ACTUARIAL VALUATION OF CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM AS OF OCTOBER 1, 2018

April, 2019

Determination of Contribution for the
Plan Year ending September 30, 2019
Contribution to be
Paid in Fiscal Year October 1, 2018
through September 30, 2019

DuLaney and Company, Inc.
Actuarial Services

D

TABLE OF CONTENTS

		Page
Commentary		1
TABLE I	Summary of Retirement Plan Costs	4
TABLE II	Comparison of Cost Data of Current and Prior Year Valuations	6
TABLE III	Characteristics of Participant Data	7
TABLE IV	Statement of Assets	8
TABLE V	Reconciliation of Plan Assets	9
TABLE VI	Development of Actuarial Value of Assets	10
TABLE VII	History of Chapter 185 Contribution Usage	11
TABLE VIII	Development of Actuarial Gains / (Losses) and Review of Cumulative Gains / (Losses)	12
TABLE IX	Amortization of Unfunded Liability	14
TABLE X	Accounting Disclosure Exhibit	15
TABLE XI	Outline of Principal Provisions of the Plan	20
TABLE XII	Actuarial Assumptions and Actuarial Cost Methods	24
TABLE XIII	Distribution of Active Participants by Age and Service Groups	27
TABLE XIV	Reconciliation of Participant Data	28
TABLE XV	Statistics for Participants Entitled to or Receiving Plan Benefits	29
TABLE XVI	Recent Investment, Salary Increase, and Turnover Experience	30
TABLE XVII	State Required Exhibit	31

D

DuLaney & Company, Inc.
Actuarial Services

10691 N. Kendall Drive
Suite 310
Miami, Florida 33176

Office: (305) 274-9970
Toll Free: 1-866-322-9970
Fax: (305) 274-9946

April 16, 2019

Board of Trustees
City of Lauderhill Police Officers' Retirement System
c/o Mr. Dave Williams
Precision Pension Administration, Inc.
13790 NW 4th Street, Suite 105
Sunrise, FL 33325

Dear Board Members:

We are pleased to present the October 1, 2018 Actuarial Valuation for the City of Lauderhill Police Officers' Retirement System. The purpose of this report is to indicate appropriate contribution levels and to satisfy State requirements. The report is prepared for and at the request of the Board of Trustees.

This report consists of this commentary, detail Tables I through XVI and State Required Exhibit - Table XVII. The Tables contain basic Retirement Plan cost figures plus significant detail on the benefits, liabilities and experience of your Plan.

Costs for Fiscal Year Beginning October 1, 2018

This Actuarial Valuation develops the required minimum Retirement Plan payment for the fiscal year beginning October 1, 2018 and ending September 30, 2019 under the Florida Protection of Public Employee Retirement Benefits Act and Chapter 185. The minimum payment consists of payment of annual normal cost plus amortization of the unfunded actuarial accrued liability over various periods, and interest, as prescribed by law. We anticipate that the member contributions will be $942,167 (10.0% of covered payroll).

The required funding amount for the plan/fiscal year ending September 30, 2019, to be met by the City and State contributions under Chapter 185 is **31.7%** of the covered payroll. The anticipated State (Chapter 185) contribution is $438,599. The City and State required contribution, computed based on the October 1, 2018 covered payroll of $9,421,667, is **$2,990,419** or 31.7% of covered payroll, if the payment requirement is met by September 30, 2019. We have assumed that the State contribution available (limited by rules under Chapter 99-1) would be **$438,599** (same as the amount the City was credited with for contribution purposes for the prior plan/fiscal year, and assumed to be 4.7% of covered payroll). Thus, the required City contribution would be **$2,551,820 (27.1%** of covered payroll). Under the rules of Chapter 99-1, any amount of the State contribution received above the assumed amount of $438,599 up to the adjusted base amount of $504,799 can be used to reduce the City's contribution requirement. If the actual State contribution is less than the assumed amount, the shortfall must be made up by the City.

Please note that Chapter 185 states that employer contributions must be made at least quarterly.

Changes in Plan Provisions, Actuarial Methods or Assumptions Recognized in this Valuation

In this valuation, there were no changes in plan provisions. The principal plan provisions are summarized in Table XI.

Certain actuarial assumptions and methods employed for this valuation have been revised. The changes included:

- The assumed administrative expenses were changed from $141,295 to $141,321 for the plan/fiscal year.
- The assumed interest was changed from 7.40% to 7.25%, net of investment expenses, compounded annually.

Table XII contains an outline of the assumptions and methods used.

Comparison of Costs With Previous Valuation Year of 2017/2018

Table II of the report provides information of a comparative nature. Column I shows the results of the October 1, 2017 Actuarial Valuation while Column II shows the results as of October 1, 2018 prior to the change in actuarial assumptions. A comparison of the two columns shows the effect of plan experience during the year. Covered payroll increased by approximately 7.7% while the number of active participants increased by about 5.2%. The unfunded liability decreased from $15,660,671 to $13,305,912, primarily due to the actuarial gain of $1,964,205 during the plan year.

Column III of the Table displays the results after the assumption changes. A comparison of Columns II and III indicates that the changes increased the unfunded actuarial accrued liability by $1,459,437 from $13,305,912 to $14,765,349. The City minimum funding requirement increased from $2,354,114 to $2,551,820.

Plan Experience

Table XVI provides a summary of certain plan experience during the plan year. The actuarial value of assets return was 8.2% for the plan year ended September 30, 2018, which was above the assumption of 7.4%. The market value rate of return was 7.9%. Employee turnover was 218% higher than the expected turnover during the last plan year. The actual pensionable earnings increased by an average of 4.8% per active member as compared to the assumption of 5.5%. The actuarial value of assets return (gain), salary experience (gain), and turnover experience (gain) were the sources of actuarial gain during the plan year. A more detailed analysis would be needed to determine the actual magnitude of gain or loss attributable to each of these elements.

D

Participant Census and Financial Data

Census data for the fiscal year October 1, 2017 through September 30, 2018 was provided by the plan administrator, the plan auditor, and the City. The data was reviewed for consistency and is believed to be reliable.

Information on Plan assets was received from the Plan's auditors. We did not audit this information; however, we believe it to be reliable.

DuLaney and Company

Donald A. DuLaney, Jr. A.S.A./E.A.
Senior Consulting Actuary

Panrong Xiao, M.A.A.A., E.A.
Enrolled Actuary

DAD/PX
Attachments

D

Table I

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Summary of Retirement Plan Costs as of October 1, 2018

	Cost Data	% of Payroll
A. Participant Data Summary (Table III)		
1. Active employees		
a) Tier One	53	N/A
b) Tier Two	49	N/A
c) Total	102	N/A
2. Terminated vested	14	N/A
3. Receiving benefits	47	N/A
4. DROP participants	9	N/A
5. Annual payroll of active employees	$ 9,421,667	100.0%
B. Total Normal Costs		
1. Age retirement benefits	$ 1,971,639	20.9%
2. Deferred vesting benefits	244,153	2.6%
3. Death benefits	21,036	0.2%
4. Disability benefits	31,630	0.3%
5. Estimated expenses	141,321	1.5%
6. Total annual normal costs	$ 2,409,779	25.6%
C. Total Actuarial Accrued Liability		
1. Age retirement benefits active employees	$ 32,214,902	341.9%
2. Termination benefits active employees	1,202,371	12.8%
3. Death benefits active employees	152,013	1.6%
4. Disability benefits active employees	108,989	1.2%
5. Retired or terminated vested participants receiving benefits	35,388,943	375.6%
6. DROP participants	10,329,354	109.6%
7. Terminated vested participants entitled to future benefits	2,206,355	23.4%
8. Deceased participants whose beneficiaries are receiving benefits	207,545	2.2%
9. Disabled participants receiving benefits	516,920	5.5%
10. Total actuarial accrued liability	$ 82,327,392	873.8%

D

Table I
(continued two)

		Cost Data	% of Payroll
D.	Actuarial Value of Assets (Table VI)	$ 67,562,043	717.1%
E.	Unfunded Actuarial Accrued Liability (C.-D.)	$ 14,765,349	156.7%
F.	Actuarial Gains / (Losses) (Table VIII)	$ 1,964,205	20.8%
G.	Minimum Funding Requirements		
	1. Total normal cost	$ 2,409,779	25.6%
	2. Amortization of unfunded actuarial accrued liability	1,413,309	15.0%
	3. Interest adjustment	109,498	1.2%
	4. Total payment	$ 3,932,586	41.7%
H.	Estimated Contribution Sources		
	1. City	$ 2,551,820	27.1%
	2. State	$ 438,599	4.7%
	3. Employees	$ 942,167	10.0%
I.	Actuarial Present Value of Vested Accrued Benefits		
	1. Retired, terminated vested, beneficiaries and disabled receiving benefits	$ 36,113,408	383.3%
	2. DROP participants	10,329,354	109.6%
	3. Terminated vested participants entitled to future benefits	2,206,355	23.4%
	4. Active participants entitled to future benefits	23,098,711	245.2%
	5. Total actuarial present value of vested accrued benefits	$ 71,747,828	761.5%
J.	Market Value of Assets (Table IV)	$ 69,253,723	735.0%
K.	Unfunded Actuarial Present Value of Vested Accrued Benefits (I. - J., not less than $0)	$ 2,494,105	26.5%
L.	Vested Benefit Security Ratio (J. ÷ I.)	96.5%	N/A

D

Table II

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Comparison of Cost Data of October 1, 2017 and October 1, 2018 Actuarial Valuations

	Column I		Column II		Column III	
	October 1, 2017		Prior Assumptions October 1, 2018		Current Assumptions October 1, 2018	
	Cost Data	% of Annual Pay	Cost Data	% of Annual Pay	Cost Data	% of Annual Pay
A. Participants						
1. Active employees						
- Tier One	54	N/A	53	N/A	53	N/A
- Tier Two	43	N/A	49	N/A	49	N/A
- Total	97	N/A	102	N/A	102	N/A
2. Terminated vested	11	N/A	14	N/A	14	N/A
3. Receiving benefits	40	N/A	47	N/A	47	N/A
4. DROP participants	14	N/A	9	N/A	9	N/A
5. Annual payroll of active employees	$ 8,751,336	100.0%	$ 9,421,667	100.0%	$ 9,421,667	100.0%
B. Total Normal Costs	$ 2,256,668	25.8%	$ 2,336,731	24.8%	$ 2,409,779	25.6%
C. Actuarial Accrued Liability	$ 77,768,215	888.6%	$ 80,867,955	858.3%	$ 82,327,392	873.8%
D. Actuarial Value of Assets	$ 62,107,544	709.7%	$ 67,562,043	717.1%	$ 67,562,043	717.1%
E. Unfunded Actuarial Accrued Liability	$ 15,660,671	179.0%	$ 13,305,912	141.2%	$ 14,765,349	156.7%
F. Actuarial Gains / (Losses)	$ (364,763)	(4.2%)	$ 1,964,205	20.8%	$ 1,964,205	20.8%
G. City Minimum Funding Requirement	$ 2,529,175	28.9%	$ 2,354,114	25.0%	$ 2,551,820	27.1%
H. Unfunded Actuarial Present Value of Vested Accrued Benefits*	$ 4,060,484	46.4%	$ 1,230,344	13.1%	$ 2,494,105	26.5%
I. Vested Benefit Security Ratio*	94.0%	N/A	98.3%	N/A	96.5%	N/A

*Computed based on market value of assets

D

Table III

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Characteristics of Participants in Actuarial Valuation as of October 1, 2018

A. Characteristic of Active Participants

1.	Active participants as of beginning of prior year	97
2.	New entrants during prior year	18
3.	Exits during prior year	(13)
4.	Active participants as of beginning of year	102
5.	Active participants fully vested	56
6.	Active participants partially vested	0
7.	Active participants non-vested	46
8.	Annual payroll of active participants	$ 9,421,667
9.	Average pay	$ 92,369
10.	Average attained age	37.0 years
11.	Percent female	11.8%

B. Characteristics of Inactive Participants

1.	Inactives as of beginning of prior year	65
2.	Newly inactive during prior year	5
3.	Exits during prior year	(0)
4.	Inactives as of beginning of year	70
5.	Age retirees	43
6.	Projected annual benefit for age retirees	$ 2,886,484
7.	DROP participants	9
8.	Projected annual benefit for DROP participants	$ 780,853
9.	Beneficiaries receiving benefits	1
10.	Projected annual benefits for beneficiaries receiving benefits	$ 21,110
11.	Disabled participants receiving benefits	3
12.	Projected annual benefits for disabled participants	$ 66,757
13.	Terminated vested due deferred benefits	14
14.	Projected annual benefits for terminated vested participants	$ 404,422

D

Table IV

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Statement of Assets as of October 1, 2018[1]

		Market Value
A.	Assets	
	1. Cash and Cash Equivalents	$ 1,302,152
	2. Common Stocks	7,044,417
	3. Domestic Fixed Income Funds	8,575,907
	4. Absolute Return Equity Funds	31,110,538
	5. International Equity Funds	10,081,100
	6. Accrued Interest & Dividends Receivable	77,482
	7. Receivable City Contributions	0
	8. Receivable Employee Contributions	0
	9. Receivable Buyback Contributions	0
	10. Note Receivable	2,000,000
	11. Real Estate Fund	11,192,868
	12. Other Assets	0
	13. Assets Purchased with Receivable Buyback Contributions Paid	36,698
	14. Total Assets	$ 71,421,162
B.	Liabilities	
	1. Prepaid City Contributions	$ 0
	2. Overpayment of Contributions	45,391
	3. Due to Broker	13,075
	4. Unused Chapter 185 Funds	0
	5. Deferred Retirement Option Plan Accounts Payable	2,064,172
	6. Accounts Payable	44,801
	7. Total Liabilities	$ 2,167,439
C.	Grand Total (Item A.14. – Item B.7.)	$ 69,253,723

[1] At market value as reported by Plan's Auditors.

D

Table V

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Reconciliation of Plan Assets[1]

A.	Market Value of Assets as of October 1, 2017		$ 64,053,387
B.	Receipts During Period		
	1. Contributions		
	a. City	$ 2,499,429	
	b. Employee	954,885	
	c. State (not limited by 99-1)	438,599	
	d. Total		$ 3,892,913
	2. Investment income		
	a. Interest, dividends and miscellaneous income	$ 1,732,997	
	b. Investment expenses	(213,790)	
	c. Net		$ 1,519,207
	3. Net realized and unrealized appreciation		
	a. Realized appreciation	$ 0	
	b. Unrealized appreciation	$ 3,448,698	
	c. Total		$ 3,448,698
	4. Receivable buyback contributions paid		$ 36,698
	5. Total receipts during period (1.d. + 2.c. + 3.c. + 4.)		$ 8,897,516
C.	Disbursements During Period		
	1. Pension payments		$ 2,654,799
	2. DROP payments		882,297
	3. Contribution refunds		10,095
	4. Administrative expenses		141,321
	5. Increase / (decrease) in Chapter 185 reserve		0
	6. Decrease in receivable buyback contributions		8,668
	7. Total disbursements during period		$ 3,697,180
D.	Market Value of Assets as of October 1, 2018 (A. + B.5. - C.7.)		$ 69,253,723
E.	Reconciliation of DROP Accounts Balance		
	1. DROP accounts balance as of October 1, 2017		$ 2,475,315
	2. Benefit payments into DROP accounts during year		882,297
	3. Disbursements from DROP accounts during year		(1,446,687)
	4. Expenses deducted from DROP accounts		(0)
	5. Investment gains/(losses) during year		153,247
	6. DROP accounts balance as of September 30, 2018		$ 2,064,172

[1] As reported by Plan's Auditors.

D

Table VI

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Development of Actuarial Value of Assets

	10/1/2017 – 9/30/2018	10/1/2016 – 9/30/2017	10/1/2015 – 9/30/2016	10/1/2014 – 9/30/2015	10/1/2013 – 9/30/2014
A. Preliminary actuarial value of assets as of beginning of year	$ 62,107,544	$ 57,327,084	$ 52,511,277	$ 46,823,896	$ 40,582,741
B. Contributions and miscellaneous income	3,892,913	3,632,754	3,646,397	3,846,296	3,943,548
C. Benefit payments and administrative expenses	3,537,096	3,733,603	3,088,518	2,326,407	1,500,141
D. Actual investment earnings net of investment expenses	4,853,187	8,119,339	5,081,761	336,872	3,867,913
E. Expected investment earnings (A. x .0740 + (B.-C.) x .037)	4,609,123	4,295,749	3,959,266	3,568,788	3,239,846
F. Excess of actual over expected investment earnings (D.-E.)	244,064	3,823,590	1,122,495	(3,231,916)	628,069
G. Recognition of excess earnings over 4 years					
1. 25% from this plan year	61,016	955,898	280,624	(807,979)	157,017
2. 25% from last plan year	955,898	280,624	(807,979)	157,017	669,000
3. 25% from two plan years ago	280,624	(807,979)	157,017	669,000	580,666
4. 25% from three plan years ago	(807,979)	157,017	669,000	580,666	(848,779)
5. Total	489,559	585,560	298,662	598,704	557,904
H. Preliminary actuarial value of assets at end of year (A. + B. – C. + E. + G.5.)	$ 67,562,043	$ 62,107,544	$ 57,327,084	$ 52,511,277	$ 46,823,896
I. Actuarial value of assets limitations					
1. Market value of assets prior to exclusion of Chapter 185 accumulated excess reserve	$ 69,253,723	$ 64,053,387	$ 56,042,901	$ 50,366,584	$ 48,641,964
2. 80% of I.1.	55,402,978	51,242,710	44,834,321	40,293,267	38,913,571
3. 120% of I.1.	83,104,468	76,864,064	67,251,481	60,439,901	58,370,357
4. Actuarial value of assets (H., but not less than I.2. or more than I.3.)	$ 67,562,043	$ 62,107,544	$ 57,327,084	$ 52,511,277	$ 46,823,896
J. Return on Actuarial Value	$ 5,098,682	$ 4,881,309	$ 4,257,928	$ 4,167,492	$ 3,797,748
K. Net actuarial value of assets	**$ 67,562,043**	**$ 62,107,544**	**$ 57,327,084**	**$ 52,511,277**	**$ 46,823,896**

D

Table VII

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

History of Chapter 185 Contribution Usage

Under the provisions of Florida Statutes Chapter 185, as amended by Chapter 99-1, increments in Chapter 185 contributions over the amount for 1997 must first be used to fund the cost of meeting minimum benefit requirements. After the minimum requirements are met, any additional Chapter 185 contributions received must be used to provide extra benefits. The following is an accounting of the contributions received and the amounts used for compliance.

A. Benefit improvements needed to meet Chapter 185 minimum benefits:

None.

B. History of Chapter 185 contribution usage*

	Adjusted Base Amount			Actual Amount Received		
Received During Plan Year	Chapter 185 Contribution	Cost for New Benefits	Total Chapter 185 Contribution Used	Chapter 185 Contribution	Excess of Actual over Base Amount	Cumulative Excess of Actual over Base Amount without Interest
1999/2000	$ 0	$ 92,774	$ 92,774	$ 126,081	$ 33,307	$ 33,307
2000/2001	$ 92,774	$ 0	$ 92,774	$ 131,250	$ 38,476	$ 71,783
2001/2002	$ 92,774	$ 175,245	$ 268,019	$ 153,775	$ 0	$ 71,783
2002/2003	$ 268,019	$ 0	$ 268,019	$ 190,235	$ 0	$ 71,783
2003/2004	$ 268,019	$ 236,780	$ 504,799[1]	$ 249,479	$ 0	$ 0[1]
2004/2005	$ 504,799	$ 0	$ 504,799	$ 243,140	$ 0	$ 0
2005/2006	$ 504,799	$ 0	$ 504,799	$ 249,845	$ 0	$ 0
2006/2007	$ 504,799	$ 0	$ 504,799	$ 267,834	$ 0	$ 0
2007/2008	$ 504,799	$ 0	$ 504,799	$ 298,188	$ 0	$ 0
2008/2009	$ 504,799	$ 0	$ 504,799	$ 350,408	$ 0	$ 0
2009/2010	$ 504,799	$ 0	$ 504,799	$ 332,466	$ 0	$ 0
2010/2011	$ 504,799	$ 0	$ 504,799	$ 285,072	$ 0	$ 0
2011/2012	$ 504,799	$ 0	$ 504,799	$ 303,327	$ 0	$ 0
2012/2013	$ 504,799	$ 0	$ 504,799	$ 310,332	$ 0	$ 0
2013/2014	$ 504,799	$ 0	$ 504,799	$ 356,564	$ 0	$ 0
2014/2015	$ 504,799	$ 0	$ 504,799	$ 365,170	$ 0	$ 0
2015/2016	$ 504,799	$ 0	$ 504,799	$ 381,449	$ 0	$ 0
2016/2017	$ 504,799	$ 0	$ 504,799	$ 408,853	$ 0	$ 0
2017/2018	$ 504,799	$ 0	$ 504,799	$ 438,599	$ 0	$ 0

* Figures prior to the 2006/2007 plan year were as reported by the plan's prior actuary.

[1] A one-time use in the amount of $71,783 from the Cumulative Excess also occurred.

D

Table VIII

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Actuarial Gains / (Losses) for Current and Prior Plan Years

A. Derivation of Actuarial Gain / (Loss) for Plan Year Ended September 30, 2018

1.	City and State normal cost previous valuation		$ 1,381,534
2.	Unfunded actuarial accrued liability previous valuation		$15,660,671
3.	City and State contributions previous year (limited by 99-1)		$ 2,938,028
4.	Interest on:		
	(a) City normal costs	$ 102,234	
	(b) Unfunded actuarial accrued liability	1,158,890	
	(c) City and State contributions	95,184	
	(d) Net total: (a) + (b) - (c)		$ 1,165,940
5.	Increase in unfunded actuarial accrued liability due to plan amendment		$ 0
6.	Increase in unfunded actuarial accrued liability due to assumptions / methods change		$ 1,459,437
7.	Expected unfunded actuarial accrued liability current year: 1. + 2. - 3. + 4. + 5. + 6.		$16,729,554
8.	Actual unfunded actuarial accrued liability current year		$14,765,349
9.	Actuarial gain / (loss): 7. - 8.		$ 1,964,205

B. Approximate Portion of Plan Year Gain / (Loss) Due to Investments

1.	Actuarial value of assets previous year	$62,107,544
2.	Contributions during year	$ 3,849,967
3.	Disbursements during year (expenses & benefits)	$ 3,537,096
4.	Expected appreciation for period	$ 4,594,011
5.	Expected actuarial value of assets current year 1. + 2. - 3. + 4.	$67,014,426
6.	Actual actuarial value of assets current year	$67,562,043
7.	Approximate gain / (loss): 6. - 5.	$ 547,617

C. Approximate Portion of Plan Year Gain / (Loss) Due to Liabilities: A. - B. $ 1,416,588

D

Table VIII
(continued two)

D. Review of Cumulative Actuarial Gains / (Losses) for Determination of 13th Checks to Retirees for the 2017/2018 Plan Year

Plan Year	Actuarial Gains / (Losses)
2004 / 2005	$ (1,323,287)
2005 / 2006	(1,289,042)
2006 / 2007	374,572
2007 / 2008	(35,607)
2008 / 2009	(2,228,287)
2009 / 2010	(887,495)
2010 / 2011	(2,335,636)
2011 / 2012	(1,285,896)
2012 / 2013	(640,982)
2013 / 2014	368,363
2014 / 2015	34,968
2015 / 2016	734,341
2016 / 2017	(364,763)
2017 / 2018	1,964,205
Cumulative Total Gains / (Losses)	$ (6,914,546)

Requirements for 13th Check to members Retired on or after 10/1/2004:

- There must be a net actuarial gain during the most recent plan year based on the experience of the plan from all sources
- There must be an investment gain during the most recent plan year
- There must be cumulative net actuarial gains from inception (requirement by the State)
- 13th check payable to Tier One members only

D

Table IX

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Amortization of Unfunded Liability

Date	Total Unfunded Liability	Amortization Payment
10/01/2018	$ 14,765,349	$ 1,413,309
10/01/2019	$ 14,320,063	$ 1,413,309
10/01/2020	$ 13,842,494	$ 1,413,309
10/01/2021	$ 13,330,300	$ 1,413,309
10/01/2048	$ 0	$ 0

D

Table X

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Accounting Disclosure Exhibit

I. Number of Plan Participants	10/01/2017	10/01/2018
1. Retirees, disabled and beneficiaries receiving benefits	40	47
2. Terminated plan participants entitled to but not yet receiving benefits	11	14
3. DROP participants	14	9
4. Active plan participants	97	102
5. Total	162	172

II. Financial Accounting Standards Board Allocations as of October 1, 2018

A. Statement of Accumulated Plan Benefits

1. Actuarial present value of accumulated vested plan benefits		
a. Participants currently receiving benefits	$ 28,989,804	$ 36,113,408
b. DROP participants	15,012,608	10,329,354
c. Participants due deferred vested benefits	1,471,289	2,206,355
d. Others	22,640,170	23,098,711
e. Total	$ 68,113,871	$ 71,747,828
2. Actuarial present value of accumulated non-vested plan benefits	1,282,258	1,606,877
3. Total actuarial present value of accumulated plan benefits	$ 69,396,129	$ 73,354,705

B. Statement of Change in Accumulated Plan Benefits

1. Actuarial present value of accumulated plan benefits as of October 1, 2017	$ 69,396,129
2. Increase (decrease) during year attributable to:	
a. Plan amendment	$ 0
b. Actuarial assumptions and method changes	1,312,101
c. Benefits paid and contribution refunds	(3,547,191)
d. Other, including benefits accumulated and increase for interest due to decrease in the discount period	6,193,666
e. Net increase	$ 3,958,576
3. Actuarial present value of accumulated plan benefits as of October 1, 2018	$ 73,354,705

D

Table X
(continued two)

C. Significant Matters Affecting Calculations

1.	Assumed rate of return used in determining actuarial present values	7.25%
2.	Plan amendments	None.
3.	Change in actuarial assumptions	See Table XII, Item 12.

D

Table X
(continued three)

III. Schedule of Funding Progress (As required by GASB #25)

(1) Valuation Date	(2) Actuarial Value of Assets (AVA)	(3) Actuarial Accrued Liability (AAL)	(4) Unfunded Actuarial Accrued Liability (UAAL) (3) - (2)	(5) Funded Ratio (2) / (3)	(6) Annual Covered Payroll	(7) UAAL as % of Payroll (4) / (6)
October 1, 1998	$ 1,435	$ 1,033	$ (402)	138.9%	$ 3,106	(12.9%)
October 1, 1999	$ 1,978	$ 1,628	$ (350)	121.5%	$ 3,870	(9.0%)
October 1, 2000	$ 2,605	$ 2,959	$ 354	88.0%	$ 3,851	9.2%
October 1, 2001	$ 3,161	$ 3,343	$ 182	94.6%	$ 3,561	5.1%
October 1, 2002	$ 3,899	$ 4,934	$ 1,035	79.0%	$ 4,212	24.6%
October 1, 2003	$ 4,990	$ 6,124	$ 1,136	81.5%	$ 4,998	22.7%
October 1, 2004	$ 6,462	$ 8,816	$ 2,354	73.3%	$ 5,256	44.8%
October 1, 2005	$ 8,661	$ 12,331	$ 3,670	70.2%	$ 6,519	56.3%
October 1, 2006	$ 11,940	$ 17,767	$ 5,827	67.2%	$ 7,099	82.1%
October 1, 2007	$ 16,348	$ 21,747	$ 5,399	75.2%	$ 8,103	66.6%
October 1, 2008	$ 19,775	$ 25,153	$ 5,377	78.6%	$ 7,678	70.0%
October 1, 2009	$ 23,088	$ 30,634	$ 7,546	75.4%	$ 8,751	86.2%
October 1, 2010	$ 27,137	$ 35,483	$ 8,346	76.5%	$ 9,149	91.2%
October 1, 2011	$ 29,530	$ 42,473	$ 12,943	69.5%	$ 8,819	146.8%
October 1, 2012	$ 34,645	$ 48,670	$ 14,025	71.2%	$ 8,844	158.6%
October 1, 2013	$ 40,583	$ 55,039	$ 14,456	73.7%	$ 9,671	149.5%
October 1, 2014	$ 46,824	$ 61,626	$ 14,802	76.0%	$ 9,712	152.4%
October 1, 2015	$ 52,511	$ 67,003	$ 14,492	78.4%	$ 8,480	170.9%
October 1, 2016	$ 57,327	$ 71,572	$ 14,245	80.1%	$ 8,092	176.0%
October 1, 2017	$ 62,108	$ 77,768	$ 15,661	79.9%	$ 8,751	179.0%
October 1, 2018	$ 67,562	$ 82,327	$ 14,765	82.1%	$ 9,422	156.7%

Note: Dollar amounts in thousands

D

Table X
(continued four)

IV. Schedule of Employer Contributions (As required by GASB #25)

Plan Year	Annual Required Contribution[1]	Percentage Contributed
(1)	(2)	(3)
1997	$ 295,719	100%
1998	304,195	100%
1999	392,661	100%
2000	492,397	100%
2001	458,942	100%
2002	636,674	100%
2003	847,764	100%
2004	1,151,914	100%
2005	1,415,977	100%
2006	1,782,115	100%
2007	2,095,909	100%
2008	2,076,113	100%
2009	2,320,278	100%
2010	2,306,698	100%
2011	2,629,422	100%
2012	2,769,493	100%
2013	2,872,191	100%
2014	2,831,755	100%
2015	2,723,906	100%
2016	2,720,045	100%
2017	2,938,028	100%

V. Notes to Required Supplementary Information

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation Date	October 1, 2018
Actuarial cost method	Entry Age Normal Level Percent
Amortization method	Layered amortization
Remaining amortization period	20 - 30 years
Asset valuation method	See Table XII., Item 8.
Actuarial assumptions:	
Investment rate of return*	7.25%
Projected salary increases*	5.50%
Cost-of-living adjustments	Variable 13th check, only if plan has cumulative net actuarial gain

* Includes inflation at 3.00%

D

Table X

(continued five)

Accounting Disclosure Exhibit

VI. Revenues by Source and Expenses by Type

Plan Year	Revenues by Source: Employee Contributions	City Contributions	State Contributions	Investment Income	Total
2018	$ 954,885	$ 2,499,429	$ 438,599	$ 5,066,977	$ 8,959,890
2017	$ 911,939	$ 2,311,962	$ 408,853	$ 6,998,269	$10,631,023
2016	$ 922,206	$ 2,342,742	$ 381,449	$ 5,125,830	$ 8,772,227
2015	$ 1,014,541	$ 2,466,585	$ 365,170	$ 411,693	$ 4,257,989
2014	$ 1,071,357	$ 2,515,627	$ 356,564	$ 3,969,647	$ 7,913,195
2013	$ 1,050,427	$ 2,459,161	$ 310,332	$ 5,587,659	$ 9,407,579
2012	$ 1,727,565	$ 2,346,518	$ 303,327	$ 4,735,524	$ 9,112,934
2011	$ 1,151,187	$ 2,047,326	$ 285,072	$ (1,049,572)	$ 2,434,013
2010	$ 1,216,237	$ 1,987,812	$ 332,466	$ 2,402,257	$ 5,938,772
2009	$ 1,016,638	$ 1,725,705	$ 350,408	$ 426,617	$ 3,519,368

Plan Year	Expenses by Type: Benefits & DROP Payments	Expenses	Refunds	Total
2018	$ 3,537,096	$ 355,111	$ 10,095	$ 3,902,302
2017	$ 3,314,226	$ 349,773	$ 278,082	$ 3,942,081
2016	$ 2,734,744	$ 325,429	$ 197,402	$ 3,257,575
2015	$ 2,054,191	$ 297,412	$ 43,562	$ 2,395,165
2014	$ 1,299,498	$ 263,851	$ 73,108	$ 1,636,457
2013	$ 1,048,524	$ 238,769	$ 2,113	$ 1,289,406
2012	$ 856,954	$ 240,899	$ 181,798	$ 1,279,651
2011	$ 563,461	$ 217,865	$ 148,865	$ 930,191
2010	$ 337,823	$ 196,024	$ 84,274	$ 618,121
2009	$ 252,181	$ 178,144	$ 79,944	$ 510,269

Contributions were made in accordance with actuarially determined contribution requirements.

[1] Sum of City and State contributions, determined by the prior plan year's actuarial valuation.

D

Table XI

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Outline of Principal Provisions of the Plan

1. Effective Date

July 25, 1994. The latest amendment reflected is Ordinance 14R-09-152.

2. Eligibility Requirements

Participation is mandatory for all full-time police officers employed by the City with the exception of the Police Chief. Members hired by the City on or after March 23, 2009 are classified as Tier Two members. All other members are Tier One members.

3. Credited Service

Service of a member from employment date through termination date measured in years and completed months. A member may buy back up to a total of five (5) years of prior military and sworn police service by paying the full actuarial cost of the increase service. Service purchased does not count for vesting or retirement eligibility.

4. Earnable Compensation

Tier One members: base pay, longevity pay, educational incentive pay, assignment pay and up to 300 hours of overtime pay per year, as well as payouts for accrued holiday/incentive, vacation and/or sick time earned prior to September 30, 2013 based on the member's rate of pay as of September 30, 2018.

Tier Two members: base pay, longevity pay, educational incentive pay, assignment pay and up to 300 hours of overtime pay per year.

5. Final Monthly Compensation (FMC)

Final Monthly Compensation is the average monthly rate of earnable compensation during the five (5) best years out of the last ten (10) years of employment.

6. Employee Contributions

10.0% of earnable compensation.

7. Normal Retirement Date

Tier One members: the first of the month coincident with or next following the earlier of (i) completion of 20 years of Credited Service or (ii) the attainment of age 55 with completion of five (5) years of Credited Service.

Tier Two members: the first of the month coincident with or next following the earlier of (i) completion of 25 years of Credited Service or (ii) the attainment of age 55 with completion of 10 years of Credited Service.

D

Table XI
(continued two)

8. Amount of Normal Retirement Income

Tier One members: monthly retirement income is equal to 3.0% times FMC for Credited Service through September 30, 2001 plus 3.5% times FMC for Credited Service thereafter, payable under the normal form of payment under the plan. For members employed by the City as of April 25, 2011, monthly retirement income for years of Credited Service prior to October 1, 2001 is 3.5% times FMC. The maximum accrual is 100% of FMC.

Tier Two members: monthly retirement income is equal to 3.0% times FMC for all years of Credited Service, payable under the normal form of payment under the plan. The maximum accrual is 75% of FMC. However, members are allowed to purchase an increase in their multiplier up to 3.5% per year (from 3.0%) by paying the full actuarial costs. Any enhanced multiplier benefit purchased will not be subject to the 75% of FMC maximum, but the maximum accruals for members with such purchases will not exceed 100% of FMC.

9. Early Retirement Date

The attainment of age 50 and completion of 10 years of Credited Service.

10. Amount of Early Retirement Income

Benefit accrued to Early Retirement Date payable at Normal Retirement Date, with a 3.0% per year reduction for benefit commencement prior to Normal Retirement Date.

11. Delayed Retirement Date

A member may continue to work beyond his Normal Retirement Date and retire on any subsequent first day of the month.

12. Amount of Delayed Retirement Income

The benefit accrued on Delayed Retirement Date.

13. Benefits on Termination of Service

In the event of termination of service prior to Normal Retirement Date or Early Retirement Date, for reasons other than death, early retirement or disability, a monthly benefit will be payable commencing on Normal Retirement Date, equal to the benefit accrued up to the date of termination, or the refund of accumulated employee contributions made, if the terminated member has completed:

Tier One members: five (5) or more years of Credited Service

Tier Two members: seven (7) or more years of Credited Service

Otherwise, the member is entitled only to the refund of accumulated employee contributions made.

D

Table XI
(continued three)

14. Disability Retirement Benefits

For a member totally and permanently disabled where the disability is service-connected, the monthly benefit shall be equal to the greater of 42% of such member's FMC at the time of disability or the member's accrued benefit under the plan.

In order to be eligible for non-service disability benefits, a member must have completed at least ten (10) years of Credited Service at the date of disability. The non-service disability benefit is equal to the greatest of: i) 2.0% of FMC times years of Credited Service; ii) 25.0% of FMC, and iii) accrued benefit at date of disability.

15. Death Benefits

For deaths prior to completion of five (5) years of Credited Service, the benefit would be the refund of the accumulated employee contributions. With the completion of five (5) or more years of Credited Service the death benefit payable would be the benefit otherwise payable at Early Retirement Date or Normal Retirement Date to the member.

16. Normal Form of Retirement Income

The normal form of payment is a ten year certain and life annuity.

17. Optional Forms of Retirement Income

The following optional forms of retirement income may be elected by a member without presenting evidence of good health, if elected at least one year prior to his date of retirement:

Option 1 A single life annuity payable during the lifetime of the participant only.

Option 2 A retirement annuity payable to the member during the joint lifetime of the member and a joint pensioner designated by the member, and following the death of either of them, 50%, 66-2/3%, 75%, or 100% depending on the retiree's election, of such smaller monthly amount payable to the survivor for the lifetime of the survivor.

18. Deferred Retirement Option Plan (DROP)

The DROP is available only if the member makes an irrevocable election to participate upon the eligibility of Normal or Early Retirement. The DROP has a five (5) year maximum participation period. Depending on when a member enters the DROP and the election that is made, the DROP account will be credited with the annual assumed investment return per year, or the actual rate of return, net of investment fees. There is a guarantee that upon exiting the DROP, a member's account will not be less than the sum of the monthly payments into the DROP account. If the member dies or becomes disabled during the DROP period, the member will have presumed to have retired on a normal retirement on the day prior to disability or death.

D

Table XI
(continued four)

19. Variable Thirteenth Check

For Tier One members retiring on or after October 1, 2004, 13th checks may be paid based on annual investment and actuarial gains, but only if the plan has cumulative net actuarial gain beginning with the 2004/2005 plan year. The amount of the 13th checks shall be computed as a uniform percentage of the current monthly benefits of the applicable retirees, with the actual amounts limited to the current monthly benefits and prorated for those retired less than a year.

Tier Two members will not be eligible for the variable thirteenth checks.

20. Post Retirement Supplement

A supplemental payment of $10 per month per year of Credited Service for all members employed by the City on or after April 25, 2011, provided that such members have at least 20 years of Credited Service with the City or provided such members left the City at age 55 or older with more than five (5) years of Credited Service with the City. The supplement shall commence on the fifth anniversary date of termination of service and shall cease upon the member reaching 65 years of age.

21. Changes from Most Recent Valuation

None.

D

Table XII

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Actuarial Assumptions and Actuarial Cost Methods

1. Mortality:

   Pre-Retirement:
   Female Non-Disabled: RP2000 Generational, 100% Combined Healthy with White Collar Adjustment, Scale BB
   Male Non-Disabled: RP2000 Generational, 10% Combined Healthy with White Collar Adjustment / 90% Combined Healthy with Blue Collar Adjustment, Scale BB
   Post-Retirement:
   Female Non-Disabled: RP2000 Generational, 100% Annuitant White Collar, Scale BB
   Male Non-Disabled: RP2000 Generational, 50% Annuitant White Collar / 50% Annuitant Blue Collar, Scale BB
   Pre-Retirement & Post-Retirement:
   Female Disabled: 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale
   Male Disabled: 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale

2. Interest to be Earned by Fund:

   7.25%, compounded annually, net of investment expenses.

3. Allowances for Administrative Expenses:

   Actual administrative expenses paid during the prior plan year.

4. Employee Withdrawal Rates:

   Withdrawal rates were used in accordance with a table per the following illustrative example:

Age	Withdrawal Rates Per 100 Employees
20	6.0
25	5.7
30	5.0
35	3.8
40	2.6
45	1.6
50	0.5
55 & over	0.0

D

Table XII
(continued two)

5. Retirement Age Assumption:

Tier One members: the earlier of the completion of 20 years of Credited Service or the attainment of age 55 with completion of five (5) years of Credited Service.

Tier Two members: the earlier of the completion of 25 years of Credited Service or the attainment of age 55 with completion of 10 years of Credited Service.

6. Salary Increase Factors:

Current salaries are assumed to increase at a rate of 5.5% per year until retirement. In addition, accumulated sick and vacation leaves cash outs are added to the final pay.

7. Disability Rates:

Disability incidence rates were used in accordance with a table per the following illustrative example:

Age	Disability Rates Per100 Employees
20	0.03
25	0.03
30	0.04
35	0.05
40	0.07
45	0.10
50	0.18
55	0.36
60	0.90
65 & over	0.00

75% of disabilities assumed to be service incurred, 25% assumed to be non-service incurred.

8. Asset Valuation Method:

The actuarial value of assets is determined by smoothing the differences between actual investment earnings and assumed investment return over four (4) years. The resulting value would then be limited to between 80% and 120% of market value.

D

Table XII
(continued three)

9. Actuarial Cost Method:

Normal Retirement, Termination, Disability and Pre-Retirement Death Benefits: Entry-Age-Actuarial Cost Method.

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

The amortization bases would be funded by the excess of actual contributions over prior year's normal cost, adjusted with interest. For each existing base, the funding is done proportionally, determined based on the individual base's required amortization payment as a percentage of the overall total required total amortization payment for the prior year. New bases are then added to the total outstanding unfunded actuarial accrued liability as new layers.

10. Marriage Assumptions:

100% of active participants were assumed married, with husbands three (3) years older than wives.

11. Inflation Assumption:

3.0% per year.

12. Changes from Last Actuarial Valuation:

1) The assumed fund investment return was changed from 7.40% to 7.25%.

2) The assumed administrative expenses were changed from $141,295 to $141,321 for the plan/fiscal year.

D

Table XIII

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Distribution of Active Participants by Age and Service Groups as of October 1, 2018

Years of Credited Service

Age	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 & Over	Total
Under 25	9	.	.	.	.	.	.	9
25 - 29	14	3	.	.	.	.	.	17
30 - 34	4	6	5	.	.	.	.	15
35 - 39	9	3	12	.	.	.		24
40 - 44	5	2	6	4	1	.	.	18
45 - 49	.	.	5	5	3	.	.	13
50 - 54	.	1	2	2	.	.	.	5
55 - 59	1	.	.	.	.	.	.	1
60 - 64	.	.	.	.	.	.	.	0
65 & Over	.	.	.	.	.	.	.	0
TOTAL	42	15	30	11	4	0	0	102

	10/01/2017	10/01/2018
Average Attained Age	37.5 years	37.0 years
Average Covered Pay	$90,220	$92,369
Percent Female	10.5%	11.8%

D

Table XIV

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Reconciliation of Participant Data

A. Active Participants

1.	Active participants previous year	97
2.	Retired during year	(1)
3.	Entered DROP during year	(1)
4.	Died during year	0
5.	Disabled during year	0
6.	Terminated vested during year	(3)
7.	Terminated non-vested during period	(8)
8.	New active participants	18
9	Rehired / Reinstated	0
10.	Active participants current year	102

B. Participants Receiving Benefits

1.	Participants receiving benefits previous year	40
2.	New retired participants	1
3.	New terminated vested receiving benefits	0
4.	New disabled receiving benefits	0
5.	New beneficiaries receiving benefits	0
6.	DROP participants exited and retired	6
7.	Died or ceased payment during year	0
8.	Retired or terminated vested receiving benefits current year	47

C. Terminated Participants Entitled to Future Benefits

1.	Terminated participants entitled to future benefits previous year	11
2.	Died during year	0
3.	Commenced receiving benefits during year	(0)
4.	Rehired / Reinstated during year	(0)
5.	New terminated participants	3
6.	Terminated participants entitled to future benefits current year	14

D. DROP Participants

1.	DROP participants previous year	14
2.	New entrants during year	1
3.	Died during year	0
4.	Exited and retired during year	(6)
5.	DROP participants current year	9

D

Table XV

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Statistics for Participants Entitled to Deferred Vested Benefits and Participants Receiving Payments

A. Entitled to Deferred Benefits

Current Age Group	Count	Total Annual Benefit	Average Annual Benefit
Less than 40	5	$ 149,088	$ 29,818
40 - 44	3	129,968	43,323
45 - 49	2	19,452	9,726
50 - 54	4	105,914	26,478
55 - 59	0	0	0
60 – 64	0	0	0
65 & over	0	0	0
TOTAL	14	$ 404,422	$ 28,887

B. Receiving Benefits & DROP Participants

Current Age Group	Count	Total Annual Benefit	Average Annual Benefit
Less than 40	0	$ 0	$ 0
40 – 44	1	97,390	97,390
45 – 49	13	1,147,146	88,242
50 - 54	13	974,939	74,995
55 - 59	14	1,012,114	72,294
60 – 64	3	190,857	63,619
65 & over	12	332,758	27,730
TOTAL	56	$ 3,755,204	$ 67,057

D

Table XVI

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Recent Investment, Salary Increase, and Turnover Experience

A. Investment Return

Comparison of actual to assumed investment return for the last five years:

	Rate of Return		
Year Ended	Market Value	Actuarial Value	Assumed
09/30/2018	7.9%	8.2%	7.40%
09/30/2017	14.4%	8.5%	7.50%
09/30/2016	10.2%	8.1%	7.50%
09/30/2015	1.2%	8.8%	7.50%
09/30/2014	9.2%	9.1%	7.75%
Last 3 Yrs.	10.8%	8.3%	7.47%
Last 5 Yrs.	8.5%	8.5%	7.53%

B. Recent Salary Increase and Turnover Experience

	Salary Increase		
Year Ended	Actual	Assumed	Ratio of Actual Turnover to Expected
09/30/2018	4.8%	5.5%	3.18
09/30/2017	4.5%	5.5%	0.35
09/30/2016	5.9%	5.5%	2.27
09/30/2015	3.2%	5.5%	1.12
09/30/2014	5.2%	6.0%	2.17
Last 3 Yrs.	5.1%	5.5%	1.93
Last 5 Yrs.	4.7%	5.6%	1.82

D

Table XVII

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

State Required Exhibit

		10/01/2017	10/01/2018
A.	Participant Data		
	1. Active participants	97	102
	2. Retired participants and beneficiaries receiving benefits	37	44
	3. DROP participants	14	9
	4. Disabled participants receiving benefits	3	3
	5. Terminated vested participants	11	14
	6. Total participants	162	172
	7. Annual payroll of active participants	$ 8,751,336	$ 9,421,667
	8. Annual benefits payable to those currently receiving benefits	$ 2,365,838	$ 2,974,351
	9. Annual benefits payable to terminated vested participants	$ 259,944	$ 404,422
	10. Annual benefits payable to DROP participants	$ 1,187,687	$ 780,853
B.	Value of Assets		
	1. Actuarial value	$ 62,107,544	$ 67,562,043
	2. Market value	$ 64,053,387	$ 69,253,723
C.	Liabilities		
	1. Actuarial present value of future expected benefit payments for active members		
	a. Age retirement benefits	$ 44,532,207	$ 47,514,346
	b. Vesting benefits	2,773,332	3,053,866
	c. Death benefits	285,463	314,763
	d. Disability benefits	334,392	362,936
	e. Total	$ 47,925,394	$ 51,245,911
	2. Actuarial present value of future expected benefit payments terminated vested members	$ 1,471,289	$ 2,206,355
	3. Actuarial present value of future expected benefit payments for those receiving benefits		
	a. Service retired	$ 28,257,716	$ 35,388,943
	b. DROP participants	15,012,608	10,329,354
	c. Disability retired	522,902	516,920
	d. Beneficiaries	209,186	207,545
	e. Total	$ 44,002,412	$ 46,442,762

D

Table XVII
(continued two)

	10/01/2017	10/01/2018
4. Total actuarial present value of future expected benefit payments	$ 93,399,095	$ 99,895,028
5. Actuarial accrued liabilities	$ 77,768,215	$ 82,327,392
6. Unfunded actuarial accrued liabilities (see footnote 1/ for separation)	$ 15,660,671	$ 14,765,349
D. Statement of Accumulated Plan Benefits		
1. Actuarial present value of accumulated vested plan benefits		
a. Participants currently receiving benefits	$ 28,989,804	$ 36,113,408
b. DROP participants	15,012,608	10,329,354
c. Participants due deferred benefits	1,471,289	2,206,355
d. Other participants	22,640,170	23,098,711
e. Total	$ 68,113,871	$ 71,747,828
2. Actuarial present value of accumulated non-vested plan benefits	1,282,258	1,606,877
3. Total actuarial present value of accumulated plan benefits	$ 69,396,129	$ 73,354,705
E. Statement of Change in Accumulated Plan Benefits		
1. Actuarial present value of accumulated plan benefits as of October 1, 2017		$ 69,396,129
2. Increase (decrease) during year attributable to:		
a. Plan amendment		$ 0
b. Actuarial assumptions and methods changes		1,312,101
c. Benefits paid and contribution refunds		(3,547,191)
d. Other, including benefits accumulated and increase for interest due to decrease in the discount period		6,193,666
e. Net increase (decrease)		$ 3,958,576
3. Actuarial present value of accumulated plan benefits as of October 1, 2018		$ 73,354,705

D

Table XVII
(continued three)

		10/01/2017	10/01/2018
F.	Pension Cost		
	1. Total normal cost including expenses	$ 2,256,668	$ 2,409,779
	2. Expected member contribution	875,134	942,167
	3. Item 2. as percentage of payroll	10.0%	10.0%
	4. Net employer normal cost	$ 1,381,534	$ 1,467,612
	5. Payment required to amortize unfunded liability	1,446,842	1,413,309
	6. Total employer required contribution (including interest)	$ 2,938,028	$ 2,990,419
	7. Item 6. as a percentage of payroll	33.6%	31.7%
	8. Estimated State contributions	$ 408,853	$ 438,599
	9. Item 8. as a percentage of payroll	4.7%	4.7%
	10. Net amount payable by City	$ 2,529,175	$ 2,551,820
	11. Item 10. as a percentage of payroll	28.9%	27.1%
G.	Past Contributions		
	1. Total contribution required	$ 3,813,162	$ 3,932,586
	2. Actual contributions made:		
	a. Employees	954,885	N/A
	b. City	2,499,429	N/A
	c. State	438,599	N/A
	d. Total	3,892,913	N/A
H.	Net Actuarial Gain / (Loss)	$ (364,763)	$ 1,964,205
I.	Disclosure of Following Items:		
	1. Actuarial present value of future salaries - attained age	$ 65,862,434	$ 73,982,880
	2. Actuarial present value of future employee contributions - attained age	$ 6,586,243	$ 7,398,288
	3. Actuarial present value of future contributions from other sources	N/A	N/A
	4. Amount of active members' accumulated contributions	$ 6,352,266	$ 6,448,940
	5. Actuarial present value of future salaries and future benefits at entry age	Not provided by software	
	6. Actuarial present value of future employee contributions at entry age	Not provided by software	

D

Table XVII
(continued four)

1/ Unfunded Actuarial Accrued Liabilities

Description and Amount of Original Liability	Remaining Amortization Period	Unamortized Amount as of Valuation Date	Amortization Payment
10/01/1999 New Method	11 years	$ (216,363)	$ (27,239)
10/01/2000 Actuarial Loss	12 years	257,973	30,688
10/01/2000 Plan Amendment	12 years	202,405	24,078
10/01/2001 Actuarial (Gain)	13 years	(113,665)	(12,861)
10/01/2002 Actuarial (Gain)	14 years	(270,569)	(29,281)
10/01/2002 Plan Amendment	14 years	770,981	83,435
10/01/2002 Plan Amendment	14 years	129,573	14,022
10/01/2003 Actuarial Loss	15 years	73,798	7,675
10/01/2004 Actuarial Loss	16 years	141,742	14,223
10/01/2004 Plan Amendment	16 years	827,739	83,058
10/01/2005 Actuarial Loss	17 years	1,065,313	103,507
10/01/2006 Actuarial Loss	18 years	1,064,977	100,504
10/01/2006 Assumption Change	18 years	742,881	70,107
10/01/2007 Actuarial (Gain)	19 years	(316,943)	(29,131)
10/01/2008 Actuarial Loss	20 years	30,795	2,763
10/01/2009 Actuarial Loss	21 years	1,964,894	172,492
10/01/2010 Actuarial Loss	22 years	796,829	68,567
10/01/2011 Actuarial Loss	23 years	2,138,707	180,701
10/01/2011 Plan Amendment	13 years	1,109,582	125,548
10/01/2011 Assumptions Change	18 years	873,100	82,396
10/01/2012 Actuarial Loss	24 years	1,197,874	99,528
10/01/2013 Actuarial Loss	25 years	605,695	49,558
10/01/2014 Actuarial Gain	26 years	(352,642)	(28,449)
10/01/2014 Plan Amendment	16 years	(622,124)	(62,426)
10/01/2014 Assumptions Change	16 years	1,469,550	147,459
10/01/2015 Actuarial Gain	27 years	(32,892)	(2,699)
10/01/2016 Actuarial Gain	28 years	(719,801)	(56,637)
10/01/2016 Assumptions Change	18 years	744,343	70,245
10/01/2017 Actuarial Loss	29 years	361,259	28,114
10/01/2017 Assumptions Change	19 years	1,346,106	123,722
10/01/2018 Actuarial Gain	30 years	(1,964,205)	(151,312)
10/01/2018 Assumptions Change	20 years	1,459,437	130,954
TOTAL		$ 14,766,349	$ 1,413,309

D

Table XVII
(continued five)

This actuarial valuation and/or cost determination 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 Part VII, Chapter 112, Florida Statutes. 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.

Donald A. DuLaney, Jr. A.S.A., E.A.
Senior Consulting Actuary

4/16/2019
Date

17-04191
Enrollment Number

Panrong Xiao, E.A., M.A.A.A.
Enrolled Actuary

4/16/2019
Date

17-07551
Enrollment Number

D