

**ACTUARIAL VALUATION OF
CITY OF LAUDERHILL CONFIDENTIAL AND
MANAGERIAL EMPLOYEES RETIREMENT PLAN
AS OF OCTOBER 1, 2018**

July, 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

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July 9, 2019

Board of Trustees
City of Lauderdale Confidential and Managerial
Employees Retirement System
c/o Mr. Peter Prior
Benefits USA, Inc.
3810 Inverrary Boulevard
Suite 303
Lauderhill, FL 33319

Dear Board Members:

We are pleased to present the October 1, 2018 Actuarial Valuation for the City of Lauderdale Confidential and Managerial Employees 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. 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.

The required funding amount for the plan/fiscal year ending September 30, 2019, to be met by the City, is **\$2,743,221** or 36.3% of covered payroll, if the requirement is met by September 30, 2019.

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

This valuation recognized the same benefits as those considered in the October 1, 2017 valuation. The pertinent plan provisions are outlined in Table XI.

We reviewed the actuarial assumptions/methods used and made several changes in this valuation. The assumed interest to be earned by the Fund was changed from 7.50% to 7.25%, net

of investment expenses, per annum. The assumed annual salary increase was changed from 5.55% to 5.25% per year.

There were no other changes to the actuarial assumptions/methods (shown in Table XII) from those used in the October 1, 2017 valuation.

Comparison of October 1, 2017 and October 1, 2018 Valuation Results

Table II provides information of a comparative nature. The left most column contains the October 1, 2017 valuation results. The columns II and III contain the October 1, 2018 valuation results prior to and after the assumptions changes.

A comparison of columns I and II shows the plan experience for the year. Covered payroll increased by approximately 13.3% while the number of active participants increased by 9.5%. Unfunded actuarial accrued liability increased from \$12,772,862 to \$13,159,441. The City cost decreased from 38.4% to 34.7% of the covered pension payroll. Comparing the second and third columns shows the effect of the plan assumptions. The unfunded actuarial accrued liability increased by \$1,080,549, to the amount of \$14,239,990. The City funding requirement increased by \$120,146, from \$2,623,075 (34.7%) to \$2,743,221 (36.3%).

Plan Experience

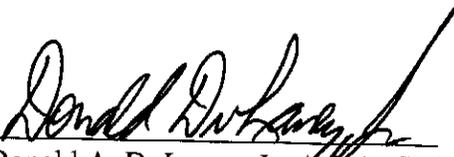
Table XVI provides a summary of certain plan experience during the plan year. The actuarial value of assets return and market value of assets return were 7.5 % and 7.3% for the plan year ended September 30, 2018, respectively, as compared to the assumed 7.5%. Employee turnover was about 45% higher than the expected turnover during the last plan year (a source of actuarial gain), and the average salary increase was 9.1%, as compared to the assumption of 5.55% (a source of actuarial loss). A more detailed analysis would be needed to determine the actual magnitude of loss or gain attributable to each of these elements.

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 census data for fiscal years prior to October 1, 2008 were provided by the plan's former plan administrator, Pension Resources Center and the former actuary, Gabriel, Roeder, Smith and Company. 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

DAD/PX
Attachments



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

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Table I

**CITY OF LAUDERHILL CONFIDENTIAL AND MANAGERIAL EMPLOYEES
RETIREMENT PLAN**

Summary of Retirement Plan Costs as of October 1, 2018

	<u>Cost Data</u>	<u>% of Payroll</u>
A. <u>Participant Data Summary (Table III)</u>		
1. Active employees (Post March 1, 2009 Hires: 70)	115	N/A
2. Terminated vested	4	N/A
3. Receiving benefits	47	N/A
4. DROP participants	14	N/A
5. Annual payroll of active employees	\$ 7,557,489	100.0%
B. <u>Total Normal Costs</u>		
1. Age retirement benefits	\$ 712,868	9.4%
2. Deferred vesting benefits	200,881	2.7%
3. Death benefits	10,890	0.1%
4. Disability benefits	39,920	0.5%
5. Estimated expenses	<u>118,430</u>	<u>1.6%</u>
6. Total annual normal costs	\$ 1,081,989	14.3%
C. <u>Total Actuarial Accrued Liability</u>		
1. Age retirement benefits active employees	\$ 19,925,233	263.6%
2. Termination benefits active employees	717,133	9.5%
3. Death benefits active employees	50,492	0.7%
4. Disability benefits active employees	257,107	3.4%
5. Retired or terminated vested participants receiving benefits	13,565,314	179.5%
6. DROP participants	6,461,866	85.5%
7. Terminated vested participants entitled to future benefits	377,246	5.0%
8. Deceased participants whose beneficiaries are receiving benefits	560,321	7.4%
9. Disabled participants receiving benefits	<u>163,166</u>	<u>2.2%</u>
10. Total actuarial accrued liability	\$ 42,077,878	556.8%

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Table I
(continued two)

	<u>Cost Data</u>	<u>% of Payroll</u>
D. <u>Actuarial Value of Assets (Table VI)</u>	\$ 27,837,888	368.3%
E. <u>Unfunded Actuarial Accrued Liability (C.-D.)</u>	\$ 14,239,990	188.4%
F. <u>Actuarial Gains / (Losses)</u>	\$ (1,493,703)	(19.8%)
G. <u>Minimum Funding Requirements</u>		
1. Total normal cost	\$ 1,081,989	14.3%
2. Amortization of unfunded actuarial accrued liability	2,165,385	28.7%
3. Interest adjustment	<u>100,446</u>	<u>1.3%</u>
4. Total payment	\$ 3,347,820	44.3%
H. <u>Contribution Sources</u>		
1. City	\$ 2,743,221	36.3%
2. Employees	\$ 604,599	8.0%
I. <u>Actuarial Present Value of Vested Accrued Benefits</u>		
1. Retired, terminated vested, beneficiaries and disabled receiving benefits	\$ 14,288,801	189.1%
2. DROP participants	6,461,866	85.5%
3. Terminated vested participants entitled to future benefits	377,246	5.0%
4. Active participants entitled to future benefits	<u>15,584,396</u>	<u>206.2%</u>
5. Total actuarial present value of vested accrued benefits	\$ 36,712,309	485.8%
J. <u>Market Value of Assets (Table IV)</u>	\$ 28,357,030	375.2%
K. <u>Unfunded Actuarial Present Value of Vested Accrued Benefits (I. - J., not less than \$0)</u>	\$ 8,355,279	110.6%
L. <u>Vested Benefit Security Ratio (J. ÷ I.)</u>	77.2%	N/A

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Table II

CITY OF LAUDERHILL CONFIDENTIAL AND MANAGERIAL EMPLOYEES RETIREMENT PLAN

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

	Column I		Column II		Column III	
	October 1, 2017	October 1, 2018	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	Cost Data	% of Annual Pay
A. Participants						
1. Active employees						
- Hired by 3/1/2009	48	N/A	45	N/A	45	N/A
- Hired from 3/1/2009 - 9/1/2012	3	N/A	3	N/A	3	N/A
- Hired after 9/1/2012	54	N/A	67	N/A	67	N/A
- Total	105	N/A	115	N/A	115	N/A
2. Terminated vested	4	N/A	4	N/A	4	N/A
3. Receiving benefits	46	N/A	47	N/A	47	N/A
4. DROP participants	14	N/A	14	N/A	14	N/A
5. Annual payroll of active employees	\$ 6,670,802	100.0%	\$ 7,557,489	100.0%	\$ 7,557,489	100.0%
B. Total Normal Costs	\$ 1,087,669	16.3%	\$ 1,059,277	14.0%	\$ 1,081,989	14.3%
C. Actuarial Accrued Liability	\$ 37,454,317	561.5%	\$ 40,997,329	542.5%	\$ 42,077,878	556.8%
D. Actuarial Value of Assets	\$ 24,681,455	370.0%	\$ 27,837,888	368.3%	\$ 27,837,888	368.3%
E. Unfunded Actuarial Accrued Liability	\$ 12,772,862	191.5%	\$ 13,159,441	174.1%	\$ 14,239,990	188.4%
F. Actuarial Gains / (Losses)	\$ (793,783)	(11.9%)	\$ (1,493,703)	(19.8%)	\$ (1,493,703)	(19.8%)
G. City Minimum Funding Requirement	\$ 2,564,476	38.4%	\$ 2,623,075	34.7%	\$ 2,743,221	36.3%
H. Unfunded Actuarial Present Value of Vested Accrued Benefits ¹	\$ 7,496,243	112.4%	\$ 7,415,787	98.1%	\$ 8,355,279	110.6%
I. Vested Benefit Security Ratio ¹	77.0%	N/A	79.3%	N/A	77.2%	N/A

¹ Computed based on market value of assets.



Table III

**CITY OF LAUDERHILL CONFIDENTIAL AND MANAGERIAL EMPLOYEES
RETIREMENT PLAN**

**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	105
2.	New entrants during prior year	18
3.	Exits during prior year	(8)
4.	Active participants as of beginning of year	115
5.	Active participants fully vested	38
6.	Active participants partially vested	0
7.	Active participants non-vested	77
8.	Annual payroll of active participants	\$ 7,557,489
9.	Average pay	\$ 65,717
10.	Average attained age	44.4 years
11.	Percent female	61.7%

B. Characteristics of Inactive Participants

1.	Inactives as of beginning of prior year	63
2.	Newly inactive during prior year	3
3.	Exits during prior year	(1)
4.	Inactives as of beginning of year	65
5.	Age retirees	44
6.	Annual benefit for age retirees	\$ 1,267,738
7.	DROP participants	14
8.	Annual benefit for DROP participants	\$ 505,323
9.	Beneficiaries receiving benefits	2
10.	Annual benefits for beneficiaries receiving benefits	\$ 60,116
11.	Disabled participants receiving benefits	1
12.	Annual benefits for disabled participants	\$ 13,252
13.	Terminated vested due deferred benefits	4
14.	Annual benefits for terminated vested participants	\$ 31,384

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Table IV

**CITY OF LAUDERHILL CONFIDENTIAL AND MANAGERIAL EMPLOYEES
RETIREMENT PLAN**

Statement of Assets as of October 1, 2018¹

	<u>Market Value</u>
A. <u>Assets</u>	
1. Cash and Short Term Investments	\$ 389,707
2. U. S. Government Securities	0
3. Fixed income mutual Funds	6,644,709
4. Domestic Equity Funds	16,836,405
5. International Equity Funds	5,086,422
6. Absolute Return - Mutual Fund	0
7. Note Receivable	<u>400,000</u>
8. Total Assets	\$ 29,357,243
B. <u>Receivables</u>	
1. Member Contributions	\$ 0
2. City Contributions	0
3. Service Purchase and Buyback Payments Due	194,390
4. Accrued Interest and Dividends	1,032
5. Benefit Overpayments and Other	<u>13,202</u>
6. Total Receivables	\$ 208,624
C. <u>Liabilities</u>	
1. DROP Accounts Payable	\$ 1,105,932
2. Accounts Payable	29,708
3. Prepaid Contribution	<u>73,197</u>
4. Total Liabilities	\$ 1,208,837
D. <u>Net Assets (Item A.8. + Item B.6. - Item C.4.)</u>	<u>\$ 28,357,030</u>

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

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Table V

**CITY OF LAUDERHILL CONFIDENTIAL AND MANAGERIAL EMPLOYEES
RETIREMENT PLAN**

Reconciliation of Plan Assets¹

A.	<u>Market Value of Assets as of October 1, 2017</u>		\$ 25,145,486
B.	<u>Receipts During Period</u>		
1.	Contributions		
a.	City	\$ 2,564,476	
b.	Employee	656,622	
c.	Buyback payments	<u>0</u>	
e.	Total		\$ 3,221,098
2.	Investment income		
a.	Interest and dividends	\$ 1,387,014	
b.	Net appreciation (depreciation)		
i.	Realized appreciation (depreciation)	0	
ii.	Unrealized appreciation (depreciation)	<u>575,090</u>	
iii.	Net	575,090	
c.	Total		\$ 1,962,104
3.	Total receipts during period (1.e. + 2.c.)		\$ 5,183,202
C.	<u>Disbursements During Period</u>		
1.	Pension plus DROP payments		\$ 1,685,347
2.	DROP participant's earnings		71,175
3.	Contribution refunds		35,165
4.	Decrease in buyback contributions receivable		25,273
5.	Investment expenses		36,268
6.	Administrative expenses		<u>118,430</u>
7.	Total disbursements during period		\$ 1,971,658
D.	<u>Market Value of Assets as of October 1, 2018 (A. + B.3. - C.7.)</u>		<u>\$ 28,357,030</u>
E.	<u>Reconciliation of DROP Accounts Balance</u>		
1.	DROP accounts balance as of October 1, 2017		\$ 748,960
2.	Benefit payments into DROP accounts during year		378,375
3.	Disbursements from DROP accounts during year		(92,578)
4.	Investment gains/(losses) during year ²		<u>71,175</u>
5.	DROP accounts balance as of September 30, 2018		\$ 1,105,932

¹ As reported by Plan's Auditors.

² Based on actual Fund performance, but not to be negative for any given plan year.



Table VI

**CITY OF LAUDERHILL CONFIDENTIAL AND MANAGERIAL EMPLOYEES
RETIREMENT PLAN**

Development of Actuarial Value of Assets

	<u>10/1/2017 – 9/30/2018</u>	<u>10/1/2016 – 9/30/2017</u>	<u>10/1/2015 – 9/30/2016</u>	<u>10/1/2014 – 9/30/2015</u>
A. Market value of assets as of beginning of year	\$ 25,145,486	\$ 20,129,646	\$ 17,810,675	\$ 18,325,836
B. Contributions	3,221,098	4,134,939	2,335,053	2,034,112
C. Benefit payments and expenses	1,956,793	1,943,838	1,811,771	2,047,852
D. Expected investment income (A. x .075 + (B.-C.) x .0375)	1,933,323	1,613,115	1,382,532	1,419,720
E. Expected assets at end of year (A. + B. – C. + D.)	28,343,114	23,933,862	19,716,489	19,731,816
F. Actual market value at end of year	28,357,030	25,145,486	20,129,646	17,810,675
G. Excess/(shortfall) of actual over expected assets (F. – E.)				
1. From previous plan year	13,916	1,211,624	413,157	(1,921,141)
2. From two plan years ago	1,211,624	413,157	(1,921,141)	76,472
3. From three plan years ago	413,157	(1,921,141)	76,472	422,497
4. From four plan years ago	(1,921,141)	76,472	422,497	1,015,941
H. Deferred recognized amounts of excess/(shortfall)				
1. 80% from previous plan year	11,133	969,299	330,526	(1,536,913)
2. 60% from two plan years ago	729,974	247,894	(1,152,685)	45,883
3. 40% from three plan years ago	165,263	(768,456)	30,589	168,999
4. 20% from four plan years ago	<u>(384,228)</u>	<u>15,294</u>	<u>84,499</u>	<u>203,188</u>
5. Total	519,142	464,031	(707,071)	(1,118,843)
I. Preliminary actuarial value of assets at end of year (F. – H.5.)	\$ 27,837,888	\$ 24,681,455	\$ 20,836,717	\$ 18,929,518
J. 80% of end of year market value of assets (F. x 0.80)	22,685,624	20,116,389	16,103,717	14,248,540
K. 120% of end of year market value of assets (F. x 1.20)	34,028,436	30,174,583	24,155,575	21,372,810
L. Actuarial value of assets (I., but not less than J. and not more than K.)	\$ 27,837,888	\$ 24,681,455	\$ 20,836,717	\$ 18,929,518

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Table VII

**CITY OF LAUDERHILL CONFIDENTIAL AND MANAGERIAL EMPLOYEES
RETIREMENT PLAN**

Changes in Plan, Methods and Assumptions

- A. City Ordinance No. 020-09-165, effective October 1, 2002. It established the City of Lauderhill Confidential and Managerial Employees Retirement Plan.
- B. City Ordinance No. 040-01-108, effective May 3, 2004, established the following:
- Provided for pre-retirement death benefits for unmarried members who are not survived by children
 - Provided for credited service prior to October 1, 2004 for former members of the 401(a) plan who repaid refunds with interest
 - Increased the benefit accrual multiplier to 3.0% for service prior to October 1, 1994 for former General Employees Retirement System members who became members of this plan prior to September 30, 2002
 - Provided for a 2.5% multiplier for service prior to October 1, 1994, and 3.0% thereafter for former Defined Contribution Plan members
- C. City Ordinance No. 040-12-234, effective January 10, 2005. It established the Deferred Retirement Option Plan (DROP).
- D. City Ordinance No. 050-06-157, passed August 31, 2005 and effective October 1, 2004. It provided for a benefit accrual multiplier of 3.5% per year for credited service on or after October 1, 2004.
- E. Change in assumptions: The October 1, 2006 valuation instituted a change in mortality assumption from the 1983 Group Annuity Mortality Table rates to the 1994 Group Annuity Mortality Table rates.
- F. City Ordinance No. 060-03-116, effective April 10, 2006. It provided for the employer subsidized purchase of past service credit.
- G. City Ordinance No. 060-08-159, passed September 11, 2006 and effective March 1, 2006. It changed the Normal Retirement Age from age 62 with 7 years of credited service to age 55 with 7 years of credited service.
- H. City Ordinance No. 07R-08-148, passed September 10, 2007 and effective October 1, 2006. It provided for coordination of benefits in benefit eligibilities with the General Employees' Pension Plan.
- I. Effective with the October 1, 2006 valuation, new amortization bases would be funded for less than or equal to 15 years.
- J. Change in assumptions: the October 1, 2007 valuation incorporated a change in retirement rate assumption to add one (1) year minimum of future service assumed for members eligible for normal retirement on the valuation date, in order to reflect actual plan experience.
- K. Change in Methods: the October 1, 2008 valuation utilized a new asset valuation method for purposes of determining the plan's actuarial value of assets, which smoothes the differences between the expected and actual investment gains or losses over a five (5) year period, instead of the previous method of using market value of assets.

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Table VII
(continued two)

- L. City Ordinances No. 09O-02-111 (passed February 23, 2009) and No. 09O-06-125 (passed June 29, 2009). Effective March 1, 2009, members may purchase up to five (5) years of credited service at an accrual rate of three (3%) percent per year by rendering the full actuarial cost.

In addition, the following changes were made for members hired after March 1, 2009:

- Changed the vesting requirement to be the completion of 10 years of credited service.
 - Changed the requirement for Normal Retirement benefits to be the earlier of the completion of 20 years of credited service or the attainment of age 55 with the completion of 10 years of credited service.
 - Changed the benefit accrual multiplier to 3.0% per year.
 - DROP members shall have their accounts earn interest at the same rate as the actual investment earnings of the fund.
- M. Change in assumptions: the October 1, 2011 valuation implemented the following changes in actuarial assumptions and methods:
- Changed the assumed mortality rates for health lives from the 1994 Group Annuity Mortality Table rates to the RP-2000 Mortality Table with dynamic rates by applying projections with Scale AA to future valuation years for anticipated future mortality improvements.
 - Changed the assumed mortality rates for disabled lives from the 1994 Group Annuity Mortality Table rates with five (5) years added to ages to the RP-2000 Disabled Mortality Table rates.
 - Changed the assumed interest to be earned by the Fund from 8.0% gross, before investment and administrative expenses, compounded annually, to 7.75% per year, net of investment expenses.
 - Changed the allowances for expenses from the average of the prior two (2) years' investment plus administrative expenses to the prior year's administrative expenses only.
 - Changed the assumed current salaries increase rate from 7.0% per year to 6.0% per year until retirement.
- N. Change in assumptions: the October 1, 2015 valuation implemented the following changes in actuarial assumptions and methods:
- Changed the assumed interest to be earned by the Fund from 7.75% to 7.65% per year, net of investment expenses.
 - Changed the assumed current salaries increase rate from 6.0% per year to 5.85% per year until retirement.
- O. Change in assumptions: the October 1, 2016 valuation implemented the following changes in actuarial assumptions and methods:
- Changed the assumed interest to be earned by the Fund from 7.65% to 7.60% per year, net of investment expenses.
 - Changed the assumed current salaries increase rate from 5.85% per year to 5.70% per year until retirement.
 - Changed the mortality table to the mortality tables used by the FRS.

Table VII
(continued three)

- P. Change in assumptions: the October 1, 2017 valuation implemented the following changes in actuarial assumptions and methods:
- Changed the assumed interest to be earned by the Fund from 7.60% to 7.50% per year, net of investment expenses.
 - Changed the assumed current salaries increase rate from 5.70% per year to 5.55% per year until retirement.
 - Changed the mortality table to the mortality tables used by the FRS, as described in Item 1 on page 24.
- Q. Change in assumptions: the October 1, 2018 valuation implemented the following changes in actuarial assumptions and methods:
- Changed the assumed interest to be earned by the Fund from 7.50% to 7.25% per year, net of investment expenses.
 - Changed the assumed current salaries increase rate from 5.55% per year to 5.25% per year until retirement.

Table VIII

CITY OF LAUDERHILL CONFIDENTIAL AND MANAGERIAL EMPLOYEES
RETIREMENT PLAN

Actuarial Gains / (Losses) for Plan Year Ended September 30, 2018

A. Derivation of Actuarial Gain / (Loss)

1. City normal cost previous valuation	\$ 554,005
2. Unfunded actuarial accrued liability previous valuation	\$12,772,862
3. City contributions previous year	\$ 2,564,476
4. Interest on:	
(a) City normal costs	\$ 41,550
(b) Unfunded actuarial accrued liability	957,965
(c) City contributions	<u>96,168</u>
(d) Net total: (a) + (b) - (c)	\$ 903,347
5. Increase in unfunded actuarial accrued liability from assumptions change and plan amendment	\$ 1,080,549
6. Expected unfunded actuarial accrued liability current year: 1. + 2. - 3. + 4. + 5.	\$12,746,287
7. Actual unfunded actuarial accrued liability current year	\$1,4239,990
8. Actuarial gain / (loss): 6. - 7.	\$ (1,493,703)

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

1. Actuarial value of assets previous year	\$24,681,455
2. Contributions during year	\$ 3,221,098
3. Disbursements during year (expenses & benefits)	\$ 1,956,793
4. Expected appreciation for period	<u>\$ 1,898,520</u>
5. Expected actuarial value of assets current year 1. + 2. - 3. + 4.	\$27,844,280
6. Actual actuarial value of assets current year	\$27,837,888
7. Approximate gain / (loss): 6. - 5.	\$ (6,392)

C. Approximate Portion of Gain / (Loss) Due to Liabilities: A. - B. \$ (1,487,311)

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Table IX

**CITY OF LAUDERHILL CONFIDENTIAL AND MANAGERIAL EMPLOYEES
RETIREMENT PLAN**

Amortization of Unfunded Liability

<u>Date</u>	<u>Total Unfunded Liability</u>	<u>Amortization Payment</u>
10/01/2018	\$ 14,239,990	\$ 2,165,385
10/01/2019	\$ 12,950,014	\$ 2,165,385
10/01/2020	\$ 11,566,514	\$ 2,165,385
10/01/2021	\$ 10,082,711	\$ 2,165,385
10/01/2035	\$ 0	\$ 0

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Table X

**CITY OF LAUDERHILL CONFIDENTIAL AND MANAGERIAL EMPLOYEES
RETIREMENT PLAN**

Accounting Disclosure Exhibit

I.	<u>Number of Plan Participants</u>	<u>10/01/2017</u>	<u>10/01/2018</u>
	1. Retirees, disabled and beneficiaries receiving benefits	46	47
	2. Terminated plan participants entitled to but not yet receiving benefits	4	4
	3. DROP participants	14	14
	4. Active plan participants	<u>105</u>	<u>115</u>
	5. Total	169	180
II.	<u>Financial Accounting Standards Board Allocations as of October 1, 2018</u>		
	A. <u>Statement of Accumulated Plan Benefits</u>		
	1. Actuarial present value of accumulated vested plan benefits		
	a. Participants currently receiving benefits	\$ 13,231,126	\$ 14,288,801
	b. DROP participants	5,174,378	6,461,866
	c. Participants due deferred vested benefits	383,920	377,246
	d. Others	<u>13,852,305</u>	<u>15,584,396</u>
	e. Total	\$ 32,641,729	\$ 36,712,309
	2. Actuarial present value of accumulated non-vested plan benefits	<u>910,821</u>	<u>1,135,120</u>
	3. Total actuarial present value of accumulated plan benefits	\$ 33,552,550	\$ 37,847,429
	B. <u>Statement of Change in Accumulated Plan Benefits</u>		
	1. Actuarial present value of accumulated plan benefits as of October 1, 2017	\$ 33,552,550	
	2. Increase (decrease) during year attributable to:		
	a. Plan amendment	\$ 0	
	b. Actuarial assumptions and method changes	985,113	
	c. Benefits paid and contribution refunds (including DROP)	(1,720,512)	
	d. Other, including benefits accumulated and increase for interest due to decrease	<u>5,030,278</u>	
	e. Net increase	\$ 4,294,879	
	3. Actuarial present value of accumulated plan benefits as of October 1, 2018	\$ 37,847,429	

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 | Item 20, Table XI. |
| 3. Change in actuarial assumptions | Item 12, Table XII. |

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)	(5) Funded Ratio (2) / (3)	(6) Annual Covered Payroll	(7) UAAL as % of Payroll (4) / (6)
October 1, 2003	\$ 4,050	\$ 6,021	\$ 1,971	67.3%	\$ 2,471	79.8%
October 1, 2004	\$ 5,182	\$ 8,740	\$ 3,558	59.3%	\$ 2,871	124.0%
October 1, 2005	\$ 6,903	\$ 11,926	\$ 5,023	57.9%	\$ 3,329	150.9%
October 1, 2006	\$ 8,170	\$ 14,331	\$ 6,161	57.0%	\$ 3,896	158.1%
October 1, 2007	\$ 10,542	\$ 15,372	\$ 4,829	68.6%	\$ 4,520	106.8%
October 1, 2008	\$ 11,534	\$ 17,401	\$ 5,867	66.3%	\$ 3,493	168.0%
October 1, 2009	\$ 12,313	\$ 19,185	\$ 6,871	64.2%	\$ 3,917	175.4%
October 1, 2010	\$ 13,284	\$ 20,806	\$ 7,522	63.8%	\$ 4,415	170.4%
October 1, 2011	\$ 14,009	\$ 22,211	\$ 8,202	63.1%	\$ 3,995	205.3%
October 1, 2012	\$ 14,725	\$ 24,171	\$ 9,446	60.9%	\$ 3,566	264.9%
October 1, 2013	\$ 15,999	\$ 25,563	\$ 9,564	62.6%	\$ 3,967	241.1%
October 1, 2014	\$ 17,892	\$ 26,237	\$ 8,344	68.2%	\$ 4,338	192.4%
October 1, 2015	\$ 18,930	\$ 28,749	\$ 9,819	65.8%	\$ 4,232	232.0%
October 1, 2016	\$ 20,837	\$ 33,721	\$ 12,884	61.8%	\$ 6,459	199.5%
October 1, 2017	\$ 24,681	\$ 37,454	\$ 12,773	65.9%	\$ 6,671	191.5%
October 1, 2018	\$ 27,838	\$ 42,078	\$ 14,240	66.2%	\$ 7,557	188.4%

Note: Dollar amounts in thousands



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)
2003	\$ 385,955	100%
2004	548,459	100%
2005	762,751	109%
2006	1,009,804	130%
2007	1,151,671	100%
2008	1,225,513	100%
2009	1,464,812	100%
2010	1,566,677	100%
2011	1,442,701	100%
2012	1,643,680	100%
2013	1,732,035	100%
2014	1,614,792	100%
2015	1,822,643	100%
2016	2,959,421	100%
2017	2,564,476	100%
2018	2,743,221	

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
Equivalent single amortization period	9 years
Asset valuation method	See Table XII., Item 8.
Actuarial assumptions:	
Investment rate of return*	7.25%
Projected salary increases*	5.25%
Cost-of-living adjustments	Variable cost-of-living benefit increase

* Includes inflation at 3.0%

¹ City contribution as determined by the prior plan year's actuarial valuation for plan years prior to 2006.



Table XI

CITY OF LAUDERHILL CONFIDENTIAL AND MANAGERIAL EMPLOYEES RETIREMENT PLAN

Outline of Principal Provisions of the Plan

1. Effective Date

October 1, 2002. The latest ordinances reflected are City Ordinance No. 09O-02-111 and No. 09O-06-125.

2. Eligibility Requirements

Full-time confidential and managerial employees and elected officials. Police officers and firefighters are excluded.

3. Credited Service

Service of a member from employment date through termination date measured in years and completed months. A member may have purchased prior service as outlined below, however, such options expired on April 1, 2006:

Members who were former participants of the IRC 401(a) or IRC 457 defined contribution plans may transfer their account balances and remit amounts equal to their employee contributions for those years to obtain service credit under this plan back to the later of October 1, 1994 or date of hire. An annual benefit rate of 2.5% would apply to service prior to October 1, 2004, and an annual benefit rate of 3.0% per year would apply to years of service between October 1, 1994 and October 1, 2002.

Also, members may purchase up to five (5) years of service at 3.0% per year by paying the full actuarial cost of the increased service credit.

Effective October 1, 2006, service under this plan was combined with service under the General Employees' plan for the purposes of determining vesting and retirement eligibilities. However, benefits payable under this plan would only be computed based on actual service performed under this plan.

4. Earnable Compensation

Fixed monthly compensation.

5. Final Monthly Compensation (FMC)

Final Monthly Compensation is the average monthly rate of Earnable Compensation during the best sixty (60) consecutive months of employment.

6. Employee Contributions

8.0% of Earnable Compensation.

D

Table XI
(continued two)

7. Normal Retirement Date

For members hired on or prior to March 1, 2009, 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 seven (7) years of Credited Service.

The Normal Retirement Date for members hired after March 1, 2009 and before September 1, 2012 will be 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 10 years of Credited Service.

The Normal Retirement Date for members hired on or after September 1, 2012 will be 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.

8. Amount of Normal Retirement Income

For former General Employees' Plan members who were hired on or before March 1, 2009:

The monthly retirement income is equal to 3.0% times FMC for Credited Service through September 30, 2004 plus 3.5% times FMC for Credited Service thereafter, payable under the normal form of payment under the plan.

For former Defined Contribution Plan Members who were hired on or before March 1, 2009:

The monthly retirement income is equal to 3.0% times FMC for Credited Service through September 30, 2004, plus 3.5% times FMC for Credited Service thereafter, payable under the normal form of payment under the plan.

For members hired after March 1, 2009 and before September 1, 2012:

The monthly retirement income is equal to 3.0% times FMC for each year of Credited Service.

For members hired on or after September 1, 2012:

The monthly retirement income is equal to 2.25% times FMC for each year of Credited Service.

9. Early Retirement Date

The attainment of age 55 and completion of 15 years of Credited Service.

10. Amount of Early Retirement Income

Benefit accrued to Early Retirement Date payable at Normal Retirement Date, or actuarially reduced from age 62, with reductions of 1/15 for each of the first five (5) years and 1/30 for each additional year thereafter.

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.

D

Table XI
(continued three)

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 at age 62, 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 seven (7) or more years of Credited Service (10 years of Credited Service for members hired after March 1, 2009). Otherwise, the member is entitled only to the refund of accumulated employee contributions made with 3.0% interest compounded annually.

14. Disability Retirement Benefits

Serviced Incurred Disability eligibility: total and permanent disability as a result of injury suffered in the line of duty.

Non-Service Incurred Disability eligibility: total and permanent disability with the completion of seven (7) years of Credited Service.

The monthly disability benefit shall be the greater of the benefit accrued at date of disability or 20% of the rate of monthly earnings at the date of disability. However, the total benefits payable from the plan due to disability shall not exceed 100% of the rate of monthly earnings at the date of disability less (i) 100% of Worker's Compensation benefit, and (ii) 100% of Social Security benefit. The benefit would be payable until the earlier of death or recovery from disability.

15. Death Benefits

Service Incurred:

Eligibility: Death that occurred while in the line of duty.

Benefits: 20% of monthly salary at the date of death, payable until the later of (i) death or remarriage of surviving spouse, or (ii) when the youngest child reaches the age of 18.

Non-Service Incurred:

Eligibility: The member must be eligible for Early or Normal Retirement at the date of death

Benefits: If the deceased member has a surviving spouse, the benefit payable would be one payable as if the member had retired and elected a 50% joint and survivor benefit at the date of death, with the 50% survivor benefit payable until the later of (i) death or remarriage of the surviving spouse, or (ii) when the youngest child reaches the age of 18. If the deceased member does not have a spouse, then the benefit payable would be computed and payable to the beneficiary or beneficiaries as if the member had retired and elected a 10 year certain and life thereafter benefit at the date of death. Such benefit would be payable for at least 10 years or until the date the youngest child reaches the age of 18, whichever is later.

D

Table XI
(continued four)

16. Normal Form of Retirement Income

The normal form of payment is a life only annuity for the retiree.

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 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 the retiree, 50%, 66-2/3%, 75%, or 100% depending on the retiree's election, of such smaller monthly amount payable to the surviving joint pensioner for his or her lifetime.

Option 2 10 year certain and life annuity payable during the lifetime of the participant with 120 guaranteed payments.

Option 3 For any joint and survivor benefit, the member may elect to purchase the option of permitting the substitution of a new survivor in the event of the death of the survivor or dissolution of marriage.

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. The DROP account shall be credited with the actual fund investment return per year. 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.

19. Cost of Living Adjustment

If the plan has a positive actuarial experience for the prior fiscal year, the Board of Trustees may authorize a non-recurring cost of living adjustment benefit increase for retired members commencing in the third year after retirement. Such increase, if any, would not exceed 3.0% of the annual benefit in any given year.

20. Changes from Most Recent Valuation

None.

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Table XII

CITY OF LAUDERHILL CONFIDENTIAL AND MANAGERIAL EMPLOYEES RETIREMENT PLAN

Actuarial Assumptions and Actuarial Cost Methods

1. Mortality:

Healthy Mortality (other than Special Risk, Pre-Retirement)

- Female: RP2000 Generational, 100% Combined Healthy with White Collar Adjustment, Scale BB

- Male: RP2000 Generational, 50% Combined Healthy with White Collar Adjustment / 50% Combined Healthy with Blue Collar Adjustment, Scale BB

Healthy Mortality (other than Special Risk, Post-Retirement)

- Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB

- Male: RP2000 Generational, 50% Annuitant White Collar / 50% Annuitant Blue Collar, Scale BB

Disabled Mortality (other than Special Risk)

- Female Disabled: RP2000, 100% Disabled Female set forward two years, no projection scale

- Male Disabled: RP2000, 100% Disabled Male setback four years, no projection scale

Twenty-five percent (25%) of pre-retirement deaths are assumed to be service related.

2. Interest to be Earned by Fund:

7.25%, net of investment expenses, compounded annually.

3. Allowances for Expenses:

The actual administrative expenses of the prior year.

4. Employee Withdrawal Rates:

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

<u>Age</u>	<u>Withdrawal Rates Per 100 Employees</u>
20	25.0
25	24.0
30	17.0
35	13.2
40	10.2
45	7.2
50	4.2
55	1.2
60 & over	0.0

D

**Table XII
(continued two)**

5. Retirement Age Assumption:

For members hired prior to March 1, 2009, the earlier of the completion of 20 years of Credited Service or the attainment of age 55 with completion of seven (7) years of Credited Service. For members hired after March 1, 2009 and before September 1, 2012, the earlier of the completion of 20 years of Credited Service or the attainment of age 55 with completion of 10 years of Credited Service. For members hired on or after September 1, 2012, 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. However, members eligible for immediate normal retirement on the valuation date are assumed to have at least one (1) year of future service.

6. Salary Increase Factors:

Current salaries are assumed to increase at a rate of 5.25% per year until retirement.

7. Disability Rates:

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

<u>Age</u>	<u>Disability Rates Per 100 Employees</u>
20	0.07
25	0.09
30	0.11
35	0.14
40	0.19
45	0.30
50	0.51
55	0.96
60	1.66
65 & over	0.00

25% of disabilities assumed to be service incurred, 75% 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 earnings over five (5) years. This method was adopted effective October 1, 2008 with no phase-in. The resulting value is then limited to between 80% and 120% of market value.

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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.

For the nine (9) retirees who returned to active membership on or about October 1, 2016, the increase in their Actuarial Accrued Liability, net of the required employee contributions, without interest, which would have been paid had the member not commenced In-Service Distributions, was established as an amortization base, to be amortized over five (5) years.

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:

- Changed the assumed interest to be earned by the Fund from 7.50% to 7.25% per year, net of investment expenses.
- Changed the assumed current salaries increase rate from 5.55% per year to 5.25% per year until retirement.

Table XIII

CITY OF LAUDERHILL CONFIDENTIAL AND MANAGERIAL EMPLOYEES RETIREMENT PLAN

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	1	1	.	.	.	.	.	2
25 - 29	11	.	.	.	.	.	.	11
30 - 34	15	2	.	.	.	.	.	17
35 - 39	9	3	3	1	.	.	.	16
40 - 44	6	3	3	4	.	1	.	17
45 - 49	5	1	2	5	1	.	.	14
50 - 54	5	.	4	3	.	1	.	13
55 - 59	6	1	2	.	.	2	.	11
60 - 64	4	1	1	.	2	1	.	9
65 & Over	3	0	2	.	.	.	.	5
TOTAL	65	12	17	13	3	5	0	115

10/01/2017 10/01/2018

Average Attained Age	41.9 years	44.4 years
Average Covered Pay	\$63,531	\$65,717
Percent Female	58.1%	61.7%



Table XIV

**CITY OF LAUDERHILL CONFIDENTIAL AND MANAGERIAL EMPLOYEES
RETIREMENT PLAN**

Reconciliation of Participant Data

A. Active Participants

1. Active participants previous year	105
2. Retired during year	(1)
3. Entered DROP during year	(2)
4. Died during year	0
5. Disabled during year	0
6. Terminated vested during year	0
7. Terminated non-vested during period	(6)
8. New active participants	18
9. Rehired	1
10. Active participants current year	<u>115</u>

B. Participants Receiving Benefits

1. Participants receiving benefits previous year	46
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	2
7. Died or ceased payment during year	(2)
8. Retired or terminated vested receiving benefits current year	<u>47</u>

C. Terminated Participants Entitled to Future Benefits

1. Terminated participants entitled to future benefits previous year	4
2. Died during year	0
3. Commenced receiving benefits during year	0
4. New terminated participants	0
5. Terminated participants entitled to future benefits current year	<u>4</u>

D. DROP Participants

1. DROP participants previous year	14
2. New entrants during year	2
3. Died during year	0
4. Exited and retired during year	(2)
5. DROP participants current year	<u>14</u>

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Table XV

**CITY OF LAUDERHILL CONFIDENTIAL AND MANAGERIAL EMPLOYEES
RETIREMENT PLAN**

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

A. Entitled to Deferred Benefits

<u>Current Age Group</u>	<u>Count</u>	<u>Total Annual Benefit</u>	<u>Average Annual Benefit</u>
Less than 40	0	\$ 0	\$ 0
40 - 44	0	0	0
45 - 49	0	0	0
50 - 54	2	23,763	11,882
55 - 59	1	5,736	5,736
60 - 64	1	1,885	1,885
65 & over	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	4	\$ 31,384	\$ 7,846

B. Receiving Benefits (including DROPs)

<u>Current Age Group</u>	<u>Count</u>	<u>Total Annual Benefit</u>	<u>Average Annual Benefit</u>
Less than 40	0	\$ 0	\$ 0
40 - 44	0	0	0
45 - 49	3	198,357	66,119
50 - 54	4	87,424	21,856
55 - 59	8	333,845	41,731
60 - 64	17	525,620	30,919
65 & over	<u>29</u>	<u>701,183</u>	<u>24,179</u>
TOTAL	61	\$ 1,846,429	\$ 30,269

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Table XVI

**CITY OF LAUDERHILL CONFIDENTIAL AND MANAGERIAL EMPLOYEES
RETIREMENT PLAN**

Recent Investment, Salary Increase, and Turnover Experience

A. Investment Return

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

Year Ended	Rate of Return		Assumed
	Market Value	Actuarial Value	
09/30/2018	7.3%	7.5%	7.50%
09/30/2017	12.3%	7.5%	7.60%
09/30/2016	10.3%	7.2%	7.65%
09/30/2015	(2.4%)	5.9%	7.75%
09/30/2014	8.2%	8.0%	7.75%
Last 3 Yrs.	10.0%	7.4%	7.58%
Last 5 Yrs.	7.0%	7.2%	7.65%

B. Recent Salary Increase and Turnover Experience

Year Ended	Salary Increase		Ratio of Actual Turnover to Expected
	Actual	Assumed	
09/30/2018	9.1%	5.55%	1.45
09/30/2017	6.4%	5.70%	0.81
09/30/2016	7.5%	5.90%	0.20
09/30/2015	7.2%	6.00%	0.38
09/30/2014	3.1%	6.00%	0.63
Last 3 Yrs.	7.7%	5.7%	0.82
Last 5 Yrs.	6.6%	5.8%	0.69

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Table XVII

**CITY OF LAUDERHILL CONFIDENTIAL AND MANAGERIAL EMPLOYEES
RETIREMENT PLAN**

State Required Exhibit

	<u>10/01/2017</u>	<u>10/01/2018</u>
A. <u>Participant Data</u>		
1. Active participants	105	115
2. Retired participants and beneficiaries receiving benefits	45	46
3. DROP participants	14	14
4. Disabled participants receiving benefits	1	1
5. Terminated vested participants	4	4
6. Total participants	169	180
7. Annual payroll of active participants	\$ 6,670,802	\$ 7,557,489
8. Annual benefits payable to those currently receiving benefits	\$ 1,260,669	\$ 1,341,106
9. Annual benefits payable to terminated vested participants	\$ 31,384	\$ 31,384
10. Annual benefits payable to DROP participants	\$ 423,181	\$ 505,323
B. <u>Assets</u>		
1. Actuarial Value	\$ 24,681,455	\$ 27,837,888
2. Market Value	\$ 25,145,486	\$ 28,357,030
C. <u>Liabilities</u>		
1. Actuarial present value of future expected benefit payments for active members		
a. Age retirement benefits	\$ 20,922,667	\$ 23,475,513
b. Vesting benefits	1,508,438	1,771,777
c. Death benefits	119,069	97,505
d. Disability benefits	449,759	436,647
e. Total	<u>\$ 22,999,933</u>	<u>\$25,781,442</u>
2. Actuarial present value of future expected benefit payments for terminated vested members	\$ 383,920	\$ 377,246
3. Actuarial present value of future expected benefit payments for those receiving benefits		
a. Service retired	\$ 12,508,324	\$ 13,565,314
b. DROP participants	5,174,378	6,461,866
c. Disability retired	160,585	163,166
d. Beneficiaries	562,217	560,321
e. Total	<u>\$ 18,405,504</u>	<u>\$ 20,750,667</u>

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Table XVII
(continued two)

	<u>10/01/2017</u>	<u>10/01/2018</u>
4. Total actuarial present value of future expected benefit payments	\$ 417,489,357	\$ 46,909,355
5. Actuarial accrued liabilities	\$ 37,454,317	\$ 42,077,878
6. Unfunded actuarial liabilities (see footnote 1/ for separation)	\$ 12,772,862	\$ 14,239,990
D. <u>Statement of Accumulated Plan Benefits</u>		
1. Actuarial present value of accumulated vested plan benefits		
a. Participants currently receiving benefits	\$ 13,231,126	\$ 14,288,801
b. DROP participants	5,174,378	6,461,866
c. Participants due deferred vested benefits	383,920	377,246
d. Other participants	<u>13,852,305</u>	<u>15,584,396</u>
e. Total	\$ 32,641,729	\$ 36,712,309
2. Actuarial present value of accumulated non-vested plan benefits	<u>910,821</u>	<u>1,135,120</u>
3. Total actuarial present value of accumulated plan benefits	\$ 33,552,550	\$ 37,847,429
E. <u>Statement of Change in Accumulated Plan Benefits</u>		
1. Actuarial present value of accumulated plan benefits as of October 1, 2017	\$ 33,552,550	
2. Increase (decrease) during year attributable to:		
a. Plan amendment	\$ 0	
b. Actuarial assumptions and methods changes	985,113	
c. Benefits paid and contribution refunds (including DROP)	(1,720,512)	
d. Other, including benefits accumulated and increase for interest due to decrease in the discount period	<u>5,030,278</u>	
e. Net increase (decrease)	\$ 4,294,879	
3. Actuarial present value of accumulated plan benefits as of October 1, 2018	\$ 37,847,429	

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**Table XVII
(continued three)**

	<u>10/01/2017</u>	<u>10/01/2018</u>
F. <u>Pension Cost</u>		
1. Total normal cost including expenses	\$ 1,087,669	\$ 1,081,989
2. Expected member contributions	533,664	604,599
3. Item 2. as percentage of payroll	<u>8.0%</u>	<u>8.0%</u>
4. Net employer normal cost	\$ 554,005	\$ 477,390
5. Payment required to amortize unfunded liability	<u>1,913,558</u>	<u>2,165,385</u>
6. Total employer required contribution (including interest)	\$ 2,564,476	\$ 2,743,221
7. Item 6. as a percentage of payroll	38.4%	36.3%
G. <u>Past Contributions</u>		
1. Total contribution required	\$ 3,098,140	\$ 3,347,820
2. Actual contributions made:		
a. Employees	656,622	N/A
b. City	<u>2,564,476</u>	N/A
c. Total	3,221,098	N/A
H. <u>Net Actuarial Gain / (Loss)</u>	\$ (793,783)	\$ (1,493,703)
I. <u>Disclosure of Following Items:</u>		
1. Actuarial present value of future salaries - attained age	\$ 30,454,417	\$ 35,592,990
2. Actuarial present value of future employee contributions - attained age	\$ 2,436,353	\$ 2,847,439
3. Actuarial present value of future contributions from other sources	N/A	N/A
4. Amount of active members' accumulated contributions	\$ 2,982,888	\$ 3,255,235
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	

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**Table XVII
(continued four)**

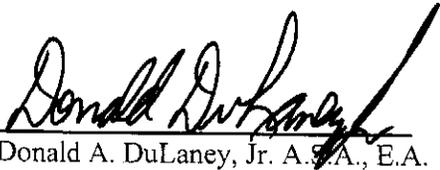
1/ Unfunded Actuarial Accrued Liabilities

Description and Amount of Original Liability	Remaining Amortization Period	Unamortized Amount as of Valuation Date	Amortization Payment
10/01/2002 Allocation of Actuarial (Gain) / Loss	14 years	37,703	4,080
10/01/2002 Plan Amendment and 10/01/2003 Actuarial (Gain) / Loss	14 years	1,288,702	139,462
10/01/2004 Actuarial (Gain) / Loss	16 years	709,738	71,217
10/01/2004 Plan Amendment	16 years	465,188	46,678
10/01/2005 Actuarial (Gain) / Loss	17 years	1,132,308	110,017
10/01/2005 Assumption Change	17 years	81,637	7,932
10/01/2005 Plan Amendment	17 years	17,273	1,678
10/01/2006 Actuarial (Gain) / Loss	3 years	261,266	93,250
10/01/2007 Actuarial (Gain) / Loss	4 years	(330,474)	(91,484)
10/01/2007 Assumption Change	4 years	(13,745)	(3,805)
10/01/2008 Actuarial (Gain) / Loss	5 years	1,153,116	263,981
10/01/2008 Asset Method Change	5 years	(611,659)	(140,026)
10/01/2009 Actuarial (Gain) / Loss	6 years	610,470	120,340
10/01/2010 Actuarial (Gain) / Loss	7 years	504,135	87,982
10/01/2011 Actuarial (Gain) / Loss	8 years	167,752	26,448
10/01/2011 Assumption Changes	8 years	362,951	57,224
10/01/2012 Actuarial (Gain) / Loss	9 years	1,098,890	158,940
10/01/2013 Actuarial (Gain) / Loss	10 years	365,329	49,060
10/01/2014 Actuarial (Gain) / Loss	11 years	(680,755)	(85,704)
10/01/2015 Actuarial (Gain) / Loss	12 years	1,201,924	142,981
10/01/2015 Plan Amendment	12 years	195,641	23,273
10/01/2015 Assumption Changes	12 years	239,753	28,521
10/01/2016 Actuarial (Gain) / Loss	13 years	(143,997)	(16,293)
10/01/2016 Assumption Changes	13 years	1,043,019	118,016
10/01/2016 Plan Amendment	3 years	1,657,923	591,741
10/01/2017 Actuarial (Gain) / Loss	14 years	763,041	82,576
10/01/2017 Tier 3 Amendment	14 years	(240,487)	(26,025)
10/01/2017 COLA Amendment	14 years	230,558	24,951
10/01/2017 Assumption Changes	14 years	98,538	10,664
10/01/2018 Actuarial (Gain) / Loss	15 years	1,493,703	155,338
10/01/2018 Assumption Changes	15 years	1,080,549	112,372
TOTAL		<u>\$ 14,239,990</u>	<u>\$ 2,165,385</u>

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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 provided for 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.



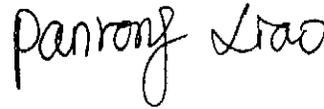
Donald A. DuLaney, Jr. A.S.A., E.A.
Senior Consulting Actuary

7/9/2019

Date

17-04191

Enrollment Number



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

7/9/2019

Date

17-07551

Enrollment Number

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