

**ACTUARIAL VALUATION OF
CITY OF LAUDERHILL POLICE OFFICERS'
RETIREMENT SYSTEM
AS OF OCTOBER 1, 2019**

July, 2020

Determination of Contribution for the
Plan Year ending September 30, 2020
Contribution to be
Paid in Fiscal Year October 1, 2019
through September 30, 2020

**DuLaney and Company, Inc.
Actuarial Services**

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July 6, 2020

Board of Trustees
City of Lauderdale 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, 2019 Actuarial Valuation for the City of Lauderdale 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, 2019

This Actuarial Valuation develops the required minimum Retirement Plan payment for the fiscal year beginning October 1, 2019 and ending September 30, 2020 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 \$1,030,631 (10.0% of covered payroll).

The required funding amount for the plan/fiscal year ending September 30, 2020, to be met by the City and State contributions under Chapter 185 is **30.3%** of the covered payroll. The anticipated State (Chapter 185) contribution is \$491,287. The City and State required contribution, computed based on the October 1, 2019 covered payroll of \$10,306,308, is **\$3,123,011** or 30.3% of covered payroll, if the payment requirement is met by September 30, 2020. We have assumed that the State contribution available (limited by rules under Chapter 99-1) would be **\$491,287** (same as the amount the City was credited with for contribution purposes for the prior plan/fiscal year, and assumed to be 4.8% of covered payroll). Thus, the required City contribution would be **\$2,631,724** (25.5% of covered payroll). Under the rules of Chapter 99-1, any amount of the State contribution received above the assumed amount of \$491,287 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 \$141,321 to \$147,624 for the plan/fiscal year.
- The mortality tables were changed to those used in the most recent FRS valuation report.
- The assumed interest was changed from 7.25% to 7.00%, net of investment expenses, compounded annually.
- The salary scale was changed from 5.50% to 6.00%.
- The withdrawal rates were increased by 30% at all ages.

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

Comparison of Costs With Previous Valuation Year of 2018/2019

Table II of the report provides information of a comparative nature. Column I shows the results of the October 1, 2018 Actuarial Valuation while Column II shows the results as of October 1, 2019 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 9.4% while the number of active participants increased by about 5.9%. The unfunded liability decreased from \$14,765,349 to \$14,699,860.

Column III of the Table displays the results after the assumption changes. A comparison of Columns II and III indicates that the changes decreased the unfunded actuarial accrued liability by \$800,649 from \$14,699,860 to \$13,899,211. The City minimum funding requirement increased from \$2,600,203 to \$2,631,724.

Plan Experience

Table XVI provides a summary of certain plan experience during the plan year. The actuarial value of assets return was 8.0% for the plan year ended September 30, 2019, which was above the assumption of 7.25%. The market value rate of return was 2.3%. Employee turnover was 66% lower than the expected turnover during the last plan year. The actual pensionable earnings increased by an average of 7.3% per active member as compared to the assumption of 5.5%. The actuarial value of assets return was a source of actuarial gain, but the salary experience,

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and turnover experience were sources of actuarial loss 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.

Identification and Assessment of Risk

The liabilities and cost presented in this report are based on numerous assumptions concerning the cost of benefits to be provided in the future, long-term investment returns, and the future demographic experience of the current participants. Anyone referring to this report should remember that the cost developed herein is only an estimate of the true cost of providing post-employment pension benefits. No one can predict with certainty whether the true cost will be higher or lower than the cost presented in this report. The calculated cost is entirely dependent upon the assumptions that are described in Table XII. If any of the assumptions are changed, then the cost shown in this report will change accordingly. Likewise, there is always a risk that, should these assumptions not be realized, the liabilities of the plan, the contributions required to fund the plan, and the funded status of the plan may be significantly different than the amounts shown in this report.

Although a thorough analysis of the risk of not meeting the assumptions is beyond the scope of this report, this discussion is intended to identify the significant risks faced by the plan. In some cases, a more detailed review of the risks, including numerical analysis, may be appropriate to help the plan sponsor and other interested parties assess the specific impact of not realizing certain assumptions. Note that this report is not intended to provide advice on the management or reduction of the identified risks nor is this report intended to provide investment advice.

The most significant risk faced by most defined benefit pension plans is investment risk, i.e. the risk that long-term investment returns will be less than assumed. Other related risks include a risk that, if the investments of the plan decline dramatically over a short period of time (such as occurred with many pension plans in 2008), the plan's assets may not have sufficient time to recover before benefits become due. Even if the assets of the plan grow in accordance with the assumed investment return over time, if benefit payments are expected to be large in the short-term, the plan's assets may not be sufficient to support such a high level of benefit payments.

Another source of risk is demographic experience. This is the risk that participants will retire, become disabled, or terminate their employment at a rate that is different than assumed, and that participants will live longer than assumed, just to cite a few examples of the demographic risk faced by the plan. Although for most pension plans, the demographic risk is not as significant as the investment risk, particularly in light of the fact that the mortality assumption includes a component for future life expectancy increases; the demographic risk can nevertheless be a significant contributing factor to liabilities and contribution rates that become higher than anticipated.

Finally, an actuarial funding method has been used to allocate the gap between projected liabilities and assets to each year in the future. The contribution rate under some funding

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Board of Trustees
July 6, 2020
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methods is higher during the early years of the plan and then is lower during the later years of the plan. Other funding methods provide for lower contribution rates initially, with increasing contribution rate over time. The Trustees have adopted the entry age normal cost, level percent of pay funding method for this plan. Under this method, the contribution requirement is expected to remain relatively constant as a percentage of covered payroll over the next 10 to 20 years, absent investment or demographic experience.

Participant Census and Financial Data


Census data for the fiscal year October 1, 2018 through September 30, 2019 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

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Table I

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Summary of Retirement Plan Costs as of October 1, 2019

	<u>Cost Data</u>	<u>% of Payroll</u>
A. <u>Participant Data Summary (Table III)</u>		
1. Active employees		
a) Tier One	46	N/A
b) Tier Two	62	N/A
c) Total	<u>108</u>	N/A
2. Terminated vested	14	N/A
3. Receiving benefits	51	N/A
4. DROP participants	8	N/A
5. Annual payroll of active employees	\$ 10,306,308	100.0%
B. <u>Total Normal Costs</u>		
1. Age retirement benefits	\$ 2,144,808	20.8%
2. Deferred vesting benefits	343,013	3.3%
3. Death benefits	17,431	0.2%
4. Disability benefits	39,081	0.4%
5. Estimated expenses	<u>147,624</u>	<u>1.4%</u>
6. Total annual normal costs	\$ 2,691,957	26.1%
C. <u>Total Actuarial Accrued Liability</u>		
1. Age retirement benefits active employees	\$ 33,340,305	323.5%
2. Termination benefits active employees	1,666,529	16.2%
3. Death benefits active employees	128,008	1.2%
4. Disability benefits active employees	127,212	1.2%
5. Retired or terminated vested participants receiving benefits	39,967,963	387.8%
6. DROP participants	8,676,276	84.2%
7. Terminated vested participants entitled to future benefits	2,341,870	22.7%
8. Deceased participants whose beneficiaries are receiving benefits	188,913	1.8%
9. Disabled participants receiving benefits	<u>524,174</u>	<u>5.1%</u>
10. Total actuarial accrued liability	\$ 86,961,250	843.8%

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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>	\$ 73,062,039	708.9%
E. <u>Unfunded Actuarial Accrued Liability (C.-D.)</u>	\$ 13,899,211	134.9%
F. <u>Actuarial Gains / (Losses) (Table VIII)</u>	\$ (373,990)	(3.6%)
G. <u>Minimum Funding Requirements</u>		
1. Total normal cost	\$ 2,691,957	26.1%
2. Amortization of unfunded actuarial accrued liability	1,351,018	13.1%
3. Interest adjustment	<u>110,667</u>	<u>1.1%</u>
4. Total payment	\$ 4,153,642	40.3%
H. <u>Estimated Contribution Sources</u>		
1. City	\$ 2,631,724	25.5%
2. State	\$ 491,287	4.8%
3. Employees	\$ 1,030,631	10.0%
I. <u>Actuarial Present Value of Vested Accrued Benefits</u>		
1. Retired, terminated vested, beneficiaries and disabled receiving benefits	\$ 40,681,050	394.7%
2. DROP participants	8,676,276	84.2%
3. Terminated vested participants entitled to future benefits	2,341,870	22.7%
4. Active participants entitled to future benefits	<u>23,380,410</u>	<u>226.9%</u>
5. Total actuarial present value of vested accrued benefits	\$ 75,079,606	728.5%
J. <u>Market Value of Assets (Table IV)</u>	\$ 70,748,954	686.5%
K. <u>Unfunded Actuarial Present Value of Vested Accrued Benefits (I. - J., not less than \$0)</u>	\$ 4,330,652	42.0%
L. <u>Vested Benefit Security Ratio (J. ÷ I.)</u>	94.2%	N/A

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Table II

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Comparison of Cost Data of October 1, 2018 and October 1, 2019 Actuarial Valuations

	Column I		Column II		Column III	
	October 1, 2018	% of Annual Pay	Prior Assumptions October 1, 2019	% of Annual Pay	Current Assumptions October 1, 2019	% of Annual Pay
A. Participants						
1. Active employees						
- Tier One	53	N/A	46	N/A	46	N/A
- Tier Two	49	N/A	62	N/A	62	N/A
- Total	102	N/A	108	N/A	108	N/A
2. Terminated vested	14	N/A	14	N/A	14	N/A
3. Receiving benefits	47	N/A	51	N/A	51	N/A
4. DROP participants	9	N/A	8	N/A	8	N/A
5. Annual payroll of active employees	\$ 9,421,667	100.0%	\$ 10,306,308	100.0%	\$ 10,306,308	100.0%
B. Total Normal Costs	\$ 2,409,779	25.6%	\$ 2,566,225	24.9%	\$ 2,691,957	26.1%
C. Actuarial Accrued Liability	\$ 82,327,392	873.8%	\$ 87,761,899	851.5%	\$ 86,961,250	843.8%
D. Actuarial Value of Assets	\$ 67,562,043	717.1%	\$ 73,062,039	708.9%	\$ 73,062,039	708.9%
E. Unfunded Actuarial Accrued Liability	\$ 14,765,349	156.7%	\$ 14,699,860	142.5%	\$ 13,899,211	134.9%
F. Actuarial Gains / (Losses)	\$ 1,964,205	20.8%	\$ (373,990)	(3.6%)	\$ (373,990)	(3.6%)
G. City Minimum Funding Requirement	\$ 2,551,820	27.1%	\$ 2,600,203	25.2%	\$ 2,631,724	25.5%
H. Unfunded Actuarial Present Value of Vested Accrued Benefits*	\$ 2,494,105	26.5%	\$ 5,420,754	52.6%	\$ 4,330,652	42.0%
I. Vested Benefit Security Ratio*	96.5%	N/A	92.9%	N/A	94.2%	N/A

*Computed based on market value of assets



Table III

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Characteristics of Participants in
Actuarial Valuation as of October 1, 2019

A. Characteristic of Active Participants

1.	Active participants as of beginning of prior year	102
2.	New entrants during prior year	10
3.	Exits during prior year	(4)
4.	Active participants as of beginning of year	108
5.	Active participants fully vested	56
6.	Active participants partially vested	0
7.	Active participants non-vested	52
8.	Annual payroll of active participants	\$ 10,306,308
9.	Average pay	\$ 95,429
10.	Average attained age	37.0 years
11.	Percent female	13.0%

B. Characteristics of Inactive Participants

1.	Inactives as of beginning of prior year	70
2.	Newly inactive during prior year	3
3.	Exits during prior year	(0)
4.	Inactives as of beginning of year	73
5.	Age retirees	47
6.	Projected annual benefit for age retirees	\$ 3,240,520
7.	DROP participants	8
8.	Projected annual benefit for DROP participants	\$ 658,273
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

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Table IV

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Statement of Assets as of October 1, 2019¹

	<u>Market Value</u>
A. <u>Assets</u>	
1. Cash and Cash Equivalents	\$ 1,018,930
2. Common Stocks	3,915,012
3. Domestic Fixed Income Funds	9,384,634
4. Absolute Return Equity Funds	28,378,508
5. International Equity Funds	9,840,705
6. Accrued Interest & Dividends Receivable	54,875
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	11,643,896
12. Other Assets	6,613,847
13. Assets Purchased with Receivable Buyback Contributions Paid	<u>186,588</u>
14. Total Assets	\$ 73,036,995
B. <u>Liabilities</u>	
1. Prepaid City Contributions	\$ 0
2. Overpayment of Contributions	73,432
3. Due to Broker	0
4. Unused Chapter 185 Funds	0
5. Deferred Retirement Option Plan Accounts Payable	2,167,823
6. Accounts Payable	<u>46,786</u>
7. Total Liabilities	\$ 2,288,041
C. <u>Grand Total (Item A.14. – Item B.7.)</u>	<u>\$ 70,748,954</u>

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

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Table V

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Reconciliation of Plan Assets¹

A.	<u>Market Value of Assets as of October 1, 2018</u>		\$ 69,253,723
B.	<u>Receipts During Period</u>		
1.	Contributions		
a.	City	\$ 2,499,132	
b.	Employee	1,091,077	
c.	State (not limited by 99-1)	<u>491,287</u>	
d.	Total		\$ 4,081,496
2.	Investment income		
a.	Interest, dividends and miscellaneous income	\$ 1,957,711	
b.	Investment expenses	<u>(171,035)</u>	
c.	Net		\$ 1,786,676
3.	Net realized and unrealized appreciation		
a.	Realized appreciation	\$ 0	
b.	Unrealized appreciation	\$ <u>(468,654)</u>	
c.	Total		\$ (468,654)
4.	Receivable buyback contributions paid		\$ 65,594
5.	Total receipts during period (1.d. + 2.c. + 3.c. + 4.)		\$ 5,465,112
C.	<u>Disbursements During Period</u>		
1.	Pension payments		\$ 3,179,715
2.	DROP payments		782,162
3.	Contribution refunds		10,270
4.	Administrative expenses		147,624
5.	Increase / (decrease) in Chapter 185 reserve		0
6.	Decrease in receivable buyback contributions		<u>(149,890)</u>
7.	Total disbursements during period		\$ 3,969,881
D.	<u>Market Value of Assets as of October 1, 2019 (A. + B.5. - C.7.)</u>		<u>\$ 70,748,954</u>
E.	<u>Reconciliation of DROP Accounts Balance</u>		
1.	DROP accounts balance as of October 1, 2018		\$ 2,346,355
2.	Benefit payments into DROP accounts during year		782,162
3.	Disbursements from DROP accounts during year		(1,081,571)
4.	Expenses deducted from DROP accounts		(0)
5.	Investment gains/(losses) during year		<u>120,877</u>
6.	DROP accounts balance as of September 30, 2019		\$ 2,167,823

¹ As reported by Plan's Auditors.

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Table VI

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Development of Actuarial Value of Assets

	10/1/2018 – 9/30/2019	10/1/2017 – 9/30/2018	10/1/2016 – 9/30/2017	10/1/2015 – 9/30/2016	10/1/2014 – 9/30/2015
A. Preliminary actuarial value of assets as of beginning of year	\$ 67,562,043	\$ 62,107,544	\$ 57,327,084	\$ 52,511,277	\$ 46,823,896
B. Contributions and miscellaneous income	4,081,496	3,892,913	3,632,754	3,646,397	3,846,296
C. Benefit payments and administrative expenses	3,972,147	3,537,096	3,733,603	3,088,518	2,326,407
D. Actual investment earnings net of investment expenses	1,665,799	4,853,187	8,119,339	5,081,761	336,872
E. Expected investment earnings (A. x .0725 + (B.-C.) x .03625)	4,902,212	4,609,123	4,295,749	3,959,266	3,568,788
F. Excess of actual over expected investment earnings (D.-E.)	(3,236,413)	244,064	3,823,590	1,122,495	(3,231,916)
G. Recognition of excess earnings over 4 years					
1. 25% from this plan year	(809,103)	61,016	955,898	280,624	(807,979)
2. 25% from last plan year	61,016	955,898	280,624	(807,979)	157,017
3. 25% from two plan years ago	955,898	280,624	(807,979)	157,017	669,000
4. 25% from three plan years ago	280,624	(807,979)	157,017	669,000	580,666
5. Total	488,435	489,559	585,560	298,662	598,704
H. Preliminary actuarial value of assets at end of year (A. + B. - C. + E. + G.5.)	\$ 73,062,039	\$ 67,562,043	\$ 62,107,544	\$ 57,327,084	\$ 52,511,277
I. Actuarial value of assets limitations					
1. Market value of assets prior to exclusion of Chapter 185 accumulated excess reserve	\$ 70,748,954	\$ 69,253,723	\$ 64,053,387	\$ 56,042,901	\$ 50,366,584
2. 80% of I.1.	56,599,163	55,402,978	51,242,710	44,834,321	40,293,267
3. 120% of I.1.	84,898,745	83,104,468	76,864,064	67,251,481	60,439,901
4. Actuarial value of assets (H., but not less than I.2. or more than I.3.)	\$ 73,062,039	\$ 67,562,043	\$ 62,107,544	\$ 57,327,084	\$ 52,511,277
J. Return on Actuarial Value	\$ 5,390,647	\$ 5,098,682	\$ 4,881,309	\$ 4,257,928	\$ 4,167,492
K. Net actuarial value of assets	\$ 73,062,039	\$ 67,562,043	\$ 62,107,544	\$ 57,327,084	\$ 52,511,277



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*

Received During Plan Year	<u>Adjusted Base Amount</u>			<u>Actual Amount Received</u>		
	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
2018/2019	\$ 504,799	\$ 0	\$ 504,799	\$ 491,287	\$ 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.

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Table VIII

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

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

A.	<u>Derivation of Actuarial Gain / (Loss) for Plan Year Ended September 30, 2019</u>	
1.	City and State normal cost previous valuation	\$ 1,467,612
2.	Unfunded actuarial accrued liability previous valuation	\$14,765,349
3.	City and State contributions previous year (limited by 99-1)	\$ 2,990,419
4.	Interest on:	
	(a) City normal costs	\$ 106,402
	(b) Unfunded actuarial accrued liability	1,070,488
	(c) City and State contributions	<u>93,562</u>
	(d) Net total: (a) + (b) - (c)	\$ 1,083,328
5.	Increase in unfunded actuarial accrued liability due to plan amendment	\$ 0
6.	Increase in unfunded actuarial accrued liability due to assumptions / methods change	\$ (800,649)
7.	Expected unfunded actuarial accrued liability current year: 1. + 2. - 3. + 4. + 5. + 6.	\$13,525,221
8.	Actual unfunded actuarial accrued liability current year	\$13,899,211
9.	Actuarial gain / (loss): 7. - 8.	\$ (373,990)
B.	<u>Approximate Portion of Plan Year Gain / (Loss) Due to Investments</u>	
1.	Actuarial value of assets previous year	\$67,562,043
2.	Contributions during year	\$ 4,081,496
3.	Disbursements during year (expenses & benefits)	\$ 3,972,147
4.	Expected appreciation for period	<u>\$ 4,887,372</u>
5.	Expected actuarial value of assets current year 1. + 2. - 3. + 4.	\$72,558,764
6.	Actual actuarial value of assets current year	\$73,062,039
7.	Approximate gain / (loss): 6. - 5.	\$ 503,275
C.	<u>Approximate Portion of Plan Year Gain / (Loss) Due to Liabilities: A. - B.</u>	
		\$ (877,265)

D

Table VIII
(continued two)

D. Review of Cumulative Actuarial Gains / (Losses) for Determination of 13th Checks to Retirees for the 2018/2019 Plan Year

<u>Plan Year</u>	<u>Actuarial Gains / (Losses)</u>
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
2018 / 2019	<u>(373,990)</u>
Cumulative Total Gains / (Losses)	\$ (7,288,536)

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

<u>Date</u>	<u>Total Unfunded Liability</u>	<u>Amortization Payment</u>
10/01/2019	\$ 13,899,211	\$ 1,351,018
10/01/2020	\$ 13,426,567	\$ 1,351,018
10/01/2021	\$ 12,920,837	\$ 1,351,018
10/01/2022	\$ 12,379,706	\$ 1,351,018
10/01/2049	\$ 0	\$ 0

D

Table X

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Accounting Disclosure Exhibit

I. <u>Number of Plan Participants</u>	<u>10/01/2018</u>	<u>10/01/2019</u>
1. Retirees, disabled and beneficiaries receiving benefits	47	51
2. Terminated plan participants entitled to but not yet receiving benefits	14	14
3. DROP participants	9	8
4. Active plan participants	<u>102</u>	<u>108</u>
5. Total	172	181
II. <u>Financial Accounting Standards Board Allocations as of October 1, 2019</u>		
A. <u>Statement of Accumulated Plan Benefits</u>		
1. Actuarial present value of accumulated vested plan benefits		
a. Participants currently receiving benefits	\$ 36,113,408	\$ 40,681,050
b. DROP participants	10,329,354	8,676,276
c. Participants due deferred vested benefits	2,206,355	2,341,870
d. Others	<u>23,098,711</u>	<u>23,380,410</u>
e. Total	\$ 71,747,828	\$ 75,079,606
2. Actuarial present value of accumulated non-vested plan benefits	<u>1,606,877</u>	<u>2,207,570</u>
3. Total actuarial present value of accumulated plan benefits	\$ 73,354,705	\$ 77,287,176
B. <u>Statement of Change in Accumulated Plan Benefits</u>		
1. Actuarial present value of accumulated plan benefits as of October 1, 2018		\$ 73,354,705
2. Increase (decrease) during year attributable to:		
a. Plan amendment		\$ 0
b. Actuarial assumptions and method changes		(1,142,970)
c. Benefits paid and contribution refunds		(3,972,147)
d. Other, including benefits accumulated and increase for interest due to decrease in the discount period		<u>9,047,588</u>
e. Net increase		\$ 3,932,471
3. Actuarial present value of accumulated plan benefits as of October 1, 2019		\$ 77,287,176

D

Table X
(continued two)

C. Significant Matters Affecting Calculations

- | | |
|--|-------------------------|
| 1. Assumed rate of return used in determining actuarial present values | 7.00% |
| 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%
October 1, 2019	\$ 73,062	\$ 86,961	\$ 13,899	84.0%	\$ 10,306	134.9%

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)
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%
2018	2,990,419	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, 2019
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*	7.00%
Projected salary increases*	6.00%
Cost-of-living adjustments	Variable 13 th check, only if plan has cumulative net actuarial gain

* Includes inflation at 3.00%

Table X
(continued five)

Accounting Disclosure Exhibit

VI. Revenues by Source and Expenses by Type

<u>Plan Year</u>	<u>Revenues by Source</u>				<u>Total</u>
	<u>Employee Contributions</u>	<u>City Contributions</u>	<u>State Contributions</u>	<u>Investment Income</u>	
2019	\$ 1,091,077	\$ 2,499,132	\$ 491,287	\$ 1,786,676	\$ 5,868,172
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

<u>Plan Year</u>	<u>Expenses by Type</u>			<u>Total</u>
	<u>Benefits & DROP Payments</u>	<u>Expenses</u>	<u>Refunds</u>	
2019	\$ 3,961,877	\$ 318,659	\$ 10,270	\$ 4,290,806
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

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.



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, 2014.

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.

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.

Table XII

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Actuarial Assumptions and Actuarial Cost Methods

1. Mortality:

Pre-Retirement:

Female Non-Disabled: Headcount Weighted Safety Employee Female Table, set forward 1 year, Scale MP-2018

Male Non-Disabled: Headcount Weighted Safety Below Median Employee Male Table, set forward 1 year, scale MP-2018

Post-Retirement:

Female Non-Disabled: Headcount Weighted Safety Healthy Retiree Female Table, set forward 1 year, Scale MP-2018

Male Non-Disabled: Headcount Weighted Safety Below Median Healthy Retiree Male Table, set forward 1 year, Scale MP-2018

Pre-Retirement & Post-Retirement:

Female Disabled: 80% Headcount Weighted General Disabled Retiree Female Table; 20% Headcount Weighted Safety Disabled Retiree Female Table, Scale MP-2018

Male Disabled: 80% Headcount Weighted General Disabled Retiree Male Table; 20% Headcount Weighted Safety Disabled Retiree Male Table, Scale MP-2018

2. Interest to be Earned by Fund:

7.00%, 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:

<u>Age</u>	<u>Withdrawal Rates Per 100 Employees</u>
20	7.8
25	7.4
30	6.5
35	4.9
40	3.4
45	2.1
50	0.7
55 & over	0.0

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 6.0% 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:

<u>Age</u>	<u>Disability Rates Per 100 Employees</u>
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.

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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.

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:

- The assumed administrative expenses were changed from \$141,321 to \$147,624 for the plan/fiscal year.
- The mortality tables were changed to those used in the most recent FRS valuation report.
- The assumed interest was changed from 7.25% to 7.00%, net of investment expenses, compounded annually.
- The salary scale was changed from 5.50% to 6.00%.
- The withdrawal rates were increased by 30% at all ages.

Table XIII

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Distribution of Active Participants by Age and Service Groups
as of October 1, 2019

Years of Credited Service

<u>Age</u>	<u>0 - 4</u>	<u>5 - 9</u>	<u>10 - 14</u>	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	<u>30 & Over</u>	<u>Total</u>
Under 25	3	.	.	.	.	.	.	3
25 - 29	26	2	.	.	.	.	.	28
30 - 34	6	3	4	.	.	.	.	13
35 - 39	9	2	11	1	.	.	.	23
40 - 44	5	2	9	6	.	.	.	22
45 - 49	.	.	5	4	4	.	.	13
50 - 54	.	.	3	1	.	.	.	4
55 - 59	.	2	.	.	.	.	.	2
60 - 64	.	.	.	.	.	.	.	0
65 & Over	.	.	.	.	.	.	.	0
TOTAL	49	11	32	12	4	0	0	108

	<u>10/01/2018</u>	<u>10/01/2019</u>
Average Attained Age	37.0 years	37.0 years
Average Covered Pay	\$92,369	\$95,429
Percent Female	11.8%	13.0%



Table XIV

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

Reconciliation of Participant Data

A. Active Participants

1. Active participants previous year	102
2. Retired during year	(2)
3. Entered DROP during year	(1)
4. Died during year	0
5. Disabled during year	0
6. Terminated vested during year	(0)
7. Terminated non-vested during period	(1)
8. New active participants	10
9. Rehired / Reinstated	0
10. Active participants current year	<u>108</u>

B. Participants Receiving Benefits

1. Participants receiving benefits previous year	47
2. New retired participants	2
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	0
8. Retired or terminated vested receiving benefits current year	<u>51</u>

C. Terminated Participants Entitled to Future Benefits

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

D. DROP Participants

1. DROP participants previous year	9
2. New entrants during year	1
3. Died during year	0
4. Exited and retired during year	(2)
5. DROP participants current year	<u>8</u>

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

<u>Current Age Group</u>	<u>Count</u>	<u>Total Annual Benefit</u>	<u>Average Annual Benefit</u>
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	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	14	\$ 404,422	\$ 28,887

B. Receiving Benefits & DROP Participants

<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	1	97,390	97,390
45 - 49	9	778,193	86,466
50 - 54	18	1,425,662	79,203
55 - 59	13	944,790	72,676
60 - 64	6	407,868	67,978
65 & over	<u>12</u>	<u>332,757</u>	<u>27,730</u>
TOTAL	59	\$ 3,986,660	\$ 67,571

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:

<u>Year Ended</u>	<u>Rate of Return</u>		
	<u>Market Value</u>	<u>Actuarial Value</u>	<u>Assumed</u>
09/30/2019	2.3%	8.0%	7.25%
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%
Last 3 Yrs.	8.1%	8.2%	7.38%
Last 5 Yrs.	7.1%	8.3%	7.43%

B. Recent Salary Increase and Turnover Experience

<u>Year Ended</u>	<u>Salary Increase</u>		<u>Ratio of Actual Turnover to Expected</u>
	<u>Actual</u>	<u>Assumed</u>	
09/30/2019	7.3%	5.5%	0.34
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
Last 3 Yrs.	5.5%	5.5%	1.29
Last 5 Yrs.	5.1%	5.5%	1.45

Table XVII

CITY OF LAUDERHILL POLICE OFFICERS' RETIREMENT SYSTEM

State Required Exhibit

	<u>10/01/2018</u>	<u>10/01/2019</u>
A. <u>Participant Data</u>		
1. Active participants	102	108
2. Retired participants and beneficiaries receiving benefits	44	48
3. DROP participants	9	8
4. Disabled participants receiving benefits	3	3
5. Terminated vested participants	14	14
6. Total participants	172	181
7. Annual payroll of active participants	\$ 9,421,667	\$ 10,306,308
8. Annual benefits payable to those currently receiving benefits	\$ 2,974,351	\$ 3,328,387
9. Annual benefits payable to terminated vested participants	\$ 404,422	\$ 404,422
10. Annual benefits payable to DROP participants	\$ 780,853	\$ 658,273
B. <u>Value of Assets</u>		
1. Actuarial value	\$ 67,562,043	\$ 73,062,039
2. Market value	\$ 69,253,723	\$ 70,748,954
C. <u>Liabilities</u>		
1. Actuarial present value of future expected benefit payments for active members		
a. Age retirement benefits	\$ 47,514,346	\$ 49,287,642
b. Vesting benefits	3,053,866	4,243,465
c. Death benefits	314,763	258,860
d. Disability benefits	362,936	428,536
e. Total	\$ 51,245,911	\$ 54,218,503
2. Actuarial present value of future expected benefit payments terminated vested members	\$ 2,206,355	\$ 2,341,870
3. Actuarial present value of future expected benefit payments for those receiving benefits		
a. Service retired	\$ 35,388,943	\$ 39,967,963
b. DROP participants	10,329,354	8,676,276
c. Disability retired	516,920	524,174
d. Beneficiaries	207,545	188,913
e. Total	\$ 46,442,762	\$ 49,357,326

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Table XVII
(continued two)

	<u>10/01/2018</u>	<u>10/01/2019</u>
4. Total actuarial present value of future expected benefit payments	\$ 99,895,028	\$ 105,917,699
5. Actuarial accrued liabilities	\$ 82,327,392	\$ 86,961,250
6. Unfunded actuarial accrued liabilities (see footnote 1/ for separation)	\$ 14,765,349	\$ 13,899,211
D. <u>Statement of Accumulated Plan Benefits</u>		
1. Actuarial present value of accumulated vested plan benefits		
a. Participants currently receiving benefits	\$ 36,113,408	\$ 40,681,050
b. DROP participants	10,329,354	8,676,276
c. Participants due deferred benefits	2,206,355	2,341,870
d. Other participants	<u>23,098,711</u>	<u>23,380,410</u>
e. Total	\$ 71,747,828	\$ 75,079,606
2. Actuarial present value of accumulated non-vested plan benefits	<u>1,606,877</u>	<u>2,207,570</u>
3. Total actuarial present value of accumulated plan benefits	\$ 73,354,705	\$ 77,287,176
E. <u>Statement of Change in Accumulated Plan Benefits</u>		
1. Actuarial present value of accumulated plan benefits as of October 1, 2018		\$ 73,354,705
2. Increase (decrease) during year attributable to:		
a. Plan amendment		\$ 0
b. Actuarial assumptions and methods changes		(1,142,970)
c. Benefits paid and contribution refunds		(3,972,147)
d. Other, including benefits accumulated and increase for interest due to decrease in the discount period		<u>9,047,588</u>
e. Net increase (decrease)		\$ 3,932,471
3. Actuarial present value of accumulated plan benefits as of October 1, 2019		\$ 77,287,176

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Table XVII
(continued three)

	<u>10/01/2018</u>	<u>10/01/2019</u>
F. <u>Pension Cost</u>		
1. Total normal cost including expenses	\$ 2,409,779	\$ 2,691,957
2. Expected member contribution	942,167	1,030,631
3. Item 2. as percentage of payroll	<u>10.0%</u>	<u>10.0%</u>
4. Net employer normal cost	\$ 1,467,612	\$ 1,661,326
5. Payment required to amortize unfunded liability	<u>1,413,309</u>	<u>1,351,018</u>
6. Total employer required contribution (including interest)	\$ 2,990,419	\$ 3,123,011
7. Item 6. as a percentage of payroll	31.7%	30.3%
8. Estimated State contributions	\$ 438,599	\$ 491,287
9. Item 8. as a percentage of payroll	4.7%	4.8%
10. Net amount payable by City	\$ 2,551,820	\$ 2,631,724
11. Item 10. as a percentage of payroll	27.1%	25.5%
G. <u>Past Contributions</u>		
1. Total contribution required	\$ 3,932,586	\$ 4,153,642
2. Actual contributions made:		
a. Employees	1,091,077	N/A
b. City	2,499,132	N/A
c. State	<u>491,287</u>	N/A
d. Total	4,081,496	N/A
H. <u>Net Actuarial Gain / (Loss)</u>	\$ 1,964,205	\$ (373,990)
I. <u>Disclosure of Following Items:</u>		
1. Actuarial present value of future salaries - attained age	\$ 73,982,880	\$ 81,451,158
2. Actuarial present value of future employee contributions - attained age	\$ 7,398,288	\$ 8,145,116
3. Actuarial present value of future contributions from other sources	N/A	N/A
4. Amount of active members' accumulated contributions	\$ 6,448,940	\$ 7,015,776
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)**

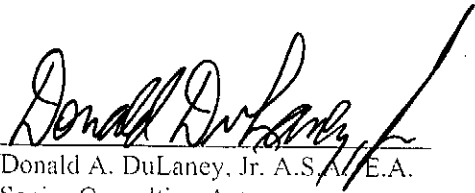
1/ Unfunded Actuarial Accrued Liabilities

Description and Amount of Original Liability	Remaining Amortization Period	Unamortized Amount as of Valuation Date	Amortization Payment
10/01/1999 New Method	10 years	\$ (202,947)	\$ (27,005)
10/01/2000 Actuarial Loss	11 years	243,889	30,397
10/01/2000 Plan Amendment	11 years	191,354	23,849
10/01/2001 Actuarial (Gain)	12 years	(108,165)	(12,727)
10/01/2002 Actuarial (Gain)	13 years	(258,902)	(28,951)
10/01/2002 Plan Amendment	13 years	737,736	82,496
10/01/2002 Plan Amendment	13 years	123,986	13,865
10/01/2003 Actuarial Loss	14 years	70,948	7,582
10/01/2004 Actuarial Loss	15 years	136,822	14,040
10/01/2004 Plan Amendment	15 years	799,012	81,988
10/01/2005 Actuarial Loss	16 years	1,031,962	102,094
10/01/2006 Actuarial Loss	17 years	1,034,810	99,057
10/01/2006 Assumption Change	17 years	721,838	69,098
10/01/2007 Actuarial (Gain)	18 years	(308,798)	(28,690)
10/01/2008 Actuarial Loss	19 years	30,076	2,720
10/01/2009 Actuarial Loss	20 years	1,923,060	169,648
10/01/2010 Actuarial Loss	21 years	781,343	67,392
10/01/2011 Actuarial Loss	22 years	2,100,704	177,491
10/01/2011 Plan Amendment	12 years	1,055,892	124,242
10/01/2011 Assumptions Change	17 years	848,369	81,210
10/01/2012 Actuarial Loss	23 years	1,178,389	97,700
10/01/2013 Actuarial Loss	24 years	596,661	48,619
10/01/2014 Actuarial Gain	25 years	(347,814)	(27,894)
10/01/2014 Plan Amendment	15 years	(600,533)	(61,622)
10/01/2014 Assumptions Change	15 years	1,418,548	145,560
10/01/2015 Actuarial Gain	26 years	(33,465)	(2,645)
10/01/2016 Actuarial Gain	27 years	(711,477)	(55,472)
10/01/2016 Assumptions Change	17 years	723,259	69,234
10/01/2017 Actuarial Loss	28 years	357,413	27,521
10/01/2017 Assumptions Change	18 years	1,311,515	121,851
10/01/2018 Actuarial Gain	29 years	(1,944,951)	(148,050)
10/01/2018 Assumptions Change	19 years	1,425,336	128,884
10/01/2019 Actuarial Loss	30 years	373,990	28,167
10/01/2019 Assumptions Change	20 years	<u>(800,649)</u>	<u>(70,631)</u>
TOTAL		<u>\$ 13,899,211</u>	<u>\$ 1,351,018</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 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.



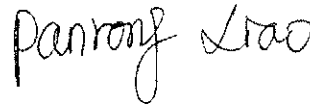
Donald A. DuLaney, Jr. A.S., A.E.A.
Senior Consulting Actuary

7/6/2020

Date

20-04191

Enrollment Number



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

7/6/2020

Date

20-07551

Enrollment Number

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