

City of Plantation Volunteer Firefighters' Retirement Plan

Chapter 112.664, FS Compliance Report
In Connection with the October 1, 2017 Funding
Actuarial Valuation Report and the Plan's Financial
Reporting for the Year Ending September 30, 2017



March 12, 2018

Board of Trustees
City of Plantation Volunteer
Firefighters Retirement Plan
Plantation, Florida

Dear Board Members:

Gabriel, Roeder, Smith & Company (GRS) has been engaged by the City of Plantation Volunteer Firefighters' Retirement Plan (Plan) to prepare a disclosure report to satisfy the requirements set forth in Ch. 112.664, F.S. and as further required pursuant to Ch. 60T-1.0035, F.A.C.

This report was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than the System only in its entirety and only with the permission of the Board.

The purpose of the report is to provide the required information specified in Ch. 112.664, F.S. as well as supplement this information with additional exhibits. This report should not be relied on for any purpose other than the purpose described above.

The findings in this report are based on data or other information through September 30, 2017. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. The scope of this engagement does not include an analysis of the potential range of such measurements.

This report was based upon information furnished by the City concerning Retirement Plan benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by the Plan.

Except as otherwise indicated as required for the disclosures contained herein, this report was prepared using certain assumptions selected by the Board as described in our October 1, 2017 actuarial valuation report. This report is also based on the Plan Provisions, census data, and financial information as summarized in our October 1, 2017 actuarial valuation report. Please refer to the October 1, 2017 actuarial valuation report, dated December 18, 2017, for summaries and descriptions of this information.

The use of an investment return assumption that is 2% higher than the investment return assumption used to determine the funding requirements does not represent an estimate of future Plan experience nor does it reflect an observation of future return estimates inherent in financial market data. The use of this investment return assumption is provided as a counterpart to the Chapter 112.664, Florida Statutes requirement to utilize an investment return assumption that is 2% lower than the assumption used to determine the funding requirements. The inclusion of the additional exhibits showing the effect of using a 2% higher investment return assumption shows a more complete assessment of the range of possible results as opposed to showing a one-sided range as required by Florida Statutes.

Jeffrey Amrose and Trisha Amrose are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Retirement Plan as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

With respect to the reporting standards for defined benefit retirement plans or systems contained in Section 112.664(1) F.S., the actuarial disclosures required under this section were prepared and completed by us or under our direct supervision, and we acknowledge responsibility for the results. To the best of our knowledge, the results are complete and accurate, and in our opinion, meet the requirements of Section 112.664(1), F.S. and Section 60T-1.0035, F.A.C.

Respectfully submitted,

GABRIEL, ROEDER, SMITH AND COMPANY



By _____

Jeffrey Amrose, MAAA
Enrolled Actuary No. 17-6599



By _____

Trisha Amrose, MAAA
Enrolled Actuary No. 17-8010



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CHAPTER 112.664, FLORIDA STATUTES

RESULTS

**Schedule of Changes in the Employers' Net Pension Liability
Using Financial Reporting Assumptions per GASB Statement No. 67**

Fiscal year ending September 30,	<u>2017</u>
1. Total pension liability	
a. Service Cost	\$ 420,503
b. Interest	1,190,351
c. Benefit Changes	-
d. Difference between actual & expected experience	136,633
e. Assumption Changes	(176,014)
f. Benefit Payments	(809,357)
g. Contribution Refunds	-
h. Other (Share Plan Allocation)	722,858
i. Net Change in Total Pension Liability	<u>1,484,974</u>
j. Total Pension Liability - Beginning	<u>16,074,178</u>
k. Total Pension Liability - Ending	<u>\$ 17,559,152</u>
2. Plan Fiduciary Net Position	
a. Contributions - Employer	\$ -
b. Contributions - State	523,574
c. Contributions - Member	-
d. Net Investment Income	2,417,947
e. Benefit Payments	(809,357)
f. Contribution Refunds	-
g. Administrative Expense	(63,058)
h. Other	-
i. Net Change in Plan Fiduciary Net Position	<u>2,069,106</u>
j. Plan Fiduciary Net Position - Beginning	<u>19,580,719</u>
k. Plan Fiduciary Net Position - Ending	<u>\$ 21,649,825</u>
3. Net Pension Liability / (Asset)	(4,090,673)
Certain Key Assumptions	
Valuation Date	10/01/2016
Measurement Date	09/30/2017
Investment Return Assumption	7.08%
Mortality Table	FRS Mortality Rates from 7/1/16 FRS Valuation

**Schedule of Changes in the Employers' Net Pension Liability
Using Assumptions required under 112.664(1)(a), F.S.**

Fiscal year ending September 30,	<u>2017</u>
1. Total pension liability	
a. Service Cost	\$ 420,503
b. Interest	1,190,351
c. Benefit Changes	-
d. Difference between actual & expected experience	136,633
e. Assumption Changes	(176,014)
f. Benefit Payments	(809,357)
g. Contribution Refunds	-
h. Other (Share Plan Allocation)	722,858
i. Net Change in Total Pension Liability	<u>1,484,974</u>
j. Total Pension Liability - Beginning	<u>16,074,178</u>
k. Total Pension Liability - Ending	<u>\$ 17,559,152</u>
2. Plan Fiduciary Net Position	
a. Contributions - Employer	\$ -
b. Contributions - State	523,574
c. Contributions - Member	-
d. Net Investment Income	2,417,947
e. Benefit Payments	(809,357)
f. Contribution Refunds	-
g. Administrative Expense	(63,058)
h. Other	-
i. Net Change in Plan Fiduciary Net Position	<u>2,069,106</u>
j. Plan Fiduciary Net Position - Beginning	<u>19,580,719</u>
k. Plan Fiduciary Net Position - Ending	<u>\$ 21,649,825</u>
3. Net Pension Liability / (Asset)	(4,090,673)
Certain Key Assumptions	
Valuation Date	10/01/2016
Measurement Date	09/30/2017
Investment Return Assumption	7.08%
Mortality Table	FRS Mortality Rates from 7/1/16 FRS Valuation

Schedule of Changes in the Employers' Net Pension Liability
Using Assumptions under 112.664(1)(b), F.S. except 2% lower investment return assumption

Fiscal year ending September 30,	<u>2017</u>
1. Total pension liability	
a. Service Cost	\$ 649,463
b. Interest	1,084,046
c. Benefit Changes	-
d. Difference between actual & expected experience & Other	-
e. Assumption Changes	-
f. Benefit Payments	(809,357)
g. Contribution Refunds	-
h. Other (Share Plan Allocation)	722,858
i. Net Change in Total Pension Liability	<u>1,647,010</u>
j. Total Pension Liability - Beginning	<u>20,371,845</u>
k. Total Pension Liability - Ending	<u><u>\$ 22,018,855</u></u>
2. Plan Fiduciary Net Position	
a. Contributions - Employer	\$ -
b. Contributions - State	523,574
c. Contributions - Member	-
d. Net Investment Income	2,417,947
e. Benefit Payments	(809,357)
f. Contribution Refunds	-
g. Administrative Expense	(63,058)
h. Other	-
i. Net Change in Plan Fiduciary Net Position	<u>2,069,106</u>
j. Plan Fiduciary Net Position - Beginning	<u>19,580,719</u>
k. Plan Fiduciary Net Position - Ending	<u><u>\$ 21,649,825</u></u>
3. Net Pension Liability / (Asset)	369,030
Certain Key Assumptions	
Valuation Date	10/01/2016
Measurement Date	09/30/2017
Investment Return Assumption	5.08%
Mortality Table	FRS Mortality Rates from 7/1/16 FRS Valuation

Schedule of Changes in the Employers' Net Pension Liability

Using Assumptions under 112.664(1)(b), F.S. except 2% higher investment return assumption

Fiscal year ending September 30,

1. Total pension liability

	<u>2017</u>
a. Service Cost	\$ 272,474
b. Interest	1,249,747
c. Benefit Changes	-
d. Difference between actual & expected experience & Other	-
e. Assumption Changes	-
f. Benefit Payments	(809,357)
g. Contribution Refunds	-
h. Other (Share Plan Allocation)	722,858
i. Net Change in Total Pension Liability	<u>1,435,722</u>
j. Total Pension Liability - Beginning	<u>13,173,078</u>
k. Total Pension Liability - Ending	<u><u>\$ 14,608,800</u></u>

2. Plan Fiduciary Net Position

a. Contributions - Employer	\$ -
b. Contributions - State	523,574
c. Contributions - Member	-
d. Net Investment Income	2,417,947
e. Benefit Payments	(809,357)
f. Contribution Refunds	-
g. Administrative Expense	(63,058)
h. Other	-
i. Net Change in Plan Fiduciary Net Position	<u>2,069,106</u>
j. Plan Fiduciary Net Position - Beginning	<u>19,580,719</u>
k. Plan Fiduciary Net Position - Ending	<u><u>\$ 21,649,825</u></u>

3. Net Pension Liability / (Asset) (7,041,025)

Certain Key Assumptions

Valuation Date	10/01/2016
Measurement Date	09/30/2017
Investment Return Assumption	9.08%
Mortality Table	FRS Mortality Rates from 7/1/16 FRS Valuation

Asset and Benefit Payment Projection
Not Reflecting Any Contributions from the Employer, State or Employee
Using Assumptions From the Latest Actuarial Valuation

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2018	19,287,806	1,336,552	819,912	19,804,446
2019	19,804,446	1,372,287	843,723	20,333,010
2020	20,333,010	1,408,227	885,594	20,855,643
2021	20,855,643	1,444,210	914,394	21,385,459
2022	21,385,459	1,480,337	953,490	21,912,306
2023	21,912,306	1,516,686	980,365	22,448,627
2024	22,448,627	1,553,172	1,022,337	22,979,462
2025	22,979,462	1,589,351	1,062,005	23,506,808
2026	23,506,808	1,625,727	1,089,112	24,043,423
2027	24,043,423	1,663,543	1,094,102	24,612,864
2028	24,612,864	1,703,248	1,111,376	25,204,736
2029	25,204,736	1,744,530	1,128,958	25,820,308
2030	25,820,308	1,787,546	1,144,959	26,462,895
2031	26,462,895	1,833,413	1,134,460	27,161,848
2032	27,161,848	1,883,021	1,131,011	27,913,858
2033	27,913,858	1,936,406	1,126,980	28,723,284
2034	28,723,284	1,993,557	1,131,385	29,585,456
2035	29,585,456	2,054,782	1,126,232	30,514,006
2036	30,514,006	2,120,672	1,122,022	31,512,656
2037	31,512,656	2,191,653	1,114,206	32,590,103
2038	32,590,103	2,268,692	1,092,865	33,765,930
2039	33,765,930	2,352,274	1,083,447	35,034,757
2040	35,034,757	2,442,842	1,062,674	36,414,925
2041	36,414,925	2,540,276	1,070,633	37,884,568
2042	37,884,568	2,644,837	1,056,213	39,473,192
2043	39,473,192	2,757,878	1,040,225	41,190,845

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits, **reflecting no contributions from the Employer, Employee or State, contrary to Florida**

Statutes and Plan provisions:

N/A

Certain Key Assumptions

Valuation Investment return assumption

7.08%

Valuation Mortality Table

FRS Mortality Rates from 7/1/16 FRS Valuation

Note: As required in Section 112.664(1)(c) of the Florida Statutes, the projection of the Fund assets do not include contributions from the Employer, Employee or State, which is contrary to Florida Statutes and Plan provisions. For this reason, these projections should not be viewed as a representation of the amount of time the Fund can sustain benefit payments. Under the GASB standards which DO include contributions from the employer, employee and State, the Fund is expected to be able to sustain the benefit payment demands in the near-term and long-term future.

Asset and Benefit Payment Projection
Not Reflecting Any Contributions from the Employer, State or Employee
Using Assumptions required under 112.664(1)(a), F.S.

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2018	19,287,806	1,336,552	819,912	19,804,446
2019	19,804,446	1,372,287	843,723	20,333,010
2020	20,333,010	1,408,227	885,594	20,855,643
2021	20,855,643	1,444,210	914,394	21,385,459
2022	21,385,459	1,480,337	953,490	21,912,306
2023	21,912,306	1,516,686	980,365	22,448,627
2024	22,448,627	1,553,172	1,022,337	22,979,462
2025	22,979,462	1,589,351	1,062,005	23,506,808
2026	23,506,808	1,625,727	1,089,112	24,043,423
2027	24,043,423	1,663,543	1,094,102	24,612,864
2028	24,612,864	1,703,248	1,111,376	25,204,736
2029	25,204,736	1,744,530	1,128,958	25,820,308
2030	25,820,308	1,787,546	1,144,959	26,462,895
2031	26,462,895	1,833,413	1,134,460	27,161,848
2032	27,161,848	1,883,021	1,131,011	27,913,858
2033	27,913,858	1,936,406	1,126,980	28,723,284
2034	28,723,284	1,993,557	1,131,385	29,585,456
2035	29,585,456	2,054,782	1,126,232	30,514,006
2036	30,514,006	2,120,672	1,122,022	31,512,656
2037	31,512,656	2,191,653	1,114,206	32,590,103
2038	32,590,103	2,268,692	1,092,865	33,765,930
2039	33,765,930	2,352,274	1,083,447	35,034,757
2040	35,034,757	2,442,842	1,062,674	36,414,925
2041	36,414,925	2,540,276	1,070,633	37,884,568
2042	37,884,568	2,644,837	1,056,213	39,473,192
2043	39,473,192	2,757,878	1,040,225	41,190,845

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits, **reflecting no contributions from the Employer, Employee or State, contrary to Florida Statutes and Plan provisions:**

N/A

Certain Key Assumptions

Valuation Investment return assumption

7.08%

Valuation Mortality Table

FRS Mortality Rates from 7/1/16 FRS Valuation

Note: As required in Section 112.664(1)(c) of the Florida Statutes, the projection of the Fund assets do not include contributions from the Employer, Employee or State, which is contrary to Florida Statutes and Plan provisions. For this reason, these projections should not be viewed as a representation of the amount of time the Fund can sustain benefit payments. Under the GASB standards which DO include contributions from the employer, employee and State, the Fund is expected to be able to sustain the benefit payment demands in the near-term and long-term future.

Asset and Benefit Payment Projection
Not Reflecting Any Contributions from the Employer, State or Employee
Using Assumptions required under 112.664(1)(b), F.S.

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2018	19,287,806	958,995	819,912	19,426,889
2019	19,426,889	965,455	843,723	19,548,621
2020	19,548,621	970,576	885,594	19,633,603
2021	19,633,603	974,161	914,394	19,693,370
2022	19,693,370	976,205	953,490	19,716,085
2023	19,716,085	976,676	980,365	19,712,396
2024	19,712,396	975,422	1,022,337	19,665,481
2025	19,665,481	972,032	1,062,005	19,575,508
2026	19,575,508	966,772	1,089,112	19,453,168
2027	19,453,168	960,431	1,094,102	19,319,497
2028	19,319,497	953,201	1,111,376	19,161,322
2029	19,161,322	944,720	1,128,958	18,977,084
2030	18,977,084	934,954	1,144,959	18,767,079
2031	18,767,079	924,552	1,134,460	18,557,171
2032	18,557,171	913,977	1,131,011	18,340,137
2033	18,340,137	903,054	1,126,980	18,116,211
2034	18,116,211	891,566	1,131,385	17,876,392
2035	17,876,392	879,514	1,126,232	17,629,674
2036	17,629,674	867,088	1,122,022	17,374,740
2037	17,374,740	854,336	1,114,206	17,114,870
2038	17,114,870	841,677	1,092,865	16,863,682
2039	16,863,682	829,155	1,083,447	16,609,390
2040	16,609,390	816,765	1,062,674	16,363,481
2041	16,363,481	804,071	1,070,633	16,096,919
2042	16,096,919	790,896	1,056,213	15,831,602
2043	15,831,602	777,824	1,040,225	15,569,201

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits, reflecting no contributions from the Employer, Employee or State, contrary to Florida Statutes and Plan provisions:

N/A

Certain Key Assumptions

Valuation Investment return assumption

5.08%

Valuation Mortality Table

FRS Mortality Rates from 7/1/16 FRS Valuation

Note: As required in Section 112.664(1)(c) of the Florida Statutes, the projection of the Fund assets do not include contributions from the Employer, Employee or State, which is contrary to Florida Statutes and Plan provisions. For this reason, these projections should not be viewed as a representation of the amount of time the Fund can sustain benefit payments. Under the GASB standards which DO include contributions from the employer, employee and State, the Fund is expected to be able to sustain the benefit payment demands in the near-term and long-term future.

**Not Reflecting Any Contributions from the Employer, State or Employee
Using Assumptions under 112.664(1)(b), F.S. except 2% higher investment return assumption**

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2018	19,287,806	1,714,109	819,912	20,182,003
2019	20,182,003	1,794,221	843,723	21,132,501
2020	21,132,501	1,878,625	885,594	22,125,532
2021	22,125,532	1,967,485	914,394	23,178,623
2022	23,178,623	2,061,331	953,490	24,286,464
2023	24,286,464	2,160,702	980,365	25,466,801
2024	25,466,801	2,265,971	1,022,337	26,710,435
2025	26,710,435	2,377,092	1,062,005	28,025,522
2026	28,025,522	2,495,272	1,089,112	29,431,682
2027	29,431,682	2,622,724	1,094,102	30,960,304
2028	30,960,304	2,760,739	1,111,376	32,609,667
2029	32,609,667	2,909,703	1,128,958	34,390,412
2030	34,390,412	3,070,668	1,144,959	36,316,121
2031	36,316,121	3,245,999	1,134,460	38,427,660
2032	38,427,660	3,437,884	1,131,011	40,734,533
2033	40,734,533	3,647,531	1,126,980	43,255,084
2034	43,255,084	3,876,197	1,131,385	45,999,896
2035	45,999,896	4,125,660	1,126,232	48,999,324
2036	48,999,324	4,398,199	1,122,022	52,275,501
2037	52,275,501	4,696,031	1,114,206	55,857,326
2038	55,857,326	5,022,229	1,092,865	59,786,690
2039	59,786,690	5,379,443	1,083,447	64,082,686
2040	64,082,686	5,770,462	1,062,674	68,790,474
2041	68,790,474	6,197,568	1,070,633	73,917,409
2042	73,917,409	6,663,749	1,056,213	79,524,945
2043	79,524,945	7,173,639	1,040,225	85,658,359

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits, **reflecting no contributions from the Employer, Employee or State, contrary to Florida**

Statutes and Plan provisions:

N/A

Certain Key Assumptions

Valuation Investment return assumption

9.08%

Valuation Mortality Table

FRS Mortality Rates from 7/1/16 FRS Valuation

Note: As required in Section 112.664(1)(c) of the Florida Statutes, the projection of the Fund assets do not include contributions from the Employer, Employee or State, which is contrary to Florida Statutes and Plan provisions. For this reason, these projections should not be viewed as a representation of the amount of time the Fund can sustain benefit payments. Under the GASB standards which DO include contributions from the employer, employee and State, the Fund is expected to be able to sustain the benefit payment demands in the near-term and long-term future.

ACTUARIALLY DETERMINED CONTRIBUTION

	Plan's Latest Actuarial Valuation	112.664(1)(a) F.S. Assumptions	112.664(1)(b) F.S. Except 2% Lower Investment Return Assumption	112.664(1)(b) F.S. Except 2% Higher Investment Return Assumption
A. Valuation Date	October 1, 2017	October 1, 2017	October 1, 2017	October 1, 2017
B. Actuarially Determined Contribution (ADC) to Be Paid During Fiscal Year Ending	9/30/2019	9/30/2019	9/30/2019	9/30/2019
C. Assumed Dates of Employer Contributions	Quarterly	Quarterly	Quarterly	Quarterly
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 0	\$ 0	\$ 0	\$ 0
E. Employer Normal Cost	(104,844)	(104,844)	1,042,918	(942,579)
F. ADC if Paid on Valuation Date: D + E	(104,844)	(104,844)	1,042,918	(942,579)
G. ADC Adjusted for Frequency of Payments	(117,106)	(117,106)	1,130,042	(1,084,592)
H. ADC Adjusted for Frequency of Payments as % of Covered Payroll	N/A	N/A	N/A	N/A
I. Assumed Rate of Increase in Covered Payroll to Contribution Year	0.00 %	0.00 %	0.00 %	0.00 %
J. Covered Payroll for Contribution Year	N/A	N/A	N/A	N/A
K. ADC for Contribution Year: H x J	(117,106)	(117,106)	1,130,042	(1,084,592)
L. Allowable Credit for State Revenue in Contribution Year	523,574	523,574	523,574	523,574
M. Employer ADC in Contribution Year	0	0	606,468	0
N. Employer ADC as % of Covered Payroll in Contribution Year: M ÷ J	N/A	N/A	N/A	N/A
O. Certain Key Assumptions				
Investment Return Assumption	7.08%	7.08%	5.08%	9.08%
Mortality Table	FRS Mortality Rates from 7/1/16 FRS Valuation	FRS Mortality Rates from 7/1/16 FRS Valuation	FRS Mortality Rates from 7/1/16 FRS Valuation	FRS Mortality Rates from 7/1/16 FRS Valuation