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January 15, 2009

Ms. Nancy Hartline
Business Operations Manager
Bureau of Fire & Police Disability & Retirement

Via E-Mail

Subject: Summary Pension Valuation Results as of July 1, 2008

Dear Nancy:

This letter is intended to provide you with a high-level summary of the results of our July 1, 2008, valuation of the pension program for the Fire & Police Disability & Retirement Fund (FPDR). As you are aware, we have also conducted a review of historical program experience in order to set economic and demographic assumptions for this valuation. This letter also contains a high-level summary of the assumptions so developed.

Please note that this letter is not intended to be comprehensive. Full details regarding valuation results, including comprehensive information on census data, actuarial assumptions & methods and plan provisions valued will be included in our formal written report. We plan to issue that report in advance of the February meeting of the FPDR Board.

Overall Valuation Results

A summary of the overall valuation results are in Exhibit A. Please note that the calculated July 1, 2008, Pension Actuarial Accrued Liability (AAL) is approximately \$2.217 billion, which is an increase of approximately \$400 million over the July 1, 2006, amount of \$1.818 billion. The increase in AAL was essentially caused by a recommended decrease in the discount rate used to calculate the net present value of future cash flows. The 2006 valuation used a 6.04 percent rate, while we are using a 4.50 percent rate. This rate change accounted for an increase in AAL of approximately \$466 million. A variety of other effects in combination led to decrease of approximately \$66 million in AAL. These effects include:

- The value of new benefits granted during the 2006/2007 and 2007/2008 plan years
- The release of liability due to benefit payments made during those plan years
- The effect of demographic experience different than assumed during those plan years
- A “time value of money” effect for the increased value of future projected benefits

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- The effect of suggested changes to actuarial assumptions other than the discount rate
- The correction to current and projected benefits related to the tax adjustment discovered during 2008, and
- The creation of the FPDR Three benefit tier

As noted in the exhibit, the program's Annual Required Contribution (ARC) is \$186.9 million based on this valuation. Since the program conducts valuations biennially, we think it is appropriate to use the \$186.9 million amount be used as the GASB 25/27 ARC for both the FY09 and FY10 CAFRs barring any significant changes to the program during that time.

Data Used

This valuation utilized July 1, 2008, snapshot participant census data as provided to Mercer by FPDR. The data was used without audit but appeared upon review to be reasonable. A high level summary of the active and inactive data follows in the tables below.

Active Participants	Police	Fire
Headcount	924	677
Average Age	39.8	39.6
Average Service	11.5	12.2
Average 2008/09 Pay Rate	\$69,424	\$71,700

Inactive Participants	Retiree/Beneficiary/ Alternate Payees	Preretirement Disabled	Terminated Vested
Headcount	1,819	96	47
Average Age	68.7	52.9	41.2
Average Monthly Benefit	\$3,960	\$3,766	\$1,381

Per our understanding of the governing City Charter, the program's assets are restricted to \$750,000 for purposes of performing GASB calculations.



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Assumptions

As part of our actuarial valuation, we collected historical census data from both FPDR and the prior actuary in order to review historical experience as a guide to setting demographic and economic assumptions. The data collected extended from July 1, 2002, to July 1, 2008, which provided a statistically credible sample for most assumptions. As an outcome, of this study we are making the following key recommendations regarding assumption changes. High-level information on key assumption changes is included in Appendix B of this letter, with full detail to be provided in our formal valuation report and in our February Board presentation. In summary, we are recommending changes to:

- Discount Rate – 4.50 percent to be aligned with current long-term expectations for yields on short-to-mid duration high-quality fixed income instruments
- Disability Incidence – A lowering of rates based on experience analysis
- Salary Increase – A decrease in most rates, with much of the decrease caused by a lowering of the inflation assumption from 3.50 percent to 2.75 percent
- Participant & Beneficiary Mortality – Update to a modern table, with an adjustment based on recent safety officer mortality experience in the Oregon PERS program
- Retirement Timing – A change to rates based on recent experience, with some rates increasing and others decreasing
- Preretirement Termination of Employment – Introduction of a modest termination assumption for mid-career participants based on historical termination levels

We think that a best practice regarding these assumptions would be to review them with the FPDR Board at their February meeting and then submit to the Board for final approval.

Actuarial Methods

Per the request of FPDR and the City of Portland, the actuarial cost method used to determine the Actuarial Accrued Liability, Normal Cost and Annual Required Contribution is the same as was used in the prior valuation. This method is the Attained Age Normal cost method, with a 30-year level dollar amortization of unfunded Actuarial Accrued Liability. A variety of cost methods are available to sponsors, and each cost method will produce differing liability and cost measures.

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Provisions

The provisions valued will be detailed in our formal report, but essentially follow the provisions outlined in the prior actuary's July 1, 2006, report with the following exceptions:

- Correction to the Senate Bill/House Bill tax true up calculation for current and future retirees
- Creation of a new tier (FPDR Three) as an outcome of a voter-enacted City Charter amendment since the prior valuation

Please note that these amounts do not include any provision for the projected costs of post-disablement or post-retirement medical expenses by the fund. We believe that those liabilities are properly captured under the provisions of GASB 45 relating to Other Post-Employment Benefits (OPEB). We will be issuing a July 1, 2008, OPEB GASB 45 valuation later this quarter after completion of the pension and levy adequacy analysis.

We are available to answer any questions on the material in this letter or to provide explanations or further details as appropriate. The undersigned credentialed actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. We are not aware of any direct or material indirect financial interest or relationship, including investments or other services that could create a conflict of interest that would impair the objectivity of our work.

Please feel free to contact us with any questions or concerns regarding this letter.

Sincerely,

[MRL]

Matthew R. Larrabee, FSA, EA, MAAA
Principal

MRL/sdp/mm:gjw
Enclosure

Copy:
Michael Moehle, Angela Schiebout

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The information contained in this document (including any attachments) is not intended by Mercer to be used, and it cannot be used, for the purpose of avoiding penalties under the Internal Revenue Code that may be imposed on the taxpayer.

Bureau of Fire Police Disability Retirement

Exhibit A: Calculation of Pension Actuarial Cost

1	Total Projected Liability	2,910,197,199
2	Total Accrued Liability	2,217,414,215 *
3	Market Value of Assets	750,000
4	Unfunded Accrued Liability (2 - 3)	2,216,664,215
	Present Value of Future Normal Costs	
5	(1 - 2)	692,782,984
6	Present Value of Future Base Pay	1,372,406,467
	Normal Cost as a Percentage of Base	
7	Pay (5 ÷ 6)	50.48%
8	Projected Next Year's Base Pay	112,200,110
9	Normal Cost in dollars (7 * 8)	56,638,616
	30-year level dollar amortization of	
10	Unfunded Accrued Liability	130,224,341
11	Annual Required Contribution (9 + 10)	186,862,957
	Annual Required Contribution as a	
12	Percentage of Base Pay (11 ÷ 8)	166.54%

* Lowering the discount rate from 6.04% to 4.50% with the July 1, 2008 valuation increased Accrued Liability by \$466 million.

Post-retirement and post-disability medical costs are excluded from these calculations.

Bureau of Fire Police Disability Retirement

Exhibit B-1: Retirement Assumptions

Assumed retirement rates were updated to the following age-based tables, with separate rates for Police versus Fire members. Retirement rates are not applied to an individual participant until the earlier of (a) age 50 & 25 years of service or (b) age 55.

Age	Police	Fire
50	60.00%	25.00%
51	40.00%	20.00%
52	40.00%	20.00%
53	40.00%	20.00%
54	40.00%	20.00%
55	40.00%	25.00%
56	40.00%	25.00%
57	40.00%	25.00%
58	40.00%	33.00%
59	40.00%	50.00%
60	40.00%	100.00%
61	40.00%	100.00%
62	60.00%	100.00%
63	60.00%	100.00%
64	60.00%	100.00%
65	100.00%	100.00%

Bureau of Fire Police Disability Retirement

Exhibit B-2: Withdrawal Assumptions

Withdrawal assumption rates were updated to the following service-based table, applicable to both Police and Fire members.

Years of Service	Police & Fire
0	25.00%
1	25.00%
2	0.75%
3	0.75%
4	0.75%
5	0.75%
6	0.75%
7	0.75%
8	0.75%
9	0.75%
10	0.75%
11	0.75%
12	0.75%
13	0.75%
14	0.75%
15	0.75%
16	0.75%
17	0.75%
18	0.75%
19	0.75%
20	0.75%
21	0.75%
22	0.75%
23	0.75%
24	0.75%
25+	0.75%

Bureau of Fire Police Disability Retirement

Exhibit B-3: Disability Incidence Assumption

Assumed incidence of disability was changed to the following table of rates by age band, applicable to both Police and Fire members. Additionally, 90% of disabilities are assumed to be duty-related.

Age	Police & Fire
20-24	0.25%
25-29	0.25%
30-34	0.25%
35-39	0.25%
40-44	0.60%
45-49	0.60%
50-54	0.90%
55-59	0.90%
60+	0.90%

Bureau of Fire Police Disability Retirement

Exhibit B-4: Salary Increase Assumption

The assumed rate of salary increase was updated to the following serviced-based tables, with separate rates for Police versus Fire members.

Years of Service	Police	Fire
0	14.00%	14.00%
1	14.00%	14.00%
2	14.00%	14.00%
3	8.00%	12.00%
4	8.00%	12.00%
5	8.00%	10.00%
6	5.00%	7.50%
7	3.75%	4.25%
8	3.75%	4.25%
9	3.75%	4.25%
10	3.75%	4.25%
11	3.75%	4.25%
12	3.75%	4.25%
13	3.75%	4.25%
14	3.75%	4.25%
15	3.75%	4.25%
16	3.75%	4.25%
17	3.75%	4.25%
18	3.75%	4.25%
19	3.75%	4.25%
20	3.75%	4.25%
21	3.75%	4.25%
22	3.75%	4.25%
23	3.75%	4.25%
24	3.75%	4.25%
25+	3.75%	4.25%