

June 2002

City of Manchester

Actuarial Valuation Report as of January 1, 2002 for the
City of Manchester Employees' Contributory Retirement
System

MERCER

Human Resource Consulting

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HIGHLIGHTS

This report has been prepared by Mercer Human Resource Consulting to:

1. present the results of a valuation of the City of Manchester Employees' Contributory Retirement System as of January 1, 2002;
2. review experience under the Plan for the year ended December 31, 2001; and
3. provide to the Retirement Board the customary contribution under the Plan for the plan year beginning January 1, 2002.

Section 1 contains the results of the valuation. It includes the experience of the plan during 2001, the current annual costs, and reporting and disclosure information. The customary employer contribution for the plan year ending December 31, 2002 is \$1,794,576 if paid at the beginning of the year by all locations.

Below is a comparative summary of the principal results of the valuation.

	<u>2002</u>	<u>2001</u>
1. System Cost		
a. Employer normal cost	\$ 2,173,489	\$ 1,934,170
b. Employer normal cost as a percentage of annualized compensation (during prior year)	5.62%	5.47%
c. Customary employer contribution, if paid beginning of year	1,794,576	1,117,163
d. Customary employer contribution as percentage of annualized compensation (during prior year)	4.64%	3.16%

HIGHLIGHTS (Continued)

	<u>2002</u>	<u>2001</u>
2. System Cost		
a. Actuarial present value of benefits earned to date	\$ 68,180,848	\$ 62,261,822
b. Actuarial accrued liability	96,270,479	87,095,109
c. Unfunded actuarial accrued liability	1,457,848	(3,049,404)
3. System Assets		
a. Market value	85,818,863	93,034,852
b. Actuarial asset value	94,812,631	90,144,513
c. Estimated total rate of return on market value basis during preceding year	(5.82%)	2.26%
4. Benefit Security Ratio – Market value of System assets as percentage of liability for benefits earned to date for all System members (including retirees) = (3.a) ÷ (2.a)	125.87%	149.43%
5. Information on System Members		
a. Number of System Members		
(i) Active	1,330	1,265
(ii) Retired	484	468
(iii) Terminated with deferred vested benefits	<u>66</u>	<u>69</u>
(iv) Total	1,880	1,802
b. Data on active System members		
(i) Total annualized compensation		
- during prior year	\$ 38,692,738	\$ 35,370,961
- estimated current year	40,598,645	37,116,682
(ii) Average reported compensation (prior year)	29,092	27,961
(iii) Average attained age	45.1 yrs.	44.8 yrs.
(iv) Average length of service to date	9.0 yrs.	9.8 yrs.

HIGHLIGHTS (Continued)

c. Data on Inactive Participants

(i)	Average annual benefit for retirees/beneficiaries	\$ 9,080	\$ 8,665
(ii)	Average annual benefit for terminated vested	3,844	4,025
(iii)	Average attained age for retirees/beneficiaries	72.0 yrs.	71.5 yrs.
(iv)	Average attained age for terminated vested	52.2 yrs.	51.5 yrs.

The customary employer contribution (shown on page 1.) increased from \$1,117,163 for 2001 to \$1,794,576 for 2002 (representing a 61% increase). Factors impacting the contribution are discussed below.

Actuarial Experience

Overall System experience during the year that ended December 31, 2001 was less favorable than expected. Specifically:

- The estimated total return on system assets during 2001 was *negative* 5.82% on a market value basis but *positive* 7.33% on an actuarial basis. Since the assumed return was 7.5%, this resulted in a very small actuarial asset loss.
- Reported compensation for System members who were active employees as of both January 1, 2001 and January 1, 2002 increased by the following amounts:

<u>Age</u>	<u>Actual</u>	<u>Assumption</u>	<u>% of Participants</u>
Under 35	7.8%	5.5%	19%
35 – 49	8.3%	5.0%	53%
50 and over	6.9%	4.5%	28%

Actual salary increases were significantly above expected increases, which resulted in an actuarial liability loss.

The result of these experience factors was a net actuarial loss of \$2,810,601.


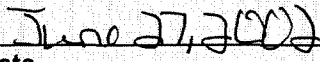
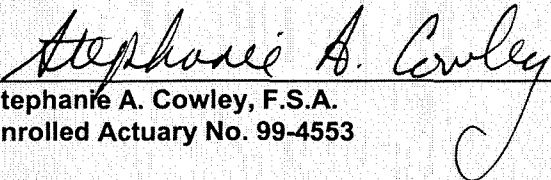
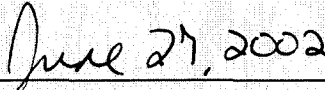
Plan Amendments

The System adopted a COLA to participants in payment status as of June 1, 2001. The effect of this COLA was to increase liabilities by \$1,047,075. This increase is funded over ten years. For 2002, the impact on the customary contribution is a charge of approximately \$142,000.

HIGHLIGHTS (Continued)

In preparing this report, generally accepted actuarial methods and practices have been used. The valuation is based on employee and financial data which were provided by the plan sponsor and the trustee.

We are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate. The undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

 Cynthia Hannan, F.S.A. Enrolled Actuary No. 02-6267	 Date
<p>The undersigned has peer reviewed this report and found acceptable the actuarial assumptions, methods, and procedures utilized therein.</p>	
 Stephanie A. Cowley, F.S.A. Enrolled Actuary No. 99-4553	 Date
<p>Mercer Human Resource Consulting 200 Clarendon Street Boston, Massachusetts 02116 617 450 6000</p>	

SECTION 1 - Summary of Valuation Results

This section sets forth the results of the actuarial valuation.

Section 1.1 shows the transactions of the plan's fund during the year and the development of the actuarial value of assets.

Section 1.2 shows the computation of the normal cost, experience and unfunded actuarial liability as of the valuation date.

Section 1.3 shows the development of the credit balance.

Section 1.4 shows the development of the customary contribution.

SECTION 1.1 - The Assets of the Plan

Based upon information furnished by both the Retirement Board and State Street Bank and Trust, the change in assets for the plan year ending December 31, 2001 is summarized as follows:

Market Value, January 1, 2001 (prior year's valuation)		\$ 93,034,852
Contributions		
Employer		
School Food & Nutrition	63,664	
Water	67,428	
EPD	8,838	
School Administration	266,892	
Others	595,582	
Aviation	112,440	
Probation	4,828	
Retirement	16,148	
Employee	<u>1,473,606</u>	
Total Contributions		2,609,426
Investment Income		
Dividends	1,334,213	
Interest	871,471	
Net Realized and Unrealized Gain (Loss)	(6,655,464)	
Less Investment expenses	<u>(342,118)</u>	
		(4,791,898)
Payments to Participants		
Benefit payments to pensioners	(4,239,493)	
Refund of employee contributions	<u>(234,255)</u>	
		(4,473,748)
Administrative Expenses		<u>(559,769)</u>
Market Value, December 31, 2001		\$ <u>85,818,863</u>
Return on Market Value of Assets for 2001		(5.82%)

SECTION 1.1 - The Assets of the Plan (Continued)

Development of Actuarial Asset Value

1.	Actuarial value of assets, January 1, 2001	\$ 90,144,513
2.	Contributions for 2001 (Employer and Employee, including accrued contributions)	2,609,426
3.	Benefit payments for 2001	4,473,748
4.	Expected return at 7.5% interest assumption	6,644,225
5.	Expected value of assets, January 1, 2002 = (1) + (2) - (3) + (4)	\$ 94,924,416
6.	Market value of assets, January 1, 2002	85,818,863
7.	Remaining unrecognized gain/(loss) from prior years	
	- 2001	\$ (3,200,038)
	- 2000	3,683,124
	- 1999	1,095,131
	- 1998	<u>1,312,116</u>
		\$ 2,890,333
8.	Asset gain/(loss) for 2001 = (6) - (5) - (7)	\$ (11,995,886)
9.	Recognition of asset gain/(loss)	
	- 2002 (20% of 8.)	\$ (2,399,176)
	- 2001	(800,009)
	- 2000	1,227,708
	- 1999	547,568
	- 1998	<u>1,312,124</u>
		\$ (111,785)
10.	Actuarial value of assets, January 1, 2002 = (5) + (9)	\$ 94,812,631
11.	Rate of return on actuarial value of assets for 2001	7.33%

SECTION 1.2 - Development of Normal Cost, Experience and Unfunded Actuarial Accrued Liability

Normal Cost

1. Employer normal cost as of January 1, 2002 \$ 2,173,489

Experience Gain (Loss) for 2001

1. Unfunded actuarial accrued liability, January 1, 2001 \$ (3,049,404)

2. Employer normal cost 1,934,170

3. Employer contributions 1,135,820

4. Interest on (1), (2), and (3) above (148,774)

5. Expected unfunded, January 1, 2002
= (1) + (2) - (3) + (4) \$ (2,399,828)

6. Increase in unfunded due to COLA effective in 2001 1,047,075

7. Actual unfunded, January 1, 2002 1,457,848

8. (Gain)/Loss for 2001 = (7) - (6) - (5) \$ 2,810,601

Unfunded Actuarial Accrued Liability

1. Actuarial Accrued Liability as of
January 1, 2002

a) Active members \$ 56,602,349

b) Retirees and beneficiaries 38,339,560

c) Terminated vested members 1,328,570

d) Total \$ 96,270,479

2. Actuarial value of System assets as of
January 1, 2002 \$ 94,812,631

3. Unfunded actuarial accrued liability as of
January 1, 2002 = (1) - (2) \$ 1,457,848

SECTION 1.2 - Development of Normal Cost, Experience and Unfunded Actuarial Accrued Liability (Continued)

Schedule of Unfunded Liability Amortization Payments

<u>Date Established</u>	<u>Original Amount</u>	<u>Type of Base</u>	<u>Years Remaining</u>	<u>Outstanding Balance</u>	<u>Amortization Payment</u>
01/01/1991	\$ 2,656,461	Initial Unfunded	29	\$ 2,467,002	\$ 196,208
01/01/1992	896,058	Actuarial Loss	5	410,692	94,431
01/01/1993	(2,190,214)	Actuarial Gain	6	(1,164,648)	(230,813)
01/01/1994	(578,653)	Actuarial Gain	7	(347,209)	(60,981)
01/01/1995	(1,359,314)	Actuarial Gain	8	(901,970)	(143,250)
01/01/1995	(2,082,140)	Assumption Change	13	(1,659,637)	(189,992)
01/01/1996	(2,032,133)	Actuarial Gain	9	(1,468,528)	(214,152)
01/01/1997	(1,132,597)	Actuarial Gain	10	(880,729)	(119,356)
01/01/1997	32,202	Plan Amendment	25	30,386	2,537
01/01/1997	588,165	1996 COLA	5	346,686	79,709
01/01/1998	(2,171,128)	Actuarial Gain	11	(1,799,310)	(228,801)
01/01/1998	602,888	1997 COLA	6	412,271	81,705
01/01/1999	(3,341,314)	Actuarial Gain	12	(2,928,029)	(352,117)
01/01/1999	4,750,497	Plan Amendment	27	4,602,071	374,169
01/01/1999	62,532	Assumption Change	17	57,866	5,707
01/01/1999	866,215	1998 COLA	7	668,409	117,391
01/01/2000	(3,136,302)	Actuarial Gain	13	(2,887,138)	(330,514)
01/01/2000	847,614	1999 COLA	8	723,294	114,870
01/01/2001	(1,362,764)	Actuarial Gain	14	(1,310,589)	(143,612)
01/01/2001	958,172	2000 COLA	9	890,442	129,854
01/01/2002	2,810,601	Actuarial Loss	15	2,810,601	296,192
01/01/2002	<u>1,047,075</u>	2001 COLA	10	<u>1,047,075</u>	<u>141,902</u>
Total	\$ (3,268,079)			\$ (880,992)	\$ (378,913)

SECTION 1.2 - Development of Normal Cost, Experience and Unfunded Actuarial Accrued Liability (Continued)

	School Food & Nutrition (1)	Water (2)	EPD (3)	Limited Term (4)	School Administration (5)	Education Assistants (6)	Others (7)	Aviation (8)	District Court (9)	Probation (10)	Parking Facilities (11)	Retirement (12)	Total
1. Actuarial accrued liability as of January 1, 2002													
a. Active members	\$2,066,519	\$7,164,581	\$2,590,233	\$0	\$6,031,054	\$0	\$36,272,326	\$2,210,263	\$113,897	\$119,957	\$0	\$33,519	\$56,602,349
b. Retirees	2,667,250	4,385,670	1,316,423	0	3,168,168	834,700	24,406,882	624,160	104,612	181,691	187,036	462,968	38,339,560
c. Terminated vested	<u>11,379</u>	<u>12,081</u>	<u>78,925</u>	<u>0</u>	<u>283,795</u>	<u>0</u>	<u>734,028</u>	<u>125,063</u>	<u>78,083</u>	<u>0</u>	<u>5,216</u>	<u>0</u>	<u>1,328,570</u>
d. Total	\$4,745,148	\$11,562,332	\$3,985,581	\$0	\$9,483,017	\$834,700	\$61,413,236	\$2,959,486	\$296,592	\$301,648	\$192,252	\$496,487	\$96,270,479
2. Actuarial value of System assets	\$4,398,982	\$11,022,437	\$4,412,386	\$391,927	\$5,575,247	\$5,335,376	\$59,159,193	\$2,761,260	\$825,572	\$280,785	\$308,208	\$341,258	\$94,812,631
3. Unfunded actuarial accrued liability (Id.-2.)	\$346,166	\$539,895	(\$426,805)	(\$391,927)	\$3,907,770	(\$4,500,676)	\$2,254,043	\$198,226	(\$528,980)	\$20,863	(\$115,956)	\$155,229	\$1,457,848
4. Amortization Bases													
a. 1991 Initial	\$24,229	\$45,321	\$3,974	(\$2,566)	\$12,217	(\$12,160)	\$124,919	\$1,057	\$87	(\$2,318)	\$1,448	\$0	\$196,208
b. 1992 Loss	2,236	38,832	1,537	10,309	29,020	9,751	(3,395)	986	2,289	744	1,513	609	94,431
c. 1993 (Gain)/Loss	(23,720)	(5,715)	(14,388)	(11,656)	(19,641)	(16,452)	(120,806)	(5,339)	(10,040)	(522)	(540)	(1,994)	(230,813)
d. 1994 (Gain)/Loss	14,956	39,703	(4,251)	(4,316)	3,567	(25,103)	(83,719)	(1,408)	(48)	8,660	(8,058)	(964)	(60,981)
e. 1995 (Gain)/Loss	25,856	(18,890)	(15,725)	(2,135)	(9,977)	16,105	(126,272)	(3,809)	664	1,248	(9,809)	(506)	(143,250)
f. 1995 SX change	(4,495)	(26,410)	(11,722)	(655)	(8,663)	(9,040)	(121,450)	(2,719)	(2,967)	(616)	(165)	(1,090)	(189,992)
g. 1996 (Gain)/Loss	(16,342)	(38,863)	(9,873)	155	(9,048)	(9,282)	(101,725)	(12,418)	(9,084)	(2,501)	(2,378)	(2,793)	(214,152)
h. 1997 (Gain)/Loss	(9,800)	(53,665)	(812)	(834)	(5,493)	(23,145)	(10,196)	(5,674)	(8,391)	(298)	515	(1,563)	(119,356)
i. 1997 Plan Amendment	0	227	111	0	0	0	2,085	92	0	0	0	22	2,537
j. 1996 COLA	9,663	8,444	900	0	4,969	3,311	50,031	1,080	477	725	109	0	79,709
k. 1998 (Gain)/Loss	(43,014)	(41,944)	(30,158)	(9,305)	173,195	(205,117)	(84,632)	2,951	(2,619)	(545)	13,277	(890)	(228,801)
l. 1997 COLA	7,096	10,615	1,185	0	5,149	2,548	52,647	902	380	610	573	0	81,705
m. 1999 (Gain)/Loss	(6,554)	(41,852)	(23,565)	(2,933)	23,266	(51,344)	(209,427)	(35,719)	(4,737)	(1,265)	(1,350)	3,363	(352,117)
n. 1999 Plan Amendment	9,202	47,902	21,145	0	38,716	0	237,241	13,189	1,454	856	0	4,464	374,169
o. 1999 Assumption Change	1,572	1,589	(482)	0	118	0	3,688	(16)	0	0	0	(762)	5,707
p. 1998 COLA	9,950	14,884	2,182	0	6,791	3,329	76,743	1,622	455	734	701	0	117,391
q. 2000 (Gain)/Loss	(21,531)	(46,270)	(23,631)	(2,512)	(39,720)	(31,047)	(181,027)	7,552	(5,605)	(1,753)	(2,291)	17,321	(330,514)
r. 1999 COLA	10,273	12,858	2,202	0	8,332	3,362	74,056	1,562	456	739	717	313	114,870
s. 2001 (Gain)/Loss	(19,765)	(16,657)	26,269	(1,499)	2,478	(24,665)	(105,911)	8,125	(8,894)	(741)	(1,236)	(1,116)	(143,612)
t. 2000 COLA	10,929	13,973	3,766	0	10,667	3,356	81,185	2,207	455	744	733	1,839	129,854
u. 2002 (Gain)/Loss	7,505	36,919	5,859	51	2,207	(1,376)	212,955	25,463	5,183	398	670	358	296,192
v. 2001 COLA	10,650	15,642	5,225	0	12,719	5,227	87,686	2,485	455	748	750	315	141,902
w. Total	(\$1,104)	(\$3,357)	(\$60,252)	(\$27,896)	\$240,869	(\$361,742)	(\$145,324)	\$2,171	(\$40,030)	\$5,647	(\$4,821)	\$16,926	(\$378,913)
5. Employer Normal Cost	\$95,701	\$136,419	\$86,330	\$0	\$481,869	\$0	\$1,205,385	\$166,089	\$472	\$561	\$0	\$663	\$2,173,489

SECTION 1.3 - Credit Balance

Development of Credit Balance

1. Credit balance as of January 1, 2001	\$	0
2. Employer Normal Cost for 2001		1,934,170
3. Net amortization (charge) credit for 2001		(817,007)
4. Adjustment for Negatives		0
5. Interest on (1) + (2) + (3)		83,786
6. Employer contributions for 2001		(1,135,820)
7. Interest on 6.		<u>(65,129)</u>
8. Credit balance as of December 31, 2001 = (1) + (2) + (3) + (4) + (5) + (6) + (7)	\$	0

The credit balance is an accumulation of contributions plus interest that are made in excess of the customary contribution. A credit balance as of the beginning of a Plan Year can be used to reduce the customary contribution for that Plan Year.

SECTION 1.3 - Credit Balance (Continued)

	School Food & Nutrition (1)	Water (2)	EPD (3)	Limited Term (4)	School Administration (5)	Education Assistants (6)	Others (7)	Aviation (8)	District Court (9)	Probation (10)	Parking Facilities (11)	Retirement (12)	Total
1. January 1, 2001 (Credit Balance) / Funding Deficiency	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2. Employer Normal Cost	\$82,732	\$123,146	\$80,581	\$0	\$433,692	\$0	\$1,068,974	\$143,395	\$462	\$549	\$0	\$639	\$1,934,170
3. Amortization charges / (credits)	(\$19,259)	(\$55,918)	(\$71,336)	\$0	(\$167,597)	\$0	(\$445,965)	(\$25,777)	(\$45,668)	\$4,501	(\$6,241)	\$16,253	(\$817,007)
4. Adjustments for negatives	(\$2,794)	(\$2,960)	(\$407)	\$0	(\$11,715)	\$0	(\$27,427)	(\$5,178)	\$45,206	(\$222)	\$6,241	(\$744)	\$0
5. Interest on 1. + 2. + 3. + 4.	\$4,551	\$4,819	\$663	\$0	\$19,078	\$0	\$44,669	\$8,433	\$0	\$362	\$0	\$1,211	\$83,786
6. Contributions	(\$63,664)	(\$67,428)	(\$8,838)	\$0	(\$266,892)	\$0	(\$595,582)	(\$112,440)	\$0	(\$4,828)	\$0	(\$16,148)	(\$1,135,820)
7. Interest on 6.	(\$1,566)	(\$1,659)	(\$663)	\$0	(\$6,566)	\$0	(\$44,669)	(\$8,433)	\$0	(\$362)	\$0	(\$1,211)	(\$65,129)
8. December 31, 2001 (Credit Balance) / Funding Deficiency	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

SECTION 1.4 - Customary Contribution

Development of Customary Contribution

1. Employer Normal Cost	\$ 2,173,489
2. Amortization charges/credits	(378,913)
3. Credit Balance	<u>0</u>
4. Customary contribution, January 1, 2002	\$ 1,794,576
5. Customary quarterly payments = (4) x 1.049181 ÷ 4, determined by division as shown on the following page.	\$ 470,709
6. Customary contribution made in four equal installments	\$ 1,882,832

SECTION 1.4 - Customary Contribution (Continued)

	School Food & Nutrition (1)	Water (2)	EPD (3)	Limited Term (4)	School Administration (5)	Education Assistants (6)	Others (7)	Aviation (8)	District Court (9)	Probation (10)	Parking Facilities (11)	Retirement (12)	Total
1. Employer Normal Cost	\$95,701	\$136,419	\$86,330	\$0	\$481,869	\$0	\$1,205,385	\$166,089	\$472	\$561	\$0	\$663	\$2,173,489
2. Amortization Bases	(\$1,104)	(\$3,357)	(\$60,252)	\$0	(\$148,769)	\$0	(\$145,324)	\$2,171	(\$40,030)	\$5,647	(\$4,821)	\$16,926	(\$378,913)
3. (Credit Balance) / Funding Deficiency	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4. Preliminary customary employer contribution as of 1/1/2002: (1.+2.+3.)	\$94,597	\$133,062	\$26,078	\$0	\$333,100	\$0	\$1,060,061	\$168,260	(\$39,558)	\$6,208	(\$4,821)	\$17,589	\$1,794,576
5. Customary employer contribution adjusting for any negatives in 4.	\$92,314	\$129,851	\$25,449	\$0	\$325,061	\$0	\$1,034,479	\$164,199	\$0	\$6,058	\$0	\$17,165	\$1,794,576
6. Customary quarterly payment: ((5. x 1.049181)+4)	\$24,214	\$34,059	\$6,675	\$0	\$85,262	\$0	\$271,339	\$43,069	\$0	\$1,589	\$0	\$4,502	\$470,709
7. Annualized Compensation during prior year	\$1,356,578	\$3,469,341	\$1,656,376	\$0	\$6,283,520	\$0	\$23,030,276	\$2,787,948	\$35,905	\$37,377	\$0	\$35,417	\$38,692,738
8. Customary Contribution as a percent of pay	6.80%	3.74%	1.54%	0.00%	5.17%	0.00%	4.49%	5.89%	0.00%	16.21%	0.00%	48.47%	4.64%

Notes:

1. *Contributions for Limited Term and Education Assistants have been combined with School Administration.*
2. *Contribution as a percent of pay may be skewed in certain groups, based on the relative level of active versus inactive liability within the group*

SECTION 2 - Basis of Valuation

In this section, the basis of the valuation is presented and described. The provisions of the plan and the census of participants provide the foundation of the valuation, since these are the present facts upon which benefit payments will depend.

The valuation is based upon the premise that the plan will continue in existence, so that future events must also be considered. These future events are assumed to occur in accordance with the actuarial assumptions illustrated in Section 2.3.

The valuation was based on assumptions and methods which, in our opinion, are appropriate for the plan and the employee group and are consistent with accepted actuarial practices.

SECTION 2.1 - Summary of Plan Provisions

PLAN

City of Manchester Employees'
Contributory Retirement System

Effective January 1, 1974

ELIGIBLE EMPLOYEE

Employees are eligible for membership in the Retirement System if they are:

1. Full-time or Permanent Part-time Employees of the City, unless exempted; or
2. an elected or appointed Official of the City holding City Office.

The Retirement System does not cover certain categories of employees, for example:

1. temporary employees
 2. members of boards and commissions who are not Full-time or Permanent Part-time Employees of the City;
 3. members of the Fire or Police Department who are eligible to participate in a state administered retirement system; and
 4. persons who are, or were, eligible to participate in the New Hampshire Retirement System.
-

ELIGIBILITY FOR
PARTICIPATION

An eligible employee commences participation on the first of the month following date of employment.

SECTION 2.1 - Summary of Plan Provisions (Continued)

YEARS OF SERVICE	One-twelfth of a year of service is credited for each full month worked.
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FINAL AVERAGE EARNINGS	Earnings for three (3) Fiscal Years which produce the highest average within the last ten (10) years preceding termination of employment with the City.
------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------

NORMAL RETIREMENT DATE	The later of age 62 or completion of five years of service.
------------------------	-------------------------------------------------------------

NORMAL RETIREMENT BENEFIT	<p>The annual benefit is equal to (a) + (b):</p> <p>(a) one and one half percent (1 1/2%) of Final Average Earnings multiplied by Years of Service prior to January 1, 1999</p> <p>(b) two percent (2%) of Final Average Earnings multiplied by Years of Service after January 1, 1999</p> <p>For an employee of the City as of January 1, 1974, who:</p> <ul style="list-style-type: none">- has been credited with no less than twenty (20) Years of Service; and- has reached age sixty-two (62) <p>at the time of retirement, the retirement benefit is the greater of the benefit above or a benefit equal to one-half (1/2) of Final Average Earnings.</p>
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SECTION 2.1 - Summary of Plan Provisions (Continued)

EARLY RETIREMENT

Available when the sum of an employee's age and years of service equals or exceeds 80. If an employee chooses to receive his benefit before age 62, the accrued benefit will be actuarially reduced.

Members either enrolled in the System or a permanent employee of the City of Manchester as of January 1, 1974 are eligible for early retirement if credited with no less than twenty (20) Years of Service.

Such early retirement benefit shall be equal to the greater of:

- (i) Fifty percent (50%) of the Member's Final Average Earnings, or
- (ii) The benefit determined as for Normal Retirement Benefit reflecting Years of Service and Final Average Earnings as of the Early Retirement Date.

The benefit shall not be reduced for commencement prior to Normal Retirement Date.

LATE RETIREMENT

If working past Normal Retirement Date, continue to be credited for service to actual retirement date.

SECTION 2.1 - Summary of Plan Provisions (Continued)

TERMINATION OF EMPLOYMENT
AND VESTING

Return of the employee's contributions plus interest. With five or more years of service, choice of contributions with interest or accrued pension deferred to Normal Retirement Date.

TOTAL AND PERMANENT
DISABILITY

If job related, there is no service or age requirement and the minimum benefit is 50% of Final Average Earnings.

If not job related, there is a 15-year service requirement and the disability benefit is the benefit accrued to the date of disability.

DEATH BENEFITS

If an employee was not eligible for early retirement at the time of death, the beneficiary will receive employee's contributions plus any interest.

If an employee was eligible for retirement at the time of death, an automatic 100% Contingent Annuitant benefit adjusted for early retirement, if applicable, will be paid to the spouse or dependent children (if under age 25).

SECTION 2.1 - Summary of Plan Provisions (Continued)

**COST OF LIVING ADJUSTMENT
TO PENSION**

At discretion of Retirement Board.
Increases have been granted in most recent
past as follows:

<u>Effective Date</u>	<u>Increase</u>
June 1, 1986	4.5%
January 1, 1987	1.2%
January 1, 1988	2.5%
January 1, 1990	3.5%
January 1, 1991	2.7%
January 1, 1992	7.0%
July 1, 1993	3.0%
January 1, 1995	2.0%
January 1, 1996	4.0% - for those retired between 1974 and 1980
	3.0% - for those retired between 1981 and 1994
January 1, 1997	5.0% - for those retired between 1974 and 1980
	2.5% - for those retired between 1981 and 1995
January 1, 1998	4.5% - for those retired between 1974 and 1980
	3.0% - for those retired between 1981 and 1997
July 1, 1999	4.0% - for those retired between 1974 and 1980
	3.0% - for those retired between 1981 and 1999
June 1, 2000	3.0%
June 1, 2001	3.0%

EMPLOYEE CONTRIBUTIONS

2.5% of Compensation for Service prior to
January 1, 1999. 3.75% of Compensation for
Service after January 1, 1999. (Paid by
employer on behalf of employee under
Section 414(h) of the Internal Revenue Code.)

NORMAL FORM OF ANNUITY

Single life annuity.

SECTION 2.2 - Actuarial Basis

1. Actuarial Funding Method - the method of funding benefits under the plan is known as the Entry Age Actuarial Cost Method.

Under this method, an allocation of liability to past service and future service is made by spreading the costs over an employee's career as a level percentage of pay. This is accomplished as follows:

- The normal cost, or current year's cost, is computed for each employee as a level percentage of pay. The sum of the normal cost for all employees is the normal cost for the plan.
- The actuarial present value of future normal cost payments is determined for each employee, based on an application of each employee's normal cost percentage to the actuarial present value of future compensation of the employee. The sum of such values for all employees is the actuarial present value of future normal costs.

The portion of the actuarial present value of projected benefits to be paid from the plan which is not expected to be provided by the actuarial present value of future normal costs is called the actuarial accrued liability. The unfunded actuarial accrued liability is the amount by which the actuarial accrued liability exceeds the actuarial value of assets. An initial unfunded actuarial accrued liability under the new method has been established as of January 1, 1991 and is being funded by level annual contributions over 40 years from that date.

Subsequent amendments to the plan which create increases or decreases to the unfunded actuarial accrued liability are scheduled to be amortized over 30 years.

Subsequent changes in actuarial assumptions which create increases or decreases to the unfunded actuarial accrued liability are scheduled to be amortized over 20 years.

Actuarial gains (or losses) are calculated each year under the method, and are scheduled to be amortized over 15 years.

COLA increases granted after the beginning of any year will be amortized over 10 years beginning with the next plan year.

2. Asset Valuation Method - Effective January 1, 1991, the actuarial value of assets will be determined using the Long Range Yield method. Under this asset valuation method, a preliminary asset value is determined based on the assumed investment return. Differences between this preliminary value and the market value of assets, whether positive or negative, are phased in over a five-year period, thus providing stability in the year-to-year progression of asset values. Use of this method began January 1, 1991 with an initial value set equal to the market value of assets, as reported.

SECTION 2.2 - Actuarial Basis (Continued)

3. Actuarial Assumptions

INVESTMENT RETURN:

7.5% per year compounded annually, net of expenses.

CREDITED INTEREST ON EMPLOYEE CONTRIBUTIONS

5.0% per year compounded annually

SALARY INCREASES:

Assumed compensation increases vary according to the following schedule:

<u>Age</u>	<u>Annual Increase</u>
Under 35	5.5%
35 - 49	5.0%
50 and over	4.5%

CPI INCREASES:

4.5% per year

PRE- AND POST-RETIREMENT MORTALITY:

The 1983 Group Annuity Mortality Table. For disabled lives the preceding table with rates set forward ten (10) years was used.

EMPLOYEE WITHDRAWAL:

Termination rates for sample ages are as follows:

<u>Age</u>	<u>Male</u>	<u>Female</u>
20	10.00%	12.50%
25	8.80%	11.30%
30	6.60%	9.40%
35	4.60%	6.90%
40	3.60%	5.50%
45	2.40%	3.40%
50	0.00%	0.00%

SECTION 2.2 - Actuarial Basis (Continued)

ASSUMED RETIREMENT AGE:

The rates at which members are assumed to retire are as follows:

- Employees hired prior to 1974

<u>Age</u>	<u>Rate</u>
Under 60	0%
60	15%
61	15%
62	50%
63	15%
64	15%
65	100%

- Other employees

<u>Age</u>	<u>Rate</u>
Under 62	0%
62	50%
63	15%
64	15%
65	100%

VALUATION COMPENSATION:

Valuation compensation for active System members is equal to their annualized reported compensation in the prior year adjusted by the compensation increase assumption to account for anticipated increases during the current year.

PRE-RETIREMENT DEATH BENEFIT:

Calculated using aforementioned mortality, interest and termination assumptions and on the assumption that 100% of System members have spouses, with husbands three years older than wives.

SECTION 2.2 - Actuarial Basis (Continued)

INCIDENCE OF DISABILITY:

Calculated using disability rates equal to 50% of 1955 United Auto Workers Table.

Sample incidence rates are as follows:

<u>Age</u>	<u>Male</u>	<u>Female</u>
25	.015%	.025%
40	.035%	.050%
55	.180%	.245%

50% of disablements are assumed to be work-related.

Assumed future COLA's: None

SECTION 3 - Participant Data Exhibits

**City of Manchester Employees' Contributory Retirement System
Distribution of All Employees
By Age and Service as of 1/1/2002**

Age	Years of Credited Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25		55 18,917									55 18,917
25 to 29		61 22,271	8								69 23,629
30 to 34		63 27,113	29 38,083	11							103 31,151
35 to 39		96 21,650	29 35,595	22 38,190	21 40,946						168 28,635
40 to 44		157 19,677	40 29,783	30 36,793	34 41,276	14	1				276 26,843
45 to 49		79 22,696	46 30,025	44 29,876	17	29 45,114	18				233 31,414
50 to 54		54 22,159	37 30,812	36 34,898	37 30,433	17	25 52,364	2			208 32,791
55 to 59		32 21,634	15	11	17	21 30,785	12	4	2	1	115 32,600
60 to 64		14	7	10	12	9	5	1	1	1	60 31,848
65 to 69		9	2	3	5	6	5	2			32 19,048
70 & up		4	1	1	2	1	2				11
Total		624 21,509	214 32,085	168 34,457	145 35,512	97 38,749	68 43,556	9	3	2	1,330 29,092

Total Earnings 38,692,738
Average Age 45.05
Average Service 8.95

SECTION 3 - Participant Data Exhibits (Continued)

**City of Manchester Employees' Contributory Retirement System
School Food and Nutrition
Distribution of Employees by Age and Service as of 1/1/2002**

Age	Years of Credited Service										
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
Under 25											
25 to 29		1									1
30 to 34		1									1
35 to 39		8	5								13
40 to 44		14	4	3							21
45 to 49		4	6	2	1						13
50 to 54		8	6	3	3	2	1				23
55 to 59		2	3			4					9
60 to 64		3	3	3	1		4				14
65 to 69		6	2	1	3	3	1				16
70 & up		2	1		1		2				6
Total		49 9,131	30 11,432	12	9	9	8				117 11,595

Total Earnings 1,356,578
 Average Age 52.97
 Average Service 9.09

SECTION 3 - Participant Data Exhibits (Continued)

**City of Manchester Employees' Contributory Retirement System
Water
Distribution of Employees by Age and Service as of 1/1/2002**

Age	Years of Credited Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25		4									4
25 to 29		2									2
30 to 34		2	1	3							6
35 to 39		6		4	5						15
40 to 44		3	4	3	3	3					16
45 to 49		1	3	1	2	4	4				15
50 to 54			1	2	2	3	6	1			15
55 to 59			1	1		3	1	1			7
60 to 64					1	1	1				3
65 to 69					1			1			2
70 & up											
Total		18	10	14	14	14	12	3			85 40,816

Total Earnings 3,469,341
 Average Age 44.89
 Average Service 14.84

SECTION 3 - Participant Data Exhibits (Continued)

**City of Manchester Employees' Contributory Retirement System
EPD
Distribution of Employees by Age and Service as of 1/1/2002**

Age	Years of Credited Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25											
25 to 29		1									1
30 to 34		2	1								3
35 to 39		2	1		1						4
40 to 44		5	3	2	1						11
45 to 49		5		1	2	2	1				11
50 to 54			1		2		2				5
55 to 59			1	1	1						3
60 to 64											
65 to 69							1				1
70 & up						1					1
Total		15	7	4	7	3	4				40 41,409

Total Earnings 1,656,376
 Average Age 46.28
 Average Service 11.21

SECTION 3 - Participant Data Exhibits (Continued)

**City of Manchester Employees' Contributory Retirement System
Limited Term, School Administration and Education Assistants
Distribution of Employees by Age and Service as of 1/1/2002**

Age	Years of Credited Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25		27 12,006									27 12,006
25 to 29		24 11,724									24 11,724
30 to 34		21 13,655	2	1							24 14,091
35 to 39		43 12,765	5	3	1						52 14,355
40 to 44		85 11,596	14	4	4						107 12,811
45 to 49		41 13,267	16	19	3	4					83 15,988
50 to 54		22 13,609	7	11	15	3		1			59 16,396
55 to 59		18	2	2	8	6	1				37 16,423
60 to 64		5	1	2	1	2					11
65 to 69		3		1		2	2				8
70 & up		1			1						2
Total		290 12,594	47 16,418	43 18,120	33 19,976	17	3	1			434 14,478

Total Earnings 6,283,520
Average Age 43.99
Average Service 5.38

SECTION 3 - Participant Data Exhibits (Continued)

**City of Manchester Employees' Contributory Retirement System
Others
Distribution of Employees by Age and Service as of 1/1/2002**

Age	Years of Credited Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25		23 25,861									23 25,861
25 to 29		31 29,670	8								39 30,556
30 to 34		34 33,129	18	7							59 35,318
35 to 39		32 31,874	14	13	14						73 36,318
40 to 44		40 32,805	14	15	26 44,144	9	1				105 38,844
45 to 49		25 30,655	20 41,422	18	8	19	13				103 41,133
50 to 54		22 33,770	20 41,092	18	15	9	16				100 42,683
55 to 59		12	6	6	8	7	10	3	2	1	55 42,161
60 to 64		6	1	5	9	6		1	1	1	30 44,855
65 to 69				1	1	1	1	1			5
70 & up		1		1							2
Total		226 31,594	101 39,694	84 41,350	81 42,407	51 47,728	41 49,141	5	3	2	594 38,772

Total Earnings 23,030,277
Average Age 44.47
Average Service 10.73

SECTION 3 - Participant Data Exhibits (Continued)

**City of Manchester Employees' Contributory Retirement System
Aviation
Distribution of Employees by Age and Service as of 1/1/2002**

Age	Years of Credited Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25		1									1
25 to 29		2									2
30 to 34		3	6								9
35 to 39		5	4	2							11
40 to 44		10	1	3							14
45 to 49		3	1	3	1						8
50 to 54		2	2	2							6
55 to 59			2	1		1					4
60 to 64			2								2
65 to 69											
70 & up											
Total		26 45,217	18	11	1	1					57 48,911

Total Earnings 2,787,948
 Average Age 42.66
 Average Service 6.39

SECTION 3 - Participant Data Exhibits (Continued)

**City of Manchester Employees' Contributory Retirement System
District Court
Distribution of Employees by Age and Service as of 1/1/2002**

Age	Years of Credited Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25											
25 to 29											
30 to 34											
35 to 39											
40 to 44							1				1
45 to 49											
50 to 54											
55 to 59											
60 to 64											
65 to 69											
70 & up											
Total							1				1

Average Age 43.86
Average Service 23.44

SECTION 3 - Participant Data Exhibits (Continued)

**City of Manchester Employees' Contributory Retirement System
 Probation
 Distribution of Employees by Age and Service as of 1/1/2002**

Age	Years of Credited Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25											
25 to 29											
30 to 34											
35 to 39											
40 to 44						1					1
45 to 49											
50 to 54											
55 to 59											
60 to 64											
65 to 69											
70 & up											
Total						1					1

Average Age 44.50
 Average Service 22.55

SECTION 3 - Participant Data Exhibits (Continued)

**City of Manchester Employees' Contributory Retirement System
Retirement
Distribution of Employees by Age and Service as of 1/1/2002**

Age	Years of Credited Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25											
25 to 29											
30 to 34			1								1
35 to 39											
40 to 44											
45 to 49											
50 to 54											
55 to 59											
60 to 64											
65 to 69											
70 & up											
Total			1								1

Average Age 31.90
Average Service 9.89

APPENDIX I

City of Manchester Employees' Contributory Retirement System

FINANCIAL DISCLOSURE UNDER GAS #25

The Supplementary Information required under GAS #25 is provided in the following schedules

Schedule of Employer Contributions

	Annual Required Contribution*	Percentage Contributed
Fiscal 2001	\$1,117,163	100%
Fiscal 2000	713,685	100%
Fiscal 1999	796,552	100%
Fiscal 1998	514,216	100%
Fiscal 1997	543,835	100%
Fiscal 1996	504,328	100%
Fiscal 1995	1,006,237	100%
Fiscal 1994	1,644,710	100%

* Annual contribution for plan year beginning within fiscal year, assuming payment at beginning of plan year.

**City of Manchester
Employees' Contributory Retirement System**

FINANCIAL DISCLOSURE UNDER GAS #25 (cont'd)

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Unfunded Actuarial Accrued Liability (Surplus) (b)	Actuarial Accrued Liability (c)	Funded Ratio (a)/(c)	Annualized Covered Payroll (prior year)
1/1/2002	\$94,812,631	\$1,457,848	\$96,270,479	98.5%	\$38,692,738
1/1/2001	90,144,513	(3,049,404)	87,095,109	103.5%	35,370,961
1/1/2000	82,584,305	(3,263,538)	79,320,767	103.0%	29,581,577
1/1/1999	72,569,967	(1,494,444)	71,075,523	102.1%	28,439,796
1/1/1998	65,839,177	(4,296,452)	61,542,725	107.0%	26,961,375
1/1/1997	59,838,164	(3,121,758)	56,716,406	105.5%	24,418,320
1/1/1996	55,546,837	(2,973,375)	52,573,462	105.7%	23,320,343
1/1/1995	52,488,652	(636,983)	51,851,669	101.2%	23,474,172

**City of Manchester
Employees' Contributory Retirement System**

FINANCIAL DISCLOSURE UNDER GAS #25 (cont'd)

**Demonstration That Equivalent Single Amortization Period is
Within the Maximum Acceptable Time**

- Amortization is required as a level percentage of projected payroll
- All figures are expressed for fiscal 2002 based on the results of the January 1, 2002 valuation

	Total
1. Covered Projected Payroll 2002	\$40,598,645
2. Remaining Amount of Base	\$(880,992)
3. Remaining Amortization Years	N/A
4. Amortization Factor based on (3)	N/A
5. Total Payment	\$(378,913)
6. Payment as Level % of Payroll (5)/(1)	(0.94%)
Equivalent Single Period	
7. Weighted Average Amortization Factor (2)/(5)	2.33
8. Equivalent Single Amortization Period (Nearest whole year)	3.0

The equivalent single amortization period is 3 years, which is within the 40 year required maximum period.

Note: for details of amortization bases, see attached

FINANCIAL DISCLOSURE UNDER GAS #25 (cont'd)

Demonstration That Equivalent Single Amortization Period is Within the Maximum Acceptable Time (cont'd)

(1) Covered Projected Payroll 2002

\$ 40,598,645

Type of Base	Date Established	Remaining Amount of Base (2)	Remaining Amortization Years (3)	Amortization Factor based on (3) (4)	Payment (2)/(4) (5)	Payment as Level % of Payroll (5)/(1) (6)
Initial Unfunded	01/01/1991	2,467,002	29	12.57	196,208	0.48%
Actuarial Loss	01/01/1992	410,692	5	4.35	94,431	0.23%
Actuarial Gain	01/01/1993	(1,164,648)	6	5.05	(230,813)	(0.57%)
Actuarial Gain	01/01/1994	(347,209)	7	5.69	(60,981)	(0.15%)
Actuarial Gain	01/01/1995	(901,970)	8	6.30	(143,250)	(0.35%)
Assumption Change	01/01/1995	(1,659,637)	13	8.74	(189,992)	(0.47%)
Actuarial Gain	01/01/1996	(1,468,528)	9	6.86	(214,152)	(0.53%)
Actuarial Gain	01/01/1997	(880,729)	10	7.38	(119,356)	(0.29%)
Plan Amendment	01/01/1997	30,386	25	11.98	2,537	0.01%
1996 COLA	01/01/1997	346,686	5	4.35	79,709	0.20%
Actuarial Gain	01/01/1998	(1,799,310)	11	7.86	(228,801)	(0.56%)
1997 COLA	01/01/1998	412,271	6	5.05	81,705	0.19%
Actuarial Gain	01/01/1999	(2,928,029)	12	8.32	(352,117)	(0.87%)
Plan Amendment	01/01/1999	4,602,071	27	12.30	374,169	0.92%
Assumption Change	01/01/1999	57,866	17	10.14	5,707	0.01%
1998 COLA	01/01/1999	668,409	7	5.69	117,391	0.29%
Actuarial Gain	01/01/2000	(2,887,138)	13	8.74	(330,514)	(0.81%)
1999 COLA	01/01/2000	723,294	8	6.30	114,870	0.28%
Actuarial Gain	01/01/2001	(1,310,589)	14	9.13	(143,612)	(0.35%)
2000 COLA	01/01/2001	890,442	9	6.86	129,854	0.32%
Actuarial Loss	01/01/2002	2,810,601	15	9.49	296,192	0.73%
2001 COLA	01/01/2002	1,047,075	10	7.38	141,902	0.35%
Total		(880,992)			(378,913)	(0.94%)

**City of Manchester
Employees' Contributory Retirement System**

FINANCIAL DISCLOSURE UNDER GAS #25 (cont'd)

**City of Manchester Employees' Contributory Retirement System
Illustrative Financial Disclosure Under GAS #25**

The information presented in the required supplementary schedule was determined as part of the actuarial valuation at the date indicated below. Additional information as of the latest actuarial valuation follows:

Valuation Date	1/1/2002
Actuarial Cost Method	Entry Age
Amortization Method	Level Percentage Closed
Equivalent Single Remaining Amortization Period	3 years
Asset Valuation Method	5-Year Smoothed Market
Actuarial Assumptions	
Investment Rate of Return	7.5%
Projected Salary Increases	
• Under age 35	5.5%
• Ages 35-49	5.0%
• Age 50 and over	4.5%
CPI Increase	4.5%

APPENDIX II

Pension Benefit Obligation

Pension Benefit Obligation as of January 1, 2002

a) Active Members		
Accumulated employee contributions, including allocated investment earnings	\$ 11,536,020	
Employer-financed	<u>34,708,527</u>	
		\$ 46,244,547
b) Retirees and beneficiaries		38,339,560
c) Terminated vested members		<u>1,328,570</u>
d) Total		\$ 85,912,677
PBO Service Cost as of January 1, 2002		3,567,305

