

CHICAGO TRANSIT AUTHORITY  
SUPPLEMENTAL RETIREMENT PLAN  
AND RETIREMENT PLAN FOR BOARD MEMBERS

ACTUARIAL VALUATION  
AS OF JANUARY 1, 2004

May 26, 2004

Ms. Lynn Sapyta  
Comptroller/General Manager, Finance  
Chicago Transit Authority  
Merchandise Mart Plaza, Room 714  
Chicago, Illinois 60654

**Re: Chicago Transit Authority Supplemental Retirement Plan and Board Members Plan**

Dear Ms. Sapyta:

I am pleased to submit our actuarial report based on the actuarial valuation as of January 1, 2004 of the Chicago Transit Authority Supplemental Retirement Plan and the Chicago Transit Authority Retirement Plan for Chicago Transit Board Members.

The report consists of 8 Sections and 3 Appendices as follows:

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I would be pleased to discuss any aspects of this report with you and other interested persons at your convenience.

Respectfully submitted,

Sandor Goldstein, F.S.A.  
Consulting Actuary

## **A. INTRODUCTION**

As requested, we have performed an actuarial valuation as of January 1, 2004 of the following retirement plans:

- (1) The Chicago Transit Authority Supplemental Retirement Plan (“Supplemental Plan”), and
- (2) The Chicago Transit Authority Retirement Plan for Chicago Transit Board Members (“Board Members Plan”)

Under the Chicago Transit Authority Early Retirement Incentive Program which was adopted on March 20, 1992, nonunion employees who elected to retire under the program were provided with certain additional benefits. These additional benefits are being paid through the Supplemental Plan. We have therefore included in our valuation of the Supplemental Plan the benefits being paid under the Early Retirement Incentive Program.

The purpose of the valuation was to determine the financial condition, employer contribution requirement, and annual pension cost for purposes of the Authority’s financial statements.

The authority has established a Trust to which Authority and participant contributions for the plans are made. Under the Trust, assets are segregated in support of Authority’s obligations under the plans. For purposes of the Authority’s financial statements, the Authority’s share of the assets of the Trust are included in the general assets of the Authority. For financial reporting purposes, benefit payments made by the plans are treated as contributions made by the Authority.

Based on the above, we feel that it is appropriate to present results of the actuarial valuation under the following two alternative approaches:

I. Approach For Funding Purposes. For determining the true financial condition and the employer contribution requirements of the plans, the total assets in the Trust segregated on behalf of the plans are treated as assets of the plans.

II. Approach For Disclosure Purposes. For financial reporting purposes, including the determination of the Annual Pension Cost for GASB Statement No. 27, only the employee contributions are treated as assets of the plans. The balance of the assets in the Trust are treated as an asset of the Authority. Benefit payments made under the plans are treated as contributions made by the Authority.

In the following pages, we present results of the valuation for both of the above alternative approaches of treating assets.

## **B. DATA USED FOR THE VALUATION**

Participant Data. The participant data required to carry out the valuation was supplied by the Authority. The membership of the Plan as of December 31, 2003, on which the valuation was based, is summarized in Exhibit 1. It can be seen that there were 183 active members, 497 pensioners, and 15 terminated vested members included in the valuation. The total active payroll as of December 31, 2003 was \$17,765,177.

Age and service distributions for active participants in the Supplemental Plan and the Board Members Plan are provided in Exhibits 5 and 6. A breakdown by age of retirement participants and beneficiaries in the Supplemental Plan, Board Members Plan, and Retirement Incentive Plan is provided in Exhibits 7, 8, and 9.

Assets. We were provided with a statement of assets and liabilities for the plans as of December 31, 2003. We were also provided with a statement of the assets of the Trust as of December 31, 2003. Based on these statements, we have determined the actuarial value of the assets of the plans as of January 1, 2004 (with assets at market value) to be as follows:

I. For Funding Purposes. We have estimated the total market value of the assets of the plans as of January 1, 2004 to be \$30,728,731. This is the actuarial value of assets that is used for funding purposes.

II. For Disclosure Purposes. As of December 31, 2003, the total employee contributions amount to \$355,973. This is the actuarial value of assets as of January 1, 2004 that is used for disclosure purposes.

**C. PLAN PROVISIONS**

Our valuation was based on the provisions of the Plans in effect as of January 1, 2004. A summary of the principal provisions of the Plans on which the valuation was based is provided in Appendix 1.

**D. ACTUARIAL ASSUMPTIONS AND COST METHOD**

The actuarial assumptions used for the January 1, 2004 valuation are outlined in Appendix 2. The actuarial assumptions used for the January 1, 2004 actuarial valuation are the same as the assumptions used for the January 1, 2003 actuarial valuation.

In our opinion, the actuarial assumptions used for the valuation are reasonable, in the aggregate, taking into account the plan's experience and future expectations and represent our best estimate of anticipated experience.

The projected unit credit actuarial cost method was used for the January 1, 2004 valuation. This is the same actuarial cost method that was used for the plan's previous actuarial valuation.

## **E. SUMMARY OF RESULTS FOR FUNDING PURPOSES**

A summary of the results of the actuarial valuation for funding purposes is provided in Exhibit 1. As indicated in Section A. of the report, for funding purposes, the total assets in the Trust are considered to be assets of the plan.

Financial Condition. Exhibit 1 summarizes the actuarial liability for the various classes of members. The total actuarial liability is then compared with the actuarial value of assets in order to arrive at the unfunded actuarial liability. As can be seen from Exhibit 1, the total actuarial liability is \$49,398,990, the actuarial value of assets is \$30,728,731, and the unfunded actuarial liability is \$18,670,259. The ratio of the actuarial value of assets to the actuarial liability, or funded ratio, is 62.2%.

Exhibit 2 provides additional information regarding the actuarial liability for the regular Supplemental Plan and the Board Members Plan.

Annual Required Contribution. The annual required contribution for the year beginning January 1, 2004 is developed in Exhibit 1. The annual required contribution is based on the normal cost plus the amount required to amortize the unfunded liability over 30 years through level dollar payments. This meets the parameters prescribed under GASB Statements No. 25 and 27 for determining the annual required contribution.

As can be seen from Exhibit 1, the total required contribution is determined to be \$2,279,603, employee contributions are estimated to be \$49,166, resulting in an employer required contribution of \$2,230,437.

#### **F. SUMMARY OF RESULTS FOR DISCLOSURE PURPOSES**

A summary of the results of the actuarial valuation for disclosure purposes is provided in Exhibit 3. As indicated in Section A. of the report, for disclosure purposes, only the amount of employee contributions in the Trust considered to be an asset of the plan.

Financial Condition. The total actuarial liability for disclosure purposes is the same as for funding purposes. Thus, the total actuarial liability is \$49,398,880, the actuarial value of assets is \$355,973, and the unfunded liability is \$49,043,017.

Annual Required Contribution. The annual required contribution and the annual pension cost for purposes of GASB Statement No. 27 for the year beginning January 1, 2004 is developed in Exhibit 3. As can be seen from Exhibit 3, the net annual required contribution amounts to \$4,368,129. The annual pension cost for GASB Statement No. 27 amounts to \$4,091,739.

Exhibit 4 provides additional information regarding the annual required contribution for the regular Supplemental Plan and the Board Members Plan.



## **G. COMMENTS REGARDING AUTHORITY'S CURRENT FUNDING POLICY**

As shown in Exhibit 1, based on the results of the January 1, 2004 actuarial valuation, the actuarially determined employer contribution requirement for the year beginning January 1, 2004 amounts to \$2,230,437. This consists of a required contribution of \$1,102,003 for the Supplemental and Board Members Plans and a required contribution of \$1,128,434 for the Retirement Incentive plan.

During the last several years, the Authority's funding policy has been to contribute an amount equal to the annual required contribution to the Supplemental and Board Members Plans. With respect to the Retirement Incentive Authority Plan, the Authority's funding policy has been to pay the benefits due under the plan directly from the general assets of the Authority.

Under the above funding policy, the expected employer contribution for the year 2004 is expected to be \$1,102,003 for the Supplemental and Board Members Plans and \$1,662,705 for the Retirement Incentive Plan, resulting in a total employer contribution of \$2,764,708. Thus, the total expected employer contribution of \$2,764,708 would exceed the total annual required contribution of \$2,230,437 by \$534,271.

## **H. CERTIFICATION**

This actuarial report has been prepared in accordance with generally accepted actuarial principles and practices and to the best of our knowledge, fairly represents the financial condition of the Chicago Transit Authority Supplemental Retirement Plan and Board Members Plan as of January 1, 2004.

Respectfully submitted,

Sandor Goldstein, F.S.A.  
Consulting Actuary

Carl J. Smedinghoff, A.S.A.  
Associate Actuary

## Exhibit 1

### Supplemental and Board Members Pension Plans Actuarial Valuation as of January 1, 2004

#### Summary of Results for Funding Purposes

	Supplemental and Board Members Plans	Retirement Incentive Plan	Total
<u>A. Summary of Data</u>			
1. Number of active members	183	0	183
2. Pensioners	269	228	497
3. Terminated vested members	15	0	15
4. Total	467	228	695
5. Total Payroll of Active Members	\$ 17,765,177	\$ -	\$ 17,765,177
<u>B. Actuarial Liability</u>			
1. Active members	\$ 11,528,176	\$ -	\$ 11,528,176
2. Pensioners	20,672,479	16,033,025	36,705,504
3. Terminated vested members	1,165,310	0	1,165,310
4. Total actuarial liability	\$ 33,365,965	\$ 16,033,025	\$ 49,398,990
5. Actuarial value of assets	30,728,731	0	30,728,731
6. Unfunded actuarial liability	\$ 2,637,234	\$ 16,033,025	\$ 18,670,259
7. Funded ratio			62.21%
<u>C. Annual Required Contribution</u>			
1. Total normal cost	\$ 965,556	\$ -	\$ 965,556
2. Annual amount required to amortize unfunded liability over 30 years as a level dollar amount	185,613	1,128,434	1,314,047
3. Total required contribution (1+2)	\$ 1,151,169	\$ 1,128,434	\$ 2,279,603
4. Estimated employee contributions	49,166	0	49,166
5. Employer required contribution (3-4)	\$ 1,102,003	\$ 1,128,434	\$ 2,230,437

## Exhibit 2

Actuarial Liabilities and Cost as of January 1, 2004

For the Board Members and Supplemental Plans Excluding the Retirement Incentive Plan

	Supplemental Plan	Board Members Plan	Total
<u>A. Summary of Data</u>			
1. Number of active members	177	6	183
2. Pensioners	257	12	269
3. Terminated vested members	6	9	15
4. Total	440	27	467
5. Total Payroll of Active Members	\$ 17,590,177	\$ 175,000	\$ 17,765,177
<u>B. Actuarial Liability</u>			
1. Active members	\$ 11,339,120	\$ 189,056	\$ 11,528,176
2. Pensioners	19,125,045	1,547,434	20,672,479
3. Terminated vested members	322,785	842,525	1,165,310
4. Total actuarial liability	<u>\$ 30,786,950</u>	<u>\$ 2,579,015</u>	<u>\$ 33,365,965</u>
<u>C. Normal Cost</u>			
1. Total Normal Cost	\$ 910,872	\$ 54,684	\$ 965,556

### Exhibit 3

#### Supplemental and Board Members Pension Plans Actuarial Valuation as of January 1, 2004

#### Summary of Results for Disclosure Purposes

	Supplemental and Board Members Plans	Retirement Incentive Plan	Total
<u>A. Summary of Data</u>			
1. Number of active members	183	0	183
2. Pensioners	269	228	497
3. Terminated vested members	15	0	15
4. Total	<u>467</u>	<u>228</u>	<u>695</u>
5. Total Payroll of Active Members	\$ 17,765,177	\$ -	\$ 17,765,177
<u>B. Actuarial Liability</u>			
1. Active members	\$ 11,528,176	\$ -	\$ 11,528,176
2. Pensioners	20,672,479	16,033,025	36,705,504
3. Terminated vested members	1,165,310	-	1,165,310
4. Total actuarial liability	<u>\$ 33,365,965</u>	<u>\$ 16,033,025</u>	<u>\$ 49,398,990</u>
5. Actuarial value of assets	355,973	0	355,973
6. Unfunded actuarial liability	<u>\$ 33,009,992</u>	<u>\$ 16,033,025</u>	<u>\$ 49,043,017</u>
7. Funded ratio			0.72%
<u>C. Annual Pension Cost</u>			
1. Total normal cost	\$ 965,556	\$ -	\$ 965,556
2. Annual amount required to amortize unfunded liability over 30 years as a level dollar amount	<u>2,323,305</u>	<u>1,128,434</u>	<u>3,451,739</u>
3. Annual Required Contribution (ARC) (1+2)	<u>\$ 3,288,861</u>	<u>\$ 1,128,434</u>	<u>\$ 4,417,295</u>
4. Estimated employee contributions	49,166	0	49,166
5. Net Annual Required Contribution (3-4)	<u>\$ 3,239,695</u>	<u>\$ 1,128,434</u>	<u>\$ 4,368,129</u>
6. Interest on NPO	924,645	672,693	1,597,338
7. Adjustment to ARC	(1,084,638)	(789,090)	(1,873,728)
8. Annual Pension Cost	\$ 3,079,702	\$ 1,012,037	\$ 4,091,739
9. Expected employer contribution	\$ 1,102,003	\$ 1,662,705	\$ 2,764,708

#### Exhibit 4

#### Supplemental and Board Members Pension Plans Actuarial Valuation as of January 1, 2004

#### Summary of Results for Disclosure Purposes For the Board Members and Supplemental Plans Excluding the Retirement Incentive Plan

	Supplemental Plan	Board Members Plan	Total
<u>A. Summary of Data</u>			
1. Number of active members	177	6	183
2. Pensioners	257	12	269
3. Terminated vested members	6	9	15
4. Total	<u>440</u>	<u>27</u>	<u>467</u>
5. Total Payroll of Active Members	\$ 17,590,177	\$ 175,000	\$ 17,765,177
 <u>B. Actuarial Liability</u>			
1. Active members	\$ 11,339,120	\$ 189,056	\$ 11,528,176
2. Pensioners	19,125,045	1,547,434	20,672,479
3. Terminated vested members	<u>322,785</u>	<u>842,525</u>	<u>1,165,310</u>
4. Total actuarial liability	\$ 30,786,950	\$ 2,579,015	\$ 33,365,965
5. Actuarial value of assets	<u>300,684</u>	<u>55,289</u>	<u>355,973</u>
6. Unfunded actuarial liability	\$ 30,486,266	\$ 2,523,726	\$ 33,009,992
7. Funded ratio			1.07%
 <u>C. Annual Pension Cost</u>			
1. Total normal cost	\$ 910,872	\$ 54,684	\$ 965,556
2. Annual amount required to amortize unfunded liability over 30 years as a level dollar amount	<u>2,145,680</u>	<u>177,625</u>	<u>2,323,305</u>
3. Annual Required Contribution (ARC) (1+2)	\$ 3,056,552	\$ 232,309	\$ 3,288,861
4. Estimated employee contributions	<u>43,916</u>	<u>5,250</u>	<u>49,166</u>
5. Net Annual Required Contribution (3-4)	\$ 3,012,636	\$ 227,059	\$ 3,239,695
6. Interest on NPO			924,645
7. Adjustment to ARC			(1,084,638)
8. Annual Pension Cost			\$ 3,079,702
9. Expected employer contribution			\$ 1,102,003

**EXHIBIT 5**

**Distribution of Active Participants in the Supplemental Plan as of January 1, 2004**

Age	Years of Service									Total
	<1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35+	
Under 25	0	0	0	0	0	0	0	0	0	0
25 - 29	0	1	0	0	0	0	0	0	0	1
30 - 34	1	0	0	0	0	0	0	0	0	1
35 - 39	0	4	1	3	2	0	0	0	0	10
40 - 44	2	8	8	2	7	2	0	0	0	29
45 - 49	0	6	6	4	12	7	8	0	0	43
50 - 54	0	5	6	7	5	3	10	7	0	43
55 - 59	0	4	3	0	9	4	9	4	2	35
60 - 64	0	0	2	1	3	1	3	2	2	14
65 - 69	0	0	0	0	1	0	0	0	0	1
70+	0	0	0	0	0	0	0	0	0	0
<b>Totals</b>	<b>3</b>	<b>28</b>	<b>26</b>	<b>17</b>	<b>39</b>	<b>17</b>	<b>30</b>	<b>13</b>	<b>4</b>	<b>177</b>

**EXHIBIT 6**

**Distribution of Active Participants in the Board Members Plan as of January 1, 2004**

Age	Years of Service									Total
	<1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35+	
35 - 39	1	0	0	0	0	0	0	0	0	1
40 - 44	0	0	0	0	0	0	0	0	0	0
45 - 49	0	0	1	0	0	0	0	0	0	1
50 - 54	0	3	0	0	0	0	0	0	0	3
55 - 59	0	0	0	0	1	0	0	0	0	1
<b>Totals</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>

### EXHIBIT 7

#### Retired Participants and Beneficiaries by Age in the Supplemental Plan as of January 1, 2004

Age	Number	Annual Payments
Under 45	0	0
45 - 49	4	62,332
50 - 54	24	276,701
55 - 59	55	620,889
60 - 64	44	283,533
65 - 69	30	227,783
70 - 74	21	105,249
75 - 79	29	104,683
80 - 84	24	73,573
85 - 89	18	37,197
90+	8	19,858
Totals	257	1,811,798

### EXHIBIT 8

#### Retired Participants and Beneficiaries by Age in the Board Members Plan as of January 1, 2004

Age	Number	Annual Payments
Under 45	0	0
45 - 49	0	0
50 - 54	1	13,860
55 - 59	0	0
60 - 64	0	0
65 - 69	3	27,937
70 - 74	4	70,484
75 - 79	4	55,419
80 - 84	0	0
85 - 89	0	0
90+	0	0
Totals	12	167,700



## EXHIBIT 9

### Retired Participants by Age in the Retirement Incentive Plan as of January 1, 2004

Age	Number	Annual Payments
Under 45	0	0
45 - 49	0	0
50 - 54	0	0
55 - 59	17	90,800
60 - 64	61	350,805
65 - 69	72	643,029
70 - 74	50	413,736
75 - 79	22	145,012
80 - 84	5	12,751
85 - 89	1	6,572
90+	0	0
Totals	228	1,662,705

## Appendix 1

### Summary of Principal Provisions

#### I. SUPPLEMENTAL RETIREMENT PLAN

Eligibility for Participation. Employees of the CTA in certain employment classifications established by the Executive Director, with approval of the Transit Board, are eligible to participate

##### Eligibility for Pension

Normal Retirement. – attainment of age 65 and completion of three years of service.

Disability Retirement. – completion of 10 years of service (five years if disability is covered under Workmen’s Compensation) and disabled, as defined in the Retirement Plan for CTA Employees.

Early Retirement. – satisfaction of one of the following: (a) attainment of age 55 and completion of three years of service, or (b) completion of 25 years of service.

##### Amount of Supplemental Pension

The annual amount of pension is based on an employee’s annual earnings averaged over the highest four consecutive years of earnings during the final ten years of employment and the employee’s years of service as follows:

Normal or Disability Retirement. – An annual pension, commencing at retirement, equal to the smaller of (a) 1% of annual earnings times years of service, or (b) the excess of 67.5% of annual earnings over the annual pension payable to the employee from the Retirement Plan for CTA Employees.

Early Retirement. – An annual pension, commencing at age 65, equal to the smaller of (a) 1% of annual earnings times years of service or (b) the excess of 67.5% of annual earnings multiplied by the ratio of years of service at early retirement date to years of service which the employee would have accrued upon continued employment to age 65, over the annual pension earned by the employee under the Retirement Plan for CTA Employees (prior to reduction for early retirement, if applicable).

##### Benefits Prior to Eligibility for Retirement

No benefits are payable to, or on behalf, or an employee who terminates employment with the CTA prior to retirement, except as provided in the Governmental Service provision, described below.

### Minimum Pension

The minimum annual pension payable to an employee who retires on or after February 1, 1984 at normal, disability, or early retirement is equal to 1/6<sup>th</sup> of 1% of average earnings times years of service, not in excess of 30 years. If an employee retires at early retirement, the minimum pension commences at retirement and is payable for life or until a larger amount is payable under the regular supplemental formula.

### Governmental Service

Participants who retire on or after February 1, 1984, may receive credit for service with a governmental agency which provides reciprocity of service with the CTA for pension purposes or with the City of Chicago or the State of Illinois. To receive credit for such service, the employee must commence working for the CTA within 12 months of terminating service with such agency and, if hired subsequent to February 1, 1984, must apply for such service credit within 18 months after being hired by the CTA and must complete 10 years of service with the CTA. To receive credit for governmental service, an employee must have contributed to the supplemental plan an amount equal to the amount which would have been contributed to the Retirement Plan for CTA Employees during the period of governmental service if such service had been with the CTA (but not less than 5% per year if hired by the CTA after 2/1/84) plus interest as computed under the Retirement Plan for CTA Employees. Payment of contributions must be made within 10 years following date of hire by the CTA (or within 10 years following 7/1/85 if hired on or prior to 2/1/84) or prior to commencement of benefits if within 10 years.

If an employee receives credit for governmental service, he will receive from the supplemental plan, the difference between (a) the benefits computed under the terms of the Retirement Plan for CTA Employees using CTA service and governmental service plus supplemental benefits using such service and (b) benefits payable to, or on behalf of, the employee from the Retirement Plan for CTA Employees and from other plans from which the employee receives benefits for service which is included in governmental service.

### Early Retirement Incentive Program

Pursuant to Ordinance No. 92-68, non-collectively bargaining participants of the Retirement Plan for CTA employees eligible to retire under the provisions of that plan, were eligible to participate in the program from March 30, 1992 through November 30, 1992. Participants electing to participate in the program elected to retire effective June 1, 1992 and received the following benefits:

- an additional five years of service credit for purposes of determining the retirement benefit under the Retirement Plan for CTA employees, and if eligible, under the Supplemental Plan
- retirement benefits were unreduced for commencement prior to age 65
- a \$200 per month additional benefit payable for a period of two years.

The terms and conditions for the payment of the benefits are comparable to those of the Supplemental Plan.

Employees who first became eligible to retire after June 1, 1992 but not later than December 1, 1992, could participate in the program if they elected to retire in the month they met the retirement eligibility conditions.

## **II. RETIREMENT PLAN FOR CHICAGO TRANSIT BOARD MEMBERS**

The Basic Plan for Board Members provides essentially the same benefits for the Board Members as would be provided if they were covered by the Retirement Plan for CTA Employees, with the following exceptions:

1. A Board Member who terminates employment after completing at least 24 months of service retains the right to his or her earned retirement allowance under the Basic Plan.
2. The amount of death benefit payable to a Board Member entitled to a retirement allowance under the Basic Plan is \$4,000.
3. Continuous service of a Board Member includes all service with the City of Chicago, the State of Illinois, and any governmental body that provides reciprocity of pension credits to Chicago Transit Authority Employees and Board members provided that such service is not included until the Transit Board Member completes at least 2 years of service as a Board Member. If the Board Member receives credit for such service, the amount of pension computed is reduced by the amount of pension received from the governmental agency for which such service was performed. However, the Board Member's pension is not less than it would have been if such service had been disregarded.
4. Benefits payable under the Basic Plan may not be paid prior to age 50. If such benefits are paid subsequent to age 50 but prior to age 55, the early retirement reduction is equal to 5% for each full year or fraction of a year by which the Board Member's commencement date precedes his or her 65<sup>th</sup> birthday rather than the early retirement reduction specified in the plan. If the Board member retires after his 55<sup>th</sup> birthday, his benefit is reduced in the same manner as under the Retirement Plan for CTA Employees.
5. The minimum monthly benefit payable under the Basic Retirement Plan to a Transit Board Member who completes at least 60 months of service is equal to 1/12 of 62.5% of his or her annual compensation during the 12 months of service preceding retirement.

The benefits payable to a Board Member under the Supplemental Retirement Plan for Transit Board Members are the same as the benefits payable under the Supplemental Retirement Plan for Officers, Executives, Supervisory and Professional Employees.

## Appendix 2

### Summary of Actuarial Assumptions and Actuarial Cost Method

#### Actuarial Assumptions

The actuarial assumptions used for the January 1, 2004 actuarial valuation are summarized below. These assumptions were adopted as of December 31, 2000.

#### Mortality Rates

For active and retired participants and for survivors the 1994 Group Annuity Mortality Table for Males and Females. For disabled lives a 50%/50% blend of the 1994 Group Annuity Mortality Table and the 1965 Modified Railroad Retirement Table of Disabled Mortality.

Termination Rates. Termination rates are used to estimate the probability that an employee will terminate employment at a given age. The following is a sample of the termination rates that were used:

<u>Age</u>	<u>Rate of Termination</u>
25	.0550
30	.0425
35	.0319
40	.0225
45	.0150
50	.0106
55 and older	.0000

No termination is assumed after completion of 25 years of service.

Retirement Rates. Retirement rates are used to estimate the probability that an employee will retire at each at which a retirement benefit is available. The following is a sample of the retirement rates that were used:

Rate of Retirement

<u>Age</u>	<u>If service is less than 25<sup>1</sup></u>	<u>If service is 25 or greater</u>
50 or less	.000	.075
51-54	.000	.075
55-56	.015	.150
57-59	.020	.150
60	.025	.200
61	.040	.200
62	.200	.550
63-64	.150	.400
65	.750	.750
66-69	.250	.333
70	1.000	1.000

1. For ages under 65, the rates are multiplied by 75% if service is between 22 and 23 years, 50% if service is between 23 and 24 years and 25% if service is between 24 and 25 years.

Disability Rates. Disability rates are used to estimate the probability that an employee will become disabled at a given age. The following is a sample of the disability rates that were used:

<u>Age</u>	<u>Rate of Disability</u>
25	.0020
30	.0020
35	.0032
40	.0052
45	.0069
50	.0090
55	.0121
60	.0159
65 and older	.0000

Salary Increase. An assumption needs to be made regarding the rate at which salaries can be expected to increase over future periods. We have used a salary increase assumption of 5.5% per year.

Interest Rate. An interest rate, or investment return assumption is needed in order to discount future payments to the present time. We have used an interest rate assumption of 6.0% per year.

Actuarial Cost Method.

The projected unit credit actuarial cost method was used for the valuation. Actuarial gains and losses are reflected in the unfunded actuarial liability. This is the same actuarial cost method that was used for the last actuarial valuation.

### **Appendix 3**

#### **Glossary of Terms used in Report**

1. Actuarial Present Value. The value of an amount or series of amounts payable at various times, determined as of a given date by the application of a particular set of actuarial assumptions.
2. Actuarial Cost Method or Funding Method. A procedure for determining the actuarial present value of pension plan benefits and for determining an actuarially equivalent allocation of such value to time periods, usually in the form of a normal cost and an actuarial accrued liability.
3. Normal Cost. That portion of the present value of pension plan benefits, which is allocated to a valuation year by the actuarial cost method.
4. Actuarial Accrued Liability or Accrued Liability. That portion, as determined by a particular actuarial cost method, of the actuarial present value of pension benefits which is not provided for by future normal costs.
5. Actuarial Value of Assets. The value assigned by the actuary to the assets of the pension plan for purposes of an actuarial valuation.
6. Unfunded Actuarial Liability. The excess of the actuarial liability over the actuarial value of assets.
7. Projected Unit Credit Actuarial Cost Method. A cost method which allocates a cost to each year of an employee's service on the basis of service credits earned by the employee during the year, taking into account an estimate of the employee's final salary at retirement. The portion of the costs allocated to past years of service is called the accrued liability and the portion allocated to the current year is called the normal cost.
8. Actuarial Assumptions. Assumptions as to future events affecting pension costs.
9. Actuarial Valuation. The determination, as of the valuation date, of the normal cost, actuarial liability, actuarial value of assets, and related actuarial present values for a pension plan.
10. Vested Benefits. Benefits that are not contingent on an employee's future service.