

February 18, 2020

Board of Trustees
City of Ocala Police Officers' Retirement System
402 S. Pine Avenue
Ocala, FL 34471-1174

RE: GASB Statement No. 67 and No. 68 – City of Ocala Police Officers' Retirement System

Dear Board:

We are pleased to present to the Board a GASB Statement No.67 and No.68 measured as of September 30, 2019 for the City of Ocala Police Officers' Retirement System.

The calculation of the liability associated with the benefits referenced in this report was performed for the purpose of satisfying the requirements of GASB No.67 and No.68 and is not applicable for other purposes, such as determining the plan's funding requirements. A calculation of the plan's liability for other purposes may produce significantly different results.

The total pension liability, net pension liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of October 1, 2018. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30th, 2019 using generally accepted actuarial principles. It is our opinion that the assumptions used for this purpose are internally consistent, reasonable, and comply with the requirements under GASB No.67 and No.68.

Certain schedules should include a 10-year history of information. As provided for in GASB No.67 and No.68, this historical information is only presented for the years in which the information was measured in conformity with the requirements of GASB No.67 and No.68.

To the best of our knowledge, these statements are complete and accurate and are in accordance with generally recognized actuarial practices and methods. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of the valuation, we did not perform an analysis of the potential range of such future measurements.

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

Respectfully submitted,

Foster & Foster, Inc.

By: _____



Douglas H. Lozen, EA, MAAA
Enrolled Actuary #17-7778

DHL/lke
Enclosures

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2019

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Checking Account	1,080,460
Prepaid Expenses	670
Money Market	1,125,944
Total Cash and Equivalents	2,207,074
Receivables:	
From Broker for Investments Sold	27,819
Investment Income	128,696
Total Receivable	156,515
Investments:	
U. S. Bonds and Bills	8,468,854
Federal Agency Guaranteed Securities	3,156,059
Corporate Bonds	12,564,352
Stocks	13,569,034
Mutual Funds:	
Equity	25,865,465
Pooled/Common/Commingled Funds:	
Equity	5,381,083
Real Estate	3,793,996
Total Investments	72,798,843
Total Assets	75,162,432
<u>LIABILITIES</u>	
Payables:	
Refunds of Member Contributions	16,406
Investment Expenses	32,568
Administrative Expenses	1,295
To Broker for Investments Purchased	19,360
Total Liabilities	69,629
NET POSITION RESTRICTED FOR PENSIONS	75,092,803

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2019
Market Value Basis

ADDITIONS

Contributions:

Member	823,654	
Buy-Back	34,025	
City	3,014,876	
State	636,601	
 Total Contributions		 4,509,156
 Investment Income:		
Net Increase in Fair Value of Investments	1,040,176	
Interest & Dividends	1,693,961	
Less Investment Expense ¹	(389,866)	
 Net Investment Income		 2,344,271
 Total Additions		 6,853,427

DEDUCTIONS

Distributions to Members:

Benefit Payments	4,183,937	
Lump Sum DROP Distributions	1,194,325	
Lump Sum PLOP Distributions	0	
Refunds of Member Contributions	100,508	
 Total Distributions		 5,478,770
 Administrative Expense		 79,693
 Total Deductions		 5,558,463
 Net Increase in Net Position		 1,294,964
 NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		73,797,839
 End of the Year		 75,092,803

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

NOTES TO THE FINANCIAL STATEMENTS
(For the Year Ended September 30, 2019)

Plan Administration

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of: Two City residents appointed by the City Council, two Police Officers elected by majority of covered Members, and a fifth Member elected by other four and appointed by City Council (as a ministerial duty).

Plan Membership as of October 1, 2018:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	125
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	16
Active Plan Members	155
	296

Benefits Provided

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

A summary of the benefit provisions can be found in the October 1, 2018 Actuarial Valuation Report for the City of Ocala Police Officers' Retirement System prepared by Foster & Foster Actuaries and Consultants.

Contributions

Employee: 8.00% of Salary.

Premium Tax: 0.85% tax on casualty insurance premiums.

City: Remaining amount necessary for payment of Normal (current year's) cost plus any additional amount necessary to fund any past service liability as provided in Part VII of Chapter 112, Florida Statutes.

Investments

Investment Policy:

The following was the Board's adopted asset allocation policy as of September 30, 2019:

Asset Class	Target Allocation
Domestic Equity	37.5%
International Equity	15.0%
Bonds	27.5%
Convertibles	10.0%
Private Real Estate	5.0%
MLPs	5.0%
Total	100.0%

Concentrations:

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

Rate of Return:

For the year ended September 30, 2019, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 3.14 percent.

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

Deferred Retirement Option Program

Eligibility: Satisfaction of Normal Retirement requirements.

Participation: Not to exceed 60 months.

Rate of Return: At member's election (may change method once during DROP participation) either: a) 6.5% annual rate, or b) Net Investment Return (total return less brokerage commission, transaction costs and management fees) credited each fiscal quarter.

For Members not within 5 years of Normal Retirement eligibility as of November 1, 2015, the net-of-fees earnings for DROP balances established on or after November 1, 2015 is limited to a maximum of 3% and minimum of 1%.

The DROP balance as September 30, 2019 is \$2,542,267.

NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2019 were as follows:

Total Pension Liability	\$ 93,778,252
Plan Fiduciary Net Position	\$ (75,092,803)
Sponsor's Net Pension Liability	\$ 18,685,449
Plan Fiduciary Net Position as a percentage of Total Pension Liability	80.07%

Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2018 updated to September 30, 2019 using the following actuarial assumptions:

Inflation	2.70%
Salary Increases	Service based
Discount Rate	7.70%
Investment Rate of Return	7.70%

Mortality Rate Healthy Active Lives:

Female: RP2000 Generational, 100% Combined Healthy White Collar, Scale BB.

Male: RP2000 Generational, 10% Combined Healthy White Collar / 90% Combined Healthy Blue Collar, Scale BB.

Mortality Rate Healthy Inactive Lives:

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

Male: RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

Mortality Rate Disabled Lives:

Female: 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale.

Male: 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale.

The above assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman's July 1, 2018 FRS valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

The most recent actuarial experience study used to review the other significant assumptions was dated May 5, 2017.

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

For 2019 the inflation rate assumption of the investment advisor was 2.40%.

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

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2019 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return
Domestic Equity	7.3%
International Equity	2.7%
Bonds	3.6%
Convertibles	6.3%
Private Real Estate	4.9%
MLPs	8.6%

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Discount Rate:

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

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

	1% Decrease 6.70%	Current Discount Rate 7.70%	1% Increase 8.70%
Sponsor's Net Pension Liability	\$ 31,645,632	\$ 18,685,449	\$ 12,359,320

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

	09/30/2019	09/30/2018	09/30/2017
Total Pension Liability			
Service Cost	1,741,664	1,558,052	1,579,043
Interest	6,952,007	6,630,559	6,600,886
Change in Funding Standard Account	-	-	-
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(450,176)	1,433,941	(252,579)
Changes of assumptions	1,421,185	-	(35,707)
Contributions - Buy Back	34,025	-	-
Benefit Payments, including Refunds of Employee Contributions	(5,478,770)	(5,943,808)	(5,888,193)
Net Change in Total Pension Liability	4,219,935	3,678,744	2,003,450
Total Pension Liability - Beginning	89,558,317	85,879,573	83,876,123
Total Pension Liability - Ending (a)	<u>\$ 93,778,252</u>	<u>\$ 89,558,317</u>	<u>\$ 85,879,573</u>
Plan Fiduciary Net Position			
Contributions - Employer	3,014,876	4,077,869	3,582,817
Contributions - State	636,601	584,334	530,026
Contributions - Employee	823,654	731,022	669,044
Contributions - Buy Back	34,025	-	-
Net Investment Income	2,344,271	6,110,450	6,716,321
Benefit Payments, including Refunds of Employee Contributions	(5,478,770)	(5,943,808)	(5,888,193)
Administrative Expense	(79,693)	(89,863)	(88,507)
Net Change in Plan Fiduciary Net Position	1,294,964	5,470,004	5,521,508
Plan Fiduciary Net Position - Beginning	73,797,839	68,327,835	62,806,327
Plan Fiduciary Net Position - Ending (b)	<u>\$ 75,092,803</u>	<u>\$ 73,797,839</u>	<u>\$ 68,327,835</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 18,685,449</u>	<u>\$ 15,760,478</u>	<u>\$ 17,551,738</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	80.07%	82.40%	79.56%
Covered Payroll ¹	\$ 10,295,675	\$ 9,137,770	\$ 8,363,052
Net Pension Liability as a percentage of Covered Payroll	181.49%	172.48%	209.87%

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

	<u>09/30/2016</u>	<u>09/30/2015</u>	<u>09/30/2014</u>
Total Pension Liability			
Service Cost	1,629,468	1,639,535	1,688,742
Interest	6,316,211	6,207,407	5,940,330
Change in Funding Standard Account	-	-	56,039
Changes of benefit terms	(1,150,613)	-	-
Differences between Expected and Actual Experience	(727,086)	(971,456)	-
Changes of assumptions	1,741,528	-	-
Contributions - Buy Back	-	83,865	-
Benefit Payments, including Refunds of Employee Contributions	(4,814,327)	(4,062,918)	(4,531,980)
Net Change in Total Pension Liability	<u>2,995,181</u>	<u>2,896,433</u>	<u>3,153,131</u>
Total Pension Liability - Beginning	<u>80,880,942</u>	<u>77,984,509</u>	<u>74,831,378</u>
Total Pension Liability - Ending (a)	<u>\$ 83,876,123</u>	<u>\$ 80,880,942</u>	<u>\$ 77,984,509</u>
Plan Fiduciary Net Position			
Contributions - Employer	3,469,395	3,111,881	2,961,297
Contributions - State	516,594	471,520	440,294
Contributions - Employee	672,201	629,554	632,728
Contributions - Buy Back	-	83,865	-
Net Investment Income	5,151,384	(1,046,879)	5,733,534
Benefit Payments, including Refunds of Employee Contributions	(4,814,327)	(4,062,918)	(4,531,980)
Administrative Expense	(83,196)	(72,024)	(72,694)
Net Change in Plan Fiduciary Net Position	<u>4,912,051</u>	<u>(885,001)</u>	<u>5,163,179</u>
Plan Fiduciary Net Position - Beginning	<u>57,894,276</u>	<u>58,779,277</u>	<u>53,616,098</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$ 62,806,327</u>	<u>\$ 57,894,276</u>	<u>\$ 58,779,277</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 21,069,796</u>	<u>\$ 22,986,666</u>	<u>\$ 19,205,232</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	74.88%	71.58%	75.37%
Covered Payroll ¹	\$ 8,402,515	\$ 9,288,611	\$ 7,909,106
Net Pension Liability as a percentage of Covered Payroll	250.76%	247.47%	242.82%

Notes to Schedule of Changes in Net Pension Liability and Related Ratios

¹ The Covered Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

Changes of benefit terms:

For measurement date 09/30/2016, amounts reported as changes of benefit terms resulted from Ordinance 2016-23, adopted and effective March 1, 2016, provided for the following changes:

1. Active Members not within five years of Normal Retirement as of November 1, 2015

- a. The benefit accrual rate is reduced from 3.33% to 3.00% of Average Final Compensation for Credited Service accrued after October 31, 2015.
- b. Elimination of the Supplemental Benefit.
- c. The net-of-fees DROP earnings are limited to a maximum of 3% and minimum of 1% for DROP Balances established on or after November 1, 2015.

2. Active Members within five years of Normal Retirement as of November 1, 2015

No changes in benefits.

3. For all active Members, overtime pay for pensionable purposes is limited to 300 hours per year for benefits accrued after October 31, 2015.
4. Establishment of a Share Plan.

Changes of assumptions:

For measurement date 09/30/2019, the investment rate of return was lowered from 7.85% to 7.70% per year compounded annually, net of investment-related expenses.

For measurement date 09/30/2017, as a result of the Experience Study dated May 5, 2017, the Board has adopted the following assumption changes:

- Payroll Growth
- Salary Increases
- Investment Return
- Mortality Rates
- Normal and Early Retirement Rates
- Withdrawal Rates

Details of the above noted assumption changes can be found in the Actuarial Assumptions and Methods of the Actuarial Valuation Report as of October 1, 2017.

For measurement date 09/30/2016, as a result of Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the assumptions used by the Florida Retirement System for special risk employees.

The inflation assumption rate was lowered from 3.00% to 2.70%, matching the long-term inflation assumption utilized by the Plan's investment consultant.

SCHEDULE OF CONTRIBUTIONS
Last 10 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll ¹	Contributions as a percentage of Covered Payroll
09/30/2019	\$ 4,250,054	\$ 3,651,477	\$ 598,577	\$ 10,295,675	35.47%
09/30/2018	\$ 4,076,359	\$ 4,662,203	\$ (585,844)	\$ 9,137,770	51.02%
09/30/2017	\$ 3,582,731	\$ 4,112,843	\$ (530,112)	\$ 8,363,052	49.18%
09/30/2016	\$ 3,762,646	\$ 3,985,989	\$ (223,343)	\$ 8,402,515	47.44%
09/30/2015	\$ 3,505,831	\$ 3,583,401	\$ (77,570)	\$ 9,288,611	38.58%
09/30/2014	\$ 3,345,551	\$ 3,345,551	\$ -	\$ 7,909,106	42.30%

¹ The Covered Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

Notes to Schedule

Valuation Date: 10/01/2017

Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Mortality Rate:

Healthy Inactive Lives:

Female: RP 2000 Generational, 100% Annuitant White Collar, Scale BB.

Male: RP 2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

Healthy Active Lives:

Female: RP2000 Generational, 100% Combined Healthy White Collar, Scale BB.

Male: RP2000 Generational, 10% Combined Healthy White Collar / 90% Combined Healthy Blue Collar, Scale BB.

Disabled Lives:

Female: 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale.

Male: 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale.

The assumed rates of mortality were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in the July 1, 2016 FRS actuarial valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

Interest Rate:

7.85% per year compounded annually, net of investment-related expenses. This assumption is supported by the Plan's investment policy strategy and long-term expected returns by asset class.

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Normal Retirement

<u>Less than 25 years of Credited Service</u>	
<u>Age</u>	<u>Probability of Retirement</u>
52-55	50%
56	75%
57+	100%

<u>25 or more years of Credited Service</u>	
<u>Age</u>	<u>Probability of Retirement</u>
Less than 51	50%
51-55	25%
55+	100%

This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

Early Retirement:

Commencing with the earliest Retirement Age, Members are assumed to retire with an immediate subsidized benefit at the rate of 10% per year. This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

Termination Rate:

<u>Less than 5 years of Credited Service</u>	
<u>Age</u>	<u>Probability of Termination</u>
Less than 40	10.00%
40-44	9.00%
45-49	8.00%
50-54	7.00%
55-59	6.00%
60+	5.00%

<u>Less than 5 years of Credited Service</u>	
<u>Age</u>	<u>Probability of Termination</u>
Less than 20	8%
20-24	7%
25-29	6%
30-34	5%
35-39	4%
40+	3%

This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

Disability Rate:

See table below; 75% of disablements are assumed to be service related. This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

<u>% Becoming Disabled During the</u>	
<u>Age</u>	<u>Year</u>
20	0.14%
30	0.18%
40	0.30%
50	1.00%

Salary Increases:

<u>Credited Service</u>	<u>Salary Scale</u>
Less than 3 Years	6.5%
3-9	6.0%
10-19	5.0%
20-24	4.5%
25+	4.0%

This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

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Payroll Increase:	None for amortization of the Unfunded Actuarial Accrued Liability. This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.
Partial Lump Sums:	For valuation purposes, no future retirees are assumed to opt for a partial lump sum.
Funding Method:	Entry Age Normal Actuarial Cost Method.
Amortization Method:	Level Percentage of Pay, Closed.
Remaining Amortization Period:	27 Years (as of 10/01/2017 valuation).
Asset Valuation Method:	Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric 5-year average Market Value return and is then diminished by the Funding Standard Account Credit Balance and further adjusted for the Administrative Expense Account. It is possible that over time this technique will produce an insignificant bias above or below Market Value.

SCHEDULE OF INVESTMENT RETURNS
Last 10 Fiscal Years

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2019	3.14%
09/30/2018	9.04%
09/30/2017	10.82%
09/30/2016	8.95%
09/30/2015	-1.76%
09/30/2014	10.63%

NOTES TO THE FINANCIAL STATEMENTS
(For the Year Ended September 30, 2020)

General Information about the Pension Plan

Plan Description

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of: Two City residents appointed by the City Council, two Police Officers elected by majority of covered Members, and a fifth Member elected by other four and appointed by City Council (as a ministerial duty). Each person employed by the City Police Department as a full-time Police Officer becomes a member of the System as a condition of his employment. All Police Officers are therefore eligible for plan benefits as provided for in the plan document and by applicable law.

Plan Membership as of October 1, 2018:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	125
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	16
Active Plan Members	155
	296
	296

Benefits Provided

The Plan provides retirement, termination, disability and death benefits. A summary of the benefit provisions can be found in the October 1, 2018 Actuarial Valuation Report for the City of Ocala Police Officers' Retirement System prepared by Foster & Foster Actuaries and Consultants.

Contributions

Employee: 8.00% of Salary.
 Premium Tax: 0.85% tax on casualty insurance premiums.
 City: Remaining amount necessary for payment of Normal (current year's) cost plus any additional amount necessary to fund any past service liability as provided in Part VII of Chapter 112, Florida Statutes.

Net Pension Liability

The measurement date is September 30, 2019.
 The measurement period for the pension expense was October 1, 2018 to September 30, 2019.
 The reporting period is October 1, 2019 through September 30, 2020.

The Sponsor's Net Pension Liability was measured as of September 30, 2019.
 The Total Pension Liability used to calculate the Net Pension Liability was determined as of that date.

Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2018 updated to September 30, 2019 using the following actuarial assumptions:

Inflation	2.70%
Salary Increases	Service based
Discount Rate	7.70%
Investment Rate of Return	7.70%

Mortality Rate Healthy Active Lives:

Female: RP2000 Generational, 100% Combined Healthy White Collar, Scale BB.

Male: RP2000 Generational, 10% Combined Healthy White Collar / 90% Combined Healthy Blue Collar, Scale BB.

Mortality Rate Healthy Inactive Lives:

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

Male: RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

Mortality Rate Disabled Lives:

Female: 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale.

Male: 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale.

The above assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman's July 1, 2018 FRS valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

The most recent actuarial experience study used to review the other significant assumptions was dated May 5, 2017.

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

For 2019 the inflation rate assumption of the investment advisor was 2.40%.

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

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2019 are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return
Domestic Equity	37.5%	7.3%
International Equity	15.0%	2.7%
Bonds	27.5%	3.6%
Convertibles	10.0%	6.3%
Private Real Estate	5.0%	4.9%
MLPs	5.0%	8.6%
Total	100.0%	

Discount Rate:

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

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

CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a)-(b)
Reporting Period Ending September 30, 2019	\$ 89,558,317	\$ 73,797,839	\$ 15,760,478
Changes for a Year:			
Service Cost	1,741,664	-	1,741,664
Interest	6,952,007	-	6,952,007
Differences between Expected and Actual Experience	(450,176)	-	(450,176)
Changes of assumptions	1,421,185	-	1,421,185
Changes of benefit terms	-	-	-
Contributions - Employer	-	3,014,876	(3,014,876)
Contributions - State	-	636,601	(636,601)
Contributions - Employee	-	823,654	(823,654)
Contributions - Buy Back	34,025	34,025	-
Net Investment Income	-	2,344,271	(2,344,271)
Benefit Payments, including Refunds of Employee Contributions	(5,478,770)	(5,478,770)	-
Administrative Expense	-	(79,693)	79,693
Net Changes	4,219,935	1,294,964	2,924,971
Reporting Period Ending September 30, 2020	\$ 93,778,252	\$ 75,092,803	\$ 18,685,449

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

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.70%	7.70%	8.70%
Sponsor's Net Pension Liability	\$ 31,645,632	\$ 18,685,449	\$ 12,359,320

Pension Plan Fiduciary Net Position.

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

**FINAL PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED
INFLOWS OF RESOURCES RELATED TO PENSIONS
FISCAL YEAR SEPTEMBER 30, 2019**

For the year ended September 30, 2019, the Sponsor has recognized a Pension Expense of \$2,767,832.

On September 30, 2019, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	1,075,455	636,673
Changes of assumptions	696,612	21,423
Net difference between Projected and Actual Earnings on Pension Plan investments	-	721,870
Employer and State Contributions subsequent to the measurement date	3,651,477	-
Total	\$ 5,423,544	\$ 1,379,966

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State Contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ended September 30, 2019.

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

Year ended September 30:			
2020	\$	852,391	
2021	\$	(104,457)	
2022	\$	(201,463)	
2023	\$	(154,370)	
2024	\$	-	
Thereafter	\$	-	

**PRELIMINARY PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS
FISCAL YEAR SEPTEMBER 30, 2020**

For the year ended September 30, 2020, the Sponsor will recognize a Pension Expense of \$3,925,891.

On September 30, 2020, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	716,970	606,589
Changes of assumptions	1,485,254	14,282
Net difference between Projected and Actual Earnings on Pension Plan investments	1,461,305	-
Employer and State Contributions subsequent to the measurement date	TBD	-
Total	TBD	\$ 620,871

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State Contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ended September 30, 2020.

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

Year ended September 30:		
2021	\$	771,280
2022	\$	674,274
2023	\$	721,367
2024	\$	875,737
2025	\$	-
Thereafter	\$	-

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

Reporting Period Ending	09/30/2020	09/30/2019	09/30/2018
Measurement Date	09/30/2019	09/30/2018	09/30/2017
Total Pension Liability			
Service Cost	1,741,664	1,558,052	1,579,043
Interest	6,952,007	6,630,559	6,600,886
Change in Funding Standard Account	-	-	-
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(450,176)	1,433,941	(252,579)
Changes of assumptions	1,421,185	-	(35,707)
Contributions - Buy Back	34,025	-	-
Benefit Payments, including Refunds of Employee Contributions	(5,478,770)	(5,943,808)	(5,888,193)
Net Change in Total Pension Liability	4,219,935	3,678,744	2,003,450
Total Pension Liability - Beginning	89,558,317	85,879,573	83,876,123
Total Pension Liability - Ending (a)	<u>\$ 93,778,252</u>	<u>\$ 89,558,317</u>	<u>\$ 85,879,573</u>
Plan Fiduciary Net Position			
Contributions - Employer	3,014,876	4,077,869	3,582,817
Contributions - State	636,601	584,334	530,026
Contributions - Employee	823,654	731,022	669,044
Contributions - Buy Back	34,025	-	-
Net Investment Income	2,344,271	6,110,450	6,716,321
Benefit Payments, including Refunds of Employee Contributions	(5,478,770)	(5,943,808)	(5,888,193)
Administrative Expense	(79,693)	(89,863)	(88,507)
Net Change in Plan Fiduciary Net Position	1,294,964	5,470,004	5,521,508
Plan Fiduciary Net Position - Beginning	73,797,839	68,327,835	62,806,327
Plan Fiduciary Net Position - Ending (b)	<u>\$ 75,092,803</u>	<u>\$ 73,797,839</u>	<u>\$ 68,327,835</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 18,685,449</u>	<u>\$ 15,760,478</u>	<u>\$ 17,551,738</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	80.07%	82.40%	79.56%
Covered Payroll ¹	\$ 10,295,675	\$ 9,137,770	\$ 8,363,052
Net Pension Liability as a percentage of Covered Payroll	181.49%	172.48%	209.87%

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

Reporting Period Ending	09/30/2017	09/30/2016	09/30/2015
Measurement Date	09/30/2016	09/30/2015	09/30/2014
Total Pension Liability			
Service Cost	1,629,468	1,639,535	1,688,742
Interest	6,316,211	6,207,407	5,940,330
Change in Funding Standard Account	-	-	56,039
Changes of benefit terms	(1,150,613)	-	-
Differences between Expected and Actual Experience	(727,086)	(971,456)	-
Changes of assumptions	1,741,528	-	-
Contributions - Buy Back	-	83,865	-
Benefit Payments, including Refunds of Employee Contributions	(4,814,327)	(4,062,918)	(4,531,980)
Net Change in Total Pension Liability	2,995,181	2,896,433	3,153,131
Total Pension Liability - Beginning	80,880,942	77,984,509	74,831,378
Total Pension Liability - Ending (a)	<u>\$ 83,876,123</u>	<u>\$ 80,880,942</u>	<u>\$ 77,984,509</u>
Plan Fiduciary Net Position			
Contributions - Employer	3,469,395	3,111,881	2,961,297
Contributions - State	516,594	471,520	440,294
Contributions - Employee	672,201	629,554	632,728
Contributions - Buy Back	-	83,865	-
Net Investment Income	5,151,384	(1,046,879)	5,733,534
Benefit Payments, including Refunds of Employee Contributions	(4,814,327)	(4,062,918)	(4,531,980)
Administrative Expense	(83,196)	(72,024)	(72,694)
Net Change in Plan Fiduciary Net Position	4,912,051	(885,001)	5,163,179
Plan Fiduciary Net Position - Beginning	57,894,276	58,779,277	53,616,098
Plan Fiduciary Net Position - Ending (b)	<u>\$ 62,806,327</u>	<u>\$ 57,894,276</u>	<u>\$ 58,779,277</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 21,069,796</u>	<u>\$ 22,986,666</u>	<u>\$ 19,205,232</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	74.88%	71.58%	75.37%
Covered Payroll ¹	\$ 8,402,515	\$ 9,288,611	\$ 7,909,106
Net Pension Liability as a percentage of Covered Payroll	250.76%	247.47%	242.82%

Notes to Schedule of Changes in Net Pension Liability and Related Ratios

¹ The Covered Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

Changes of benefit terms:

For measurement date 09/30/2016, amounts reported as changes of benefit terms resulted from Ordinance 2016-23, adopted and effective March 1, 2016, provided for the following changes:

1. Active Members not within five years of Normal Retirement as of November 1, 2015

- a. The benefit accrual rate is reduced from 3.33% to 3.00% of Average Final Compensation for Credited Service accrued after October 31, 2015.
- b. Elimination of the Supplemental Benefit.
- c. The net-of-fees DROP earnings are limited to a maximum of 3% and minimum of 1% for DROP Balances established on or after November 1, 2015.

2. Active Members within five years of Normal Retirement as of November 1, 2015

No changes in benefits.

3. For all active Members, overtime pay for pensionable purposes is limited to 300 hours per year for benefits accrued after October 31, 2015.
4. Establishment of a Share Plan.

Changes of assumptions:

For measurement date 09/30/2019, the investment rate of return was lowered from 7.85% to 7.70% per year compounded annually, net of investment-related expenses.

For measurement date 09/30/2017, as a result of the Experience Study dated May 5, 2017, the Board has adopted the following assumption changes:

- Payroll Growth
- Salary Increases
- Investment Return
- Mortality Rates
- Normal and Early Retirement Rates
- Withdrawal Rates

Details of the above noted assumption changes can be found in the Actuarial Assumptions and Methods of the Actuarial Valuation Report as of October 1, 2017.

For measurement date 09/30/2016, as a result of Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the assumptions used by the Florida Retirement System for special risk employees.

The inflation assumption rate was lowered from 3.00% to 2.70%, matching the long-term inflation assumption utilized by the Plan's investment consultant.

SCHEDULE OF CONTRIBUTIONS
Last 10 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll ¹	Contributions as a percentage of Covered Payroll
09/30/2019	\$ 4,250,054	\$ 3,651,477	\$ 598,577	\$ 10,295,675	35.47%
09/30/2018	\$ 4,076,359	\$ 4,662,203	\$ (585,844)	\$ 9,137,770	51.02%
09/30/2017	\$ 3,582,731	\$ 4,112,843	\$ (530,112)	\$ 8,363,052	49.18%
09/30/2016	\$ 3,762,646	\$ 3,985,989	\$ (223,343)	\$ 8,402,515	47.44%
09/30/2015	\$ 3,505,831	\$ 3,583,401	\$ (77,570)	\$ 9,288,611	38.58%
09/30/2014	\$ 3,345,551	\$ 3,345,551	\$ -	\$ 7,909,106	42.30%

¹ The Covered Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

Notes to Schedule

Valuation Date: 10/01/2017

Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Mortality Rate:

Healthy Inactive Lives:

Female: RP 2000 Generational, 100% Annuitant White Collar, Scale BB.

Male: RP 2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

Healthy Active Lives:

Female: RP2000 Generational, 100% Combined Healthy White Collar, Scale BB.

Male: RP2000 Generational, 10% Combined Healthy White Collar / 90% Combined Healthy Blue Collar, Scale BB.

Disabled Lives:

Female: 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale.

Male: 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale.

The assumed rates of mortality were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in the July 1, 2016 FRS actuarial valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

Interest Rate:

7.85% per year compounded annually, net of investment-related expenses. This assumption is supported by the Plan's investment policy strategy and long-term expected returns by asset class.

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Normal Retirement

<u>Less than 25 years of Credited Service</u>	
<u>Age</u>	<u>Probability of Retirement</u>
52-55	50%
56	75%
57+	100%
<u>25 or more years of Credited Service</u>	
<u>Age</u>	<u>Probability of Retirement</u>
Less than 51	50%
51-55	25%
55+	100%

This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

Early Retirement:

Commencing with the earliest Retirement Age, Members are assumed to retire with an immediate subsidized benefit at the rate of 10% per year. This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

Termination Rate:

<u>Less than 5 years of Credited Service</u>	
<u>Age</u>	<u>Probability of Termination</u>
Less than 40	10.00%
40-44	9.00%
45-49	8.00%
50-54	7.00%
55-59	6.00%
60+	5.00%
<u>Less than 5 years of Credited Service</u>	
<u>Age</u>	<u>Probability of Termination</u>
Less than 20	8%
20-24	7%
25-29	6%
30-34	5%
35-39	4%
40+	3%

This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

Disability Rate:

See table below; 75% of disablements are assumed to be service related. This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

<u>Age</u>	<u>% Becoming Disabled During the Year</u>
20	0.14%
30	0.18%
40	0.30%
50	1.00%

Salary Increases:

<u>Credited Service</u>	<u>Salary Scale</u>
Less than 3 Years	6.5%
3-9	6.0%
10-19	5.0%
20-24	4.5%
25+	4.0%

This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

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Payroll Increase:	None for amortization of the Unfunded Actuarial Accrued Liability. This assumption was adopted by the Board, based on results of the May 5, 2017
Partial Lump Sums:	For valuation purposes, no future retirees are assumed to opt for a partial lump sum.
Funding Method:	Entry Age Normal Actuarial Cost Method.
Amortization Method:	Level Percentage of Pay, Closed.
Remaining Amortization Period:	27 Years (as of 10/01/2017 valuation).
Asset Valuation Method:	Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric 5-year average Market Value return and is then diminished by the Funding Standard Account Credit Balance and further adjusted for the Administrative Expense Account. It is possible that over time this technique will produce an insignificant bias above or below Market Value.

EXPENSE DEVELOPMENT AND AMORTIZATION SCHEDULES

The following information is not required to be disclosed but is provided for informational purposes.

FINAL COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2019

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 17,551,738	\$ 3,058,206	\$ 8,009,399	\$ -
Employer and State Contributions made after 09/30/2018	-	-	3,651,477	-
Total Pension Liability Factors:				
Service Cost	1,558,052	-	-	1,558,052
Interest	6,630,559	-	-	6,630,559
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	1,433,941	-	1,433,941	-
Current year amortization of experience difference	-	(390,224)	(358,486)	(31,738)
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	(7,141)	(348,306)	341,165
Benefit Payments, including Refunds of Employee Contributions	(5,943,808)	-	-	-
Net change	<u>3,678,744</u>	<u>(397,365)</u>	<u>4,378,626</u>	<u>8,498,038</u>
Plan Fiduciary Net Position:				
Contributions - Employer	4,077,869	-	(4,077,869)	-
Contributions - State	584,334	-	(584,334)	-
Contributions - Employee	731,022	-	-	(731,022)
Contributions - Buy Back	-	-	-	-
Projected Net Investment Income	5,338,598	-	-	(5,338,598)
Difference between projected and actual earnings on Pension Plan investments	771,852	771,852	-	-
Current year amortization	-	(901,588)	(1,151,139)	249,551
Benefit Payments, including Refunds of Employee Contributions	(5,943,808)	-	-	-
Administrative Expenses	(89,863)	-	-	89,863
Net change	<u>5,470,004</u>	<u>(129,736)</u>	<u>(5,813,342)</u>	<u>(5,730,206)</u>
Ending Balance	<u>\$ 15,760,478</u>	<u>\$ 2,531,105</u>	<u>\$ 6,574,683</u>	<u>\$ 2,767,832</u>

PRELIMINARY COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2020

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 15,760,478	\$ 2,531,105	\$ 6,574,683	\$ -
Employer and State Contributions made after 09/30/2019	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	1,741,664	-	-	1,741,664
Interest	6,952,007	-	-	6,952,007
Changes in benefit terms	-	-	-	-
Contributions - Buy Back	34,025	-	-	34,025
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(450,176)	450,176	-	-
Current year amortization of experience difference	-	(480,260)	(358,485)	(121,775)
Change in assumptions about future economic or demographic factors or other inputs	1,421,185	-	1,421,185	-
Current year amortization of change in assumptions	-	(7,141)	(632,543)	625,402
Benefit Payments, including Refunds of Employee Contributions	(5,478,770)	-	-	-
Net change	<u>4,219,935</u>	<u>(37,225)</u>	<u>430,157</u>	<u>9,231,323</u>
Plan Fiduciary Net Position:				
Contributions - Employer	3,014,876	-	(3,014,876)	-
Contributions - State	636,601	-	(636,601)	-
Contributions - Employee	823,654	-	-	(823,654)
Contributions - Buy Back	34,025	-	-	(34,025)
Projected Net Investment Income	5,751,945	-	-	(5,751,945)
Difference between projected and actual earnings on Pension Plan investments	(3,407,674)	-	3,407,674	-
Current year amortization	-	(608,174)	(1,832,673)	1,224,499
Benefit Payments, including Refunds of Employee Contributions	(5,478,770)	-	-	-
Administrative Expenses	(79,693)	-	-	79,693
Net change	<u>1,294,964</u>	<u>(608,174)</u>	<u>(2,076,476)</u>	<u>(5,305,432)</u>
Ending Balance	<u>\$ 18,685,449</u>	<u>\$ 1,885,706</u>	<u>TBD</u>	<u>\$ 3,925,891</u>

* Employer and State Contributions subsequent to the measurement date made after September 30, 2019 but made on or before September 30, 2020 need to be added.

AMORTIZATION SCHEDULE - INVESTMENTS

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

Plan Year Ending	Differences Between Projected and Actual Earnings	Recognition Period (Years)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2019	\$ 3,407,674	5	\$ -	\$ 681,534	\$ 681,535	\$ 681,535	\$ 681,535	\$ 681,535	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (771,852)	5	\$ (154,372)	\$ (154,370)	\$ (154,370)	\$ (154,370)	\$ (154,370)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (1,739,607)	5	\$ (347,921)	\$ (347,921)	\$ (347,921)	\$ (347,921)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (529,415)	5	\$ (105,883)	\$ (105,883)	\$ (105,883)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 5,755,696	5	\$ 1,151,139	\$ 1,151,139	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2014	\$ (1,467,060)	5	\$ (293,412)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 249,551	\$ 1,224,499	\$ 73,361	\$ 179,244	\$ 527,165	\$ 681,535	\$ -	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - CHANGES OF ASSUMPTIONS

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

Plan Year Ending	Changes of Assumptions	Recognition Period (Years)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2019	\$ 1,421,185	5	\$ -	\$ 284,237	\$ 284,237	\$ 284,237	\$ 284,237	\$ 284,237	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (35,707)	5	\$ (7,141)	\$ (7,141)	\$ (7,141)	\$ (7,141)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 1,741,528	5	\$ 348,306	\$ 348,306	\$ 348,306	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 341,165	\$ 625,402	\$ 625,402	\$ 277,096	\$ 284,237	\$ 284,237	\$ -	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - EXPERIENCE

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

Plan Year Ending	Differences Between Expected and Actual Experience	Recognition Period (Years)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2019	\$ (450,176)	5	\$ -	\$ (90,036)	\$ (90,035)	\$ (90,035)	\$ (90,035)	\$ (90,035)	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ 1,433,941	4	\$ 358,486	\$ 358,485	\$ 358,485	\$ 358,485	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (252,579)	5	\$ (50,516)	\$ (50,516)	\$ (50,516)	\$ (50,516)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (727,086)	5	\$ (145,417)	\$ (145,417)	\$ (145,417)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ (971,456)	5	\$ (194,291)	\$ (194,291)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (31,738)	\$ (121,775)	\$ 72,517	\$ 217,934	\$ (90,035)	\$ (90,035)	\$ -	\$ -	\$ -	\$ -	\$ -