

June 15, 2018

Pension Board  
South Miami Pension Plan  
c/o Ms. Edemir K. Estrada  
Pension Administrator  
Gabriel, Roeder, Smith & Company  
One East Broward Blvd.  
Suite 505  
Fort Lauderdale, Florida 33301-1804

**Re: South Miami Pension Plan  
October 1, 2017 Chapter 112.664 Compliance Report**

Dear Board Members:

As requested, we are pleased to enclose twelve (12) copies of the October 1, 2017 Chapter 112.664 Compliance Report for the South Miami Pension Plan (Plan).

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

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

- 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](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 Plan'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 Plan portfolio
- the Plan's funded ratio as determined in the most recent actuarial valuation – 103.3% on a market value of assets basis as of October 1, 2017

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

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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



# South Miami Pension Plan

## CHAPTER 112.664, F.S. COMPLIANCE REPORT

In Connection with the October 1, 2017 Funding Actuarial Valuation Report and the Plan's Financial Reporting for the Year Ended September 30, 2017







June 15, 2018

Pension Board  
South Miami Pension Plan  
c/o Ms. Edemir K. Estrada  
Pension Administrator  
Gabriel, Roeder, Smith & Company  
One East Broward Blvd.  
Suite 505  
Fort Lauderdale, Florida 33301-1804

**Re: October 1, 2017 Chapter 112.664 Compliance Report**

Dear Board Members:

Gabriel, Roeder, Smith & Company (GRS) has been engaged by the Pension Board (Board) of the South Miami Pension Plan (Plan) 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: Plan 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 Plan's funded status); and changes in Plan 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 Plan benefits, Plan provisions and Plan 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, 2017. We reviewed the information provided for internal and year-to-year consistency, but did not audit the data. The Plan is responsible for the accuracy of the data.

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 Experience Study covering the period October 1, 2005 – May 31, 2013 along with past and expected future Plan experience. The mortality assumptions are prescribed by statute and were last updated in 2016. The assumptions represent an estimate of future Plan experience.

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 Plan 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. The inclusion of the additional 2% higher assumption shows a more complete assessment of the range of potential 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 Plan assets will be sufficient to pay all Plan benefits, future contributions are expected to remain relatively stable as a percent of payroll and the funded status is expected to improve. Plan minimum required contributions are determined in compliance with the requirements of the Florida Protection of Public Employee Retirement Benefits Act and Police Officers Retirement Chapter 185 with normal cost determined as a level percent of covered payroll and a level percent of pay amortization payment using a maximum amortization period of 30 years.

The Plan's funded ratio as of October 1, 2017 is 103.3% defined as the ratio of the market value of Plan assets to the actuarial accrued liability.

The Plan's funded ratio and the GASB Net Pension Liability may not be appropriate for assessing the sufficiency of Plan 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 Plan 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 Plan 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.

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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. 17-02802  
Senior Consultant & Actuary

By 

Jennifer M. Borregard, M.A.A.A.  
Enrolled Actuary No. 17-07624  
Consultant & Actuary

Date: June 15, 2018

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## **SECTION A**

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### **CHAPTER 112.664, F.S. RESULTS**

**Net Pension Liability**  
**Using Financial Reporting Assumptions per GASB Statements No. 67 and No. 68**

Measurement Date	September 30, 2017
<b>A. <u>Total Pension Liability (TPL)</u></b>	
Service Cost	\$ 846,884
Interest	2,630,646
Benefit Changes	(20,122)
Difference Between Actual and Expected Experience	(112,807)
Assumption Changes	566,118
Benefit Payments	(1,372,611)
Contribution Refunds	(198,140)
Other	0
<b>Net Change in Total Pension Liability</b>	<b>\$ 2,339,968</b>
<b>Total Pension Liability (TPL) - (beginning of year)</b>	<b>35,175,084</b>
<b>Total Pension Liability (TPL) - (end of year)</b>	<b>\$ 37,515,052</b>
<b>B. <u>Plan Fiduciary Net Position</u></b>	
Contributions - City	\$ 643,933
Contributions - State	37,780
Contributions - Member	910,127
Net Investment Income	4,542,693
Benefit Payments	(1,372,611)
Contribution Refunds	(198,140)
Administrative Expenses	(163,555)
Other	0
<b>Net Change in Plan Fiduciary Net Position</b>	<b>\$ 4,400,227</b>
<b>Plan Fiduciary Net Position - (beginning of year)</b>	<b>35,049,134</b>
<b>Plan Fiduciary Net Position - (end of year)</b>	<b>\$ 39,449,361</b>
<b>C. <u>Net Pension Liability (NPL) - (end of year): (A) - (B)</u></b>	<b>\$ (1,934,309)</b>
Valuation Date	October 1, 2016

**Certain Key Assumptions**

Investment Return Assumption 7.375%

Mortality Table:

General Employees including AMSC Mortality Assumptions: For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements. Police Officer Mortality Assumptions: For healthy participants during employment, RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy participants post employment, RP-2000 Annuitant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and 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 and 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.

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

Measurement Date	<u>September 30, 2017</u>
<b>A. <u>Total Pension Liability (TPL)</u></b>	
Service Cost	\$ 846,884
Interest	2,630,646
Benefit Changes	(20,835)
Difference Between Actual and Expected Experience	(155,872)
Assumption Changes	33,724
Benefit Payments	(1,372,611)
Contribution Refunds	(198,140)
Other	0
<b>Net Change in Total Pension Liability</b>	<u>\$ 1,763,796</u>
<b>Total Pension Liability (TPL) - (beginning of year)</b>	<u>35,751,256</u>
<b>Total Pension Liability (TPL) - (end of year)</b>	<u>\$ 37,515,052</u>
<b>B. <u>Plan Fiduciary Net Position</u></b>	
Contributions - City	\$ 643,933
Contributions - State	37,780
Contributions - Member	910,127
Net Investment Income	4,542,693
Benefit Payments	(1,372,611)
Contribution Refunds	(198,140)
Administrative Expenses	(163,555)
Other	0
<b>Net Change in Plan Fiduciary Net Position</b>	<u>\$ 4,400,227</u>
<b>Plan Fiduciary Net Position - (beginning of year)</b>	<u>35,049,134</u>
<b>Plan Fiduciary Net Position - (end of year)</b>	<u>\$ 39,449,361</u>
<b>C. <u>Net Pension Liability (NPL) - (end of year): (A) - (B)</u></b>	<u>\$ (1,934,309)</u>

Valuation Date October 1, 2016

**Certain Key Assumptions**

Investment Return Assumption 7.375%

**Mortality Table:**

General Employees including AMSC Mortality Assumptions: For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements. Police Officer Mortality Assumptions: For healthy participants during employment, RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy participants post employment, RP-2000 Annuitant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and 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 and 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.

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

Measurement Date	<u>September 30, 2017</u>
<b>A. <u>Total Pension Liability (TPL)</u></b>	
Service Cost	\$ 1,366,210
Interest	2,549,917
Benefit Changes	(28,566)
Difference Between Actual and Expected Experience	(185,963)
Assumption Changes	278,201
Benefit Payments	(1,372,611)
Contribution Refunds	(198,140)
Other	0
<b>Net Change in Total Pension Liability</b>	<b>\$ 2,409,048</b>
<b>Total Pension Liability (TPL) - (beginning of year)</b>	<b>46,795,812</b>
<b>Total Pension Liability (TPL) - (end of year)</b>	<b><u>\$ 49,204,860</u></b>
<b>B. <u>Plan Fiduciary Net Position</u></b>	
Contributions - City	\$ 643,933
Contributions - State	37,780
Contributions - Member	910,127
Net Investment Income	4,542,693
Benefit Payments	(1,372,611)
Contribution Refunds	(198,140)
Administrative Expenses	(163,555)
Other	0
<b>Net Change in Plan Fiduciary Net Position</b>	<b>\$ 4,400,227</b>
<b>Plan Fiduciary Net Position - (beginning of year)</b>	<b>35,049,134</b>
<b>Plan Fiduciary Net Position - (end of year)</b>	<b><u>\$ 39,449,361</u></b>
<b>C. <u>Net Pension Liability (NPL) - (end of year): (A) - (B)</u></b>	<b>\$ 9,755,499</b>
Valuation Date	October 1, 2016

**Certain Key Assumptions**

Investment Return Assumption 5.375%

**Mortality Table:**

General Employees including AMSC Mortality Assumptions: For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements. Police Officer Mortality Assumptions: For healthy participants during employment, RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy participants post employment, RP-2000 Annuitant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and 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 and 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.

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

Measurement Date	<u>September 30, 2017</u>
<b>A. <u>Total Pension Liability (TPL)</u></b>	
Service Cost	\$ 557,554
Interest	2,616,803
Benefit Changes	(15,566)
Difference Between Actual and Expected Experience	(126,020)
Assumption Changes	(51,211)
Benefit Payments	(1,372,611)
Contribution Refunds	(198,140)
Other	0
<b>Net Change in Total Pension Liability</b>	<b>\$ 1,410,809</b>
<b>Total Pension Liability (TPL) - (beginning of year)</b>	<b>28,333,181</b>
<b>Total Pension Liability (TPL) - (end of year)</b>	<b>\$ 29,743,990</b>
<b>B. <u>Plan Fiduciary Net Position</u></b>	
Contributions - City	\$ 643,933
Contributions - State	37,780
Contributions - Member	910,127
Net Investment Income	4,542,693
Benefit Payments	(1,372,611)
Contribution Refunds	(198,140)
Administrative Expenses	(163,555)
Other	0
<b>Net Change in Plan Fiduciary Net Position</b>	<b>\$ 4,400,227</b>
<b>Plan Fiduciary Net Position - (beginning of year)</b>	<b>35,049,134</b>
<b>Plan Fiduciary Net Position - (end of year)</b>	<b>\$ 39,449,361</b>
<b>C. <u>Net Pension Liability (NPL) - (end of year): (A) - (B)</u></b>	<b>\$ (9,705,371)</b>
Valuation Date	October 1, 2016

**Certain Key Assumptions**

Investment Return Assumption 9.375%

Mortality Table:

General Employees including AMSC Mortality Assumptions: For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements. Police Officer Mortality Assumptions: For healthy participants during employment, RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy participants post employment, RP-2000 Annuitant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and 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 and 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.

**Asset and Benefit Payment Projection**  
**Not Reflecting Any Future Contributions**  
**Using Financial Reporting Assumptions per GASB Statements No. 67 and No. 68**  
**and 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)
2018	\$ 39,449,361	\$ 2,836,999	\$ 1,832,063	\$ 40,454,297
2019	40,454,297	2,908,710	1,892,873	41,470,134
2020	41,470,134	2,978,634	2,019,257	42,429,511
2021	42,429,511	3,046,302	2,097,359	43,378,454
2022	43,378,454	3,112,957	2,181,630	44,309,781
2023	44,309,781	3,176,925	2,301,007	45,185,699
2024	45,185,699	3,235,700	2,448,413	45,972,986
2025	45,972,986	3,291,002	2,518,271	46,745,717
2026	46,745,717	3,342,896	2,647,197	47,441,416
2027	47,441,416	3,392,453	2,691,512	48,142,357
2028	48,142,357	3,442,243	2,739,700	48,844,900
2029	48,844,900	3,491,227	2,811,282	49,524,845
2030	49,524,845	3,537,911	2,898,893	50,163,863
2031	50,163,863	3,582,524	2,962,539	50,783,848
2032	50,783,848	3,627,476	2,982,085	51,429,239
2033	51,429,239	3,674,343	3,000,577	52,103,005
2034	52,103,005	3,723,618	3,011,079	52,815,544
2035	52,815,544	3,775,016	3,040,224	53,550,336
2036	53,550,336	3,829,862	3,023,647	54,356,551
2037	54,356,551	3,889,893	3,009,143	55,237,301
2038	55,237,301	3,955,580	2,990,626	56,202,255
2039	56,202,255	4,027,653	2,967,656	57,262,252
2040	57,262,252	4,106,592	2,948,316	58,420,528
2041	58,420,528	4,193,291	2,916,016	59,697,803
2042	59,697,803	4,288,974	2,878,483	61,108,294
2043	61,108,294	4,394,960	2,828,817	62,674,437
2044	62,674,437	4,512,558	2,775,791	64,411,204
2045	64,411,204	4,642,575	2,726,931	66,326,848
2046	66,326,848	4,786,224	2,666,940	68,446,132
2047	68,446,132	4,944,966	2,605,078	70,786,020
2048	70,786,020	5,120,109	2,539,872	73,366,257
2049	73,366,257	5,312,855	2,477,781	76,201,331

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: 99.99

**Certain Key Assumptions**

Investment return assumption 7.375%

Mortality Table:

General Employees including AMSC Mortality Assumptions: For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements. Police Officer Mortality Assumptions: For healthy participants during employment, RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy participants post employment, RP-2000 Annuitant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and 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 and 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.

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

**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)
2018	\$ 39,449,361	\$ 2,067,490	\$ 1,832,063	\$ 39,684,788
2019	39,684,788	2,078,388	1,892,873	39,870,303
2020	39,870,303	2,084,709	2,019,257	39,935,755
2021	39,935,755	2,085,972	2,097,359	39,924,368
2022	39,924,368	2,082,926	2,181,630	39,825,664
2023	39,825,664	2,074,172	2,301,007	39,598,829
2024	39,598,829	2,057,723	2,448,413	39,208,139
2025	39,208,139	2,034,705	2,518,271	38,724,573
2026	38,724,573	2,004,990	2,647,197	38,082,366
2027	38,082,366	1,969,192	2,691,512	37,360,046
2028	37,360,046	1,928,975	2,739,700	36,549,321
2029	36,549,321	1,883,331	2,811,282	35,621,370
2030	35,621,370	1,830,924	2,898,893	34,553,401
2031	34,553,401	1,771,682	2,962,539	33,362,544
2032	33,362,544	1,707,109	2,982,085	32,087,568
2033	32,087,568	1,638,045	3,000,577	30,725,036
2034	30,725,036	1,564,506	3,011,079	29,278,463
2035	29,278,463	1,485,911	3,040,224	27,724,150
2036	27,724,150	1,402,845	3,023,647	26,103,348
2037	26,103,348	1,316,146	3,009,143	24,410,351
2038	24,410,351	1,225,682	2,990,626	22,645,407
2039	22,645,407	1,131,480	2,967,656	20,809,231
2040	20,809,231	1,033,344	2,948,316	18,894,259
2041	18,894,259	931,347	2,916,016	16,909,590
2042	16,909,590	825,755	2,878,483	14,856,862
2043	14,856,862	716,855	2,828,817	12,744,900
2044	12,744,900	604,869	2,775,791	10,573,978
2045	10,573,978	489,593	2,726,931	8,336,640
2046	8,336,640	371,069	2,666,940	6,040,769
2047	6,040,769	249,452	2,605,078	3,685,143
2048	3,685,143	124,721	2,539,872	1,269,992
2049	1,269,992	14,586	2,477,781	-

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: 31.50

**Certain Key Assumptions**

Investment return assumption 5.375%

Mortality Table:

General Employees including AMSC Mortality Assumptions: For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements. Police Officer Mortality Assumptions: For healthy participants during employment, RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy participants post employment, RP-2000 Annuitant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and 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 and 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.

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

**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)
2018	\$ 39,449,361	\$ 3,606,617	\$ 1,832,063	\$ 41,223,915
2019	41,223,915	3,769,935	1,892,873	43,100,977
2020	43,100,977	3,939,580	2,019,257	45,021,300
2021	45,021,300	4,115,698	2,097,359	47,039,639
2022	47,039,639	4,300,697	2,181,630	49,158,706
2023	49,158,706	4,493,380	2,301,007	51,351,079
2024	51,351,079	4,691,532	2,448,413	53,594,198
2025	53,594,198	4,898,326	2,518,271	55,974,253
2026	55,974,253	5,114,998	2,647,197	58,442,054
2027	58,442,054	5,344,135	2,691,512	61,094,677
2028	61,094,677	5,590,405	2,739,700	63,945,382
2029	63,945,382	5,854,073	2,811,282	66,988,173
2030	66,988,173	6,134,947	2,898,893	70,224,227
2031	70,224,227	6,435,139	2,962,539	73,696,827
2032	73,696,827	6,759,716	2,982,085	77,474,458
2033	77,474,458	7,112,943	3,000,577	81,586,824
2034	81,586,824	7,497,952	3,011,079	86,073,697
2035	86,073,697	7,917,136	3,040,224	90,950,609
2036	90,950,609	8,375,177	3,023,647	96,302,139
2037	96,302,139	8,877,609	3,009,143	102,170,605
2038	102,170,605	9,428,705	2,990,626	108,608,684
2039	108,608,684	10,033,426	2,967,656	115,674,454
2040	115,674,454	10,696,810	2,948,316	123,422,948
2041	123,422,948	11,424,849	2,916,016	131,931,781
2042	131,931,781	12,224,432	2,878,483	141,277,730
2043	141,277,730	13,103,103	2,828,817	151,552,016
2044	151,552,016	14,068,973	2,775,791	162,845,198
2045	162,845,198	15,130,156	2,726,931	175,248,423
2046	175,248,423	16,295,963	2,666,940	188,877,446
2047	188,877,446	17,576,782	2,605,078	203,849,150
2048	203,849,150	18,983,646	2,539,872	220,292,924
2049	220,292,924	20,528,359	2,477,781	238,343,502

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: 99.99

**Certain Key Assumptions**

Investment return assumption 9.375%

Mortality Table:

General Employees including AMSC Mortality Assumptions: For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements. Police Officer Mortality Assumptions: For healthy participants during employment, RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy participants post employment, RP-2000 Annuitant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and 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 and 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.

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

ACTUARIALLY DETERMINED CONTRIBUTION									
	Valuation and 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, 2017			October 1, 2017			October 1, 2017		
B. Actuarial Determined Contribution to Be Paid During Fiscal Year Ending	September 30, 2019			September 30, 2019			September 30, 2019		
C. Annual Payroll of Active Employees	\$	6,247,216		\$	6,247,216		\$	6,247,216	
D. Total Minimum Funding Requirement									
1. Total Normal Cost	\$	959,697		\$	1,451,050		\$	685,592	
2. Annual Payment to Amortize Unfunded Actuarial Liability		51,210			849,204			(695,482)	
3. Interest Adjustment		36,622			60,695			400	
4. Total Minimum Funding Requirement	\$	1,047,529		\$	2,360,949		\$	(9,490)	
E. Minimum Required Contribution (F.S. 112.66 (13))	\$	1,173,802		\$	2,360,949		\$	686,993	
F. Expected Payroll of Active Employees for Following Plan Year (\$ / % of pay)	\$	6,247,216	100.00%	\$	6,247,216	100.00%	\$	6,247,216	100.00%
G. Expected Contribution Sources (\$ / % of pay)									
1. City	\$	667,149	10.68%	\$	1,389,773	22.25%	\$	237,179	3.80%
2. Member		468,873	7.51%		933,396	14.94%		412,034	6.60%
3. State		37,780	0.60%		37,780	0.60%		37,780	0.60%
4. Total	\$	1,173,802	18.79%	\$	2,360,949	37.79%	\$	686,993	11.00%

**Unfunded Actuarial Accrued Liabilities Bases and Amortization Payments**

**(General Employees Tier 1)**

Amortization Base	Current Unfunded Liabilities	Amortization Payment			Remaining Funding Period
		Valuation and 112.664(1)(a), F.S. Assumptions	112.664(1)(b), F.S. Assumptions	112.664(1)(a), F.S. Assumptions Plus 2%	
10/01/2015 Combined Bases *	\$ (1,099,473)	\$ (107,619)	\$ (95,158)	\$ (120,507)	17 years
10/01/2016 Actuarial Loss / (Gain)	(389,083)	(32,641)	(27,743)	(37,743)	24 years
10/01/2016 Assumption Change	401,485	33,681	28,628	38,947	24 years
10/01/2017 Actuarial Loss / (Gain)	(264,316)	(21,842)	(18,472)	(25,354)	25 years
10/01/2017 Assumption Change - 112.664(1)(b), F.S. Assumptions	3,605,137	N/A	251,949	N/A	25 years
10/01/2017 Assumption Change - 112.664(1)(a), F.S. Assumptions Plus 2%	(2,493,363)	N/A	N/A	(239,171)	25 years

**(General Employees Tier 2)**

10/01/2017 Initial Base	\$ 49,040	\$ 4,114	\$ 3,497	\$ 4,757	24 years
10/01/2017 Assumption Change - 112.664(1)(b), F.S. Assumptions	115,768	N/A	8,091	N/A	25 years
10/01/2017 Assumption Change - 112.664(1)(a), F.S. Assumptions Plus 2%	(69,069)	N/A	N/A	(6,625)	25 years

**(General Employees AMSC)**

10/01/2017 Combined Bases *	\$ 192,182	\$ 16,123	\$ 13,703	\$ 18,643	24 years
10/01/2017 Assumption Change - 112.664(1)(b), F.S. Assumptions	320,305	N/A	22,385	N/A	25 years
10/01/2017 Assumption Change - 112.664(1)(a), F.S. Assumptions Plus 2%	(224,514)	N/A	N/A	(21,536)	25 years

**(Police Officers)**

10/01/2013 Combined Bases *	\$ (32,809)	\$ (5,744)	\$ (5,454)	\$ (6,035)	7 years
10/01/1995 Actuarial Loss / (Gain)	(95,361)	(15,090)	(14,215)	(15,973)	8 years
10/01/1995 Plan Amendment	136,893	21,662	20,406	22,929	8 years
10/01/1996 Actuarial Loss / (Gain)	(58,770)	(8,535)	(7,978)	(9,100)	9 years
10/01/1997 Actuarial Loss / (Gain)	(119,276)	(16,091)	(14,927)	(17,274)	10 years
10/01/1998 Actuarial Loss / (Gain)	(201,281)	(25,468)	(23,451)	(27,523)	11 years
10/01/1999 Actuarial Loss / (Gain)	(67,540)	(8,078)	(7,385)	(8,787)	12 years
10/01/1999 Plan Amendment	88,984	10,643	9,730	11,577	12 years

\* Combined per Internal Revenue Code Regulation 1.412(b)-1

**Unfunded Actuarial Accrued Liabilities Bases and Amortization Payments**  
**(Police Officers) (Cont'd)**

Amortization Base	Current Unfunded Liabilities	Amortization Payment			Remaining Funding Period
		Valuation and 112.664(1)(a), F.S. Assumptions	112.664(1)(b), F.S. Assumptions	112.664(1)(a), F.S. Assumptions Plus 2%	
10/01/2001 Actuarial Loss / (Gain)	\$ 788,769	\$ 85,896	\$ 77,444	\$ 94,584	14 years
10/01/2001 Method Change	(396,701)	(43,200)	(38,949)	(47,570)	14 years
10/01/2001 Plan Amendment	620,672	67,590	60,940	74,427	14 years
10/01/2002 Actuarial Loss / (Gain)	613,697	64,247	57,540	71,157	15 years
10/01/2002 Plan Amendment	153,258	16,044	14,369	17,770	15 years
10/01/2003 Actuarial Loss / (Gain)	460,707	46,555	41,425	51,850	16 years
10/01/2003 Plan Amendment	194,742	19,679	17,510	21,917	16 years
10/01/2004 Actuarial Loss / (Gain)	114,601	11,217	9,919	12,561	17 years
10/01/2004 Plan Amendment	178,564	17,478	15,454	19,571	17 years
10/01/2005 Actuarial Loss / (Gain)	(364,410)	(34,657)	(30,457)	(39,009)	18 years
10/01/2006 Actuarial Loss / (Gain)	756,611	70,106	61,242	79,301	19 years
10/01/2006 Assumption Change	321,438	29,784	26,018	33,690	19 years
10/01/2007 Actuarial Loss / (Gain)	(311,766)	(28,211)	(24,502)	(32,064)	20 years
10/01/2008 Actuarial Loss / (Gain)	147,485	13,061	11,280	14,913	21 years
10/01/2009 Actuarial Loss / (Gain)	326,044	28,311	24,316	32,468	22 years
10/01/2009 Assumption Change / Plan Amendment	468,319	40,665	34,927	46,636	22 years
10/01/2010 Actuarial Loss / (Gain)	119,397	10,183	8,700	11,727	23 years
10/01/2010 Assumption Change / Plan Amendment	1,156,621	98,641	84,275	113,602	23 years
10/01/2011 Actuarial Loss / (Gain)	(774,014)	(64,933)	(55,191)	(75,084)	24 years
10/01/2011 Assumption Change / Plan Amendment	(226,053)	(18,964)	(16,119)	(21,929)	24 years
10/01/2012 Actuarial Loss / (Gain)	180,496	14,915	12,614	17,314	25 years
10/01/2012 Assumption Change	(864,611)	(71,447)	(60,424)	(82,936)	25 years
10/01/2013 Actuarial Loss / (Gain)	(494,112)	(40,269)	(33,892)	(46,918)	26 years
10/01/2014 Actuarial Loss / (Gain)	(471,970)	(37,978)	(31,814)	(44,405)	27 years
10/01/2015 Actuarial Loss / (Gain)	(308,543)	(24,538)	(20,462)	(28,788)	28 years
10/01/2015 Plan Amendment	(18,627)	(1,481)	(1,235)	(1,738)	28 years
10/01/2016 Actuarial Loss / (Gain)	(567,212)	(44,626)	(37,049)	(52,524)	29 years
10/01/2016 Assumption Change	163,166	12,837	10,658	15,109	29 years
10/01/2017 Actuarial Loss / (Gain)	(395,514)	(30,810)	(25,470)	(36,374)	30 years
10/01/2017 Assumption Change - 112.664(1)(b), F.S. Assumptions	7,958,934	N/A	512,531	N/A	30 years
10/01/2017 Assumption Change - 112.664(1)(a), F.S. Assumptions Plus 2%	(5,175,365)	N/A	N/A	(475,965)	30 years

## **SECTION B**

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### **SUMMARY OF PLAN PROVISIONS**

**Outline of Principal Provisions of the Retirement Plan**  
**(as of October 1, 2017)**

A. Effective Date:

October 1, 1965. Most recently amended by Ordinance 1-17-2271 adopted January 17, 2017.

B. Eligibility Requirements:

1. General Employees

Tier 1:

Regular full-time employee hired before October 1, 2011 is eligible to enter the Plan following the completion of six months of Credited Service and attainment of age 20.

Tier 2:

Regular full-time employee hired on or after October 1, 2011 and not participating in the Plan as of October 1, 2016 who elects to join or fails to make any election within ninety (90) days from effective date of Ordinance is eligible to enter the Plan as a Tier 2 employee as of the effective date of Ordinance.

Regular full-time employee hired on or after October 1, 2016 who elects to join or fails to make any election within ninety (90) days from date of hire is eligible to enter the Plan as a Tier 2 employee as of their date of hire.

2. Police Officers

Regular full-time Police Officer is eligible to enter the Plan as of date of employment.

3. Administration Management Service Class (AMSC)

Employees of the City with the following positions who do not elect to participate in a defined contribution Plan of the City:

- City Manager
- City Attorney
- City Clerk
- Assistant / Deputy City Manager
- Finance Director / Chief Financial Officer
- Chief of Police
- Planning and Zoning Director
- Building Director
- Director of Public Works
- Chief Administrative Officer (currently Finance Office Manager)
- Chief Procurement Officer (currently Purchasing Manager)
- Parks and Recreation Director

**Outline of Principal Provisions of the Retirement Plan**  
**(as of October 1, 2017)**

C. Credited Service:

1. General Employees and AMSC

Continuous employment. Credited service shall exclude continuous employment prior to Plan participation as follows: (1) If employed prior to October 1, 1973, credited service shall exclude the first two years of continuous employment and any additional year of continuous employment prior to attainment of age 25. (2) If employed on or after October 1, 1973, credited service shall exclude the first six (6) months of continuous employment and continuous employment prior to age 20.

Credited service for Tier 2 employees and AMSC will be continuous employment from the date of hire for all purposes except for benefit accruals which will be from the later of October 1, 2016 or date of hire.

2. Police Officers

Continuous employment. For Police Officers who did not participate when first eligible for the Plan, Credited Service shall exclude continuous employment prior to Plan participation as follows: (1) If employed prior to October 1, 1973, Credited Service shall exclude the first two years of continuous employment and any additional year of continuous employment prior to attainment of age 25. (2) If employed on or after October 1, 1973, Credited Service shall exclude the first six (6) months of continuous employment and continuous employment prior to age 20.

D. Final Monthly Compensation (FMC):

Final Average Compensation is 1/36th of the final 36 consecutive months of compensation. For Police Officers, not less than 1/5th of the highest five (5) years out of the last (10) ten years of compensation. Compensation shall mean regular wages and salaries, excluding bonuses, vacation, sick leave and other additional compensation.

Effective October 1, 2011, Final Average Compensation for General Employees is 1/60th of the final 60 consecutive months of basic compensation, provided it is not less than the Final Average Compensation as of September 30, 2011 based on the definition above. Basic compensation shall mean base wages and salaries, excluding commissions, overtime pay, bonuses and any other forms of additional compensation earned outside of base wages.

Effective October 1, 2011, Final Average Compensation for members covered under the Police Officers and Sergeants collective bargaining agreement is the best five (5) years of basic compensation, provided it is not less than the Final Average Compensation as of September 30, 2011 based on the definition above. Basic compensation shall mean base wages and salaries, including up to 300 hours of overtime in a fiscal year and excluding payments for accrued unused sick or annual leave, extra duty or special detail work, shift differential, assignment pay, bonuses and any other forms of additional compensation earned outside of base wages.

**Outline of Principal Provisions of the Retirement Plan**  
**(as of October 1, 2017)**

D. Final Monthly Compensation (FMC) (cont'd):

Effective October 1, 2016, Final Average Compensation for members covered under the Miami-Dade County Police Benevolent Association Upper-Collective Bargaining Union (Lieutenants & Captains) collective bargaining agreement is the best five (5) years of basic compensation, provided it is not less than the Final Average Compensation as of September 30, 2016 based on the definition above. Basic compensation shall mean base wages and salaries, including up to 300 hours of overtime in a fiscal year and excluding payments for accrued unused sick or annual leave, extra duty or special detail work, shift differential, assignment pay, bonuses and any other forms of additional compensation earned outside of base wages.

Final Average Compensation for Tier 2 General Employees and AMSC shall be the average of the highest eight (8) years of credit service.

E. Normal Retirement:

1. Eligibility:

a. General Employees: Attainment of age 55 and completion of ten (10) years of Credited Service for benefits accrued as of September 30, 2011.

Attainment of age 60 and completion of ten (10) years of Credited Service for benefits accrued after September 30, 2011, including increases in the accrued benefit as of September 30, 2011 due to increases in the Final Average Compensation.

Attainment of age 65 and completion of ten (10) years of Credited Service or completion of thirty-three (33) years of Credited Service regardless of age for Tier 2 General Employees.

b. Police Officers: Attainment of age 60 and completion of ten (10) years of Credited Service or completion of twenty-five (25) years of Credited Service regardless of age.

c. AMSC: Attainment of age 65 and completion of three (3) years of Credited Service or completion of thirty-three (33) years of Credited Service regardless of age.

2. Benefit:

The monthly Plan benefit is the product of:

- a. FMC,
- b. Credited Service during the appropriate period and
- c. The appropriate benefit percentage

The appropriate benefit percentages are:

<u>a. General Employees</u>	<u>For Credited Service</u>	<u>Percentage</u>
	Through September 30, 1999	2.50%
	October 1, 1999 through September 30, 2011	2.75%
	October 1, 2011 and thereafter	2.25%

**Outline of Principal Provisions of the Retirement Plan**  
**(as of October 1, 2017)**

E. Normal Retirement (cont'd):

2. Benefit:

b. <u>Police Officers</u>	<u>For Credited Service</u>	<u>Percentage</u>
	Through September 30, 1995	2.00%
	October 1, 1995 through September 30, 1996	2.25%
	October 1, 1996 through September 30, 1997	2.50%
	October 1, 1997 through September 30, 2001	2.75%
	October 1, 2001 through September 30, 2002	2.80%
	October 1, 2002 through September 30, 2003	2.90%
	October 1, 2003 and thereafter	3.00%
c. <u>General Employees (Tier 2)</u>	<u>For Credited Service</u>	<u>Percentage</u>
	October 1, 2016 and thereafter	1.60%
d. <u>AMSC</u>	<u>For Credited Service</u>	<u>Percentage</u>
	October 1, 2016 and thereafter	3.00%

F. Supplemental Benefit:

A cost-of-living supplemental benefit based upon the consumer price index is provided upon retirement. The annual increase is limited to 3%.

For General Employees the cost-of-living supplemental benefit is only provided on the accrued benefit as of September 30, 2011 and does not apply to increases in this accrued benefit due to increases in the Final Average Compensation.

No cost-of-living supplemental benefit is provided for Tier 2 General Employees.

No cost-of-living supplemental benefit is provided for AMSC for benefit accruals on or after October 1, 2011.

G. Early Retirement:

1. Eligibility:

- a. Police Officers: Attainment of age 50 and completion of 15 years of Credited Service.
- b. AMSC: Attainment of age 55 and completion of 10 years of Credited Service.

2. Benefit:

- a. Police Officers: Accrued benefit based upon FMC and Credited Service as of Early Retirement Date, reduced 3% for each year that the benefit commencement date precedes Normal Retirement.

**Outline of Principal Provisions of the Retirement Plan**  
**(as of October 1, 2017)**

G. Early Retirement (cont'd):

2. Benefit:

- b. AMSC: Accrued benefit based upon FMC and Credited Service as of Early Retirement Date, reduced 1/15 for each of the first five years and 1/30 for the next five years that the benefit commencement date precedes Normal Retirement.

H. Delayed Retirement:

1. Eligibility: Retirement subsequent to Normal Retirement Date.
2. Benefit: Accrued benefit based upon FMC and Credited Service as of Delayed Retirement Date.

I. Disability Retirement:

1. Eligibility: Totally and permanently disabled for a six month period while actively employed.
2. Benefit: Accrued benefit based upon FMC and Credited Service as of date of disability, actuarially reduced as for Early Retirement for early commencement.

J. Pre-Retirement Death Benefit:

The beneficiary shall receive the member's accumulated Employee Contributions.

K. Benefit Upon Termination of Service:

1. Benefit payable at Normal Retirement equal to the greater of:
  - a. Accrued benefit based upon FMC and Credited Service as of date of termination times the vesting percentage shown below, or
  - b. Benefit which can be supported by the accumulated Member Contributions with interest to Normal Retirement Date.

No supplemental benefit shall be payable to vested terminees.

**Outline of Principal Provisions of the Retirement Plan**  
**(as of October 1, 2017)**

K. Benefit Upon Termination of Service (cont'd):

2. Vesting Schedule:

All employees except AMSC:

Years of Credited Service	Vesting Percentage
Less than 10	0%
10 or more years	100%

AMSC:

Years of Credited Service	Vesting Percentage
Less than 3	0%
3 or more years	100%

3. Refund Option:

A terminated member may elect to receive a refund of Accumulated Contributions without interest in lieu of receiving any other Plan benefits.

L. Member Contributions:

Members contribute 7.0% (3.0% for Tier 2 General Employees and 7.5% for Police Officers) of member's basic annual compensation.

Should the City contribution for General Employees be actuarially determined to exceed 7.0%, not including expenses, both the City and the General Employees (other than Tier 2 General Employees and AMSC) will share equally in the amount in excess of 7.0%. General Employees (other than Tier 2 General Employees and AMSC) Contributions are capped at 10% of basic annual compensation as of October 1, 2016.

Should the City contribution for Police Officers be actuarially determined to exceed 7.5%, not including expenses, both the City and the Police Officers will share equally in the amount in excess of 7.5% but not more than 12.0% for Police Lieutenants and Police Captains.

M. Normal Form of Retirement Income:

The normal form of payment shall be a life annuity with a guarantee of a refund of accumulated Employee Contributions.

N. Changes Since Previous Actuarial Valuation:

None.

## SECTION C

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### **ACTUARIAL ASSUMPTIONS AND COST METHODS USED FOR FUNDING**

**Actuarial Assumptions and Methods Used in the Valuation**  
**(as of October 1, 2017)**

A. Mortality

General Employees including AMSC Mortality Assumptions:

For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB.

For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB.

For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements.

Sample Ages (2017)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
	55	30.42	33.47	29.99
60	25.49	28.45	25.32	28.35
62	23.58	26.49	23.48	26.43

Sample Ages (2037)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
	55	32.57	35.32	32.16
60	27.67	30.29	27.52	30.12
62	25.76	28.32	25.68	28.26

**Actuarial Assumptions and Methods Used in the Valuation**  
**(as of October 1, 2017)**

A. Mortality (cont'd)

Police Officer Mortality Assumptions:

For healthy participants during employment, RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB.

For healthy participants post employment, RP-2000 Annuitant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and 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 and 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.

Sample Ages (2017)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
	55	29.73	32.50	29.21
60	24.84	27.46	24.64	27.31
62	22.97	25.50	22.85	25.39

Sample Ages (2037)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
	55	31.96	34.44	31.46
60	27.11	29.40	26.92	29.27
62	25.23	27.41	25.12	27.33

**Actuarial Assumptions and Methods Used in the Valuation**  
**(as of October 1, 2017)**

B. Investment Return to be Earned by Fund

7.375% (net of investment expenses), compounded annually - includes inflation at 2.75%.

C. Allowances for Expenses or Contingencies

Actual expenses paid in previous year.

D. Employee Withdrawal Rates

Withdrawal rates for males and for females were used in accordance with the following illustrative example based upon number of years of service:

<u>Service</u>	<u>Withdrawal Rates</u>	
	<u>Per 100 Employees</u>	
	<u>Police</u>	<u>General / AMSC</u>
1 - 2	12.00	20.00
3 - 6	8.00	9.25
7 - 10	8.00	5.00
11 & Over	3.50	5.00

E. Disability Rates

1985 Disability Study, Class 1 with separate rates for females was used.

F. Marital Assumptions

100% of active members are assumed to be married. Where applicable, females are assumed to be three years younger than their male spouses.

G. Salary Increase Factors

Current salary is assumed to increase in accordance with the following table based upon number of years of service - includes wage inflation of 3.25%.

<u>Service</u>	<u>Police</u>	<u>General / AMSC</u>
0 - 9	5.25%	5.25%
10 - 14	3.75%	4.75%
15 - 19	3.75%	4.25%
20 & over	3.75%	3.75%

**Actuarial Assumptions and Methods Used in the Valuation**  
**(as of October 1, 2017)**

H. Increase in Covered Payroll

4.0% per year, limited to average annual increase over most recent ten years (-0.7%) but not less than 0.0% for Police Officers. No increase in covered payroll is assumed for General Employees including AMSC.

I. Retirement Rates

Rates of Early Retirement for Police Officers were used in accordance with the following table.

Years Preceding	
<u>Normal Retirement</u>	<u>Police</u>
1 - 6	5%
7 - 10	10%

Rates of Normal Retirement were used in accordance with the following tables.

<u>Age</u>	<u>Police</u>	<u>General &amp; AMSC*</u>
55 - 59	N/A	10%
60 - 61	25%	10%
62 - 64	40%	25%
65 - 66	100%	25%
67 & above	100%	100%

<u>Service</u>	<u>Police</u>
25 years	100%

\* Includes Early Retirement for AMSC Employees. Rates are 25% for Tier 2 and AMSC members for each year upon meeting 33 years of service until 100% at age 67.

General Employees who retire prior to age sixty (60) but after attainment of ten (10) years of Credited Service (55 & 10) are assumed to receive an actuarially reduced benefit payable immediately upon retirement.

J. Cost of Living Increases

Future cost of living increases for General Employees (other than Tier 2 General Employees) and Police Officers are assumed to be 3.0% per annum.

K. Valuation of Assets

The method used for determining the actuarial value of assets phases in the deviation between the expected and actual return on assets at the rate of 20% per year. The actuarial value of assets will be further adjusted to the extent necessary to fall within the corridor whose lower limit is 80% of the fair market value of Plan assets and whose upper limit is 120% of the fair market value of Plan assets.

**Actuarial Assumptions and Methods Used in the Valuation**  
**(as of October 1, 2017)**

L. Cost Methods

Normal Retirement, Termination, Disability and Pre-Retirement Death Benefit:  
Entry-Age-Actuarial 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 date of hire to his retirement age to fund his estimated benefits, assuming the Plan had always been in effect. The normal cost for the Plan is the sum of the individual normal costs for all active 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 Plan 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 actuarial value of assets of the Plan.

M. Changes Since Previous Actuarial Valuation

None.

## **SECTION D**

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### **GLOSSARY**

## GLOSSARY

<b><i>Actuarial Accrued Liability</i></b>	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
<b><i>Actuarial Assumptions</i></b>	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.
<b><i>Actuarial Cost Method</i></b>	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.
<b><i>Actuarial Equivalent</i></b>	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
<b><i>Actuarial Present Value</i></b>	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.
<b><i>Actuarial Present Value of Future Benefits</i></b>	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.
<b><i>Actuarial Valuation</i></b>	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.
<b><i>Actuarial Value of Assets</i></b>	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.

<b><i>Amortization Method</i></b>	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.
<b><i>Amortization Payment</i></b>	That portion of the plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
<b><i>Amortization Period</i></b>	The period used in calculating the Amortization Payment.
<b><i>Annual Required Contribution</i></b>	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.
<b><i>Closed Amortization Period</i></b>	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.
<b><i>Employer Normal Cost</i></b>	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
<b><i>Equivalent Single Amortization Period</i></b>	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.
<b><i>Experience Gain/Loss</i></b>	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.
<b><i>Funded Ratio</i></b>	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.

<b><i>GASB</i></b>	Governmental Accounting Standards Board.
<b><i>GASB No. 67 and GASB No. 68</i></b>	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.
<b><i>Normal Cost</i></b>	The annual cost assigned, under the Actuarial Cost Method, to the current plan year.
<b><i>Open Amortization Period</i></b>	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.
<b><i>Unfunded Actuarial Accrued Liability</i></b>	The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.
<b><i>Valuation Date</i></b>	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.