



# Actuarial Valuation Report

*City of Panama City Beach Firefighters' Pension Plan*

*Funding Results for the Year Ending September 30, 2017*

*Accounting Results for the Year Ending September 30, 2016*



Ms. Holly J. White  
Assistant to City Manager for Finance  
City of Panama City Beach  
110 South Arnold Road  
Panama City Beach, FL 32407

Re: *Panama City Beach Firefighters' Pension Plan*

Dear Ms. White:

In accordance with your request, we have performed an actuarial valuation for the captioned pension plan as of October 1, 2016. The purposes of this report are to provide the contribution requirements for the Plan Year beginning October 1, 2016, and ending September 30, 2017, measurements of the funded status of the plan, and disclosures for financial accounting.

This report is intended for the sole use of the City of Panama City Beach and the Pension Board, and is intended only to supply information for the City and Board to comply with the stated purposes of the report and may not be appropriate for other purposes. Reliance on information contained in this report by anyone for other than the intended purposes, puts the relying entity at risk of being misled because of confusion or failure to understand applicable assumptions, methodologies, or limitations of the report's conclusions. Accordingly, no person or entity, including the City of Panama City Beach and the Pension Board, should base any representations or warranties in any agreement on any statements or conclusions contained in this report, without the written consent of Aon Hewitt.

This report includes a Summary of Major Plan Provisions and a description of the Actuarial Basis used in the valuation. We relied on employee and financial data provided by the City. The Actuarial Cost Method used is considered acceptable under the Rules of the Department of Administration, Division of Retirement, Chapter 60T-1, Local Retirement Systems' Actuarial Reports.

#### STATEMENT BY ENROLLED ACTUARY

This actuarial valuation and/or cost determination was prepared and completed by the undersigned or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise provided for in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

Respectfully submitted,

07/14/2017

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Stephen Lambert-Oswald, F.S.A., E.A., M.A.A.A.  
Enrollment No. 17-07225

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Date

# City of Panama City Beach Firefighters' Pension Plan

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## Discussion of Results

October 1, 2016

The results of the actuarial valuation of the Panama City Beach Firefighters' Pension Plan as of October 1, 2016, are contained in this report. The actuarial valuation is based upon census data and trust fund financial statements provided to us by the City. There have been no significant plan changes or changes in actuarial assumptions or methodology since the Actuarial Valuation as of October 1, 2015.

The major results of the actuarial valuation are discussed below.

### Minimum Required Contribution

The State minimum required contribution to be deposited by the City is developed on pages 3 and 4. The minimum required contribution includes recognition of excess contributions made in prior years.

|                                       | Plan Year Ended |            |
|---------------------------------------|-----------------|------------|
|                                       | 09/30/16        | 09/30/17   |
| State Minimum Required Contribution   | \$ 232,564      | \$ 102,698 |
| Percent of Participants' Compensation | 17.77%          | 7.90%      |

Under a new state interpretation, the actual required contribution is not the dollar amount shown, which is based on estimated Participants' Compensation Below Normal Retirement Age. Rather it is to be based on the percentage shown here and actual Participants' Compensation Below Normal Retirement Age for the Plan Year.

### Actuarial Experience

The approximate time-weighted rate of return on the Actuarial Value of Assets was 8.73% for the plan year ended September 30, 2016. Investment experience compounded over the last 5 years has been approximately 8.64% per year. This compares unfavorably to the 8.0% investment rate of return assumption used to determine the plan's funding requirements. Salary increase experience was observed to be 5.2%, lower than the assumed salary increase of 6.0%. Salary experience compounded over the last 5 years has been approximately 5.0% per year.

### Funded Status

One of the best measures of the Funded Status of a defined benefit plan is considered to be the level of funding of the Accumulated Plan Benefits and Vested Benefits. Accumulated Plan Benefits are those future benefit payments that are attributable to employees' service rendered prior to the valuation date based on employees' actual pay histories (or estimates thereof). This measurement of benefits does not take into account the effect of potential future salary increases. Vested Benefits are those benefits which become nonforfeitable after 10 years of Credited Service or which are attributable to employee contributions.

## City of Panama City Beach Firefighters' Pension Plan

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Based on this measurement of Funded Status, using the Actuarial Value of Assets, the plan is underfunded as of October 1, 2016:

|   | <b>10/01/15</b> | <b>10/01/16</b> |
|---|-----------------|-----------------|
| <b>NET ASSETS AVAILABLE FOR BENEFITS*</b>                   | \$ 12,756,175   | \$ 14,103,571   |
| <b>ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS</b> |                 |                 |
| TOTAL VESTED BENEFITS                                       | \$ 11,523,001   | \$ 12,859,452   |
| Percent Funded  | 111%            | 110%            |
| TOTAL ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS  | \$ 12,997,614   | \$ 13,659,592   |
| Percent Funded  | 98%             | 103%            |

Another, more traditional measure of the Funded Status uses the Entry Age Normal Accrued Liability. This accrued liability equals the Present Value of Benefits less the Present Value of Future Entry Age Normal Costs. (See the description of the entry age normal method on the "Actuarial Cost Method" pages herein.) This accrued liability is independent of the actual plan assets and therefore may be a more reasonable "mile post" of how funded the Plan should be. It recognizes future compensation increases and is a measure of where the level of assets should be to date if all participants are proportionately funded over their individual careers as a level percentage of each participant's compensation:

|                                    | <b>10/01/15</b> | <b>10/01/16</b> |
|------------------------------------|-----------------|-----------------|
| MARKET VALUE OF ASSETS             | \$ 13,673,096   | \$ 14,835,133   |
| ENTRY AGE NORMAL ACCRUED LIABILITY | \$ 15,654,456   | \$ 16,236,326   |
| Funded Ratio                       | 87.4%           | 91.4%           |

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\* Actuarial Value of Assets

# City of Panama City Beach Firefighters' Pension Plan

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# City of Panama City Beach Firefighters' Pension Plan

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## Development of Normal Cost for State Minimum Required Contribution

October 1, 2016

|   | <u>10/1/2015</u> | <u>10/1/2016</u> |
|---|------------------|------------------|
| 1. Number of Participants   |                  |                  |
| Active  | 26               | 26               |
| Terminated with Vested Benefits   | -                | -                |
| Retirees and Beneficiaries  | 15               | 16               |
| Total   | 41               | 42               |
| 2. Participant's Compensation   |                  |                  |
| a. Below Normal Retirement Age  | \$ 1,308,805     | \$ 1,299,830     |
| b. Beyond Normal Retirement Age   | 185,990          | 189,217          |
| c. Total  | \$ 1,494,796     | \$ 1,489,047     |
| 3. Present Value of Benefits  |                  |                  |
| Active  | \$ 8,676,417     | \$ 8,564,245     |
| Terminated with Vested Benefits   | -                | -                |
| Retirees  | 7,683,411        | 8,645,652        |
| Excess State Monies Reserve   | 180,394          | 169,332          |
| Total   | \$ 16,540,222    | \$ 17,379,229    |
| 4. Unfunded Actuarial Accrued Liability   | \$ 820,239       | \$ 703,965       |
| 5. Actuarial Value of Assets  | \$ 12,756,175    | \$ 14,103,571    |
| 6. Past Excess Contributions  | \$ 114,762       | \$ 166,493       |
| 7. Present Value of Future Employee Contributions                               | \$ 443,599       | \$ 443,599       |
| 8. Present Value of Future City Normal Costs<br>= (3) – (4) – [(5) – (6)] – (7) | \$ 2,634,970     | \$ 2,294,586     |
| 9. Present Value of Future Compensation   | \$ 10,089,231    | \$ 10,422,957    |
| 10. Normal Cost Rate = (8) ÷ (9)  | 26.12%           | 22.01%           |
| 11. Normal Cost = (2a) x (10)   | \$ 341,860       | \$ 286,093       |

# City of Panama City Beach Firefighters' Pension Plan

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## State Minimum Required Contribution

October 1, 2016

|  | Plan Year Ended  |                  |
|--|------------------|------------------|
|  | <u>9/30/2016</u> | <u>9/30/2017</u> |
| 1. Normal Cost   | \$ 341,860       | \$ 286,093       |
| 2. Amortization of Actuarial Accrued Liability   | \$ 129,021       | \$ 129,021       |
| 3. Interest Adjustment on (1) and (2) for Quarterly Payment  | \$ 18,473        | \$ 16,285        |
| 4. Expenses  |                  |                  |
| Current Year Estimate Equal to Prior Year's Actual   | \$ 69,185        | \$ 63,487        |
| Make-up for Shortfall in Prior Year's Estimate   | <u>6,985</u>     | <u>(5,698)</u>   |
| Total  | \$ 76,170        | \$ 57,789        |
| 5. Estimated State Premium Tax Refund (Equal to Prior Year's Actual Refund and Excluding Excess Premium Tax Revenues That Have Not Been Used to Provide Additional Benefits) | \$ 213,696       | \$ 213,466       |
| 6. Past Excess Contributions plus Interest Adjusted for Quarterly Payment  | \$ 119,264       | \$ 173,024       |
| 7. Minimum Required Contribution by City for Fiscal Year = (1) + (2) + (3) + (4) – (5) – (6)   | \$ 232,564       | \$ 102,698       |
| 8. Percent of Participants' Compensation Below Normal Retirement Age*  | 17.77%           | 7.90%            |

\* Under a new state interpretation, the actual required contribution is based on this percentage of actual, not estimated, Participants' Compensation Below Normal Retirement Age.



## City of Panama City Beach Firefighters' Pension Plan

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### Unfunded Frozen Initial and Supplemental Liabilities

October 1, 2016

|                                      | Initial<br>Amount<br>to be<br>Amortized | Beginning<br>Amortization<br>Period | Original<br>Amortization<br>Period<br>(Years) | Years<br>Remaining | (BOY)<br>Annual<br>Amortization<br>Amount | Unamortized<br>Balance<br>as of<br>10/1/2016             |
|--------------------------------------|---|-------------------------------------|---|--------------------|---|--|
| Redetermined Liability (Fresh Start) | \$ 1,271,134                            | 10/1/2008                           | 17  | 9                  | \$ 129,021                                | \$870,458  |
|                                      |   |                                     |   |                    | \$ 129,021                                |  |
|                                      |   |                                     |   |                    |   | 1. Unamortized Balance as of 10/1/2016 \$ 870,458        |
|                                      |   |                                     |   |                    |   | 2. Past Excess Contributions <u>166,493</u>              |
|                                      |   |                                     |   |                    |   | 3. Remaining Unfunded Liabilities = (1) - (2) \$ 703,965 |

\* Increase in Multiplier from 3.00% to 3.35% (\$790,399), plus unamortized balance (\$47,089) of prior benefit improvement (Supplemental Benefit of \$350 per month), less Cumulative Set Aside for Future Improvements (\$370,093)

# City of Panama City Beach Firefighters' Pension Plan

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## Schedule Illustrating the Amortization of Unfunded Liabilities Existing This Date

October 1, 2016

| October 1 | Liability  |
|-----------|------------|
| 2016      | \$ 703,965 |
| 2017      | 620,940    |
| 2018      | 531,273    |
| 2019      | 434,432    |
| 2020      | 329,844    |
| 2021      | 216,889    |
| 2022      | 94,897     |
| 2023      | -          |
| 2024      | -          |
| 2025      | -          |

The first figure is the Unfunded Frozen Initial and Supplemental Liabilities as of the current valuation date. For each year thereafter, the preceding year's Unfunded Liability is reduced by the annual amortization amount shown on the page titled History of Unfunded Frozen and Supplemental Liabilities and increased with interest at 8.00% per annum.

Thus the remaining amortization period as of the October 1, 2016, valuation is 2023 less 2016, or 7 years.

## City of Panama City Beach Firefighters' Pension Plan

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### Past Excess Contributions (State Requirements)

October 1, 2016

|  | Plan Year Ended   |                   |
|--|-------------------|-------------------|
|  | <u>9/30/2015</u>  | <u>9/30/2016</u>  |
| <b>Charges:</b>  |                   |                   |
| Deficiency Brought Forward   | \$ -              | \$ -              |
| Normal Cost  | N/A               | N/A               |
| Expenses (Estimated and Make up)   | N/A               | N/A               |
| Amortization of Frozen Initial and Supplemental Liabilities  | N/A               | N/A               |
| Required City Contribution, per State* State (Estimated)   | 399,840           | 321,755           |
| Interest   | 216,203           | 213,696           |
|  | <u>24,167</u>     | <u>21,006</u>     |
| Total Charges  | \$ 640,210        | \$ 556,457        |
| <b>Credits:</b>  |                   |                   |
| Excess Contribution Brought Forward  | \$ 117,329        | \$ 114,762        |
| City Contributions   | 416,807           | 383,158           |
| State Contributions (Excluding Excess Premium Tax Revenues That Have Not Been Used to Provide Additional Benefits) | 187,733           | 193,237           |
| Interest   | <u>33,102</u>     | <u>31,793</u>     |
| Total Credits  | \$ 754,971        | \$ 722,950        |
| <b>Balance:</b>  |                   |                   |
| Excess Contribution Carried Forward  | <u>\$ 114,762</u> | <u>\$ 166,493</u> |
| Deficiency Carried Forward   | <u>\$ -</u>       | <u>\$ -</u>       |

\*Under a new state interpretation, the actual required contribution is based on the required contribution rate times actual Participants' Compensation Below Normal Retirement Age for the Plan Year. See the "State Required Exhibit" for this determination.

# City of Panama City Beach Firefighters' Pension Plan

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## Market Value of Assets

October 1, 2016

|                                      | <u>10/1/2015</u>               | <u>10/1/2016</u>               |
|--------------------------------------|--------------------------------|--------------------------------|
| <b>Assets:</b>                       |                                |                                |
| Cash                                 | \$ 845,828.00                  | \$ 429,688.76                  |
| Certificates of Deposit              | -                              | -                              |
| Government and Corporate Bond Funds  | 3,779,432.36                   | 4,134,199.80                   |
| Real Estate and Equity Funds         | 8,649,423.88                   | 10,277,900.04                  |
| Due from City Funds                  | 207,341.10                     |                                |
| Due from State of Florida            | 187,733.39                     |                                |
| Accrued Interest                     | -                              | -                              |
| Miscellaneous Receivable             | <u>18,413.13</u>               | <u>18,196.06</u>               |
| Total Assets                         | <u>\$ 13,688,171.86</u>        | <u>\$ 14,859,984.66</u>        |
| <b>Liabilities and Fund Balance:</b> |                                |                                |
| Liabilities:                         |                                |                                |
| Accounts Payable                     | \$ (15,075.48)                 | \$ (17,466.21)                 |
| Refunds or Benefits Payable          |                                | (7,385.27)                     |
| Due Other Funds                      | <u>-</u>                       | <u>-</u>                       |
| Total Liabilities                    | <u>\$ (15,075.48)</u>          | <u>\$ (24,851.48)</u>          |
| Pension Fund Balance:                | <u><u>\$ 13,673,096.38</u></u> | <u><u>\$ 14,835,133.18</u></u> |

# City of Panama City Beach Firefighters' Pension Plan

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## Reconciliation of Assets (Market Value)

October 1, 2016

Plan Year Ended

|   | <u>9/30/2015</u> | <u>09/30/2016</u> |
|---|------------------|-------------------|
| <b>Revenues:</b>                        |                  |                   |
| City Contributions                      | \$ 416,807.43    | \$ 383,157.96     |
| Employee Contributions                  | 86,266.44        | 78,955.05         |
| State Contributions                     | 187,733.39       | 193,236.72        |
| Repayment of Contributions              | -                | -                 |
| Interest & Dividends                    | 316,994.14       | 287,894.16        |
| Unrealized/Realized Gains (Losses)      | (487,277.16)     | 879,036.62        |
| Commissions                             | -                | -                 |
|   | \$ 520,524.24    | \$ 1,822,280.51   |
| <b>Expenses:</b>                        |                  |                   |
| Pension Payments                        | \$ 181,055.04    | \$ 256,477.05     |
| Contribution Refunds                    | 42,757.61        | 33,997.61         |
| DROP Payments                           | 237,769.55       | 306,282.13        |
| Investment Expenses                     | 42,221.24        | 42,042.41         |
| Other Expenses                          | 26,963.93        | 21,444.51         |
|   | \$ 530,767.37    | \$ 660,243.71     |
| <b>Net Income:</b>                      | \$ (10,243.13)   | \$ 1,162,036.80   |
| <b>Fund Balance, Beginning of Year:</b> | \$ 13,683,339.51 | \$ 13,673,096.38  |
| <b>Fund Balance, End of Year:</b>       | \$ 13,673,096.38 | \$ 14,835,133.18  |

**City of Panama City Beach  
Firefighters' Pension Plan**

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**Investment Gain/(Loss)**

**October 1, 2016**

|  | 10/1/2016           | 10/1/2015           | 10/1/2014         | 10/1/2013         |
|--|---------------------|---------------------|-------------------|-------------------|
| 1. Date of Actuarial Value of Assets:  | 10/1/2016           | 10/1/2015           | 10/1/2014         | 10/1/2013         |
| 2. Market Value as of Prior Year<br>(including receivable contributions)   | \$ 13,673,096       | \$ 13,683,340       | \$ 11,751,246     | \$ 9,922,597      |
| 3. Receivable Contribution included above  | \$ -                | \$ -                | \$ -              | \$ -              |
| 4. Market Value Excluding Receivable (2) - (3)   | \$ 13,673,096       | \$ 13,683,340       | \$ 11,751,246     | \$ 9,922,597      |
| 5. Employer, Employee & State Contributions<br>(made for the year, i.e., excluding the<br>receivable contribution, item (3), but<br>including contributions made after the end<br>of the year with no expected return thereon) | \$ 655,350          | \$ 690,807          | \$ 854,399        | \$ 634,434        |
| 6. Benefit Distributions   | \$ 596,757          | \$ 461,582          | \$ 164,803        | \$ 214,219        |
| 7. Administrative Expenses   | \$ 63,487           | \$ 69,185           | \$ 62,200         | \$ 52,660         |
| 8. Expected Return %   | 8.00%               | 8.00%               | 8.00%             | 8.00%             |
| a. Item (4) for 1 year   | \$ 1,093,848        | \$ 1,094,667        | \$ 940,100        | \$ 793,808        |
| b. Item (3) for partial & (5) for 1/2 year   | 25,710              | 27,101              | 33,519            | 24,889            |
| c. Item (6) for 1/2 year   | (23,411)            | (18,108)            | (6,465)           | (8,404)           |
| d. Item (7) for 1/2 year   | (2,491)             | (2,714)             | (2,440)           | (2,066)           |
|  | <u>\$ 1,093,656</u> | <u>\$ 1,100,946</u> | <u>\$ 964,714</u> | <u>\$ 808,227</u> |
| 9. Expected Market Value<br>(2)+(5)-(6)-(7)+(8)  | \$ 14,761,858       | \$ 14,944,325       | \$ 13,343,357     | \$ 11,098,379     |
| 10. Actual Market Value this Year<br>(including receivable contributions)  | \$ 14,835,133       | \$ 13,673,096       | \$ 13,683,340     | \$ 11,751,246     |
| 11. Investment Gain/(Loss) from Experience   | \$ 73,275           | \$ (1,271,229)      | \$ 339,982        | \$ 652,867        |

# City of Panama City Beach Firefighters' Pension Plan

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## Actuarial Value of Assets

October 1, 2016

| 5 -YEAR SMOOTHED MARKET VALUE WITHOUT PHASE-IN          | <b>10/1/2016</b> |
|---|------------------|
| 1. Market Value of Assets                               | \$ 14,835,133    |
| 2. Investment Gains/(Losses) for Four Prior Years       |                  |
| a.           Oct-15                                     | \$     73,275    |
| b.           Oct-14                                     | (1,271,229)      |
| c.           Oct-13                                     | 339,982          |
| d.           Oct-12                                     | 652,867          |
| 3. Unrecognized Investment Gains/(Losses)               |                  |
| a.           Oct-15   80%   of (2)(a)                   | \$     58,620    |
| b.           Oct-14   60%   of (2)(b)                   | (762,737)        |
| c.           Oct-13   40%   of (2)(c)                   | 135,993          |
| d.           Oct-12   20%   of (2)(d)                   | <u>130,573</u>   |
| e.       Total: (a)+(b)+(c)+(d)                         | \$   (437,551)   |
| 4. Preliminary Actuarial Value of Assets = (1) - (3)(e) | \$ 15,272,684    |
| 5. Adjustment to be within 20% of market value          | \$           -   |
| 6. Actuarial Value of Assets = (4) + (5)                | \$ 15,272,684    |

## City of Panama City Beach Firefighters' Pension Plan

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### Allocation of Actuarial Value of Assets to the Reserve for Other Retirement Benefits (i.e., Excluding DROP)

October 1, 2016

|  | <b>Actuarial Value<br/>Allocated in<br/>Proportion to<br/>Market Value</b> | <b>Market Value</b> |
|--|--|---------------------|
| <b>Reserve for DROP</b>                      | \$ 1,169,113   | \$ 1,135,619        |
| <b>Reserve for Other Retirement Benefits</b> | 14,103,571   | 13,699,514          |
| <b>Total Fund Balances</b>                   | \$ 15,272,684  | \$ 14,835,133       |



# City of Panama City Beach Firefighters' Pension Plan

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## Development of GASB 68 Net Pension Expense

### Calculation Details

The following table illustrates the Net Pension Liability under GASB 68, which is effective for September 30, 2015 fiscal year and later.

|  | Fiscal Year<br>End<br><b>9/30/2015</b> | Fiscal Year End<br><b>9/30/2016</b> |
|--|--|-------------------------------------|
| (1) Total Pension Liability  | \$ 15,645,456                          | \$ 16,236,326                       |
| (2) Plan Fiduciary Net Position  | \$ (13,673,096)                        | \$ (14,835,133)                     |
| (3) Net Pension Liability  | \$ 1,981,360                           | \$ 1,401,193                        |
| (4) Plan Fiduciary Net Position as a Percentage of the Total Pension Liability | 87.39%                                 | 91.37%                              |

The following table illustrates the pension expense under GASB 68.

|                                  | Fiscal Year<br>Ending<br><b>9/30/2015</b> | Fiscal Year<br>Ending<br><b>9/30/2016</b> |
|----------------------------------|---|---|
| (1) Service Cost                 | \$ 239,906                                | \$ 261,853                                |
| (2) Interest Cost                | \$ 1,108,633                              | \$ 1,297,175                              |
| (3) Expected Investment Return   | \$ (1,070,149)                            | \$ (1,085,974)                            |
| (4) Employee Contributions       | \$ (86,266)                               | \$ (78,955)                               |
| (5) Admin Expense                | \$ 69,185                                 | \$ 63,487                                 |
| (6) Plan Changes                 | \$ -                                      | \$ -                                      |
| (7) Amortization of Unrecognized |   |   |
| (a) Liability (Gain)/Loss        | \$ 118,446                                | \$ 45,306                                 |
| (b) Asset (Gain)/Loss            | \$ 248,086                                | \$ 231,895                                |
| (c) Assumption Changes           | \$ -                                      | \$ -                                      |
| (8) Total Expense                | \$ 627,842                                | \$ 734,787                                |

# City of Panama City Beach Firefighters' Pension Plan

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## Deferred Outflows/Inflows

The following table illustrates the Deferred Inflows and Outflows at the end of the fiscal year under GASB 68.

|   | Deferred<br>Outflows | Deferred<br>Inflows |
|---|----------------------|---------------------|
| (1) Difference between actual and expected experience                               |                      |                     |
| (a) Measurement Date September 30, 2015   | \$ 377,815           | \$ -                |
| (a) Measurement Date September 30, 2016   | \$ -                 | \$ 307,261          |
| (2) Net Difference Between Expected and Actual Earnings on Pension Plan Investments |                      |                     |
| (a) Measurement Date September 30, 2015   | \$ 744,259           | \$ -                |
| (a) Measurement Date September 30, 2016   | \$ -                 | \$ 64,766           |
| (3) Total   | \$ 1,122,074         | \$ 372,027          |

## Amortization of Deferred Inflows/Outflows

The table below lists the amortization bases included in the deferred inflows/outflows as of September 30, 2015.

| Date<br>Established | Type of Base          | Period   |           | Balance     |                  | Annual<br>Payment |
|---------------------|-----------------------|----------|-----------|-------------|------------------|-------------------|
|                     |                       | Original | Remaining | Remaining   |                  |                   |
| 10/1/2014           | Liability (Gain)/Loss | 5.19     | 3.19      | \$614,708   | \$377,815        | \$118,446         |
| 10/1/2014           | Asset (Gain)/Loss     | 5        | 3         | \$1,240,432 | \$744,259        | \$248,086         |
| 10/1/2014           | Liability (Gain)/Loss | 5.2      | 4.2       | (380,401)   | (307,261)        | (73,140)          |
| 10/1/2014           | Asset (Gain)/Loss     | 5        | 4         | (80,957)    | (64,766)         | (16,191)          |
|                     | <b>Total Charges</b>  |          |           |             | <b>\$750,047</b> | <b>\$277,201</b>  |

Amounts Recognized in the deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in the pension expense as follows:

### Year Ended September 30:

|            |      |            |
|------------|------|------------|
|            | 2017 | \$277,202  |
|            | 2018 | \$277,202  |
|            | 2019 | \$277,202  |
|            | 2020 | (\$50,665) |
|            | 2021 | (\$14,699) |
| Thereafter |      | \$0        |

# City of Panama City Beach Firefighters' Pension Plan

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## Reconciliation of Net Pension Liability

Shown below are details regarding the Total Pension Liability, Plan Fiduciary Net Position, and Net Pension Liability for the Measurement Period from September 30, 2014 to September 30, 2015:

|  | Increase (Decrease)               |                                       |   |
|--|-----------------------------------|---------------------------------------|---|
|  | Total Pension<br>Liability<br>(a) | Plan Fiduciary<br>Net Position<br>(b) | Net Pension<br>Liability<br>(c) = (a) - (b) |
| Balance recognized at 10/1/2015                    | \$15,654,457                      | \$13,673,096                          | \$1,981,360                                 |
| Changes recognized for the fiscal year:            |                                   |                                       |   |
| Service Cost                                       | \$261,853                         | N/A                                   | \$261,853                                   |
| Interest on the total pension liability            | \$1,297,175                       | N/A                                   | \$1,297,175                                 |
| Changes of benefit terms                           | \$0                               | N/A                                   | \$0   |
| Differences between expected and actual experience | (\$380,401)                       | N/A                                   | (\$380,401)                                 |
| Changes of assumptions                             | \$0                               | N/A                                   | \$0   |
| Contributions from the employer                    | N/A                               | \$383,158                             | (\$383,158)                                 |
| Contributions from the employee                    | N/A                               | \$78,955                              | (\$78,955)                                  |
| Contribution from the state                        | N/A                               | \$193,237                             | (\$193,237)                                 |
| Net investment income                              | N/A                               | \$1,166,931                           | (\$1,166,931)                               |
| Benefit payments                                   | (\$596,757)                       | (\$596,757)                           | \$0   |
| Administrative expense                             | N/A                               | (\$63,487)                            | \$63,487                                    |
| Other  | <u>\$0</u>                        | <u>\$0</u>                            | <u>\$0</u>                                  |
| Net Changes  | <u>\$581,870</u>                  | <u>\$1,162,037</u>                    | <u>(\$580,167)</u>                          |
| Balance recognized at 9/30/2016                    | \$16,236,326                      | \$14,835,133                          | \$1,401,193                                 |

# City of Panama City Beach Firefighters' Pension Plan

## GASB 67 Requirements

GASB 67 is effective for fiscal year ending September 30, 2014. The follow exhibit is a 10 year history of change in Net Pension Liability.

Changes in the Net Pension Liability and Related Ratios – RP2000, 8.0% Interest

State Required Disclosure—Changes in the Net Pension Liability and Related Ratios

|   | Fiscal Year Ending |      |      |      |      |      |            |              |              |              |
|---|--------------------|------|------|------|------|------|------------|--------------|--------------|--------------|
|   | 2007               | 2008 | 2009 | 2010 | 2011 | 2012 | 2013       | 2014         | 2015         | 2016         |
| <b>Total Pension Liability</b>                              |                    |      |      |      |      |      |            |              |              |              |
| Service Cost  | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | 264424       | \$239,906    | \$261,853    |
| Interest Cost   | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | 577530       | \$1,108,633  | \$1,297,175  |
| Changes of Benefit Terms                                    | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | 0            | \$0          | \$0          |
| Differences Between Expected and Actual Experiences         | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | 392823.8787  | \$614,707    | (\$380,401)  |
| Changes of Assumptions                                      | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | 0            | \$0          | \$0          |
| Benefit Payments, Including Refunds of Member Contributions | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | -428064.43   | (\$461,582)  | (\$596,757)  |
| DROP Adjustment   | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | N/A          | \$765,571    | \$0          |
| <b>Net Change in Total Pension Liability</b>                | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | 806713.4487  | \$2,267,235  | \$581,870    |
| <b>Total Pension Liability (Beginning)</b>                  | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | 12580507.63  | \$13,387,221 | \$15,654,457 |
| <b>Total Pension Liability (Ending)</b>                     | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | 12580507.6 | \$13,387,221 | \$15,654,457 | \$16,236,326 |
| <b>Plan Fiduciary Net Position</b>                          |                    |      |      |      |      |      |            |              |              |              |
| Contributions—Employer                                      | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | 501111.52    | \$416,807    | \$383,158    |
| Contributions—Member  | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | 146637.57    | \$86,266     | \$78,955     |
| Contributions—State   | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | 206650       | \$187,733    | \$193,237    |
| Net Investment Income                                       | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | 1273641.88   | (\$170,283)  | \$1,166,931  |
| Benefit Payments, Including Refunds of Member Contributions | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | -428064.43   | (\$461,582)  | (\$596,757)  |
| Administrative Expense                                      | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | -62200.03    | (\$69,185)   | (\$63,487)   |
| Other   | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | 0            | \$765,571    | \$0          |
| <b>Net Change in Plan Fiduciary Net Position</b>            | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | 1637776.51   | \$755,328    | \$1,162,037  |
| <b>Plan Fiduciary Net Position (Beginning)</b>              | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | 11279992     | \$12,917,769 | \$13,673,096 |
| <b>Plan Fiduciary Net Position (Ending)</b>                 | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | 11279992   | \$12,917,769 | \$13,673,096 | \$14,835,133 |
| <b>County's Net Pension Liability (Ending)</b>              | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | 469452.5718  | \$1,981,360  | \$1,401,193  |
| <b>Net Position as a % of Pension Liability</b>             | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | 0.964932784  | 87.34%       | 91.37%       |
| <b>Covered-Employee Payroll</b>                             | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | 1285641.331  | \$1,460,571  | \$1,524,460  |
| <b>Net Pension Liability as a % of Payroll</b>              | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A        | 0.365150498  | 135.66%      | 91.91%       |

# City of Panama City Beach Firefighters' Pension Plan

## GASB 67 Requirements

GASB 67 is effective for fiscal year ending September 30, 2014. The follow exhibit is a 10 year history of contributions.

|   | Fiscal Year Ending |      |      |      |      |      |      |             |             |             |
|---|--------------------|------|------|------|------|------|------|-------------|-------------|-------------|
|   | 2007               | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014        | 2015        | 2016        |
| <b>Total Pension Liability</b>  |                    |      |      |      |      |      |      |             |             |             |
| Actuarially Determined Contribution                                       | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$396,234   | \$314,947   | \$223,668   |
| Contributions made in Relation to the Actuarially Determined Contribution | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$501,112   | \$416,807   | \$383,158   |
| Contribution Deficiency (excess)  | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$104,878   | \$101,860   | (\$159,490) |
| Covered-Employee Payroll  | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$1,285,641 | \$1,460,571 | \$1,524,460 |
| Contributions as a % of Payroll   | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | 38.98%      | 28.54%      | 14.67%      |

Methods and assumptions used to determine contribution rates:

|                            |   |
|----------------------------|---|
| Actuarial Cost Method:     | Entry age Normal with frozen Initial Liability                      |
| Asset Valuation Method:    | Actuarial Value – 5-year smoothed market value.                     |
| IRS Limit Increases:       | 4.50%   |
| Salary Increases:          | 6.00%   |
| Investment Rate of Return: | 8.00%, net of pension plan investment expense, including inflation. |
| Retirement Age:            | Graded by age and Division – see assumption section for rates.      |

Mortality rates were based on the RP-2000 Healthy Annuitant Mortality Table with generational projection using scale AA

# City of Panama City Beach Firefighters' Pension Plan

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## GASB 67 Requirements

### Sensitivity

The following table illustrates the impact of interest rate sensitivity on the Net Pension Liability for fiscal year end September 30, 2015:

|                                 | <b>1% Decrease<br/>(7.00%)</b> | <b>Current Rate<br/>(8.00%)</b> | <b>1% Increase<br/>(9.00%)</b> |
|---------------------------------|--------------------------------|---------------------------------|--------------------------------|
| (1) Total Pension Liability     | \$17,929,034                   | \$15,654,456                    | \$14,263,023                   |
| (2) Plan Fiduciary Net Position | \$13,673,096                   | \$13,673,096                    | \$13,673,096                   |
| (3) Net Pension Liability       | \$4,255,938                    | \$1,981,360                     | \$589,926                      |

The following table illustrates the impact of interest rate sensitivity on the Net Pension Liability for fiscal year end September 30, 2016:

|                                 | <b>1% Decrease<br/>(7.00%)</b> | <b>Current Rate<br/>(8.00%)</b> | <b>1% Increase<br/>(9.00%)</b> |
|---------------------------------|--------------------------------|---------------------------------|--------------------------------|
| (1) Total Pension Liability     | \$18,306,227                   | \$16,236,326                    | \$14,535,640                   |
| (2) Plan Fiduciary Net Position | \$14,835,133                   | \$14,835,133                    | \$14,835,133                   |
| (3) Net Pension Liability       | \$3,471,093                    | \$1,401,193                     | (\$299,493)                    |

# City of Panama City Beach Firefighters' Pension Plan

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## Funded Status – Accrued Benefits (ASC 960)

October 1, 2016

Generally the best measures of the Funded Status of a defined benefit plan are considered to be the levels of funding of the Actuarial Present Values of Accumulated Plan Benefits and Vested Benefits. Accumulated Plan Benefits are those future benefit payments that are attributable under the plan's provisions to employees' service rendered prior to the valuation date. Accumulated Plan Benefits are based on employees' actual pay histories, or estimates thereof; possible future salary increases or changes in Social Security levels are not recognized. Vested Benefits are those benefits which are nonforfeitable under the plan's vesting provisions.

The Actuarial Present Value of Accumulated Plan Benefits is the amount resulting from the application of actuarial assumptions to the Accumulated Plan Benefits to reflect the time value of money and the probabilities of death, disability, withdrawal and retirement. Underlying these assumptions (described on the Actuarial Basis page) is an assumption of an ongoing plan. Since most Accumulated Plan Benefits are generally synonymous with "Accrued Benefits" as defined in the plan, the Actuarial Present Value of Accumulated Plan Benefits has also been called the Present Value of Accrued Benefits.

|   | <u>10/1/2015</u>     | <u>10/1/2016</u>     |
|---|----------------------|----------------------|
| <b>NET ASSETS AVAILABLE FOR BENEFITS*</b>                         | \$ 12,756,175        | \$ 14,103,571        |
| <b>ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS</b>       |                      |                      |
| Vested Benefits   |                      |                      |
| Participants Currently Receiving Payments                         | \$ 7,683,411         | \$ 8,645,652         |
| All Other Participants  | 3,839,590            | 4,213,800            |
| <b>TOTAL VESTED BENEFITS</b>                                      | <b>\$ 11,523,001</b> | <b>\$ 12,859,452</b> |
| Percent Funded  | 111%                 | 110%                 |
| <b>NONVESTED BENEFITS</b>   | 1,294,219            | 630,808              |
| <b>EXCESS STATE MONIES RESERVE</b>                                | 180,394              | 169,332              |
| <b>TOTAL ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS</b> | <b>\$ 12,997,614</b> | <b>\$ 13,659,592</b> |
| Percent Funded  | 98%                  | 103%                 |

\* Actuarial Value of Assets

## City of Panama City Beach Firefighters' Pension Plan

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### Funded Status – Accrued Benefits (ASC 960) (Continued)

October 1, 2016

|  | <u>10/1/2015</u>     | <u>10/1/2016</u>     |
|--|----------------------|----------------------|
| <b>ACTUARIAL PRESENT VALUE OF<br/>ACCUMULATED PLAN BENEFITS<br/>AS OF PRIOR VALUATION DATE</b>   | \$ 12,550,850        | \$ 12,997,614        |
| Increase (Decrease) During the Year Attributable to:   |                      |                      |
| Increase for Interest Due to the<br>Decrease in the Discount Period                              | \$ 995,115           | \$ 1,028,190         |
| Benefits Paid  | (223,813)            | (290,475)            |
| Benefits Accumulated, Turnover, Other Experience   | (324,538)            | (75,736)             |
| Change in Actuarial Assumptions  | -                    | -                    |
| Plan Amendment   | -                    | -                    |
| Net Increase (Decrease)  | \$ 446,764           | \$ 661,979           |
| <b>ACTUARIAL PRESENT VALUE OF<br/>ACCUMULATED PLAN BENEFITS<br/>AS OF CURRENT VALUATION DATE</b> | <b>\$ 12,997,614</b> | <b>\$ 13,659,592</b> |



# City of Panama City Beach Firefighters' Pension Plan

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## State Required Exhibit

October 1, 2016

|   | <u>10/1/2015</u> | <u>10/1/2016</u> |
|---|------------------|------------------|
| <b>A. <u>Member Data</u></b>  |                  |                  |
| 1. Active Members   | 26               | 26               |
| 2. Retired Members and beneficiaries receiving benefits (including DROP)                                | 14               | 15               |
| 3. Disabled Members receiving benefits  | 1                | 1                |
| 4. Terminated vested Members  | 0                | 0                |
| 5. Prior year active compensation   | \$ 1,460,571     | \$ 1,375,441     |
| 6. Annual benefits payable to retirees and beneficiaries (including DROP)                               | \$ 450,298       | \$ 679,299       |
| 7. Annual benefits payable to disabled retirees   | \$ 49,377        | \$ 49,829        |
| 8. Annual benefits payable to terminated vested Members   | \$ -             | \$ -             |
| <b>B. <u>Assets</u></b>   |                  |                  |
| 1. Actuarial value  | \$ 12,756,175    | \$ 14,103,571    |
| 2. Market value   | 12,412,887       | 13,699,514       |
| <b>C. <u>Liabilities</u></b>  |                  |                  |
| 1. Actuarial present value of future expected benefit payments for active members                       |                  |                  |
| a. Retirement benefits  | \$ 7,666,241     | \$ 7,534,754     |
| b. Termination benefits   | 919,510          | 933,193          |
| c. Death benefits   | 33,294           | 45,124           |
| d. Disability benefits  | 57,372           | 51,174           |
| e. Total  | \$ 8,676,417     | \$ 8,564,245     |
| 2. Actuarial present value of future expected benefit payments for terminated vested members            | \$ -             | \$ -             |
| 3. Actuarial present value of future expected benefit payments for members currently receiving benefits |                  |                  |
| a. Service retired, beneficiaries and DROP  | \$ 7,052,666     | \$ 8,126,148     |
| b. Disability retired   | 630,745          | 519,504          |
| c. Total  | \$ 7,683,411     | \$ 8,645,652     |
| 4. Excess State Monies Reserve  | \$ 180,394       | \$ 169,332       |
| 5. Total actuarial present value of future expected benefit payments                                    | \$ 16,540,222    | \$ 17,379,229    |
| 6. Entry age normal accrued liability   | \$ 15,654,456    | \$ 16,236,326    |
| 7. Unfunded entry age normal accrued liability  | \$ 3,241,569     | \$ 2,536,812     |
| 8. Liabilities at FRS discount rate   |                  |                  |
| a. Discount rate  | 7.65%            | 7.60%            |
| b. Entry age normal accrued liability   | \$ 14,899,292    | \$ 17,064,287    |
| c. Unfunded entry age normal accrued liability  | \$ 2,143,117     | \$ 2,960,716     |

## City of Panama City Beach Firefighters' Pension Plan

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### State Required Exhibit (Continued)

October 1, 2016

|   | <u>10/1/2015</u> | <u>10/1/2016</u> |
|---|------------------|------------------|
| <b>D. <u>Statement of Accumulated Plan Benefits</u></b>   |                  |                  |
| 1. Actuarial present value of accumulated vested benefits   |                  |                  |
| a. Members currently receiving benefits (including DROP)  | \$ 7,683,411     | \$ 8,645,652     |
| b. Other Members  | 3,839,590        | 4,213,800        |
| c. Total  | \$ 11,523,001    | \$ 12,859,452    |
| 2. Actuarial present value of accumulated non-vested plan benefits  | 1,294,219        | 630,808          |
| 3. Excess State Monies Reserve  | 180,394          | 169,332          |
| 4. Total actuarial present value of accumulated plan benefits   | \$ 12,997,614    | \$ 13,659,592    |
| 5. Liabilities at FRS discount rate   |                  |                  |
| a. Discount rate  | 7.65%            | 7.65%            |
| b. Actuarial present value of accumulated vested benefits   | \$ 12,839,321    | \$ 13,433,765    |
| c. Total actuarial present value of accumulated plan benefits   | \$ 13,519,570    | \$ 14,282,926    |
| <b>E. <u>Statement of Change in Accumulated Plan Benefits</u></b>   |                  |                  |
| 1. Actuarial present value of accumulated plan benefits as of Prior Valuation Date                        | \$ 12,550,850    | \$ 12,997,614    |
| 2. Increase (decrease) during year attributable to:   |                  |                  |
| a. Plan amendment   | 0                | 0                |
| b. Change in actuarial assumptions  | 0                | 0                |
| c. Benefits paid  | (223,813)        | (290,475)        |
| d. Other, including benefits accumulated and increase for interest due to decrease in the discount period | 670,577          | 952,454          |
| e. Net increase   | \$ 446,764       | \$ 661,979       |
| 3. Actuarial present value of accumulated plan benefits as of Current Valuation Date                      | \$ 12,997,614    | \$ 13,659,592    |

## City of Panama City Beach Firefighters' Pension Plan

### State Required Exhibit (Continued)

October 1, 2016

| Actuarial Valuation Date<br>For Contribution Year                              | <u>10/1/2014</u><br>2014-15 | <u>10/1/2015</u><br>2015-16 |
|--|-----------------------------|-----------------------------|
| <b>F. <u>Past Contributions</u></b>  |                             |                             |
| 1. Total contribution required   |                             |                             |
| a. City  |                             |                             |
| i. Estimated Dollars, from Actuarial Valuation                                 | \$ 314,947                  | \$ 232,564                  |
| ii. Percentage of Participants' Compensation                                   | 24.50%                      | 17.77%                      |
| iii. Actual Compensation Under NRA   | \$ 1,176,642                | \$ 1,196,935                |
| iv. Required, per new state interpretation = (ii.) x (iii.)                    | \$ 288,277                  | \$ 212,695                  |
| b. State (Estimated)   | 216,203                     | 213,696                     |
| c. Member*   | 119,300                     | 119,300                     |
| d. Total = (a.iv.) + (b.) + (c.)   | \$ 623,780                  | \$ 545,691                  |
| 2. Actual contributions made:  |                             |                             |
| a. City  | \$ 416,807                  | \$ 383,158                  |
| b. State**   | 153,904                     | 153,904                     |
| c. Member  | 86,266                      | 78,955                      |
| d. Total   | \$ 656,977                  | \$ 616,017                  |
| <b>G. <u>Net Actuarial Gain (Loss)</u></b>                                     | N/A                         | N/A                         |
| <b>H. <u>Disclosure of Following Items:</u></b>                                | <b><u>10/1/2015</u></b>     | <b><u>10/1/2016</u></b>     |
| 1. Actuarial present value of future salaries - attained age***                | \$ 10,089,231               | \$ 10,422,957               |
| 2. Actuarial present value of future employee contributions - attained age***  | \$ 443,599                  | \$ 443,599                  |
| 3. Actuarial present value of future contributions from other sources          | N/A                         | N/A                         |
| 4. Amount of active members' accumulated contributions                         | \$ 972,411                  | \$ 903,278                  |
| 5. Actuarial present value of future salaries and future benefits at entry age | Not provided by system      |                             |
| 6. Actuarial present value of future employee contributions at entry age       | Not provided by system      |                             |

\* Determined by applying the required employee contribution rate (11.5% for members in the 25 & out tier, 8.1% for all others) to expected compensation for the year for participants under Normal Retirement Age (NRA)

\*\* Excluding Excess Premium Tax Revenues that have not been used to provide Additional Benefits

\*\*\* Participants under Normal Retirement Age (NRA) only

## City of Panama City Beach Firefighters' Pension Plan

### FS 112.664 Requirements

State Required Disclosure—Changes in the Net Pension Liability and Related Ratios

Changes in the Net Pension Liability and Related Ratios – RP2000, 6.0% Interest

|   | Fiscal Year Ending |      |      |      |      |      |      |      |              |              |               |
|---|--------------------|------|------|------|------|------|------|------|--------------|--------------|---------------|
|   | 2006               | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014         | 2015         | 2016          |
| <b>Total Pension Liability</b>                              |                    |      |      |      |      |      |      |      |              |              |               |
| Service Cost  | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$426,055    | \$424,619    | \$424,619     |
| Interest Cost   | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$539,013    | \$1,718,907  | \$1,696,025   |
| Changes of Benefit Terms                                    | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$0          | \$0          | \$0           |
| Differences Between Expected and Actual Experiences         | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$497,329    | \$3,018,254  | (\$1,877,501) |
| Changes of Assumptions                                      | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$0          | \$0          | \$0           |
| Benefit Payments, Including Refunds of Member Contributions | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | (\$428,064)  | (\$461,582)  | (\$596,757)   |
| DROP Adjustment   | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A          | \$765,571    | \$0           |
| <b>Net Change in Total Pension Liability</b>                | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$1,034,333  | \$4,700,198  | (\$353,614)   |
| <b>Total Pension Liability (Beginning)</b>                  | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$16,130,732 | \$16,130,732 | \$20,830,930  |
| <b>Total Pension Liability (Ending)</b>                     | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$17,165,064 | \$20,830,930 | \$20,477,316  |
| <b>Plan Fiduciary Net Position</b>                          |                    |      |      |      |      |      |      |      |              |              |               |
| Contributions—Employer                                      | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$501,112    | \$416,807    | \$383,158     |
| Contributions—Member  | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$146,638    | \$86,266     | \$78,955      |
| Contributions—State   |                    |      |      |      |      |      |      |      | \$206,650    | \$187,733    | \$193,237     |
| Net Investment Income                                       | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$1,480,292  | (\$170,283)  | \$1,166,931   |
| Benefit Payments, Including Refunds of Member Contributions | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | (\$428,064)  | (\$461,582)  | (\$596,757)   |
| Administrative Expense                                      | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | (\$62,200)   | (\$69,185)   | (\$63,487)    |
| Other   | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$0          | \$765,571    | \$0           |
| <b>Net Change in Plan Fiduciary Net Position</b>            | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$1,637,777  | \$755,328    | \$1,162,037   |
| <b>Plan Fiduciary Net Position (Beginning)</b>              | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$11,279,992 | \$12,917,769 | \$13,673,096  |
| <b>Plan Fiduciary Net Position (Ending)</b>                 | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$12,917,769 | \$13,673,096 | \$14,835,133  |
| <b>County's Net Pension Liability (Ending)</b>              | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$4,247,296  | \$7,157,834  | \$5,642,183   |
| <b>Net Position as a % of Pension Liability</b>             | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | 75.26%       | 65.64%       | 72.45%        |
| <b>Covered-Employee Payroll</b>                             | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | \$1,285,641  | \$1,308,805  | \$1,299,830   |
| <b>Net Pension Liability as a % of Payroll</b>              | N/A                | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | 330.36%      | 546.90%      | 434.07%       |

# City of Panama City Beach Firefighters' Pension Plan

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## FS 112.664 Requirements

### Sensitivity

The following table illustrates the impact of interest rate sensitivity on the Net Pension Liability for fiscal year end September 30, 2015:

|                                 | <b>2% Decrease<br/>(6.00%)</b> | <b>Current Rate<br/>(8.00%)</b> | <b>2% Increase<br/>(10.00%)</b> |
|---------------------------------|--------------------------------|---------------------------------|---------------------------------|
| (1) Total Pension Liability     | \$20,830,930                   | \$15,654,456                    | \$12,872,948                    |
| (2) Plan Fiduciary Net Position | \$13,673,096                   | \$13,673,096                    | \$13,673,096                    |
| (3) Net Pension Liability       | \$7,157,834                    | \$1,981,360                     | (\$800,149)                     |

The following table illustrates the impact of interest rate sensitivity on the Net Pension Liability for fiscal year end September 30, 2016:

|                                 | <b>2% Decrease<br/>(6.00%)</b> | <b>Current Rate<br/>(8.00%)</b> | <b>2% Increase<br/>(10.00%)</b> |
|---------------------------------|--------------------------------|---------------------------------|---------------------------------|
| (1) Total Pension Liability     | \$20,477,316                   | \$16,236,326                    | \$13,351,338                    |
| (2) Plan Fiduciary Net Position | \$14,835,133                   | \$14,835,133                    | \$14,835,133                    |
| (3) Net Pension Liability       | \$5,642,183                    | \$1,401,193                     | (\$1,483,795)                   |

### Adequacy of Assets

The following table illustrates the number of years and fractions for which the Market Value of Assets are adequate to sustain expected retirement benefits.

| <b>Assumptions</b>                  | <b>Years and Fractions</b> |
|-------------------------------------|----------------------------|
| RP 2000 Mortality and 8.0% Interest | 25.50                      |
| RP 2000 Mortality and 6.0% Interest | 19.42                      |

**City of Panama City Beach  
Firefighters' Pension Plan**

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**Participant Data Summary**

October 1, 2016

|                          | Active      | DROP        | Terminated |             | Retired     | Beneficiaries | Total     |
|--------------------------|-------------|-------------|------------|-------------|-------------|---------------|-----------|
|                          |             |             | Vested     | Disabled    |             |               |           |
| <b>October 1, 2015</b>   | <b>26</b>   | <b>7</b>    | <b>-</b>   | <b>1</b>    | <b>7</b>    | <b>-</b>      | <b>41</b> |
| New Entrants             | 3           |             |            |             |             |               | 3         |
| Retirements              |             |             |            |             |             |               | -         |
| Disabilities             |             |             |            |             |             |               | -         |
| Terminations             |             |             |            |             |             |               |           |
| a) with refund           | (2)         |             |            |             |             |               | (2)       |
| b) without refund        |             |             |            |             |             |               | -         |
| DROP enrollments         | (1)         | 1           |            |             |             |               | -         |
| Deaths                   |             |             |            |             |             |               |           |
| a) with beneficiaries    |             |             |            |             |             |               | -         |
| b) without beneficiaries |             |             |            |             |             |               | -         |
| Benefits Expired         |             |             |            |             |             |               | -         |
| Other                    |             | (1)         |            |             | 1           |               | -         |
| <b>October 1, 2016</b>   | <b>26</b>   | <b>7</b>    | <b>-</b>   | <b>1</b>    | <b>8</b>    | <b>-</b>      | <b>42</b> |
| <b>Average Age</b>       | <b>36.7</b> | <b>52.8</b> | <b>-</b>   | <b>50.3</b> | <b>59.3</b> |               |           |

**Active Participants as of 10/01/2015**

|                                     | Males    | Females | Total    |
|-------------------------------------|----------|---------|----------|
| Number of Participants              | 26       | 0       | 26       |
| Average Age Nearest Birthday        | 36.2     | n/a     | 36.2     |
| Average Completed Years of Service  | 10.6     | n/a     | 10.6     |
| Average Compensation for Prior Year | \$57,486 | n/a     | \$57,486 |

**Active Participants as of 10/01/2016**

|                                     | Males    | Females | Total    |
|-------------------------------------|----------|---------|----------|
| Number of Participants              | 26       | 0       | 26       |
| Average Age Nearest Birthday        | 36.7     | n/a     | 36.7     |
| Average Completed Years of Service  | 10.3     | n/a     | 10.3     |
| Average Compensation for Prior Year | \$54,029 | n/a     | \$54,029 |

# City of Panama City Beach Firefighters' Pension Plan

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## Age and Service Distribution

October 1, 2016

| Age          | Years of Service |          |          |          |          |          | Total    |           |
|--------------|------------------|----------|----------|----------|----------|----------|----------|-----------|
|              | 0-4              | 5-9      | 10-14    | 15-19    | 20-24    | 25-29    |          | 30+       |
| Under 25     | 1                | 0        | 0        | 0        | 0        | 0        | -        | 1         |
| 25-29        | 3                | 1        | 0        | 0        | 0        | 0        | -        | 4         |
| 30-34        | 1                | 5        | 1        | 0        | 0        | 0        | -        | 7         |
| 35-39        | 2                | 2        | 1        | 1        | 0        | 0        | -        | 6         |
| 40-44        | 1                | 0        | 1        | 0        | 0        | 0        | -        | 2         |
| 45-49        | 0                | 1        | 1        | 0        | 2        | 1        | -        | 5         |
| 50-54        | 0                | 0        | 0        | 0        | 0        | 1        | -        | 1         |
| 55-59        | 0                | 0        | 0        | 0        | 0        | 0        | -        | 0         |
| 60-64        | -                | -        | -        | -        | -        | -        | -        | 0         |
| 65 and over  | -                | -        | -        | -        | -        | -        | -        | 0         |
| <b>Total</b> | <b>8</b>         | <b>9</b> | <b>4</b> | <b>1</b> | <b>2</b> | <b>2</b> | <b>0</b> | <b>26</b> |

**City of Panama City Beach  
Firefighters' Pension Plan**

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**Comparison of Actual vs. Assumed Salary  
Increases and Investment Returns**

October 1, 2016

**Salary Increases**

| Year Ended<br>September 30, | Actual  | Assumed |
|-----------------------------|---------|---------|
| 1989                        | 6.00% * | 6.0%    |
| 1990                        | 11.3%   | 6.0%    |
| 1991                        | 8.1%    | 6.0%    |
| 1992                        | 19.9%   | 6.0%    |
| 1993                        | 8.0%    | 6.0%    |
| 1994                        | 5.5%    | 6.0%    |
| 1995                        | 6.5%    | 6.0%    |
| 1996                        | 5.9%    | 6.0%    |
| 1997                        | 5.7%    | 6.0%    |
| 1998                        | 15.5%   | 6.0%    |
| 1999                        | 10.1%   | 6.0%    |
| 2000                        | 1.3%    | 6.0%    |
| 2001                        | 9.5%    | 6.0%    |
| 2002                        | 9.3%    | 6.0%    |
| 2003                        | 3.7%    | 6.0%    |
| 2004                        | 5.8%    | 6.0%    |
| 2005                        | 3.9%    | 6.0%    |
| 2006                        | 8.6%    | 6.0%    |
| 2007                        | 4.2%    | 6.0%    |
| 2008                        | 9.7%    | 6.0%    |
| 2009                        | 13.2%   | 6.0%    |
| 2010                        | 0.6%    | 6.0%    |
| 2011                        | 8.8%    | 6.0%    |
| 2012                        | 4.1%    | 6.0%    |
| 2013                        | 6.5%    | 6.0%    |
| 2014                        | 2.1%    | 6.0%    |
| 2015                        | 7.1%    | 6.0%    |
| 2016                        | 5.2%    | 6.0%    |
| Last 5 Years, Compounded    | 5.0%    | 6.0%    |

Each figure is the rate of increase in weighted average compensation from the prior year, as reported for the actuarial valuations. The average includes only continuing active employees who have a full year of compensation in both the current and prior years, based on their reported dates of employment. Prior to September 30, 2001, employees with less than a full year of compensation in the prior year were also included by annualizing their compensation on a pro rata basis.

\* Reflects change in the definition of Compensation for benefit purposes



## City of Panama City Beach Firefighters' Pension Plan

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### Comparison of Actual vs. Assumed Salary Increases and Investment Returns (Continued)

October 1, 2016

#### Investment Return

| Year Ended<br>September 30, | Actual  | Assumed |
|-----------------------------|---------|---------|
| 1989                        | 6.18%   | 8.0%    |
| 1990                        | 2.42%   | 8.0%    |
| 1991                        | 2.98%   | 8.0%    |
| 1992                        | 26.77%  | 8.0%    |
| 1993                        | 11.52%  | 8.0%    |
| 1994                        | 0.18%   | 8.0%    |
| 1995                        | 16.21%  | 8.0%    |
| 1996                        | 13.29%  | 8.0%    |
| 1997                        | 24.15%  | 8.0%    |
| 1998                        | 7.01%   | 8.0%    |
| 1999                        | 12.22%  | 8.0%    |
| 2000                        | 10.58%  | 8.0%    |
| 2001                        | (5.13%) | 8.0%    |
| 2002                        | (4.07%) | 8.0%    |
| 2003                        | 3.63%   | 8.0%    |
| 2004                        | 3.88%   | 8.0%    |
| 2005                        | 4.84%   | 8.0%    |
| 2006                        | 7.85%   | 8.0%    |
| 2007                        | 10.19%  | 8.0%    |
| 2008                        | 6.24%   | 8.0%    |
| 2009                        | 4.24%   | 8.0%    |
| 2010                        | 4.80%   | 8.0%    |
| 2011                        | 3.74%   | 8.0%    |
| 2012                        | 5.13%   | 8.0%    |
| 2013                        | 9.84%   | 8.0%    |
| 2014                        | 11.11%  | 8.0%    |
| 2015                        | 8.46%   | 8.0%    |
| 2016                        | 8.73%   | 8.0%    |
| Last 5 Years, Compounded    | 8.64%   | 8.0%    |

The actual experience figures are the approximate time-weighted rates of return for the particular year. Through September 30, 2002, the return shown is from market value to market value; thereafter the return is from smoothed value to smoothed value. Income includes dividends, interest, and realized and unrealized gains (losses), based upon statements of Fund Balances provided by the City. The time-weighted rates reflect estimated transaction dates for income, employer, employee and state contributions, expenses, and disbursements.

## City of Panama City Beach Firefighters' Pension Plan

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### Reconciliation of DROP Participants and Assets

October 1, 2016

|                                |     |
|--------------------------------|-----|
| Participants as of 10/1/2015   | 7   |
| New DROP Members               | 1   |
| New DROP's, Withdrew during PY | 0   |
| All Other Withdrawals          | (1) |
| Corrections                    | (1) |
| Participants as of 10/1/2016   | 6   |

|                        |                |
|------------------------|----------------|
|                        | <b>Total</b>   |
| Assets as of 10/1/2015 | \$1,260,208.70 |
| Payments into DROP     | 389,739.72     |
| Earnings               | 48,596.88      |
| Distributions          | (306,282.13)   |
| Expenses               | 0.00           |
| Adjustments            | (256,643.88)   |
| Assets as of 10/1/2016 | \$1,135,619.29 |

**City of Panama City Beach  
Firefighters' Pension Plan**

**History of Excess Premium Tax Revenues**

October 1, 2016

|           | <u>Regular</u>       |                                   |                                  | <u>Supplemental Compensation Fund</u> |                                   |                                  | <u>Total</u>   |  |  |   |
|-----------|----------------------|-----------------------------------|----------------------------------|---------------------------------------|-----------------------------------|----------------------------------|--|--|--|---|
|           | <u>Cash Received</u> | <u>Applicable "Frozen" Amount</u> | <u>Excess Over Frozen Amount</u> | <u>Cash Received</u>                  | <u>Applicable "Frozen" Amount</u> | <u>Excess Over Frozen Amount</u> | <u>Total Excess = Additional Premium Tax Revenue</u> | <u>Current Year Benefit Improvements</u> | <u>Set Aside for Future Improvements</u> | <u>Cumulative Set Aside for Future Improvements</u> |
| 9/30/1998 | \$ 48,873.25         | \$ 48,873.25                      | \$ 0.00                          | \$ 21,907.17                          | \$ 21,907.17                      | \$ 0.00                          | \$ 0.00  | \$ 0.00                                  | \$ 0.00                                  | \$ 0.00   |
| 9/30/1999 | 44,211.49            | 48,873.25                         | 0.00                             | 24,139.40                             | 21,907.17                         | 2,232.23                         | 2,232.23   | 0.00                                     | 2,232.23                                 | 2,232.23  |
| 9/30/2000 | 70,881.88            | 48,873.25                         | 22,008.63                        | 40,444.30                             | 21,907.17                         | 18,537.13                        | 40,545.76  | 0.00                                     | 40,545.76                                | 42,777.99   |
| 9/30/2001 | 48,577.26            | 48,873.25                         | 0.00                             | 25,381.58                             | 21,907.17                         | 3,474.41                         | 3,474.41   | 46,252.40 (1)                            | 0.00                                     | 0.00  |
| 9/30/2002 | 54,888.30            | 48,873.25                         | 6,015.05                         | 28,691.11                             | 21,907.17                         | 6,783.94                         | 12,798.99  | 41,181.00 (2)                            | 0.00                                     | 0.00  |
| 9/30/2003 | 61,580.73            | 48,873.25                         | 12,707.48                        | 34,312.47                             | 21,907.17                         | 12,405.30                        | 25,112.78  | 41,181.00                                | 0.00                                     | 0.00  |
| 9/30/2004 | 66,676.24            | 48,873.25                         | 17,802.99                        | 40,043.17                             | 21,907.17                         | 18,136.00                        | 35,938.99  | 41,181.00                                | 0.00                                     | 0.00  |
| 9/30/2005 | 73,517.87            | 48,873.25                         | 24,644.62                        | 42,460.12                             | 21,907.17                         | 20,552.95                        | 45,197.57  | 41,181.00                                | 4,016.57                                 | 4,016.57  |
| 9/30/2006 | 87,444.59            | 48,873.25                         | 38,571.34                        | 52,473.25                             | 21,907.17                         | 30,566.08                        | 69,137.42  | 41,181.00                                | 27,956.42                                | 31,972.99   |
| 9/30/2007 | 127,251.63           | 48,873.25                         | 78,378.38                        | 108,377.15                            | 21,907.17                         | 86,469.98                        | 164,848.36   | 41,181.00                                | 123,667.36                               | 155,640.35  |
| 9/30/2008 | 182,873.74           | 48,873.25                         | 134,000.49                       | 143,540.37                            | 21,907.17                         | 121,633.20                       | 255,633.69   | 370,093.00 (3)                           | 0.00                                     | 0.00  |
| 9/30/2009 | 116,306.62           | 48,873.25                         | 67,433.37                        | 42,616.18                             | 21,907.17                         | 20,709.01                        | 88,142.38  | 83,124.00 (4)                            | 5,018.38                                 | 5,018.38  |
| 9/30/2010 | 136,553.57           | 48,873.25                         | 87,680.32                        | 48,163.22                             | 21,907.17                         | 26,256.05                        | 113,936.37   | 83,124.00                                | 30,812.37                                | 35,830.75   |
| 9/30/2011 | 137,445.52           | 48,873.25                         | 88,572.27                        | 41,843.68                             | 21,907.17                         | 19,936.51                        | 108,508.78   | 83,124.00                                | 25,384.78                                | 61,215.53   |
| 9/30/2012 | 150,652.54           | 48,873.25                         | 101,779.29                       | 53,112.15                             | 21,907.17                         | 31,204.98                        | 132,984.27   | 83,124.00                                | 49,860.27                                | 111,075.80  |
| 9/30/2013 | 150,729.03           | 48,873.25                         | 101,855.78                       | 48,217.29                             | 21,907.17                         | 26,310.12                        | 128,165.90   | 83,124.00                                | 45,041.90                                | 156,117.70  |
| 9/30/2014 | 148,749.67           | 48,873.25                         | 99,876.42                        | 57,900.59                             | 21,907.17                         | 35,993.42                        | 135,869.84   | 83,124.00                                | 52,745.84                                | 208,863.54  |
| 9/30/2015 | 160,239.82           | 48,873.25                         | 111,366.57                       | 27,493.57                             | 21,907.17                         | 5,586.40                         | 116,952.97   | 145,422.88 (5)                           | 0.00                                     | 180,393.63  |
| 9/30/2016 | 180,727.63           | 48,873.25                         | 131,854.38                       | 12,509.09                             | 21,907.17                         | 0.00                             | 131,854.38   | 142,915.84 (6)                           | 0.00                                     | 169,332.17  |

Notes:

- (1) Additional Benefits adopted (\$350 per month Supplemental Benefit) with a lump sum cost in excess of the available \$46,252.40.
- (2) Additional Benefits adopted (\$350 per month Supplemental Benefit) with an annual cost initially valued as \$41,181.
- (3) Additional Benefits adopted (3.00% Multiplier changed to 3.35%) with a lump sum cost in excess of the available \$370,093.
- (4) Additional Benefits adopted (3.00% Multiplier changed to 3.35%) with an annual cost initially valued as \$83,124.

# City of Panama City Beach Firefighters' Pension Plan

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## Summary of Major Plan Provisions

October 1, 2016

**Effective Date:** August 25, 1971.

**Plan Year:** October 1 to September 30.

**Last Amendment:** Restatement (Ordinance 670) effective June 8, 2000. First Amendment (Ordinance 723) effective June 14, 2001 (adding Early Retirement and \$350 per month supplement). Second Amendment (Ordinance 792) effective April 10, 2003 (for various law and other changes). Third Amendment (Ordinance 889) effective July 22, 2004 (changing investment policy). Fourth Amendment (Ordinance 984) effective November 1, 2005 (adding 25 & Out Tier). Fifth Amendment (Ordinance 1030) effective May 11, 2006 (changing various provisions as required by new IRS rules). Sixth Amendment (Ordinance 1085) effective July 26, 2007 (adding 5% fixed investment return option for DROP). Seventh Amendment (Ordinance 1127) effective October 1, 2008 (increasing multiplier from 3.00% to 3.35%). Restatement (Ordinance 1157) adopted August 17, 2009. First Amendment (Ordinance 1220) effective February 9, 2012 (adding 300 hours of overtime cap).

**Eligibility:** All permanent Firefighters who have passed the medical examination.

**Employee Contributions:** 7.5% of Compensation for Firefighters who elect the 25 & Out Tier, else 4.1% of Compensation (5.0% prior to June 8, 2000). Employee Contributions are excluded from taxable income under IRC Section 414(h). The election of the 25 & Out Tier is irrevocable. Starting October 1, 2014, contributions will be reduced by 4.0% annually, to the extent that an additional offset is available from premium tax revenues.

**Compensation:** Total compensation paid by the City for services rendered as reported on Form W-2, plus all tax deferred, tax sheltered or tax exempt amounts derived from elective employee contributions or salary reductions. Compensation includes regular pay, overtime (up to 300 hours) and other cash incentives. Payments of leave amounts (vacation, sick, etc.) upon termination of employment shall not be included. Auto allowance and mileage reimbursements shall not be included. Compensation in excess of the IRC Section 401(a)(17) limit is disregarded.

**Average Final Compensation:** The Compensation received during the 5 years out of the last 10 years of Credited Service divided by 60, which produces the highest average, or the career average as a full-time Firefighter, if greater.

**Credited Service:** Years and fractional parts of years of service as a Firefighter with the City and while making Employee Contributions.

**Accrued Benefit:** The benefit using the formula for the Normal Retirement Benefit, based upon the Average Final Compensation and Credited Service as of the date of the calculation. The Accrued Benefit is payable at the Normal Retirement Date in the Normal Form of Benefit.

**Accumulated Contributions:** A participant's contributions with interest compounded annually at 5.25% through June 3, 2000; after that date interest is no longer accrued.

**Normal Retirement Date:** The first day of the month coincident with or next following the earlier of (1) the date a participant attains age 50 and has completed at least 20 years of Credited Service or (2) the date he attains age 55 and has completed at least 10 years of Credited Service, or (3) if he has elected the 25 & Out Tier, the date he has completed at least 25 years of Credited Service regardless of age.

# City of Panama City Beach Firefighters' Pension Plan

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**Early Retirement Date:** The first day of the month coincident with or next following the date a participant attains age 50 and has completed at least 10 years of Credited Service.

**Normal Form of Benefit:** A monthly annuity for life with 10 years certain.

**Optional Forms of Benefit:** Benefits Actuarially Equivalent to the benefit provided under the Normal Form of Benefit; optional forms:

- a. Life annuity (with no modified cash refund feature),
- b. Joint and survivor annuity (100%, 75%, 66 2/3% or 50%; reducing upon death of participant only),
- c. Level income option,
- d. Any of the above forms, increasing 3% per year on each January 1 (the Actuarially Equivalent adjustment recognizes that the regular retirement benefit includes a 1% COLA and that the \$350 Per Month Supplemental Benefit does not), or
- e. Lump Sum if under \$5,000, or less than \$100 per month.

**Normal Retirement Benefit:** A monthly benefit commencing at the Normal Retirement Date equal to 3.35% of Average Final Compensation multiplied by years of Credited Service, but not more than 100% of Average Final Compensation (excluding COLA's).

**Late Retirement Benefit:** Additional benefits will accrue after the Normal Retirement Date.

**Early Retirement Benefit:** A participant who elects to retire on or after his Early Retirement Date may receive an Early Retirement Benefit commencing at his Normal Retirement Date equal to his Accrued Benefit. If he further elects to have such benefit commence prior to his Normal Retirement Date, it shall be reduced 3% per year (.25% per month) for each period by which the benefit commencement date precedes his Normal Retirement Date. For this purpose Normal Retirement Date is determined based on the participant's actual years of Credited Service as a Firefighter at his termination date.

**Death Benefit:** The beneficiary of a participant who dies (1) during employment or after termination with a vested benefit and (2) with respect to whom benefit payments have not commenced shall be entitled to a Death Benefit equal to 100 times his monthly Accrued Benefit based on his Credited Service and Average Final Compensation as of the time of death. This benefit is payable in a lump sum unless the Firefighter elected that it be paid in an Actuarially Equivalent annuity or installments. The Plan also provides minimum Death Benefits based upon the vested, 10-year-certain portion of the Normal Form of Benefit or the refund of Accumulated Contributions.

**Termination of Employment Benefit:** A participant who terminates his employment after completing ten years of Credited Service for reason other than death, disability or retirement shall be entitled to a vested deferred monthly benefit commencing at his Normal Retirement Date equal to his Accrued Benefit. Any participant may withdraw his Accumulated Contributions; a vested participant who withdraws his Accumulated Contributions forfeits his rights to his vested Accrued Benefit or Death Benefit.

If a participant terminates after completing 10 years but prior to being eligible for retirement:

- With less than 20 years of Credited Service, his annuity can begin unreduced at age 55 or reduced (3% per year) between ages 50 and 55, or
- With 20 or more years of Credited Service, his annuity can begin unreduced at age 50.

# City of Panama City Beach Firefighters' Pension Plan

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**Disability Benefit:** A Participant who becomes totally and permanently disabled shall be eligible to receive a Disability Benefit in the form of an immediate monthly annuity for life with ten years certain as follows:

**Job-Related Disability:** Without regard to years of Credited Service, a benefit equal to the greater of his Accrued Benefit or 42% of Average Final Compensation as of the date of disability.

**Non-Job-Related Disability:** With ten or more years of Credited Service, a benefit equal to his Accrued Benefit as of the date of disability.

The Disability Benefit together with worker's compensation benefits may not exceed 100% of pay, as provided in the Plan. Optional Forms of Benefit may be elected.

**Actuarial Equivalent:** A benefit or amount of equal value, based upon the 1983 Group Annuity Mortality Table for Males and an interest rate of 8% per annum. In practice, in accordance with the prior document, the Table for Males is used for all Firefighters, regardless of sex, and the same table with ages set back 6 years is used for all beneficiaries and survivor annuitants, regardless of sex.

**Cost-of-Living Adjustment:** All retirees, including disabled retirees, who retired on or after June 8, 2000, (including Firefighters who terminate with a deferred benefit after such date, once they retire) and their survivor annuitants shall receive on the first January 1 following one full year of retirement, and on each January 1 thereafter, a 1% cost-of-living adjustment on their regular retirement benefit; the \$350 Per Month Supplemental Benefit does not receive a COLA.

**Maximum Benefits:** IRC Section 415 limits apply as modified for governmental plans and for police and fire plans.

## **Deferred Retirement Option Program (DROP):**

- a. **Eligibility:** Normal Retirement.
- b. **Benefit Amount:** The participant's Accrued Benefit calculated as of the beginning of the DROP period, accumulated quarterly with interest at a rate equal to either the Pension Plan's net investment performance during the quarter or a fixed guaranteed rate of 5% annually, plus cost-of-living adjustments, if any, during the DROP period. The participant elects which interest basis he wants upon his entry into the DROP, and may change such election only once during the DROP period.
- c. **Form of Benefit:** When the DROP period ends (maximum 5 years), the employee must terminate employment. At that time, the accumulated DROP benefits will be distributed in the form of a lump sum, a rollover, or a nonforfeitable fixed annuity to the participant, or if deceased, such participant's designated beneficiary. In addition, the monthly annuity, including any COLA adjustments, will continue to the participant as otherwise provided in the Plan.
- d. **Other Provisions:** A participant in DROP is no longer eligible for Death or Disability Benefits. Employee Contributions are no longer collected, and Credited Service and Average Final Compensation are frozen as of the date of entry into DROP.

**\$350 Per Month Supplemental Benefit:** Firefighters who retire from active service only receive a supplemental monthly benefit of \$350 payable for life only, without any COLA. This benefit is not provided for firefighters who terminate prior to being eligible for early, normal or disability retirement, nor is it provided for beneficiaries of deceased firefighters, nor their joint annuitants. However, when he retires a firefighter may elect to have the \$350 benefit paid in one of the reduced, Actuarially Equivalent Optional Forms of Benefit; this includes having it paid as a reduced, Actuarially Equivalent, increasing annuity under the 3% increasing annuity option.

# City of Panama City Beach Firefighters' Pension Plan

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## Actuarial Basis

October 1, 2016

### ACTUARIAL COST METHOD

Entry Age Normal with Frozen Initial Liability. Changes in actuarial assumptions are reflected in Normal Cost. Since at least 1999, all changes in plan benefits have been funded either by increases in the employee contribution rate or by increased Premium Tax Revenues.

### ACTUARIAL ASSUMPTIONS

**Investment Yield:** The investment rate of earnings is assumed to be 8.00% per annum.

**Interest on Employee Contributions:** No interest is credited beyond June 8, 2000.

**Mortality:** : RP-2000 Fully Generational Scale BB. Male – 50% Annuitant White Collar/ 50% Annuitant Blue Collar. Female – 100% Annuitant White Collar

**Disability:** Preretirement disability is assumed to occur in accordance with a standard scale of disability rates (1955 UAW, male and female). Sample rates are shown below:

| Age | Probability of Disablement |        |
|-----|----------------------------|--------|
|     | Male                       | Female |
| 20  | 0.03%                      | 0.04%  |
| 30  | 0.04%                      | 0.06%  |
| 40  | 0.07%                      | 0.10%  |
| 50  | 0.18%                      | 0.26%  |
| 60  | 0.90%                      | 1.21%  |

Twenty-five percent of disabilities are assumed to be non-job-related.

**Withdrawal:** Preretirement withdrawals are assumed to occur in accordance with a standard scale of turnover rates (T-5). Sample rates are shown below:

| Age | Probability of Withdrawal |
|-----|---------------------------|
| 20  | 7.9%                      |
| 30  | 7.2%                      |
| 40  | 5.2%                      |
| 50  | 2.6%                      |

**Salary Scale:** Future salaries are assumed to increase at the rate of 6% per year.

# City of Panama City Beach Firefighters' Pension Plan

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**Actuarial Value of Assets:** Assets are valued using a 5-year smoothed market value without phase-in.

**Retirement Rate:** Each active participant is assumed to retire on the later of the actuarial valuation date or his Normal Retirement Date.

**Timing of Contribution:** The contribution is assumed to be made quarterly throughout the plan year.

**Employees Covered:** All participants as of the actuarial valuation date.

**Expenses:** Expenses for the current year are assumed to equal actual expenses for the prior year. If actual expenses for the current year differ from this estimate, a make-up contribution or credit is included.

**Maximum Compensation:** Compensation is limited to \$260,000 projected to increase at the rate of 4% per annum.

**Maximum Benefits:** The \$210,000 maximum for years ending in 2014 and other applicable Benefit Limitations under Section 415 are projected to increase at the rate of 4% per annum.

**Completeness of Assumptions:** All benefits and expenses to be provided by the Plan are recognized in the valuation. All known events are taken into account; no current trends are assumed to discontinue in the future.

## COMPARABILITY WITH PRIOR VALUATION

**Significant Events During the Year:** None.

**Significant Changes in the Summary of Major Plan Provisions:** None

**Significant Changes in the Actuarial Cost Method or Actuarial Assumptions:** The mortality was updated to mirror that used by the Florida Retirement System, per state statute.

**Other Information Needed to Fully and Fairly Disclose the Actuarial Position of the Plan:** None.



# City of Panama City Beach Firefighters' Pension Plan

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## Actuarial Cost Method "Entry Age Normal with Frozen Initial Liability"

October 1, 2016

An actuarial valuation is a series of mathematical calculations which project future benefits under a pension plan and future contributions to fund those benefits. The true cost of a pension plan cannot be determined until the last benefit is paid, because the true cost is the actual benefits ultimately paid, plus the expense of maintaining the plan, less the actual income earned on invested funds. Since funding cannot wait until the last benefit is paid, however, actuarial assumptions are used to project ultimate benefit levels and the reserves needed to provide them. An actuarial cost method is then used to establish a reasonable pattern of contributions to accumulate those reserves. The assumptions and cost method themselves, therefore, only impact on the incidence of funding, not the true cost. Each new valuation automatically corrects for any differences between the assumptions and actual experience, and the correction is spread over the current and future years of funding.

The Entry Age Normal with Frozen Initial Liability cost method spreads the funding of a portion of the pension benefits over the future service of all active participants and the balance is funded in a separate amortization schedule.

The Frozen Initial Liability is determined and fixed in the first year the cost method is adopted, although it may be redetermined or a supplemental piece added when the Plan is amended. The Frozen Initial Liability is the excess of the Present Value of Benefits over the sum of (a) the Present Value of Future Entry Age Normal Costs, (b) the Present Value of Future Employee Contributions, and (c) the Actuarial Value of Assets in the Trust Fund. The Entry Age Normal Cost is the annual cost determined by assuming the current Plan was always in effect and calculating the amount needed to produce level funding of benefits for all current participants from the date they would have entered the Plan. The Frozen Initial Liability may be amortized over as many as 40 years.

In each subsequent year, the order of steps is reversed. The Present Value of Future Normal Costs is calculated as the excess of the Present Value of Benefits over the sum of (a) the unfunded portion of the Frozen Initial Liability, (b) the Actuarial Value of Assets and (c) the Present Value of Future Employee Contributions.

The Normal Cost is developed by spreading the Present Value of Future City Normal Costs over the future compensation of all participants as a level percentage of pay, i.e., by dividing it by the Present Value of Future Compensation to get the Normal Cost Rate. The Normal Cost is the product of the Normal Cost Rate and the current Participants' Compensation. Actuarial gains or losses are included in the Present Value of Future Normal Costs, and are reflected in the Normal Cost Rate and thereby spread over the remaining future service of the participants in the Normal Cost. The Frozen Initial Liability is not adjusted for actuarial gains or losses.

## **City of Panama City Beach Firefighters' Pension Plan**

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The state minimum required contribution in a particular year is equal to the Normal Cost, plus a level amount which will amortize the Frozen Initial Liability and supplemental bases over the applicable number of years, plus expected and "make-up" expenses, less the Past Excess Contributions.

In the event of either a negative Normal Cost or an unfunded liability that is zero or less, the Cost Method will operate temporarily as the Aggregate Cost Method, in effect, until a positive unfunded liability is established at the time of a plan amendment, when a new Frozen Initial Liability is established.

The calculation of the contribution has been made in a manner that assumes quarterly payment during the Plan Year. In order to meet the state minimum funding requirements, the state minimum required contribution must be made at least quarterly during the Plan Year.

# City of Panama City Beach Firefighters' Pension Plan

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## Disclosure Notes to the Financial Statements for Year Ended September 30, 2016

### Summary of Significant Accounting Policies

Preserving the Firefighters' Retirement Fund is a major objective of the City of Panama City Beach. The City funds a defined benefit pension plan for its employees. They are treated as fiduciary funds in the financial sections. It is the goal to invest all funds in a manner that provides the highest investment return using authorized instruments while meeting the City's acceptable risk level. The primary objectives, in priority order, in investment activities shall be safety, liquidity, and yield.

Method used to value investments. Investments are reported at fair value. All deposits are in various financial institutions and are carried at cost. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates.

### Plan Description

#### Plan Administration

The Board of Trustees oversees the management of the Firefighters' Pension Plan for the City of Panama City Beach. The board has established procedures to ensure that idle funds are invested as authorized by Florida statute, to earn the maximum interest.

#### Contributions

The City's annual contribution to the pension trust is determined through the budgetary process and with reference to actuarial determined contributions. As of September 30, 2016, the most recent actuarial study shows a deficit of \$1.4 million on a GASB 67 funding basis. The Board establishes rates based on an actuarially determined rate recommended by an independent actuary. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by plan members during the year, with an additional amount to finance any unfunded accrued liability. The contribution is designed to accumulate sufficient assets to pay benefits when due.

#### Investments

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| <b>Asset Class</b>   | <b>Target Allocation<br/>Total</b> |
|----------------------|------------------------------------|
| Large Cap Equity     | 40%                                |
| Small Cap Equity     | 15%                                |
| International Equity | 10%                                |
| Fixed Income         | 25%                                |
| Real Estate          | 5%                                 |
| Cash                 | 5%                                 |
| Total                | 100%                               |

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*No changes have been made to the pension plan investment policy over the past year.*

# City of Panama City Beach Firefighters' Pension Plan

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## Concentrations

The long-term expected rate of return on pension plan investments was confirmed appropriate using Aon's e-tool model assuming general inflation of 2.5%, which is a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. 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 arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of October 1, 2016 (see the discussion of the pension plan's investment policy) are summarized in the following table:

| Asset Class                                    | Long-Term<br>Expected<br>Nominal<br>Return | Long-Term<br>Expected<br>Real Rate<br>of Return |
|--|--|---|
| <b>Equity</b>                                  |  |   |
| Large Cap U.S. Equity                          | 7.00%                                      | 4.50%   |
| Small Cap U.S. Equity                          | 7.50%                                      | 5.00%   |
| International (Non-U.S.) Equity<br>(Developed) | 7.50%                                      | 5.00%   |
| Emerging Markets Equity                        | 8.70%                                      | 6.20%   |
| <b>Fixed Income</b>                            |  |   |
| Long Duration Bonds – Gov't / Credit           | 4.30%                                      | 1.80%   |
| <b>Alternative Investments</b>                 |  |   |
| Real Estate (Broad Market)                     | 7.30%                                      | 4.80%   |

## Rate of Return

For the year ended September 30, 2016, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 8.5 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

## Receivables

The pension plan does not have receivables from long-term contracts with the City for contributions.

## Allocated Insurance Contracts

The pension plan has not allocated insurance contracts that are excluded from pension plan assets.

## Reserves

The pension plan has no reserves that are required to be disclosed under paragraph 30e of Statement 67.

## Deferred Retirement Option Program (DROP)

The City offers a DROP to all employees who meet retirement eligibility. A description of the DROP can be found on page 28 of the actuarial valuation report.

# City of Panama City Beach Firefighters' Pension Plan

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## **Discount Rate**

The discount rate used to measure the total pension liability was 8.00 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 Board of Trustees 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.