April 2008

Metropolitan Toronto Pension Plan

Report on the Actuarial Valuation for Funding Purposes as at December 31, 2007

MERCER

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Summary of Results

Asset Values	**31.12.2007**	**31.12.2006**
Market value of assets	$688,253,000	$740,266,000
Rate of return during the year, based on market values (gross)	1.30%	9.95%
Actuarial value of assets	$692,666,000	$707,665,000
Rate of return during the year, based on actuarial values (net of investment expenses)	6.67%	8.52%
Going-Concern Financial Position	**31.12.2007**	**31.12.2006**
Actuarial value of assets	$692,666,000	$707,665,000
Actuarial liability	(556,989,000)	(569,214,000)
Funding excess	$135,677,000	$138,451,000
Wind-Up Financial Position	**31.12.2007**	**31.12.2006**
Market value of assets (net of estimated Plan termination expenses)	$687,782,000	$739,776,000
Wind-Up liability	(598,831,000)	(608,878,000)
Wind-Up excess (deficiency)	$ 88,951,000	$ 130,898,000
Transfer ratio	1.00	1.00

Solvency Financial Position	**31.12.2007**	**31.12.2006**
Solvency assets	$ 687,782,000	$ 739,776,000
Solvency asset adjustment	741,000	(34,450,000)
Solvency liability	(598,831,000)	(608,878,000)
Solvency liability adjustment	11,045,000	18,073,000
Solvency excess (deficiency)	$ 100,737,000	$ 114,521,000
Indexation Reserve Account (lesser of funding excess and solvency excess)	$ 100,737,000	$ 114,521,000

Plan Membership	**31.12.2007**	**31.12.2006**
Active	8	9
Suspended or disabled	4	5
Retired members in receipt of pensions	2,062	2,168
Surviving spouses in receipt of pensions	1,050	1,066
Vested deferred pensioners	6	6
Total membership	3,130	3,254

Funding Requirements (annualized)	**2008**	**2007**
Total current service cost	$ 0	$ 0
Estimated member required contributions	(0)	(0)
Employer current service cost	$ 0	$ 0
Minimum special payments	$ 0	$ 0
Estimated minimum Employer contribution	$ 0	$ 0
Estimated maximum Employer contribution	$ 0	$ 0

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Introduction and Executive Summary

Introduction

To: Trustees, Metropolitan Toronto Pension Plan

At your request, we have conducted an actuarial valuation of the Metropolitan Toronto Pension Plan (the "Plan") as at December 31, 2007. The previous actuarial valuation was prepared as at December 31, 2006.

The purpose of this valuation is to determine:

- the funded status of the Plan as at December 31, 2007 on going-concern and solvency bases, and
- the minimum funding requirements by the City of Toronto (the "Employer") and the Plan members during the period from January 1, 2008 through December 31, 2008.

The Report sets out full details of the Plan's financial position on the valuation date, makes recommendations as to the utilization of the experience gains and illustrates the effect of these recommendations on the Plan's funded position.

Executive Summary

Summary of Results

a) Plan Assets

For purposes of the going-concern valuation, the assets are valued on a smoothed market value basis.

A description of the asset valuation method is provided in Section 3. There were no changes to the method used to value the Plan's assets.

The assets of the Plan, as reported on financial statements obtained from the custodian, have changed as follows during 2007.

	December 31, 2006	December 31, 2007	Rate of Return in 2007 *
Market Value	$ 740,266,000	$ 688,253,000	1.15%
Actuarial Value	$ 707,665,000	$ 692,666,000	6.67%

** The rate of return is net of investment expenses.*

The rate of return to be credited to employee contribution balances in 2008 is 6.67%, compared with the rate of 8.52% credited in 2007.

b) Going-Concern Financial Position as at December 31, 2007

On a going-concern basis, the actuarial value of assets of $ 692,666,000 exceeds the actuarial liabilities of $ 556,989,000 by $ 135,677,000. The funding excess has decreased from an amount of $ 138,451,000 as at December 31, 2006 to an amount of $ 135,667,000 as at December 31, 2007. This is primarily the result of changes to the By-law provisions to increase the minimum pension and to pay the cost of living increase provided at January 1, 2007, partially offset by net experience gains primarily due to the better than expected performance of the assets on an actuarial value basis. Further details can be found in Section 4.

c) Solvency/Wind-up Position as at December 31, 2007

On a solvency basis, the value of the assets of $ 688,523,000 (market value less estimated termination expenses plus the solvency asset adjustment) exceeds the actuarial liabilities of $ 587,786,000, producing a solvency excess of $ 100,737,000. The previous valuation at December 31, 2006 indicated a solvency excess of $ 114,521,000.

The change in the solvency position since the previous valuation is primarily the result of losses from a decrease in the solvency discount rate and changes in the By-law provisions partially offset by gains resulting from the better than expected performance of the assets on the smoothed basis. Further details can be found in Section 6.

On a wind-up basis, the value of the assets of \$ 687,782,000 (market value less estimated termination expenses) exceeds the actuarial liabilities of \$ 598,831,000, producing a wind-up excess of \$ 88,951,000. The previous valuation at December 31, 2006 indicated a wind-up excess of \$ 130,898,000.

d) Funding Requirements

Since all active members have completed 35 years of credited service at the date of this valuation, there are no member or Employer contribution requirements in 2008 in respect of current service.

Since the Plan is fully funded on both the going-concern and solvency bases, there are no Employer contribution requirements in 2008 in respect of past service.

e) Plan Membership

The membership data received from the Employer for purposes of this valuation include:

- 8 active members, consisting of all regular members having an average age of 61.8 years and 2007 pensionable earnings totalling \$ 550,876.
- 4 disabled and suspended members having an average age of 63.3 years;
- 2,062 retired members having an average age of 76.7 years, in receipt of annual pensions totalling \$ 45,802,329;
- 1,050 surviving spouses having an average age of 79.5 years, in receipt of annual pensions totalling \$ 12,795,214;
- 6 members who are former employees with vested deferred pension entitlements estimated at \$ 14,748 per annum in total, with an average age of 73.9 years.

During 2007, the active membership has changed from 9 at the start of the year to 8 at the current valuation date. The number of retired members and surviving beneficiaries receiving pensions from the Plan decreased from 3,234 to 3,112.

During the inter-valuation period, there were 2 new retirements with an average age 63.4 years.

Reconciliation of these membership changes and further details are included in Appendix B.

Changes in Actuarial Assumptions and Methods

There have been no material changes made to the going-concern actuarial assumptions and methods from those used in the last actuarial valuation:

A complete description of the going-concern actuarial methods and assumptions is provided in Appendix C.

Changes in By-law Provisions

An increase of 2.01% was granted on pensions, retroactively to January 1, 2007, to pensioners on benefit for more than one year. A proportionate increase of 0.168% for each month of pension payment made in 2006 was granted for pensioners who retired during 2006. The cost of providing this increase was $ 11,137,000 on the going-concern basis, or $11,926,000 on the solvency basis.

An increase in the minimum pension from $300 to $450 per year multiplied by years of service (to a maximum of 30 years) was approved by Metro Council in 2007, to be effective January 1, 2008. The estimated cost of providing this increase is $7,436,000 on the going-concern basis, or $7,851,000 on the solvency basis.

There have been no other changes to the By-law provisions since the previous valuation as at December 31, 2006.

A summary of the main By-law provisions in effect on the valuation date is provided in Appendix A.

Recommendations

Based on the results of the valuation it is recommended that an increase of 2.14% be granted on pensions, effective January 1, 2008, to pensioners on benefit for more than one year and a proportionate increase of 0.178% for each month of pension payment made in 2007 be granted for pensioners who retired during 2007.

The total estimated cost to provide this increase is $ 11,443,000, on the going-concern basis or $ 12,081,000, on the solvency basis.

The next actuarial valuation of the Plan will be required as at a date not later than December 31, 2010 or as at the date of an earlier amendment to the Plan, in accordance with the minimum requirements of the *Pension Benefits Act (Ontario)*. However, since the Trustees of the Plan have historically required the completion of an actuarial valuation every year, the next actuarial valuation of the Plan is scheduled to occur as at December 31, 2008.

This report will be filed with the Financial Services Commission of Ontario ("FSCO") and with the Canada Revenue Agency ("CRA").

Respectfully submitted,

Anil Narale
Fellow of the Canadian Institute of Actuaries
Fellow of the Society of Actuaries

April 10, 2008
Date

Frank Dekeyser
Associate of the Society of Actuaries

April 10, 2008
Date

Metropolitan Toronto Pension Plan
Registration number with the FSCO and with the CRA: 0351577

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Plan Assets

The going-concern assets are recorded at an "Actuarial Value" which is determined as follows:

(1) The market value of total assets at the previous year-end is accumulated, together with the current year's cash flow, with interest at the valuation rate of 5.50%; and

(2) The difference between the accumulation in (1) and the market value of total assets at the valuation date is spread over the current year and the three succeeding years in four equal amounts.

The value determined in accordance with the above method is $692,927,000 at December 31, 2007. This amount is further adjusted with net payments in-transit of $261,000, producing an **Actuarial Value of $692,666,000** at December 31, 2007.

Amounts in-transit (i.e. payments made in 2008 in respect of 2007) at December 31, 2007 include:

- $261,000, in respect of investment management fees.

The effect of the foregoing is shown below (in $ 000).

Assets of the Pension Fund at December 31, 2007	Market Value	Actuarial Value
I. Cash and Equivalents		
▪ Cash and short-term investments	16,335	16,335
II. External Management		
▪ Bonds	338,274	338,274
▪ Canadian equities	172,603	172,603
▪ Foreign (U.S.) equities	161,302	161,302
Subtotal	672,179	672,179
III. Smoothing Adjustment		4,413
Total (before in-transit amounts)	**688,514**	**692,927**
Net amount in-transit	(261)	(261)
Total (after in-transit amounts)	**688,253**	**692,666**

Under this adopted asset valuation method, the Plan's investment rate of return in 2007 was equal to 6.67% (net of investment management expenses). After netting out a 2.14% Consumer Price Index (based on a 12 month average to December), the real rate earned was 4.53%.

The currently unrecognized elements of the market value of assets will be taken into account in future years in the following amounts ($ 000).

2008	25% of 2005 gain	4,207	
	25% of 2006 gain	7,429	
	25% of 2007 loss	(7,826)	3,810
2009	25% of 2006 gain	7,429	
	25% of 2007 loss	(7,826)	(397)
2010	25% of 2007 loss	(7,826)	(7,826)
Total			**(4,413)**

The pension fund custodian is CIBC Mellon and the assets are invested in accordance with the investment policy by the following investment managers as at December 31, 2007:

Manager	Investments
TD Asset Management	Bonds & Canadian Equities
Phillips, Hager & North	Bonds
YMG (Ultravest)	Bonds
Gryphon	Canadian Equities
State Street	U.S. Equities

Reconciliation of Fund Assets ($ 000)

		Market Value	Actuarial Value
Value at 31.12.2006		740,266	707,665
Net amount in-transit	21	216	216
Adjusted Value at 31.12.2006		740,482	707,881
I. Contributions			
Employee Contributions			
Employer Contributions		0	0
II. Adjusted Investment Income		9,117	46,131
III. Pensions & Other Benefits			
Pensions for Members	47,3		
Pensions for Widows & Others	12,4		
Death Benefits		(59,746)	(59,746)
IV. Actuarial, Legal and Other Fees			
Actuarial Fees	2		
Custodial Fees			
Investment Management Fees	9		
Other Fees (audit, legal, etc.)		(1,339)	(1,339)
Value at 31.12.2007(before in-transits)		**688,514**	**692,927**
Net amount in-transit	(2	(261)	(261)
Value at 31.12.2007 (after in-transits)		**688,253**	**692,666**

Historical Fund Performance

Annual rates of return, net of investment expenses, for the last 10 years are provided below on both a market value and actuarial value bases.

	Year-end Market Value	Market Value Rate of Return	Year-end Actuarial Value	Actuarial Value Rate of Return
2007	$ 688,253,000	1.15%	$ 692,666,000	6.67%
2006	740,266,000	9.80%	707,665,000	8.52%
2005	732,883,000	8.52%	711,097,000	4.20%
2004	735,469,000	7.05%	743,769,000	1.63%
2003	748,494,000	9.37%	794,867,000	1.04%
2002	745,915,000	-5.95%	850,667,000	1.79%
2001	859,535,000	-0.16%	899,582,000	7.50%
2000	926,878,000	3.25%	900,371,000	11.67%
1999	965,949,000	9.53%	871,990,000	16.18%
1998	943,011,000	16.45%	810,002,000	17.38%

Historical Updates to Pensions In-Payment

Annual cost-of-living adjustments (COLA) for the last 21 years, applicable to pensions that have been in payment for at least one year on the effective date, are provided below.

Effective Date	COLA Update	Effective Date	COLA Update
July 1, 1987	4.75%	July 1, 1998	0.70%
July 1, 1988	3.00%	January 1, 1999	1.00%
July 1, 1989	5.21%	January 1, 2000	2.60%
July 1, 1990	5.10%	January 1, 2001	3.20%
July 1, 1991	5.00%	January 1, 2002	2.50%
July 1, 1992	3.80%	January 1, 2003	2.30%
July 1, 1993	2.10%	January 1, 2004	2.80%
July 1, 1994	1.70%	January 1, 2005	1.83%
July 1, 1995	0.20%	January 1, 2006	2.23%
July 1, 1996	1.80%	January 1, 2007	2.01%
July 1, 1997	2.20%		

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Valuation Results – Going-Concern Basis

On the basis of the foregoing, the financial position of the Plan on the going-concern basis as at December 31, 2007, with comparable results from the previous valuation, is summarized below:

Financial Position – Going-Concern Basis

	Dec. 31, 2007 ($ 000)	Dec. 31, 2006 ($ 000)
Assets		
▪ Value of Pension Fund	692,927	707,665
▪ Net amount in-transit	(261)	0
Actuarial value of assets	692,666	707,665
Liabilities		
▪ Active members		
Regular members	3,782	3,860
Fire-fighters	0	1,047
Total actives	3,782	4,907
▪ Disabled and suspended members	335	580
▪ Retired members' pensions	435,361	457,066
▪ Spouses and other survivor pensions	101,020	97,307
▪ Vested deferred members	149	141
▪ Reserve for increase in minimum pension to $450	7,436	
▪ Reserve for possible surplus distribution to retired members	8,906	9,213
Total actuarial liabilities	556,989	569,214
Funding excess/(unfunded liability)	135,677	138,451

It should be noted that all figures are net of Government Annuity pensions credited to certain members under predecessor pension plans.

Current Service Cost

The estimated value of the benefits that will accrue on behalf of the active members during 2008, and a comparison with the corresponding value for 2007 determined in the prior valuation, is summarized below:

	2008	2007
Estimated Employer current service cost	$ 0	$ 0
Estimated Member required contributions	$ 0	$ 0
Employer current service cost as a percentage of member earnings		
▪ Firefighters	6.5% up to YMPE, 8.0% in excess	6.5% up to YMPE, 8.0% in excess
▪ Other Members	5.5% up to YMPE, 7.0% in excess	5.5% up to YMPE, 7.0% in excess

As at December 31, 2007 all active members had completed 35.0 years of credited service. Therefore, no further contributions for current service are required by the Employer and the Plan members.

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Reconciliation of Going-Concern Financial Position

As the foregoing actuarial balance sheet indicates, the Plan has a funding excess aggregating $ 135,677,000 on the valuation date. The analysis of change in the funding excess during 2007 is as follows.

	($ 000)	($ 000)
Funding Excess at December 31, 2006		138,451
▪ COLA increase at 1/1/2007	(11,137)	
▪ Interest on reserve account at 5.50% per year, after COLA	7,002	
▪ Change in By-law provisions to increase minimum pension	(7,436)	(11,571)
Experience gains (losses)		
▪ Investment experience	7,468	
▪ Retirement experience	(94)	
▪ Mortality experience	181	
▪ Wage increases (greater) lower than expected	56	
▪ Recalculation of surplus distribution reserve	814	
▪ Miscellaneous gains (losses)	372	8,797
Funding Excess at December 31, 2007		135,677

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Valuation Results – Solvency Basis

When conducting a solvency valuation, we determine the relationship between the respective values of the Plan's assets and its liabilities on a solvency basis, determined in accordance with the *Pension Benefits Act (Ontario)*. The value of the Plan's assets and liabilities on a solvency basis are related to the corresponding values calculated as though the Plan were wound up and settled on the valuation date.

A four year smoothing method (similar to the going-concern smoothing method) has been applied to determine the solvency assets and liabilities. Further details are provided in Appendix D.

Financial Position on a Solvency Basis

The Plan's solvency position as at December 31, 2007, in comparison with that of the previous valuation as at December 31, 2006, is determined as follows:

Financial Position – Solvency Basis

	Dec. 31, 2007 ($ 000)	Dec. 31, 2006 ($ 000)
Assets		
Market value of assets (before in-transit amounts)	688,514	740,266
▪ Net amount in-transit	(261)	
Market value of assets (after in-transit amounts)	688,253	740,266
▪ Termination expenses	(471)	(490)
Solvency assets	687,782	739,776
Solvency asset adjustment (averaging method)	741 *	(34,450) *
Adjusted solvency assets	688,523	705,326
Actuarial liability		
Present value of accrued benefits for:		
▪ active members	4,289	5,207
▪ disabled and suspended members	403	667
▪ retired members	469,184	490,165
▪ survivors	107,885	103,471
▪ vested deferred members	164	155
▪ reserve for increase in minimum pension to $450	8,000	
▪ reserve for possible surplus distribution to retired members	8,906	9,213
Solvency liabilities	598,831	608,878
Solvency liability adjustment	(11,045)	(18,073)
Total actuarial liability	587,786	590,805
Solvency excess/(deficiency)	100,737	114,521
Transfer ratio	1.00	1.00

* *Averaging method adjustment = 75% of investment losses (i.e. below the 5.00% expected) of $20,814,000 from 2007 less 50% of investment gains of $15,298,000 from 2006 less 25% of investment gains of $4,775,000 from 2005.*

Payment of Benefits

If the transfer ratio is less than one, the Plan administrator should ensure that the monthly special payments are sufficient to meet the requirements of the Act to allow for the full payment of benefits. Otherwise, the Plan administrator should take the actions prescribed by the Act.

Impact of Plan Wind-Up

In our opinion, the value of the Plan's assets would be greater than its actuarial liabilities if the Plan were to be wound up on the valuation date. Specifically, as at December 31, 2007, the market value of Plan assets of $ 687,782,000 would exceed the actuarial liabilities of $ 598,831,000 by an amount of $ 88,951,000. For purposes of this calculation, the market value of assets includes amounts in-transit and a provision for termination expenses that might be payable from the pension fund and the liabilities exclude the potential liability for future cost-of-living adjustments to pensions in payment.

Pension Benefits Guarantee Fund (PBGF) Assessment

In accordance with subsection 47(1)(p.14) of the Regulations under the *Pension Benefits Act (Ontario)*, the pension benefits provided by this Plan are not guaranteed by the Pension Benefits Guarantee Fund (PBGF) and are therefore exempt from the filing of PBGF assessment certificate (subsection 18(7) of the Regulations) and payment of an annual PBGF assessment (section 37 of the Regulations).

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Indexation Reserve Account

General

The pension plan that the Plan can be fairly compared with is the Ontario Municipal Employees Retirement System (OMERS). OMERS has adopted automatic indexation. It was, and is, our opinion that the Plan with its closed membership could not afford to undertake automatic indexation but, instead, must use available assets to meet inflationary pressures on a yearly basis.

Therefore, in 1991 a policy was recommended and adopted that:

a) assets not required to meet specific current pension liabilities be held in an Indexation Reserve Account (IRA);

b) the IRA be limited to 30% of the going-concern liability for non-indexed benefits;

c) the IRA be built up to the maximum before any allocation of surplus be considered; and

d) minor improvements in pension benefits and increases in pensions due to cost-of-living inflation should be limited to the extent that the IRA is sufficient.

Indexation Reserve Account

The change in the Indexation Reserve Account during 2007 is outlined below.

	($ 000)	($ 000)
Indexation Reserve Account at December 31, 2006		**114,521**
January 1, 2007 cost-of-living increases to pensions		(11,926)
Indexation Reserve Account at January 1, 2007		**102,595**
Indexation Reserve Account at December 31, 2007		
a) Going-concern excess (deficiency)	135,677	
b) Solvency excess (deficiency)	100,737	
Indexation Reserve Account (lesser of (a) and (b))		**100,737**
January 1, 2008 recommended cost-of-living increases to pensions		(12,081)
Indexation Reserve Account at January 1, 2008		**88,656**

Note: The Indexation Reserve Account (IRA) is not to exceed 30% of the going-concern liability, or $ 170,530,000.

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Recommendations

Active Members

No improvements are recommended at this time.

Retired Members

It is recommended that an increase of 2.14% be granted on pensions, effective January 1, 2008, to pensioners on benefit for more than one year and a proportionate increase of 0.178% for each month of pension payment made in 2007 be granted for pensioners who retired during 2007 for which the total estimated cost is $ 11,443,000 on the going-concern basis, or $12,081,000 on the solvency basis. The pension increase schedule is provided below.

Number of Months of payment	Adjustment Percentage
12 or greater	2.140%
11	1.962%
10	1.783%
9	1.605%
8	1.427%
7	1.248%
6	1.070%
5	0.892%
4	0.713%
3	0.535%
2	0.357%
1	0.178%

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Actuarial Opinion

With respect to the Actuarial Valuation as at December 31, 2007
of the Metropolitan Toronto Pension Plan
FSCO and CRA Registration No. 0351577

It is hereby certified that, in our opinion, with respect to the Metropolitan Toronto Pension Plan:

1) since all active members had attained 35 years of pensionable service as at December 31, 2007, current service contributions for 2008, and thereafter, are nil;

2) on a going-concern basis, the Plan was in satisfactory financial condition as at December 31, 2007, having a funding excess of $ 135,677,000;

3) on a solvency basis, the Plan has a solvency excess of $ 100,737,000 as at December 31, 2007;

4) adoption of the recommendations in Section 8 of this Report would still leave the Plan in satisfactory financial condition as at January 1, 2008, with an estimated going- concern funding excess of $ 124,234,000 and an estimated solvency excess of $88,656,000;

5) as at December 31, 2007, the transfer ratio of the Plan is 1.00 and the Prior Year Credit Balance is $ 0; and

6) the Plan benefits are not guaranteed by the Pension Benefits Guarantee Fund and are therefore exempt from the annual filing of the PBGF assessment certificate and payment of any associated fees, in accordance with subsection 47(1)(p.14) of the Regulations under the *Pension Benefits Act (Ontario)*.

In our opinion,

- the data on which the valuation is based are sufficient and reliable for the purpose of the valuation.
- the assumptions are, in aggregate, appropriate for the purpose of the valuation.
- the methods employed in the valuation are appropriate for the purpose of the valuation.
- the assets of the Plan would exceed the liabilities if the Plan were to be wound up on the valuation date.

This report has been prepared, and our opinions have been given, in accordance with accepted actuarial practice.

Anil Narale	Frank Dekeyser
Fellow of the Society of Actuaries	Associate of the Society of Actuaries
Fellow of the Canadian Institute of Actuaries	
April 10, 2008	April 10, 2008
Date	Date

Appendix A

By-law Provisions

The following is a summary of the main provisions of the Plan, contained in By-law no. 15-92, which are relevant to the actuarial valuation. For complete details reference should be made to the formal plan document.

Effective Date:	January 1, 1954.
Membership:	Employees of the Employer and predecessor employers who were hired before July 1, 1968.
Normal Retirement:	Regular Members – age 65; and Firefighters – age 60
Early Retirement:	Unreduced pensions when age plus service total 85 or more. Firefighters also have a "30 and out" early retirement clause. The early retirement penalty is 4% per year (5% per year pre-1992). However, for a 5-year period beginning July 1, 1998, the rule of 85 was replaced by 80 and the early retirement penalty was reduced to 2.0% per year.
Disability Retirement:	Permitted, with full accrued pensions, (a) after 10 years service, upon total and permanent disability; or (b) after 20 years service, upon inability of performing current job.

Member Contributions:	5½% of annual pensionable earnings up to the Canada Pension Plan Y.M.P.E., and 7% of higher annual earnings until Credited Service equals or exceeds 35 years. Firefighters must contribute an additional 1% of pensionable earnings. However, for a six-month period beginning July 1, 1998, member contributions were reduced by 2%. Member contributions were entirely eliminated for the years 1999 to 2004. Since all active Members had completed 35 years of pensionable service as at December 31, 2004, there are no further contribution requirements after this date. A refund of contributions previously made by members after completion of 35 years of credited service was made in 2000.
Employer Contributions:	Same as Member contributions.
Normal Retirement Pension:	2% of employee's highest consecutive 5-year average earnings, multiplied by his number of years of service up to a maximum of 35 years, less (after age 65 or total disability) 0.7% of final 3 year average Y.M.P.E., multiplied by number of years of service after 1.1.66, up to a maximum of 35 years. For years of service after 1991, the Canada Revenue Agency limit on pensions per year of service applies.
Minimum Pension at Normal Retirement:	Annual pension of $450 multiplied by credited service (to a maximum of 30 years), effective from January, 2008. The prior minimum was $300, effective from June, 1992.
Spousal Benefits:	66.67% of the deceased member's normal pension.
Orphans' Pensions:	If there is no Spouse, 66.67% of the deceased member's normal pension until youngest orphan reaches 21. If there is a Spouse, an amount per child under age 21 where the total paid to Spouse AND Orphans is not to exceed 100% of the deceased member's normal pension.
Other Pre-Retirement Death Benefits:	Return of deceased member's pre-1987 contributions plus interest, plus the commuted value of the deceased member's post-1986 accrued pension, in lieu of the spouse pension.
Minimum Death Benefit:	Return of deceased member's contributions plus interest, or pension payable for 60 months certain.

Withdrawal Benefits:	Vested pension, or return of terminated member's pre-1987 contributions plus interest plus the commuted value of the member's post-1986 accrued pension.
Employer Cost-Sharing:	Upon termination, death or retirement, the member or his beneficiary is entitled to receive the excess, if any, of the member's contributions plus interest over 50% of the commuted value of the pension earned over the same period.

Notes:

(1) All pensions are subject to the maximum limitation imposed by the *Municipal Act* and the *Income Tax Act*.

(2) The Fund is subject to the provisions of the *Pension Benefits Act (Ontario).*

Appendix B

Membership Data

Data as to the membership of the Plan were obtained from the Employer for purposes of this actuarial valuation. These data reflect membership changes up to the end of February (approximately) of the year following the valuation date.

Tests were carried out as to the validity of the data by comparison with the data obtained in the previous valuation, by reconciliation of the membership movement during the inter-valuation period and by performing various data checks to ensure that salaries, pension amounts, dates of birth, and so on are reasonable. The results of these tests were satisfactory.

Membership Reconciliation

A reconciliation of the membership data since the previous valuation is provided below.

	Active Members	Suspended & Disabled Members	Pensioners	Surviving Spouses	Vested Deferred Pensioners
As at 31.12.2006	9	5	2,168	1,066	6
Recovery from disabled					
Pension Splits			1		
Exits By:					
Retirement	(1)	(1)	2		
Death - no spouse			(49)	(76)	
Death - with spouse			(60)	60	
Disabled					
As at 31.12.2007	8	4	2,062	1,050	6

Membership Summary

Plan membership data are summarised below. For comparison, we have also summarised corresponding data from the previous valuation.

Membership Data

	31.12.2007	31.12.2006
Active Members		
▪ Number	8	9
▪ Average years of pensionable service	35.0	35.0
▪ Average age in years	61.8	60.9
▪ Average earnings in the year	$ 68,860	$ 65,061
▪ Average accumulated contributions	$294,421	$297,130
Disabled & Suspended Members		
▪ Number	4	5
▪ Average years of pensionable service	35.0	35.0
▪ Average age in years	63.3	62.7
▪ Average annual accrued pension	$ 6,054	$ 8,261
Deferred Pensioners		
▪ Number (including 1 deceased member with payment pending)	6	6
▪ Total annual pension	$ 14,748	$ 14,448
▪ Average annual pension	$ 2,458	$ 2,408
▪ Average age in years	73.9	72.9
Pensioners		
▪ Number	2,062	2,168
▪ Total annual lifetime pension	$ 43,946,316	$ 44,978,265
▪ Total annual bridge pension	$ 1,856,013	$ 2,398,879
▪ Average total annual pension	$ 22,213	$ 21,853
▪ Average age in years	76.7	76.1
Spousal Pensioners		
▪ Number	1,050	1,066
▪ Total annual lifetime pension	$ 12,651,325	$ 12,023,173
▪ Total annual bridge pension	$ 143,889	$ 151,353
▪ Average total annual pension	$ 12,186	$ 11,421
▪ Average age in years	79.5	79.2

Note that the pension amounts above are net of Government Annuity pensions credited to certain members under predecessor pension plans.

Active Members

There are currently 8 active members consisting of 8 regular members and no firefighters. The average age of these members is 61.8 years.

The following table provides a further breakdown:

Age Group	No.	Average Pensionable Service	Average Earnings	Average Accumulated Contributions
55 – 59	2	35.0	$ 86,069	$ 356,195
60 – 64	6	35.0	63,123	273,829
Total	8	35.0	$ 68,860	$ 294,421
Males	3	35.0	$ 91,572	$ 349,394
Females	5	35.0	$ 55,231	$ 261,436

Disabled & Suspended Members

There are currently 2 disabled members (2 regular members and 0 firefighters) accruing service under the Plan and 2 members (1 firefighter and 1 regular member) whose benefits are suspended. The disabled members average 62.0 years of age and the suspended members average 64.7 years of age.

The following table provides a further breakdown:

Age Group	No.	Average Annual Deferred Pension
60 – 64	3	$ 7,896
65 & over	1	528
Total	4	$ 6,054
Males	3	$ 4,641
Females	1	$ 10,291

Pensioners and Spouses

There are currently 2,062 pensioners having an average age of 76.7 years, receiving an average annual pension of $ 22,213 and there are 1,050 surviving spouses having an average age of 79.5 years, receiving an average annual pension of $ 12,186. The following table provides a further breakdown.

	PENSIONERS		SURVIVING SPOUSES	
Age Group	**No.**	**Average Pension**	**No.**	**Average Pension**
Under 50			2	$ 16,291
50 – 54			3	17,736
55 – 59	11	$ 35,489	13	17,121
60 – 64	136	37,170	34	17,104
65 – 69	298	24,880	83	12,696
70 – 74	425	24,288	161	13,564
75 – 79	487	20,447	223	13,112
80 – 84	371	19,512	245	12,347
85 – 89	243	17,952	191	10,204
90 – 94	72	12,293	81	8,595
95 & over	19	9,254	14	5,259
Total	2,062	$ 22,213	1,050	$ 12,186
Males	1,645	$ 24,247	38	$ 6,487
Females	417	$ 14,188	1,012	$ 12,400

Deferred Vested Pensioners

There are currently 6 members who are former employees having an average age of 73.9 years, with an average annual deferred pension of $ 2,458. The following table provides a further breakdown.

Age Group	No.	Average Deferred Pension
55 – 59	1	$ 264
60 – 64	2	5,142
65 & over	3	1,400
Total	6	$ 2,458
Males	4	$ 1,203
Females	2	$ 4,968

Plan Participants Split by Employer

The number of Plan participants at December 31, 2007 are split by Participating Employer below.

ER Code	Pensioners	Survivors	Other	Total	Participating Employer Name
1	856	466	11	1,333	Metro Toronto
4	2	1	-	3	Metro Planning Dept
6	3	3	-	6	Metro Toronto Zoo
9	6	2	-	8	Riverdale Hospital
16	-	2	-	2	City of Toronto (Swansea)
18	-	1	-	1	Toronto (Forest Hill) Fire Dept
21	140	57	-	197	North York (Inside Employees)
22	184	131	2	317	North York (Outside Employees)
23	30	13	-	43	North York PLB (Union)
24	13	1	-	14	North York PLB (Non-Union)
26	218	69	-	287	North York Firefighters
31	192	132	-	324	Scarborough
32	6	1	-	7	Scarborough PLB
33	131	44	1	176	Scarborough Firefighters
42	-	-	-	-	Etobicoke (New Toronto PLB)
51	2	3	-	5	York (Weston)
52	6	1	-	7	York (Weston) Firefighters
61	56	45	1	102	East York
62	76	18	-	94	East York Firefighters
63	4	4	-	8	East York Board of Education
64	2	1	-	3	East York (Leaside)
71	13	9	1	23	Toronto &York Roads Commission
80	122	46	2	170	Police (Civilians)
Total	**2,062**	**1,050**	**18**	**3,130**	

Appendix C

Actuarial Methods and Assumptions – Going-Concern Basis

The actuarial value of the benefits under the Plan is based on economic and demographic assumptions. At each valuation, we determine whether, in our opinion, the actuarial assumptions are still appropriate for the purposes of the valuation, and we revise the assumptions if necessary.

In this valuation, we have used the same assumptions as in the previous valuation, except as noted. Emerging experience will result in gains or losses that will be revealed and considered in future actuarial valuations. For this valuation, we have used the following assumptions:

Economic Assumptions

Investment Return

We have assumed that the investment return on the actuarial value of the Plan assets, net of eligible expenses charged to the Plan assets, will average 5.50% per year over the long term.

This is based on an assumed inflation rate of 2.50% per year plus a real rate of return of 3.00% per year.

Discount Rate

We have assumed that the discount rate for determination of the actuarial liabilities will be equal to the investment return assumption of 5.50% per year.

Expenses

We have not included a specific allowance for eligible Plan expenses. Instead, we have assumed that the investment return assumption is net of all eligible Plan expenses.

Increases in Pensionable Earnings

The benefits ultimately paid will depend on each member's final average earnings. To calculate the pension benefits payable upon retirement, death or termination of employment, we have taken the 2007 annualized earnings and assumed that such earnings will increase at 4.50% per year.

This is based on an assumed inflation rate of 2.50% per year, a productivity component of 1.0% per year and a merit and promotional increase component of 1.00% per year.

Increases in the YMPE

Since the benefits under the Plan depend on the average Year's Maximum Pensionable Earnings (YMPE) under the Canada Pension Plan, it is necessary to make an assumption about future increases in the YMPE for this valuation.

It is assumed that the YMPE will increase at the rate of 3.50% per year from its 2008 level of $ 44,900.

Increases in the Maximum Pension Permitted under the Income Tax Act

The *Income Tax Act (Canada)* (ITA) stipulates that the maximum pension that can be provided under a registered pension plan will increase by $ 111 per year from $ 2,222 in 2007 to $ 2,444 in 2009 and, thereafter, increase in accordance with general increases in the average wage. For this Plan the ITA maximum pension limitations apply only to the pension benefits accrued after 1991.

For this valuation, it is assumed that the ITA maximum pension will increase at the rate of 3.50% per year, starting in 2010.

Demographic Assumptions

Retirement Age

Because early retirement pensions are reduced in accordance with a formula, the retirement age of Plan members has an impact on the cost of the Plan benefits.

Accordingly, we have assumed that active members will retire at the age of 61 years (58 years for firefighters) or the age at the valuation date plus one, if greater.

Termination of Employment

We have not made an explicit assumption for benefits payable on pre-retirement termination.

Mortality

The actuarial value of the pension depends on the lifetime of the member. We have assumed mortality rates after retirement in accordance with the Uninsured Pensioner Mortality Table for 1994 (UP94), with allowance for future mortality improvements. No mortality assumption was included in the pre-retirement period. According to this table, the life expectancy at age 65 years is 18.7 years for a male and 21.3 years for a female.

Disability

We have not made an implicit assumption for benefits payable on disability retirement.

Spousal Benefit Assumptions

Based on actual data provided and an allowance for remarriage of 0.25% of the pensioner liability.

Subject to the entitlement of the prior spouse, if any, the waiting period specified in the Plan and the requirements under the *Pension Benefits Act (Ontario),* a spouse acquired after retirement date may be entitled to receive the spousal pension. Based on remarriage rates for older adults in Canada, it was estimated that the additional liability as a result of this provision is approximately 0.25% of the pensioner liability.

Assumed Percentage of Members Married

We have assumed that 100% of active members are married. Female spouses are assumed to be 4 years younger than males.

Allowance for Stepped Pensions

Upon the death of a pensioner whose pension has been stepped at retirement, the Plan provides a pension to the spouse whereby the survivor percentage is applied to the post-65 pre-stepped pension rather than the post-65 pension in payment. A stepped pension is a pension that has been increased before age 65 and reduced after age 65 to produce a level pension in anticipation of the OAS pension commencing from age 65.

We have performed a calculation based on the membership data supplied to estimate the spousal pension.

Reserve for Surplus Distribution to Retired Members

We have valued a one-time payment of $ 2,500 to each regular pensioner and surviving spouse and $ 4,500 to each firefighter pensioner and surviving spouse. These figures approximate the annual contribution that would have been made to the Plan, were it not for the contribution holiday, by each active regular member and firefighter member, respectively. This payment was approved by the Trustees in 1999, but has yet to be approved by City Council.

Deviation from Assumptions

Emerging experience differing from the assumptions will result in gains or losses in future actuarial valuations.

Funding Method

The total *actuarial liability* has been determined as the actuarial present value of projected benefits for active, disabled and suspended participants plus the actuarial present value of accrued benefits for current pensioners, spousal pensioners and deferred pensioners. The total *value of assets* has been determined as the actuarial value of invested assets. The difference between the total value of assets and the total actuarial liability is called the *funding excess* or *unfunded liability*, as the case may be. An unfunded liability will be amortized over no more than 15 years through special payments as required under the *Pension Benefits Act (Ontario)*.

The Indexation Reserve Account which is equal to the funding excess, subject to a maximum of 30% of the actuarial liability, is to be used primarily to provide ad hoc pension increases to Members in receipt of pension payments from the Pension Fund.

Differences between actual experience and that expected based upon the set of actuarial assumptions during the period between two actuarial valuation dates will result in experience gains/(losses) which will increase/(decrease) the Indexation Reserve Account and Funding Excess.

Appendix D

Actuarial Methods and Assumptions – Solvency Basis

The value of assets used for determining the financial position of the Plan on the solvency basis includes the solvency assets plus a solvency asset adjustment.

The *solvency assets* are determined as the market value of investments held by the Plan plus any cash balances of the Plan and accrued or receivable income items.

The *solvency asset adjustment* is determined as the amount, positive or negative, by which the value of the solvency assets are adjusted as a result of applying an averaging method that stabilizes short-term fluctuations of the Plan assets.

The value of the liabilities used for determining the financial position of the Plan on the solvency basis includes the solvency liabilities plus a solvency liability adjustment.

To determine the *solvency liability*, we have valued those benefits that would have been paid had the Plan been wound up on the valuation date with all members vested in their accrued benefits.

The *solvency liability adjustment* is determined as the amount, positive or negative, by which the value of the solvency liabilities are adjusted as a result of using a solvency valuation interest rate that is the average of the market interest rates calculated over a period of 4 years (the same period used for the averaging method used to determine the solvency asset adjustment).

The difference between (1) the sum of the solvency assets and solvency asset adjustment and (2) the sum of the solvency liability, solvency liability adjustment and prior year credit balance is called the *solvency excess* or *solvency deficiency*, as the case may be.

A solvency deficiency will be amortized over no more than 5 years through special payments as required under the *Pension Benefits Act (Ontario)*.

Since virtually all members have qualified for a retirement pension, we have assumed that all benefits will be settled through the purchase of annuities and have used a valuation interest rate for solvency purposes which, when used with the 1994 Uninsured Pensioners mortality table with mortality projected to 2015 (U94P2015), provides an estimate of group annuity purchase rates for non-indexed pensions.

The Plan provides that the new spouse of a pensioner, whose former spouse at retirement has died or who was without spouse at retirement, is eligible for a survivor pension provided that the new spousal relationship, as defined in the Plan, has been in effect for a minimum of 5 years. In order to make allowance for the possible increase in future liabilities on remarriage of a pensioner, we have loaded the pensioner liabilities by 0.25% as an allowance for remarriage.

Spousal benefits for members with stepped pensions have been determined in the same manner as outlined under the going-concern valuation assumptions.

It should be noted that we have excluded from our calculations any potential liability for future cost-of-living increases provided under the Plan.

Assumptions for determination of the solvency and wind-up liability are as follows:

Actuarial Assumptions

Mortality rates:	U94P2015
Interest rate for benefits to be settled through annuity purchase:	4.50% per year
Family composition:	Same as for going concern valuation
Termination expenses:	$ 471,000 (based on $ 150 per pensioner/survivor and $ 250 per active/suspended/deferred vested)

Assumptions for determination of the solvency liability adjustment are as follows:

Actuarial Assumptions

Mortality rates:	U94P2015
Interest rate for benefits to be settled through annuity purchase:	4.75%
Family composition:	Same as for going concern valuation

We have used an average of the annuity proxy rates as at December 31, 2004 (5.25% per year), December 31, 2005 (4.50% per year), December 31, 2006 (4.60% per year) and December 31, 2007 (4.50% per year) which produces a rate of 4.75% per year.

Appendix E

Employer Certification

With respect to the report on the actuarial valuation of the *Metropolitan Toronto Pension Plan*, as at December 31, 2007, I hereby certify that, to the best of my knowledge and belief:

- a copy of the official Plan documents, and of all amendments made up to the date of the valuation, were provided to the actuary;
- the membership and financial data provided to the actuary for the purposes of this valuation are accurate and complete;
- the membership data provided to the actuary include a complete and accurate description of every person who is entitled to benefits under the terms of the Plan for service up to the date of the valuation, and
- all events subsequent to December 31, 2007 that may have an impact on the results of the valuation have been communicated to the actuary.

Date

Signed

Name

Title

MERCER

MARSH MERCER KROLL
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