ACTUARIAL VALUATION REPORT

FIREFIGHTERS' PENSION AND RELIEF FUND FOR THE CITY OF NEW ORLEANS [NEW FUND]

Annual Actuarial Valuation as of January 1, 2018

CONEFRY & COMPANY, LLC

ACTUARIAL AND EMPLOYEE BENEFIT CONSULTING NEW ORLEANS, LOUISIANA

YEAR

INTRODUCTION

We present in this report the results of our actuarial valuation of the Firefighters' Pension and Relief Fund of the City of New Orleans as of January 1, 2018. The New Fund plan is intended to be actuarially funded, and we have performed this actuarial valuation using conventional and generally accepted actuarial methods, assumptions, and principles as would typically be applied to a qualified defined benefit pension plan subject to the funding standards of the Employee Retirement Income Security Act of 1974 (ERISA). We have performed the New Fund actuarial valuation using the Entry Age Normal Cost Method effective with the January 1, 2015 actuarial valuation (the method formerly used through and including the January 1, 2014 actuarial valuation was the Aggregate Level Cost Method). A full description of the funding method is contained in the body of the report.

The Summary of Plan Provisions presented in the Appendix is intended to describe the principal benefits provided by the plan, particularly from the perspective of their significance in affecting the actuarial liability and cost of the plan. The summary is not, of course, intended to be a comprehensive or complete description of all benefits payable under all circumstances under the pension plan.

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June 27, 2018

FIREFIGHTERS' PENSION AND RELIEF FUND FOR THE CITY OF NEW ORLEANS New System

SUMMARY

I. FINANCIAL AND ACTUARIAL STATUS as of January 1, 2018

| Market Value of Assets | \$ 42,194,604 | Page 4 |
|---------------------------|------------------|--------|
| Actuarial Value of Assets | \$ 42,194,604 | Page 5 |

II. EMPLOYER AND EMPLOYEE CONTRIBUTIONS for the Plan Year Beginning January 1, 2018 - New Fund

| Total Plan Contribution | | |
|-------------------------------------|--------------------------|------------|
| (As % of Payroll) | \$ 36,878,931 (132.837%) | Page 7 |
| Employee Plan Contribution | | |
| (As % of Payroll) | \$ 2,776,248 (10.000%) | Page 7 |
| Employer Plan Contribution Includin | ng | |
| Expenses (As % of Payroll) | \$ 34,102,683 (122.837%) | Page 7 |
| APPENDIX | | |
| SUMMARY OF PLAN PROVISIONS | | Exhibit I |
| STATEMENT OF ACTUARIAL BASIS | | |
| FOR FUNDING PURPOSES | | Exhibit II |
| ACTIVE AND INACTIVE PARTICIPANT | Exhibit III | |
| ACCOUNTING INFORMATION AND FU | Exhibit IV | |
| | | |

CERTIFICATION

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I.

FINANCIAL AND ACTUARIAL STATUS as of January 1, 2018 New Fund

We have conducted this actuarial valuation using employee data and asset information furnished by the plan administrator and the auditors. This section of the report presents a summary of the assets of the plan at Fair Market Value. The funding method used to determine the actuarial liabilities is described in Section II and the actuarial assumptions upon which the liabilities are based are summarized in Exhibit II of the report.

ASSETS

The following table showing the composition of the assets as of December 31, 2017 is based on information supplied by the auditors through the System administrative staff.

| | | | Tab | ole | 1 | | |
|----|-----|----|------|-----|-----|-----|--------|
| M | ark | et | Val | ue | of | FA | ssets |
| As | of | D | ecen | nbe | er | 31. | , 2017 |
| | | ľ | New | Fu | ind | 1 | |

CURRENT ASSETS

| | Cash in Banks Accrued investment income | \$ | 757,102 | | |
|-------|--|------|------------|-----------|------------|
| | Receivables | | 2,217,864 | | |
| (1) | Total Current Assets | No. | 2,217,001 | \$ | 2,974,966 |
| INVI | ESTMENTS | | | | |
| | Cash equivalents | \$ | | e no | |
| | Bonds | | 253,477 | | |
| | Stock | | 2,685 | | |
| | Hedge Funds | | 0 | | |
| | Notes receivable | | 0 | | |
| | Investment in partnerships, LLC, etc. | | 15,263,032 | | |
| (2) | Real Estate Total Investments | - | 3,201,000 | \$ | 39,353,553 |
| 10.00 | RENT LIABILITIES | | | | |
| 001 | Accounts payable | \$ | 133,915 | | |
| | Due to Old system | 4 | 0 | | |
| | Notes Payable | | 0 | | |
| | Accrued Interest Payable | | 0 | | |
| (3) | Total Current Liabilities | | | <u>\$</u> | 133,915 |
| NET | ASSETS AVAILABLE FOR PENSION | BENE | TTS: | | |
| | + (2) - (3) ment asses | | | \$ | 42,194,604 |
| | | | | | |

The actuarial value of assets used in this valuation is Market Value as set forth in Table 2.

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ACTUARIAL VALUE OF ASSETS

Beginning with the January 1, 1999 actuarial valuation, the method of determining the actuarial value of assets was changed to adjusted market value from the former basis involving the average of cost and market values of securities. This method reflected actual market value performance over a rolling three year period ending on the valuation date. The realized and unrealized market to market performance is smoothed over the three years immediately preceding the valuation date.

For purposes of settlement discussions in conjunction with mandamus litigation involving determination of the funding contributions, the three year smoothing period was changed to a seven year period. Recent substantial changes in the valuation of certain assets of the fund, however, causes retrospective smoothing of the asset value to be inappropriate and, accordingly, the board of trustees has selected actual market value for commencing with the January 1, 2015 actuarial valuation. The use of a smoothing feature in future valuations in determining the actuarial valuation of assets will be addressed by the board as investment conditions in the fund are stabilized.

The following table develops the Actual Market Value of Assets to be used as the Actuarial Value of Assets in this actuarial valuation.

<u>Table 2</u> <u>Actuarial Value of Assets</u> <u>As of December 31, 2017</u> <u>New Fund</u>

| Current Assets | \$ 2,974,966 |
|---|----------------------|
| Investments | 39,353,553 |
| Inventory and Intangible Assets | 0 |
| Property & Equipment, Net of Depreciation | 0 |
| Smoothing Adjustment | 0 |
| TOTAL ASSETS | \$ 43,155,813 |
| Less, TOTAL LIABILITIES | 158,075 |
| Actuarial Value of Assets (Market Value) | <u>\$ 42,194,604</u> |

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II.

EMPLOYER CONTRIBUTIONS

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for the Plan Year Beginning January 1, 2018

New Fund

DESCRIPTION OF ACTUARIAL COST METHOD

Under the Entry Age Normal Cost Method, the normal cost of the plan is designed to be a level percentage of payroll, calculated on an individual basis, spread over the entire working lifetime of each participant. The future working lifetime is determined from each participant's hypothetical entry age into the plan assuming the plan had always been in existence, to his expected retirement date. The actuarial accrued liability is the amount of total liability not covered by future entry age normal costs. This amount is composed of the actuarial value of benefits already funded (assets) and those not yet funded (unfunded actuarial liability).

The plan's funding cost for the year is the sum of the Entry Age Normal Cost and the amount necessary to amortize the remaining unfunded actuarial liability as of the valuation date over the adopted amortization period.

The basis used to amortize the unfunded actuarial liability can be "open" (that is, a constant number of years) or "closed" (that is, with the remaining period reducing by one each year). The basis may also be either a level dollar amortization method (more conservative) or a method based on increasing valuation payroll (less conservative). The amortization period and method adopted and used in this valuation is 30 year, level dollar open amortization.

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<u>Table 3</u> <u>Entry Age Normal Cost for Plan Year</u> <u>Beginning January 1, 2018</u>

| (1) | Total Entry Age Normal Cost of all active participants, assumed payable monthly | s | 6,224,252 |
|-----|--|----|------------|
| (2) | Current annual payroll of active participants * | \$ | 27,762,479 |
| (3) | Composite Entry Age Normal Cost Percentage: (1) divided by (2) | | 22.420% |

* There are 513 active participants.

Table 4Entry Age Normal Cost Unfunded Actuarial Liabilityas of January 1, 2018

| (1) | Actuarial Present Value of Expected Benefits to Active Plan Participants (Excluding D.R.O.P.) (a) Retirement Benefits (b) Survivor Benefits (c) Disability Benefits (d) Vesting Benefit (e) Refunds of Employee Contributions Total Active | \$ 132,128,780 6,370,748 42,307,349 1,980,879 <u>189,704</u> \$ 182,977,460 | |
|-----|--|---|------------------|
| (2) | Actuarial Present Value of Expected Benefits to Inactive Plan Participants (Including D.R.O.P.) (a) Service Retirement * (b) Disability Retirement (c) Survivors and Widows (d) Terminated Vested (e) P.L.O.P. Account Balances (f) D.R.O.P. Account Balances (g) D.R.O.P. Future Benefits Total Inactive | 123,123,998 52,901,033 23,097,043 271,104 11,403,990 26,002,879 <u>49,191,985</u> \$ 285,992,032 | |
| (3) | Grand Total Active and Inactive: $(1) + (2)$ | | \$ 468,969,492 |
| (4) | Actuarial Present Value of Future Employer Normal Cost Contributions: | | 52,804,633 |
| (5) | Entry Age Normal Cost Accrued Actuaria Liability as of January 1, 2018: (3) - (4) | 1 | 416,164,859 |
| (6) | Actuarial Value of Assets (from Table 2) | | 42,194,604 |
| (7) | Unfunded Entry Age Normal Cost Actuar Liability as of January 1, 2018: (5) - (6) | rial | 373,970,255 |
| | Tasladas 211 actions (af. a total of 271 | 1. 1. (1.2 | |
| 200 | Includes 711 estimate (at a total of 971 | matura (non anti- | and under comies |

Includes 311 retirees (of a total of 371 retirees) who retired under service retirement benefit formula and who are now classified as disabled as of the valuation date. Disabled mortality assumptions have been applied in calculating the actuarial present value of benefits for these participants. (See page 20 for age grid).

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TOTAL REQUIRED CONTRIBUTION FOR PLAN YEAR BEGINNING January 1, 2018 The contribution for a plan year equals the normal cost, plus the expense assumption cost, plus the amount necessary to amortize the Entry Age Normal Cost (EAN) Unfunded Actuarial Liability. This Unfunded Liability for funding purposes is \$ 373,970,255, as developed in Table 4. The annual amount, payable monthly, required to amortize this EAN Unfunded Liability over the open 30 year period ending December 31, 2047 at 7.50% annual interest is \$30,454,679.

The total plan contribution on this basis is developed in the following Table 5.

Table 5 Total Required Contribution for the Plan Year Beginning January 1, 2018

| (1) | Normal Cost (From Table 3) | 6,224,252 | | |
|-----|---|---------------------|-------------|---|
| (2) | Expense Assumption Cost | 200,000 | | |
| (3) | Net Annual charge Required for 30 Year Amortization of EAN Unfunded Liability assumed payable monthly (See Above) | 30,454,679 | | |
| (4) | Total Plan Contribution assumed payable monthly: $(1) + (2) + (3)$ | \$ 36,878,931 | (132.837%) | * |
| (5) | Weighted Average of Expected Employee Contributions (Based on Present Value) as of January 1, 2018 | \$ 2,776,248 | (10.000%) | * |
| (6) | Employer Contribution assumed payable monthly: (4) - (5) | \$ 34,102,683 | (122.837%) | * |
| * | Expressed as a percentage of annual particir | oant payroll of \$2 | 27.762.479. | |

Expressed as a percentage of annual participant payroll of \$27,762,479.

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June 27, 2018

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APPENDIX

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EXHIBIT I FIREFIGHTERS' PENSION AND RELIEF FUND OF THE CITY OF NEW ORLEANS SUMMARY OF PLAN PROVISIONS [NEW FUND]

COVERAGE

Firefighters employed after December 31, 1967 or transferred into the New Fund from the Old Fund.

EMPLOYEE CONTRIBUTIONS:

Through December 31, 2013, 6% of salary for members with less than 20 years of service. Effective January 1, 2014, 10% of salary for all members, implemented on a graded schedule as follows:

For members with less than 20 years of service: 8% effective January 1, 2014 and 10% effective January 1, 2015 and thereafter.

For members with at least 20 years of service: 3.33% effective January 1, 2014; 6.66% effective January 1, 2015; and 10% effective January 1, 2016 and thereafter.

EMPLOYER CONTRIBUTIONS:

Employer contributions are made monthly during any given calendar fiscal year to pay the actuarially determined contributions based on the actuarial valuation as of January 1st of the immediately preceding calendar year. Actuarially determined contributions in the January 1, 1987 through January 1, 2014 actuarial valuations had been based on the Aggregate Actuarial Cost Method. Effective with the January 1, 2015 actuarial valuation, actuarially determined contributions have been based on the Entry Age Normal Cost Method with thirty year, level dollar open amortization of the unfunded actuarial liability.

RETIREMENT BENEFITS:

Eligibility:

Age 50 and 12 years of service. For active members entering employment on and after January 1, 2015, age 52 and 12 years of service. For active members entering employment on and after August 15, 2016, Social Security Retirement Age less 10 years.

Benefits:

Retirement allowance equal to $2 \frac{1}{2\%}$ of average compensation based on five highest consecutive years times creditable service. For members retiring after age 50 with over 12 years of service, benefit is $3 \frac{1}{3\%}$ for each year of service over 12. For members with 30 or more years of service, benefit is $3 \frac{1}{3\%}$ for each year of service.

Effective January 1, 2017, for currently active who entered employment prior to January 1, 2015 and future payments to previously retired and D.R.O.P. members, retirement allowance equal to 2 1/2% of average compensation based on five highest consecutive years times creditable service before the later of age 50 and completion of 12 years of service, plus 3 1/3% times creditable service after the later of age 50 and completion of 12 years of service.

EXHIBIT I FIREFIGHTERS' PENSION AND RELIEF FUND OF THE CITY OF NEW ORLEANS SUMMARY OF PLAN PROVISIONS [NEW FUND] (Continued)

Benefits (cont.):

For active members entering employment on and after January 1, 2015 and retiring after age 52 and 12 years of service, retirement allowance is equal to 2 3/4% of average compensation based on five highest consecutive years times creditable service. The 2 3/4% percentage has been amended to $2 \frac{1}{2\%}$ for members entering employment on and after August 15, 2016.

Maximum Benefit payable is 100% of highest five year average compensation preceding retirement.

Minimum Benefit

Benefit of retirees and widows shall not be less than \$1,200 per month.

Cost-of-living: Board is authorized (by a two-thirds vote of the entire board) to provide annual increases to retirees and widows based on excess earnings in an amount not to exceed 3% of the original benefit. For retirees and widows age 65 and older, the board is authorized to provide an additional amount not to exceed 2% of the original benefit.

DISABILITY BENEFITS:

Eligibility:

1. Service-related physically and mentally permanently incapacitated for performance of duties as a member of the fire department. (certified by civil service physician and board).

2. Non-service related physically and mentally permanently incapacitated for performance of duties as a member of the fire department.

Benefit:

1. benefits are equal to the greater of two-thirds of monthly compensation or a regular retirement benefit if the member is eligible.

If able to work, benefits are equal to the greater of one-half of monthly compensation or a regular retirement benefit if the member is so eligible.

2. members with 10 years of service or less receive 30% of average compensation during the last year of service immediately preceding disability; 40% of average compensation for members with more than 10 years but less that 15 years of service; and 50% of average compensation for members with 15 or more years of service.

DEATH BENEFITS:

Eligibility:

1. Death of an active member killed while performing duties as a firefighter.

2. Non-duty related death of active or former firefighter entitled to benefits.

Benefit:

1. Surviving widow receives 66 2/3% of salary at time of death. Each child under age 18 receives \$300 per month.

2. 50% of salary at the time of death. If eligible for retirement, widow shall receive an automatic Option 2 benefit.

The Not Street Street Effective July 1, 1977, a death benefit of \$3,000 is paid to the beneficiary of the deceased active or retired firefighter.

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EXHIBIT I FIREFIGHTERS' PENSION AND RELIEF FUND OF THE CITY OF NEW ORLEANS SUMMARY OF PLAN PROVISIONS [NEW FUND] (Continued)

SEPARATION BENEFIT:

Eligibility:

- 1. withdrawal from service with 12 years of service prior to age 50.
- 2. Separation of service.

Benefit:

1. Employee may allow contributions to remain on deposit and receive benefit at age 50.

2. refund of accumulated contributions.

DEFERRED RETIREMENT OPTION PLAN:

Any member who has twelve years of service and who is eligible for a service retirement allowance may participate in the DROP plan. Effective July 1, 2008, a member may participate in the DROP plan retroactively based on the pension calculated as of the retroactive date selected.

1) A member can only participant once, and only up to five years.

2) When a member joins the DROP, he stops contributing to and earning benefits in the system. Employer contributions also stop. His retirement benefit is paid into his DROP account.

3) Members of the DROP do not receive cost-of-living increases.

4) Upon termination of employment at the end of the specified period of DROP participation, the DROP account is paid out in a lump sum payment.

5) If at the end of a Member's period of DROP participation he does not terminate employment, payments into the DROP account shall cease and he shall resume active contributing membership in the system.

6) There are no payments made from the DROP account until employment is terminated. Effective for DROP participation commencing on and after January 1, 2016, after employment termination DROP account balances are placed in a separate liquid asset money market investment account. Alternatively, if irrevocably elected by the member, the DROP account may continue participation in the actual investment performance (positive and negative) earned by the fund after the completion of DROP participation based on the five-year rolling average of the composite rate of return of the pension fund, less an administrative fee as determined by the board.

7) An additional benefit is paid based on the additional service, using the method of computation for his original benefit if the additional service is less than 60 months. If the additional service is 60 months or more, the average compensation is based on the additional service period.

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EXHIBIT II

FIREFIGHTERS' PENSION AND RELIEF FUND FOR THE CITY OF NEW ORLEANS STATEMENT OF ACTUARIAL BASIS FOR FUNDING PURPOSES [NEW FUND]

Actuarial Funding Method:

Cost Method:

Individual Entry Age Normal Cost Method with level dollar, open 30 year amortization of unfunded actuarial liability (effective January 1, 2015).

Asset Valuation Method:

Actuarial Assumptions

Interest:

Mortality:

Turnover:

Salary Increases:

Retirement:

Actual Market Value (effective January 1, 2015).

7.5% compounded annually.

1994 Uninsured Pensioner Table for males and females for active and retired except disabled; disabled mortality is the same with ages set forward five years.

5% of all deaths of active members are assumed to be service related. 50% of deaths of service retirees and 75% of deaths of disability retirees are assumed to be service related.

The Table of withdrawal rates is included later in this Exhibit. Additional turnover rates for active members with less than five years of service were eliminated effective with the January 1, 2015 actuarial valuation.

5.0% compounded annually.

Employees are assumed to retire after the earliest of: first, attainment of age 50 and 30 years of service; second, the later of age 55 and completion of 25 years of service; third, attainment of age 60 and completion of 12 years of service.

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STATEMENT OF ACTUARIAL BASIS FOR FUNDING PURPOSES

Actuarial Assumptions (Continued)

Disability Incidence: The Table of disability incidence rates is included later in this exhibit. 80% of disabilities are assumed to be service related. 80% of members are assumed to be married. Marriage Statistics: Cost of Living Benefits: Only cost of living increases previously granted by the Board have been included in the valuation and it has not been assumed that there will be any future increases. Any such increases will be included in the valuation if, as, and when granted by the Board. Vesting Electing Percentage: 75% of vested terminations elect deferred benefits in lieu of contribution refunds.



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FIREFIGHTERS' PENSION AND RELIEF FUND JANUARY 1, 2018 ACTUARIAL VALUATION ASSUMED RATES OF MORTALITY, WITHDRAWAL AND DISABILITY INCIDENCE BY AGE AND GENDER

| | MORTALITY | | | |
|--------|------------------|----------------|------------|-------------------------|
| AGE | MALE | FEMALE | WITHDRAWAL | DISABILITY INCIDENCE |
| 15 | .000371 | .000233 | .010000 | 003150 |
| | | | | .003150 |
| 16 | .000421 | .000261 | .010000 | .003150 |
| 17 | .000463 | .000281 | .010000 | .003150 |
| 18 | .000495 | .000293 | .010000 | .003150 |
| 19 | .000521 | .000301 | .010000 | .003150 |
| 20 | .000545 | .000305 | .010000 | .003150 |
| 21 | .000570 | .000308 | .010000 | .003150 |
| 22 | .000598 | .000311 | .010000 | .003150 |
| 23 | .000633 | .000313 | .010000 | .003150 |
| 24 | .000671 | .000313 | .010000 | .003150 |
| 25 | .000711 | .000313 | .010000 | .003150 |
| 26 | .000749 | .000316 | .010000 | .003150 |
| 27 | .000782 | .000324 | .010000 | .003150 |
| 28 | .000811 | .000338 | .010000 | .003270 |
| 29 | .000838 | .000356 | .010000 | .003450 |
| 30 | .000862 | .000377 | .010000 | .003690 |
| 31 | .000883 | .000401 | .009700 | .003990 |
| 32 | .000902 | .000401 | | |
| 33 | .000912 | | .009300 | .004350 |
| | | .000454 | .009000 | .004740 |
| 34 | .000913 | .000482 | .008700 | .005190 |
| 35 | .000915 | .000514 | .008300 | .005670 |
| 36 | .000927 | .000550 | .008000 | .006180 |
| 37 | .000958 | .000593 | - 007700 | .006750 |
| 38 | .001010 | .000643 | .007300 | .007500 |
| 39 | .001075 | .000701 | .007300 | .012500 |
| 40 | .001153 | .000763 | .006700 | .025000 |
| 41 | .001243 | .000826 | .006000 | .025000 |
| 42 | .001346 | .000888 | .005300 | .025000 |
| 43 | .001454 | .000943 | .004700 | .025000 |
| 44 | .001568 | .000992 | .004000 | .025000 |
| 45 | .001697 | .001046 | .003300 | .025000 |
| 46 | .001852 | .001111 | .003300 | .025000 |
| 47 | .002042 | .001196 | :003300 | .025000 |
| 48 | .002260 | .001297 | .003300 | .025000 |
| 49 | .002501 | .001408 | .003300 | .025000 |
| 50 | .002773 | .001536 | .003300 | .037500 |
| 51 | .003088 | .001686 | | |
| 52 | .003455 | | .003300 | .037500 |
| 53 | .003455 | .001864 | .003300 | .037500 |
| | | .002051 | .003300 | .037500 |
| 54 | .004278 | .002241 | .003300 | .037500 |
| 55 | .004758 | .002466 | .003300 | .037500 |
| 56 | .005322 | .002755 | .003300 | .037500 |
| 57 | .006001 | .003139 | :003300 | .037500 |
| 58 | .006774 | .003612 | .003300 | .037500 |
| 59 | .007623 | .004154 | .003300 | .037500 |
| 60 | .008576 | .004773 | .003300 | .037500 |
| 61 | .009663 | .005476 | .003300 | .037500 |
| 62 | .010911 | .006271 | .003300 | .037500 |
| 63 | .012335 | .007179 | .003300 | .037500 |
| 64 | .013914 | .008194 | .003300 | .037500 |
| 65 | .015629 | .009286 | .003300 | .037500 |
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| 1000 | 005353 | 000212 | | 000000 |

FIREFIGHTERS' PENSION AND RELIEF FUND JANUARY 1, 2018 ACTUARIAL VALUATION ASSUMED RATES OF MORTALITY, WITHDRAWAL AND DISABILITY INCIDENCE BY AGE AND GENDER

| | MORTALITY | | | |
|-----|-----------|---------|-----------------------|------------|
| | | | Contractor Contractor | DISABILITY |
| AGE | MALE | FEMALE | WITHDRAWAL | INCIDENCE |
| 66 | .017462 | .010423 | 0.000000 | .037500 |
| 67 | .019391 | .011574 | 0.000000 | .037500 |
| 68 | .021354 | .012648 | 0.000000 | .037500 |
| 69 | .023364 | .013665 | 0.000000 | .037500 |
| 70 | .025516 | .014763 | 0.000000 | .037500 |
| 71 | .027905 | .016079 | 0.000000 | .037500 |
| 72 | .030625 | .017748 | 0.000000 | .037500 |
| 73 | .033549 | .019724 | 0.000000 | .037500 |
| 74 | .036614 | .021915 | 0.000000 | .037500 |
| 75 | .040012 | .024393 | 0.000000 | .037500 |
| 76 | .043933 | .027231 | 0.000000 | .037500 |
| 77 | .048570 | .030501 | 0.000000 | .037500 |
| 78 | .053991 | .034115 | 0.000000 | .037500 |
| 79 | .060066 | .038024 | 0.000000 | .037500 |
| 80 | .066696 | .042361 | 0.000000 | .037500 |
| 81 | .073780 | .047260 | 0.000000 | .037500 |
| 82 | .081217 | .052853 | 0.00000 | .037500 |
| 83 | .088721 | .058986 | 0.000000 | .037500 |
| 84 | .096358 | .065569 | 0.000000 | .037500 |
| 85 | .104559 | .072836 | 0.000000 | .037500 |
| 86 | .113755 | .081018 | 0.000000 | .037500 |
| 87 | .124377 | .090348 | 0.000000 | .037500 |
| 88 | .136537 | .100882 | 0.000000 | .037500 |
| 89 | .149949 | .112467 | 0.000000 | .037500 |
| 90 | .164442 | .125016 | 0.000000 | .037500 |
| 91 | .179849 | .138442 | 0.000000 | .037500 |
| 92 | .196001 | .152660 | 0.000000 | .037500 |
| 93 | .213325 | .167668 | 0.000000 | .037500 |
| 94 | .231936 | .183524 | 0.000000 | .037500 |
| 95 | .251189 | .200229 | 0.000000 | .037500 |
| 96 | .270441 | .217783 | 0.000000 | .037500 |
| 97 | .289048 | .236188 | 0:000000 | .037500 |
| 98 | .306750 | .255605 | 0.000000 | .037500 |
| 99 | .323976 | .276035 | 0.000000 | .037500 |
| 100 | .341116 | .297233 | 0.000000 | .037500 |

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EXHIBIT IV

ACCOUNTING INFORMATION PURSUANT TO GASB STATEMENT NO. 50 Funded Status: Funding Progress and Funded Ratio

January 1, 2018 Actuarial Valuation - New Fund

This section is included to provide information required by the Governmental Accounting Standards Board Statement Number 25 and is provided for historical continuity and consistency. GASB Statements 25 and 27 have been replaced by GASB Statements 67 and 68. These two statements have made extensive and fundamental changes in the nature of the financial disclosure requirements and have effectively removed the actual funding aspects of the plan from any direct involvement. The effective date of GASB 67 (with respect to the plan itself) is the first Plan Year beginning after June 15, 2013 (namely, the Plan Year beginning January 1, 2014). The effective date of GASB 68 (with respect to the City of New Orleans as sponsoring employer) is the first Fiscal Year beginning after June 15, 2014 (namely, the Fiscal Year beginning January 1, 2015). The actuarial information for financial disclosure as required by these GASB Statements will be presented in a separate report.

"Funding Progress" is the ratio of the actuarial Unfunded Accrued Liability (UAL) under the Entry Age Normal Cost Method to the active valuation annual payroll. The UAL shown below has been determined on that basis.

The "Funded Ratio" is defined as the ratio of the actuarial value of assets to the "Projected Benefit Obligation", or PBO, within the meaning of Financial Accounting Standards Board Statement No. 87 and, in turn, the GASB Statement No. 5.

FUNDING PROGRESS (RATIO OF UAL TO VALUATION PAYROLL):

| 12/31/2016 | 12/31/2017 |
|---|--|
| 7.50% | 7.50% |
| <pre>\$ 414,297,054 42,997,738 \$ 371,299,936</pre> | \$ 416,164,859 \$ 42,194,604 \$ 373,970,255 |
| 27,148,936 | 27,762,479 |
| 1,367.6% | 1,347.0% |
| | |
| \$ 289,441,501 104,805,451 | \$ 285,992,032 109,599,320 |
| \$ 394,246,952 | \$ 395,591,352 |
| 42,997,738 | 42,194,604 |
| 10.9% | 10.7% |
| | 7.50% \$ 414,297,054 42,997,738 \$ 371,299,936 27,148,936 1,367.6% \$ 289,441,501 104,805,451 \$ 394,246,952 = 42,997,738 |

time walters Assels.

10,927,738

EXHIBIT III

ACTIVE AND INACTIVE PARTICIPANT PROFILES

FIREFIGHTERS' PENSION AND RELIEF FUND FOR THE CITY OF NEW ORLEANS 1/1/2018 ACTIVE PARTICIPANT AGE VS SERVICE GRID JANUARY 1, 2018 ACTUARIAL VALUATION NEW FUND

----- ALL ACTIVE PARTICIPANTS ------

| | | | | | | YEA | RS OF SER | VICE | | | | | TOTAL ANNUAL | AVERAGE | |
|-----|----|-----|-----|-----|-----|-------|-----------|---------|--------|-------|-----|-------|---------------|-----------|--|
| A G | E | 0-4 | 5-9 | 10 | -14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | TOTAL | SALARIES | SALARY | |
| 20- | 24 | 17 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 509,264.59 | 29,956.74 | |
| 25- | 29 | 31 | 14 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 1,546,850.84 | 34,374.46 | |
| 30- | 34 | 23 | 59 | 1 | 25 | 1 | 0 | 0 | 0 | 0 | 0 | 108 | 4,767,030.35 | 44,139.17 | |
| 35- | 39 | 4 | 42 | | 26 | 18 | 1 | 0 | 0 | 0 | 0 | 91 | 4,691,661.08 | 51,556.72 | |
| 40- | 44 | 0 | 13 | . 2 | 25 | 35 | 9 | 4 | 0 | 0 | 0 | 86 | 4,966,932.10 | 57,755.02 | |
| 45- | 49 | 0 | 10 | 12 | 14 | 24 | 17 | 10 | 5 | 0 | 0 | 80 | 5,033,723.91 | 62,921.55 | |
| 50- | 54 | 0 | 7 | 1 | 1 | 13 | 15 | 17 | 5 | 0 | 0 | 58 | 4,114,851.83 | 70,945.72 | |
| 55- | 59 | 0 | 0 | 1 | 0 | 5 | 7 | 9 | 3 | 1 | 0 | 25 | 1,906,264.80 | 76,250.59 | |
| 60- | 64 | 0 | 0 | | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 3 | 225,899.00 | 75,299.67 | |
| | | | | ••• | | | | بيفينين | ****** | | | | | | |
| | | 75 | 145 | 1 | 91 | 97 | 49 | 42 | 13 | 1 | 0 | 513 | 27,762,478.50 | 54,117.89 | |

P. 20

FIREFIGHTERS' PENSION AND RELIEF FUND FOR THE CITY OF NEW ORLEANS 1/1/2018 INACTIVE PARTICIPANT PROFILE JANUARY 1, 2018 ACTUARIAL VALUATION NEW FUND

----- RETIREES WHO RETIRED UNDER SERVICE RETIREMENT BENEFIT FORMULA ------[INCLUDES 311 RETIREES CLASSIFIED AS DISABLED AS OF VALUATION DATE]

| | | | | YEARS SIN | CE RETIRE | MENT | | | | | TOTAL | AVERAGE |
|-------|-----|-----|-------|-----------|-----------|-------|-------|-------|-----|-------|---------------|-----------|
| AGE | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | TOTAL | BENEFIT | BENEFIT |
| 50-54 | 2 | | 0 | 0 | | | | | | | 1/7 838 08 | 27 70/ 48 |
| 30-34 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 163,828.08 | 27,304.68 |
| 55-59 | 25 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 | 1,811,088.84 | 53,267.32 |
| 60-64 | 33 | 44 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 92 | 3,484,649.04 | 37,876.62 |
| 65-69 | 11 | 49 | 60 | 19 | 0 | 0 | 0 | 0 | 0 | 139 | 5,692,095.24 | 40,950.33 |
| 70-74 | 1 | 12 | 17 | 27 | 10 | 0 | 0 | 0 | 0 | 67 | 2,887,538.64 | 43,097.59 |
| 75-79 | 0 | 0 | 3 | 13 | 7 | 4 | 0 | 0 | 0 | 27 | 1,327,150.20 | 49,153.71 |
| 80-84 | 0 | 1 | 0 | 3 | 0 | 1 | 1 | 0 | σ | 6 | 286,468.32 | 47,744.72 |
| | | | | | | | | | | | | |
| | 76 | 115 | 95 | 62 | 17 | 5 | 1 | 0 | 0 | 371 | 15,652,818.36 | 42,190.89 |

FIREFIGHTERS' PENSION AND RELIEF FUND FOR THE CITY OF NEW ORLEANS 1/1/2018 INACTIVE PARTICIPANT PROFILE JANUARY 1, 2018 ACTUARIAL VALUATION NEW FUND

----- RETIREES WHO RETIRED UNDER DISABILITY RETIREMENT BENEFIT FORMULA ------

| | | | | VEADS STN | CE RETIRE | | | | | | TOTAL | AVERAGE |
|-------|-----|-----|-------|-----------|-----------|-------|-------|-------|-----|-------|--------------|-----------|
| AGE | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | TOTAL | BENEFIT | BENEFIT |
| | | | | | | | | | | | | |
| 35-39 | 5 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 117,397.32 | 16,771.05 |
| 40-44 | 1 | 5 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 9 | 162,788.28 | 18,087.59 |
| 45-49 | 5 | 4 | 9 | 6 | 0 | 0 | 0 | 0 | 0 | 24 | 394,485.84 | 16,436.91 |
| 50-54 | . 3 | 7 | 12 | 6 | 1 | 0 | 1 | 0 | 0 | 30 | 591,105.84 | 19,703.53 |
| 55-59 | 5 | 2 | 0 | 10 | 3 | 2 | 0 | 0 | 0 | 22 | 675,496.20 | 30,704.37 |
| 60-64 | 7 | 0 | 3 | 19 | 4 | 3 | 5 | 0 | 0 | 41 | 1,133,633.40 | 27,649.60 |
| 65-69 | 2 | 0 | 0 | 9 | 8 | 18 | 11 | 8 | 2 | 58 | 1,619,279.04 | 27,918.60 |
| 70-74 | 0 | 0 | 0 | 0 | 7 | 22 | 9 | 3 | 5 | 46 | 1,297,786.44 | 28,212.75 |
| 75-79 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | - 4 | 3 | 13 | 307,456.68 | 23,650.51 |
| | | | | | | | | | | | | |
| | 28 | 18 | 28 | 51 | 23 | 50 | 27 | 15 | 10 | 250 | 6,299,429.04 | 25,197.72 |

FIREFIGHTERS' PENSION AND RELIEF FUND FOR THE CITY OF NEW ORLEANS 1/1/2018 INACTIVE PARTICIPANT PROFILE JANUARY 1, 2018 ACTUARIAL VALUATION NEW FUND

| ****** | SURVIVORS | AND BENEFI | ICIARIES | |
|--------|-----------|------------|----------|--|
|--------|-----------|------------|----------|--|

| | | | | YEARS SIN | CE RETIRE | MENT | | | | | TOTAL | AVERAGE |
|-------|-----|-----|-------|-----------|-----------|-------|-------|-------|-----|-------|--------------|-----------|
| AGE | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | TOTAL | BENEFIT | BENEFIT |
| 0-19 | 6 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 28,800.00 | 3,600.00 |
| 30-34 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 38,373.72 | 9,593.43 |
| 35-39 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 39,263.88 | 19,631.94 |
| 40-44 | Ō | 1 | 1 | 0 | 0 | 2 | 0 | 0 | | 4 | 52,444.32 | 13,111.08 |
| 45-49 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 33,496.32 | 33,496.32 |
| 50-54 | 2 | 1 | 2 | - 1 | 1 | 0 | 0 | 0 | 0 | 7 | 174,765.00 | 24,966.43 |
| 55-59 | 4 | 2 | 1 | 2 0 | 1 | : 1 | D | 0 | 0 | 9 | 155,639.40 | 17,293.27 |
| 60-64 | 8 | 4 | 4 | 4 | 3 | 0 | 0 | 2 | 0 | 25 | 522,092.40 | 20,883.70 |
| 65-69 | 11 | 6 | 4 | 3 | 4 | 3 | 2 | 0 | 1 | 34 | 755,341.20 | 22,215.92 |
| 70-74 | 10 | 2 | 2 | 3 | 2 | 0 | 0 | 0 | 0 | 19 | 333,039.00 | 17,528.37 |
| 75-79 | 2 | 2 | 2 | = 1 | 0 | 0 | 0 | 1 | 0 | 8 | 145,281.72 | 18,160.22 |
| 80-84 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 25,746.36 | 25,746.36 |
| | | | | | | | | | | | | |
| | 46 | 21 | 18 | 13 | 12 | 6 | 2 | 3 | 1 | 122 | 2,304,283.32 | 18,887.57 |

P. 23

| P. 24 | | | FI | REFIGHTERS | 1/1/2018 | INACTIVE 1, 2018 / | PARTICIPA | FOR THE CI ANT PROFIL VALUATION | .E | ORLEANS | | |
|-------|-----|-----|-------|------------|------------|-----------------------|------------|---------------------------------------|-----|---------|-----------|-------------------|
| | | | | | | TERMINAT | TED VESTED |) | | | | |
| | | | | | ICE RETIRE | | | | | | TOTAL | AVERAGE ANNUAL |
| AGE | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | TOTAL | BENEFIT | BENEFIT |
| | | | | | | | | | | | | |
| 45-49 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 12,947.28 | 12,947.28 |
| 55-59 | 4.2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 13,654.92 | 13,654.92 |
| | | | ····· | | | | | | | | | |
| | | 0 | 2 | 0 | 0 | 0 | 0 | 0. | 0 | 2 | 26,602.20 | 13,301.10 |

June 27, 2018

| P. 25 | | | | FIR | EFIGHTERS | 1/1/2018 | INACTIVE 1, 2018 A | PARTICIPA | NT PROFIL | TY OF NEW E | ORLEANS | | |
|-------|------|-----|-----|-------|--------------------|--------------------|-----------------------|-----------|-----------|----------------|---------|----------------------------|------------------------------|
| | | | | | | | D.R. | 0.P | | | | | |
| | AGE | 0-4 | 5-9 | 10-14 | YEARS SIN 15-19 | CE RETIRE 20-24 | MENT 25-29 | 30-34 | 35-39 | 40+ | TOTAL | TOTAL ANNUAL BENEFIT | AVERAGE ANNUAL BENEFIT |
| 5 | 0-54 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 1,482,707.52 | 52,953.84 |
| 5 | 5-59 | 24 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 1,921,212.48 | 64,040.42 |
| 6 | 0-64 | 16 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 992,913.12 | 55,161.84 |
| 6 | 5-69 | 2 | 0 | 0 | D | 0 | 0 | 0 | 0 | D | 2 | 140,189.04 | 70,094.52 |
| | | | | | | | | | | | | | |
| | | 70 | 8 | 0 | 0 | 0 | 0 | · 0 | 0 | 0 | 78 | 4,537,022.16 | 58,166.95 |

FIREFIGHTERS' PENSION AND RELIEF FUND FOR THE CITY OF NEW ORLEANS ESTIMATED MARKET VALUE INVESTMENT PERFORMANCE BY CALENDAR YEAR

| P. | | | | | BTC | ALENDAR TEAR | | | | | <u>ч</u> |
|--|---|--|---|--|--|---|--|--|---|---|--|
| CPLAN YEAR ENDING | BEGINNING MARKET VALUE | EMPLOYER CONTRIBUTIONS FOR YEAR | EMPLOYEE CONTRIBUTIONS FOR YEAR | TRANSFERS IN FOR YEAR | TOTAL BENEFIT PAYMENTS FOR YEAR | ADMIN. EXP. PAID FOR YEAR | TRANSFERS OUT FOR YEAR | NET EXTERNAL CASH FLOW FOR YEAR | MARKET VALUE INV. INCOME FOR YEAR | ENDING MARKET VALUE | MARKET VALUE INV. PERFORMANCE FOR YEAR |
| 12/31/89 12/31/90 | 63,251,791 73,539,025 | 2,300,376 2,847,583 | 1,004,032 939,725 | 0 | | 0 461,358 | 0 | 1,727,292 1,568,648 | 8,559,942 2,526,994 | 73,539,025 77,634,667 | 13.3508% 20 3.4000% 20 |
| 12/31/91 12/31/92 12/31/93 12/31/94 12/31/95 | 77,634,667 93,596,593 103,308,388 114,891,956 113,888,819 | 2,635,584 2,932,621 2,943,408 3,060,000 2,432,809 | 1,001,139 929,870 892,937 1,003,994 880,460 | 0 0 171,213 0 | 2,684,476 2,695,511 2,905,124 | 461,358 874,479 762,243 844,397 694,170 | 0 0 0 0 | 955,096 303,536 378,591 485,686 -692,116 | 15,006,830 9,408,259 11,204,977 -1,488,823 21,286,694 | 93,596,593 103,308,388 114,891,956 113,888,819 134,483,397 | 19.2119% 10.0357% 10.8263% -1.2931% 18.7477% |
| 12/31/96 12/31/97 12/31/98 12/31/99 12/31/99 | 134,483,397 151,980,282 176,898,322 189,793,427 202,320,314 | 3,156,371 3,003,240 2,484,036 3,518,964 3,408,018 | 947, 985 824, 895 918, 554 877, 143 875, 776 | 172,480 21,212 45,406 442,875 0 | 4,245,951 5,379,188 7,126,322 | 105,923 154,421 210,208 276,321 179,682 | 0 22,411 77,850 13,155 885,209 | 287,368 -573,436 -2,219,250 -2,576,816 -5,400,446 | 17,209,517 25,491,476 15,114,355 15,103,703 -3,367,278 | 151,980,282 176,898,322 189,793,427 202,320,314 193,552,590 | 12.7831% 16.8046% 8.5980% 8.0124% -1.6868% |
| 12/31/01 12/31/02 12/31/03 12/31/04 12/31/05 | 193,552,590 181,377,427 167,583,191 186,103,196 201,013,160 | 3,013,446 3,969,948 5,176,521 8,054,342 8,086,423 | 870,889 879,824 993,560 1,019,897 956,839 | 66,809 98,744 0 19,248 | 8,722,403 10,915,756 11,407,122 | 425,740 372,959 325,982 367,781 313,531 | 614,570 0 23,611 115,635 0 | -5,370,803 -4,146,846 -5,095,268 -2,816,299 -4,029,353 | -6,804,360 -9,647,390 23,615,273 17,726,263 13,204,332 | 181,377,427 167,583,191 186,103,196 201,013,160 210,188,139 | -3.5650% -5.3805% 14.3092% 9.5976% 6.6354% |
| 12/31/06 12/31/07 12/31/08 12/31/09 12/31/10 | 211,691,854 216,049,557 233,872,821 160,001,205 158,780,489 | 9,364,984 8,883,070 10,478,360 10,983,038 11,431,455 | 928,295 1,035,535 1,128,484 1,244,825 1,372,954 | 76,137 85,453 14,894 76,512 25,746 | | 894,709 857,876 862,450 904,888 664,812 | 0 474,174 114,664 0 0 | -5,814,891 -7,037,757 -7,262,810 -11,355,891 -10,258,005 | 10,172,594 24,861,021 -66,608,806 10,135,175 11,751,117 | 216,049,557 233,872,821 160,001,205 158,780,489 160,273,601 | 4.8723% 11.6976% -28.9300% 6.5675% 7.6479% |
| 12/31/11 12/31/12 12/31/13 12/31/14 12/31/15 | 160,273,601 158,486,068 143,536,118 84,775,908 65,377,497 | 11,986,688 12,158,524 12,312,710 20,648,538 30,579,281 | 1,496,021 1,379,957 1,392,726 2,038,542 2,576,572 | 0 33,190 40,015 134,100 0 | 24,324,080 28,825,866 31,312,865 38,979,029 40,732,649 | 684,779 1,315,010 934,816 600,909 822,056 | 0 13,702 43,819 27,390 | -11,526,150 -16,569,205 -18,515,932 -16,802,577 -8,426,242 | 9,738,617 1,619,255 -40,244,278 -5,328,054 -6,683,482 | 158,486,068 143,536,118 84,775,908 62,645,277 50,267,773 | 6.3029% 1.0781% -29.9708% -6.9762% -10.9271% |
| 12/31/16 12/31/17 | 50,267,773 42,997,738 | 32,278,593 36,328,853 | 2,729,769 3,011,193 | 34,007 343,828 | 39,663,316 33,990,727 | 879,623 1,272,510 | 251,070 89,985 | -5,751,640 4,330,652 | -1,518,395 -5,133,786 | 42,997,738 42,194,604 | -3.2039% -11.3672% |
| onefry No. of Yea | ars: 29 | 270,457,784 | 36,152,392 | | | | | -142,204,864 | 116,911,742 | | |

fry & Company, LLC

FIREFIGHTERS' PENSION AND RELIEF FUND FOR THE CITY OF NEW ORLEANS ESTIMATED INVESTMENT PERFORMANCE BY MARKET VALUE AND ACTUARIAL VALUE OF ASSETS BY CALENDAR YEAR

| P. | | MARKET VALUE | | ACTUARIAL VALUE OF ASSETS | | | | |
|--|---|---|--|--|---|---|--|--|
| 27 YEAR ENDING | BEGINNING MARKET VALUE | MARKET VALUE ENDING INV. PERF. MARKET VALUE FOR YEAR | | BEGINNING ACTUARIAL VALUE OF ASSETS | ENDING ACTUARIAL VALUE OF ASSETS | ACTUARIAL ASSETS INV. 27, 20 PERF. FOR YR | | |
| 12/31/89 | 63,251,791 | 73,539,025 13.3508% | 1,727,292 | 64,933,327 | 71,595,392 | 7.5000% 6.1533% | | |
| 12/31/90 | 73,539,025 | 77,634,667 3.4000% | 1,568,648 | 71,595,392 | 77,617,769 | | | |
| 12/31/91 | 77,634,667 | 93,596,593 19.2119% 103,308,388 10.0357% 114,891,956 10.8263% 113,888,819 -1.2931% 134,483,397 18.7477% | 955,096 | 77,617,769 | 89,953,752 | 14.5731% | | |
| 12/31/92 | 93,596,593 | | 303,536 | 89,953,752 | 98,275,923 | 8.8992% | | |
| 12/31/93 | 103,308,388 | | 378,591 | 98,275,923 | 111,046,572 | 12.5852% | | |
| 12/31/94 | 114,891,956 | | 485,686 | 111,046,572 | 113,763,854 | 2.0052% | | |
| 12/31/95 | 113,888,819 | | -692,116 | 113,763,854 | 126,046,831 | 11.4401% | | |
| 12/31/96 | 134,483,397 | 151,980,282 12.7831% 176,898,322 16.8046% 189,793,427 8.5980% 202,320,314 8.0124% 193,552,590 -1.6868% | 287,368 | 126,046,831 | 143,202,836 | 13.3676% | | |
| 12/31/97 | 151,980,282 | | -573,436 | 143,202,836 | 165,130,539 | 15.7443% | | |
| 12/31/98 | 176,898,322 | | -2,219,250 | 165,130,539 | 177,000,489 | 8.5899% | | |
| 12/31/99 | 189,793,427 | | -2,576,816 | 177,000,489 | 189,850,815 | 8.7798% | | |
| 12/31/00 | 202,320,314 | | -5,400,446 | 189,850,815 | 190,974,538 | 3.4861% | | |
| 12/31/01 | 193,552,590 | 181,377,427 -3.5650% 167,583,191 -5.3805% 186,103,196 14.3092% 201,013,160 9.5976% 210,188,139 6.6354% | -5,370,803 | 190,974,538 | 193,426,182 | 4.1545% | | |
| 12/31/02 | 181,377,427 | | -4,146,846 | 193,426,182 | 180,377,277 | -4.6522% | | |
| 12/31/03 | 167,583,191 | | -5,095,268 | 180,377,277 | 189,292,029 | 7.8783% | | |
| 12/31/04 | 186,103,196 | | -2,816,299 | 189,292,029 | 193,493,695 | 3.7353% | | |
| 12/31/05 | 201,013,160 | | -4,029,353 | 193,493,695 | 196,533,991 | 3.6921% | | |
| 12/31/06 | 211,691,854 | 216,049,557 4.8723% 233,872,821 11.6976% 160,001,205 -28.9300% 158,780,489 6.5675% 160,273,601 7.6479% | -5,814,891 | 196,533,991 | 219,788,356 | 15.0131% | | |
| 12/31/07 | 216,049,557 | | -7,037,757 | 219,788,356 | 229,316,592 | 7.6599% | | |
| 12/31/08 | 233,872,821 | | -7,262,810 | 229,316,592 | 212,727,368 | -4.1325% | | |
| 12/31/09 | 160,001,205 | | -11,355,891 | 212,727,368 | 189,802,659 | -5.5875% | | |
| 12/31/10 | 158,780,489 | | -10,258,005 | 189,802,659 | 160,645,159 | -10.2340% | | |
| 12/31/11 12/31/12 12/31/13 12/31/14 12/31/14 | 160,273,601 158,486,068 143,536,118 84,775,908 65,377,497 | 158,486,068 143,536,118 84,775,908 62,645,277 50,267,773 62,045,271 -10,9271% 62,045,271 -10,9271% | -11,526,150 -16,569,205 -18,515,932 -16,802,577 -8,426,242 | 160,645,159 159,645,451 150,639,776 121,788,159 62,645,277 | 159,645,451 150,639,776 121,788,159 62,645,277 50,267,773 | 6.7964% 4.9970% -7.3105% -37.3415% -6.7621% | | |
| Conef 12/31/16 | 50,267,773 | 42,997,738 -3.2039% | -5,751,640 4,330,652 | 50,267,773 | 42,997,738 | -3.2039% | | |
| 12/31/17 | 42,997,738 | 42,194,604 -11.3672% | | 42,997,738 | 42,194,604 | -11.3672% | | |

Conefry & Company, LLC

FIREFIGHTERS' PENSION AND RELIEF FUND FOR THE CITY OF NEW ORLEANS ESTIMATED INVESTMENT PERFORMANCE BY CALENDAR YEAR

| | | BEGINNING MARKET VALUE | PLAN YEAR BEGINNING | | AN YEAR BEGINNING CASH FLOW INV. INCO | MARKET VALUE | ENDING | | MENT PERFORMA | ARKET VALUE MENT PERFORMANCE | | | |
|----|------------|---------------------------|---------------------|---------------|---------------------------------------|--------------|------------|---------|---------------|---------------------------------|--|--|--|
| P. | | MARKET VALUE | FOR YEAR | FOR YEAR | MARKET VALUE | FOR YEAR | CUMULATIVE | AVERAGE | YEAR | | | | |
| 28 | 12/31/1989 | 63,251,791 | 1,727,292 | 8,559,942 | 73,539,025 | 13.3508% | 13.35% | 13.35% | 1 | | | | |
| | 12/31/1990 | 73,539,025 | 1,568,648 | 2,526,994 | 77,634,667 | 3.4000% | 17.20% | 8.26% | 2 | | | | |
| | 12/31/1991 | 77,634,667 | 955,096 | 15,006,830 | 93,596,593 | 19.2119% | 39.72% | 11.79% | 3 | | | | |
| | 12/31/1992 | 93,596,593 | 303,536 | 9,408,259 | 103,308,388 | 10.0357% | 53.74% | 11.35% | 4 | | | | |
| | 12/31/1993 | 103,308,388 | 378,591 | 11,204,977 | 114,891,956 | 10.8263% | 70.39% | 11.25% | 5 | | | | |
| | 12/31/1994 | 114,891,956 | 485,686 | -1,488,823 | 113,888,819 | -1.2931% | 68.19% | 9.05% | 6 | | | | |
| | 12/31/1995 | 113,888,819 | -692,116 | 21,286,694 | 134,483,397 | 18.7477% | 99.72% | 10.39% | 7 | | | | |
| | 12/31/1996 | 134,483,397 | 287,368 | 17,209,517 | 151,980,282 | 12.7831% | 125.25% | 10.68% | 8 | | | | |
| | 12/31/1997 | 151,980,282 | -573,436 | :25,491,476 | 176,898,322 | 16.8046% | 163.10% | 11.35% | 9 | | | | |
| | 12/31/1998 | 176,898,322 | -2,219,250 | 15,114,355 | 189,793,427 | 8.5980% | 185.72% | 11.07% | 10 | | | | |
| | 12/31/1999 | 189,793,427 | -2,576,816 | 15,103,703 | 202,320,314 | 8.0124% | 208.61% | 10.79% | 11 | | | | |
| | 12/31/2000 | 202,320,314 | -5,400,446 | -3,367,278 | 193,552,590 | -1.6868% | 203.41% | 9.69% | 12 | | | | |
| | 12/31/2001 | 193,552,590 | -5,370,803 | -6,804,360 | 181,377,427 | -3.5650% | 192.59% | 8.61% | 13 | | | | |
| | 12/31/2002 | 181,377,427 | -4,146,846 | -9,647,390 | 167,583,191 | -5.3805% | 176.85% | 7.54% | 14 | | | | |
| | 12/31/2003 | 167,583,191 | -5,095,268 | 23,615,273 | 186,103,196 | 14.3092% | 216.46% | 7.98% | 15 | | | | |
| | 12/31/2004 | 186,103,196 | -2,816,299 | 17,726,263 | 201,013,160 | 9.5976% | 246.83% | 8.08% | 16 | | | | |
| | 12/31/2005 | 201,013,160 | -4,029,353 | 13,204,332 | 210,188,139 | 6.6354% | 269.85% | 8.00% | 17 | | | | |
| | 12/31/2006 | 211,691,854 | -5,814,891 | 810, 172, 594 | 216,049,557 | 4.8723% | 287.87% | 7.82% | 18 | | | | |
| | 12/31/2007 | 216,049,557 | -7,037,757 | 24,861,021 | 233,872,821 | 11.6976% | 333.24% | 8.02% | 19 | | | | |
| | 12/31/2008 | 233,872,821 | -7,262,810 | -66,608,806 | 160,001,205 | -28.9300% | 207.90% | 5.78% | 20 | | | | |
| | 12/31/2009 | 160,001,205 | -11,355,891 | 10,135,175 | 158,780,489 | 6.5675% | 228.13% | 5.82% | 21 | | | | |
| | 12/31/2010 | 158,780,489 | -10,258,005 | 11,751,117 | 160,273,601 | 7.6479% | 253.22% | 5.90% | 22 | | | | |
| | 12/31/2011 | 160,273,601 | -11,526,150 | 9,738,617 | 158,486,068 | 6.3029% | 275.48% | 5.92% | 23 | | | | |
| | 12/31/2012 | 158,486,068 | -16,569,205 | 1,619,255 | 143,536,118 | 1.0781% | 279.53% | 5.71% | 24 | | | | |
| | 12/31/2013 | 143,536,118 | -18,515,932 | -40,244,278 | 84,775,908 | -29.9708% | 165.78% | 3.99% | 25 | | | | |
| | 12/31/2014 | 84,775,908 | -16,802,577 | -5,328,054 | 62,645,277 | -6.9762% | 147.24% | 3.54% | 26 | | | | |
| | 12/31/2015 | 65,377,497 | -8,426,242 | -6,683,482 | 50,267,773 | -10.9271% | 120.22% | 2.97% | 27 | | | | |
| | 12/31/2016 | 50,267,773 | -5,751,640 | -1,518,395 | 42,997,738 | -3.2039% | 113.17% | 2.74% | 28 | | | | |
| | 12/31/2017 | 42,997,738 | 4,330,652 | -5,133,786 | 42,194,604 | -11.3672% | 88.94% | 2.22% | 29 | | | | |
| | | | | | | | | | | | | | |

Number of Years Included: 29

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CERTIFICATION

The foregoing report presents fairly the actuarial position of the Firefighters' Pension and Relief Fund for the City of New Orleans [New Fund] as of January 1, 2018 in accordance with generally accepted actuarial principles, applied on a basis consistent with that of the preceding valuation, except where noted. In our opinion, each of the assumptions used in preparing the liabilities and estimated costs is reasonably related to the experience of the plan and to reasonable expectations and represents our best estimate of anticipated experience under the plan.

CONEFRY & COMPANY, L.L.C.

Michael A. Conefry, FCA, ASAL/MAAA Enrollment Number 17-1235

Belle Chasse, Louisiana June, 2018

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