City of Meriden Employees' Retirement System

Actuarial Valuation and Review as of July 1, 2002

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*SEGAL

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October 29, 2003

City of Meriden Employees' Retirement System c/o Robert Curry, Finance Director

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of July 1, 2002. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal years ending June 30, 2004 and June 30, 2005 and analyzes the preceding year's experience.

The census information on which our calculations were based was prepared by the City of Meriden and the financial information was provided by the City. That assistance is gratefully acknowledged. The actuarial calculations were completed under our supervision.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

THE SEGAL COMPANY

By:

Evan W. Woollacott, MAAA, EA Associate Actuary

Ann D. Gineo, FSA, MAAA, EA Vice President & Actuary

Sara B. Monde Senior Actuarial Analyst

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SECTION 1: Valuation Summary for the City of Meriden Employees' Retirement System

Purpose

This report has been prepared by The Segal Company to present a valuation of the City of Meriden Employees' Retirement System as of July 1, 2002. The valuation was performed to determine if the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- > The benefit provisions of the Pension Plan, as administered by the Board,
- The characteristics of covered active participants, inactive vested participants, and retired participants and beneficiaries as of July 1, 2002, provided by the City;
- > The assets of the Plan as of June 30, 2002, provided by the City;
- > Economic assumptions regarding future salary increases and investment earnings; and
- > Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

- This report values the liabilities and assets as of July 1, 2002. However, it is used to produce the annual required contribution (ARC) for fiscal years ending June 30, 2004 and June 30, 2005. For both of the fiscal years, the ARC remains \$0.
- This actuarial valuation reflects changes to the actuarial assumptions. The salary scale has been reduced from 6% per year to 5.5% per year. The mortality table has also been updated to the 1994 Group Annuity Mortality (GAM) Table. Previously, the 1983 GAM table was used.
- The actuarial valuation report as of July 1, 2002 is based on financial information as of that date. Changes in the value of assets subsequent to that date, to the extent that they exist, are not reflected. Declines in asset values will increase the actuarial cost of the Plan, while increases will decrease the actuarial cost of the Plan. For example, a 10% change in the current year's actuarial value of assets would produce a \$1,213,339 change to the recommended contribution level. Because the actuarial value of assets involves a smoothing method, a 10% change in market value would not be fully reflected immediately in the actuarial value of assets. Rather, that effect would be spread over a period of years. We have shown the full impact immediately so as to indicate the sensitivity of costs to market fluctuations.



SECTION 1: Valuation Summary for the City of Meriden Employees' Retirement System

We expect that the annual required contribution (ARC) will exceed \$0 the next time an Actuarial Report is prepared. Presently, we are developing the funding recommendation based upon the actuarial smoothed assets. As of July 1, 2002, the actuarial value of assets was approximately \$118,100,000, while the market value of assets was approximately \$107,100,000. It is interesting to note that a valuation contribution of approximately \$687,000 is calculated if the market value of assets is used. For this reason, the City may want to consider making a contribution, even though the ARC through June 30, 2005 remains \$0.

SECTION 1: Valuation Summary for the City of Meriden Employees' Retirement System

| Summary of Key Valuation Results | 2002 | 2000 |
|---|--------------|--|
| Contributions for fiscal year beginning July 1: | | |
| Recommended | \$0 | \$0 |
| Actual | | |
| Funding elements for plan year beginning July 1: | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |
| Normal cost, including administrative expenses | \$2,755.833 | \$2,473,879 |
| Market value of assets | 107,087,018 | 129,068,231 |
| Actuarial value of assets | 118.086,359 | 109,269,458 |
| Actuarial accrued liability | 95,327,362 | 82,598,002 |
| Unfunded/(Overfunded) actuarial accrued liability | -22,758,997 | -26,671.456 |
| GASB 25/27 for fiscal year beginning July 1: | | |
| Annual required contributions | \$0 | \$0 |
| Actual contributions | 0 | 17,773 |
| Percentage contributed | N/A | N/A |
| Funded ratio | 123.87% | 132.29% |
| Covered payroll | 23,977,682 | 21,181,333 |
| Demographic data for plan year beginning July 1: | | |
| Number of retired participants and beneficiaries | 390 | 407 |
| Number of vested former participants | 65 | 58 |
| Number of active participants | 599 | 582 |
| Total payroll | \$23,977,682 | \$21,181,333 |
| Average payroll | 40,030 | 36,394 |

A. PARTICIPANT DATA

The Actuarial Valuation and Review considers the number and demographics of covered participants, including active participants, vested terminated participants, retired participants and beneficiaries. This section presents a summary of significant statistical data on these participant groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, and C.

A historical perspective of how the participant population has changed over the part sir

over the past six valuations can be seen in this chart.

CHART 1

Participant Population: 1992 - 2002

| Year Ended June 30 | Active Participants | Vested Terminated Participants* | Retired Participants and Beneficiaries | Ratio of Non-Actives to Actives |
|-----------------------|------------------------|------------------------------------|---|------------------------------------|
| 1992 | 485 | 86 | 304 | 0.80 |
| 1994 | 567 | 112 | 319 | 0.76 |
| 1996 | 573 | 101 | 352 | 0.79 |
| 1998 | 597 | 72 | 361 | 0.73 |
| 2000 | 582 | 58 | 407 | 0.80 |
| 2002 | 599 | 65 | 390 | 0.76 |

*Excludes terminated participants due a refund of employee contributions.

Active Participants

Plan costs are affected by the age, years of service and payroll of active participants. In this year's valuation, there were 599 active participants with an average age of 46.9, average years of service of 10.4 years and average payroll of \$40,030. The 582 active participants in the prior valuation had an average age of 45.8, average service of 9.8 years and average payroll of \$36,394.

Inactive Participants

In this year's valuation, there were 65 participants with a vested right to a deferred or immediate vested benefit.

In addition, there were 30 participants entitled to a return of their employee contributions.

These graphs show a distribution of active participants by age and by years of service.

CHART 2

Distribution of Active Participants by Age as of June 30, 2002

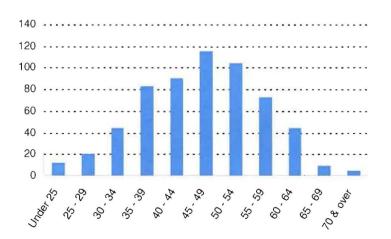
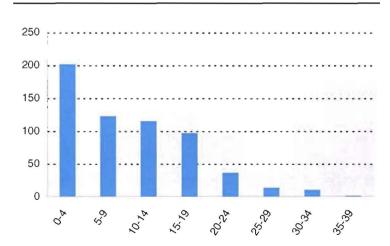


CHART 3

Distribution of Active Participants by Years of Service as of June 30, 2002





SECTION 2: Valuation Results for the City of Meriden Employees' Retirement System

Retired Participants and Beneficiaries

As of June 30, 2002, 366 retired participants and 24 beneficiaries were receiving total monthly benefits of \$392,850. For comparison, in the previous valuation, there were 389 retired participants and 18 beneficiaries receiving monthly benefits of \$363,213.

These graphs show a distribution of the current retired participants based on their monthly amount and age, by type of pension.



Distribution of Retired Participants by Type and by Monthly Amount as of June 30, 2002

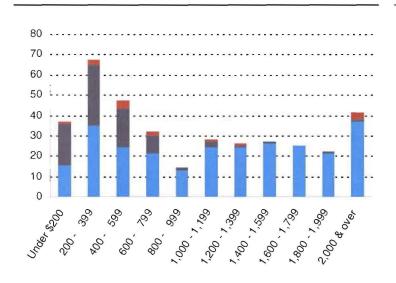
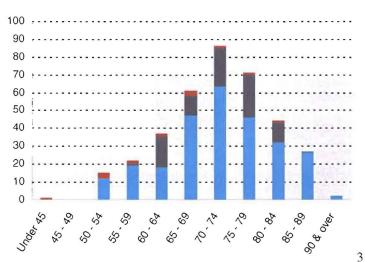


CHART 5

Distribution of Retired Participants by Type and by Age as of June 30, 2002



Disability

Early

💼 Regular

B. FINANCIAL INFORMATION

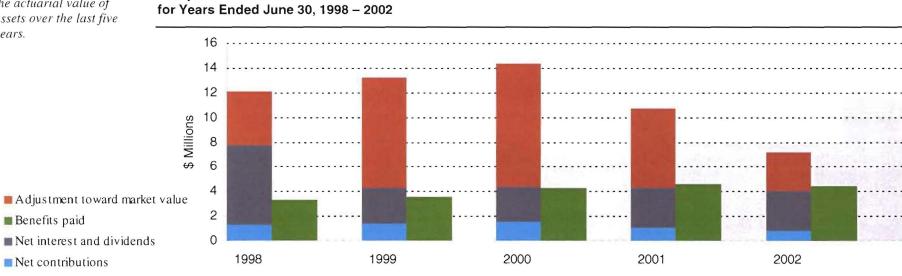
CHART 6

Retirement plan funding anticipates that, over the long term, both net contributions (less administrative expenses) and net investment earnings (less investment fees) will be needed to cover benefit payments.

Comparison of Increases and Decreases in the Actuarial Value of Assets

Retirement plan assets change as a result of the net impact of these income and expense components. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits D, E and F.

The chart depicts the components of changes in the actuarial value of assets over the last five years.



Benefits paid

Net contributions

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

The chart shows the determination of the actuarial value of assets as of the valuation date.

CHART 7

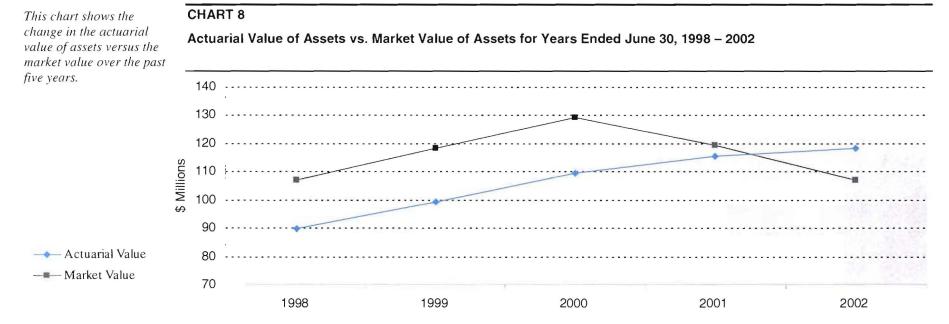
Determination of Actuarial Value of Assets for Year Ended

| | | June 30, 2002 | June 30, 2001 |
|-------|--|---------------|---------------|
| 1. 7 | Actuarial value of assets at beginning of year | \$115,349,313 | \$109.269,458 |
| 2. 7 | Total contributions | 1,005,394 | 1,075,697 |
| 3. 7 | Total benefit payments and expenses | 4,602,571 | 4,602,622 |
| 4. 7 | Average asset value: $(1) + 0.5 \times [(2) - (3)]$ | 113,550,725 | 107,505,996 |
| 5a. I | Expected investment income: .08 x (4) | 9,084.058 | 8,600,480 |
| 5b. I | Expected end of year assets: $(1) + (2) - (3) + (5a)$ | 120,836,194 | 114,343.013 |
| 6. / | Actual end of year assets | 107,087,018 | 119,374,515 |
| 7. / | Adjustment toward market value: 20% x [(6) – (5b)] | (2,749,835) | 1,006,300 |
| 8. / | Actuarial value of assets at end of year: (5b) + (7) | 118,086,359 | 115,349,313 |
| 9. / | Actuarial value as a percentage of market value: (8) + (6) | 110.27% | 96.63% |



SECTION 2: Valuation Results for the City of Meriden Employees' Retirement System

Both the actuarial value and market value of assets are representations of the City of Meriden's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because the City of Meriden's liabilities are compared to its assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.



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C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total gain/(loss) is (\$4,436,531), (\$1,743,535) from investments and (\$2,727,664) from all other sources. The net experience variation from individual sources other than investments was 2.9% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

CHART 9

summary of the actuarial experience over the past two years.

This chart provides a

Actuarial Experience for Two-Year Period Ended June 30, 2001

| 1. | Net gain/(loss) from investments* | -\$1,743.535 |
|----|--|--------------|
| 2. | Net gain/(loss) from other experience | -2.727,664 |
| 3. | Net experience $gain/(loss)$: (1) + (2) | -\$4,471,199 |

* Details in Chart 10

Investment Rate of Return

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the City of Meriden's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets is 8.00%. The smoothed actuarial return for the 2001 plan year was 5.58% and 8.94% for the 2000 year.

Since the actual return for the year was less than the assumed return, the City of Meriden experienced an actuarial loss during the two-year period ending June 30, 2002 with regard to its investments.

The actual market value returns for the last two plan years were -4.84% and -7.39%, respectively.

This chart shows the gain/(loss) due to investment experience.

CHART 10

Investment Experience for Year Ended

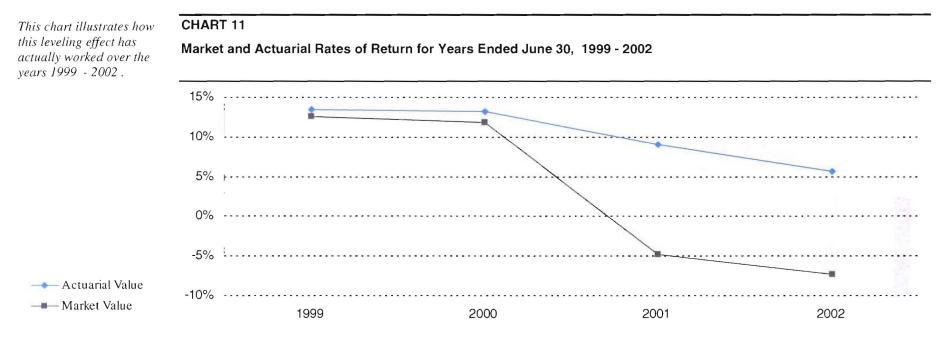
| | June 30, | June 30, | |
|--|--------------|--------------------|--|
| | 2002 | 2001 | |
| I. Actual return | \$6,334,223 | \$9,606,780 | |
| 2. Average value of assets | 113,550,725 | 107,505,996 | |
| 3. Actual rate of return: $(1) \div (2)$ | 5.58% | 8.94% | |
| 4. Assumed rate of return | 8.00% | 8.00% | |
| 5. Expected return: (2) x (4) | 9,084,058 | 8,600,480 | |
| 6. Actuarial gain/(loss): $(1) - (5)$ | -\$2,749.835 | <u>\$1,006,300</u> | |

SECTION 2: Valuation Results for the City of Meriden Employees' Retirement System

Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

Administrative Expenses

Because the administrative expenses were not identified in the audit report, we did not analyze this experience. However, based upon expected increases in the future, we increased the administrative expense assumption from \$15,000 to \$20,000 per year.



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Other Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- \blacktriangleright the extent of turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),

- > the number of disability retirements, and
- > salary increases different than assumed.

The net loss from this other experience for the two-year period ending June 30, 2002 amounted to (\$2,727,664) which is 2.9% of the actuarial accrued liability.

A brief summary of the demographic gain/(loss) experience of the City of Meriden for the two-year period ending June 30, 2002 is shown in the chart below.

The chart shows elements of the experience gain/(loss) for the most recent years.

CHART 12

Experience Due to Changes in Demographics for Two-Year Period Ended June 30, 2002

| 1. | Retirement | \$-2,044,000 |
|----|----------------------|--------------|
| 2. | Turnover | 1,612,000 |
| 3. | New Entrants/Showups | -420,000 |
| 4. | Salary increases | -1,554,000 |
| 5. | Miscellaneous | -321,664 |
| 6. | Total | -\$2,727,664 |

D. RECOMMENDED CONTRIBUTION

The amount of annual contribution required to fund the Plan is comprised of an employer normal cost payment and a payment on the unfunded/(overfunded) actuarial accrued liability. This total amount is then divided by the projected payroll for active members to determine the funding rate of 0.00% of payroll.

The recommended contribution is based on a 30-year amortization of the unfunded/(overfunded) actuarial accrued liability.

As of July 1, 2002, there are 18 years remaining on this schedule.

The chart compares this CH valuation's Be

valuation's recommended contribution with the prior valuation.

CHART 13

Recommended Contribution

| | | Year Beginning July 1 | | | |
|-----|--|-----------------------|-----------------|-----------------|-----------------|
| | | 2002 2000 | | | |
| | _ | Amount | % of Payroll | Amount | % of Payroll |
| 1. | Total normal cost | \$2,735,833 | 11.41% | \$2,458,879 | 11.61% |
| 2. | Administrative expenses | 20,000 | 0.08% | 15,000 | 0.07% |
| 3. | Expected employee contributions | -933,223 | <u>-3.89%</u> | <u>-829,469</u> | <u>-3.92%</u> |
| 4. | Employer normal cost: $(1) + (2) + (3)$ | 1,822,610 | 7.60% | 1,644,410 | 7.76% |
| 5. | Actuarial accrued liability | 95,327.362 | | 82,598,002 | |
| 6. | Actuarial value of assets | 118,086,359 | | 109,269,458 | |
| 7. | Unfunded/(overfunded) actuarial accrued liability: (5) - (6) | -22.758,997 | | -26,671,456 | |
| 8. | Payment on unfunded/(overfunded) actuarial accrued liability | -2,248,549 | -9.38% | -2,515,321 | -11.88% |
| 9. | Total recommended contribution: $(4) + (8)$, adjusted for timing*, but not less than zero | $\underline{0}$ | 0.00% | $\underline{0}$ | <u>0.00%</u> |
| 10. | Projected payroll | \$23.977.682 | | \$21,181,333 | |

*Recommended contributions are assumed to be paid halfway through the year, on average.

E. INFORMATION REQUIRED BY THE GASB

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes of governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

Critical information to GASB is the historical comparison of the GASB required contribution to the actual contributions. This comparison demonstrates whether a plan is being funded on an actuarially sound basis and in accordance with the GASB funding requirements. Chart 14 below presents a graphical representation of this information for the Plan. The other critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the assets of the plan to the liabilities of the plan as calculated under GASB. High ratios indicate a well-funded plan with assets sufficient to pay most benefits. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other changes.

The details regarding the calculations of these values and other GASB numbers may be found in Section 4, Exhibits II, III, and IV.

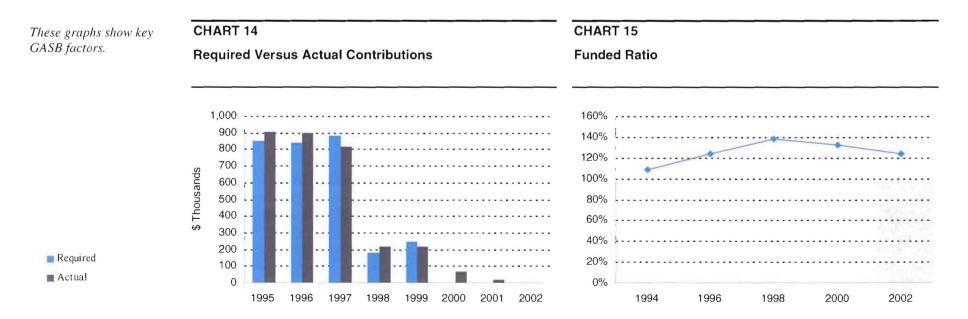




EXHIBIT A

Table of Plan Coverage

| | Year End | ed June 30 | |
|-----------------------------------|--------------|--------------|---------------------------|
| Category | 2002 | 2000 | Change From Prior Year |
| Active participants in valuation | | | |
| Number | 599 | 582 | 2.9% |
| Average age | 46.9 | 45.8 | N/A |
| Average service | 10.4 | 9.8 | N/A |
| Total payroll | \$23,977,682 | \$21,181,333 | 13.2% |
| Average payroll | 40,030 | 36,394 | 10.0% |
| Account balances | 11,607,299 | 9,779,825 | 18.7% |
| Total active vested participants | 298 | 294 | 1.4% |
| Vested terminated participants | 65 | 58 | 12.1% |
| Retired and disabled participants | | | |
| Number in pay status | 366 | 389 | -5.9% |
| Average age | 72.0 | 71.3 | N/A |
| Average monthly benefit | \$1,033 | \$905 | 14.1% |
| Beneficiaries in pay status | 24 | 18 | 33.3% |
| Inactive Non-Vested participants | 29 | 13 | 123.1% |

EXHIBIT B

Participants in Active Service During Year Ended June 30, 2002 By Age, Years of Service, and Average Payroll

| | | | | Yea | ars of Servic | е | | | |
|-----------|----------|----------|----------|----------|---------------|----------|---------------|-------------|----------|
| Age | Total | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 |
| Under 25 | 12 | 12 | | | | | | | |
| | \$30,322 | \$30,322 | | | | | | | |
| 25 - 29 | 20 | 17 | 3 | - | | | (H. H) | H (H | |
| | 31,445 | 29,475 | \$42,606 | | | - / - | | | |
| 30 - 34 | 44 | 26 | 11 | 7 | | | | | |
| | 35,140 | 28,618 | 45,971 | \$42,345 | | | | | |
| 35 - 39 | 83 | 42 | 14 | 15 | 12 | | - | | |
| | 39,631 | 30,085 | 50,555 | 47,247 | \$50,778 | | | | |
| 40 - 44 | 90 | 28 | 25 | 20 | 15 | 2 | - | | ÷ - |
| | 41,736 | 28,667 | 40,627 | 50,389 | 54,027 | \$59,869 | 1 <u>2</u> 21 | | |
| 45 - 49 | 115 | 36 | 27 | 21 | 16 | 7 | 5 | 3 | |
| | 39,268 | 26,632 | 32,952 | 46,379 | 51,353 | 52,532 | \$62,385 | \$64,032 | |
| 50 - 54 | 104 | 18 | 23 | 18 | 24 | 11 | 6 | 4 | |
| | 45,639 | 30,230 | 37,119 | 53,801 | 46,719 | 59,917 | 53,610 | 69,546 | |
| 55 - 59 | 73 | 11 | 9 | 18 | 20 | 11 | 2 | 2 | |
| | 40.704 | 25,471 | 56,255 | 39,132 | 40,434 | 42,893 | 28.667 | 71,365 | |
| 60 - 64 | 44 | 10 | 6 | 11 | 8 | 6 | 1 | 1 | 1 |
| | 36,862 | 29,393 | 35,522 | 39,511 | 39,740 | 39,419 | ÷ - | | |
| 65 - 69 | 9 | 1 | 3 | 3 | 1 | | | | 1 |
| | 40,727 | | 19,956 | 35,809 | | | | | |
| 70 & over | 5 | | 1 | 2 | 1 | | .= | 1 | |
| | 34,184 | | | 46.498 | : | | | | |
| Total | 599 | 201 | 122 | 115 | 97 | 37 | 14 | 11 | 2 |
| | \$40,030 | \$28.684 | \$40,253 | \$46.041 | \$47,288 | \$50,132 | \$51,895 | \$62,879 | \$73,332 |

EXHIBIT C

Reconciliation of Participant Data

| | Active Participants | Vested Former Participants | Inactive Non- Vested Participants | Pensioners and Disableds | Beneficiaries | Total |
|--------------------------------------|------------------------|-------------------------------|---|-----------------------------|---------------|----------|
| Number as of July 1, 2000 | 582 | 58 | 13 | 389 | 18 | 1,060 |
| New participants | 96 | N/A | 1 | N/A | N/A | 97 |
| Terminations – with vested rights | -13 | 13 | 0 | 0 | 0 | 0 |
| Terminations – without vested rights | -18 | N/A | 18 | N/A | N/A | 0 |
| Retirements | -10 | -6 | 0 | 16 | N/A | 0 |
| Died with beneficiary | -3 | 0 | 0 | -4 | 7 | 0 |
| Died without beneficiary | -3 | 0 | 0 | -36 | -1 | -40 |
| Lump sum payoffs | -31 | 0 | -2 | 0 | 0 | -33 |
| Data adjustments | <u>-1</u> | <u>0</u> | <u>0</u> | <u>1</u> | <u>0</u> | <u>0</u> |
| Number as of July 1, 2002 | 599 | 65 | 30 | 366 | 24 | 1,084 |

EXHIBIT D

Summary Statement of Income and Expenses

| | Year Ende | d June 30, 2002 | Year Ende | d June 30, 200 ⁻ |
|---------------------------------------|-----------------|-----------------|-----------------|-----------------------------|
| Contribution income: | | | | |
| Employer contributions | \$0 | | \$17,773 | |
| Employee contributions | 965.394 | | 1,057,924 | |
| Other contributions | 40,000 | | 0 | |
| Less administrative expenses | <u>0</u> | | <u>0</u> | |
| Net contribution income | | \$833,438 | | \$1,075,697 |
| Investment income: | | | | |
| Interest, dividends and other income | \$3,945,138 | | \$4,040,762 | |
| Adjustment toward market value | 3,132,750 | | 6,450,266 | |
| Less investment fees | <u>-743,665</u> | 1 | <u>-884,248</u> | |
| Net investment income | | 6,334,223 | | 9,606,780 |
| Total income available for benefits | | \$7,167,661 | | \$10,682,477 |
| Less benefit payments: | | | | |
| Benefit Payments | \$4,602,571 | | \$4,602.622 | |
| Net benefit payments | | 4,602.571 | | 4,602,622 |
| Change in actuarial asset method | | 0 | | 0 |
| Change in reserve for future benefits | | \$2,737,046 | | \$6,079,855 |



EXHIBIT E

Table of Financial Information

| | Year Ende | ed June 30, 2002 | Year Ende | ed June 30, 2001 |
|-----------------------------------|-------------------|------------------|--------------|-------------------|
| Cash equivalents | | \$7,218,114 | | \$19,852,181 |
| Accounts receivable: | | | | |
| Employer contribution receivables | \$0 | | \$0 | |
| Employee contribution receivables | 0 | | 0 | |
| Other | 111,782 | | 2.747 | |
| Total accounts receivable | | 111,782 | | 2,747 |
| Investments: | | | | |
| Corporate bonds | \$0 | | \$22,473,724 | |
| Corporate stocks | 0 | | 61,421,998 | |
| Treasury bills | 0 | | 15,623,865 | |
| U.S. government obligations | 18.941,994 | | 0 | |
| Corporate debt | 22,537,095 | | 0 | |
| Common and preferred equities | <u>58,278.033</u> | | <u>0</u> | |
| Total investments at market value | | 99,757,122 | | <u>99,519,587</u> |
| Total assets | | \$107,087,018 | | \$119,374,515 |
| Less accounts payable: | | 0 | | 0 |
| Net assets at market value | | \$107,087,018 | | \$119,374,515 |
| Net assets at actuarial value | | \$118.086.359 | | \$115,349,313 |



EXHIBIT F

Development of the Fund Through June 30, 2002

| Year Ended June 30 | Employer Contributions | Employee Contributions | Other Contributions | Net Investment Return* | Administration Expenses | Benefit Payments | Actuarial Value of Assets at End of Year |
|-----------------------|---------------------------|---------------------------|------------------------|------------------------------|----------------------------|---------------------|---|
| 1998 | \$215,379 | \$1,095,092 | \$0 | \$10,734,641 | \$0 | \$3,260,799 | \$89,530,600 |
| 1999 | 213.999 | 1,165,870 | 0 | 11,785,291 | 0 | 3,503,856 | 99,191,904 |
| 2000 | 67,116 | 1,475,825 | 0 | 12,776,683 | 0 | 4,242,070 | 109,269,458 |
| 2001 | 17,773 | 1,057,924 | 0 | 9,606,780 | 0 | 4.602,622 | 115,349,313 |
| 2002 | 0 | 965,394 | 40,000 | 6,334,223 | 0 | 4,602,571 | 118.086.359 |

* Net of investment expenses

EXHIBIT G

Development of Unfunded/(Overfunded) Actuarial Accrued Liability

| | | Year Ended Ju | ne 30, 2002 | Year Ended Jur | ne 30, 2001 |
|----|--|---------------|---------------|----------------|---------------|
| 1. | Unfunded/(Overfunded) actuarial accrued liability at beginning of year | | -\$27,268,308 | | -\$26,671,456 |
| 2. | Normal cost at beginning of year | | 2,606,412 | | 2.458,879 |
| 3. | Total contributions | | -1,005,394 | | -1,075,697 |
| 4. | Interest | | | | |
| | (a) For whole year on $(1) + (2)$ | -\$1,972.952 | | -\$1,937,006 | |
| | (b) For half year on (3) | -40,216 | | -43,028 | |
| | (c) Total interest | | -2,013,168 | | -1.980,034 |
| 5. | Expected unfunded/(overfunded) actuarial accrued liability | | -\$27,680,458 | | -\$27,268,308 |
| 6. | Changes due to: | | | | |
| | (a) (Gain)/Loss | \$4,471,199 | | | |
| | (b) Assumptions | 450.262 | | | |
| | (c) Funding method | | | | |
| | (d) Plan provisions | | | | |
| | (e) Total changes | | 4,921,461 | | == |
| 7. | Unfunded/(Overfunded) actuarial accrued liability at end of year | | -\$22,758,997 | | -\$27,268,308 |

expectancy is based on these rates;

EXHIBIT H

Normal Cost:

Actuarial Accrued Liability For Actives:

Actuarial Accrued Liability For Pensioners:

Unfunded Actuarial Accrued Liability:

Definitions of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

| Assumptions or Actuarial Assumptions: | The estimates on which the cost of the Plan is calculated including: |
|--|--|
| | (a) <u>Investment return</u> — the rate of investment yield which the over the long-term future; |
| | (b) Mortality rates — the death rates of employees and pension |

Retirement rates — the rate or probability of retirement at a given age; (c)

Mortality rates — the death rates of employees and pensioners; life

Turnover rates — the rates at which employees of various ages are expected (d) to leave employment for reasons other than death, disability, or retirement.

Investment return - the rate of investment yield which the Plan will earn

The amount of contributions required to fund the benefit allocated to the current year of service.

The equivalent of the accumulated normal costs allocated to the years before the valuation date.

The single sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and of the interest which the sum is expected to earn before it is entirely paid out in benefits.

The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.



| Amortization of the Unfunded Actuarial Accrued Liability: | Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability. |
|--|---|
| Investment Return: | The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next. |

SECTION 4: Reporting Information for the City of Meriden Employees' Retirement System

EXHIBIT I

Summary of Actuarial Valuation Results

| Tł | e valuation was made with respect to the following data supplied to us: | #2001832700014992001880400046222001897000488220048600044882201440 | |
|----|--|---|---------------|
| ١. | Pensioners as of the valuation date (including 23 beneficiaries in pay status) | | 389 |
| 2. | Participants inactive during year ended June 30, 2002 with vested rights | | 65 |
| 3. | Participants active during the year ended June 30, 2002 | | 599 |
| | Fully vested | 298 | |
| | Not vested | 301 | |
| 4. | Inactive Non-Vested participants as of June 30, 2002 | | 29 |
| Th | e actuarial factors as of the valuation date are as follows: | | |
| ١. | Normal cost, including administrative expenses | | \$2,755,833 |
| 2. | Present value of future benefits | | 121,665,165 |
| 3. | Present value of future normal costs | | 26,337,802 |
| 4. | Actuarial accrued liability | | 95,327.362 |
| | Pensioners and beneficiaries | \$45,508,462 | |
| | Inactive participants with vested rights | 2,260,159 | |
| | Active participants | 47,485,744 | |
| | Inactive Non-Vested | 72,997 | |
| 5. | Actuarial value of assets (\$107.087,018 at market value) | | 118,086,359 |
| 6. | Overfunded actuarial accrued liability | | -\$22,758,997 |

EXHIBIT I (continued)

Summary of Actuarial Valuation Results

| Th | e determination of the recommended contribution is as follows: | |
|-----|--|-------------|
| 1. | Total normal cost | \$2,735,833 |
| 2. | Administrative expenses | 20,000 |
| 3. | Expected employee contributions | -933.223 |
| 4. | City normal cost: $(1) + (2) + (3)$ | 1,822,610 |
| 5. | Payment on unfunded/(overfunded) actuarial accrued liability | -2,248,549 |
| 6. | Total recommended contribution: (4) + (5), adjusted for timing, but not less than zero | 0 |
| 7. | Projected payroll | 23,977.682 |
| 8. | Total recommended contribution as a percentage of payroll | 0.00% |
| 9. | Expected City normal cost as of July 1, 2003: (4) x 1.055 | 1,922,854 |
| 10. | Payment on unfunded/(overfunded) actuarial accrued liability: (5) | -2.248.549 |
| 11. | Annual Required Contribution (ARC) for year ending June 30, 2004; (9) + (10), adjusted for timing, but not less than zero | \$0 |
| 12. | Expected City normal cost as of July 1, 2004: (9) x 1.055 | 2,028.610 |
| 13. | Payment on unfunded/(overfunded) actuarial accrued liability: (5) | -2,248,549 |
| 14. | Annual Required Contribution (ARC) for year ending June 30, 2005: (12) + (13), adjusted for timing, but not less than zero | \$0 |

SECTION 4: Reporting Information for the City of Meriden Employees' Retirement System

EXHIBIT II

Supplementary Information Required by the GASB - Schedule of Employer Contributions

| Plan Year Ended June 30 | Annual Required Contributions | Actual Contributions | Percentage Contributed |
|----------------------------|----------------------------------|-------------------------|---------------------------|
| 1995 | \$850,800 | \$901.578 | 106.0% |
| 1996 | 841,200 | 897,658 | 106.7% |
| 1997 | 879,100 | 811.867 | 92.4% |
| 1998 | 181,700 | 215,379 | 118.5% |
| 1999 | 245,900 | 213,999 | 87.0% |
| 2000 | 0 | 67,116 | N/A |
| 2001 | 0 | 17.773 | N/A |
| 2002 | 0 | 0 | N/A |
| 2003 | 0 | 0 | N/A |
| 2004 | 0 | ** | |

EXHIBIT III

Supplementary Information Required by the GASB – Schedule of Funding Progress

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded/ (Overfunded) AAL (UAAL) (b) - (a) | Funded Ratio (a) / (b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll [(b) - (a) / (c)] |
|--------------------------------|--|--|---|------------------------------|---------------------------|---|
| 07/01/1994 | \$58,933.900 | \$54,579,600 | -4,354,300 | 107.98% | \$17,126,500 | (25.42%) |
| 07/01/1995 | N/A | N/A | N/A | N/A | N/A | N/A |
| 07/01/1996 | 72,100,300 | 58,546,000 | -13,554.300 | 123.15% | 18,990,000 | (71.38%) |
| 07/01/1997 | N/A | N/A | N/A | N/A | N/A | N/A |
| 07/01/1998 | 89.530,600 | 64,878,200 | -24,652,400 | 138.00% | 20.752,300 | (118.79%) |
| 07/01/1999 | N/A | N/A | N/A | N/A | N/A | N/A |
| 07/01/2000 | 109.269,458 | 82,598.002 | -26,671,456 | 132.29% | 21,181,333 | (125.92%) |
| 07/01/2001 | N/A | N/A | N/A | N/A | N/A | N/A |
| 07/01/2002 | 118.086,359 | 95,327,362 | -22,758,997 | 123.87% | 23.977,682 | (94.92%) |

SECTION 4: Reporting Information for the City of Meriden Employees' Retirement System

EXHIBIT IV

Supplementary Information Required by the GASB

| Valuation Date | July 1, 2002 |
|---|---|
| Actuarial Cost Method | Entry Age Normal Cost Method |
| Amortization Method | Level dollar, closed |
| Remaining Amortization Period | 18 years as of July 1, 2002 |
| Asset Valuation Method | 5 year smoothing of investment returns greater/(less) than expected |
| Actuarial Assumptions: | |
| Investment Rate of Return | 8.00% |
| Projected Salary Increases | 5.50% |
| Membership of the Plan | |
| Retirees and Beneficiaries receiving benefits | 390 |
| Terminated plan members entitled to, but not yet receiving benefits | 65 |
| Active plan members | <u>599</u> |
| Total | 1.053 |

EXHIBIT V

Development of the Net Pension Obligation and the Annual Pension Cost Pursuant to GASB 27

| Plan Year Ended June 30 | Employer Annual Required Contribution (a) | Employer Amount Contributed (b) | Interest on NPO (h)* 8.00% (c) | ARC Adjustment (h) / (e) (d) | Amortization Factor (e) | Pension Cost (a) + (c) - (d) (f) | Change in NPO (f) – (b) (g) | NPO Balance NPO + (g) (h) |
|-------------------------------|---|--|---|---------------------------------------|-------------------------------|---|--------------------------------------|---------------------------------|
| 1995 | \$850,800 | \$901,578 | -\$22,861 | -\$24,196 | 11.8100 | \$852,136 | -\$49,442 | -\$335,202 |
| 1996 | 841.200 | 897,658 | -26,816 | -28,712 | 11.6748 | 843,095 | -54,563 | -389,764 |
| 1997 | 879,100 | 811,867 | -31,181 | -33,808 | 11.5229 | 881,727 | 69,860 | -319.904 |
| 1998 | 181.700 | 215.379 | -25,592 | -28,133 | 11.3711 | 184,241 | -31,138 | -351.042 |
| 1999 | 245,900 | 213.999 | -28,083 | -32,699 | 11.2007 | 250,516 | 36,517 | -314,525 |
| 2000 | 0 | 67.116 | -25,162 | -29,787 | 10.5596 | 4,625 | -62,491 | -377.016 |
| 2001 | 0 | 17,773 | -30,161 | -36,360 | 10.3692 | 6,199 | -11,574 | -388,590 |
| 2002 | 0 | 0 | -31,087 | -38,235 | 10.1635 | 7,148 | 7,148 | -381,442 |
| 2003 | 0 | 0 | -30,515 | -38.370 | 9.9414 | 7,855 | 7,855 | -373,587 |
| 2004 | 0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

SECTION 4: Reporting Information for the City of Meriden Employees' Retirement System

EXHIBIT VI

Actuarial Assumptions and Actuarial Cost Method

| Mortality Rates: | 199 | 1994 Group Annuity Mortality Table (previously, 1983 GAM) | | | | | | |
|---------------------------------|-------------------|---|----------|------------|------|------------|--|--|
| Termination Rates be | efore Retirement: | | Rate (%) | | | | | |
| | Мог | Mortality | | Disability | | Withdrawal | | |
| Age | e Male | Female | Male | Female | Male | Female | | |
| 20 | 0.05 | 0.03 | 0.03 | 0.03 | 5.44 | 5.44 | | |
| 25 | 0.07 | 0.03 | 0.03 | 0.03 | 5.29 | 5.29 | | |
| 30 | 0.08 | 0.04 | 0.03 | 0.03 | 5.07 | 5.07 | | |
| 35 | 0.09 | 0.05 | 0.03 | 0.03 | 4.70 | 4.70 | | |
| 40 | 0.11 | 0.07 | 0.05 | 0.05 | 4.19 | 4.19 | | |
| 45 | 0.16 | 0.10 | 0.09 | 0.09 | 3.54 | 3.54 | | |
| 50 | 0.26 | 0.14 | 0.20 | 0.20 | 2.48 | 2.48 | | |
| 55 | 0.44 | 0.23 | 0.43 | 0.43 | 0.00 | 0.00 | | |
| 60 | 0.80 | 0.44 | 0.87 | 0.87 | 0.00 | 0.00 | | |
| 25% of disabilities are service | vice connected | | | | | | | |

| Retirement Age: | 60, or completion of 30 years of service, if later, but not after age 65 |
|------------------------|--|
| Percent Married: | 75% of male participants and 65% of female participants |
| Age of Spouse: | Males are assumed to be three years older than their spouses |
| Net Investment Return: | 8.00% |



SECTION 4: Reporting Information for the City of Meriden Employees' Retirement System

| Salary Increases: | 5.50% (previously, 6.00% per year). The 5.5% assumption includes a 1.5% allowand for promotional increases. | | | |
|----------------------------|---|--|--|--|
| Administrative Expenses: | \$20,000, added to plan normal cost (previously, \$15,000) | | | |
| Actuarial Value of Assets: | Sum of actuarial value at beginning of year, contributions and expected investment earnings based on the actuarial interest assumption less benefit payments plus 20% of market value at end of year in excess of that sum, plus additional adjustment toward market value as necessary so that final actuarial value is within 20% of market value. | | | |
| Actuarial Cost Method: | Entry Age Normal Actuarial Cost Method. Entry Age is the age at the time the participant would have commenced participation if the plan had always been in existence. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by service, with Normal Cost determined as if the current benefit accrual rate had always been in effect. | | | |
| Changes in Assumptions: | The following actuarial assumptions were changed for this valuation: | | | |
| | The mortality table was updated to the 1994 Group Annuity Mortality Table (previously, the 1983 GAM). | | | |
| | The salary scale assumption was lowered to 5.5% per year (previously, 6.0% per year). | | | |
| | The expense assumption was increases to \$20,000 per year, added to plan normal cost (previously, \$15,000 per year). | | | |

EXHIBIT VII

Summary of Plan Provisions

This exhibit summarizes the major provisions of the City of Meriden included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

| Plan Year: | July 1 through June 30 | | | | |
|---|--|--|--|--|--|
| Normal Retirement: | | | | | |
| Age and service requirement | Age 65 with 10 years of service or Rule of 80 | | | | |
| Amount | 2% of final average salary per year of service, to a maximum benefit of 60% of salary. Final average salary is defined as the average of the three highest consecutive years of salary during the 10 years prior to retirement. | | | | |
| Early Retirement: | | | | | |
| Age requirement | 55 | | | | |
| Service requirement | 10 years | | | | |
| Amount | Normal pension accrued, actuarially reduced | | | | |
| Window | An early retirement window was offered to participants that elected to retire on or after July 1, 1999 and before January 1, 2000. | | | | |
| Disability: | | | | | |
| Non-service connected | | | | | |
| Age requirement | None | | | | |
| Service requirement | 10 years | | | | |
| Amount Normal pension accrued. Minimum annual benefit of \$360. | | | | | |

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