

*AUSTIN FIRE FIGHTERS
RELIEF AND RETIREMENT FUND*

ANNUAL REPORT

2016



AUSTIN FIRE FIGHTERS
RELIEF AND RETIREMENT FUND

2016

ANNUAL REPORT

AND

PENSION PLAN GUIDE FOR MEMBERS

DECEMBER 31, 2016

CONTENTS

Board of Trustees	3
Actuary	3
Auditor	3
Fund Custodian	3
Investment Consultant	3
Investment Managers	3
Legal Counsel	3
Pension Office Staff	3
Chair's Letter to Membership	4
Report of Independent Certified Public Accountants	5
Actuarial Review and Report	28
Pension Plan Guide	78
Fund History – Chronology of Plan Changes	83



While this report and pension plan guide set forth most of the facts about the plan, it does not attempt to describe all provisions or limitations as they apply in individual situations. In case of any conflict between the report/guide and the statute, the pension statute article 6243e.1, Vernon's Texas Civil Statutes, as amended through the 2015 State Legislature Regular Session, will prevail.

If you have any questions about the plan, please contact the Austin Fire Fighters Relief and Retirement Fund Pension Office, at (512) 454-9567. The Pension Office address is 4101 Parkstone Heights Drive, Suite 270, Austin, Texas 78746. Our email address is: *Linda@afrs.org*. You can also visit our web site at *AFRS.ORG*.

BOARD		Mayor Steve Adler, Chair
OF		Keith A. Johnson, Vice Chair
TRUSTEES		Art Alfaro, Secretary-Treasurer
2016		Jeremy E. Burke, Trustee
		Dimitri J. Nichols, Trustee
ACTUARY		Foster & Foster – Fort Myers, FL
AUDITOR		Montemayor Britton Bender – Austin, TX
FUND CUSTODIAN		State Street – Boston, MA
INVESTMENT CONSULTANT		Meketa Investment Group – Miami, FL
	INVESTMENT MANAGERS	
Aberdeen Asset Mgmt., Inc. Philadelphia, Pennsylvania	Aether Investment Partners Denver, Colorado	Baillie Gifford Edinburgh, Scotland
Blackstone Alternative Asset Mgmt New York, New York	Blue Bay Direct Lending London, England	Clarion Partners Auburn, California
Constitutional Capital Partners Andover, Massachusetts	Cross Creek Capital Partners Salt Lake City, UT	Deutsche Alternative Asset Mgmt. London, England
Dimensional Fund Advisors Austin, Texas	Evanston Capital Mgmt. Evanston, Illinois	Flag Capital Stamford, CT
57 Stars Washington D.C.	Greenspring Associates Owings Mills, Maryland	Highclere International London, England
HarbourVest Boston, Massachusetts	Intech Palm Beach Gardens, Florida	LGT Capital Partners Inc. New York, New York
Loomis Sales Boston, Massachusetts	Metropolitan Real Estate Mgmt. Boston, Massachusetts	Partners Group (USA) Inc. New York, New York
Portfolio Advisors Darien, Connecticut	Private Advisors Richmond, Virginia	Private Equity Investors New York, New York
Pyramis Global Advisors Smithfield, Road Island	Sanderson Asset Management Chicago, Illinois	State Street Global Advisors Boston, Massachusetts
Vaughan Nelson Investment Mgmt. Houston, Texas	Western Asset Management Pasadena, California	Westfield Capital Management Boston, Massachusetts
Westwood Holdings Group, Inc. Dallas, Texas		
LEGAL COUNSEL		Jackson Walker Austin, Texas
PENSION OFFICE STAFF		William E. Stefka, Administrator
		Linda A. Adney, Administrative Assistant



City of Austin

Steve Adler, Mayor

301 W. 2nd St., Austin, TX 78701
(512) 978-2100, Fax (512) 978-2120
steve.adler@austintexas.gov

August 15, 2017

TO OUR MEMBERSHIP:

On behalf of the Austin Fire Fighters Pension Board of Trustees I am pleased to present the 2016 annual report to our membership. The Fund had a respectable 7.6% net investment return for calendar year 2016.

A cost-of-living adjustment (COLA) for 2016 was not able to be approved, since the CPI-U all items index indicated there was no inflation for that previous year. However, a 1.5% COLA was approved for all eligible retirees effective January 1, 2017. The latest actuarial valuation dated 12/31/16 shows the pension plan has maintained its financially sound position; being 88.3% funded, with an amortization period of 16.2 years. These results do include the impact of the most recent COLA as well.

It's truly a pleasure to serve as Mayor of our dynamic city and as the Chair of your pension board. Once again, I want to thank all of our active and retired firefighters for your dedicated service and the protection you provide to the citizens of our community! I look forward to a bright future for the City of Austin and for the pension fund as well.

Sincerely,

Mayor Steve Adler, Chairman
Austin Fire Fighters Relief and
Retirement Fund Board of Trustees



Montemayor Britton Bender PC
CERTIFIED PUBLIC ACCOUNTANTS

Board of Trustees
Austin Fire Fighters Relief and Retirement Fund

INDEPENDENT AUDITOR'S REPORT

We have audited the accompanying statement of fiduciary net position of the Austin Fire Fighters Relief and Retirement Fund (the Fund) as of 31 December 2016, the related statement of changes in fiduciary net position for the year then ended, which collectively comprise the Fund's financial statements, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risk of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

2525 WALLINGWOOD DRIVE
BUILDING 1, SUITE 200
AUSTIN, TEXAS 78746
PHONE: 512.442.0380
FAX: 512.442.0817
www.montemayor.team



Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial status of the Fund as of 31 December 2016, and the changes in its financial status for the year then ended, in accordance with accounting principles generally accepted in the United States of America.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 3 through 6 and the supplemental schedules on pages 18 through 24 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Montemayor Britton Bender PC

9 August 2017
Austin, Texas

AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND MANAGEMENT'S DISCUSSION AND ANALYSIS

Our discussion and analysis of the Austin Fire Fighters Relief and Retirement Fund's (the Fund) financial performance provides an overview of the Fund's activities for the calendar years 2016 and 2015. This information is provided in conjunction with our financial statements that follow.

FINANCIAL HIGHLIGHTS

- Fiduciary net position of the Fund increased by \$44,399,135 or 5.65% in 2016 and decreased by \$4,222,164 or (.53%) in 2015. The increase in 2016 and decrease in 2015 were due to positive and negative financial market returns, respectively.
- Total contributions by the members and the City of Austin increased by .63% in 2016 and 4.32% in 2015. The increase for 2016 over 2015 reflects the increase in the contribution rate by the firefighters from 18.20% to 18.70%.
- The amount of benefits paid directly to retired members and their beneficiaries and contribution refunds increased by \$738,835 in 2016 and increased by \$6,763,944 in 2015. The increases for both years over the prior years were due to the increase in the number of pension recipients.
- The funding objective of the Fund is to meet long-term benefit obligations through contributions by the members and the City of Austin as well as from the investment income. As of 31 December 2016, the date of the most recent actuarial valuation, the Fund's funded ratio of actuarial assets as a percentage of actuarial liabilities was 88.3% which is lower than the 89.9% ratio as of December 31, 2015.

OVERVIEW OF THE FINANCIAL STATEMENTS

The Fund's financial statements consist of the Statement of Fiduciary Net Position and the Statement of Changes in Fiduciary Net Position, with accompanying Notes to the Financial Statements. The information available in each is summarized below:

The Statement of Fiduciary Net Position presents the Fund's assets and liabilities and the resulting net position, which are held in trust for pension benefits. This statement provides a snapshot as of year-end of the Fund's investments, stated at fair value, along with cash and short-term investments, receivables, and other assets and liabilities. Over time, increases or decreases in Fund net position may serve as a useful indicator of whether the financial position of the Fund is improving or deteriorating.

The Statement of Changes in Fiduciary Net Position presents information showing additions to and deductions from the Fund during a twelve-month period, using the accrual basis of accounting. Thus, additions are reported when earned and deductions when incurred, regardless of when cash is received or paid.

The Notes to the Financial Statements provide additional information that is essential to a full understanding of the data provided in the financial statements.

See independent auditor's report.

**AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND
MANAGEMENT'S DISCUSSION AND ANALYSIS**

FINANCIAL ANALYSIS

Our analysis below focuses on the fiduciary net position and changes in fiduciary net position of the Fund.

Summary of Fiduciary Net Position

31 December 2016, 2015 and 2014

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Cash and receivables	\$15,896,322	\$9,119,509	\$12,004,215
Investments	814,420,021	776,648,937	777,719,079
Other assets	<u>246,201</u>	<u>253,273</u>	<u>254,971</u>
Total assets	<u>830,562,544</u>	<u>786,021,719</u>	<u>789,978,265</u>
Total liabilities	<u>952,348</u>	<u>810,658</u>	<u>545,040</u>
Fiduciary net position for pension benefits	<u>\$829,610,196</u>	<u>\$785,211,061</u>	<u>\$789,433,225</u>

Net position: The net position of the Fund increased by \$44,399,135 in 2016 and decreased by \$4,222,164 in 2015. The increase between 2016 and 2015 reflects positive investment returns due to stronger financial markets. The decrease between 2015 and 2014 reflects negative investment returns due to weaker stronger financial markets.

Liabilities: The Fund's liabilities increased by \$141,690 in 2016 primarily due to an increase in funds payable to the investment managers for their investment fees. Year-end liabilities increased in 2015 by \$265,618 due to the increase in funds payable to the broker for securities purchased.

See independent auditor's report.

**AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND
MANAGEMENT'S DISCUSSION AND ANALYSIS**

Summary of Change in Fiduciary Net Position

31 December 2016, 2015 and 2014

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Additions:			
Contributions	\$34,988,152	\$34,769,309	\$33,329,890
Investment income (loss)	55,389,536	6,184,005	41,753,639
Other income	<u>74,984</u>	<u>67,661</u>	<u>94,574</u>
Total additions	<u>90,452,672</u>	<u>41,020,975</u>	<u>75,178,103</u>
Deductions:			
Benefit payments and contributions refunds	45,495,682	44,756,847	37,992,903
Legal counsel	168,624	85,263	*
Tech services	30,132	28,397	*
Administrative expenses	<u>359,099</u>	<u>372,632</u>	<u>374,120</u>
Total deductions	<u>46,053,537</u>	<u>45,243,139</u>	<u>38,367,023</u>
Net increase (decrease)	44,399,135	(4,222,164)	36,811,080
Fiduciary net position for pension benefits			
Beginning of year	<u>785,211,061</u>	<u>789,433,225</u>	<u>752,622,145</u>
End of year	<u>\$829,610,196</u>	<u>\$785,211,061</u>	<u>\$789,433,225</u>

*- Included in administrative expenses.

Additions: Total contributions by the members and City of Austin for 2016 and 2015 were \$34,988,152 and \$34,769,309, respectively. The increase of \$218,843 in contributions for 2016 represents a .63% increase from 2015. The increase of \$1,439,419 in contributions for 2015 represents a 4.3% increase from 2014. The net investment income was \$55 million for 2016 and \$6.2 million for 2015.

See independent auditor's report.

**AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND
MANAGEMENT'S DISCUSSION AND ANALYSIS**

Deductions: The expenses paid by the pension plan include the benefit payments, refunds of member contributions, administrative and other expenses. Benefits paid directly to retired members and their beneficiaries in 2016 were \$45,495,682 compared to \$44,756,847 in 2015. The amount of benefits paid out increased by \$738,835 in 2016 from 2015, and increased by \$6,763,944 in 2015 from 2014. The increases in both 2016 and 2015 over their prior years were due to the increases in the number of retirees receiving benefits.

Overall Analysis: As of 31 December 2016, fiduciary net position increased by \$44,399,135 or 5.65% over the prior year. Also, as of December 31, 2015, fiduciary net position decreased by \$4,222,164 or (.53%) over the prior year. The latest actuarial valuation dated 31 December 2016 shows the Fund's funded ratio to be 88.3% compared to 89.9% the prior year. This was attributed to the assumed rate of return remaining at 7.7% as adopted by the pension board. The 31 December 2016 valuation shows the Fund continues to be actuarially sound and has taken positive steps to continue that course.

REQUEST FOR INFORMATION

This financial report is intended to provide a general overview of the Fund's finances and to demonstrate the Fund's accountability for the money it receives. Any questions regarding this report may be addressed to the fund administration at: 4101 Parkstone Heights Dr., Suite 270, Austin, TX 78746.

See independent auditor's report.

AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND

STATEMENT OF FIDUCIARY NET POSITION

31 DECEMBER 2016

ASSETS

Cash and Cash Equivalents	<u>\$11,257,429</u>
Investments at Fair Value:	
Public Domestic Equities	154,597,872
Public International Equities	176,037,241
Private Equity Fund Investments	123,497,733
Public Fixed Income	239,954,523
Real Estate Fund Investments	77,154,827
Hedge Fund of Fund Investments	27,256,715
Private Natural Resources Fund Investments	<u>15,921,110</u>
	<u>814,420,021</u>
Due from broker	4,501,170
Interest and dividends receivable	<u>137,723</u>
	830,316,343
Property and equipment, net of depreciation	246,201
	<u>830,562,544</u>

LIABILITIES

Accounts payable	467,755
Due to broker	484,593
	<u>952,348</u>

FIDUCIARY NET POSITION RESTRICTED FOR PENSION BENEFITS \$829,610,196

The accompanying notes are an integral part of this financial statement presentation.

AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

YEAR ENDED 31 DECEMBER 2016

ADDITIONS TO FIDUCIARY NET POSITION

Contributions:

Fire fighters contributions	\$15,884,261
City of Austin contributions	<u>19,103,891</u>
	<u>34,988,152</u>

Net investment income:

Net increase/(decrease) in the fair value of investments	27,127,665
Interest and dividends	5,620,082
Net gain on sale of investments	24,920,238
Investment expenses	<u>(2,278,449)</u>
	<u>55,389,536</u>

Other	<u>74,984</u>
	<u>90,452,672</u>

DEDUCTIONS FROM FIDUCIARY NET POSITION

Retirement benefit payments	45,457,457
General and administrative expenses	359,099
Legal counsel	168,624
Contributions and interest refunded	38,225
Technology services	<u>30,132</u>
	<u>46,053,537</u>

NET INCREASE (DECREASE) IN FIDUCIARY NET POSITION 44,399,135

BEGINNING OF YEAR FIDUCIARY NET POSITION 785,211,061

END OF YEAR FIDUCIARY NET POSITION \$829,610,196

The accompanying notes are an integral part of this financial statement presentation.

AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND
NOTES TO THE FINANCIAL STATEMENTS

NOTE 1: ORGANIZATION

A. FUND DESCRIPTION

The Board of Trustees of the Austin Fire Fighters Relief and Retirement Fund (the Fund) is the administrator of a single-employer defined benefit pension plan covering fire fighters employed by the City of Austin, Texas. The Fund is open solely to active fire fighters in the City of Austin (the City). The Fund is considered a part of the City of Austin's financial reporting entity and is included in the City's financial statements as a pension fund trust. The Fund was originally established, and may be amended, by acts of the Texas Legislature. The current governing statute is Article 6243e.1, Vernon's Texas Civil Statutes. The Fund is governed by a Board of Trustees, which is composed of five members: the mayor of the municipality; the City's treasurer or, if there is no treasurer, a person who by law, charter provision, or ordinance performs the duty of the City Treasurer, and three active members of the retirement Fund elected by vote of the fire fighters and retirees.

The table below summarizes the membership of the Fund as of 31 December 2016:

Retirees and Beneficiaries Currently Receiving Benefits	745
Terminated Members Entitled to Benefits but Not Yet Receiving Them	7
Active Participants (Vested and Nonvested)	<u>1000</u>
	<u>1,752</u>

The Fund provides service retirement, death, disability, and termination benefits. When a member has completed ten years of credited service after entrance into the Fund, the member's account becomes vested and non-forfeitable. Under the terms of the Fund agreement, members or their beneficiaries are eligible for distributions of benefits upon attaining a normal retirement age of 50 with ten years of service, or upon completing 25 years of service regardless of age. In addition, members are eligible for early retirement benefits upon reaching age 45 with at least ten years of service or twenty years of creditable service, regardless of age. Distributions to members or their beneficiaries are also available in the event of total and permanent disability or upon death including survivor (spousal) benefits at 75% of retiree benefits. Members are eligible to enter the Deferred Retirement Option Plan (DROP) upon satisfaction of normal retirement eligibility, not to exceed seven years. DROP provides eligible participants the ability to designate benefits to be disbursed in a single payment or not more than four payments upon leaving active service.

The term of benefit payments are determined by the member's level of earnings and length of service. With the exception of payments under the DROP feature, distributions of payments are made in a series of equal installments over a period of time. Payments to members or their beneficiaries may be increased annually by the amount of increase in the Consumer Price index. Cost-of-living increases must be approved by the Board of Trustees and actuary of the Fund. There was no cost-of-living adjustment (COLA) put into effect for the year ending 31 December 2016. The contribution refunds are paid with 5% interest.

AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND
NOTES TO THE FINANCIAL STATEMENTS

NOTE 1: ORGANIZATION

B. FUNDING POLICY

The contribution provision of this Fund is authorized by Article 6243e.1, Vernon's Texas Civil Statutes, which provides the authority and procedure to change the amount of contributions determined as a percentage of pay by each member and a percentage of payroll by the City.

The Fund is maintained by biweekly contributions from the earnings of fire fighters and from the City. For the year ended 31 December 2016 the City's contribution rate was 22.05% and fire fighters contribution rate was 18.70% of their earnings excluding overtime, educational incentive pay, assignment pay and temporary pay in higher classifications.

While the contribution requirements are not actuarially determined, state law requires that each plan of benefits adopted by the Fund be approved by a qualified actuary. The actuary must certify that the contribution commitment by fire fighters and the City provides an adequate financing arrangement.

C. NET PENSION LIABILITY

The Fund's net pension liability was measured as of 31 December 2016 was as follows:

Total pension liability	\$977,722,762
Plan fiduciary net position	<u>(829,610,196)</u>
Net pension liability	<u>\$148,112,566</u>

Plan fiduciary net position as a percentage of the total pension liability	<u>84.85%</u>
--	---------------

I. Actuarial Assumptions

The total pension liability in the 31 December 2016 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3.00%
Salary increases	1.00% to 6.00%
Discount rate	7.70%
Investment rate of return	7.70%, net of pension plan investment expense, including inflation

AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND
NOTES TO THE FINANCIAL STATEMENTS

NOTE 1: ORGANIZATION

C. NET PENSION LIABILITY

Mortality rates were based on the RP-2000: Fully Generational using Scale AA set back two years for males and females.

Mortality rates disabled lives: RP-2000 Disability Mortality Table.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best estimate ranges of expected future real rates of return (expected returns, net of pension plan investment plan investment expenses and inflation) are developed for each major asset class.

These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The expected arithmetic net real rates of return for each major asset class are summarized in the following table:

<u>Asset Class</u>	<u>Long-Term Expected Net Real Rate of Return</u>
Public domestic equity	5.3%
Public foreign equity	6.9
Private equity fund of funds	5.6
Investment grade bonds	1.1
TIPS	0.8
High yield/bank loans	3.8
Emerging market debt	3.6
Core real estate	3.4
Non-core real estate	5.0
Natural resources	5.9

2. Discount Rate

The Discount Rate used to measure the Total Pension Liability was 7.70%. For purpose of this valuation, the expected rate of return on pension plan investments is 7.70%; the municipal bond rate is 3.57% (based on the weekly rate closest to but not later than the measurement date of the Bond Buyer 20-Bond Index as published by the Federal Reserve); and the resulting single discount rate is 7.70%. The projection of cash flows used to determine the Discount Rate assumed that Fund member contributions will be made at the current contribution rate and that City contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the Fund's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate

AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND
NOTES TO THE FINANCIAL STATEMENTS

NOTE 1: ORGANIZATION

C. NET PENSION LIABILITY

of return on Fund investments was applied to all periods of projected benefit payments to determine the total pension liability.

3. Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the Fund, calculated using the discount rate of 7.70%, as well as what the Fund's net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.70%) or one percentage point higher (8.70%) than the current rate:

	1% Decrease (6.70%)	Current Discount Rate (7.70%)	1% Increase (8.70%)
Fund's net pension liability	\$248,625,776	\$148,112,566	\$63,515,024

NOTE 2: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

BASIS OF ACCOUNTING

The Fund's financial statements are prepared using the accrual basis of accounting under which expenses are recorded when the liability is incurred, revenues are recorded in the accounting period in which they are earned and become measurable, and investment purchases and sales are recorded as of their trade date. Fire fighter and City contributions are recognized as revenues in the period which the related employees' payroll is earned. Benefits are recognized when the employee becomes eligible for retirement and elects to retire under the system and is paid a benefit. Employee contribution refunds are recognized when the employee leaves the City and elects to withdraw a contribution.

METHOD USED TO VALUE INVESTMENTS

Cash and short-term investments include deposits in a custodian-managed investment pool from which the Fund may make deposits and withdrawals at any time without prior notice or penalty. The market value of such deposits is equal to cost. The Board of Trustees has adopted a Statement of Investment Policies and Objectives (Investment Policy) to set forth factors involved in the management of investment assets for the Fund. By statute, the Board of Trustees in its sole discretion may invest, reinvest, or change the assets of the Fund. The Board of Trustees shall invest in funds in whatever instruments or investments considered prudent. In making investments for the Fund, the Board of Trustees shall discharge its duties with care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a similar capacity and familiar with such matters would use in the conduct of an enterprise of a similar character and with similar aims.

AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND
NOTES TO THE FINANCIAL STATEMENTS

NOTE 2: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

METHOD USED TO VALUE INVESTMENTS

Investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Limited partnerships are reported at fair value based on the net asset value of the Fund's interest provided by the investee. Investments that do not have an established market are reported at estimated fair value. Realized and unrealized gains and losses as well as other investment adjustments are reported as net appreciation (depreciation) in the fair value of investments.

PROPERTY AND EQUIPMENT

Property and equipment are stated at cost. Additions and improvements which significantly extend the useful life of an asset are capitalized. Other costs incurred for repairs and maintenance are expensed as incurred. Depreciation on all assets is provided on the straight line basis over the following estimated useful lives:

Buildings and improvements	40 years
Office furniture and equipment	3-15 years

ESTIMATES

- ✧ The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions to the net position restricted for pension benefits during the reporting period. Actual results could differ from those estimates.

FUND EXPENSES

All Fund administrative costs are the responsibility of the Fund and are financed through investment earnings.

SUBSEQUENT EVENTS

Management has evaluated subsequent events through the date of the Independent Auditor's Report, the date the financial statements were available to be issued.

NOTE 3: FEDERAL INCOME TAXES

The Fund is a Public Employee Retirement Fund and is exempt from Federal income taxes and the provisions of the Employee Retirement Income Security Act of 1974.

AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND
NOTES TO THE FINANCIAL STATEMENTS

NOTE 4: DEPOSIT AND INVESTMENT RISK

CUSTODIAL CREDIT RISK

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, the Fund will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. Deposits are exposed to custodial credit risk if they are uninsured and unsecured. The Fund did not have exposure to custodial credit risk for deposits as of 31 December 2016.

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the Fund will not be able to recover the value of investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the Fund and are held by either the counterparty or the counterparty's trust department or agent but not in the Fund's name. As of 31 December 2016, the Fund's investment securities are not exposed to custodial credit risk because all securities are held by the Fund's custodial bank in the Fund's name.

CONCENTRATION OF CREDIT RISK

Concentration of credit risk is the risk of loss attributed to the magnitude of the Fund's investment in a single issuer. As of year end, the Fund had no investments with a single issuer that exceeded 5% of the Fund's net position.

The Fund's investment policy established asset allocation targets for major classes of invested assets as listed below. The Fund is authorized to invest in the following:

<u>Class</u>	<u>Target Range</u>
Equity	30-55%
Fixed Income Investments	20-40%
Alternatives	10-40%

INTEREST RATE RISK

Interest rate risk is the risk that changes in interest rates will adversely affect an investment's fair value. Although the Fund does have a formal investment policy, it does not specifically limit investment maturities as a means of managing its exposure to potential fair value losses from future changes in interest rates. As of 31 December 2016 the Fund had no exposure to interest rate risk.

AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND
NOTES TO THE FINANCIAL STATEMENTS

NOTE 4: DEPOSIT AND INVESTMENT RISK

FOREIGN CURRENCY RISK

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or deposit. Although the Fund does have a formal investment policy, it does not specifically address the Fund's exposure related to foreign currency risk. The Fund had the following exposure to foreign currency risk as of 31 December 2016:

<u>Denomination by Investment Type</u>	<u>Market Value (USD)</u>
Private Equity Fund Investments	
Euro	<u>\$4,402,349</u>
Real Estate Fund Investments	
Euro	<u>5,049,369</u>
Public Fixed Income	
Argentinian Peso	3,087,861
Brazilian Real	18,380,204
Euro	3,690,066
Indonesian Rupiah	6,212,619
Mexican Peso	1,929,364
Russian Ruble	<u>3,286,759</u>
	<u>36,586,873</u>
	<u>\$46,038,591</u>

CREDIT RISK

Credit risk is the risk that an issuer or other counter party to an investment will not fulfill its obligations to the Fund. It is the Fund's policy to maintain fixed income securities within its portfolio at an average credit rating of investment grade or better. The Fund had no exposure to credit risk due to the types of investments held as of 31 December 2016.

NOTE 5: SCHEDULE OF INVESTMENT RETURNS

The money-weighted rate of return expresses investment performance, net of investment expenses, that reflects the estimated effect of the contributions received and the benefits paid during the year.

<u>Fiscal Year</u>	<u>Annual Money-Weighted Net Real Rate of Return</u>
31 December 2016	7.13%

AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND
NOTES TO THE FINANCIAL STATEMENTS

NOTE 6: FAIR VALUE MEASUREMENT

	Quoted Prices In Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Public domestic equities	<u>\$154,597,782</u>	<u>\$0</u>	<u>\$0</u>
Public international equities	<u>\$176,037,241</u>	<u>\$0</u>	<u>\$0</u>
Private equity fund investments	<u>\$0</u>	<u>\$0</u>	<u>\$123,497,733</u>
Public fixed income	<u>\$0</u>	<u>\$239,954,523</u>	<u>\$0</u>
Real estate fund investments	<u>\$0</u>	<u>\$0</u>	<u>\$77,154,827</u>
Hedge fund of fund investments	<u>\$0</u>	<u>\$0</u>	<u>\$27,265,715</u>
Private natural resources fund	<u>\$0</u>	<u>\$0</u>	<u>\$15,921,110</u>

NOTE 7: SECURITIES LENDING

The Fund is authorized under its investment policy to participate in securities lending programs through State Street Bank and Trust Company under which, for an agreed-upon fee, system owned investments are loaned to a borrowing financial institution. Under this agreement, when the loan closes the borrowed securities are returned to the Fund and the collateral is returned to the borrower. During the fiscal year, State Street lent, on behalf of the Fund, certain US Equity securities of the Fund held by State Street as custodian and received cash or other collateral including securities issued or guaranteed by the United States government. State Street does not have the ability to pledge or sell collateral securities delivered absent a borrower default. The lending agreement requires securities to be collateralized by cash, US government securities or irrevocable letters of credit with a total market value of at least 100% of the market value of the loaned securities.

Pursuant to the Securities Lending Authorization Agreement, State Street had an obligation to indemnify the Fund in the event of default by a borrower. There were no failures by any borrowers to return loaned securities or pay distributions thereon during the fiscal year that resulted in a declaration or notice of default of the Borrower. During the fiscal year, the Fund and the borrowers maintained the right to terminate securities lending transactions upon notice.

AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND
NOTES TO THE FINANCIAL STATEMENTS

NOTE 7: SECURITIES LENDING

There is no formal limit on the amount of loans that can be made, however the securities lending program shall in no way inhibit the trading activities of the Fund's investment managers. The cash collateral received on each loan was invested, together with the cash collateral of other qualified tax-exempt plan lenders, in a collective investment fund comprised of a liquidity pool and a duration pool. As of 31 December 2016 the liquidity pool had an average duration of 31.34 days and an average weighted final maturity of 90.95 days for USD collateral. As of this date the duration pool had an average duration of 23.19 days and an average weighted final maturity of 3,150.11 days for USD collateral.

Because the securities lending transactions were terminable at will, their duration did not generally match the duration of the investments made with the cash collateral received from the borrower. On 31 December 2016 the Fund had no credit risk exposure to borrowers. The market value of collateral held and the market value (USD) of securities on loan for the Client as of 31 December 2016 was \$24,842,189 and \$24,228,479 respectively.

NOTE 8: COMMITMENTS AND CONTINGENCIES

The Fund's investments include investment in partnership interests, which are closed end private markets strategies. In connection with those investments the Fund still has remaining commitments as of 31 December 2016 of \$113 million pursuant to the terms of the respective interest.

At 31 December 2016 the total accumulated lump sum benefit due to DROP participants was \$69,354,195.

AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS Last 10 Years*

	12/31/2016	12/31/2015
Total Pension Liability		
Service Cost	24,322,417	23,309,543
Interest	70,892,708	66,404,730
Changes of benefit terms	5,491,908	-
Differences between Expected and Actual Experience	8,893,371	7,192,645
Changes of assumptions	-	-
Benefit Payments, including Refunds of Employee Contributions	(45,495,681)	(44,756,847)
Net Change in Total Pension Liability	64,104,723	52,150,071
Total Pension Liability - Beginning	913,618,039	861,467,968
Total Pension Liability - Ending (a)	\$977,722,762	\$913,618,039
Plan Fiduciary Net Position		
Contributions - Employer	19,103,891	19,222,329
Contributions - Employee	15,884,261	15,546,979
Net Investment Income	55,569,165	6,328,063
Benefit Payments, including Refunds of Employee Contributions	(45,495,681)	(44,756,847)
Administrative Expense	(662,501)	(562,687)
Net Change in Plan Fiduciary Net Position	44,399,135	(4,222,163)
Plan Fiduciary Net Position - Beginning	785,211,061	789,433,224
Plan Fiduciary Net Position - Ending (b)	\$829,610,196	\$785,211,061
Net Pension Liability - Ending (a) - (b)	\$148,112,566	\$128,406,978
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	84.85%	85.95%
Covered Employee Payroll	\$ 86,638,961	\$ 87,836,040
Net Pension Liability as a percentage of Covered Employee Payroll	170.95%	146.19%

Notes to Schedule:

Changes of benefit terms:

For measurement date 12/31/2016, amounts reported as changes of benefit terms resulted from a cost-of-living adjustment effective January 1, 2017, in the amount of 1.5% to eligible retirees.

* - Until a full ten-year trend is compiled, only available information is shown.

See independent auditor's report.

AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS Last 10 Years*

	12/31/2014	12/31/2013
Total Pension Liability		
Service Cost	25,318,456	23,497,407
Interest	62,976,839	59,249,151
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	-	-
Changes of assumptions	4,883,207	-
Benefit Payments, including Refunds of Employee Contributions	(37,992,903)	(34,943,917)
Net Change in Total Pension Liability	55,185,599	47,802,641
Total Pension Liability - Beginning	806,282,369	758,479,728
Total Pension Liability - Ending (a)	\$861,467,968	\$806,282,369
Plan Fiduciary Net Position		
Contributions - Employer	18,669,944	17,786,494
Contributions - Employee	14,659,946	14,000,514
Net Investment Income	42,005,227	101,289,167
Benefit Payments, including Refunds of Employee Contributions	(37,992,903)	(34,943,917)
Administrative Expense	(530,816)	(363,050)
Net Change in Plan Fiduciary Net Position	36,811,398	97,769,208
Plan Fiduciary Net Position - Beginning	752,621,826	654,852,618
Plan Fiduciary Net Position - Ending (b)	\$789,433,224	\$752,621,826
Net Pension Liability - Ending (a) - (b)	\$ 72,034,744	\$ 53,660,543
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	91.64%	93.34%
Covered Employee Payroll	\$ 84,670,948	\$ 83,279,101
Net Pension Liability as a percentage of Covered Employee Payroll	85.08%	64.43%

Notes to Schedule:

Changes of assumptions:

For measurement date 12/31/2014, amounts reported as changes of assumptions resulted from an actuarial experience study dated June 15, 2015, below a brief overview of the changes:

- A "fresh-start" on the actuarial asset value has been implemented. For all future valuations, the asset valuation method will utilize a new smoothing technique.
- The investment return assumption has been decreased from 7.75% to 7.70% per year compounded annually, net of all expenses.
- The general wage inflation rate has been decreased from 3.5% to 3.0% per year.
- The service-based table attributable to merit and longevity salary increases has been amended.
- The retirement rates have been amended.
- The Retro-DROP election assumptions have been amended.
- The withdrawal rates have been amended.
- The assumed spousal age difference has been amended.

* - Until a full ten-year trend is compiled, only available information is shown.

See independent auditor's report.

AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND

SCHEDULE OF CONTRIBUTIONS

Last 10 Years*

	12/31/2016	12/31/2015	12/31/2014	12/31/2013
Actuarially Determined Contribution	N/A	N/A	N/A	N/A
Contributions in relation to the Actuarially Determined Contributions	N/A	N/A	N/A	N/A
Contribution Deficiency (Excess)	N/A	N/A	N/A	N/A
Covered Employee Payroll	\$ 86,638,961	\$ 87,836,040	\$ 84,670,948	\$ 83,279,101
Contributions as a percentage of Covered Employee Payroll	22.05%	22.05%	21.36%	21.36%

Notes to Schedule

Methods and assumptions used to determine liabilities:

Mortality Rates - Healthy Lives	RP-2000 (Fully Generational using Scale AA) set back two years for males and females - Sex Distinct. The assumed rates of mortality sufficiently accommodate expected mortality improvements.								
Mortality Rates - Disabled Lives	RP2000 Disability Mortality Table.								
Retirement Elections:	See tables on following page. These assumptions were approved in conjunction with an actuarial experience study dated June 15, 2015.								
Termination Rates:	See tables below. These assumptions were approved in conjunction with an actuarial experience study dated June 15, 2015.								
Disability Rates:	See tables on following pages. These assumptions were reviewed in conjunction with an actuarial experience study dated June 15, 2015.								
Interest Rate:	7.70% per year, compounded annually, net of all expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.								
Salary Increases:	See tables on following page. These assumptions were approved in conjunction with an actuarial experience study dated June 15, 2015.								
General Wage Inflation:	3.00% per year. This assumption was approved in conjunction with an actuarial experience study dated June 15, 2015.								
Inflation:	3.50% per year. This is reasonable based upon long-term historical experience.								
Payroll Growth:	3.50% per year for amortization of the Unfunded Actuarial Accrued Liability. This is reasonable based upon long-term historical experience.								
Asset Valuation Method:	All assets are valued at market value with an adjustment to uniformly spread investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period.								
Marital Status:	100% of actives are assumed to be married at time of benefit commencement. Females are assumed to be 4 years younger than Males. Additionally, 50% are assumed to have dependent children. The age of the youngest child is assumed to be one year. These assumptions were approved in conjunction with an actuarial experience study dated June 15, 2015.								
Actuarial Cost Method:	Entry Age Normal Actuarial Cost Method.								
Amortization Method:	Level Percentage of Pay, Closed.								
Remaining Amortization Period:	12.29 Years (as of 12/31/2015).								
Termination Rates:	<table border="1"> <thead> <tr> <th align="center">Years of Service</th> <th align="center">Termination Probability</th> </tr> </thead> <tbody> <tr> <td align="center">0-4</td> <td align="center">1.00%</td> </tr> <tr> <td align="center">5-13</td> <td align="center">0.50%</td> </tr> <tr> <td align="center">14+</td> <td align="center">0.00%</td> </tr> </tbody> </table>	Years of Service	Termination Probability	0-4	1.00%	5-13	0.50%	14+	0.00%
Years of Service	Termination Probability								
0-4	1.00%								
5-13	0.50%								
14+	0.00%								

* - Until a full ten-year trend is compiled, only available information is shown.

See independent auditor's report.

Retirement Rates:	Number of Years After First	Probability of Retirement
	Eligibility for Early Retirement	
	0	2.00%
	1	2.00%
	2	2.00%
	3	2.00%
	4	2.00%
	5	5.00%
	6	7.50%
	7	7.50%
	8	10.00%
	9	16.70%
	10	16.70%
	11	16.70%
	12	20.00%
	13	20.00%
	14	30.00%
	15	40.00%
	16	50.00%
	17	75.00%
	18	100.00%

Retro-DROP Elections:	Number of	No-DROP	Duration 1	Duration 2
	Years After			
	First Eligibility	Elected	Election	Election
	for Early			
	Retirement			
	0	90%	0.5 years (10%)	n/a
	1	50%	1 year (50%)	n/a
	2	50%	1 year (25%)	2 years (25%)
	3	50%	1 year (25%)	2 years (25%)
	4	20%	1 year (60%)	3 years (20%)
	5	20%	2 years (40%)	4 years (40%)
	6	20%	2 years (60%)	5 years (20%)
	7	20%	2 years (50%)	5 years (30%)
	8	20%	3 years (60%)	6 years (20%)
	9	10%	3 years (50%)	6 years (40%)
	10	10%	3 years (50%)	6 years (40%)
	11	10%	3 years (60%)	6 years (30%)
	12	10%	3 years (75%)	6 years (15%)
	13	10%	3 years (40%)	6 years (50%)
	14	10%	3 years (40%)	6 years (50%)
	15	10%	3 years (20%)	6 years (70%)
	16	10%	3 years (20%)	6 years (70%)
	17	10%	3 years (20%)	6 years (70%)
	18	10%	3 years (20%)	6 years (70%)

Disability Rate Table:

Age	Probability of Disablement
20	0.014%
25	0.019%
30	0.031%
35	0.052%
40	0.092%
45	0.209%
50	0.379%
55	0.490%
60	0.911%

% Increase in Salary*:

Years of Service	Increase
0	6.00%
1	8.50%
2	7.50%
3	4.00%
4	1.00%
5	5.00%
10	1.50%
15	1.50%
20	5.50%
21+	1.00%

* Expected increase in salary in addition to general wage inflation assumption.

SCHEDULE OF INVESTMENT RETURNS
Last 10 Years

	<u>12/31/2016</u>	<u>12/31/2015</u>	<u>12/31/2014</u>	<u>12/31/2013</u>
Annual Money-Weighted Rate of Return Net of Investment Expense	7.13%	0.81%	5.60%	13.30%

July 25, 2017

Mr. William E. Stefka
Austin Firefighters'
Relief and Retirement Fund
4101 Parkstone Heights Drive, Suite 270
Austin, TX 78746

Re: Austin Firefighters' Relief and Retirement Fund

Dear Mr. Stefka:

We are pleased to present to the Board this report of the annual actuarial valuation of the Austin Firefighters' Relief and Retirement Fund (AFRRF). The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year(s). Please note that this valuation may not be applicable for any other purposes.

The valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflects laws and regulations issued to date pursuant to the provisions of the Texas Local Fire Fighters' Retirement Act (TLFFRA) and Vernon's Texas Civil Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in this valuation, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations.

In conducting the valuation, we have relied on personnel, plan design, financial reports, and asset information supplied by the AFRRF staff, and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

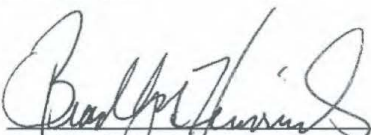
The undersigned is familiar with the immediate and long-term aspects of pension valuations, and meets the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, no associate of Foster & Foster Inc. working on valuations of the program has any direct financial interest or indirect material interest in the city of Austin, nor does anyone at Foster & Foster Inc. act as a member of the Board of Trustees of the AFRRF. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact me at 239-433-5500.

Respectfully submitted,

Foster & Foster Inc.

By: 
Bradley R. Heinrichs, FSA, EA, MAAA
Enrolled Actuary #17-6901

BRH/lke

Enclosures

SUMMARY OF REPORT

The regular annual actuarial valuation of the Austin Firefighters' Relief and Retirement Fund, performed as of December 31, 2016, has been completed and the results are presented in this Report. The pension costs, compared with those developed in the December 31, 2015 actuarial valuation, are as follows:

<u>Valuation Date</u>	<u>12/31/2016</u>	<u>12/31/2015</u>
Current Normal Cost Rate		
% of Covered Payroll	29.16%	29.39%
<hr/>		
Actuarial Accrued Liability (AAL)	\$981,771,267	\$921,875,579
Actuarial Value of Assets (AVA)	\$866,512,111	\$828,920,231
Unfunded Actuarial Accrued Liability (UAAL = AAL - AVA)	\$115,259,156	\$92,955,348
Funded Ratio (AVA / AAL)	88.3%	89.9%
Amortization Period	16.17 years	12.29 years
<hr/>		
Expected City Contribution Rate	22.05%	22.05%
Expected Member Contribution Rate	18.70%	18.33%
Total Expected Contribution Rate	40.75%	40.38%
<hr/>		
City 20-Year Funding Cost ¹	20.48%	
City 30-Year Funding Cost ²	18.35%	
City 40-Year Funding Cost ¹	17.37%	

¹ The Texas Pension Review Board Guidelines for Actuarial Soundness state that funding should be adequate to amortize the UAAL over a period not to exceed 40 years, with 15-25 years being a more preferable target.

² Per Section 802.101(a) of the Texas Government Code, the actuarial valuation must include a recommended contribution rate needed for the system to achieve and maintain an amortization period that does not exceed 30 years.

During the past year, the plan has realized net unfavorable actuarial experience. The primary components of actuarial loss were attributable to a 5.84% investment return (Actuarial Asset basis) which fell short of the 7.70% assumption and unfavorable retirement experience.


Additionally, the plan realized an increase in liabilities as a result of granting a 1.50% cost-of-living adjustment to eligible retirees, effective January 1, 2017.

The balance of this Report presents additional details of the actuarial valuation and the general operation of the Fund. The undersigned would be pleased to meet with the Board of Trustees in order to discuss the Report and answer any pending questions concerning its contents.

Respectfully submitted,

FOSTER & FOSTER INC.

By: 
Bradley R. Heinrichs, FSA, EA, MAAA

By: 
Drew D. Ballard, EA, MAAA

CHANGES SINCE PRIOR VALUATION

Fund Changes

There have been no changes in benefit provisions since the prior valuation.

Actuarial Assumption/Method Changes

There have been no changes to the assumptions or methods since the prior valuation.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	<u>12/31/2016</u>	<u>12/31/2015</u>
A. Participant Data		
Actives	990	1,050
Service Retirees + DROP	618	570
Beneficiaries	71	74
QDRO	44	44
Disability Retirees	17	16
Terminated Vested	7	6
Total	<u>1,747</u>	<u>1,760</u>
Covered Payroll	84,864,171	85,942,585
Payroll Under Assumed Ret. Age	84,500,978	85,719,980
Annual Rate of Payments to:		
Service Retirees	36,626,360	32,653,975
Beneficiaries	2,637,771	2,690,548
QDRO	830,901	837,997
Disability Retirees	694,439	619,221
Terminated Vested	256,595	211,375
B. Assets		
Actuarial Value	866,512,111	828,920,231
Market Value	829,610,196	785,211,061
C. Liabilities *		
Present Value of Benefits		
Active Members		
Retirement + Vested Benefits	670,666,482	685,965,621
Death Benefits	8,056,817	8,388,094
Disability Benefits	22,777,807	23,237,495
Service Retirees + DROP	479,203,306	416,621,896
Beneficiaries	21,063,811	20,931,589
QDRO	9,194,296	9,351,105
Disability Retirees	6,158,042	5,398,122
Terminated Vested	2,276,246	2,080,755
Total	<u>1,219,396,807</u>	<u>1,171,974,677</u>

* Liabilities shown represent present value of future payments.

	<u>12/31/2016</u>	<u>12/31/2015</u>
C. Liabilities - (Continued)		
Present Value of Future Salaries	846,052,806	885,669,007
Normal Cost (Entry Age Normal)		
Retirement + Vested Benefits	22,107,403	22,581,239
Death Benefits	542,455	551,700
Disability Benefits	1,180,638	1,189,478
Total Normal Cost	<u>23,830,496</u>	<u>24,322,417</u>
Present Value of Future Normal Costs	237,625,540	250,099,098
Actuarial Accrued Liability		
Retirement + Vested Benefits	449,883,922	453,442,537
Death Benefits	2,945,121	3,032,102
Disability Benefits	11,046,523	11,017,473
Inactives	517,895,701	454,383,467
Total Actuarial Accrued Liability	<u>981,771,267</u>	<u>921,875,579</u>
Unfunded Actuarial Accrued Liability (UAAL)	115,259,156	92,955,348
Funded Ratio (AVA/AL)	88.3%	89.9%
D. Actuarial Present Value of Accrued Benefits		
Inactives	517,895,701	454,383,467
Actives	328,470,323	351,278,235
Total Present Value Accrued Benefits	<u>846,366,024</u>	<u>805,661,702</u>
Funded Ratio (MVA/PVAB)	98.0%	97.5%

GAIN/LOSS ANALYSIS

a. Total Gain/(Loss)

1. Unfunded Actuarial Accrued Liability as of December 31, 2015	92,955,348
2. Normal Cost applicable for 2016	24,322,417
3. Interest on (1) and (2)	9,030,388
4. Contributions made during 2016	34,988,152
5. Interest on (4)	1,322,066
6. Expected UAAL as of December 31, 2016: (1)+(2)+(3)-(4)-(5)	89,997,935
7. Actual UAAL as of December 31, 2016	115,259,156
 Total Actuarial Gain/(Loss)	 (25,261,221)

b. Gain/(Loss) on Assets

1. Actuarial Value of Assets as of December 31, 2015	828,920,231
2. Contributions Less Benefit Payments	(10,507,530)
3. Expected Investment Earnings	63,422,318
4. Expected AVA as of December 31, 2016: (1)+(2)+(3)	881,835,019
5. Actual Actuarial Value of Assets as of December 31, 2016	866,512,111
 Gain/(Loss) on Assets	 (15,322,908)

c. Gain/(Loss) on Liabilities

1. Expected Actuarial Accrued Liability: a(6)+b(4)	971,832,954
2. Actual Actuarial Accrued Liability	981,771,267
 Gain/(Loss) on Liabilities	 (9,938,313)

ACTUARIAL ASSUMPTIONS AND METHODS
(Effective December 31, 2016)

<u>Mortality Rates – Healthy Lives</u>	RP2000 (Fully Generational using Scale AA) set back two years for males and females -- Sex Distinct. The assumed rates of mortality sufficiently accommodate expected mortality improvements.
<u>Mortality Rates – Disabled Lives</u>	RP2000 Disability Mortality Table
<u>Retirement Elections</u>	See tables below. These assumptions were approved in conjunction with an actuarial experience study dated June 15, 2015.
<u>Termination Rates</u>	See tables below. These assumptions were approved in conjunction with an actuarial experience study dated June 15, 2015.
<u>Disability Rates</u>	See tables below. These assumptions were reviewed in conjunction with an actuarial experience study dated June 15, 2015.
<u>Interest Rate</u>	7.70% per year, compounded annually, net of all expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.
<u>Salary Increases</u>	See tables below. These assumptions were approved in conjunction with an actuarial experience study dated June 15, 2015.
<u>General Wage Inflation</u>	3.00% per year. This assumption was approved in conjunction with an actuarial experience study dated June 15, 2015.
<u>Inflation</u>	3.50% per year. This is reasonable based upon long-term historical experience.
<u>Payroll Growth</u>	3.50% per year for amortization of the Unfunded Actuarial Accrued Liability. This is reasonable based upon long-term historical experience.
<u>Asset Valuation Method</u>	All assets are valued at market value with an adjustment to uniformly spread investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period.

Marital Status

100% of actives are assumed to be married at time of benefit commencement. Females are assumed to be 4 years younger than Males. Additionally, 50% are assumed to have dependent children. The age of the youngest child is assumed to be one year.

These assumptions were approved in conjunction with an actuarial experience study dated June 15, 2015.

Funding Method

Entry Age Normal Actuarial Cost Method.

Termination Rates

<u>Years of Service</u>	<u>Termination Probability</u>
0-4	1.0%
5-13	0.5
14+	0

Retirement Rates

<u>Number of Years After First Eligibility for Early Retirement</u>	<u>Probability of Retirement</u>
0	2.0%
1	2.0
2	2.0
3	2.0
4	2.0
5	5.0
6	7.5
7	7.5
8	10.0
9	16.7
10	16.7
11	16.7
12	20.0
13	20.0
14	30.0
15	40.0
16	50.0
17	75.0
18	100.0

Retro-DROP Elections

Number of Years After First Eligibility for Early Retirement	<u>No-DROP Elected</u>	<u>Duration 1 Election</u>	<u>Duration 2 Election</u>
0	90%	0.5 years (10%)	n/a
1	50%	1 year (50%)	n/a
2	50%	1 year (25%)	2 years (25%)
3	50%	1 year (25%)	2 years (25%)
4	20%	1 year (60%)	3 years (20%)
5	20%	2 years (40%)	4 years (40%)
6	20%	2 years (60%)	5 years (20%)
7	20%	2 years (50%)	5 years (30%)
8	20%	3 years (60%)	6 years (20%)
9	10%	3 years (50%)	6 years (40%)
10	10%	3 years (50%)	6 years (40%)
11	10%	3 years (60%)	6 years (30%)
12	10%	3 years (75%)	6 years (15%)
13	10%	3 years (40%)	6 years (50%)
14	10%	3 years (40%)	6 years (50%)
15	10%	3 years (20%)	6 years (70%)
16	10%	3 years (20%)	6 years (70%)
17	10%	3 years (20%)	6 years (70%)
18	10%	3 years (20%)	6 years (70%)

Disability Rates

<u>Age</u>	<u>Probability of Disablement</u>
20	0.014%
25	0.019
30	0.031
35	0.052
40	0.092
45	0.209
50	0.379
55	0.490
60	0.911

% Increase in Salary*

<u>Years of Service</u>	<u>Increase</u>
0	6.00%
1	8.50
2	7.50
3	4.00
4	1.00
5	5.00
10	1.50
15	1.50
20	5.50
21+	1.00

* Expected increase in salary in addition to general wage inflation assumption.

VALUATION NOTES

Payroll under Assumed Retirement Age is the projected rate of pay as of the valuation date of all active participants who are not subject to a 100% probability of retirement in the first year following the valuation date, discounted to take into account the probability of remaining an active participant.

Covered Payroll is equal to the Payroll under Assumed Retirement Age, with an addition for the projected rate of pay for the active participants who are subject to a 100% probability of retirement in the first year following the valuation date, discounted to take into account interest for middle of year timing.

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current Members, Retirees, Beneficiaries, Disability Retirees and Vested Terminations.

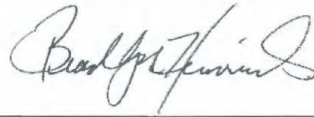
Normal (Current Year's) Cost is determined for each participant as the present value of future benefits, determined as of the Member's entry age, amortized as a level percentage of compensation over the anticipated number of years of participation, determined as of the entry age.

Individual Entry Age Normal Actuarial Cost Method (Level Percent of Compensation) is the method used to determine required contributions under the Fund. The use of this method involves the systematic funding of the Normal Cost (described above) and the Unfunded Accrued (Past Service) Liability. The actuarial accrued liability for active participants is the difference between the present value of future benefits and the present value of future Normal Costs. The actuarial accrued liability for inactive participants is the present value of future benefits.

Unfunded Actuarial Accrued Liability (UAAL) is the difference between the actuarial accrued liability (described above) and the actuarial value of assets.

STATEMENT BY ENROLLED ACTUARY

This actuarial valuation was 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, the techniques and assumptions used are reasonable and meet the requirements and intent of the Texas Local Fire Fighters' Retirement Act (TLFFRA), Vernon's Texas Civil Statutes, and adhere to the Actuarial Standards of Practice. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.



Bradley R. Heinrichs, FSA, EA, MAAA
Enrolled Actuary #17-6901

STATEMENT OF FIDUCIARY NET POSITION
DECEMBER 31, 2016

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Property, Furniture & Equipment	246,201.23	246,201.23
Checking Account - Expenses	221,649.92	221,649.92
Checking Account - Benefits	3,083,394.13	3,083,394.13
Money Market	7,952,385.29	7,952,385.29
Total Cash and Equivalents	11,503,630.57	11,503,630.57
Receivables:		
From Broker for Investments Sold	4,501,170.02	4,501,170.02
Investment Income	137,722.70	137,722.70
Total Receivable	4,638,892.72	4,638,892.72
Investments:		
State Street Securities	687,279,963.52	814,420,020.52
Total Investments	687,279,963.52	814,420,020.52
Total Assets	703,422,486.81	830,562,543.81
<u>LIABILITIES</u>		
Payables:		
Accounts Payable	467,755.35	467,755.35
To Broker for Investments Purchased	484,592.48	484,592.48
Total Liabilities	952,347.83	952,347.83
NET POSITION RESTRICTED FOR PENSIONS	702,470,138.98	829,610,195.98

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED DECEMBER 31, 2016
Market Value Basis

ADDITIONS

Contributions:

Member	15,884,260.52	
City	19,103,891.00	
Total Contributions		34,988,151.52
Investment Income:		
Miscellaneous Income	74,984.08	
Net Realized Gain (Loss)	24,920,237.91	
Unrealized Gain (Loss)	27,127,664.39	
Net Increase in Fair Value of Investments	52,122,886.38	
Interest & Dividends	5,620,082.71	
Less Investment Expense ¹	(2,173,803.25)	
Net Investment Income		55,569,165.84
Total Additions		90,557,317.36

DEDUCTIONS

Distributions to Members:

Benefit Payments	38,595,308.44	
Lump Sum DROP Distributions	6,862,148.42	
Refunds of Member Contributions	38,224.90	
Total Distributions		45,495,681.76
Administrative Expense		662,501.09
Total Deductions		46,158,182.85
Net Increase in Net Position		44,399,134.51

NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year		785,211,061.47
End of the Year		829,610,195.98

¹Investment related expenses include investment advisory, custodial and performance monitoring fees.

ACTUARIAL ASSET VALUATION
December 31, 2016

Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a five year period. In the first year, 20% of the gain or loss is recognized. In the second year 40%, in the third year 60%, in the fourth year 80%, and in the fifth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Plan Year Ending	Gain/(Loss)	<u>Gains/(Losses) Not Yet Recognized</u>				
		Amounts Not Yet Recognized by Valuation Year				
		2017	2018	2019	2020	2021
12/31/2012	N/A	0	0	0	0	0
12/31/2013	N/A	0	0	0	0	0
12/31/2014	N/A	0	0	0	0	0
12/31/2015	(54,636,462)	(32,781,877)	(21,854,585)	(10,927,292)	0	0
12/31/2016	(5,150,047)	(4,120,038)	(3,090,028)	(2,060,019)	(1,030,009)	0
Total		(36,901,915)	(24,944,613)	(12,987,311)	(1,030,009)	0

<u>Development of Investment Gain/(Loss)</u>	
Market Value of Assets, 12/31/2015	785,211,061
Contributions Less Benefit Payments	(10,507,530)
Expected Investment Earnings*	60,056,712
Actual Net Investment Earnings	54,906,665
Actuarial Investment Gain/(Loss)	(5,150,047)

*Expected Investment Earnings = 0.077 * [785,211,061 + 0.5 * (10,507,530)]

<u>Development of Actuarial Value of Assets</u>	
(1) Market Value of Assets, 12/31/2016	829,610,196
(2) Gains/(Losses) Not Yet Recognized	(36,901,915)
(3) Actuarial Value of Assets, 12/31/2016, (1) - (2)	866,512,111
(A) 12/31/2015 Actuarial Assets:	828,920,231
(I) Net Investment Income:	
1. Interest and Dividends	5,695,067
2. Realized Gains (Losses)	24,920,238
3. Change in Actuarial Value	20,320,409
4. Investment & Administrative Expenses	(2,836,304)
Total	48,099,410
(B) 12/31/2016 Actuarial Assets:	866,512,111
Actuarial Assets Rate of Return = 2I/(A+B-I):	5.84%
Market Value of Assets Rate of Return:	7.04%
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	(15,322,908)
12/31/2016 Limited Actuarial Assets:	866,512,111

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
 DECEMBER 31, 2016
 Actuarial Asset Basis

REVENUES

Contributions:		
Member	15,884,260.52	
City	19,103,891.00	
 Total Contributions		 34,988,151.52
 Earnings from Investments:		
Interest & Dividends	5,620,082.71	
Miscellaneous Income	74,984.08	
Net Realized Gain (Loss)	24,920,237.91	
Change in Actuarial Value	20,320,409.39	
 Total Earnings and Investment Gains		 50,935,714.09

EXPENDITURES

Distributions to Members:		
Benefit Payments	38,595,308.44	
Lump Sum DROP Distributions	6,862,148.42	
Refunds of Member Contributions	38,224.90	
 Total Distributions		 45,495,681.76
 Expenses:		
Investment related ¹	2,173,803.25	
Administrative	662,501.09	
 Total Expenses		 2,836,304.34
 Change in Net Assets for the Year		 37,591,879.51
 Net Assets Beginning of the Year		 828,920,231.47
 Net Assets End of the Year ²		 866,512,110.98

¹Investment related expenses include investment advisory, custodial and performance monitoring fees.

²Net Assets may be limited for actuarial consideration.

STATISTICAL DATA

	<u>12/31/2014</u>	<u>12/31/2015</u>	<u>12/31/2016</u>
Actives	1,025	1,050	990
Average Current Age	42.7	42.6	43.1
Average Age at Employment	28.2	28.4	28.6
Average Past Service	14.5	14.2	14.5
Average Annual Salary	\$84,895	\$86,181	\$90,088

AGE AND SERVICE DISTRIBUTION

PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19	0	0	0	0	0	0	0	0	0	0	0	0
20 - 24	0	1	0	0	0	0	0	0	0	0	0	1
25 - 29	0	17	0	17	1	1	0	0	0	0	0	36
30 - 34	0	29	0	51	19	25	4	0	0	0	0	128
35 - 39	0	15	0	21	41	66	37	14	0	0	0	194
40 - 44	0	0	0	5	17	36	67	59	12	0	0	196
45 - 49	0	0	0	0	3	12	47	66	78	6	0	212
50 - 54	0	0	0	0	0	0	3	22	62	54	12	153
55 - 59	0	0	0	0	0	0	0	0	6	30	27	63
60 - 64	0	0	0	0	0	0	0	0	0	1	6	7
65+	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	62	0	94	81	140	158	161	158	91	45	990

AUSTIN FIREFIGHTERS'
RELIEF AND RETIREMENT FUND
SUMMARY OF BENEFIT PROVISIONS

<u>Service</u>	Total years and completed months during which a Member makes contributions to the Fund.
<u>Average Monthly Compensation</u>	Average Salary for the highest 36 months of service.
<u>Member Contributions</u>	18.70% of Salary.
<u>City Contributions</u>	22.05% of payroll.
<u>Normal Retirement</u>	
Date	Earlier of age 50 and 10 years of Service, or 25 years of Service, regardless of age.
Benefit	3.30% of Average Monthly Compensation <u>times</u> Service (\$1,200 minimum). Effective July 1, 2012, the minimum benefit was increased to \$2,000 per month for all retirees and surviving spouses currently receiving normal or disability retirement benefits which commenced prior to January 1, 1994.
Form of Benefit	<u>Married</u> : Life Annuity with 75% continued to Surviving Spouse <u>Single</u> : Life Annuity with 75% continued to designated beneficiary.
<u>Early Retirement</u>	
Date	Earlier of age 45 and 10 years of Service, or 20 years of Service, regardless of age.
Benefit	Same for Normal Retirement as shown above. Members who retire under Early Retirement are not eligible to receive any COLA adjustments until the date they would have met Normal Retirement eligibility requirements.

Vesting

Schedule

100% after 10 years of Service.

Benefit Amount

Member will receive his (her) accrued benefit payable at age 50 or the date they would have completed 25 years of Service had they remained employed.

Non-vested members receive a refund of member contributions accumulated with 5.0% interest.

Disability

Eligibility

Disability preventing the Member from performing the duties of a firefighter during the two and one-half years after becoming disabled or any employment after the two and one-half years after becoming disabled.

Benefit

Accrued benefit at date of disability, but not less than 66% of Average Monthly Compensation.

Form of Benefit

Married: Life Annuity with 75% continued to Surviving Spouse

Single: Life Annuity

Death Benefits

Surviving Spouse of Member:

75% of Member's accrued benefit at date of death, but not less than 49.5% of Average Monthly Compensation.

Dependent Children of Member:
(with Surviving Spouse)

Each child is entitled to 15% of the payment paid to the surviving spouse as shown directly above.

Dependent Children of Member:
(with no Surviving Spouse)

75% of the payment that would have been paid to a surviving spouse as shown above, split equally among each dependent child.

Cost of Living Adjustment

Eligibility

Normal Retirement.

Amount

Determined by the actuary if providing a COLA will not impair financial stability of the Fund.

Retroactive DROP

Eligibility

Satisfaction of Early or Normal Retirement Eligibility.

Participation Period

Upon election to retroactively enter DROP, the Retro DROP period will not exceed 84 months.

Rate of Return

5.0%, compounded annually, on monthly benefits that would have been deposited into a DROP account and Member contributions deposited into the fund between the effective DROP entry date and the actual date of termination.

STATEMENT OF FIDUCIARY NET POSITION
DECEMBER 31, 2016

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Property, Furniture & Equipment	246,201
Checking Account - Expenses	221,650
Checking Account - Benefits	3,083,394
Money Market	7,952,385
 Total Cash and Equivalents	 11,503,630
Receivables:	
From Broker for Investments Sold	4,501,170
Investment Income	137,723
 Total Receivable	 4,638,893
Investments:	
State Street Securities	814,420,021
 Total Investments	 814,420,021
 Total Assets	 830,562,544
 <u>LIABILITIES</u>	
Payables:	
Accounts Payable	467,755
To Broker for Investments Purchased	484,593
 Total Liabilities	 952,348
 NET POSITION RESTRICTED FOR PENSIONS	 829,610,196

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED DECEMBER 31, 2016
Market Value Basis

<u>ADDITIONS</u>		
Contributions:		
Member	15,884,261	
City	19,103,891	
Total Contributions		34,988,152
Investment Income:		
Miscellaneous Income	74,984	
Net Realized Gain (Loss)	24,920,238	
Unrealized Gain (Loss)	27,127,664	
Net Increase in Fair Value of Investments	52,122,886	
Interest & Dividends	5,620,082	
Less Investment Expense ¹	(2,173,803)	
Net Investment Income		55,569,165
Total Additions		90,557,317
<u>DEDUCTIONS</u>		
Distributions to Members:		
Benefit Payments	38,595,308	
Lump Sum DROP Distributions	6,862,148	
Refunds of Member Contributions	38,225	
Total Distributions		45,495,681
Administrative Expense		662,501
Total Deductions		46,158,182
Net Increase in Net Position		44,399,135
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		785,211,061
End of the Year		829,610,196

¹Investment related expenses include investment advisory, custodial and performance monitoring fees.

NOTES TO THE FINANCIAL STATEMENTS
(For the Year Ended December 31, 2016)

Plan Description

Plan Administration

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of:

- a. The Mayor of the municipality,
- b. The city treasurer or, if there is no treasurer, the person who by law, charter provision, or ordinance performs the duty of city treasurer,
- c. Three Members of the fund to be selected by vote of the firefighters and retirees.

Plan Membership as of December 31, 2015:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	704
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	6
Active Plan Members	1,050
	1,760

Benefits Provided

The Plan provides retirement, disability, termination and death benefits.

Normal Retirement:

Earlier of age 50 and 10 years of Service, or 25 years of Service, regardless of age.

Benefit: 3.30% of Average Monthly Compensation times Service (\$1,200 minimum). Effective July 1, 2012, the minimum benefit was increased to \$2,000 per month for all retirees and surviving spouses currently receiving normal or disability retirement benefits which commenced prior to January 1, 1994.

Early Retirement:

Earlier of age 45 and 10 years of Service, or 20 years of Service, regardless of age.

Benefit: Same for Normal Retirement as shown above. Members who retire under Early Retirement are not eligible to receive any COLA adjustments until the date they would have met Normal Retirement eligibility requirements.

Vesting:

Schedule: 100% after 10 years of Service.

Benefit Amount: Member will receive his (her) accrued benefit payable at age 50 or the date they would have completed 25 years of Service had they remained employed.

Non-vested members receive a refund of member contributions accumulated with 5.0% interest.

Disability:

Disability preventing the Member from performing the duties of a firefighter during the two and one-half years after becoming disabled or any employment after the two and one-half years after becoming disabled.

Accrued benefit at date of disability, but not less than 66% of Average Monthly Compensation.

Death Benefits:

Surviving Spouse of Member: 75% of Member's accrued benefit at date of death, but not less than 49.5% of Average Monthly Compensation.

Dependent Children of Member (with Surviving Spouse): Each child is entitled to 15% of the payment paid to the surviving spouse as shown directly above.

Dependent Children of Member (with no Surviving Spouse): 75% of the payment that would have been paid to a surviving spouse as shown above, split equally among each dependent child.

Cost of Living Adjustment:

Eligibility: Normal Retirement

Amount: Determined by the actuary if providing a COLA will not impair financial stability of the Fund.

Contributions

Member Contributions: 18.20% of Salary from 10/01/2015 to 09/30/2016. 18.70% of Salary on and after 10/01/2016.

City Contributions: 22.05% of payroll.

GASB 67

Investments

Investment Policy:

The following was the Board's adopted asset allocation policy as of December 31, 2016:

<u>Asset Class</u>	<u>Target Allocation</u>
Public Domestic Equity	20%
Public Foreign Equity	22%
Private Equity Fund of Funds	15%
Investment Grade Bonds	13%
TIPS	5%
High Yield/Bank Loans	5%
Emerging Market Debt	7%
Core Real Estate	5%
Non-Core Real Estate	5%
Natural Resources	3%
<u>Total</u>	<u>100%</u>

Concentrations:

The Plan did not hold investments in any one organization that represent 5 percent or more of the Pension Plan's Fiduciary Net Position.

Rate of Return:

For the year ended December 31, 2016, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 7.13 percent.

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Deferred Retirement Option Program

Retroactive DROP

Eligibility: Satisfaction of Early or Normal Retirement Eligibility.

Participation Period: Upon election to retroactively enter DROP, the Retro DROP period will not exceed 84 months.

Rate of Return: 5.0%, compounded annually, on monthly benefits that would have been deposited into a DROP account and Member contributions deposited into the fund between the effective DROP entry date and the actual date of termination.

The DROP balance as December 31, 2016 is \$69,354,195.

NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on December 31, 2016 were as follows:

Total Pension Liability	\$ 977,722,762
Plan Fiduciary Net Position	<u>\$ (829,610,196)</u>
Sponsor's Net Pension Liability	<u>\$ 148,112,566</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	84.85%

Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of December 31, 2015 updated to December 31, 2016 using the following actuarial assumptions:

Inflation	3.00%
Salary Increases	1.00% - 6.00%
Discount Rate	7.70%
Investment Rate of Return	7.70%

Mortality Rates Healthy Lives: RP-2000 (Fully Generational using Scale AA) set back two years for males and females - Sex distinct. The assumed rates of mortality sufficiently accommodate expected mortality improvements.

Mortality Rates Disabled Lives: RP2000 Disability Mortality Table.

The most recent actuarial experience study used to review the other significant assumptions was dated June 15, 2015.

The Long-Term Expected Rate of Return on Pension Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2016, the inflation rate assumption of the investment advisor was 2.50%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of December 31, 2016 are summarized in the following table:

<u>Asset Class</u>	<u>Long Term Expected Real Rate of Return</u>
Public Domestic Equity	5.3%
Public Foreign Equity	6.9%
Private Equity Fund of Funds	5.6%
Investment Grade Bonds	1.1%
TIPS	0.8%
High Yield/Bank Loans	3.8%
Emerging Market Debt	3.6%
Core Real Estate	3.4%
Non-Core Real Estate	5.0%
Natural Resources	5.9%

GASB 67

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.70 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

For purpose of this valuation, the expected rate of return on pension plan investments is 7.70%; the municipal bond rate is 3.78% (based on the weekly rate closest to but not later than the measurement date of the Bond Buyer 20-Bond Index as published by the Bond Buyer); and the resulting single discount rate is 7.70%.

	1% Decrease 6.70%	Current Discount Rate 7.70%	1% Increase 8.70%
Sponsor's Net Pension Liability	\$ 248,625,776	\$ 148,112,566	\$ 63,515,024

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
Last 10 Years

	12/31/2016	12/31/2015
Total Pension Liability		
Service Cost	24,322,417	23,309,543
Interest	70,892,708	66,404,730
Changes of benefit terms	5,491,908	-
Differences between Expected and Actual Experience	8,893,371	7,192,645
Changes of assumptions	-	-
Benefit Payments, including Refunds of Employee Contributions	(45,495,681)	(44,756,847)
Net Change in Total Pension Liability	64,104,723	52,150,071
Total Pension Liability - Beginning	913,618,039	861,467,968
Total Pension Liability - Ending (a)	\$977,722,762	\$913,618,039
Plan Fiduciary Net Position		
Contributions - Employer	19,103,891	19,222,329
Contributions - Employee	15,884,261	15,546,979
Net Investment Income	55,569,165	6,328,063
Benefit Payments, including Refunds of Employee Contributions	(45,495,681)	(44,756,847)
Administrative Expense	(662,501)	(562,687)
Net Change in Plan Fiduciary Net Position	44,399,135	(4,222,163)
Plan Fiduciary Net Position - Beginning	785,211,061	789,433,224
Plan Fiduciary Net Position - Ending (b)	\$829,610,196	\$785,211,061
Net Pension Liability - Ending (a) - (b)	\$148,112,566	\$128,406,978
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	84.85%	85.95%
Covered Employee Payroll	\$ 86,638,961	\$ 87,836,040
Net Pension Liability as a percentage of Covered Employee Payroll	170.95%	146.19%

Notes to Schedule:*Changes of benefit terms:*

For measurement date 12/31/2016, amounts reported as changes of benefit terms resulted from a cost-of-living adjustment. Eligible retirees receive a 1.5% cost-of-living adjustment, effective January 1, 2017.

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
Last 10 Years

	<u>12/31/2014</u>	<u>12/31/2013</u>
Total Pension Liability		
Service Cost	25,318,456	23,497,407
Interest	62,976,839	59,249,151
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	-	-
Changes of assumptions	4,883,207	-
Benefit Payments, including Refunds of Employee Contributions	<u>(37,992,903)</u>	<u>(34,943,917)</u>
Net Change in Total Pension Liability	55,185,599	47,802,641
Total Pension Liability - Beginning	<u>806,282,369</u>	<u>758,479,728</u>
Total Pension Liability - Ending (a)	<u><u>\$861,467,968</u></u>	<u><u>\$806,282,369</u></u>
Plan Fiduciary Net Position		
Contributions - Employer	18,669,944	17,786,494
Contributions - Employee	14,659,946	14,000,514
Net Investment Income	42,005,227	101,289,167
Benefit Payments, including Refunds of Employee Contributions	<u>(37,992,903)</u>	<u>(34,943,917)</u>
Administrative Expense	<u>(530,816)</u>	<u>(363,050)</u>
Net Change in Plan Fiduciary Net Position	36,811,398	97,769,208
Plan Fiduciary Net Position - Beginning	<u>752,621,826</u>	<u>654,852,618</u>
Plan Fiduciary Net Position - Ending (b)	<u><u>\$789,433,224</u></u>	<u><u>\$752,621,826</u></u>
Net Pension Liability - Ending (a) - (b)	<u><u>\$ 72,034,744</u></u>	<u><u>\$ 53,660,543</u></u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	91.64%	93.34%
Covered Employee Payroll	\$ 84,670,948	\$ 83,279,101
Net Pension Liability as a percentage of Covered Employee Payroll	85.08%	64.43%

Notes to Schedule:*Changes of assumptions:*

For measurement date 12/31/2014, amounts reported as changes of assumptions resulted from an actuarial experience study dated June 15, 2015, below a brief overview of the changes:

- A "fresh-start" on the actuarial asset value has been implemented. For all future valuations, the asset valuation method will utilize a new smoothing technique.
- The investment return assumption has been decreased from 7.75% to 7.70% per year compounded annually, net of all expenses.
- The general wage inflation rate has been decreased from 3.5% to 3.0% per year.
- The service-based table attributable to merit and longevity salary increases has been amended.
- The retirement rates have been amended.
- The Retro-DROP election assumptions have been amended.
- The withdrawal rates have been amended.
- The assumed spousal age difference has been amended.

SCHEDULE OF CONTRIBUTIONS

Last 10 Years

	12/31/2016	12/31/2015	12/31/2014	12/31/2013
Actuarially Determined Contribution	N/A	N/A	N/A	N/A
Contributions in relation to the Actuarially Determined Contributions	N/A	N/A	N/A	N/A
Contribution Deficiency (Excess)	N/A	N/A	N/A	N/A
Covered Employee Payroll	\$ 86,638,961	\$ 87,836,040	\$ 84,670,948	\$ 83,279,101
Contributions as a percentage of Covered Employee Payroll	22.05%	22.05%	21.36%	21.36%

Notes to Schedule

Methods and assumptions used to determine liabilities:

Mortality Rates - Healthy Lives	RP-2000 (Fully Generational using Scale AA) set back two years for males and females - Sex Distinct. The assumed rates of mortality sufficiently accommodate expected mortality improvements.								
Mortality Rates - Disabled Lives	RP2000 Disability Mortality Table.								
Retirement Elections:	See tables on following page. These assumptions were approved in conjunction with an actuarial experience study dated June 15, 2015.								
Termination Rates:	See tables below. These assumptions were approved in conjunction with an actuarial experience study dated June 15, 2015.								
Disability Rates:	See tables on following pages. These assumptions were reviewed in conjunction with an actuarial experience study dated June 15, 2015.								
Interest Rate:	7.70% per year, compounded annually, net of all expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.								
Salary Increases:	See tables on following page. These assumptions were approved in conjunction with an actuarial experience study dated June 15, 2015.								
General Wage Inflation:	3.00% per year. This assumption was approved in conjunction with an actuarial experience study dated June 15, 2015.								
Inflation:	3.50% per year. This is reasonable based upon long-term historical experience.								
Payroll Growth:	3.50% per year for amortization of the Unfunded Actuarial Accrued Liability. This is reasonable based upon long-term historical experience.								
Asset Valuation Method:	All assets are valued at market value with an adjustment to uniformly spread investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period.								
Marital Status:	100% of actives are assumed to be married at time of benefit commencement. Females are assumed to be 4 years younger than Males. Additionally, 50% are assumed to have dependent children. The age of the youngest child is assumed to be one year. These assumptions were approved in conjunction with an actuarial experience study dated June 15, 2015.								
Actuarial Cost Method:	Entry Age Normal Actuarial Cost Method.								
Amortization Method:	Level Percentage of Pay, Closed.								
Remaining Amortization Period:	12.29 Years (as of 12/31/2015).								
Termination Rates:	<table border="1"> <thead> <tr> <th>Years of Service</th> <th>Termination Probability</th> </tr> </thead> <tbody> <tr> <td>0-4</td> <td>1.00%</td> </tr> <tr> <td>5-13</td> <td>0.50%</td> </tr> <tr> <td>14+</td> <td>0.00%</td> </tr> </tbody> </table>	Years of Service	Termination Probability	0-4	1.00%	5-13	0.50%	14+	0.00%
Years of Service	Termination Probability								
0-4	1.00%								
5-13	0.50%								
14+	0.00%								

GASB 67

Retirement Rates:	Number of Years After First	Probability of Retirement
	Eligibility for Early Retirement	
	0	2.00%
	1	2.00%
	2	2.00%
	3	2.00%
	4	2.00%
	5	5.00%
	6	7.50%
	7	7.50%
	8	10.00%
	9	16.70%
	10	16.70%
	11	16.70%
	12	20.00%
	13	20.00%
	14	30.00%
	15	40.00%
	16	50.00%
	17	75.00%
	18	100.00%

Retro-DROP Elections:	Number of	No-DROP	Duration 1	Duration 2
	Years After			
	First Eligibility	Elected	Election	Election
	for Early			
	Retirement			
	0	90%	0.5 years (10%)	n/a
	1	50%	1 year (50%)	n/a
	2	50%	1 year (25%)	2 years (25%)
	3	50%	1 year (25%)	2 years (25%)
	4	20%	1 year (60%)	3 years (20%)
	5	20%	2 years (40%)	4 years (40%)
	6	20%	2 years (60%)	5 years (20%)
	7	20%	2 years (50%)	5 years (30%)
	8	20%	3 years (60%)	6 years (20%)
	9	10%	3 years (50%)	6 years (40%)
	10	10%	3 years (50%)	6 years (40%)
	11	10%	3 years (60%)	6 years (30%)
	12	10%	3 years (75%)	6 years (15%)
	13	10%	3 years (40%)	6 years (50%)
	14	10%	3 years (40%)	6 years (50%)
	15	10%	3 years (20%)	6 years (70%)
	16	10%	3 years (20%)	6 years (70%)
	17	10%	3 years (20%)	6 years (70%)
	18	10%	3 years (20%)	6 years (70%)

GASB 67

Disability Rate Table:

Age	Probability of Disablement
20	0.014%
25	0.019%
30	0.031%
35	0.052%
40	0.092%
45	0.209%
50	0.379%
55	0.490%
60	0.911%

% Increase in Salary*:

Years of Service	Increase
0	6.00%
1	8.50%
2	7.50%
3	4.00%
4	1.00%
5	5.00%
10	1.50%
15	1.50%
20	5.50%
21+	1.00%

* Expected increase in salary in addition to general wage inflation assumption.

SCHEDULE OF INVESTMENT RETURNS
Last 10 Years

	<u>12/31/2016</u>	<u>12/31/2015</u>	<u>12/31/2014</u>	<u>12/31/2013</u>
Annual Money-Weighted Rate of Return				
Net of Investment Expense	7.13%	0.81%	5.60%	13.30%

NOTES TO THE FINANCIAL STATEMENTS
(For the Year Ended September 30, 2017)

General Information about the Pension Plan

Plan Description

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of:

- a. The Mayor of the municipality,
- b. The city treasurer or, if there is no treasurer, the person who by law, charter provision, or ordinance performs the duty of city treasurer,
- c. Three Members of the fund to be selected by vote of the firefighters and retirees.

A person who begins service as a firefighter in a municipality to which this Act applies and who is not ineligible for Membership in the fund becomes a member of the fund as a condition of that person's appointment.

Plan Membership as of December 31, 2015:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	704
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	6
Active Plan Members	1,050
	1,760

Benefits Provided

The Plan provides retirement, disability, termination and death benefits.

Normal Retirement:

Earlier of age 50 and 10 years of Service, or 25 years of Service, regardless of age.

Benefit: 3.30% of Average Monthly Compensation times Service (\$1,200 minimum). Effective July 1, 2012, the minimum benefit was increased to \$2,000 per month for all retirees and surviving spouses currently receiving normal or disability retirement benefits which commenced prior to January 1, 1994.

Early Retirement:

Earlier of age 45 and 10 years of Service, or 20 years of Service, regardless of age.

Benefit: Same for Normal Retirement as shown above. Members who retire under Early Retirement are not eligible to receive any COLA adjustments until the date they would have met Normal Retirement eligibility requirements.

Vesting:

Schedule: 100% after 10 years of Service.

Benefit Amount: Member will receive his (her) accrued benefit payable at age 50 or the date they would have completed 25 years of Service had they remained employed.

Non-vested members receive a refund of member contributions accumulated with 5.0% interest.

Disability:

Disability preventing the Member from performing the duties of a firefighter during the two and one-half years after becoming disabled or any employment after the two and one-half years after becoming disabled.

Accrued benefit at date of disability, but not less than 66% of Average Monthly Compensation.

Death Benefits:

Surviving Spouse of Member: 75% of Member's accrued benefit at date of death, but not less than 49.5% of Average Monthly Compensation.

Dependent Children of Member (with Surviving Spouse): Each child is entitled to 15% of the payment paid to the surviving spouse as shown directly above.

Dependent Children of Member (with no Surviving Spouse): 75% of the payment that would have been paid to a surviving spouse as shown above, split equally among each dependent child.

Cost of Living Adjustment:

Eligibility: Normal Retirement

Amount: Determined by the actuary if providing a COLA will not impair financial stability of the Fund.

GASB 68

Contributions

Member Contributions: 18.20% of Salary from 10/01/2015 to 09/30/2016. 18.70% of Salary on and after 10/01/2016.

City Contributions: 22.05% of payroll.

Net Pension Liability

The measurement date is December 31, 2016.

The measurement period for the pension expense was December 31, 2015 to December 31, 2016.

The reporting period is September 30, 2016 through September 30, 2017.

The Sponsor's Net Pension Liability was measured as of December 31, 2016.

The Total Pension Liability used to calculate the Net Pension Liability was determined as of that date.

Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of December 31, 2015 updated to December 31, 2016 using the following actuarial assumptions:

Inflation	3.00%
Salary Increases	1.00% - 6.00%
Discount Rate	7.70%
Investment Rate of Return	7.70%

Mortality Rates Healthy Lives: RP-2000 (Fully Generational using Scale AA) set back two years for males and females - Sex distinct. The assumed rates of mortality sufficiently accommodate expected mortality improvements.

Mortality Rates Disabled Lives: RP2000 Disability Mortality Table.

The most recent actuarial experience study used to review the other significant assumptions was dated June 15, 2015.

The Long-Term Expected Rate of Return on Pension Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, Net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2016, the inflation rate assumption of the investment advisor was 2.50%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of December 31, 2016 are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long Term Expected Real Rate of Return</u>
Public Domestic Equity	20%	5.3%
Public Foreign Equity	22%	6.9%
Private Equity Fund of Funds	15%	5.6%
Investment Grade Bonds	13%	1.1%
TIPS	5%	0.8%
High Yield/Bank Loans	5%	3.8%
Emerging Market Debt	7%	3.6%
Core Real Estate	5%	3.4%
Non-Core Real Estate	5%	5.0%
Natural Resources	3%	5.9%
<u>Total</u>	<u>100%</u>	

GASB 68

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.70 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

For purpose of this valuation, the expected rate of return on pension plan investments is 7.70%; the municipal bond rate is 3.78% (based on the weekly rate closest to but not later than the measurement date of the Bond Buyer 20-Bond Index as published by the Bond Buyer); and the resulting single discount rate is 7.70%.

CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a)-(b)
Reporting Period Ending September 30, 2016	\$ 913,618,039	\$ 785,211,061	\$ 128,406,978
Changes for a Year:			
Service Cost	24,322,417	-	24,322,417
Interest	70,892,708	-	70,892,708
Differences between Expected and Actual Experience	8,893,371	-	8,893,371
Changes of assumptions	-	-	-
Changes of benefit terms	5,491,908	-	5,491,908
Contributions - Employer	-	19,103,891	(19,103,891)
Contributions - Employee	-	15,884,261	(15,884,261)
Contributions - Buy Back	-	-	-
Net Investment Income	-	55,569,165	(55,569,165)
Benefit Payments, including Refunds of Employee Contributions	(45,495,681)	(45,495,681)	-
Administrative Expense	-	(662,501)	662,501
Net Changes	64,104,723	44,399,135	19,705,588
Reporting Period Ending September 30, 2017	<u>\$ 977,722,762</u>	<u>\$ 829,610,196</u>	<u>\$ 148,112,566</u>

Sensitivity of the Net Pension Liability to changes in the Discount Rate.

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.70%	7.70%	8.70%
Sponsor's Net Pension Liability	\$ 248,625,776	\$ 148,112,566	\$ 63,515,024

Pension Plan Fiduciary Net Position.

Detailed information about the pension Plan's Fiduciary Net Position is available in a separately issued Plan financial report.

FINAL PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND
 DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS
 FISCAL YEAR SEPTEMBER 30, 2016

For the year ended September 30, 2016, the Sponsor has recognized a Pension Expense of \$29,751,226.

On September 30, 2016, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	6,293,565	-
Changes of assumptions	3,798,049	-
Net difference between Projected and Actual Earnings on Pension Plan investments	52,689,703	-
Employer contributions subsequent to the measurement date	13,993,961	-
Total	\$ 76,775,278	\$ -

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer contributions subsequent to the measurement date has been recognized as a reduction of the Net Pension Liability in the year ended September 30, 2016.

Other amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:		
2017		\$ 15,401,420
2018		\$ 15,401,419
2019		\$ 15,401,420
2020		\$ 12,252,081
2021		\$ 1,441,659
Thereafter		\$ 2,883,318

PRELIMINARY PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS
FISCAL YEAR SEPTEMBER 30, 2017

For the year ended September 30, 2017, the Sponsor will recognize a Pension Expense of \$42,859,568.

On September 30, 2017, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	13,176,184	-
Changes of assumptions	3,255,470	-
Net difference between Projected and Actual Earnings on Pension Plan investments	42,299,574	-
Employer contributions subsequent to the measurement date	TBD	-
Total	<u>TBD</u>	<u>\$ -</u>

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ended September 30, 2017.

Other amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:	
2018	\$ 17,405,499
2019	\$ 17,405,500
2020	\$ 14,256,160
2021	\$ 3,445,738
2022	\$ 2,553,330
Thereafter	\$ 3,665,001

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
Last 10 Fiscal Years

Reporting Period Ending	09/30/2017	09/30/2016
Measurement Date	12/31/2016	12/31/2015
Total Pension Liability		
Service Cost	24,322,417	23,309,543
Interest	70,892,708	66,404,730
Changes of benefit terms	5,491,908	-
Differences between Expected and Actual Experience	8,893,371	7,192,645
Changes of assumptions	-	-
Benefit Payments, including Refunds of Employee Contributions	(45,495,681)	(44,756,847)
Net Change in Total Pension Liability	64,104,723	52,150,071
Total Pension Liability - Beginning	913,618,039	861,467,968
Total Pension Liability - Ending (a)	<u>\$977,722,762</u>	<u>\$913,618,039</u>
Plan Fiduciary Net Position		
Contributions - Employer	19,103,891	19,222,329
Contributions - Employee	15,884,261	15,546,979
Net Investment Income	55,569,165	6,328,063
Benefit Payments, including Refunds of Employee Contributions	(45,495,681)	(44,756,847)
Administrative Expense	(662,501)	(562,687)
Net Change in Plan Fiduciary Net Position	44,399,135	(4,222,163)
Plan Fiduciary Net Position - Beginning	785,211,061	789,433,224
Plan Fiduciary Net Position - Ending (b)	<u>\$829,610,196</u>	<u>\$785,211,061</u>
Net Pension Liability - Ending (a) - (b)	<u>\$148,112,566</u>	<u>\$128,406,978</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	84.85%	85.95%
Covered Employee Payroll	\$ 86,638,961	\$ 87,836,040
Net Pension Liability as a percentage of Covered Employee Payroll	170.95%	146.19%

Notes to Schedule:*Changes of benefit terms:*

For measurement date 12/31/2016, amounts reported as changes of benefit terms resulted from a cost-of-living adjustment. Eligible retirees receive a 1.5% cost-of-living adjustment, effective January 1, 2017.

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
Last 10 Fiscal Years

Reporting Period Ending	09/30/2015	09/30/2014
Measurement Date	12/31/2014	12/31/2013
Total Pension Liability		
Service Cost	25,318,456	23,497,407
Interest	62,976,839	59,249,151
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	-	-
Changes of assumptions	4,883,207	-
Benefit Payments, including Refunds of Employee Contributions	(37,992,903)	(34,943,917)
Net Change in Total Pension Liability	55,185,599	47,802,641
Total Pension Liability - Beginning	806,282,369	758,479,728
Total Pension Liability - Ending (a)	<u>\$861,467,968</u>	<u>\$806,282,369</u>
Plan Fiduciary Net Position		
Contributions - Employer	18,669,944	17,786,494
Contributions - Employee	14,659,946	14,000,514
Net Investment Income	42,005,227	101,289,167
Benefit Payments, including Refunds of Employee Contributions	(37,992,903)	(34,943,917)
Administrative Expense	(530,816)	(363,050)
Net Change in Plan Fiduciary Net Position	36,811,398	97,769,208
Plan Fiduciary Net Position - Beginning	752,621,826	654,852,618
Plan Fiduciary Net Position - Ending (b)	<u>\$789,433,224</u>	<u>\$752,621,826</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 72,034,744</u>	<u>\$ 53,660,543</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	91.64%	93.34%
Covered Employee Payroll	\$ 84,670,948	\$ 83,279,101
Net Pension Liability as a percentage of Covered Employee Payroll	85.08%	64.43%

Notes to Schedule:

Changes of assumptions:

For measurement date 12/31/2014, amounts reported as changes of assumptions resulted from an actuarial experience study dated June 15, 2015, below a brief overview of the changes:

- A "fresh-start" on the actuarial asset value has been implemented. For all future valuations, the asset valuation method will utilize a new smoothing technique.
- The investment return assumption has been decreased from 7.75% to 7.70% per year compounded annually, net of all expenses.
- The general wage inflation rate has been decreased from 3.5% to 3.0% per year.
- The service-based table attributable to merit and longevity salary increases has been amended.
- The retirement rates have been amended.
- The Retro-DROP election assumptions have been amended.
- The withdrawal rates have been amended.
- The assumed spousal age difference has been amended.

SCHEDULE OF CONTRIBUTIONS
Last 10 Fiscal Years

	09/30/2017	09/30/2016	09/30/2015
Actuarially Determined Contribution Contributions in relation to the Actuarially Determined Contributions Contribution Deficiency (Excess)	N/A	N/A	N/A
	N/A	N/A	N/A
	N/A	N/A	N/A
Covered Employee Payroll Contributions as a percentage of Covered Employee Payroll	TBD by City	TBD by City	TBD by City
	22.05%	22.05%	22.05%

Notes to Schedule

Methods and assumptions used to determine liabilities:

Mortality Rates - Healthy Lives	RP-2000 (Fully Generational using Scale AA) set back two years for males and females - Sex Distinct. The assumed rates of mortality sufficiently accommodate expected mortality improvements.								
Mortality Rates - Disabled Lives	RP2000 Disability Mortality Table.								
Retirement Elections:	See tables on following page. These assumptions were approved in conjunction with an actuarial experience study dated June 15, 2015.								
Termination Rates:	See tables below. These assumptions were approved in conjunction with an actuarial experience study dated June 15, 2015.								
Disability Rates:	See tables on following pages. These assumptions were reviewed in conjunction with an actuarial experience study dated June 15, 2015.								
Interest Rate:	7.70% per year, compounded annually, net of all expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.								
Salary Increases:	See tables on following page. These assumptions were approved in conjunction with an actuarial experience study dated June 15, 2015.								
General Wage Inflation:	3.00% per year. This assumption was approved in conjunction with an actuarial experience study dated June 15, 2015.								
Inflation:	3.50% per year. This is reasonable based upon long-term historical experience.								
Payroll Growth:	3.50% per year :								
Asset Valuation Method:	All assets are valued at market value with an adjustment to uniformly spread investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period.								
Marital Status:	100% of actives are assumed to be married at time of benefit commencement. Females are assumed to be 4 years younger than Males. Additionally, 50% are assumed to have dependent children. The age of the youngest child is assumed to be one year. These assumptions were approved in conjunction with an actuarial experience study dated June 15, 2015.								
Actuarial Cost Method:	Entry Age Normal Actuarial Cost Method.								
Amortization Method:	Level Percentage of Pay, Closed.								
Remaining Amortization Period:	12.29 Years (as of 12/31/2015).								
Termination Rates:	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Years of Service</th> <th style="text-align: center;">Termination Probability</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">0-4</td> <td style="text-align: center;">1.00%</td> </tr> <tr> <td style="text-align: center;">5-13</td> <td style="text-align: center;">0.50%</td> </tr> <tr> <td style="text-align: center;">14+</td> <td style="text-align: center;">0.00%</td> </tr> </tbody> </table>	Years of Service	Termination Probability	0-4	1.00%	5-13	0.50%	14+	0.00%
Years of Service	Termination Probability								
0-4	1.00%								
5-13	0.50%								
14+	0.00%								

GASB 68

Retirement Rates:

Number of Years After First Eligibility for Early Retirement	Probability of Retirement
0	2.00%
1	2.00%
2	2.00%
3	2.00%
4	2.00%
5	5.00%
6	7.50%
7	7.50%
8	10.00%
9	16.70%
10	16.70%
11	16.70%
12	20.00%
13	20.00%
14	30.00%
15	40.00%
16	50.00%
17	75.00%
18	100.00%

Retro-DROP Elections:

Years After First Eligibility for Early	No-DROP Elected	Duration 1 Election	Duration 2 Election
0	90%	0.5 years (10%)	n/a
1	50%	1 year (50%)	n/a
2	50%	1 year (25%)	2 years (25%)
3	50%	1 year (25%)	2 years (25%)
4	20%	1 year (60%)	3 years (20%)
5	20%	2 years (40%)	4 years (40%)
6	20%	2 years (60%)	5 years (20%)
7	20%	2 years (50%)	5 years (30%)
8	20%	3 years (60%)	6 years (20%)
9	10%	3 years (50%)	6 years (40%)
10	10%	3 years (50%)	6 years (40%)
11	10%	3 years (60%)	6 years (30%)
12	10%	3 years (75%)	6 years (15%)
13	10%	3 years (40%)	6 years (50%)
14	10%	3 years (40%)	6 years (50%)
15	10%	3 years (20%)	6 years (70%)
16	10%	3 years (20%)	6 years (70%)
17	10%	3 years (20%)	6 years (70%)
18	10%	3 years (20%)	6 years (70%)

GASB 68

Disability Rate Table:

Age	Probability of Disablement
20	0.014%
25	0.019%
30	0.031%
35	0.052%
40	0.092%
45	0.209%
50	0.379%
55	0.490%
60	0.911%

% Increase in Salary*:

Years of Service	Increase
0	6.00%
1	8.50%
2	7.50%
3	4.00%
4	1.00%
5	5.00%
10	1.50%
15	1.50%
20	5.50%
21+	1.00%

* Expected increase in salary in addition to general wage inflation assumption.

FINAL COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2016

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 72,034,744	\$ -	\$ 31,007,032	\$ -
Employer Contributions made after 12/31/2015	-	-	13,993,961	-
Total Pension Liability Factors:				
Service Cost	23,309,543	-	-	23,309,543
Interest	66,404,730	-	-	66,404,730
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	7,192,645	-	7,192,645	-
Current year amortization of experience difference	-	-	(899,080)	899,080
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	(542,579)	542,579
Benefit Payments	(44,756,847)	-	-	(44,756,847)
Net change	<u>52,150,071</u>	<u>-</u>	<u>19,744,947</u>	<u>46,399,085</u>
Plan Fiduciary Net Position:				
Contributions - Employer	19,222,329	-	(14,069,052)	-
Contributions - Employee	15,546,979	-	-	(15,546,979)
Projected Net Investment Income	60,380,175	-	-	(60,380,175)
Difference between projected and actual earnings on Pension Plan investments	(54,052,112)	-	54,052,112	-
Current year amortization	-	-	(13,959,761)	13,959,761
Benefit Payments	(44,756,847)	-	-	44,756,847
Administrative Expenses	(562,687)	-	-	562,687
Net change	<u>(4,222,163)</u>	<u>-</u>	<u>26,023,299</u>	<u>(16,647,859)</u>
Ending Balance	<u>\$ 128,406,978</u>	<u>\$ -</u>	<u>\$ 76,775,278</u>	<u>\$ 29,751,226</u>

PRELIMINARY COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2017

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 128,406,978	\$ -	\$ 76,775,278	\$ -
Employer Contributions made after 12/31/2016	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	24,322,417	-	-	24,322,417
Interest	70,892,708	-	-	70,892,708
Changes in benefit terms	5,491,908	-	-	5,491,908
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	8,893,371	-	8,893,371	-
Current year amortization of experience difference	-	-	(2,010,752)	2,010,752
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	(542,579)	542,579
Benefit Payments	(45,495,681)	-	-	(45,495,681)
Net change	<u>64,104,723</u>	<u>-</u>	<u>6,340,040</u>	<u>57,764,683</u>
Plan Fiduciary Net Position:				
Contributions - Employer	19,103,891	-	(13,993,961)	-
Contributions - Employee	15,884,261	-	-	(15,884,261)
Projected Net Investment Income	60,031,206	-	-	(60,031,206)
Difference between projected and actual earnings on Pension Plan investments	(4,462,041)	-	4,462,041	-
Current year amortization	-	-	(14,852,170)	14,852,170
Benefit Payments	(45,495,681)	-	-	45,495,681
Administrative Expenses	(662,501)	-	-	662,501
Net change	<u>44,399,135</u>	<u>-</u>	<u>(24,384,090)</u>	<u>(14,905,115)</u>
Ending Balance	<u>\$ 148,112,566</u>	<u>\$ -</u>	<u>TBD</u>	<u>\$ 42,859,568</u>

* Employer Contributions subsequent to the measurement date made after December 31, 2016 but made on or before September 30, 2017 need to be added.

AMORTIZATION SCHEDULE - INVESTMENT

Increase (Decrease) in Pension Expense Arising from the Recognition of the of Differences Between Projected and Actual Earnings on Pension Plan Investments

Plan Year Ending	Differences Between Projected and Actual Earnings	Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Recognition of the of Differences Between Projected and Actual Earnings on Pension Plan Investments										
			2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
2014	\$ 15,746,691	5	\$ 3,149,338	\$ 3,149,338	\$ 3,149,338	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 54,052,112	5	\$ 10,810,423	\$ 10,810,422	\$ 10,810,422	\$ 10,810,422	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 4,462,041	5	\$ 892,409	\$ 892,408	\$ 892,408	\$ 892,408	\$ 892,408	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 14,852,170	\$ 14,852,168	\$ 14,852,168	\$ 11,702,830	\$ 892,408	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

GASB 68

AMORTIZATION SCHEDULE - CHANGES OF ASSUMPTIONS

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes of Assumptions

Plan Year Ending	Changes of Assumptions	Recognition Period (Years)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
2014	\$ 4,883,207	9	\$ 542,579	\$ 542,579	\$ 542,579	\$ 542,578	\$ 542,578	\$ 542,578	\$ 542,578	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 542,579	\$ 542,579	\$ 542,579	\$ 542,578	\$ 542,578	\$ 542,578	\$ 542,578	\$ -	\$ -	\$ -	\$ -

Austin Firefighters' Relief and Retirement Fund

FOSTER & FOSTER

AMORTIZATION SCHEDULE - EXPERIENCE

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience

Plan Year Ending	Differences Between Expected and Actual Experience	Recognition Period (Years)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2015	\$ 7,192,645	8	\$ 899,080	\$ 899,080	\$ 899,081	\$ 899,081	\$ 899,081	\$ 899,081	\$ 899,081	\$ -	\$ -	\$ -
2016	\$ 8,893,371	8	\$ 1,111,672	\$ 1,111,672	\$ 1,111,672	\$ 1,111,671	\$ 1,111,671	\$ 1,111,671	\$ 1,111,671	\$ 1,111,671	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 2,010,752	\$ 2,010,752	\$ 2,010,753	\$ 2,010,752	\$ 2,010,752	\$ 2,010,752	\$ 2,010,752	\$ 1,111,671	\$ -	\$ -

PENSION PLAN GUIDE

GOVERNING PENSION LAW

The pension plan was established by an Act of the 45th Legislature of the State of Texas, which met in 1937. The fund was created by state statute article 6243e and the Austin Firefighters Relief and Retirement Fund is currently governed by article 6243e.1. This statute only pertains to the Austin firefighters.

ADMINISTRATION

The fund is administered by a Board of Trustees consisting of five (5) members. The Mayor is the Board Chairman and the City Treasurer is the Secretary-Treasurer of the Board. Members of the fund elect three (3) department members to serve on the Board. The Board elects a Vice-Chairman annually from among their number.

An administrative pension office and staff have been established to better serve the firefighters, retirees, and their beneficiaries. Administrative costs and expenses for professional services rendered are paid by the fund.

INVESTMENT OF FUNDS

The Board is required by law to keep separate from all other city funds all money for the use and benefit of the Firefighters Relief and Retirement Fund. The Board has hired an investment consultant, Summit Strategies, who assists the pension board with the development, enhancement, and monitoring of the plan's investment policies and guidelines. They also assist the Board in researching investment managers and making recommendations in the selection of such investment managers. Surplus pension funds are then invested by these professional investment managers as selected by the pension board.

The fund has an investment custody account agreement with State Street designating them as the master trust custodian for the pension fund. State Street's home office is in Boston, Massachusetts and also has divisions in Winston-Salem, North Carolina, Jacksonville, Florida, and Kansas City, Missouri, which all provide various key services to the fund.

ELIGIBILITY

All commissioned civil service and Texas state-certified firefighters with at least six (6) months of service who are employed by the fire department pursuant to the Firemen's and Policemen's Civil Service Statute.

CONTRIBUTIONS

Per our statute, the firefighter is to contribute 15.70% of their bi-weekly base pay and longevity pay. The City of Austin's pension contributions will increase from 18.05% of salary to 22.05% in a total of four 1% increments by the year 2013. The firefighters' contributions will increase from 15.70% of salary to 18.70% in a total of six ½% increments by the year 2016.

SERVICE CONSIDERED

The period of time for which a member is required to make and does make prescribed contributions. Military service, only which interrupts fire department service, may also be considered under certain circumstances.

COMPENSATION CONSIDERED IN DETERMINING AVERAGE SALARY

Base pay and longevity pay is considered. Overtime, any temporary pay in a higher classification, educational incentive pay, and lump sum payments for accrued sick leave or vacation are not considered.

RETIREMENT BENEFIT

A firefighter is eligible for a normal service retirement benefit once he/she either attains age fifty (50) or accrues twenty-five (25) years of service, regardless of age. The monthly annuity, payable for life, is 3.30% of salary multiplied by years of service considered. Average salary is the monthly average of the firefighter's salary for the highest thirty-six (36) months during his/her period of service, excluding overtime pay, any temporary pay in higher classifications, educational incentive pay, Christmas Day bonus pay, automobile and clothing allowances.

EARLY RETIREMENT BENEFIT

A firefighter is eligible for an early retirement benefit at age forty-five (45), with at least (10) years of service, or twenty (20) years of service regardless of age. The early retirement benefit does not include a reduction in the factor. However, firefighters who retire early or who participate in a deferred retirement option plan (DROP), do not become eligible for cost-of-living adjustments (COLA's) until reaching normal service retirement eligibility at age fifty (50) with at least ten (10) years of service, or twenty-five (25) years of service credit regardless of age; whichever comes first.

DEFERRED RETIREMENT OPTION PLAN

Under this program a member eligible for service retirement may elect to continue in active service as a firefighter but have the fund begin crediting "payments" to a deferred retirement option plan (DROP) account in the member's name as of their eligible retirement (DROP) date. The monthly "payments" would be an amount equal to what the member's monthly annuity would have been if the member had actually retired as of that eligible DROP date. Any eligible cost-of-living adjustments (COLAS) would be applied to the monthly annuity during this DROP period. In addition, during the DROP period, the member would have all of their appropriate pension contributions and applicable annual interest of 5% compounded monthly credited to their account during the DROP period as well. When the member actually retires, by terminating their active service in the fire department, an accumulated lump sum balance may be available to be distributed to the member from the DROP account if the retiree is eligible for such direct distribution by meeting age requirements according to pension board policy. Certain penalties could apply for "early distributions," so the pension board encourages seeking tax advisement when in doubt. The DROP account lump sum may also be "rolled over" into a qualified Individual Retirement Account (IRA) which is typically the option chosen by most firefighters. A third option is for the DROP account lump sum to remain in the fund in the member's name continuing to draw 5% interest compounded monthly until the retiree is ready to have the funds moved elsewhere. At this time of termination for retirement, the member will then begin receiving their ongoing monthly pension benefit payments from the fund as well.

A member who has remained in active service after becoming eligible for service retirement can retroactively establish such a DROP account. That is, in lieu of electing to participate in the DROP before actual retirement, a member who is eligible for normal service retirement may elect to terminate active service as a firefighter and establish the DROP account at termination. This is commonly referred to as a "BACK DROP," whereby the firefighter's DROP account reflects the accrual from the actual termination date back to a date upon or after which they become eligible for normal service retirement. The maximum period under which a firefighter can participate in a DROP is 7 years. A firefighter may elect to establish a DROP account after reaching normal or early service retirement eligibility.

Effective September 1, 2001 all DROP calculations, including "BACK DROP" calculations, have used a 3.30% factor regardless of the actual DROP date. Any firefighter eligible for a DROP who dies before retirement, and who is survived by a spouse, shall have such DROP options extended to their surviving spouse.

DISABILITY BENEFIT

A firefighter is eligible for a disability retirement benefit during the first thirty (30) months of his/her disability if he/she is unable to perform the duties of his/her occupation as a firefighter. After this initial thirty (30) month period, a disability retirement benefit may be continued, reduced, or discontinued according to criteria as established by the American Medical Association and as adopted by the pension board. The annuity is equal to the firefighter's accrued unreduced pension based on the greater of (1) his/her service at time of disability, or (2) twenty (20) years of service.

It is the policy of the Board that no disability retirement benefit shall commence retroactively more than ninety (90) days prior to the date on which the application is filed with the fund.

DEATH BENEFIT

If a firefighter dies either before or after retirement, the firefighter's surviving spouse shall receive seventy-five (75) percent of the member's accrued unreduced pension based on the greater of (1) his/her service at time of death, or (2) twenty (20) years of service. If the member's employment is terminated by death before retirement and he/she leaves no surviving beneficiary entitled to pension benefits, then the member's estate shall receive their contributions with interest. Any lump sum payments to the member's estate will include 5% interest based on a method of application approved by the Board.

VESTED BENEFIT

If the member has at least ten (10) years of service and terminated his/her employment with the fire department, he/she may elect to leave his/her accumulated deposits in the fund. He/She will be entitled to a vested benefit commencing at the earliest of age fifty (50) or at the age which the firefighter would have completed twenty-five (25) years of service regardless of age, whichever occurs first.

SEVERANCE

The severance benefit of a firefighter who subsequently terminates his/her employment before he/she is eligible for retirement shall be an amount equal to the sum total of his/her pension contributions, with interest, which were made while a participating member of the fund.

Severance benefits for such terminating members will include their contributions along with 5% interest and will be based on a method of application approved by the Board.

COST-OF-LIVING ADJUSTMENTS

Cost-of-living adjustments (COLA's) may not be made unless the fund's actuary has advised the pension board that the adjustment would not impair the financial stability of the fund.

Although a COLA has not been able to be actuarially approved consistently in recent years, the pension board remains committed to granting COLA's to retirees as soon as reserves are available and following actuarial certification.

BEFORE-TAX CONTRIBUTIONS

Funds available to pay benefits come from three (3) sources....

- Your contributions
- City of Austin contributions, and
- Investment earnings

You contribute 15.70% of your bi-weekly base pay and longevity pay (increasing to 18.70% by 2016). The City of Austin contributes 18.05% of base pay and longevity pay for each plan participant (increasing to 22.05% by 2013). For example, if your annual pay is \$40,000.00, you will contribute \$6,280.00 (15.70%) a year and the City of Austin will contribute \$7,220.00 (18.05%). Since January 1, 1986, your contributions into the plan are being made before taxes are figured. This reduces your taxable income, so you pay less federal income tax and your take-home pay is greater. An example follows:

	<u>BEFORE TAX</u>	<u>AFTER TAX</u>
Assume your pay is	\$40,000.00	\$40,000.00
Pre-Tax Contributions	-6,280.00	-0.00
Federal Taxes (Assume 15% bracket)	<u>-5,058.00</u>	<u>-6,000.00</u>
	\$28,662.00	\$34,000.00
After-Tax Contributions	<u>- .00</u>	<u>-6,280.00</u>
Take Home Pay	\$28,662.00	\$27,720.00

RETIREMENT BENEFIT EXAMPLE

Your retirement benefit is based upon three (3) components...

- Years of credited service in plan, multiplied by
- Retirement factor of 3.30%, multiplied by
- Your highest thirty-six (36) months average salary

Assume you are a retiring firefighter who is fifty-five (55) years old with twenty-seven (27) years of credited service, and whose highest thirty-six (36) months average salary is \$4,000.00. Your pension would be calculated as follows:

- Years	27
- Factor	3.30%
- Salary	<u>\$4,000.00</u>
- Monthly Benefit	\$3,564.00

EARLY RETIREMENT BENEFIT EXAMPLE

A firefighter is eligible for an early retirement benefit at age forty-five (45), with at least ten (10) years of service, or twenty (20) years of credited service regardless of age. The early retirement benefit does not include a reduction in the factor. However, firefighters who retire early or who participate in a deferred retirement option plan (DROP) do not become eligible for cost-of-living adjustments (COLA's) until reaching normal service retirement eligibility (age fifty (50) with at least (10) years of service, or twenty-five (25) years of service regardless of age; whichever comes first).

Assume you joined the fire department and pension plan at age twenty-five (25). At age forty-five (45), with twenty (20) years of service, you elect to terminate service in order to begin receiving an early retirement benefit. Also assume your highest thirty-six (36) months average salary is \$4,000.00. The benefit is then calculated as follows:

- Years	20
- Factor	3.30%
- Salary	<u>\$4,000.00</u>
- Monthly Retirement Benefit	\$2,640.00

DISABILITY RETIREMENT EXAMPLE

If a firefighter is eligible for disability benefits but has less than twenty (20) years of credited service, then twenty (20) years is used in the calculation. A disability benefit is calculated the same way a regular retirement benefit is, using the same three (3) components as follows:

- Years (assume 20 if less)	20
- Factor	3.30%
- Salary (assumed)	<u>\$3,000.00</u>
- Monthly Disability	\$1,980.00

SURVIVORS BENEFIT

Benefits are available to eligible dependents of all plan participants should such participant die before or after retirement. Eligible dependents include...

- Spouse, if married to you at time of retirement.
- Spouse, if married to you after retirement and you remained married for at least 24 consecutive months prior to your death.
- Spouse, if married to you at time of your death; and you die before retirement.
- All unmarried children under age twenty-two (22), unless the Board determines to the contrary.
- Dependent parent, if no surviving spouse or children are eligible.
- Designated surviving beneficiaries other than a spouse, child, or dependent parent as explained below.

Effective September 1, 2001, on the death of unmarried members who are retired or who are eligible to retire, designated beneficiaries other than an eligible spouse or children are eligible for survivor benefits; but only if there is no benefit payable to a surviving spouse or children. Since September 1, 1997, eligible spousal benefits are paid for life even after remarriage. Also since September 1, 1997, as mentioned above, spousal benefits apply to those who become married to the retiree after such retiree's retirement and remain married to such retiree at least 24 consecutive months prior to the retiree's death.

After all payments cease any remaining balance of the member's total contributions including interest at the date of the member's death, which exceeds any retirement and death benefits paid, shall go to the member's estate.

SURVIVORS BENEFIT EXAMPLE

Assume you are retired drawing \$3,564.00 per month and pass away, leaving a spouse who is eligible for benefits and have no children. Your spouse will receive seventy-five (75) percent of your benefit as follows:

SURVIVORS BENEFIT EXAMPLE (Continued)

- Your monthly benefit	\$3,564.00
	<u>X 75.00 %</u>
- Your spouse's monthly benefit	\$2,673.00

Assume you pass away before retirement and you are survived by an eligible spouse and child. Suppose your average salary for the highest thirty-six (36) months averaged \$4,000.00, and you had eight (8) years of service at the time of death.

You first calculate the benefit you would have been entitled to at the date of death and then determine the appropriate amount to be paid to your spouse and child.

Your benefit would have been...

- Years (assume 20 if less)	20
- Factor	3.30 %
- Salary	<u>\$4,000.00</u>
- Monthly benefit	\$2,640.00

Your spouse's benefit is...

- Firefighter base benefit	\$2,640.00
- Factor	<u>X 75.00%</u>
- Spousal monthly benefit	\$1,980.00

A minimum monthly benefit of \$2,000.00 was approved for eligible retirees and spouses effective July 1, 2012. However, this minimum benefit does not necessarily apply to children's benefits and benefits paid according to court orders, divorce decrees, and qualified domestic relations orders.

The retirement factor for the child is actuarially designed to be fifteen (15) percent of the regular retirement factor (3.30%), which is .495 percent. The child receives .495 percent (.00495) of the fire fighter's average salary, multiplied by the number of years of service, assuming twenty (20) years if less.

Your child's benefit is...

- Years (assume 20 if less)	20
- Child's benefit factor	.495 %
- Average salary	<u>\$4,000.00</u>
- Child's monthly benefit	\$396.00

The eligible children, together, will be entitled to a total amount of seventy-five (75) percent of the fire fighter's accrued benefit at the time of death, if there is no surviving spouse.

PERSONNEL RECORDS

A personnel record (Form 500) is to be completed by all firefighters. This information furnishes the pension office necessary data regarding age, years of service, beneficiaries, birth dates, social security numbers and marital status. Updating this information keeps our pension office current for providing accurate data to our actuaries. The actuaries conduct biennial valuations and other occasional studies in order to determine the overall soundness of the fund.

RETIREMENT PROCESS

When a firefighter is ready to retire, there are forms available at the pension office to be completed. There will probably be other information to be furnished to the AFD administrative office as well. Upon retirement, the firefighter will receive a monthly annuity. Deductions can be made for withholding tax, as well as any health or dental insurance available through the City of Austin which the firefighter chooses. Direct deposit is also available. Please contact the pension office with any questions you have regarding your retirement. You can visit our web site at AFRS.ORG for more information about your retirement.

FUND HISTORY

The pension plan was established by an Act of the 45th Legislature of the State of Texas in 1937. The Austin Fire Fighters Pension Fund participated under state statute Article 6243e Vernon' Texas Civil Statutes until 1975. This law covered approximately 38 paid and part paid fire departments around the state. When benefit enhancements were being considered, it was difficult to revise wording which would not disrupt the other pension funds operating under the same statute. In 1975 Article 6243e.1 was established which would only cover the Austin Fire Fighters Pension Fund. The pension plan currently provides retirement, disability, death, and survivor benefits to approximately 1,700 active and retired participants and their eligible beneficiaries.

In 1984 an actuarial study was conducted to adjust all the current retirees' benefits based upon the effect of inflation from their original date of retirement. At that time there were some annuitants on the rolls that retired at the original monthly pension of \$100. Although these retirees had received cost-of-living increases through the years, they were still losing ground to inflation. After the actuarial changes were made, if a retiree's adjusted monthly benefit came to less than \$500, then a minimum monthly pension of \$500 would take effect. This was approved by the pension board in December 1984 and went into effect March 31, 1985. Since that time the minimum monthly benefit has been increased several times (See Chronology Of Pension Plan Changes below). A full inflation cost-of-living adjustment (COLA) was approved by the pension boards in most years from 1985 through 2002. Since that time, a very challenging financial market environment resulted in the inability to continue that pattern. Providing sound pension benefits and COLA's, when affordable, continues to be a top priority of the pension board.

CHRONOLOGY OF PENSION PLAN CHANGES

Significant plan changes and benefit enhancements since 1975 are as follows:

1975

A 2.0% COLA approved.

The retirement calculations changed from using the highest 5 years' average salary to using the highest 3 years' average salary.

The minimum monthly disability benefit changed from \$100 to \$200.

State statute Article 6243e.1 is created pertaining only to the Austin Firefighters Pension Fund, allowing the plan to branch away from the former statewide system.

1976

A 2.0% COLA approved.

1977

A 2.0% COLA approved.

1978

A 2.0% COLA approved.

The retirement multiplier increased from 2.0% to 2.1%

1979

A 2.0% COLA approved.

The minimum monthly spousal benefit increased from \$100 to \$200.

The minimum children's benefit increased from \$50 to \$100.

1980

A 2.0% COLA approved.

1981

A 2.0% COLA approved.

CHRONOLOGY OF PENSION PLAN CHANGES (Continued)

The retirement multiplier increased from 2.1% to 2.2%.

1982

A 2.0% COLA approved.

1983

A 2.0% COLA approved.

1984

A 2.0% COLA approved.

The retirement multiplier increased from 2.2% to 2.3%.

An actuarial study is conducted to adjust all then current retirees' benefits upward to offset the erosion of their benefits to inflation from their date of original retirement.

1985

A 4.0% COLA approved.

Early retirement eligibility set at age 50 and 25 years of service. (Normal retirement eligibility remained at age 55 or 35 years of service, regardless of age, which had been in effect for many years.)

Contribution rate by city increased from 14.0% to 14.05%.

The retirement multiplier increased from 2.3% to 2.5%

Employee contributions treated as employer contributions (pre-taxed) for federal income tax purposes.

Contributions are paid pre-taxed creating more take home pay.

A special increase for all current retirees to "catch their benefits up" with inflation from the time of their original retirement. If the resulting monthly benefit was less than \$500, then a \$500 minimum monthly benefit was approved where applicable.

1986

A 3.0% COLA approved.

1987

A 1.5% COLA approved.

The retirement multiplier increased from 2.50% to 2.65%.

Normal retirement eligibility lowered from age 55 or 35 years of service, regardless of age to age 55 or 30 years of service, regardless of age.

1988

A 4.0% COLA approved. The retirement multiplier increased from 2.65% to 2.90%.

1989

A 4.25% COLA approved.

The workers' compensation offset for disability benefits was eliminated.

Actuarially, an assumption adopted that 12% of firefighters were assumed to be single at retirement.

1990

A 4.50% COLA approved.

CHRONOLOGY OF PENSION PLAN CHANGES (Continued)

1991

A 6.30% COLA approved.

The minimum monthly pension benefit increased from \$500 to \$850 for normal service retirement, current retirees and spouses.

Normal retirement eligibility reduced from age 55 or 30 years of service, regardless of age to age 53 or 28 years of service, regardless of age. Surviving children eligible for full spousal benefits in the event there is no surviving spouse.

Actuarially, across the board salary increases assumption was decreased from 6.50% to 5.50% annually.

1992

A 2.90% COLA approved.

The minimum monthly pension benefit increased from \$850 to \$1000 for normal service retirement, current retirees and spouses.

Actuarially, a 5% anticipated COLA is extended through 1996.

1993

A 3.20% COLA is approved.

Normal retirement eligibility lowered from age 53 or 28 years of service, regardless of age to age 52 or 27 years of service, regardless of age.

Early retirement eligibility lowered from age 50 with 25 years of service to age 50 or 25 years of service, regardless of age.

The survivor (spousal) benefit is changed to a flat 75% of retiree's benefit.

Contribution refunds are paid with 5% interest.

Actuarially, growth in payroll no longer assumes 1% growth in membership annually.

Actuarially, a 5% anticipated COLA is extended through 1998.

1994

A 2.80% COLA is approved.

The minimum monthly pension benefit is increased from \$1000 to \$1200 for normal service retirement, current retirees and spouses.

City of Austin contributions increased from 14.05% to 16.05% of pay, while the contribution rate by the firefighters remains at 13.70%.

1995

A 2.60% COLA is approved.

Normal retirement eligibility reduced from age 52 to 50 (with at least 10 years of service) or with 25 years of service, regardless of age, down from 27 years of service.

Early retirement eligibility reduced from age 50 to age 48 (with at least 10 years of service) or with 23 years of service regardless of age, down from 25 years of service.

The retirement multiplier was increased from 2.90% to 3.0%.

A deferred retirement option plan (DROP) feature was added allowing up to 2 years of service designated for DROP participation.

CHRONOLOGY OF PENSION PLAN CHANGES (Continued)

City of Austin contributions increased from 16.05% to 18.05% of pay, while the contribution rate by the firefighters remains at 13.70%.

Actuarially, a 5% anticipated COLA is extended through 2002.

1996

A 2.90% COLA is approved.

1997

A 3.0% COLA is approved.

Early retirement eligibility (unreduced by the retirement multiplier) lowered from age 48 to age 45 (with at least 10 years of service), or with 20 years of service regardless of age, down from 23 years of service.

COLAs delayed until normal retirement eligibility is met.

The deferred retirement option plan (DROP) feature is extended from a maximum of 2 years to a maximum of 5 years of service designated for DROP participation.

Benefits made available to surviving spouses of retirees married after retirement.

Eliminate the requirement that a spouse's benefit terminate after remarriage.

Firefighter contributions "bought down" by 2% to 11.70%, while the city contributions increase to 20.05% due to the "meet and confer" agreement. (Firefighters continue to get credit for 13.70% per statute requirements.)

Actuarially, a 5% anticipated COLA is extended through 2004.

1998

A 2.10% COLA is approved.

Actuarially, the retirement incident rate revised to 100% of the members to retire and elect a 5 year DROP one year following the age first eligible for a 5 year DROP.

1999

A 1.50% COLA is approved.

A 3.33% benefit increase is approved September 1, 1999 to all then current retirees at the time based on the percentage increase of the retirement multiplier from 3.0% to 3.10%.

The retirement multiplier increased from 3.0% to 3.10%, effective September 1, 1999.

All DROP calculations including "BACKDROPS" will use a 3.10% multiplier after September 1, 1999, regardless of the DROP date.

The deferred retirement option plan (DROP) benefits made available to eligible survivors of members who die before retirement but after becoming eligible for a DROP.

In November 1999, a new "meet and confer" agreement is set whereby firefighters are to receive a 3% salary increase in November 1999 and every six months going forward, beginning in March of 2000 through March 2002.

Actuarially, mortality tables for actives and non-disabled annuitants were updated to the 1994 Group Annuity Mortality tables, reflecting current industry standards.

2000

A 2.60% COLA approved.

CHRONOLOGY OF PENSION PLAN CHANGES (Continued)

2001

A 3.40% COLA approved.

A 6.45% benefit increase is approved September 1, 2001 to all then current retirees at the time based on the percentage increase of the retirement multiplier from 3.10% to 3.30%.

The retirement multiplier increased from 3.10% to 3.30%.

All DROP calculations including "BACKDROPS" will use a 3.30% multiplier after September 1, 2001, regardless of the DROP date.

Effective September 1, 2001, the deferred retirement option plan (DROP) feature is extended from a maximum of 5 years to a maximum of 7 years of service designated for DROP participation. A survivor benefit is made available for all unmarried retirees, and for unmarried firefighters who die after becoming eligible to retire, per statute provisions. The percentage will be an actuarial equivalent of 75% of the firefighter's accrued benefit and will be tied to the age difference of the firefighter and the designated beneficiary.

2002

A 2.1% COLA approved.

2003

Effective June 1, 2003 the contribution rate by the firefighters increased from 13.70% to 15.70% of pay, while the contribution rate by the City of Austin remained at 18.05%.

2004

No changes

2005

\$32.00 per month increase in benefits for all eligible retirees.

2006

\$100.00 per month increase in benefits for all eligible retirees.

2007

No changes

2008

No changes

2009

Prudent investor rule adopted in pension statute.

2010

As a result of an agreement between the firefighters and the City of Austin, the City's pension contributions will increase from 18.05% of salary to 22.05% in a total of four 1% increments by the year 2013. In addition, the firefighters elected to increase their contributions from 15.70% to 18.70% in a total of six ½% increments by the year 2016.

2011

No changes

2012

Effective July 1, 2012 the minimum monthly pension is increased to \$2,000 for all current annuitants who were on the rolls in 1994 when the last adjustment of this type was made.

CHRONOLOGY OF PENSION PLAN CHANGES (Continued)

2013

\$93.00 per month increase in benefits for all eligible retirees.

2014

\$64.00 per month increase in benefits for all eligible retirees.

2015

A 1.3% COLA approved.

2016

No Changes

2017

A 1.5% COLA approved.