The Initial Valuation For

The City of Ladue

Legacy Plan as of September 30, 2017

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GRS Retirement Consulting
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January 25, 2018

The City of Ladue
Ladue, Missouri

Ladies and Gentlemen:

Submitted in this report are the results of the actuarial valuation prepared to determine the employer contribution rates required to support, for your employees, the legacy plan benefits that may be administered by the Missouri Local Government Employees Retirement System (LAGERS). This report contains the information needed to comply with Missouri state disclosure requirements regarding the adoption of LAGERS benefits by a political subdivision (Sections 105.660 - 106.685 RSMo).

If there are active members still participating in the legacy plan, the contribution requirement to pay for benefits likely to accrue as a result of future service of your employees is described as the current cost plus the disability cost. This contribution rate, expressed as a percent of active member payroll, will depend on the benefit provisions of the legacy plan.

The contribution requirement to pay for benefits likely to result from service rendered by your employees before you join LAGERS is described as the prior service cost. The value established for prior service is called the actuarial accrued liability. The value of the actuarial accrued liability in excess of the actuarial value of assets is called the unfunded actuarial accrued liability.

Section 70.730 of the Revised Statutes of Missouri requires participating employers to contribute the current cost, disability cost and prior service cost. The employer contribution rate for a legacy plan valuation group will be expressed as a dollar amount. These contributions are mandatory after official action has been taken to join the System.

The total annual dollar costs shown on the results pages represent the dollar cost for a one-year period based on the data reported for this actuarial valuation. In budgeting amounts for LAGERS contributions you should consider any changes in data which have been made since data was submitted for the valuation and any changes anticipated to be made before the end of the period for which you are preparing the budget.

The actuarial assumptions and methods used to determine the stated costs are described in Appendix II of this report. In our opinion, they do produce results which, in the aggregate, are reasonable. Additional miscellaneous and technical assumptions as well as disclosures required by the actuarial standards of practice may be found in the LAGERS Compiled Annual Actuarial Valuation report as of February 28, 2017.

The computed contributions required for LAGERS participation will permit the System to continue to operate in accordance with the actuarial principles of level cost financing and the state law which governs LAGERS. Summary benefit provisions can be found in Appendix III.

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Please note that this entire report must be available as public information for at least 45 calendar days prior to the date final official action is taken by your governing body to join the System. You may wish to make notice of this report in the official minutes of the next meeting of your governing body. This action would not be binding on your subdivision, yet would establish the beginning date of the 45-day waiting period.

In accordance with LAGERS Board policy, the employer contributions established by this valuation report are valid for purposes of joining the System for a one-year period from the date of this valuation which was September 30, 2017. The valuation was based on data furnished from your records concerning individual employees.

If you have any questions concerning this report or LAGERS in general, please contact the LAGERS office in Jefferson City.

Mita D. Drazilov and Judith A. Kermans are Members of the American Academy of Actuaries and meet the Qualification Standards of the Academy of Actuaries to render the actuarial opinions herein.

Respectfully submitted,

Mita Drazilov

Mita D. Drazilov, ASA, FCA, MAAA

Judith A. Kermans

Judith A. Kermans, EA, FCA, MAAA

The City of Ladue
General Members

		Legacy Plan as of September 30, 2017
Actuarial Accrued Liability		
Active Members	$	-
Inactive Members		242,992
Retirants and Beneficiaries		2,379,248
Total	$	2,622,240
Actuarial Value of Assets*	$	-
Unfunded Actuarial Accrued Liability	$	2,622,240
Prior Service Cost	$	282,355

* Market value of assets for the legacy plan.

A 15-year level dollar amortization period was used for the legacy plan.

Total market value of assets as of September 30, 2017 was reported to be $4,937,965. However, that is the total assets available to cover all members including actives. It is our understanding that the City of Ladue is considering joining LAGERS for the active members covering past and future service. Hence, the active members would not be included in the legacy plan. It is not known at this time what portion of assets would be available for the legacy plan. For purposes of this valuation, the amortization payment is shown assuming no assets are available. For every $1,000,000 in assets transferred into the legacy plan, the amortization payment would be lower by approximately $108,000.

The results provided in this report are preliminary numbers. Please request an updated report once the prior plan is closed to new members.

The City of Ladue
General Members

Valuation Year	Estimated Employer Contribution Annual Dollars	Unfunded Actuarial Accrued Liability
2017	$ 282,355	$ 2,622,240
2018	282,355	2,519,941
2019	282,355	2,410,226
2020	282,355	2,292,556
2021	282,355	2,166,355
2022	282,355	2,031,004
2023	282,355	1,885,841
2024	282,355	1,730,153
2025	282,355	1,563,177
2026	282,355	1,384,097

Notes regarding the above projections:

1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
2) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
3) The actual employer dollar contributions for future valuation dates will be based upon actual data as of the future valuation date.

The City of Ladue
Police Members

		Legacy Plan as of September 30, 2017
Actuarial Accrued Liability		
Active Members	$	-
Inactive Members		323,960
Retirants and Beneficiaries		10,039,309
Total	$	10,363,269
Actuarial Value of Assets*	$	-
Unfunded Actuarial Accrued Liability	$	10,363,269
Prior Service Cost	$	1,115,885

* Market value of assets for the legacy plan.

A 15-year level dollar amortization period was used for the legacy plan.

Total market value of assets for Police and Fire members as of September 30, 2017 was reported to be $34,491,058. However, that is the total assets available to cover all members including actives. It is our understanding that the City of Ladue is considering joining LAGERS for the active members covering past and future service. Hence, the active members would not be included in the legacy plan. It is not known at this time what portion of assets would be available for the legacy plan or the allocation between the Police and Fire subdivisions. For purposes of this valuation, the amortization payment is shown assuming no assets are available. For every $1,000,000 in assets transferred into the legacy plan, the amortization payment would be lower by approximately $108,000.

The results provided in this report are preliminary numbers. Please request an updated report once the prior plan is closed to new members.

The City of Ladue
Police Members

Valuation Year	Estimated Employer Contribution Annual Dollars	Unfunded Actuarial Accrued Liability
2017	$ 1,115,885	$ 10,363,269
2018	1,115,885	9,958,978
2019	1,115,885	9,525,376
2020	1,115,885	9,060,337
2021	1,115,885	8,561,584
2022	1,115,885	8,026,670
2023	1,115,885	7,452,976
2024	1,115,885	6,837,689
2025	1,115,885	6,177,793
2026	1,115,885	5,470,055

Notes regarding the above projections:

1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
2) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
3) The actual employer dollar contributions for future valuation dates will be based upon actual data as of the future valuation date.

The City of Ladue
Fire Members

		Legacy Plan as of September 30, 2017
Actuarial Accrued Liability		
Active Members	$	-
Inactive Members		425,109
Retirants and Beneficiaries		15,327,203
Total	$	15,752,312
Actuarial Value of Assets*	$	-
Unfunded Actuarial Accrued Liability	$	15,752,312
Prior Service Cost	$	1,696,160

* Market value of assets for the legacy plan.

A 15-year level dollar amortization period was used for the legacy plan.

Total market value of assets for Police and Fire members as of September 30, 2017 was reported to be $34,491,058. However, that is the total assets available to cover all members including actives. It is our understanding that the City of Ladue is considering joining LAGERS for the active members covering past and future service. Hence, the active members would not be included in the legacy plan. It is not known at this time what portion of assets would be available for the legacy plan or the allocation between the Police and Fire subdivisions. For purposes of this valuation, the amortization payment is shown assuming no assets are available. For every $1,000,000 in assets transferred into the legacy plan, the amortization payment would be lower by approximately $108,000.

The results provided in this report are preliminary numbers. Please request an updated report once the prior plan is closed to new members.

The City of Ladue
Fire Members

Valuation Year	Estimated Employer Contribution Annual Dollars	Unfunded Actuarial Accrued Liability
2017	$ 1,696,160	$ 15,752,312
2018	1,696,160	15,137,785
2019	1,696,160	14,478,704
2020	1,696,160	13,771,840
2021	1,696,160	13,013,728
2022	1,696,160	12,200,654
2023	1,696,160	11,328,631
2024	1,696,160	10,393,387
2025	1,696,160	9,390,337
2026	1,696,160	8,314,567

Notes regarding the above projections:

1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
2) Differences between the date of the initial valuation and the actuarial valuation date of February 28th have not been incorporated in the above results.
3) The actual employer dollar contributions for future valuation dates will be based upon actual data as of the future valuation date.

The City of Ladue

Summary of Data Included in the Valuation

Inactive Members as of September 30, 2017

Division	Number	Annual Benefits	Avg. Age
General	6	$ 48,782	52.1 years
Police	1	35,318	50.1 years
Fire	2	55,896	47.0 years

Retirants and Beneficiaries as of September 30, 2017

Division	Number	Annual Benefits	Avg. Age
General	21	$ 262,167	75.9 years
Police	29	977,629	71.6 years
Fire	34	1,416,652	68.1 years

Comments

Comment A: Please see Appendix I that details the Actuarial Funding Policy for legacy plans.

Comment B: The long term cost (C) of providing retirement benefits depends only on the benefits (B) that are paid to participants, the expenses (E) of administering the plan, and the investment return (I) generated on invested assets: C = B + I – E. For a given level of benefits, the cost of providing those benefits is lowered if administrative expenses are lowered or investment income is increased.

Comment C: It is expected that current and future retirees and beneficiaries from legacy plans joining LAGERS will be maintained separately from the Benefit Reserve Fund (BRF). Investment and mortality risk for legacy plan retirees would only affect the computed employer contribution rate of the legacy plan political subdivision. However, once the legacy plan meets certain conditions, the remaining retiree liabilities could be considered pooled with the BRF. These conditions are that the legacy plan has no active members and the actuarial accrued liability for the legacy plan is no greater than a Board established threshold.

Any actuarial experience (positive or negative) subsequent to the legacy plan becoming pooled will be borne by the BRF. While this provides contribution rate stability to the legacy plan, there will be no assets (if any remain) returned to the employer once the last retiree or beneficiary becomes deceased. The employer will also not be asked for additional contributions to the legacy plan if experience is worse than expected. Even if the pooled legacy plan runs out of money, benefits will continue to be paid as long as the scheduled contribution payments have been made.

APPENDIX I

ACTUARIAL FUNDING POLICY – LEGACY PLANS

Missouri LAGERS Actuarial Funding Policy – Legacy Plans

Introduction

The purpose of this Actuarial Funding Policy is to record the funding objectives and policy set by the Board of Trustees (Board) for legacy plans (i.e., old plans) that elect to participate in the Missouri Local Government Employees Retirement System (LAGERS). The Board establishes this Funding Policy to help ensure the systematic accumulation of assets needed to pay future benefits for these legacy plan members of LAGERS and to help ensure that the other participating employers in LAGERS are not materially affected by these legacy plans' participation in LAGERS.

In 2012, the Governmental Accounting Standards Board (GASB) approved two new financial reporting standards. GASB Statement No. 67, "Financial Reporting for Pension Plans" replaces the requirements of Statement No. 25. GASB Statement No. 68, "Accounting and Financial Reporting for Pensions" replaces the requirements of Statements No. 27 and No. 50. The new GASB statements separate accounting cost (expense) from funding cost (contributions), necessitating the creation of this funding policy.

The LAGERS Board of Trustees adopted this Funding Policy in October, 2017. This funding policy shall be reviewed by the Board annually through the completion of the first experience study after adoption of this Funding Policy. Subsequently, it shall be reviewed every five years in conjunction with the experience study.

Funding Objectives

1. Maintain adequate assets so that current plan assets plus future contributions and investment earnings should be sufficient to fund all benefits expected to be paid to members and their beneficiaries.
2. Maintain stability of employer contribution rates, consistent with other funding objectives.
3. Maintain public policy goals of accountability and transparency. Each policy element is clear in intent and effect, and each should allow an assessment of whether, how and when the funding requirements of the plan will be met.
4. Monitor material risks to assist in any risk management strategies the Board deems appropriate.
5. Promote intergenerational equity. Each generation of members and employers should incur the cost of benefits for the employees who provide services to them, rather than deferring those costs to future members and employers.
6. Provide a reasonable margin for adverse experience to help offset risks.
7. Review investment return assumption in conjunction with the periodic asset liability study and in consideration of the Board's risk profile.
8. Continue progress of systematic reduction of the Unfunded Actuarial Accrued Liabilities (UAAL).
9. Ensure that the participation in LAGERS by legacy plans does not significantly affect the risks associated with LAGERS participation for other LAGERS participating employers.

1. **Actuarial Cost Method**

   The Individual Entry Age Normal actuarial cost method of valuation shall be used in determining Actuarial Accrued Liability (AAL) and Normal Cost. Differences in the past between assumed experience and actual experience ("actuarial gains and losses") shall become part of the AAL. The Normal Cost shall be determined on an individual basis for each active member.

2. **Actuarial (Funding) Value of Assets Method**

   The investment gains or losses of each valuation period, resulting from the difference between actual investment return and assumed investment return, shall be recognized annually in level amounts over five years in calculating the Funding Value of Assets. Regardless of the results obtained from the smoothing method described above, the Funding Value of Assets shall not diverge from the Market Value of Assets by more than 20%.

3. **Amortization Method**

   a. For each employer, a level percent of payroll amortization method shall be used to systematically pay off the UAAL over a closed period of years.

   b. The amortization period associated with each amortization base for an employer will be a closed period of years.

   c. Changes in the UAAL due to actuarial gains or losses for each annual actuarial valuation or from changes to actuarial assumptions will be amortized over a closed 15-year period. For legacy plans that only have non-active members, changes in the UAAL due to actuarial gains or losses for each annual actuarial valuation or from changes to actuarial assumptions will be amortized over a closed 10-year period.

   d. For legacy plans that have active members, the initial UAAL for a new employer joining LAGERS will be amortized over a closed 20-year period. For legacy plans that only have non-active members, the initial UAAL for a new employer joining LAGERS will be amortized over a closed 15-year period.

4. **Funding Target, Computed Employer Contribution Rates, Interest Credits and Participation in the Casualty Reserve Fund and Benefit Reserve Fund**

   a. The targeted funded ratio shall be 100%.

   b. With the exception of provision 4.h, a valuation group of a legacy plan will be separately experience rated. That is, the legacy plan will not participate in the Casualty Reserve Fund (CRF) nor the Benefit Reserve Fund (BRF) and the actuarial experience of all the legacy plan's members will only affect the actuarial valuation results of the legacy plan's valuation group.

   c. For a valuation group (e.g., police), if there are both LAGERS members and legacy plan members, separate employer contribution rates will be computed. The employer contribution rate for a legacy plan valuation group will be expressed as a dollar amount.

   d. When a legacy plan joins LAGERS, if there are both LAGERS members and legacy plan members, the LAGERS valuation group's employer contribution rate will become the uncapped employer contribution rate.

e. For the 1% of payroll contribution rate increase limitation provided in Section 70.730 of the Revised Statutes of Missouri (RSMo), a combined employer contribution rate expressed as a percentage of total (i.e., LAGERS plus legacy plan) payroll will be determined (including when the legacy plan has active members and when the legacy plan does not have active members). Both the LAGERS valuation group's employer contribution rate and the combined employer contribution rate shall be subject to the 1% of payroll contribution increase limitation.

f. Benefit payments for retirees of the legacy plan will be paid out of the Employer Accumulation Fund (EAF) until the conditions in 4.h. are met.

g. For the year end June 30th interest crediting process, interest credits shall first be allocated between legacy plans and LAGERS plans to ensure that legacy plans and LAGERS plans receive the same market value interest credits. After this initial step, for LAGERS plans, the standard interest crediting process will occur. For legacy plans, an interest crediting process will be established to follow legacy plans' benefit provisions.

h. When a legacy plan meets the following conditions, the legacy plan may participate in the pooled BRF (this is determined at the valuation group level)
   i. The legacy plan has no active members
   ii. The actuarial accrued liability for the legacy plan is no greater than a Board established threshold

   If applicable, at the time a legacy plan first participates in LAGERS, the legacy plan's initial valuation actuarial accrued liability will be rolled-forward to the legacy plan's LAGERS membership date for purposes of applying this test.

i. If the legacy plan meets the requirements of provision 4.h, then
   i. If the legacy plan has a positive UAAL, a fixed payment schedule may be established over a reasonable number of years to be determined by LAGERS Staff (e.g., 10 to 15 years)
   ii. If the legacy plan has a negative UAAL, the overfunding amount may be used in the computation of the LAGERS plan employer contribution rate
   iii. Any actuarial experience (positive or negative) subsequent to the transfer of the legacy plan to the BRF will be borne by the BRF

5. Risk Management

a. Assumption Changes

   i. The actuarial assumptions used for investment return, wage inflation and mortality shall be those last adopted by the Board based on the most recent experience study and upon the advice of the actuary. All other necessary actuarial assumptions shall be established based upon the professional judgement of the actuary and may be subject to Board approval. The actuary may review legacy plan assumptions in conjunction with the normal five-year experience study process.

   ii. The actuarial assumptions can be updated during the five-year period if significant plan design changes or other significant events occur, as advised by the actuary.

b. Risk Measures

   The following risk measures will be annually determined to provide quantifiable measurements of risk and their movement over time. For employers that have both a legacy plan and a LAGERS plan, combined results may be shown. The risk measures will be measured at the System level and employer level with the exception of (ii) which will be measured at the System level only.

i. Classic measures currently determined

   A. Funded ratio (actuarial value of assets / actuarial accrued liability)

   B. UAAL amortization period (years required to pay down the UAAL based on current funding rates)

ii. Dollar standard deviation of investment return / Total Payroll

   – Measures the risk associated with negative asset returns relative impact on the funded status of the plan. A decrease in this measure indicates a decrease in investment risk.

iii. Total UAAL / Total Payroll

   – Measures the risk associated with contribution decreases relative impact on the ability to fund the UAAL. A decrease in this measure indicates a decrease in contribution risk.

iv. Total Actuarial Value of Assets / Total Payroll

   – Measures the risk associated with the ability to respond to asset experience through adjustments in contributions. A decrease in this measure indicates a decrease in asset risk.

v. Total AAL / Total Payroll

   – Measures the risk associated with the ability to respond to liability experience through adjustments in contributions. A decrease in this measure indicates a decrease in experience risk. This also provides a long-term measure of the asset risk in situations where the System has a funded ratio below 100%.

d. Risk Control

The Board shall carefully monitor the risk measures above and shall consider steps to mitigate risk, particularly as the funded ratio increases. Risk mitigation may involve a reduction in the assumed rate of investment return. Examples of risk mitigating techniques include, but are not limited to:

i. Review asset allocation with a goal of reducing the standard deviation of the portfolio return

ii. Reduce asset-liability mismatching

Glossary

1. **Actuarial Accrued Liability (AAL):** The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability."
2. **Actuarial Assumptions:** Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

3. **Actuarial Cost Method:** A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."
4. **Actuarial Gain (Loss):** A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used. For example, if during a given year the assets earn more than the investment return assumption, the amount of earnings above the assumption will cause an unexpected reduction in UAAL, or "actuarial gain" as of the next valuation. These include contribution gains and losses that result from actual contributions made being greater or less than the level determined under the policy.
5. **Actuary:** A person who is trained in the applications of probability and compound interest to problems in business and finance that involve payment of money in the future, contingent upon the occurrence of future events. Most actuaries in the United States are Members of the American Academy of Actuaries (MAAA). The Society of Actuaries is an international research, education and membership organization for actuaries in the life and health insurance, employee benefits, and pension fields. It administers a series of examinations leading initially to Associateship and the designation ASA and ultimately to Fellowship with the designation FSA.
6. **Amortization:** Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.
7. **Asset Liability Study:** A comprehensive strategic asset allocation review designed to assess the continuing appropriateness of the Investment Objectives and Asset Allocation Policy. It includes a study of future benefit payments, liabilities, required funding, the appropriateness of the actuarial interest rate assumption and the prospective funded status of liabilities. It may also include a study of portfolio design for optimal diversification and comparisons with peer practices.
8. **Entry Age Normal Actuarial Cost Method:** A funding method that calculates the Normal Cost as a level percentage of pay over the working lifetime of the plan's members.
9. **Experience Study:** An actuarial investigation of demographic and economic experiences of the system during the period studied. The investigation is made for the purpose of updating the actuarial assumptions used in valuing the actuarial liabilities.
10. **Funding Value of Assets**: The value of current plan assets recognized for valuation purposes. Generally based on a phased-in recognition of all or a portion of market related investment return. Sometimes referred to as Actuarial Value of Assets.
11. **Market Value of Assets:** The fair value of plan assets as reported in the plan's financial statements.
12. **Normal Cost (NC):** The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.
13. **Unfunded Actuarial Accrued Liability (UAAL):** The difference, if any, between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability."

APPENDIX II

SUMMARY OF FINANCIAL ASSUMPTIONS

Summary of Assumptions Used in Actuarial Valuations

Assumptions Adopted by Board of Trustees After Consulting With Actuary

1. The investment return rate used in making the valuations was 7.25% per year, net of investment expenses, compounded annually. This rate of return is not the assumed real rate of return. The real rate of return is the rate of investment return in excess of the inflation rate. The price inflation rate used in making the valuations was 2.50% and the wage inflation rate used in making the valuations was 3.25%. The investment return rate translates to an assumed real rate of return over price inflation of 4.75% and over wage inflation of 4.00%. Adopted 2011 and 2016.

2. The healthy retiree mortality tables, for post-retirement mortality, used in evaluating allowances to be paid were the RP-2014 Healthy Annuitant mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The disabled retiree mortality tables, for post-retirement mortality, used in evaluating allowances to be paid were the RP-2014 disabled mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The pre-retirement mortality tables used were the RP-2014 employees mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. For both the post-retirement and pre-retirement tables, the base year for males was then established to be 2017. Mortality rates for a particular calendar year are determined by applying the MP-2015 mortality improvement scale to the above described tables. Adopted 2016.

3. The probabilities of withdrawal and disability from service, together with individual pay increase assumptions, are shown in Schedule 1. Adopted 2016.

4. The probabilities of retirement with an age and service allowance are shown in Schedule 2. Adopted 2016.

5. Post-retirement cost of living allowances are assumed to be 2.50% per year. Adopted 2016.

6. Total active member payroll is assumed to increase a year, which is the portion of the individual pay increase assumptions attributable to wage inflation. In effect, this assumes no change in the number of active members per employer. Adopted 2016.

7. An individual entry-age actuarial cost method of valuation was used in determining age and service allowance actuarial liabilities and normal cost. Adopted 1986.

8. The data about persons now covered was furnished by the political subdivision. Although examined for general reasonableness, the data was not audited by us.

Schedule 1.

Separations From Active Employment (Not Including Death-In-Service) Before Age & Service Retirement and Individual Pay Increase Assumptions

		Percent of Active Members Separating Within Next Year							
		General Members							
Sample	Years of	Men		Women		Police		Fire	
Ages	Service	Disability	Withdrawal	Disability	Withdrawal	Disability	Withdrawal	Disability	Withdrawal
All	0		19.00%		22.00%		18.00%		10.00%
	1		17.00		20.00		17.00		8.00
	2		15.00		17.00		16.00		7.00
	3		13.00		14.00		13.00		6.00
	4		11.00		13.00		12.00		6.00
25	5 & Over	0.09%	7.30	0.02%	10.80	0.10%	9.80	0.06%	5.00
30		0.12	6.50	0.03	8.90	0.11	7.80	0.10	4.00
35		0.15	5.00	0.06	7.40	0.16	6.10	0.23	2.80
40		0.21	3.70	0.10	5.70	0.22	4.40	0.35	2.20
45		0.30	3.00	0.16	4.20	0.34	3.20	0.56	1.80
50		0.44	2.40	0.24	3.30	0.53	1.80	0.85	1.00
55		0.68	1.80	0.34	2.50	0.88	1.00	1.31	0.50
60		1.02	1.00	0.48	1.20		0.00		0.00
65			0.00		0.00		0.00		0.00

	Percent Increase in Individual's Pay During Next Year	
Sample Ages	General & Police	Fire
25	6.55%	7.15%
30	5.75	6.05
35	5.25	5.15
40	4.75	4.45
45	4.25	4.15
50	3.85	3.85
55	3.65	3.65
60	3.55	3.25
65	3.25	3.25

Schedule 2.

Percent of Eligible Active Members Retiring Within Next Year Without Rule of 80 Eligibility

Early Retirement

Retirement	General Members	
Ages	Men	Women
55	3.00%	3.00%
56	3.00%	3.00%
57	3.00%	3.00%
58	3.00%	3.00%
59	3.00%	3.00%

Retirement		
Ages	Police	Fire
50	2.50%	2.50%
51	2.50%	2.50%
52	2.50%	2.50%
53	2.50%	2.50%
54	2.50%	2.50%

Normal Retirement

Retirement	General Members	
Ages	Men	Women
60	10%	10%
61	10	10
62	25	15
63	20	15
64	20	15
65	25	25
66	25	25
67	20	25
68	20	25
69	20	20
70	100	100

Retirement		
Ages	Police	Fire
55	10%	13%
56	10	13
57	10	13
58	10	13
59	10	13
60	10	15
61	10	15
62	25	20
63	20	20
64	20	20
65	100	100

Schedule 2. (Continued)

Percent of Eligible Active Members Retiring Within Next Year With Rule of 80 Eligibility

Retirement	General Members			
Ages	Men	Women	Police	Fire
50	15%	15%	25%	25%
51	15	15	25	20
52	15	15	15	20
53	15	15	15	20
54	15	15	15	20
55	15	15	15	20
56	15	15	15	20
57	15	15	15	25
58	15	15	15	25
59	15	15	15	25
60	15	15	15	35
61	15	15	25	35
62	30	15	30	45
63	30	15	30	45
64	30	20	30	45
65	30	25	100	100
66	30	25		
67	30	25		
68	30	25		
69	30	25		
70	100	100		

APPENDIX III

SUMMARY OF BENEFIT PROVISIONS

The City of Ladue
General Members
Brief Summary of Benefit Provisions
as of September 30, 2017

A summary of the current primary provisions of the Plan is presented below. A complete description of the provisions can be found in Ordinance 1931.

Effective Date

Originally effective January 1, 1968; most recently restated effective November 19, 2007 and amended December 17, 2012.

Eligibility

Any regular, full-time, permanent employee of the City of Ladue who is not covered by the City of Ladue Police or Fire departments becomes eligible the first day of the month following hire date.

Employee Contributions

Employees are no longer required to contribute to the Pension Fund. Contributions accumulate at an interest rate of 4% as established by the Retirement Committee.

Compensation

Calendar year compensation paid to an employee by the City of Ladue, including LTD premiums, temporary disability payments, and employee contributions to an eligible deferred compensation plan, cafeteria plan, or transportation expense program.

Final Average Compensation (FAC)

Average monthly salary during the highest 36 consecutive months of salary within the last 120 months of employment, or average monthly salary during an employee's entire employment if employed less than 36 months. The FAC for a disabled participant is determined as of the date of disability.

Credited Service

Completed months of continuous service from date of hire to date of termination, including periods on disability and Family and Medical Leave.

Normal Retirement

Eligibility: Age 62.

Benefit: 1.25% of FAC multiplied by Credited Service not in excess of 35 years.

Members who terminated on or after January 1, 2000 are also entitled to a refund of any accumulated employee contributions with interest.

Disability Benefit

Eligibility: 10 years of Credited Service including period of disability.

Benefit: The disability benefit is paid outside the Plan by the City's Long-Term Disability Plan for disabilities that occur after January 1, 2008. Upon attaining Early or Normal Retirement eligibility, a disabled member is entitled to the Early or Normal Retirement Benefit based on FAC at Date of Disability and Credited Service including the period while on LTD.

Early Retirement

Eligibility: Age 55 with 10 years of Credited Service.

Benefit: Accrued Benefit based on FAC and Credited Service at retirement actuarially reduced for early commencement.

Members who terminated on or after January 1, 2000 are also entitled to a refund of any accumulated employee contributions with interest.

Termination Benefit

All members who terminated on or after January 1, 2000 are entitled to a refund of any accumulated employee contributions with interest. A member with at least 10 years of Credited Service is also entitled to the Accrued Benefit based on FAC and Credited Service at termination actuarially adjusted for date of retirement.

Late Retirement Benefit

Accrued Benefit based on FAC and Credited Service at retirement.

Members who terminated on or after January 1, 2000 are also entitled to a refund of any accumulated employee contributions with interest.

Pre-Retirement Death Benefit

The spouse of a member who has completed 10 years of Credited Service or attained age 62 is entitled to the amount the spouse would have received had the member retired any time after attaining age 55 and elected the 100% Joint and Survivor Annuity, based on FAC and Credited Service at the time of death.

Normal Form of Payment

Joint & 50% Survivor Annuity for married members, Single Life Annuity for single members.

The City of Ladue
Police and Fire Members
Brief Summary of Benefit Provisions
as of September 30, 2017

A summary of the current primary provisions of the Plan is presented below. A complete description of the provisions can be found in Ordinance 1932, as amended by Ordinances 2032 and 2056.

Effective Date

Originally effective May 1, 1947; most recently restated effective November 19, 2017 and most recently amended December 17, 2012.

Eligibility

Any salaried uniformed employee of the Fire Department or Police Department of the City of Ladue becomes eligible after his first hour of employment.

Employee Contributions

Each Employee shall contribute 6.0% of salary to the Pension Fund in 2014 and thereafter. Contributions accumulate at an interest rate of 4% as established by the Board of Trustees.

Salary

Calendar year compensation paid to an employee by the City of Ladue, including LTD premiums, temporary disability payments, and employee contributions to an eligible deferred compensation plan, cafeteria plan, or transportation expense program.

Final Average Salary (FAS)

Average monthly salary during the last 60 months of employment, or average monthly salary during an employee's entire employment if employed less than 60 months. The FAS for a disabled participant is determined as of the date of disability.

Career Average Salary (CAS)

Average monthly salary during an employee's entire employment. The CAS for a disabled participant is determined as of the date of disability.

Years of Service

Sum of continuous periods of service from date of hire to date of termination, including periods on LTD, Family and Medical Leave, and absences without pay lasting less than 31 consecutive days. Does not include partial years of service.

Normal Retirement

Eligibility: Age 55 with 10 Years of Service.

Benefit: Employees hired prior to January 1, 2013:

Less than 20 Years of Service: 2% of CAS multiplied by Years of Service.

At least 20 Years of Service: 40% of FAS + 2.5% of FAS multiplied by Years of Service in excess of 20 up to a maximum of 10.

Employees hired on or after January 1, 2013:

Less than 30 Years of Service: 2% of CAS multiplied by Years of Service.

At least 30 Years of Service: 60% of FAS.

Disability Benefit:

Eligibility: 10 Years of Service including period of disability.

Benefit: Disability Benefits are paid outside the Plan by the City’s Long-Term Disability Plan for disabilities that occur after January 1, 2008. Upon attaining Early or Normal Retirement eligibility, a disabled member is entitled to the Early or Normal Retirement Benefit based on FAS at Date of Disability and Credited Service including the period while on LTD.

Early Retirement

Eligibility: Age 50 with 10 Years of Service.

Benefit: Accrued Benefit based on FAS or CAS and Years of Service at retirement actuarially reduced for early commencement.

Vested Termination Benefit

Less than 10 Years of Service: Refund of contributions with interest.

At least 10 Years of Service: Either refund of contributions with interest or the participant's Accrued Benefit based on FAS or CAS and Credited Service at termination actuarially adjusted for date of retirement.

Deferred Retirement

A member may defer his pension after age 55 upon discretion of the City Council.

Death Benefit

Active Duty: 50% of FAS plus 10% of FAS for each Dependent Child to a maximum of three.

Active Non-Duty: 5% of FAS multiplied by Years of Service up to a maximum of 24% of FAS plus 2% of FAS multiplied by Years of Service up to a maximum of 10% of FAS for each Dependent Child to a maximum of three.

Duty Disability (Disabled prior to January 1, 2008): 40% of FAS plus 10% of FAS for each Dependent Child to a maximum of three.

Non-Duty Disability (Disabled prior to January 1, 2008): Two thirds of the benefit the disabled retiree was receiving plus one third of the benefit the disabled retiree was receiving for each Dependent Child to a maximum of three.

Cost-of-Living Adjustment (COLA)

Benefits commencing on or after April 17, 1972 are adjusted each January 1 for an annual COLA based on the Consumer Price Index on September 30 prior to the adjustment date. COLAs are limited to a maximum annual increase of 2% and a lifetime maximum of 20%. If the CPI is less than 1% during a year, there shall be no adjustment, and if the CPI is negative, there shall be no adjustment unless the decrease is 2% or more. Retirees and disabled members (who became disabled prior to January 1, 2008) first become eligible for the COLA on the second January 1st following retirement.

Normal Form of Payment

Life Annuity with a 50% post retirement death benefit payable to a spouse (who has attained age 50) and eligible children (single and below age 18).

GRS Retirement Consulting

800.521.0498 | P: 248.799.9000 | F: 248.799.9020 | www.grsconsulting.com

January 25, 2018 E-mail

Mr. Robert Wilson, Executive Secretary
Missouri Local Government
Employees Retirement System
P.O. Box 1665
Jefferson City, Missouri 65102

Dear Bob:

Enclosed is the report of the September 30, 2017 Initial Actuarial Valuation of LAGERS benefits for the employees of

The City of Ladue

Sincerely,

Mita D. Drazilov, ASA, FCA, MAAA

MDD:wp:bd