,228,377	360,154,890
2022	360,154,890	26,933,180	39,923,937	347,164,133
2023	347,164,133	25,824,653	41,704,080	331,284,706
2024	331,284,706	24,494,206	43,302,631	312,476,281
2025	312,476,281	22,940,657	44,671,992	290,744,946
2026	290,744,946	21,151,212	46,124,171	265,771,987
2027	265,771,987	19,110,528	47,424,341	237,458,174
2028	237,458,174	16,808,311	48,628,986	205,637,499
2029	205,637,499	14,233,120	49,696,831	170,173,788
2030	170,173,788	11,370,426	50,714,920	130,829,294
2031	130,829,294	8,202,070	51,665,796	87,365,568
2032	87,365,568	4,708,191	52,570,727	39,503,032
2033	39,503,032	1,029,534	53,418,308	-
2034	-	-	54,242,394	-
2035	-	-	55,025,683	-
2036	-	-	55,760,933	-
2037	-	-	56,470,130	-
2038	-	-	57,084,706	-
2039	-	-	57,650,095	-
2040	-	-	58,089,151	-

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits reflecting no contributions from the City, Members or State: 17.75

Certain Key Assumptions

Investment return assumption 7.95%

Mortality Table:

RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with fully generational mortality improvements projected to each future payment date with Scale AA.

Note: As required in Section 112.664(c) of the Florida Statutes, the projection of Fund assets does not include future contributions from the City, Member or State. For this reason, this projection should not be viewed as representative of the amount of time the Fund can sustain benefit payments. Under the Government Accounting Standards Board standards which include City, Member and State contributions, the Fund is expected to be able to pay all future benefit payments.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Asset and Benefit Payment Projection
Not Reflecting Any Future Contributions
Using Assumptions Required Under 112.664(1)(b), F.S.**

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2016	388,590,726	22,213,912	28,400,311	382,404,327
2017	382,404,327	21,754,789	31,250,009	372,909,107
2018	372,909,107	21,122,120	33,369,396	360,661,831
2019	360,661,831	20,342,054	34,976,977	346,026,908
2020	346,026,908	19,424,345	36,446,098	329,005,155
2021	329,005,155	18,354,617	38,228,377	309,131,395
2022	309,131,395	17,117,964	39,923,937	286,325,422
2023	286,325,422	15,704,143	41,704,080	260,325,485
2024	260,325,485	14,106,081	43,302,631	231,128,935
2025	231,128,935	12,325,143	44,671,992	198,782,086
2026	198,782,086	10,354,116	46,124,171	163,012,031
2027	163,012,031	8,184,264	47,424,341	123,771,954
2028	123,771,954	5,810,998	48,628,986	80,953,966
2029	80,953,966	3,229,216	49,696,831	34,486,351
2030	34,486,351	611,843	50,714,920	-
2031	-	-	51,665,796	-
2032	-	-	52,570,727	-
2033	-	-	53,418,308	-
2034	-	-	54,242,394	-
2035	-	-	55,025,683	-
2036	-	-	55,760,933	-
2037	-	-	56,470,130	-
2038	-	-	57,084,706	-
2039	-	-	57,650,095	-
2040	-	-	58,089,151	-

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits reflecting no contributions from the City, Members or State: 14.67

Certain Key Assumptions

Investment return assumption 5.95%

Mortality Table:

RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with fully generational mortality improvements projected to each future payment date with Scale AA.

Note: As required in Section 112.664(c) of the Florida Statutes, the projection of Fund assets does not include future contributions from the City, Member or State. For this reason, this projection should not be viewed as representative of the amount of time the Fund can sustain benefit payments. Under the Government Accounting Standards Board standards which include City, Member and State contributions, the Fund is expected to be able to pay all future benefit payments.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Asset and Benefit Payment Projection
Not Reflecting Any Future Contributions**

Using Assumptions Required Under 112.664(1)(a), F.S. Plus 2% on Investment Return Assumption

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2016	388,590,726	37,156,297	28,400,311	397,346,712
2017	397,346,712	37,876,157	31,250,009	403,972,860
2018	403,972,860	38,422,887	33,369,396	409,026,351
2019	409,026,351	38,840,323	34,976,977	412,889,697
2020	412,889,697	39,146,694	36,446,098	415,590,293
2021	415,590,293	39,320,738	38,228,377	416,682,654
2022	416,682,654	39,339,368	39,923,937	416,098,085
2023	416,098,085	39,186,651	41,704,080	413,580,656
2024	413,580,656	38,851,260	43,302,631	409,129,285
2025	409,129,285	38,335,615	44,671,992	402,792,908
2026	402,792,908	37,628,013	46,124,171	394,296,750
2027	394,296,750	36,713,587	47,424,341	383,585,996
2028	383,585,996	35,583,883	48,628,986	370,540,893
2029	370,540,893	34,229,177	49,696,831	355,073,239
2030	355,073,239	32,636,069	50,714,920	336,994,388
2031	336,994,388	30,786,718	51,665,796	316,115,310
2032	316,115,310	28,661,184	52,570,727	292,205,767
2033	292,205,767	26,237,166	53,418,308	265,024,625
2034	265,024,625	23,488,871	54,242,394	234,271,102
2035	234,271,102	20,387,291	55,025,683	199,632,710
2036	199,632,710	16,901,718	55,760,933	160,773,495
2037	160,773,495	12,997,557	56,470,130	117,300,922
2038	117,300,922	8,639,393	57,084,706	68,855,609
2039	68,855,609	3,789,054	57,650,095	14,994,568
2040	14,994,568	128,111	58,089,151	-

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits reflecting no contributions from the City, Members or State: 24.25

Certain Key Assumptions

Investment return assumption 9.95%

Mortality Table:

RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with fully generational mortality improvements projected to each future payment date with Scale AA.

Note: As required in Section 112.664(c) of the Florida Statutes, the projection of Fund assets does not include future contributions from the City, Member or State. For this reason, this projection should not be viewed as representative of the amount of time the Fund can sustain benefit payments. Under the Government Accounting Standards Board standards which include City, Member and State contributions, the Fund is expected to be able to pay all future benefit payments.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

ACTUARIAL DETERMINED CONTRIBUTION									
	Valuation Assumptions			112.664(1)(a), F.S. Assumptions		112.664(1)(b), F.S. Assumptions		112.664(1)(a), F.S. Assumptions Plus 2% on Investment Return Assumption	
A. Valuation Date	October 1, 2015			October 1, 2015		October 1, 2015		October 1, 2015	
B. Actuarial Determined Contribution to Be Paid During Fiscal Year Ending	9/30/2017			9/30/2017		9/30/2017		9/30/2017	
C. Annual Payroll of Active Employees	\$	26,675,674		\$	26,675,674		\$	26,675,674	
D. Total Minimum Funding Requirement									
1. Total Normal Cost	\$	10,057,117		\$	10,197,638		\$	16,055,664	
2. Annual Payment to Amortize Unfunded Actuarial Liability		18,330,028			18,500,056			28,033,802	
3. Interest Adjustment		1,368,103			1,383,087			1,602,624	
4. Total Minimum Funding Requirement	\$	29,755,248		\$	30,080,781		\$	45,692,090	
E. Expected Payroll of Active Employees for Following Fund Year (\$ / % of pay) (C x 1.009)	\$	26,915,755	100.90%	\$	26,915,755	100.90%	\$	26,915,755	100.90%
F. Expected Contribution Sources (\$ / % of pay)									
1. City	\$	24,884,886	92.45%	\$	25,234,791	93.75%	\$	40,980,507	152.25%
2. Members		2,655,260	9.87%		2,655,260	9.87%		2,655,260	9.87%
3. State		2,470,921	9.18%		2,470,921	9.18%		2,470,921	9.18%
4. Total	\$	30,011,067	111.50%	\$	30,360,972	112.80%	\$	46,106,688	171.30%
							\$	17,683,651	65.70%

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

Unfunded Actuarial Accrued Liabilities Bases and Amortization Payments

<u>Amortization Base</u>	<u>Amortization Payment</u>					<u>Remaining Funding Period</u>
	<u>Current Unfunded Liabilities</u>	<u>Valuation Assumptions</u>	<u>112.664(1)(a), F.S. Assumptions</u>	<u>112.664(1)(b), F.S. Assumptions</u>	<u>112.664(1)(a), F.S. Assumptions Plus 2%</u>	
10/01/2003 Gain and Loss Bases	\$ 13,671,493	\$ 1,818,307	\$ 1,818,307	\$ 1,686,537	\$ 1,952,306	10.000 years
10/01/2003 Others	797,049	106,007	106,007	98,325	113,820	10.000 years
10/01/2003 Plan Amendment	64,440,201	5,982,227	5,982,227	5,251,895	6,740,240	18.000 years
10/01/2004 Plan Amendment	40,683,303	3,675,611	3,675,611	3,207,182	4,162,574	19.000 years
10/01/2004 Plan Amendment	371,141	33,531	33,531	29,258	37,974	19.000 years
10/01/2006 Assumption Change	7,194,795	619,993	619,993	534,652	708,947	21.000 years
10/01/2006 Plan Amendment	31,305,648	2,697,686	2,697,686	2,326,351	3,084,736	21.000 years
10/01/2006 Plan Amendment	2,453,599	211,433	211,433	182,329	241,768	21.000 years
10/01/2009 Assumption Change	13,473,603	1,096,788	1,096,788	930,351	1,270,731	24.000 years
10/01/2009 Method Change	26,546,670	2,160,972	2,160,972	1,833,045	2,503,687	24.000 years
05/01/2010 Plan Amendment	(35,350,839)	(2,850,517)	(2,850,517)	(2,410,595)	(3,310,440)	24.583 years
10/01/2010 Actuarial (Gain) / Loss	14,049,024	1,125,514	1,125,514	949,772	1,309,286	25.000 years
10/01/2011 Actuarial (Gain) / Loss	10,963,822	865,534	865,534	726,709	1,010,762	26.000 years
10/01/2011 Assumption Change	(1,708,194)	(134,853)	(134,853)	(113,223)	(157,480)	26.000 years
10/01/2012 Actuarial (Gain) / Loss	4,460,022	347,358	347,358	290,218	407,150	27.000 years
10/01/2013 Actuarial (Gain) / Loss	(646,447)	(49,722)	(49,722)	(41,345)	(58,488)	28.000 years
10/01/2013 Plan Amendment	766,595	58,963	58,963	49,030	69,359	28.000 years
10/01/2014 Actuarial (Gain) / Loss	(5,081,273)	(386,343)	(386,343)	(319,776)	(456,011)	29.000 years
10/01/2014 Plan Amendment	13,110	997	997	825	1,177	29.000 years
10/01/2015 Actuarial (Gain) / Loss	4,114,818	309,541	309,541	255,060	366,553	30.000 years
10/01/2015 Plan Amendment	9,228	694	694	572	822	30.000 years
10/01/2015 Assumption Change	8,511,772	640,307	640,307	527,609	758,240	30.000 years
10/01/2015 Assumption Change - 112.664(1)(a), F.S. Assumptions	2,260,226	N/A	170,028	N/A	N/A	30.000 years
10/01/2015 Assumption Change - 112.664(1)(b), F.S. Assumptions	194,222,163	N/A	N/A	12,039,021	N/A	30.000 years
10/01/2015 Assumption Change - 112.664(1)(a), F.S. Assumptions Plus 2%	(123,753,163)	N/A	N/A	N/A	(11,024,096)	30.000 years

SECTION B
SUMMARY OF FUND PROVISIONS

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Outline of Principal Provisions of the Pension Fund
(as of October 1, 2015)**

A. Effective Date:

October 1, 1973, revised and restated as of February 19, 1981. Most recently amended Ordinance 1824.

B. Eligibility Requirements:

1. Participants in previous Retirement Plan as of February 19, 1981 are automatically and immediately included.
2. Mandatory participation (with satisfactory physical) for Police Officers and Firefighters upon date of hire or attainment of age 18, if later. The Fire Chief and Police Chief may elect to participate.

C. Continuous Service:

Years and completed months of uninterrupted service from the date of hire to date of retirement or termination.

D. Earnings:

Base wages, regular longevity, overtime, voluntary deductions and IRC 457 deferred compensation. Earnings shall include payment of up to 1,000 hours of accrued unused sick and vacation leave, but limited to amounts accrued as of May 1, 2010. Maximum annual earnings limited to \$265,000 subject to annual increase.

E. Average Monthly Earnings:

Average monthly earnings (AME) during the highest two years of continuous service for Firefighters and Police Officers preceding the date on which the participant retires or terminates.

F. Regular Wages:

Base pay including any incentive pay, regular longevity, assignment pay and any current or future additional pensionable compensation, but excluding overtime or accrued unused leave. Regular wages shall be used to calculate the maximum retirement benefit for Firefighters hired on or after April 1, 2006.

G. Average Monthly Regular Wages:

Average monthly regular wages coinciding with the highest two years of continuous service for Firefighters preceding the date on which the participant retires or terminates, used in the AME.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Outline of Principal Provisions of the Pension Fund
(as of October 1, 2015)**

H. Normal Retirement:

1. Eligibility:

Earliest of:

- (a) Attainment of age 50 and completion of 10 years of continuous service.
- (b) Completion of 20 years of continuous service.

2. Benefit:

- (a) For Firefighters, 3.0% times AME times years of Continuous Service. Maximum 80% of average monthly earnings for the highest two years of continuous service.

Firefighters hired on or before June 18, 2003 shall receive a benefit amount equal to 4.0% per year of continuous service prior to May 1, 2010 plus 3.5% per year of continuous service after April 30, 2010 times AME - maximum 80% of AME, provided they retire or enter the DROP anytime on or after attaining age 50 with 10 years of continuous service but no later than the date they accrue the maximum 80% benefit.

Firefighters hired after June 18, 2003 but before May 1, 2010 shall receive a benefit amount equal to 4.0% per year of continuous service prior to May 1, 2010 plus 3.5% per year of continuous service after April 30, 2010 times AME - maximum 80% of AME. To obtain this benefit, such Firefighters were previously required to retire or enter the DROP upon the earlier of completion of 20 years of continuous service or attainment of age 50 with 10 years of service. To obtain this benefit, such Firefighters now are required to retire or enter the DROP no earlier than upon completion of 20 years of continuous service or attainment of age 50 with 10 years of service, and no later than the date they accrue the same accrual percentage they would have reached under the terms of the Fund in effect prior to April 30, 2010.

In no event shall the benefit for firefighters hired after March 31, 2006 exceed 98% of average monthly regular wages.

Firefighters hired after April 30, 2010 shall receive a benefit amount equal to 3.0% times AME times years of continuous service – maximum 80% of AME.

- (b) For Police Officers, 3.0% times AME times years of Continuous Service up to 20 years of service plus 3.5% times AME times years of Continuous Service in excess of 20 years. Maximum 80% of average monthly earnings for the highest two years of continuous service.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Outline of Principal Provisions of the Pension Fund
(as of October 1, 2015)**

Police Officers hired before May 1, 2010 shall receive a benefit amount equal to 4.0% per year of continuous service prior to May 1, 2010 plus 3.5% per year of continuous service after April 30, 2010 times AME - maximum 80% of AME, provided they retire or enter the DROP anytime on or after attaining age 50 with 10 years of continuous service but no later than the date they accrue the maximum 80% benefit.

Police Officers hired after April 30, 2010 shall receive a benefit amount equal to 3.0% times AME times years of continuous service – maximum 80% of AME.

I. Deferred Retirement:

1. Eligibility:

Any first day of a month past Normal Retirement Date.

2. Benefit:

Benefit calculated as for Normal Retirement based upon service and pay to Deferred Retirement Date.

J. Disability Retirement:

1. Eligibility:

Totally and permanently disabled meaning incapacity to perform regular duty as Firefighter or Police Officer (and completion of at least 10 years of continuous service for non-service incurred disability).

2. Benefit:

(a) Service Incurred:

Greater of:

- Accrued benefit
- 66 2/3% of monthly earnings rate on date of disability.

(b) Non-Service Incurred:

Greater of:

- Accrued benefit
- 35% of AME on date of disability.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Outline of Principal Provisions of the Pension Fund
(as of October 1, 2015)**

K. Death Benefit:

1. Service Incurred:

To spouse, 50% of AME payable for life. To unmarried children, 5% of AME until death or attainment of age 18 (if full time student attainment of age 22). Total monthly benefit not to exceed 60% of AME. Upon death of spouse, the 5% child allowance shall be increased to 10%, subject to a maximum combined total of 35% of AME.

Benefit above reduced by the actuarial equivalent of payment of:

- if the Member had less than ten (10) years of Continuous Service, Member contributions to the beneficiary with 3% simple interest, or
- if the Member had ten (10) or more years of Continuous Service, benefit otherwise payable to the Member at the Member's Normal Retirement Date, if applicable, for ten years certain.

2. Non-Service Incurred:

- Less than five (5) years of Continuous Service, the designated beneficiary receives a lump sum of \$2,500 or return of Member contributions with 3% interest, whichever is greater.
- Five (5) or more years of Continuous Service, the designated beneficiary receives a lump sum of the greater of Member contributions (without interest) or \$2,500, plus, if married, the spouse receives a monthly benefit equal to 50% of the Accrued Benefit as of Member's date of death but not less than 20% of the monthly Earnings rate. To unmarried children of the deceased Member, same benefits as are payable for Service Incurred death. Combined monthly benefit not to exceed 50% of AME, or 35% of AME after the death or remarriage of spouse.

Benefit above reduced by the actuarial equivalent of payment of:

- if the Member had ten (10) or more years of Continuous Service, benefit otherwise payable to the Member at the Member's Normal Retirement Date, if applicable, for ten years certain.

L. Employee Contributions:

10.4% (6% prior to April 1, 1991) of annual earnings until completion of 26 2/3 years of Continuous Service.

For Firefighters and Police Officers hired on or after May 1, 2010, 7% of annual earnings until completion of 26 2/3 years of Continuous Service.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Outline of Principal Provisions of the Pension Fund
(as of October 1, 2015)**

M. Vested Benefit Upon Termination:

1. Eligibility:

Completion of at least ten (10) years of Continuous Service at date of termination.

2. Benefit:

Accrued benefit based upon AME and years of Continuous Service as of date of termination payable at attainment of age 50.

3. Alternate Benefit:

In lieu of the above, deferred benefit payable at Normal Retirement Date; otherwise, a Member can elect to withdraw his employee contributions plus 3% simple interest per annum.

N. Termination Benefit:

1. Eligibility:

Termination of service prior to eligibility for vested benefit upon termination.

2. Benefit:

Refund of Member contributions plus 3% simple interest per annum.

O. Normal Form of Payment of Retirement Income:

Monthly accrued benefit for ten (10) years certain and life thereafter with 100% of benefit continuing to spouse for one year and 50% of benefit payable to spouse thereafter until death.

Other Options:

Actuarially equivalent joint and survivor or joint and last survivor at 25%, 50%, 66 2/3%, 75%, 100%; life annuity; or ten years certain and life; or other option (except lump sum), subject to Board approval.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Outline of Principal Provisions of the Pension Fund
(as of October 1, 2015)**

P. Deferred Retirement Option Plan (DROP):

1. Eligibility:

A Member who has reached Normal Retirement Date is eligible to elect to participate in DROP. A Firefighter who reaches Normal Retirement Date before age 50 may participate for the lesser of five years or until age 55, provided that Firefighters employed as of December 20, 2000 and hired after their 30th birthday, may participate in the DROP no later than completion of 20 years of Continuous Service in order to participate in the DROP for a full five years. A Police Officer hired after his 25th birthday may participate in the DROP no later than completion of 25 years of Continuous Service in order to participate in the DROP for a full five years. An election to participate in the DROP is irrevocable.

2. Benefit:

Accrued benefit as of entry into DROP.

3. Interest Credits:

Members entering the DROP prior to May 1, 2010 could elect annually in advance interest credits of a fixed 8% per annum or Fund return.

Members hired before May 1, 2010 entering the DROP after April 30, 2010, may elect annually in advance DROP interest credits based upon either Fund gross return or Fund gross return subject to a minimum of 5% and a maximum of 8% per annum.

For Members hired after April 30, 2010 entering the DROP, DROP interest credits will be based upon Fund gross return.

4. DROP Loan Program:

Current DROP participants or retirees may borrow against their DROP account balance up to the maximum amount permitted by the IRS.

No interest shall be earned or paid by the Plan on funds loaned from the DROP account until repaid.

The DROP loan program administered in accordance with loan policy adopted by the Board of Trustees and shall comply with all applicable IRS rules and regulations governing such loans.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Outline of Principal Provisions of the Pension Fund
(as of October 1, 2015)**

Q. 13th Check Program (Police Officers only)

1. Eligibility:

Service or disabled retired Police Officer or beneficiary receiving pension or DROP benefits.

2. Benefit:

For Police Officers retired prior to October 1, 2003, up to 2% of investment return in excess of 8% based upon present value of future pension payments of current Police Officer members, not to exceed outstanding balance of cumulative net actuarial gains. Any distributable amount allocated to eligible members based upon years of service with prorata share during first year of entitlement. See Item R. regarding election.

For Police Officers retired on or after October 1, 2003 but before October 1, 2006, up to 2% of investment return in excess of 9% based upon present value of future pension payments of current Police Officer members, not to exceed outstanding balance of cumulative net actuarial gains. Any distributable amount allocated to eligible members based upon years of service with prorata share during first year of entitlement. See Item R. regarding election.

For Police Officers retired on or after October 1, 2006 there is no 13th check.

R. Cost of Living Adjustment

For Firefighters, effective April 1, 2005 and each April 1st thereafter, retirees, beneficiaries and DROP participants who were receiving benefits on June 18, 2003 will receive either a 2% cost of living adjustment or an adjustment equal to the total percentage increase in base wages, excluding performance or merit adjustments, whichever is greater.

For Firefighters, effective April 1, 2005 and each April 1st thereafter, retirees, beneficiaries and DROP participants who were hired on or before June 18, 2003 and retire or enter the DROP prior to May 1, 2010 and anytime on or after attaining age 50 with 10 years of service but no later than attainment of 20 years of service will receive either a 2% cost of living adjustment or an adjustment equal to the total percentage increase in base wages, excluding performance or merit adjustments, whichever is greater. For those receiving for less than one year the increase shall be prorated.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Outline of Principal Provisions of the Pension Fund
(as of October 1, 2015)**

Firefighter members who were hired prior to April 1, 2006 who retire prior to May 1, 2010, current retirees and DROP participants shall have the option within sixty (60) days of the effective date of Ordinance 2006-10 to irrevocably elect to receive the cost of living adjustment provided above in lieu of their current cost of living adjustment.

For Firefighters, effective April 1, 2011 and each April 1st thereafter, retirees, beneficiaries and DROP participants who were hired before May 1, 2010 and retire or enter the DROP after April 30, 2010 at their normal retirement age receive a 2% cost of living adjustment – prorated for less than one year receipt of benefits.

For Firefighters hired after April 30, 2010, the cost of living adjustment is 1.5%.

Police Officer retirees, DROPs, disabilities and their beneficiaries who retired prior to October 1, 2003 eligible for any supplemental benefit based upon an 8% Fund return threshold subject to cumulative actuarial gains may elect within 60 days to replace this supplemental benefit eligibility entitlement with an annual 2.0% cost of living adjustment retroactive to October 1, 2004.

Police Officer retirees, DROPs, disabilities and their beneficiaries who retired on or after October 1, 2003 but not later than September 30, 2006 or were in the DROP on or after October 1, 2003 and entered the DROP not later than September 30, 2006 eligible for any supplemental benefit based upon a 9% Fund return threshold subject to cumulative actuarial gains along with a 1.5% cost of living adjustment effective October 1, 2009 and each October 1st thereafter may elect within 60 days to replace this supplemental benefit eligibility and 1.5% deferred cost of living adjustment entitlement with an annual 2.5% cost of living adjustment retroactive to October 1, 2004.

Police Officer retirees, DROPs, disabilities and their beneficiaries who retire or enter the DROP on or after October 1, 2006 but not later than April 30, 2010 will receive a 3.0% cost of living adjustment effective October 1, 2009 and each October 1st thereafter.

For Police Officers, effective October 1, 2010 and each October 1st thereafter, retirees, beneficiaries and DROP participants who were hired before May 1, 2010 and retire or enter the DROP after April 30, 2010 at their normal retirement age receive a 2% cost of living adjustment – prorated for less than one year receipt of benefits.

For Police Officers hired after April 30, 2010, the cost of living adjustment is 1.5%.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Outline of Principal Provisions of the Pension Fund
(as of October 1, 2015)**

S. Excess Benefit Plan

An excess benefits plan is established to pay retirement benefits above the limits permitted by the Internal Revenue Code. Excess Benefit Plan benefits are not included in this actuarial valuation.

T. Additional Benefits Upon Rehire

Retired members receiving benefits who are rehired as certified police officers or firefighters who work 30 or more hours per week and 52 weeks per year will again become contributing members of the Fund and accrue benefits during their period of reemployment.

Rehired members shall continue to receive retirement benefit, earnings on DROP accounts and may elect to receive payments from DROP accounts.

U. Changes Since Previous Actuarial Impact Statement

Employee Contributions were:

10.4% (6% prior to April 1, 1991) of annual earnings until completion of 26 ²/₃ years of Continuous Service. For Police Officers hired on or after May 1, 2010, 7% of annual earnings until completion of 26 ²/₃ years of Continuous Service.

SECTION C
ACTUARIAL ASSUMPTIONS AND COST METHODS
USED FOR FUNDING

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2015)

A. Mortality

For healthy male participants, RP-2000 Annuitant Male Mortality Table with 10% White Collar / 90% Blue Collar Adjustment, with fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants, RP-2000 Annuitant Female Mortality Table with White Collar Adjustment, with fully generational mortality improvements projected to each future decrement date with Scale BB.

For disabled male participants, 60% RP-2000 Disabled Male Mortality Table setback four years / 40% RP-2000 Annuitant Male Mortality Table with White Collar Adjustment with no setback, without projected mortality improvements. For disabled female participants, 60% RP-2000 Disabled Female Mortality Table set forward two years / 40% RP-2000 Annuitant Female Mortality Table with White Collar Adjustment, without projected mortality improvements.

B. Investment Return

7.95%, compounded annually, net of investment expenses.

C. Allowances for Expenses or Contingencies

Average of actual administrative expenses during prior three (3) years.

D. Employee Withdrawal Rates

Withdrawal rates for males and for females were used in accordance with the following illustrative example:

<u>Age</u>	<u>Withdrawal Rates</u>			
	<u>Per 100 Employees</u>			
	<u>Males</u>		<u>Females</u>	
	<u>First 5 Years</u>	<u>5+ Years</u>	<u>First 5 Years</u>	<u>5+ Years</u>
20	2.50	2.19	5.75	3.93
25	2.50	1.59	5.75	2.58
30	2.50	1.16	5.75	1.79
35	2.50	0.68	5.75	1.08
40	2.50	0.38	5.75	0.76
45	2.50	0.18	5.75	0.41
50	2.50	0.03	5.75	0.23
55	2.50	0.02	5.75	0.14
60	2.50	0.00	5.75	0.04
62 & Over	0.00	0.00	0.00	0.00

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2015)**

E. Disability Rates

1. The 1985 Disability Study - Class 2, with separate rate for males and females.
2. 80% of disabilities are assumed to be service incurred - 20% non-service incurred.

F. Salary Increase Factors

Current salary is assumed to increase at a rate based on the table below per year until retirement.

<u>Service</u>	<u>Salary Increase</u>
0 years	8.00%
1	8.00%
2	7.00%
3	6.00%
4	5.00%
5	4.00%
6	4.00%
7 + years	3.00%

For members hired before May 1, 2010, average monthly earnings for retirements and DROPs are increased between 5.5% and 28.0% to reflect additional earnings during the averaging period including the inclusion in pensionable earnings of up to 1,000 hours of accrued unused leave as of April 30, 2010 payable at retirement or DROP entry.

For members hired on or after May 1, 2010, average monthly earnings for retirements and DROPs are increased 5.5% to reflect additional earnings during the averaging period.

The assumed salary increase rate after 7+ years of service reflects frozen longevity pay as of April 30, 2010.

G. Payroll Growth Assumption

5.3%, per annum - not greater than historical 10-year average (0.9% as of October 1, 2015).

H. Load for Future Rehires

The normal cost and accrued liabilities are loaded 0.1% for assumed future rehired members.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2015)**

I. Assumed Retirement Age

The retirement rates *for members hired before May 1, 2010 who are expected to reach the 80% of AME maximum benefit in the 21st year of service* are as follows:

1. 75% of members are assumed to retire the first year after attaining age fifty (50) and ten (10) years of credited service.
2. 50% of members are assumed to retire each year thereafter until reaching twenty (20) years of credited service.
3. 60% of members are assumed to retire after completing twenty (20) years of credited service.
4. 100% of members are assumed to retire upon attainment of twenty-one (21) years of credited service.

The retirement rates *for members hired before May 1, 2010 who are expected to reach the 80% of AME maximum benefit in the 22nd year of service* are as follows:

1. 70% of members are assumed to retire the first year after attaining age fifty (50) and ten (10) years of credited service.
2. 20% of members are assumed to retire each year thereafter until reaching twenty (20) years of credited service.
3. 60% of members are assumed to retire after completing twenty (20) years of credited service.
4. 15% of members are assumed to retire after completing twenty-one (21) years of credited service.
5. 100% of members are assumed to retire upon attainment of twenty-two (22) years of credited service.

The retirement rates *for members hired before May 1, 2010 who are expected to reach the 80% of AME maximum benefit in the 23rd year of service* are as follows:

1. 60% of members are assumed to retire the first year after attaining age fifty (50) and ten (10) years of credited service.
2. 18% of members are assumed to retire each year thereafter until reaching twenty (20) years of credited service.
3. 40% of members are assumed to retire after completing twenty (20) years of credited service.
4. 15% of members are assumed to retire after completing twenty-one (21) years of credited service.
5. 15% of members are assumed to retire after completing twenty-two (22) years of credited service.
6. 100% of members are assumed to retire upon attainment of twenty-three (23) years of credited service.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2015)**

For Firefighters hired after June 18, 2003 but before May 1, 2010 who are expected to reach age 50 before completion of twenty (20) years of service, 100% are assumed to retire upon reaching the same multiplier (% of AME) they would have reached under the Plan in effect prior to April 30, 2010.

The retirement rates *for members hired on or after May 1, 2010* are as follows:

1. 50% of members who complete ten (10) years of service after reaching age 50 are assumed to retire upon completion of ten (10) years of credited service.
2. 15% of members who reach age 50 after completion of ten (10) years of credited service are assumed to retire upon reaching age 50.
3. 15% of members are assumed to retire each year thereafter, until reaching twenty (20) years of credited service.
4. 20% of members are assumed to retire upon reaching twenty (20) years of credited service.
5. 15% of members are assumed to retire each year thereafter, until reaching twenty-five (25) years of credited service.
6. 100% of members are assumed to retire upon reaching twenty-five (25) years of credited service.

J. Marital Assumptions

1. 50% of deaths are assumed to be service incurred - 50% non-service incurred.
2. There are no children eligible for benefits.
3. 95% of participants are married.
4. Spouses are assumed to be the same age as members.

K. Cost of Living Adjustment

Firefighters: For Firefighters who retired or entered the DROP prior to May 1, 2010, 2.0% for those who elected the fluctuating COLA and 3.0% for those who elected the fixed COLA. 2.0% for Firefighters hired before May 1, 2010 who are expected to retire or enter the DROP after April 30, 2010. 1.5% for Firefighters hired after April 30, 2010.

Police Officers: 0.0%, 2.0% or 2.5% based upon election for Police Officers who retired or entered the DROP prior to October 1, 2006. 3.0% for Police Officers who retired or entered the DROP on or after October 1, 2006 but before May 1, 2010. 2.0% for Police Officers hired before May 1, 2010 who are expected to retire or enter the DROP after April 30, 2010. 1.5% for Police Officers hired after April 30, 2010.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2015)**

L. Smoothed Asset Valuation Method

Smoothed actuarial value of assets is equal to the expected smoothed actuarial value of assets adjusted by 20% of the difference between the expected smoothed actuarial value and market value.

M. Cost Method

Normal Retirement, Termination, Disability, and Death Benefits: Entry Age Normal Cost Method

Under this method the normal cost for each active employee is the amount which is calculated to be a level percentage of pay that would be required annually from his entry age to his assumed retirement age to fund his estimated benefits, assuming the Fund had always been in effect. The normal cost for the Fund is the sum of such amounts for all employees. The actuarial accrued liability as of any valuation date for each active employee or inactive employee who is eligible to receive benefits under the Fund is the excess of the actuarial present value of estimated future benefits over the actuarial present value of current and future normal costs. The unfunded actuarial accrued liability as of any valuation date is the excess of the actuarial accrued liability over the assets of the Fund.

The DROP accounts balance is included in the assets and liabilities as of the valuation date.

N. Changes Since Previous Actuarial Impact Statement

Mortality was:

For healthy participants, RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale AA.

For disabled participants, RP-2000 Combined Disabled Mortality Tables, separate rates for males and females, with fully generational mortality improvements projected to each future decrement date with Scale AA.

Investment Return was:

8.0%, compounded annually, net of investment expenses.

**City Pension Fund for Firefighters and Police Officers
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**Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
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N. Changes Since Previous Actuarial Impact Statement (cont'd)

Employee Withdrawal Rates were:

Withdrawal rates for males and for females were used in accordance with the following illustrative example:

Withdrawal Rates Per 100 Employees				
Age	Males		Females	
	First 5 Years	5+ Years	First 5 Years	5+ Years
20	2.70	3.13	5.25	5.24
25	2.70	2.28	5.25	3.44
30	2.70	1.65	5.25	2.38
35	2.70	0.97	5.25	1.44
40	2.70	0.55	5.25	1.01
45	2.70	0.25	5.25	0.55
50	2.70	0.04	5.25	0.31
55	2.70	0.02	5.25	0.18
60	2.70	0.01	5.25	0.05
62 & Over	0.00	0.00	0.00	0.00

Salary Increase Factors were:

Current salary is assumed to increase at a rate based on the table below per year until retirement.

<u>Service</u>	<u>Salary Increase</u>
0 years	12.00%
1	10.50%
2	8.50%
3	7.50%
4	6.50%
5	6.50%
6	6.00%
7 + years	3.75%

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2015)**

N. Changes Since Previous Actuarial Impact Statement (cont'd)

Assumed Retirement Age was:

The retirement rates *for members hired before May 1, 2010 who are expected to reach the 80% of AME maximum benefit in the 20th year of service* are as follows:

1. 35% of members are assumed to retire the first year after attaining age fifty (50) and ten (10) years of credited service.
2. 20% of members are assumed to retire each year thereafter until reaching twenty (20) years of credited service.
3. 100% of members are assumed to retire after completing twenty (20) years of credited service.

The retirement rates *for members hired before May 1, 2010 who are expected to reach the 80% of AME maximum benefit in the 21st year of service* are as follows:

1. 35% of members are assumed to retire the first year after attaining age fifty (50) and ten (10) years of credited service.
2. 20% of members are assumed to retire each year thereafter until reaching twenty (20) years of credited service.
3. 20% of members are assumed to retire after completing twenty (20) years of credited service.
4. 100% of members are assumed to retire upon attainment of twenty-one (21) years of credited service.

The retirement rates *for members hired before May 1, 2010 who are expected to reach the 80% of AME maximum benefit in the 22nd year of service* are as follows:

1. 35% of members are assumed to retire the first year after attaining age fifty (50) and ten (10) years of credited service.
2. 20% of members are assumed to retire each year thereafter until reaching twenty (20) years of credited service.
3. 20% of members are assumed to retire after completing twenty (20) years of credited service.
4. 15% of members are assumed to retire after completing twenty-one (21) years of credited service.
5. 100% of members are assumed to retire upon attainment of twenty-two (22) years of credited service.

The retirement rates *for members hired before May 1, 2010 who are expected to reach the 80% of AME maximum benefit in the 23rd year of service* are as follows:

1. 30% of members are assumed to retire the first year after attaining age fifty (50) and ten (10) years of credited service.
2. 20% of members are assumed to retire each year thereafter until reaching twenty (20) years of credited service.
3. 20% of members are assumed to retire after completing twenty (20) years of credited service.
4. 15% of members are assumed to retire after completing twenty-one (21) years of credited service.
5. 15% of members are assumed to retire after completing twenty-two (22) years of credited service.
6. 100% of members are assumed to retire upon attainment of twenty-three (23) years of credited service.

**City Pension Fund for Firefighters and Police Officers
in the City of Pembroke Pines, Florida**

**Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2015)**

N. Changes Since Previous Actuarial Impact Statement (cont'd)

Assumed Retirement Age was:

For Firefighters hired after June 18, 2003 but before May 1, 2010 who are expected to reach age 50 before completion of twenty (20) years of service, 100% are assumed to retire upon reaching the same multiplier (% of AME) they would have reached under the Plan in effect prior to April 30, 2010.

The retirement rates *for members hired on or after May 1, 2010* are as follows:

1. 25% of members who complete ten (10) years of service after reaching age 50 are assumed to retire upon completion of ten (10) years of credited service.
2. 15% of members who reach age 50 after completion of ten (10) years of credited service are assumed to retire upon reaching age 50.
3. 15% of members are assumed to retire each year thereafter, until reaching twenty (20) years of credited service.
4. 20% of members are assumed to retire upon reaching twenty (20) years of credited service.
5. 15% of members are assumed to retire each year thereafter, until reaching twenty-five (25) years of credited service.
6. 100% of members are assumed to retire upon reaching twenty-five (25) years of credited service.

GLOSSARY

<i>Actuarial Accrued Liability</i>	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
<i>Actuarial Assumptions</i>	Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members and other items.
<i>Actuarial Cost Method</i>	A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of Future Normal Costs and the Actuarial Accrued Liability.
<i>Actuarial Equivalent</i>	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
<i>Actuarial Present Value</i>	The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.
<i>Actuarial Present Value of Future Benefits</i>	The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits and inactive, non-retired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
<i>Actuarial Valuation</i>	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB No. 67.
<i>Actuarial Value of Assets</i>	The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially required contribution.

<i>Amortization Method</i>	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.
<i>Amortization Payment</i>	That portion of the plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
<i>Amortization Period</i>	The period used in calculating the Amortization Payment.
<i>Annual Required Contribution</i>	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation. The annual required contribution consists of the Employer Normal Cost and Amortization Payment plus interest adjustment.
<i>Closed Amortization Period</i>	A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.
<i>Employer Normal Cost</i>	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
<i>Equivalent Single Amortization Period</i>	For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.
<i>Experience Gain/Loss</i>	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. Losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.
<i>Funded Ratio</i>	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.
<i>GASB</i>	Governmental Accounting Standards Board.

***GASB No. 67 and
GASB No. 68***

These are the governmental accounting standards that set the accounting rules for public retirement plans and the employers that sponsor or contribute to them. Statement No. 67 sets the accounting rules for the plans themselves, while Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement plans.

Normal Cost

The annual cost assigned, under the Actuarial Cost Method, to the current plan year.

Open Amortization Period

An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.

Unfunded Actuarial Accrued Liability

The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.

Valuation Date

The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.