Douglas L. Rowe, FSA, MAAA, EA
Principal

One South Street, Suite 1001
Baltimore, MD 21202
410 347 2806 Fax 410 727 3347
douglas.rowe@mercer.com
www.mercer.com

MERCER

MARSH MERCER KROLL
GUY CARPENTER OLIVER WYMAN

Mr. Thomas Taneyhill
Executive Director
Baltimore City Fire and Police Employees' Retirement System
7 E. Redwood Street
4th Floor
Baltimore, MD 21202

October 18, 2010

Subject: Cost Impact of Proposed Changes to the City of Baltimore Fire & Police Employees' Retirement System under Council Bill 10-0603

Dear Tom:

As requested by the Board of Trustees of the Fire and Police Employees' Retirement System, we have estimated the City and State contribution impact of the potential changes in plan provisions in City Council Bill 10-0603.

The "baseline" scenarios are based on the results from the June 30, 2010 actuarial valuation report, dated October 2010.

Benefit Changes

As requested by the Board, we analyzed the cost impact of the following two changes.

- "The bill as it is written": Increase the minimum annual benefit to $16,000 for all spousal beneficiaries of members who retired or died prior to August 1, 1996 regardless of the years of service acquired by the member. You provided a listing of 190 current beneficiaries meeting this criterion. In addition, based upon the June 30, 2010 valuation data, 401 potential future beneficiaries of current retirees could become eligible for this benefit.
- "The bill as it should have been written": Increase the minimum annual benefit to $16,000 for all spousal beneficiaries of members who retired prior to August 1, 1996, **on account of a line-of-duty disability**, regardless of the years of service acquired by the member. You provided a listing of 100 beneficiaries meeting this criterion. In addition, based upon the June 30, 2010 valuation data, 214 potential future beneficiaries of current retirees could become eligible for this benefit.

The results in the June 30, 2010 valuation report already account for current and future beneficiaries eligible for the $16,000 minimum benefit of Ordinance 10-306 where the primary annuitant retired or died before August 1, 1996, with 20 or more years of service. The results and counts shown in this letter account for current and future beneficiaries of members who retired or died before August 1, 1996 with less than 20 years of service. City

Council Bill 10-0603 would effectively remove the years of service provision, though "The bill as it is written" scenario would remove the years of service provision regardless of retirement type and "The bill as it should have been written" scenario would only remove the service provision for line-of-duty disability retirements.

We analyzed the cost of each of these changes effective July 1, 2010.

Basis for the Cost/Savings Calculations

Our estimates use the data used for the System's actuarial valuation as of June 30, 2010, and except as noted above, the plan provisions, actuarial assumptions and methods are the same as those used in that valuation. Supplemental data that was supplied on October 6, 2010 specifically for the evaluation of the bill showed 190 current beneficiaries who will be eligible immediately for the $16,000 minimum under the bill "as it is written" and 100 beneficiaries who will be eligible for this benefit under the bill "as it should have been written". Please note that three participants listed in the supplemental data were valued as "future beneficiaries" instead of "current beneficiaries" for "the bill as it is written" scenario because the primary annuitants were still alive as of June 30, 2010 (two for "the bill as it should have been written" scenario were similarly valued). Actual costs or savings will depend on the experience of the plan.

The attached Exhibit 1 provides a summary of the impact of City Council Bill 10-0603 on City/State contributions as well as the funded status for the system.

We have assumed the benefit changes would be reflected as an update to the June 30, 2010 valuation. Therefore, if the changes were adopted, the FY 2012 City contribution would be the first contribution to change.

The initial cost/savings equals the change in the 20-year amortization of any changes in Unfunded Actuarial Liability, as required by Article 22 of the City Code.

The estimates shown in this letter and Exhibit 1 only show the effect on the contributions to the System in the first year. Over the long term, the contribution requirement will change from the FY 2012 amount, perhaps significantly, based on the demographics of plan members, economic conditions and plan experience. At the Board's request, Mercer is available to perform an analysis of the effect on future years' contributions based on possible changes to demographics, economic conditions and plan experience.

System Funded Status

Regardless of whether the benefit changes described in this letter occur, in the absence of significant actuarial gains, we expect contributions to the System will need to increase dramatically over the short term. This is because the actuarial value of assets, which is used to determine the annual contribution, was approximately $576 million more than the market value of assets as of June 30, 2010. The most significant contributors to this difference are:

- 64% of the investment losses which occurred during FY2009, as well as about 51% of the investment loss which occurred during FY 2008, remain deferred as of June 30, 2010 due to the 5-year asset smoothing method,
- As of June 30, 2010, about $150 million of the negative balances of the BIF & ERF remain to be recognized over the next 4 years.

If these items were recognized immediately (and with no other changes,) the contribution requirement would increase by approximately $59 million. You may wish to consider this potential upcoming increase when reviewing the estimated impact of Council Bill 10-0603 as well as when analyzing the System's near and long term funded status. A comprehensive solution to the System's current funded status might include a plan for dealing with the likely contribution increases, perhaps by accelerating recognition of past losses. Actuarial gains (e.g. lower-than-assumed pay increases) could ameliorate or actuarial losses (e.g. lower turnover) could exacerbate the projected trend of rapidly increasing contribution requirements. We have previously furnished illustrations of the pattern of these increases based on the pre-June 30, 2010 benefit provisions. We are available to prepare comparable projections for the current and proposed provisions if requested by the Trustees.

Important Notices

Mercer has prepared this analysis letter exclusively for the Trustees; it may not be relied upon by any other party, and Mercer is not responsible for reliance upon this letter by any other party. We have been advised that the Trustees expect to share this letter with the City, and we agree that the Trustees may do so provided they share the letter in full and without edits. However, the City must recognize that Mercer has not analyzed the advisability of the benefit changes under Council Bill 10-0603 from the City's perspective or related issues such as accounting considerations pursuant to Governmental Accounting Standards Board (GASB) requirements or potential changes in GASB requirements.

The only purpose of the letter is to estimate employer contribution rates based on a single scenario and set of assumptions for the specified fiscal year. The letter may not be used for any other purpose; Mercer is not responsible for the consequences of any unauthorized use.

The letter only presents a snapshot of the System's estimated financial condition at a particular point in time; it does not predict the System's future financial condition or its ability to pay benefits in the future and does not provide any guarantee of future financial soundness of the System. Over time, a retirement system's total cost will depend on a number of factors, including the amount of benefits the System pays, the number of people paid benefits, plan expenses and the amount earned on any assets invested to pay benefits. These amounts and other variables are uncertain and unknowable at the analysis date. The results and conclusions of this analysis are only valid for the specific fiscal years covered by the analysis and should not be interpreted as applying in future years.

To prepare this letter, actuarial assumptions have been used in a forward looking financial and demographic model to select a single scenario from a range of possibilities. The future is uncertain and the System's actual experience will differ from the assumptions used; these differences may be significant or material because these results are very sensitive to the assumptions made and, in some cases, to the interaction between the assumptions.

Different assumptions or scenarios within the range of possibilities may also be reasonable and results based on those assumptions would be different. As a result of the uncertainty inherent in a forward looking projection over a very long period of time, no one projection is "correct" and many alternative projections of the future could also be regarded as reasonable. Two different actuaries could, quite reasonably, arrive at different results based on the same data and different views of the future. Due to the limited scope of Mercer's assignment, Mercer will not perform or present an analysis of the potential range of future possibilities and scenarios unless requested. For significant proposed changes to the System, we strongly recommend testing with a range of scenarios.

Decisions about benefit changes, granting significant new benefits, investment policy, funding policy, benefit security and/or benefit-related issues should not be made on the basis of an analysis using a single set of assumptions, but only after careful consideration of alternative economic, financial, demographic and social factors, including financial scenarios that assume sustained investment losses.

Because analyses are a snapshot in time and are based on estimates and assumptions that are not precise and will differ from actual experience, contribution calculations are similarly imprecise. There is no actuarially "correct" level of contributions for a particular plan year. Plan funding occurs over time. Contributions not made this year, for whatever reason, including errors, remain the responsibility of the participating entities and can be made in later years. If the contribution levels over a period of years are lower or higher than necessary, it is normal and expected practice for adjustments to be made to future contribution levels to take account of this with a view to funding the plan over time.

Data, computer coding and mathematical errors are possible in the preparation of an analysis involving complex computer programming, thousands of calculations and data inputs, and limited time to complete the analysis. Errors in an analysis discovered after its preparation may be corrected by amendment to the analysis letter.

The Board is responsible for selecting actuarial valuation methods and asset valuation methods. The methods and assumptions so selected will be reflected in the analysis and it is the responsibility of the Board to confirm the accuracy of those methods and assumptions and to communicate to Mercer any changes thereto. If those assumptions are inaccurate or change over time, the results of Mercer's analyses may not be valid.

To prepare this analysis, Mercer used and relied on financial data and participant data supplied by the System. The System is responsible for ensuring that such participant data provides an accurate description of all persons who are participants under the terms of the System or otherwise entitled as of the date of the analysis that is sufficiently comprehensive and accurate for purposes of the analysis letters. Mercer has not verified or audited any of the data or information provided. Mercer also used and relied on the plan documents, including amendments, and interpretations of plan provisions, supplied by the System and assumed for purposes of the analysis that copies of any official plan document, including all amendments and collective bargaining agreements, as well as any interpretations of any such document, have been provided to Mercer along with a written summary of any other substantive commitments. The System is solely responsible for the validity, accuracy and comprehensiveness of this information. If the data or plan provisions supplied are not accurate and complete, the analysis results may differ significantly from the results that would be obtained with accurate and complete information; this may require a later revision of the analysis. Moreover, plan documents may be susceptible to different interpretations, each of which could be reasonable, and that the different interpretations could lead to different valuation results.

The Board agrees to notify Mercer promptly after receipt of the analysis if it disagrees with anything contained in the analysis or is aware of any information that would affect the results of the analysis that has not been communicated to Mercer or incorporated therein. This analysis will be deemed final and acceptable to the System unless notice is promptly received by Mercer.

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.

Please let me know if you have any questions or need any further information. I can be reached at 410 347 2806. I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. I am 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 my work.

Sincerely,

Douglas L. Rowe

Douglas L. Rowe, FSA, MAAA, EA
Principal

DLR/JMB/elb

Copy: James Baughman, Mercer

Enclosure

Fire and Police Employees' Retirement System of the City of Baltimore
- Exhibit 1 for October 18, 2010 letter - Cost Analyses CC Bill 10-0603
Contribution Impact of Proposed Bill

FY2012 contributions

Results in $millions	**2010 Valuation** **Baseline**	**Cost Analysis*** *bill "as it is written"*	**Cost Analysis*** *bill "as it should have been written"*
Plan Provisions	Current	**October 18, 2010 letter**	**October 18, 2010 letter**
- Minimum Benefit for Pre-DROP Spousal Beneficiaries, regardless of years of service	N/A	**$16,000**	**N/A**
- Minimum Benefit for Line of Duty Disability Spousal Beneficiaries, regardless of years of service	N/A	**N/A**	**$16,000**
Investment Return Assumption	8.00%	**8.00%**	**8.00%**
Normal Cost	$ 47.30	$ 47.30	$ 47.30
Amortization of Unfunded Liability	$ 51.84	$ 53.51	$ 52.50
FY2012 Total City and State contribution	$ 99.14	$ 100.81	$ 99.80
Increase in the FY2012 City/State contribution		$ 1.67	$ 0.66
Normal Cost as a % of Pay	17.10%	17.10%	17.10%
Amortization of Unfunded Liability as a % of Pay	18.74%	19.35%	18.97%
FY2012 Total City and State contribution as a % of Pay	35.85%	36.45%	36.07%
Funded Status (Actuarial Value of Assets basis)	83.2%	82.8%	83.1%
Funded Status (Market Value of Assets basis)	64.2%	63.9%	64.1%
Unfunded Liability (Actuarial Value of Assets basis)	$ 508.9	$ 525.3	$ 515.1
Unfunded Liability (Market Value of Assets basis)	$ 1,085.2	$ 1,101.6	$ 1,091.4

* For a description of these scenarios, please refer to the October 18, 2010 letter.

The normal cost for the proposed changes is offset by the 8% expected employee contribution rate that would be effective July 1, 2011.
Please note that the normal cost and amortization amounts shown include a year of interest to 7/1/2011.
The State's portion of the contribution would normally be contributed prior to FY2012.
Some of the results shown above may not add due to rounding.

This exhibit may only be used in conjunction with Mercer's October 18, 2010 letter.