CITY OF HAMILTON

CORPORATE SERVICES DEPARTMENT
Treasury Services Division (Financial Services)

TO: Chair and Members Audit, Finance and Administration Committee	**WARD(S) AFFECTED:** CITY WIDE
COMMITTEE DATE: January 18, 2012	
SUBJECT/REPORT NO: Hamilton Street Railway Plan (1994) Actuarial Valuation as at January 1, 2011 (FCS12002) (City Wide)	
SUBMITTED BY: Antonio D. Tollis Treasurer Corporate Services Department **SIGNATURE:**	**PREPARED BY:** Barb Howe 905-546-2424 ext. 5599

RECOMMENDATION

(a) That the January 1, 2011, actuarial valuation for the Hamilton Street Railway (HSR) Plan (1994) (attached as Appendix 'A' to report FCS12002) be received for information;

(b) That the current budgeted amount of $3.87 million be maintained and used to fund both the Hamilton Wentworth Retirement Fund (HWRF) and the Hamilton Street Railway (HSR) special payments for the years 2011-2013 with any shortfall funded from the Hamilton Wentworth Retirement Fund (HWRF) Actuarial Deficiency Provision (112065).

EXECUTIVE SUMMARY

The January 1, 2011, Valuation (attached as Appendix ‘A’ to report FCS12002) indicates that the plan is in a deficit position on both a going concern basis and on a solvency basis. The deficit position, on a going concern basis, has increased to $12 million (2010 - $4 million) and the solvency deficit position has changed to a deficit of $0.8 million (2010 – $2.5 million surplus). The effect of these changes has resulted in an increase in the 2011 minimum annual special payment to $1.4 million (2010 - $417,000). The 2011 minimum required special payments has been provided for in the 2011 current budget.

Alternatives for Consideration –Not Applicable

FINANCIAL / STAFFING / LEGAL IMPLICATIONS (for Recommendation(s) only)

Financial Implications

Although the plan text includes a provision for indexation, the value of the indexation can be excluded from the valuation both on a going concern basis and on a solvency basis. The City has chosen to partially fund for future indexing on a going concern basis. The current valuation includes 66-2/3% of the value of indexing which is an increase from the 60% indexing level recognized in the previous valuation. The estimated additional cost to fund future indexation to a 100% level is approximately $14 million and is not reflected in the deficit position of the plan. However, the Financial Services Commission of Ontario (FSCO) does require that the difference in the funding levels (i.e. 33-1/3%) be funded in the year granted. This means, with all else being equal, that each year the required annual payment will increase by the differential cost of the annual indexation granted for the year. On a solvency basis, the future cost of indexing which amounts to $62 million has been excluded.

Based on the January 1, 2011, valuation, the minimum contributions for 2011 and the estimated minimum contributions for 2012 and 2013, including a 2.25% per annum pension increase, are as follows:

	2011	**2012**	**2013**
Minimum annual special payment	$1,388,400	$1,453,982	$1,453,982

The 2012 to 2013 minimum annual special payments includes an amount of $65,582 for the impact of a 2.25% indexation in each year.

The 2011 budget includes a provision of $3.87 million to fund both the HWRF and HSR special payments. In addition, there is a reserve balance as at January 1, 2011, of $4.9 million which can be used to off-set any required payments in excess of $3.87 million. Therefore, there is no impact to the 2011 current budget to fund the minimum special payment of $1,388,400 plus interest accrued to November 30, 2011, of $24,299.

The special payments included in Appendix ‘B’ “HWRF and HSR Funding 2010-2013” to report FCS12002 are based on the latest valuations of the HSR and HWRF plans, both of which do not require a new valuation filing until 2014. For the next three years, the combined minimum special payments for both the HWRF and HSR plan are less than budgeted. An additional payment is being made to pre-fund the HWRF plan to maintain payments at the budgeted amount of $3.87 million. New regulations have been announced by the Province that would affect subsequent valuations; specifically, the elimination of the averaging of the solvency interest rates and the requirement to include the full value of indexation on a going concern basis. As a result of these changes and despite the pre-funding of the HWRF plan, it is anticipated that in 2014, the minimum special payments for both these funds will exceed the budgeted amount and possibly deplete the reserve.

It is recommended that a model to fund future pension deficits be incorporated in the 2014 budget submission.

Legal Implications

Under legislation, an actuarial valuation must be filed within nine months of the valuation date. Therefore, the January 1, 2011, valuation should be filed by October 1, 2011. Prior to the filing date, the City applied to FSCO for a filing extension to November 30, 2011. Due to these time constraints the January 1, 2011, valuation has been filed with the legislated authorities.

Staffing Implications

None.

HISTORICAL BACKGROUND (Chronology of events)

As a result of a court ordered settlement approved on December 22, 2008, between the ATU 107 and the City, all members of the HSR plan were enrolled in the OMERS plan effective January 1, 2009, with future service accruing in the OMERS plan and past service remaining in the HSR plan. All new employees hired on or after January 1, 2009, became members of the OMERS plan. As a result, the HSR plan has become a closed plan. In addition, the settlement provided the following enhancements to the HSR plan:

a) 100% indexing equivalent to that provided by OMERS; and
b) an additional six months of credited service for all qualifying members.

There is also a further provision whereby spousal benefits would be enhanced to 66-2/3% when an actuarial filing does not produce a deficit on either a going concern or solvency basis.

POLICY IMPLICATIONS

None.

RELEVANT CONSULTATION

Actuaries from the firm Aon Hewitt prepared the January 1, 2011, Actuarial Valuation.

ANALYSIS / RATIONALE FOR RECOMMENDATION

(include Performance Measurement/Benchmarking Data, if applicable)

The following Chart provides a synopsis of the plan position and membership as of January 1, 2011, as compared to January 1, 2010:

	2011	2010
Going Concern Basis		
Valuation Assets (smoothed)	$173.6	$175.8
Accrued Liabilities	$185.6	$179.8
Actuarial Surplus(Deficit)	($12.0)	$ (4.0)
Solvency Basis		
Solvency Assets (smoothed)	$178.8	$177.5
Solvency Liabilities (smoothed)	$179.6	$175.0
Solvency Surplus(Deficit)	$ (0.8)	$ 2.5
Windup Basis		
Market Value of Assets	$162.5	$155.5
Wind-up Liabilities	$247.6	$234.6
Wind-up Surplus(Deficit)	($ 85.1)	$(79.1)
Required Special Payment		
Going Concern deficit payment	$1.22	$0.4
Solvency Deficit payment	$0.17	$0.0
Total Special Payment	$1.39	$0.4
# of active members	520	547
# of retired or deferred	560	540

The January 1, 2011, valuation indicates that the plan has a $12 million deficit (2010 – $4 million) on a going concern basis and a change from a solvency surplus in 2010 of $2.5 million to a 2011 solvency deficit of $0.80 million. The increased deficit has resulted in a total required annual special payment of $1.3 million plus $24,299 for interest owed on the retroactive payments.

Under Provincial legislation, the administrator is required to file an actuarial valuation every three years and within nine months of the valuation date. The last actuarial valuation filed was valued at January 1, 2010. However, where a report indicates solvency concerns, the effective date of the next valuation that needs to be filed is one year from the Valuation Date that gave rise to the solvency concerns. The solvency ratio on the previous valuation dated January 1, 2010, was .859 which was less than the .90 threshold, requiring that the plan be valued again at January 1, 2011. Although the January 1, 2011 valuation has a .877 solvency ratio, effective 2011, FSCO decreased the threshold to measure solvency concerns from .90 to .85. As a result, a new valuation will not be required until January 1, 2014.

ALTERNATIVES FOR CONSIDERATION

(include Financial, Staffing, Legal and Policy Implications and pros and cons for each alternative)

None. The filing of this valuation is a legislated requirement.

CORPORATE STRATEGIC PLAN (Linkage to Desired End Results)

Focus Areas: 1. Skilled, Innovative and Respectful Organization, 2. Financial Sustainability, 3. Intergovernmental Relationships, 4. Growing Our Economy, 5. Social Development, 6. Environmental Stewardship, 7. Healthy Community

Financial Sustainability

- Address infrastructure deficiencies and unfunded liabilities
  The City files actuarial valuations tri-annually, or sooner, as required by legislation so that regulatory bodies can be assured that the assets of the fund are sufficient to meet the future pension payments of members

APPENDICES / SCHEDULES

Appendix ‘A’ – HSR Actuarial Valuation at January 1, 2011
Appendix ‘B’ – HWRF and HSR Funding 2010-2013

Actuarial Valuation Report on The Hamilton Street Railway Company Pension Plan (1994) as at January 1, 2011

Registration Number: 0253344

November 2011

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Table of Contents

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Introduction

Purpose and Terms of Engagement

We have been engaged by the Corporation of the City of Hamilton, hereinafter referred to as the "City", to conduct an actuarial valuation of The Hamilton Street Railway Company Pension Plan (1994) (the "Plan") as at January 1, 2011 (the "Valuation Date") for the general purpose of determining the minimum funding contributions required by pension standards, based on the actuarial assumptions and methods summarized herein. More specifically, the purpose of the valuation is to

- determine the financial position of the Plan on a going concern basis as at the Valuation Date;
- determine the financial position of the Plan as at the Valuation Date on a solvency basis;
- determine the funding requirements of the Plan as at the Valuation Date; and
- provide the necessary actuarial certification required under the *Pension Benefits Act, R.S.O .1990 (the "Act")* and the *Income Tax Act.*

The results of this report may not be appropriate for accounting purposes or any other purposes not listed above.

Summary of Changes Since the Last Valuation

The last actuarial valuation commissioned by the City in respect of the Plan was performed as at January 1, 2010. Since the time of the last valuation, we note that the following changes have been introduced:

- There was a post-retirement pension increase of 1.61% effective January 1, 2011. This increase has been reflected in the results presented in this valuation report.
- changes to the going concern assumptions are as follows:

	January 1, 2011	January 1, 2010
Discount Rate:	5.75%	6.0%
Mortality:	UP 1994 projected to 2020	UP 1994 projected to 2015

Introduction

- changes to the solvency assumptions are as follows:

	January 1, 2011	January 1, 2010
Discount Rate:		
- Commutable Benefits	4.38% for 10 years; 5.33% thereafter	4.61% for 10 years; 5.44% thereafter
- Non-Commutable Benefits	4.5%	4.51%

Note the solvency assumptions are smoothed using five-year averages.

- changes to the wind up assumptions are as follows:

	January 1, 2011	January 1, 2010
Discount Rate:		
- Commutable Benefits	3.7% for 10 years; 5.0% thereafter	3.7% for 10 years; 5.4% thereafter
- Non-Commutable Benefits	4.5%	4.49%
Post-Retirement Indexation Rate:		
- Commutable Benefits	1.76% for 10 years, and 2.61% thereafter	1.61% for 10 years, and 2.59% thereafter
- Non-Commutable Benefits	3.33%	2.6%

- The Canadian Institute of Actuaries adopted new standards of practice, *"Advice on the Funded Status or Funding of a Pension Plan"*, for valuation dates on or after December 31, 2010. Among other things, these new standards require that some additional information be disclosed in the valuation report. These new disclosures are shown in Section 4 of this valuation report.

City Information and Inputs

In order to prepare our valuation, we have relied upon the following information from the City:

- asset and membership data compiled as at December 31, 2010 and as summarized in Appendices A and B respectively; and
- information concerning events occurring subsequent to the effective date of the valuation and prior to the date of this report as identified below.

Introduction

Furthermore, our actuarial assumptions and methods have been chosen to reflect our understanding of the City's desired funding objectives with due respect to accepted actuarial practice and regulatory constraints.

In particular, this valuation report reflects the City's instruction to fund 66.67% of the cost of future post-retirement indexing. The full cost thereof is also shown for informational purposes only and for the valuation of the wind-up position of the Plan.

Subsequent Events

The Canadian Institute of Actuaries adopted new standards of practice for "Pension Commuted Values" for calculation dates on or after February 1, 2011. The new standards have not been reflected in the results of the solvency valuation or the hypothetical wind-up valuation contained herein. These new standards of practice will be reflected in the next actuarial valuation.

As of the date of this report, we have not been made aware of any further events occurring after the valuation date and prior to the report date that may materially affect the results of this valuation. However, the following points should be noted in this regard:

- Actual experience deviating from expected since December 31, 2010 to the date of this report, will result in gains or losses.
- To the best of our knowledge, the results contained in this report are based on the regulatory and legal environment in effect at the date of this report and do not take into consideration any potential changes that are currently the subject of debate, review and/or court appeal. To the extent that actual changes in the regulatory and legal environment transpire, any financial impact on the Plan as a result of such changes will be reflected in future valuations.
- Any non-funded pension increases due to indexation that occurs until the next valuation should be included in the normal cost contributions. The amount would be equal to the percentage increase in excess of 1.5% multiplied by the total expected pensions payable in the year of the increase.
- New regulations have been announced by the Government of Ontario that would effect the valuation results. Specifically, the elimination of the averaging of the solvency interest rates and that the full value of post-retirement indexation must be included in going concern valuations, but permit the continuation of exclusion thereof from solvency valuations. These changes are not in effect yet and so have been ignored in the valuation.

Introduction

Summary of Main Results

The following are a summary of the main results of this valuation.

1. Financial Status as at January 1, 2011

	Going Concern ($)	Hypothetical Wind-Up ($)
Value of assets	173,610,000	162,506,000
Actuarial liabilities	185,625,500	247,589,500
Surplus (deficit)	**(12,015,500)**	**(85,083,500)**

2. Contribution requirements

Considering the going concern and solvency status of the Plan, the employer contributions recommended in this report with effect from January 1, 2011 are as follows:

- Normal cost contributions are to include future non-funded pension increases as required under the *Act* regulations. No amounts are to be included in 2011 as the pension increase has been included in the liabilities.
- Special payments on both a going concern and solvency basis are required to be remitted to the Plan and the minimum monthly amounts are shown in the following schedule:

Payment Type	Start of Amortization Period	Monthly Payments ($)	End of Amortization Period
Going concern	January 1, 2009	22,800	December 31, 2023
Going concern	January 1, 2010	11,900	December 31, 2024
Going concern	January 1, 2011	66,700	December 31, 2025
Solvency	January 1, 2011	14,300	December 31, 2015
		115,700	

Introduction

Summary of Recommended Action

The following summarizes the specific action for the City that is recommended in this report:

- this valuation report should be filed with the provincial and federal regulators as soon as practicable;
- the following minimum annual special payments and non-investment related expenses are to be remitted to the Plan:

Year	2011	2012	2013
Special payments	$1,388,400	$1,388,400	$1,388,400
Normal cost contribution*	0	*	*
Total	**$1,388,400**	**$1,388,400**	**$1,388,400**

* Normal cost contributions are to include non-funded pension increases due to indexation in 2012 and 2013 in the respective year.

- the next actuarial valuation date for the purpose of developing a funding recommendation should be performed no later than January 1, 2014.

Respectfully Submitted,

Andrew N. Baartman, FSA, FCIA
Senior Associate, Aon Hewitt

Section 1: Going Concern Results

Going Concern Financial Position of the Plan

The going concern valuation provides an assessment of the Plan's financial position at the Valuation Date on the premise that the Plan continues on into the future indefinitely.

The applicable actuarial assumptions and methods were selected taking into account the funding objectives of the Plan, as communicated by the City, actuarial standards of practice, and pension standards.

The going concern financial position of the Plan as at the Valuation Date is shown in the following table. The results as at the previous valuation date are also shown for comparison purposes.

Going Concern Financial Position

	January 1, 2011 ($)	January 1, 2010 ($)
Assets		
Market value of assets	162,706,000	155,707,000
Smoothing adjustment	10,904,000	20,111,000
Actuarial value of assets	**173,610,000**	**175,818,000**
Liabilities		
Active members	86,116,000	88,056,000
Deferred vested members	712,500	557,000
Retirees	98,797,000	91,243,000
Total liabilities	**185,625,500**	**179,856,000**
Surplus / (Unfunded Liability)	**(12,015,500)**	**(4,038,000)**

The going concern unfunded liability revealed in the previous valuation now has a present value of $3,905,300 as at January 1, 2011. As a result, a new unfunded liability equal to $8,110,200 has been generated. The minimum special payments to amortize this new going concern unfunded liability is $66,700 per month for 15 years starting January 1, 2011. The total going concern special payments now equal $101,400 per month effective January 1, 2011.

The above going concern financial position reflects the City's instruction to limit pre-funding of the cost of post-retirement indexing. The above liabilities would increase to $199,696,500 with full pre-funding, assuming inflation of 2.25% per annum. This would result in an increased unfunded liability of $26,086,500. Minimum special payments would increase to $217,200 per month. These full funding results are shown for disclosure purposes only.

Section 1: Going Concern Results

Change in Financial Position

During the period from January 1, 2010 to January 1, 2011, the going concern financial position of the Plan changed from an unfunded liability of $4,038,000 to an unfunded liability of $12,015,500. The major components of this change are summarized in the following table (amounts rounded to the nearest hundred dollars):

Surplus / (Unfunded Liability) as at January 1, 2010	**$ (4,038,000)**
• Expected interest on surplus/(unfunded liability)	(242,300)
• **Special payments made in interim valuation period, including interest**	431,700
Expected Surplus / (Unfunded Liability) as at January 1, 2011	**$ (3,848,600)**
• Change in liabilities due to changes in actuarial assumptions	(7,454,000)
Expected Surplus / (Unfunded Liability) before experience gains/losses	**$ (11,302,600)**
• Loss from net investment earnings less than expected	(3,986,800)
• Gain due to salary increases lower than expected	2,230,300
• Loss due to mortality experience	(350,000)
• Gain due to retirement/termination experience	1,174,000
• Cost of pensioner increases greater than expected	(94,000)
• Miscellaneous gain	313,600
Surplus/(Unfunded Liability) as at January 1, 2011	**$ (12,015,500)**

Section 2: Solvency Results

Solvency Financial Position of the Plan

The solvency valuation is a financial assessment of the Plan that is required by the *Act* and is performed in accordance with requirements prescribed by that legislation. It is intended to provide an assessment of the Plan's financial position at the Valuation Date on the premise that certain obligations as prescribed by the *Act* are settled on the Valuation Date for all members.

The solvency financial position of the Plan as at the previous valuation date is shown for comparison purposes.

Solvency Financial Position

	January 1, 2011 ($)	January 1, 2010 ($)
Assets		
Solvency assets	162,706,000	155,707,000
Estimated wind-up expenses	(200,000)	(200,000)
Total Assets	**162,506,000**	**155,507,000**
Liabilities		
Active members	88,023,000	88,287,000
Deferred vested members	809,500	666,000
Retirees	96,727,000	92,254,000
Solvency Liabilities	**185,559,500**	**181,207,000**
Solvency Excess (Deficiency)	**(23,053,500)**	**(25,700,000)**
Solvency liability adjustment	(5,922,000)	(6,186,000)
Solvency asset adjustment	16,362,700	21,977,000
Solvency Excess (Deficiency) revealed by this valuation	**(768,800)**	**2,463,000**

The Solvency Asset Adjustment is comprised of two items, the first of which is the adjustment due to the smoothing of assets. Such amount as at December 31, 2010 was **$10,904,000**. See Appendix A for details of the calculation of this amount. The second part amounting to **$5,458,700** is the present value as at December 31, 2010 of scheduled special payments determined for solvency valuation purposes which has been calculated by discounting the previously determined monthly special payments scheduled to be paid up to December 31, 2015 at an interest rate of **4.44%** per annum. The table below shows the development of the present value of special payments.

Section 2: Solvency Results

Type of Deficit	Start of Liquidation Period	Monthly Payments	Present Value of Payments
Going concern	January 1, 2009	$22,800	$1,227,400
Going concern	January 1, 2010	11,900	640,600
Going concern	January 1, 2011	66,700	3,590,700
Total			**$5,458,700**

The new solvency deficiency equal to $768,800 must be amortized over no more than five years in monthly instalments. The minimum special payments to amortize this new solvency deficiency is $14,300 per month for five years starting January 1, 2011.

As permitted under the Regulations of the *Act,* the liabilities relating to post-retirement indexation have been excluded from the solvency liabilities. The amount of such excluded liabilities is $62,030,000. This is equal to a 33% increase in liabilities.

Financial Position on Plan Wind-Up

Due to asset and liability adjustments and the exclusion of certain benefits that are permitted for the solvency valuation under the *Act*, the solvency valuation does not fully represent the Plan's financial position on wind-up. Accordingly, the following table summarizes the Plan's financial position if it was terminated and wound-up on the Valuation Date.

Wind-Up Financial Position

	January 1, 2011 ($)	January 1, 2010 ($)
Assets		
Market value of assets	162,706,000	155,707,000
Estimated wind-up expenses	(200,000)	(200,000)
Total Assets	**162,506,000**	**155,507,000**
Liabilities		
Active members	113,280,000	111,927,000
Deferred vested members	1,138,500	884,000
Retirees	133,171,000	121,771,000
Total Liabilities	**247,589,500**	**234,582,000**
Surplus / (Deficit)	**(85,083,500)**	**(79,075,000)**

Section 2: Solvency Results

Transfer Ratio

The transfer ratio is the ratio of solvency assets, to the sum of solvency liabilities and the liabilities for benefits (other than benefits under qualifying annuity contracts) that were excluded in calculating the solvency liabilities. If the transfer ratio is less than 1.0, certain conditions and restrictions, as prescribed by the PBA, must be applied to the commutation of benefits from the Plan.

The transfer ratio is determined as follows:

	January 1, 2011
Solvency assets (A)	$162,706,000
Solvency liabilities, plus excluded liabilities (B)	$247,589,500
Transfer ratio (A/B)	**0.657**

Solvency Concerns

Except for certain exclusions which do not apply to this Plan, a report indicates solvency concerns where,

a) the ratio of the solvency assets to the solvency liabilities is less than 0.8; or

b) the solvency liabilities exceed the solvency assets by more than $5,000,000, for a valuation date before December 31, 2010, and the ratio of the solvency assets to the solvency liabilities is,

   (i) less than 0.9 if the valuation date is before December 31, 2010, and

   (ii) less than 0.85 if the valuation date is on or after December 31, 2010 and before December 31, 2012.

Where a report indicates solvency concerns, the effective date of the next valuation that needs to be filed is one year from the Valuation Date that gave rise to the solvency concerns.

Solvency concerns are determined as follows:

	January 1, 2011
Solvency assets (A)	$162,706,000
Solvency liabilities (B)	$185,559,500
Solvency ratio (A/B)	**0.877**

Section 2: Solvency Results

Since the ratio of solvency assets to solvency liabilities is not less than 0.85 and the Valuation Date falls between December 31, 2010 and December 30, 2012, inclusive, neither the above conditions (a) nor (b) apply. Thus this report does not indicate solvency concerns.

Pension Benefits Guarantee Fund (PBGF)

The purpose of the PBGF is to guarantee payment of certain benefits in respect of employment in Ontario in the event a pension plan is wound up in whole or in part under certain circumstances. The administrator of a pension plan providing defined benefits (except for certain categories of plans which are exempt from this requirement) is required to file a certificate in respect of the annual assessment payable to the PBGF.

In order to calculate the PBGF assessment, the Ontario solvency assets and the PBGF liabilities must be determined by isolating the portion of solvency assets and solvency liabilities attributable to Ontario Plan beneficiaries. The solvency liabilities attributable to Ontario Plan beneficiaries are called the PBGF liabilities. The Ontario solvency assets are defined as the proportion of total solvency assets attributable to Ontario Plan beneficiaries. The Ontario solvency assets represent the same proportion of total solvency assets as PBGF liabilities do to total solvency liabilities.

The Ontario solvency assets, PBGF liabilities and PBGF assessment base are as follows (all dollar amounts rounded to thousands):

	January 1, 2011 ($)
Ontario solvency assets	162,706,000
PBGF liabilities	185,559,500
PBGF assessment base	22,853,500

Section 3: Contribution Requirements

Contribution Requirements In Respect of Current Service Costs

Active members no longer accrue further credited service, and as such, there are no current service contributions required, except that the unfunded portion of actual pension increases due to indexation in 2012 and 2013 are to be included as part of the current service cost for those years.

Contribution Requirements in Respect of Deficiencies

The following cost schedule is the minimum necessary to eliminate the going concern unfunded liability:

Payment Type	Start of Amortization Period	Monthly Payments ($)	End of Amortization Period
Going concern	January 1, 2009	22,800	December 31, 2023
Going concern	January 1, 2010	11,900	December 31, 2024
Going concern	January 1, 2011	66,700	December 31, 2025
Solvency	January 1, 2011	14,300	December 31, 2015
		115,700	

Note: The values in the table were developed using an interest rate of 5.75% per annum compounded monthly in arrears for the going concern deficiency and a corresponding rate of 4.44% for the solvency deficiencies.

Excess Surplus

There is no excess surplus as at the Valuation Date.

Minimum Employer Contributions

Under applicable legislation, the minimum amount that an employer must contribute is equal to:

- the employer's current service cost in respect of service accruing after the Valuation Date; plus
- special amortization payments required to amortize any going concern unfunded liability over at most 15 years from the Valuation Date the unfunded liability first arose; plus
- special amortization payments required to amortize any solvency deficiency over at most 5 years from the Valuation Date the solvency deficiency first arose; less
- where applicable, any portion of the going concern surplus which is used to meet the Plan's current service costs.

Section 3: Contribution Requirements

The employer contributions recommended in this valuation report are at least equal to the legislated minimum requirements.

Maximum Employer Contribution

Under applicable legislation, the maximum amount that an employer is allowed to contribute is equal to:

- the employer's current service cost in respect of service accruing after the Valuation Date; plus
- the lump sum amount to eliminate any deficiencies that exist at the Valuation Date; less
- any excess surplus as permitted.

The employer contributions recommended in this valuation report do not exceed the legislated maximum requirements.

Retroactive contributions with interest

Under the PBA, the employer shall pay into the Plan, within 60 days after the date that this report is filed, all amounts recommended in this report from the Valuation Date to the filing date accumulated with interest. The interest rates used to accumulate the retroactive contributions shall be the going concern or the solvency interest rates as applicable.

Section 4: Additional Disclosures – Actuarial Standards of Practice

New Canadian Institute of Actuaries standards of practice specific to pension plans became effective December 31, 2010. Among other things, these new standards require that some additional information be disclosed in the valuation report:

- effect on the going concern valuation liability and on the current service cost, of using an interest rate 1% lower than that used for the valuation,
- effect on the solvency valuation liability, of using an interest rate 1% lower than that used for the valuation, and
- incremental cost on a solvency basis due to the membership in the plan between December 31, 2010 and the next valuation date.

Effect – Use going concern valuation interest rate lower by 1%

The going concern valuation liability shown in Section 1 is based, among other assumptions, on an interest rate assumption of 5.75% per year. The impact on these results of using an interest rate 1% lower is as follows:

			Effect	
	5.75%	*4.75%*	In $	in %
Total going concern liability	$185,625,500	$210,545,500	$24,920,000	+ 13.4%
Total current service cost	N/A	N/A	N/A	N/A

Under the going concern valuation, the liability represents the present value, based on the method and assumptions used, of the plan obligations in relation to the pension credits accrued at the Valuation Date and this amount becomes the target for the assets required to pay for those plan obligations. The current service cost represents the corresponding amounts for service accruing in the 12 months following the Valuation Date.

Note that using an interest rate 1% higher than that assumed would result in a comparable reduction in the plan liabilities and current service cost.

Section 4: Additional Disclosures – Actuarial Standards of Practice

Effect – Use solvency valuation interest rate lower by 1%

The solvency liability shown in Section 2 is based, among other assumptions, on interest rate assumption summarized in Appendix D. The impact on these results of using an interest rate 1% lower is as follows:

	Valuation basis at *January 1, 2011*	Based on Interest Rate Lower by 1%	Effect in $	Effect in %
Total liability - solvency	$185,559,500	$208,304,500	+ $22,745,000	+ 12.3%

Under the solvency basis, the liability represents the estimated amount required to pay for all the plan obligations in relation to the pension credits accrued at the Valuation Date. This amount is based on the market conditions at the Valuation Date to pay for the transfer values and for the purchase of pensions for retirees and beneficiaries.

Note that using an interest rate 1% higher than that assumed would result in a comparable reduction in the plan solvency liabilities.

Incremental cost on a solvency basis

The incremental cost on a solvency basis represents the present value at January 1, 2011 of the expected aggregate change in the solvency liability between January 1, 2011 and the next calculation date, that is January 1, 2014. Appendix D gives more details on the calculation methodology and on assumptions.

Based on this methodology and on these assumptions, the incremental cost on a solvency basis, for the period from January 1, 2011 to January 1, 2014 is $14,102,000.

Section 4: Additional Disclosures – Actuarial Standards of Practice

The main purpose of this new disclosure requirement is to estimate the expected change in the solvency liability assuming, among other things, that there will be no change in the applicable interest rates.

	For the period from January 1, 2011 to January 1, 2014 ($)
Solvency surplus/(deficiency) at January 1, 2011	(23,053,500)
Incremental cost on a solvency basis	(14,102,000)
Total current service contributions expected to be made to the fund	209,800
Total special payments expected to be made to the fund	4,534,300
Expected interest on the solvency liability	(23,772,400)
Expected return on plan assets(1)	29,711,600
Projected solvency surplus/(deficiency) at January 1, 2014	**(26,472,200)**

(1) based on a net rate of 5.75 % per year

The estimated adjustment to the Projected Deficiency due to five-year smoothing of assets and liabilities is expected to increase the deficiency by an additional $2,743,000 bringing the total deficiency to $29,215,200 as at January 1, 2014. The expected present value of remaining special payments at January 1, 2014 would be $5,786,800. Thus the projected new solvency deficit as at January 1, 2014 is estimated to be $23,428,400 (= $29,215,200 -$5,786,800). As a result, it is highly likely that, based on the assumptions used in the projection, there will be a large new technical solvency deficiency at the next actuarial valuation resulting in additional special payments being required of possibly about $5,000,000 per year for five years.

Section 5: Actuarial Certificate

Actuarial Opinion, Recommendations and Certification for The Hamilton Street Railway Company Pension Plan (1994)

This actuarial certification forms an integral part of the actuarial valuation report for the Plan as at December 31, 2010. I confirm that I have prepared an actuarial valuation of the Plan as at that date for the purposes outlined in the Introduction section to this report and consequently:

I hereby recommend that:

1. The employer should contribute the amounts recommended in Section 3 of this report.
2. The next actuarial valuation for the purpose of developing a funding recommendation be performed no later than as at January 1, 2014.

I hereby certify that, in my opinion:

1. With respect to the purpose of determining the Plan's financial position on a going concern basis as at the Valuation Date:
   a) Assuming 66.67% funding of post-retirement indexing, the Plan has a going concern unfunded liability (excess of liabilities over assets) of $12,015,500 as at the Valuation Date. Assuming full funding of post-retirement indexing, the unfunded liability would increase to $26,086,500.
   b) There is no excess surplus as defined by Section 147.2(2) of the *Income Tax Act* in the Plan at the Valuation Date.
2. With respect to the purpose of determining the Plan's financial position on a solvency basis:
   a) The solvency liabilities exceed the solvency assets by $23,053,500 as at the Valuation Date. The cost of post-retirement indexing has been excluded from the solvency liabilities.
   b) The transfer ratio is 0.657 at the Valuation Date.
   c) The Plan's liabilities would exceed the Plan's assets by $85,083,500 if the Plan was terminated and wound-up as at the Valuation Date.
3. With respect to determining the funding requirements of the Plan:
   a) Active members no longer accrue credited service in the Plan, and as such, there is no current service cost for the purposes of this valuation, except that the non-funded portion of the actual pension increases due to indexation in 2012 and 2013 are to be included as part of the current service cost for those years.
   b) The special payments required to fund the going concern unfunded liability and the solvency deficiency are as summarized in the following table:

Section 5: Actuarial Certificate

Payment Type	Start of Amortization Period	Monthly Payments ($)	End of Amortization Period
Going concern	January 1, 2009	22,800	December 31, 2023
Going concern	January 1, 2010	11,900	December 31, 2024
Going concern	January 1, 2011	66,700	December 31, 2025
Solvency	January 1, 2011	14,300	December 31, 2015
		115,700	

c) The employer contributions recommended in this report are eligible contributions under Section 147.2(2) of the *Income Tax Act*.

4. For the purposes of the valuation:

- The data on which this valuation is based are sufficient and reliable;
- The assumptions used are appropriate; and
- The actuarial cost methods and the asset valuation methods used are appropriate.

This report and its associated work have been prepared, and my opinion given, in accordance with accepted actuarial practice in Canada and in compliance with the requirements outlined in subparagraphs 147.2(2)(a)(iii) and (iv) of the *Income Tax Act.*

Notwithstanding the above certifications, emerging experience differing from the assumptions will result in gains or losses that will be revealed in subsequent valuations.

Andrew N. Baartman, FSA, FCIA

November 2011

Appendix A: Assets

The assets of the Plan are held in a master trust arrangement with Royal Trust and are managed by a number of different investment managers. This type of arrangement governs only the investment of the assets deposited into the trust fund and in no way "guarantees" the benefits provided under the Plan or the costs of providing such benefits.

The asset data was taken from the plan's audited financial statements provided by the City. The valuation included an examination of the asset data to test for general reasonableness, internal consistency, consistency with asset data provided in prior years, a comparison of the contributions and disbursements reported with those expected to be made as well as reconciliation with the previous valuation's asset data. These tests demonstrated that the asset data is sufficient and reliable for the purposes of the valuation.

Market Value of Assets

The following is a summary of the composition of the Plan's assets by asset type as reported by in the Plan's audited financial statements as at the Valuation Date, including in-transit amounts at the Valuation Date.

	January 1, 2011	
	($)	**(%)**
Cash and short term	8,331,761	5.1
Canadian fixed income	72,292,126	44.5
Canadian equities	57,929,897	35.7
Foreign equities	23,769,116	14.7
Total Invested Assets	162,322,900	100.0
Accrued interest and dividends	483,665	
Amounts payable	(100,248)	
Total Market Value of Assets	**162,706,317**	

The target asset mix as per the investment policy of the Plan is: 40% Canadian bonds, 30% Canadian equities, 30% foreign equities and 0% cash.

Appendix A: Assets

Rates of Return

Year	Market Value Net Return (%)	Actuarial Net Return (%)
2010	**9.8**	**3.3**

Reconciliation of Fund

A reconciliation of the Plan's market value during the intervaluation period is summarized below:

	2010 ($)
Market value at beginning of year	**155,706,569**
Employer normal cost contributions	0
Employer special payments	419,325
Employee contributions	0
Lump sum benefit payments	(17,717)
Pension payments	(8,214,844)
Expenses	(721,904)
Investment income	15,534,888
Market value at end of year	**162,706,317**

Actuarial Value of Assets

The actuarial value of assets and the asset adjustment attributable to an averaging of the Plan assets over five years, are determined based on the average of the current market value of assets and the market value of assets for each year from January 1, 2007 to January 1, 2010 projected to the Valuation Date with expected investment income and actual non-investment cash flow. The projected fund values as at January 1, 2010 were calculated based on expected rates of return of 6.00% per annum from 2007 to 2010. The smoothing adjustment was limited to 15% of the market value of assets at the Valuation Date.

Appendix A: Assets

The effect of this smoothing technique is that in rising markets, the actuarial value will tend to lag behind the net assets available for benefits and in falling markets it will tend to exceed the net assets available for benefits. In volatile market periods, it will dampen the fluctuations and tend to move through between the highs and lows. This method generates the same actuarial values regardless of whether gains and losses are realized - thereby ensuring that trading strategy will not be influenced by actuarial asset values.

The detailed calculation the actuarial asset value at January 1, 2011 is as follows:

Actuarial Asset Value at January 1, 2011

			Expected Value at end of:			
Year	**Market Value of Assets as at January 1**	**Net Non-Investment Cash Flow for Year**	**2007**	**2008**	**2009**	**2010**
2007	191,891,260	(8,142,328)	195,021,696	196,524,658	199,703,914	203,641,930
2008	188,741,213	(9,905,503)		189,867,346	192,647,163	196,161,774
2009	147,483,193	(8,364,931)			147,719,961	148,538,940
2010	155,706,569	(7,813,236)				157,004,744

Market Value as at January 1, 2011	162,706,317
Five-Year Averaging of Assets as at January 1, 2011	173,610,741
Smoothing Adjustment (rounded to thousands)	**10,904,000**
Actuarial asset value (Market Value plus Smoothing Adjustment rounded to thousands)	**173,610,000**

Appendix B: Membership Data

Source of data

This actuarial valuation is based on membership data compiled as at the Valuation Date and obtained from the City.

Certain tests on the membership data were conducted to ensure its validity to the best of our knowledge. Tests performed included the following:

- Membership reconciliation with prior valuation data, which is presented hereunder.
- Comparison of changes in salaries, years of membership, etc.
- Validation of pensions payable to retirees and benefits paid following termination of employment indicated in our administration files compared to amounts shown on the trustee report.
- Validation with the City of all deviations we observed in information compared to data provided for the previous actuarial valuation.

The results of the tests performed demonstrated that the membership data is sufficient and reliable for the purposes of this valuation.

A certificate from the City stating that this information is complete and accurate has been obtained and is contained in Appendix G.

Membership Summary

The reconciliation of all members since the last actuarial valuation is as follows:

	Active	Deferred Vested	Retirees	Total
As at 1/1/2010	**547**	**22**	**518**	**1,087**
New members	0	0	0	0
Paid out	(1)	0	0	(1)
Terminations	(6)	6	0	0
Deaths	0	0	(15)	(15)
Retired	(20)	(1)	21	0
New spouses	0	0	9	9
Transferred	0	0	0	0
As at 1/1/2011	**520**	**27**	**533**	**1,080**

Appendix B: Membership Data

Membership Summary

Below is a summary of information as at January 1, 2011.

a) Active and Disabled Members

	January 1, 2011	January 1, 2010
Number	520	547
Average earnings	$59,337	$59,442
Average age	49.7	49.0
Average pensionable service	13.5	14.3
Proportion female	21.6%	21.0%

b) Deferred Pensions

	January 1, 2011	January 1, 2010
Number	27	22
Average deferred pension	$3,836	$3,727
Average age	47.6	48.8
Proportion female	44.4%	45.5%

c) Retired Members and Beneficiaries

	January 1, 2011	January 1, 2010
Number	533	518
Average age	72.5	72.1
Average annual lifetime pension	$16,120	$15,567
Average annual bridge pension	$1,084	$1,088
Proportion female	25.3%	24.3%

Appendix B: Membership Data

Breakdown of Member Information

The following table provides a break-down of the information used at January 1, 2011 by years of pensionable service and by age group. The tables representing active members show the number of members as at January 1, 2011 and the salary as at January 1, 2011, in relation to the years of pensionable service, while the table on retired members and beneficiaries shows the number of members as at January 1, 2011, in relation to the number of years of retirement.

STATISTICS ON ACTIVE MEMBERS

Age	Pensionable Service								
	<5	5-10	10-15	15-20	20-25	25-30	30-35	>35	Grand Total
<30	6 56,902								6 56,902
30.0-34.9	14 56,875	6 56,902							20 57,179
35.0-39.9	32 56,892	22 58,537							54 57,562
40.0-44.9	30 56,640	26 59,923	4 66,353	4 57,866	2 72,259				66 59,070
45.0-49.9	39 57,067	32 58,607	4 63,998	26 58,891	26 61,607				127 58,976
50.0-54.9	13 57,468	18 58,242	6 55,590	20 62,965	21 61,610	14 66,498			92 61,012
55.0-59.9	6 54,554	12 57,866	5 58,685	14 66,498	24 58,913	27 59,751	1 46,878		89 58,884
60.0-64.9	1 46,878	6 56,555	2 63,582	6 62,699	10 57,866	13 59,907	16 65,150	1 68,245	55 61,048
>65.0	1 53,723	1 57,866		1 57,866	1 57,866	2 57,866	3 67,666	2 57,866	11 60,162
Number Salary	142 56,747	123 58,606	21 60,740	71 60,669	84 60,602	56 61,407	20 64,613	3 61,325	520 59,337

Appendix B: Membership Data

STATISTICS ON RETIRED MEMBERS AND BENEFICIARIES

Age	Years Retired						
	0-2	2-4	4-6	6-8	8-10	>10	Grand Total
50-55			1 6,637				1 6,637
55-60	10 29,845	5 22,481	3 24,250	1 13,147		2 4,713	21 24,104
60-65	17 28,874	17 31,185	26 26,420	13 24,568	6 26,532	4 10,414	83 26,845
65-70	8 19,393	12 20,297	12 20,304	21 16,306	19 15,059	41 15,503	113 16,872
70-75			3 12,380	8 14,184	18 12,633	80 13,050	109 13,046
>75					2 21,389	204 12,154	206 12,244
Number Pension	35 26,984	34 26,062	45 23,269	43 18,336	45 15,900	331 12,720	533 16,120

Appendix C: Going Concern Assumptions and Methods

A member's entitlements under a pension plan are generally funded during the period over which service is accrued by the member. The cost of each member's benefits is allocated in some fashion over the member's service. An actuarial valuation provides an assessment of the extent to which allocations relating to periods prior to a Valuation Date (often referred to as the actuarial liabilities) are covered by the plan's assets.

The going concern valuation provides an assessment of a pension plan on the premise that the plan continues on into the future indefinitely based on assumptions in respect of future events upon which a plan's benefits are contingent and methods that effectively determine the way in which a plan's costs will be allocated over the members' service. The true cost of a plan, however, will emerge only as experience develops, investment earnings are received, and benefit payments are made.

This appendix summarizes the going concern assumptions and methods that have been used for the going concern valuation of the Plan at the Valuation Date. The going concern assumptions and methods have been chosen to reflect our understanding of the Plan's funding objectives with due respect to accepted actuarial practice and regulatory constraints. For purposes of this valuation, the going concern methods and assumptions were reviewed and changes as indicated below were made.

Actuarial Cost Method

The liabilities are valued under the projected accrued benefit cost method. The pension is based on projected earnings at retirement and is allocated to past service and current service based on the ratio of accrued pensionable service to potential total pensionable service at retirement. This cost method is characterised by higher costs for employees who are close to retirement age and lower costs for younger employees.

The projected accrued benefit cost method systematically accumulates assets in an orderly and rational manner and therefore provides security for the benefits provided under the terms of the plan in respect of service that has already been rendered. Any shortfalls of Plan assets against the going concern liabilities are met through additional special payments determined in accordance with the *Act*.

As mentioned previously, this valuation report reflects the City's instruction to fund 66.67% of the cost of future post-retirement indexing in the going concern liabilities. During the interim valuation period, the non-funded portion of pension increases will be included in the normal cost contributions equal to the percentage increase in excess of 1.5% multiplied by the total pensions payable.

Asset Valuation Method

The going concern asset valuation method determines the value that will be assigned to the assets on the Valuation Date. For purposes of this going concern valuation, the actuarial value of assets has been determined by applying a smoothing methodology to the Plan's market value of assets at the Valuation Date based on the average of the current market value of assets and the market value of assets for each year

Appendix C: Going Concern Assumptions and Methods

from January 1, 2007 to January 1, 2010 projected to the Valuation Date with expected investment income and actual non-investment cash flow. See Appendix A for details.

Margins

Margins for conservatism or provisions for adverse deviation have been built into the going concern assumptions where appropriate.

The margins have been chosen so as to balance the need for financial security for existing Plan members against overly conservative contribution requirements that potentially result in intergenerational inequity among members and unnecessary financial strain on the participating employers.

Economic Assumptions

We incorporate the use of proprietary simulation tools that generate long-term expected investment returns for various asset classes applied against the Plan's target asset mix to guide us when reviewing the appropriateness of the discount rate for the going concern actuarial valuation. The simulation is updated at least annually. The gross expected return of 6.5% is adjusted by 0.25% for investment related expenses. The resulting rate is then reduced by 0.50% as a margin for adverse deviation to yield the 5.75% discount rate assumption. The previous valuation a discount rate of 6.0% was used.

The remaining economic assumptions are consistent with both the interest rate and the inflation rate assumptions.

Demographic Assumptions

The size of the Plan membership is such that actual Plan experience cannot be relied upon for the selection of some of the demographic assumptions. For such assumptions, the assumptions are reflective of general expectations taking into account the Plan terms. In particular, the mortality table assumption is based on the 1994 Uninsured Pensioner mortality table projected to the year 2020 using scale AA.

Appendix C: Going Concern Assumptions and Methods

Valuation Assumptions

Assumption	Current valuation	Rationale for selection of the assumption	Last valuation
Discount rate	5.75%	Based on plan's current target asset mix and expected long term asset class returns adjusted for expenses and margin	6.0%
Inflation rate	2.25%	Best estimate of future inflation considering current economic and financial market conditions	2.5%
Salary increases	3.25%	Inflation rate assumption plus 1.0% on account of productivity and merit/promotional increases considering current economic and financial market conditions	3.5%
YMPE increase	2.75%	Inflation rate assumption plus 0.5% on account of productivity increases considering current economic and financial market conditions	3.0%
Increases in Maximum Pension Limit	In accordance with Income Tax current limit then 2.75%	Inflation rate assumption plus 0.5% on account of productivity increases considering current economic and financial market conditions	3.0%
Post-retirement indexing rate	1.5%	66.67% of inflation as per agreement with the City	1.5%

Appendix C: Going Concern Assumptions and Methods

Assumption	Current valuation	Rationale for selection of the assumption	Last valuation
All Expenses	0.4% (taken into account in the discount rate assumption)	Based on plan experience	Same
Mortality	Table UP-1994 projected to 2020 with scale AA	Table reflects mortality experience of 1994 of a large sample of US and Canadian pension plans Projected scale of AA provides allowance for expected improvements in survivorship after 1994	Table UP-1994 projected to 2015 with scale AA
Proportion of members with spouses and spousal age	85% with opposite-sex spouse Males 3 years older	Based on plan experience	Same
Retirement	50% of members retire at the earliest unreduced retirement age and 50% at age 62	Based on plan experience	Same
Termination	Assumed no terminations prior to retirement	Not material	Same
Contingent benefits	None	The Plan does not provide for contingent benefits	Same

Appendix D: Solvency Assumptions and Methods

The *Act* requires that the Plan's financial position at the Valuation Date be assessed under the premise that the Plan is terminated and wound up on the Valuation Date. The Plan's liabilities calculated under this premise (known as the solvency basis) are determined using assumptions and methods prescribed by the *Act*. If the Plan's liabilities under the solvency basis exceed the assets of the Plan, then additional funding contributions may be required.

The following summarizes the prescribed assumptions, methods and benefits that make up the solvency basis for the Plan at the Valuation Date. Judgement can be required in setting certain assumptions, especially as related to determining:

- the proportion of the Plan's benefits expected to be settled by way of annuity purchase and by way of lump sum transfer; and
- the hypothetical annuity purchase rates at the Valuation Date.

Consequently, if the Plan was terminated on the Valuation Date, the solvency liabilities may be different than the Plan's termination liabilities. Such differences are primarily attributed to:

- differences between the actual and assumed proportion of benefits being settled by annuity purchase and lump sum transfer; and
- an actual annuity purchase rate that is different than the rates assumed to be representative of the annuity market on the Valuation Date.

With respect to the basis for lump sum transfers, the discount rates are in accordance with actuarial standards of practice. The discount rate used in the basis for annuity purchases is in accordance with guidance provided by the Canadian Institute of Actuaries for annuity purchases as at the Valuation Date. Wind-up expenses related to the resolution of surplus or deficit issues are not included in the wind-up expense assumption.

Valuation Methods

Solvency assets have been determined using market value. The solvency asset adjustment uses the same five-year smoothing technique as used for going concern assets. See Appendix A for more details. Solvency liabilities have been calculated as the actuarial present value of the benefits prescribed to be valued under the *Act.*

It is further noted that the solvency liabilities do not take into consideration any benefit reductions that may be required in the event of actual plan termination on the Valuation Date.

Incremental Cost on a Solvency Basis

The incremental cost on a solvency basis represents the present value, at the calculation date (time 0), of the expected aggregate change in the solvency liability between time 0 and the next calculation date (time t), adjusted upwards for expected benefit payments between time 0 and time t.

Appendix D: Solvency Assumptions and Methods

An educational note was published in December 2010 by the Canadian Institute of Actuaries' Committee on Pension Plan Financial Reporting to provide guidance for actuaries on the calculation of this new information.

The calculation methodology can be summarized as follows:

- the present value at time 0 of expected benefit payments between time 0 and time t, discounted to time 0,

  plus

- a projected hypothetical wind-up or solvency liability at time t, discounted to time 0, allowing for, if applicable to the pension plan being valued :
  - expected decrements and related changes in membership status between time 0 and time t,
  - accrual of service to time t,
  - expected changes in benefits to time t,
  - a projection of pensionable earnings to time t,

  minus

- the hypothetical wind-up or solvency liability at time 0.

The projection calculations take into account the following assumptions and additional considerations:

- the assumptions for the expected benefit payments and decrement probabilities, service accruals, and projected changes in benefits and/or pensionable earnings would be consistent with the assumptions used in the pension plan's going concern valuation,
- the assumptions used to calculate the projected liability at time t are consistent with the assumptions for the solvency liability at time 0, assuming that interest rates remain at the levels applicable at time 0, and
- the incremental cost includes expected future increases to pensions in payment as at January 1, 2012, January 1, 2013 and January 1, 2014.

Appendix D: Solvency Assumptions and Methods

Valuation Assumptions

Valuation Assumptions	Current Valuation	Previous Valuation
Economic		
Transfer value basis – used for active, disabled, suspended and deferred members under age 55	3.7% for 10 years and 5.0% thereafter	3.7% for 10 years and 5.4% thereafter
Smoothed transfer value basis – used for active, disabled, suspended and deferred members under age 55	4.38% for 10 years and 5.33% thereafter	4.61% for 10 years and 5.44% thereafter
Annuity purchase basis – used for all retirees	4.5%	4.49%
Smoothed annuity purchase basis – used for all retirees	4.5%	4.51%
Rate of post-retirement indexation for solvency	0.0%	Same
Indexation rate for Plan wind-up– used for active, disabled, suspended and deferred members under age 55	1.76% for 10 years and 2.61% thereafter	1.61% for 10 years and 2.59% thereafter
Indexation rate for Plan wind-up – used for all retirees	3.33%	2.9%
Demographic		
Mortality	UP94 @ 2020	Same
Salary, YMPE and Pension Limits	Not applicable	Same
Spousal Age	Actual age if available, else females 3 years younger	Same
Other		
Wind-up expenses	$200,000	Same
Contingent benefits	None	Same

Appendix D: Solvency Assumptions and Methods

Solvency Asset and Liability Adjustments

For purposes of determining the solvency asset adjustment, the adjusted value of assets was calculated using a five-year smoothing method as outlined in Appendix A.

For purposes of determining the solvency liability adjustment, the smoothed discount rate for lump sum settlements was derived by averaging the rates over the last 60 months. The smoothed discount rate for annuity purchases was derived by averaging the annuity purchase rates over the previous five years.

Appendix E: Summary of Plan Provisions

The following is a brief summary of the provisions of the Plan as at January 1, 2011, including benefit changes resulting from the class action lawsuit settlement.

1. Effective Date

July 1, 1980 (Prior plans, running continuously, applied before this date).

2. Eligibility

Prior to January 1, 2009, full time employees must join on completion of six months of continuous service.

Part time employees are eligible to join after two years of service, provided they have either:

(a) earnings of at least 35% of the Canada Pension Plan (CPP) Year's Maximum Pensionable Earnings (YMPE), or

(b) 700 hours of employment

in each of two consecutive calendar years immediately prior to joining the Pension Plan.

Effective January 1, 2009, the Plan has been closed to new members.

3. Retirement

a) Normal retirement date

Age 65.

b) Unreduced retirement date

Members may retire with no reduction in accrued pension following attainment of age plus service (including OMERS service) totalling 85 years, but not earlier than age 55.

Appendix E: Summary of Plan Provisions

c) Early retirement date

Members may retire after their 55th birthday. In this case, the pension will be reduced as per the table below:

Age at retirement	Adjustment between age reached and initial date of unreduced retirement
Active member	1/2% for each month (up to 60 months) preceding the earlier of the date the member's age reaches 65, or the member's age plus service* reaches 85. Plus 1/3% for each month (greater than 60 but less than 120 months) preceding the earlier of the date the member's age reaches 65, or the member's age plus service* reaches 85.
Member entitled to a deferred pension	Actuarial equivalent of the deferred pension payable at age 65

* including OMERS service

4. Credited Pension

a) Normal Retirement Pension

Members receive a pension equal to 1.5% of average pensionable earnings up to the average Year's Maximum Pensionable Earnings (YMPE) as established under the Canada Pension Plan, plus 2% of the excess, multiplied by years of credited service. The "average pensionable earnings" are defined as the average of best five years' earnings. The average YMPE is the average of the YMPE for the last thirty-six months of the Plan membership.

In the event that pensions accrued under the prior plan exceed the pension accrued under this Plan for service prior to July 1, 1980, then the pension is increased accordingly.

Credited service includes an additional six months of past service for all active members as at January 1, 2009, subject to satisfying certain employment continuation requirements.

Active members accrue no credited service under this Plan with respect to service on and after January 1, 2009.

Appendix E: Summary of Plan Provisions

b) Bridge Benefit

A bridge benefit is payable on early retirement in the amount of $18.00 per month per year of employment service up to January 1, 2009 to a maximum of 30 years of employment service, reduced by the early retirement reduction as described above. The bridge benefit stops at age 65 or death, if earlier, and is fully indexed.

c) Normal Form of Pension

The normal form of Pension Benefit is payable for life with a five year guarantee. A 50% continuation is provided to a surviving spouse. The spouse is defined to be the spouse as of the date of death or retirement subject to only one spouse having entitlements and the spouse at retirement taking precedence if more than one spouse would otherwise exist. If the age difference between the member and the spouse is greater than five years, the pension is actuarially reduced.

d) Indexing

Effective January 1, 2009, pension benefits payable following retirement and surviving spouse pensions are to be increased at the same rate provided under OMERS (100% of inflation up to a maximum of 6% each year) for both lifetime and bridge pensions in payment on and after January 1, 2009.

5. Benefits paid following termination of employment

The member may elect to receive a cash settlement as specified in the Plan rules, or a deferred pension (subject to provincial legislation regarding locking-in requirements).

For current active members, all pre-1987 entitlements are 100% vested. For members with at least 2 years of membership, all entitlements are 100% vested.

6. Death benefits prior to retirement

In the event of death in service, a member's beneficiary will receive a return of contributions according to the description in the Plan rules, or a spousal pension equal to 50% of the member's accrued entitlement. The “50% rule” for post 1986 accruals applies.

7. Death benefits after retirement

Optional forms of pension are available on an actuarially equivalent basis to the normal form of pension.

Appendix E: Summary of Plan Provisions

8. 50% rule (excess contributions)

Upon a member's termination of service or death after two years of membership in the Plan, or retirement, the employer must fund at least 50% of the value of any benefits resulting from years of credited service after January 1, 1987.

9. Contributions

Prior to 2003, a member contributed 7.5% of earnings less contributions which are made to the Canada Pension Plan. However, for calendar years 1999-2002 the employees were not required to contribute because by Plan terms employee contributions cannot occur without equal City contributions. Effective January 1, 2009, members are neither required nor permitted to make contributions to the Plan.

10. Reciprocation

The Hamilton Street Railway Company is now wholly owned by the City of Hamilton, whose employees participate in other plans, principally the Ontario Municipal Employees Retirement System (OMERS). A reciprocal transfer agreement exists between OMERS and the Plan.

Appendix F: History of Plan

Predecessor plans were established with effect from July 1, 1980, which succeeded plans originally established in the mid-to-late 1940s. The current Plan dates from January 1, 1994 when two predecessor plans were merged.

Prior to July 1, 1980, pension benefits were provided through group annuity policies with the Prudential Assurance Company Limited. Benefits with respect to service during this period together with these group annuity policies were transferred to this Plan. These annuities were placed on a paid-up basis. Most of the insured benefits were provided through participating annuities; the rest were provided through non-participating annuities. The participating annuities were credited with bonuses as established by Prudential from time to time.

In September 1986, except for pensions in the course of payment and certain deferred vested members, these group annuities were cashed out, with the proceeds being added to the invested assets of the Plan.

At the prior plan's inception, annuity contracts were purchased by the Plan when a member retired. Assets and liabilities in respect of such purchased annuities are excluded from this report. With effect from June 1986, new retirees were paid out of the fund on a monthly basis. For administrative reasons, since January 1988 pension payments are now made by the City of Hamilton (and were formerly made by the Region of Hamilton-Wentworth) subject to reimbursement by the Plan. Such actions are merely flow-through transactions, with no financial consequences whatsoever to the Plan. In fact, such actions save the Plan any costs of cheque issuance, etc., and as such, have a beneficial effect on the Plan.

Early Retirement windows have been effected at several dates under predecessor plans between 1991 and 1993 inclusive.

Effective January 1, 1999 the Plan was amended as follows:

A. The early retirement reduction is equal to

   a. the lesser of

      i. ½ % for each month (up to 60 months) by which age is less than age 65, and

      ii. ½ % for each month (up to 60 months) by which age plus service is less than 85 years,

   plus

   b. the lesser of

      i. ⅓% for each month (in excess of 60 months, but not in excess of 120 months) by which age is less than age 65, and

Appendix F: History of Plan

ii. ⅓% for each month (in excess of 60 months, but not in excess of 120 months) by which age plus service is less than 85 years.

B. A bridging benefit is payable on early retirement in the amount of $18.00 per month per year of employment service, to a maximum of 30 years of employment service, reduced by the early retirement reduction as described above.

C. Indexing on May 1, 1999, May 1, 2000 and May 1, 2001 will be based on the greater of the current formula or 1% for all pensioners and beneficiaries who are paid from the Plan.

D. During 1999 and 2000 members are not required to contribute. During 2001 members were scheduled to contribute 1% of pensionable earnings with a minimum equal employer contributions. Employer contributions during 1999-2001 will equal member contributions, contingent upon the amounts being within amount required and permitted by applicable authorities. Since Employer contributions cannot occur due to restrictions in the Income Tax Act, no employee contributions will occur in 2001, with further review scheduled thereafter. An amendment is coincidentally in the course of development confirming that this position is extended indefinitely, wherein member contributions will never exceed employer contributions.

Effective May 1, 2002 the Plan was amended to provide that indexing on May 1, 2002 will be based on the greater of the current formula or 1% for all pensioners and beneficiaries who are paid from the Plan.

Effective January 1, 2003, the Plan was amended to reflect agreement (as per the current Collective Bargaining Agreement, effective April 1, 1998) which provides that contributions by members and the City shall be equal annually, unless member contributions are constrained by the Income Tax Act.

Effective January 1, 2009, the Plan was amended to provide the following:

- post-retirement indexation that mirrors the indexation provided under OMERS (100% of inflation up to a maximum of 6% each year);
- no future service accruals;
- six months additional credited service, subject to certain employment continuation requirements;
- OMERS service used for eligibility for certain benefits.

Appendix G: Certificate of Data

With respect to The Hamilton Street Railway Company Pension Plan (1994), forming part of the actuarial report as at January 1, 2011, I hereby certify that, to the best of my knowledge and belief:

a) the asset data of the provision of the Plan contained in Appendix A of this report is complete and accurate;

b) the membership data summarized in Appendix B of this report form a complete and accurate description of all persons who are entitled to benefits under the terms of the Plan in respect of service up to the date of the valuation;

c) the summary of the provision of the Plan contained in Appendix D of this report is a complete and accurate summary of the terms of the Plan which affect the costs; and

d) the actuary has been notified of all relevant subsequent events.

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Signature

____

Name & Title

____

Date

HWRF and HSR funding 2010-2013

		2010	2011	2012	2013
Net Budgeted Amount		**3,870,000**	**3,870,000**	**3,870,000**	**3,870,000**
HWRF Minimum Annual Special Payments		2,599,688	1,789,800	1,789,800	1,343,400
Funding current years indexation at 2.25%				176,670	176,670
HWRF Additional Payment		850,987	667,501	449,548	895,948
Total HWRF Special Payments		3,450,675	2,457,301	2,416,018	2,416,018
HSR Minimum Annual Special Payments		417,000	1,388,400	1,388,400	1,388,400
Funding 33-1/3% of current years indexation at 2.25%	(c)			65,582	65,582
Interest on retroactive special payments		2,325	24,299		
HSR Additional Payment			-		
Total HSR Special Payments		419,325	1,412,699	1,453,982	1,453,982
Total Payments		3,870,000	3,870,000	3,870,000	3,870,000
Reserve Utilization		-	-	-	-
Impact to Budget		**3,870,000**	**3,870,000**	**3,870,000**	**3,870,000**
Year over Year Increase		0.0%	0.0%	0.0%	0.0%
Estimated payments from reserve to pay PBGF for HSR plan		(235,543)	(109,170)	(109,170)	(109,170)
Year End Reserve Balance assuming 2% increase per year		4,941,676	4,929,200	4,916,400	4,903,400
Tax Increase		-	-	-	-

Note:

a) HWRF/HSR estimated annual special payments are based on the 2010 valuation and assumes that the next filing affecting 2014-2016 will not produce any further deficits. The estimates also include an estimate for the annual indexation

b) HWRF special payments: includes 0% of the cost of future indexing but each 100% of the current year's indexing is recognized

c) HSR special payments: includes 66-2/3% of the cost of indexing plus each year we will have to recognize 33-1/3% of the current years indexing