

PC-201C
Commonwealth of Pennsylvania
Public Employee Retirement Commission
P. O. Box 1429
Harrisburg, PA 17105-1429

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2009
ACT 205 ACTUARIAL VALUATION REPORT:
POLICE PENSION PLAN
WITH DEFINED BENEFITS

FILING DEADLINE: March 31, 2010

Special Instructions: Where a Deferred Retirement Option Plan (DROP) is operated for members of the pension plan, the participating pension plan members should be reported as retired members in Section IV and Schedule A.

Section I - Identification of Municipality

INSTRUCTIONS: Print or type requested information in the space provided.

Note: In Part A, home rule municipalities should check the box and enter the number of their previous municipal classification.

A. Type of Municipality 2 Item No. (1)
(Check appropriate box below and enter corresponding number.)

- | | |
|--|--|
| <input checked="" type="checkbox"/> City (2) | <input type="checkbox"/> Township (1 st) (4) |
| <input type="checkbox"/> Borough (3) | <input type="checkbox"/> Township (2 nd) (5) |
| <input type="checkbox"/> Town (3) | <input type="checkbox"/> Authority (6) |
| | <input type="checkbox"/> COG/Regional Entity (7) |

B. Name of Municipality CITY OF PITTSBURGH (2)

C. Name of County ALLEGHENY (3)

Section II - Identification of Pension Plan and Specification of Valuation Date

INSTRUCTIONS: Print or type requested information in space provided.

A. Name of Pension Plan CITY OF PITTSBURGH POLICEMEN'S RELIEF AND PENSION FUND (4)

B. Date on which pension plan was established 09 / 01 / 1935 (5)
Mo. Da. Yr.

C. Valuation date for demographic, financial and actuarial data 01 / 01 / 2009 (6)
(Use 1/1/2009 unless otherwise specified in plan document prior to 12/31/1982.) Mo. Da. Yr.

Section III - General Information

INSTRUCTIONS: Respond to each question by entering "yes" or "no" in the space provided.

- A. Is Social Security coverage provided for the active members of the pension plan identified in Section II? NO (8)
- B. Do any active members of the pension plan identified in Section II participate in any other pension plan or plans that receive funding from the municipality? NO (9)
- C. Do any of the active members of the pension plan identified in Section II work on average less than 35 hours per week? NO (10)
- D. Does the pension plan identified in Section II include active members who are not employees of the municipality identified in Section I? NO (11)
- E. Do retired members of the pension plan identified in Section II receive any benefit, such as insurance coverage, that is provided wholly or partially by the municipality and not funded through the pension plan identified in Section II? YES (12)

Section IV - Demographic Data as of JANUARY 1, 2009 (Valuation Date)

INSTRUCTIONS: Enter valuation date specified in Section II, Part C, in the space provided above and on each page of Schedule A. Print or type information requested in Part A in the space provided. Enter zero, if applicable. Do not leave blanks or refer to the schedules or exhibits. Complete Schedule A. Then complete the certification in Part B below.

A. Summary of Demographic Data

- 1. Number of active members on valuation date 898 (13)
- 2. Total annual payroll of active members as of above valuation date \$ 63,787,288 (14)
- 3. Number of members terminated with vested or deferred benefit on valuation date 4 (15)
- 4. As of valuation date, number of persons receiving:
 - a. Retirement benefits
 - i. As normal retired members 699 (16i)
 - ii. As DROP participants 0 (16ii)
 - iii. Total 699 (16iii)
 - b. Disability benefits 388 (17)
 - c. Surviving spouse benefits 502 (18)
 - d. Surviving child benefits 3 (19)
 - e. Total (a+b+c+d) 1,592 (20)
- 5. As of valuation date, total annual benefits payable as:
 - a. Retirement benefits
 - i. To normal retired members \$ 18,515,031 (21i)
 - ii. To DROP participants \$ 0 (21ii)
 - iii. Total \$ 18,515,031 (21iii)
 - b. Disability benefits \$ 9,032,730 (22)
 - c. Surviving spouse benefits \$ 3,896,238 (23)
 - d. Surviving child benefits \$ 18,646 (24)
 - e. Total (a+b+c+d) \$ 31,462,645 (25)

B. Certification of Demographic Data

I hereby certify that I have prepared and reviewed the demographic data entered in Part A of this section and in Schedule A; and I further certify that the information provided is to the best of my knowledge true and accurate.

Scott Kunka (Signature) 3-29-10 (Date)
Scott Kunka (Name) Director of Finance (Title) (412) 255-2640 (Telephone)

Section V - Financial Data as of JANUARY 1, 2009 (Valuation Date)

INSTRUCTIONS: Enter valuation date specified in Section II, Part C, in the space provided above and on each page of Schedule B. Print or type the data requested in Part A, rounded to the nearest dollar, in the space provided. Enter zero, if applicable. Do not leave blanks or refer to exhibits. Complete Schedule B. Then complete the certification in Part B below.

Note: The asset values provided in Part A of this section and in Schedule B must include all the assets of the pension plan regardless of custodial arrangements involving administrative agencies.

A. Summary of Financial Data

| | |
|--|---------------------------|
| 1. MARKET VALUE OF ASSETS, <i>excluding the cash surrender values of individual insurance and annuity contracts</i> , on the above valuation date | \$ <u>81,203,837</u> (26) |
| 2. CASH SURRENDER VALUE of individual insurance and annuity contracts on the above valuation date or nearest anniversary date | \$ <u>0</u> (27) |
| 3. TOTAL FUND ASSETS (1 + 2) on the above valuation date | \$ <u>81,203,837</u> (28) |
| 4. INVESTMENT INCOME, <i>excluding individual insurance and annuity contract dividends</i> , for the year ended on the above valuation date | \$ <u>4,630,721</u> (29) |
| 5. REALIZED CAPITAL GAINS/LOSSES for the year ended on the above valuation date (+ or -) | \$ <u>0</u> (30) |
| 6. DIVIDENDS ON INSURANCE/ANNUITY CONTRACTS for the year ended on the above valuation date | \$ <u>0</u> (31) |
| 7. MEMBER CONTRIBUTIONS to plan for the year ended on the above valuation date (Include employee contributions treated as employer contributions pursuant to Section 414(h) of the Internal Revenue Code.) | \$ <u>3,501,221</u> (32) |
| 8. MUNICIPAL CONTRIBUTIONS to plan for the year ended on valuation date (8a+8b) | \$ <u>20,132,321</u> (33) |
| a. State Aid Portion \$ <u>5,442,251</u> b. Local Portion \$ <u>14,690,070</u> | |
| 9. ACTUAL MUNICIPAL DEPOSIT for the year ended on the valuation date (Item 33 + 9a - 9b) | \$ <u>20,132,321</u> (34) |
| a. Contributions Receivable at beginning of year \$ <u>0</u> b. Contributions Receivable at End of year \$ <u>0</u> | |
| 10. TOTAL MONTHLY BENEFIT PAYMENTS for the year ended on the above valuation date | \$ <u>31,181,260</u> (35) |
| 11. ANNUAL INSURANCE OR ANNUITY PREMIUM PAYMENTS, <i>excluding single premium annuity purchases</i> ; for the year ended on the above valuation date | \$ <u>0</u> (36) |
| 12. ADMINISTRATIVE EXPENSES paid from the assets of the pension plan for the year ended on the above valuation date | \$ <u>1,295,159</u> (37) |
| 13. MINIMUM MUNICIPAL OBLIGATION to the pension plan for the year ended on the valuation date (Enter amount reported in item 34 on page 12) | \$ <u>19,768,698</u> (38) |

B. Certification of Financial Data

I hereby certify that I have prepared and reviewed the financial data entered in Part A of this section and in Schedule B; and I further certify that the information provided is to the best of my knowledge true and accurate.

Scott Kunka
(Signature)

3-29-10
(Date)

Scott Kunka
(Name)

Director of Finance
(Title)

(412) 255-2440
(Telephone)

Section VI - Actuarial Data as of JANUARY 1, 2009 (Valuation Date)

INSTRUCTIONS: Enter valuation date specified in Section II, Part C, in the space provided above and on each page of Schedule C. Complete Part A and Part B below in accordance with the instructions provided. Complete Schedule C. Then complete the certification in Part C below.

Note: The asset values provided in Part A of this section must include all the assets of the pension plan regardless of custodial arrangements involving administrative agencies.

A. Summary of Actuarial Data

INSTRUCTIONS: Print or type the data requested, rounded to the nearest dollar, in the space provided. Enter zero or negative values, if applicable. Do not leave blanks or refer to exhibits.

| | | | |
|--|----|--------------------|------|
| 1. ACTUARIAL PRESENT VALUE OF FUTURE BENEFITS as of valuation date | \$ | <u>467,799,708</u> | (40) |
| 2. ACTUARIAL PRESENT VALUE OF FUTURE NORMAL COST as of valuation date | \$ | <u>79,942,095</u> | (41) |
| 3. ACTUARIAL ACCRUED LIABILITY as of valuation date | \$ | <u>387,857,613</u> | (42) |
| 4. ACTUARIAL VALUE OF ASSETS, including aggregate insurance/annuity cash surrender value, as of valuation date | \$ | <u>105,564,988</u> | (43) |
| 5. UNFUNDED ACTUARIAL ACCRUED LIABILITY as of valuation date (+ or -) | \$ | <u>282,292,625</u> | (44) |
| 6. NORMAL COST (employer & employee), <i>excluding administrative expenses</i> , payable as of valuation date for the plan year beginning on valuation date: | | | |
| a. As a dollar amount | \$ | <u>7,604,047</u> | (45) |
| b. As a percentage of total annual payroll | | <u>11.921%</u> | (46) |
| 7. AVERAGE ADMINISTRATIVE EXPENSES payable from the assets of the pension plan in the prior plan year and the plan year beginning on valuation date ¹ | \$ | <u>1,084,384</u> | (47) |
| 8. ANNUAL COVERED PAYROLL of active members as of valuation date | \$ | <u>63,787,288</u> | (48) |
| 9. AMORTIZATION CONTRIBUTIONS | | | |
| a. For amortization of initial unfunded actuarial accrued liability established 1/1/85. ² | | | |
| 1) Amortization period remaining (years) | | <u>29</u> | (49) |
| 2) Amortization contribution calculated as a level dollar amount for the plan year beginning on valuation date | \$ | <u>7,746,181</u> | (50) |
| 3) Amortization contribution calculated as a level percentage of payroll for the plan year beginning on valuation date ³ | \$ | <u>N/A</u> | (51) |
| b. For amortization of all increases or decreases in unfunded actuarial accrued liability occurring after 1/1/85 or the initial UAL's establishment. ² | | | |
| 1) Aggregated amortization period (years) | | <u>15</u> | (52) |
| 2) Aggregated amortization contribution calculated as a level dollar amount for the plan year beginning on valuation date | \$ | <u>12,008,094</u> | (53) |
| c. Modified Total Amortization Requirement ⁴ | \$ | <u>N/A</u> | (54) |
| d. Total Amortization Requirement (Item 50 + 53 or Item 51 + 53 or Item 54, whichever is applicable) | \$ | <u>19,754,275</u> | (55) |
| 10. ACTUAL OR ESTIMATED MEMBER CONTRIBUTIONS to the pension plan for the year beginning on the valuation date | \$ | <u>3,501,221</u> | (56) |

Section VI - Actuarial Data (Cont'd)

INSTRUCTIONS: If insurance/annuity contracts are maintained pre-retirement to fund a portion of the benefits provided by the pension plan at retirement, enter the information requested in items 11-20 below. Otherwise, do not complete items 11-20.

Note: For item 20, include "side fund" amortization contribution for the initial UAL established 1/1/85 and the aggregated "side fund" amortization contribution for increases and decreases in the UAL occurring after 1/1/85. Attach a facsimile of Schedule C, Section II, to support the entry for item 20.

A. Summary of Actuarial Data (Cont'd)

| | | |
|---|----------|-------|
| 11. ACTUARIAL PRESENT VALUE OF INSURANCE/ANNUITY CONTRACT CASH VALUES AT RETIREMENT as of valuation date | \$ _____ | (57) |
| 12. ADJUSTED ACTUARIAL PRESENT VALUE OF FUTURE BENEFITS as of valuation date (1 - 11) | \$ _____ | (58) |
| 13. ADJUSTED ACTUARIAL PRESENT VALUE OF FUTURE NORMAL COST as of valuation date | \$ _____ | (59) |
| 14. ADJUSTED ACTUARIAL ACCRUED LIABILITY as of valuation date | \$ _____ | (60) |
| 15. ACTUARIAL VALUE OF ASSETS, excluding aggregate insurance/annuity cash surrender value, as of valuation date | \$ _____ | (61) |
| 16. ADJUSTED UNFUNDED ACTUARIAL ACCRUED LIABILITY as of valuation date (+ or -) | \$ _____ | (62) |
| 17. ADJUSTED NORMAL COST, excluding administrative expenses, payable as of valuation date for the plan year beginning on valuation date | \$ _____ | (63) |
| 18. ANNUAL INSURANCE/ANNUITY PREMIUM PAYMENTS for the plan year beginning on valuation date | \$ _____ | (64) |
| 19. GROSS ADJUSTED NORMAL COST for the plan year beginning on valuation date (17 + 18): | | |
| a. As a dollar amount | \$ _____ | (65) |
| b. As a percentage of payroll | _____ | %(66) |
| 20. ADJUSTED AMORTIZATION CONTRIBUTION calculated as a level dollar amount for the plan year beginning on valuation date | \$ _____ | (67) |

¹ The average of the prior year's administrative expenses and the estimated administrative expenses for the current year. If the amount entered exceeds the prior year's expenses (Section V, Part A, Item 12) by more than 10%, attach an exhibit detailing the administrative expenses for the year beginning on the valuation date.

² Initial unfunded actuarial accrued liability may be established later than 1/1/1985 if coincidental with the establishment of the pension plan or with the initiation of a new amortization schedule authorized by Act 82 of 1998.

³ Enter N/A unless municipality has been certified to use level percentage of payroll amortization pursuant to Section 607 of Act 205.

⁴ If the municipality has formally elected to apply the limit on the amortization contribution under section 202(b)(4), enter the modified total amortization requirement calculated as the amount required to amortize the unfunded actuarial accrued liability over ten years. Otherwise, enter N/A.

Section VI - Actuarial Data (Cont'd)

B. Additional Information

INSTRUCTIONS: Print or type the information requested in the space provided. Enter "N/A" if applicable. Do not leave blanks or refer to exhibits.

1. MAJOR ECONOMIC ACTUARIAL ASSUMPTIONS

- a. Interest or investment earnings rate 8.00%(68)
- b. Salary projection 5.75%(69)

2. ADMINISTRATIVE ARRANGEMENT (Enter corresponding number. ⇨) 1 (70)

- | | |
|---|---|
| <input type="checkbox"/> 1 - Self administered fund | <input type="checkbox"/> 4 - Insured deposit administration contract |
| <input type="checkbox"/> 2 - Bank or other trust fund | <input type="checkbox"/> 5 - Immediate participation guarantee contract |
| <input type="checkbox"/> 3 - Split-funded plan - Insurance plus side fund | <input type="checkbox"/> 6 - Pennsylvania Municipal Retirement System |
| <input type="checkbox"/> 7 - Other (Describe) _____ | |

3. COST FOR ACTUARIAL SERVICES to be billed or charged for completing this reporting form and for preparing the associated actuarial valuation report \$ 11,000 (71)

C. Certification of Actuarial Data

I hereby certify that I have prepared and reviewed the actuarial data and information entered in Part A and Part B of this section and in Schedule C and that the data and information provided is to the best of my knowledge true and accurate.

I further certify that I have five years of actuarial experience with public pension plans and that I am (Initial appropriate box.)

gm a member of the American Academy of Actuaries enrolled in 1979.

gm an enrolled actuary pursuant to the Employee Retirement Income Security Act of 1974, No. 08-544.

G. Herbert Loomis
(Signature)

3/26/10
(Date)

G. Herbert Loomis
(Name)

(412) 394-9660 (72)
(Telephone)

Mockenhaupt Benefits Group
(Name of Firm)

(73)

Section VII - Certification of Report by the Chief Administrative Officer of the Municipality

INSTRUCTIONS: Ensure that Schedule A, Schedule B and Schedule C are completed and attached to the reporting form. Review the information entered in each section of the reporting form and the information provided in the schedules. Then complete the certification below and return the original reporting form to the Commission. **Retain a copy of the completed reporting form for audit compliance purposes.**

Note: To be completed by the person officially designated as the Chief Administrative Officer of the municipality under Act 205 of 1984.

I hereby certify that to the best of my knowledge the information provided in this report is complete, true and accurate.

Scott Kunka
(Signature of Chief Administrative Officer)

3-29-10
(Date)

Scott Kunka
(Name of Chief Administrative Officer) (Print or type)

(412) 255-2640
(Telephone)

Inquiries regarding completion or submission of the reporting form may be directed to:

**Commonwealth of Pennsylvania
Public Employee Retirement Commission**

Mailing Address
P. O. Box 1429
Harrisburg, PA 17105-1429

Phone: (717) 783-6100
Fax: (717) 787-9531
E-mail: perc@state.pa.us

INSTRUCTIONS: Print or type the requested information in the space provided. For totals, enter zero if applicable. Refer to attachments or exhibits only to explain or support data entered on the schedule.

| PART I - DEMOGRAPHIC DATA FOR RETIRED MEMBERS | | |
|--|--------------|------------------------|
| AGE | NUMBER | ANNUAL PENSION PAYABLE |
| Under 30 | 3 | 18,646 |
| 30-34 | | |
| 35-39 | 11 | 266,721 |
| 40-44 | 29 | 770,535 |
| 45-49 | 39 | 1,022,387 |
| 50-54 | 76 | 2,034,623 |
| 55-59 | 146 | 3,939,799 |
| 60-64 | 201 | 5,267,986 |
| 65-69 | 231 | 5,597,891 |
| 70-74 | 237 | 4,718,907 |
| 75-79 | 212 | 3,384,076 |
| 80-84 | 242 | 3,040,151 |
| Over 84 | 165 | 1,400,923 |
| TOTALS | 1,592 | 31,462,645 |

| PART II - DEMOGRAPHIC DATA FOR MEMBERS TERMINATED WITH VESTING | | |
|---|----------|--------------------------|
| AGE | NUMBER | ANNUAL PROJECTED PENSION |
| Under 25 | | |
| 25-29 | | |
| 30-34 | | |
| 35-39 | | |
| 40-44 | 1 | 27,875 |
| 45-49 | 3 | 106,547 |
| 50-54 | | |
| 55-59 | | |
| 60-64 | | |
| 65-69 | | |
| Over 69 | | |
| | | |
| | | |
| TOTALS | 4 | 134,422 |

Part III - Distribution of Active Members by Age and Service

| AGE | | YEARS OF SERVICE | | | | | | | | | |
|----------------------|-----------------|------------------|-------|----|-------|-------|--------|--------|-------|-------|-----|
| | | 1 | 2 | 3 | 4-5 | 6-10 | 11-15 | 16-20 | 21-25 | 26-30 | 30+ |
| Under 20 | No. of Members | | | | | | | | | | |
| | Payroll (\$000) | | | | | | | | | | |
| 20-24 | No. of Members | 3 | 5 | | | | | | | | |
| | Payroll (\$000) | 82 | 222 | | | | | | | | |
| 25-29 | No. of Members | 4 | 38 | | 23 | | | | | | |
| | Payroll (\$000) | 109 | 1,821 | | 1,477 | | | | | | |
| 30-34 | No. of Members | 3 | 27 | | 43 | 27 | | | | | |
| | Payroll (\$000) | 82 | 1,369 | | 2,784 | 2,009 | | | | | |
| 35-39 | No. of Members | 1 | 14 | | 15 | 63 | 40 | 20 | | | |
| | Payroll (\$000) | 27 | 727 | | 1,071 | 4,410 | 3,062 | 1,592 | | | |
| 40-44 | No. of Members | 1 | 10 | | 5 | 22 | 86 | 96 | 8 | | |
| | Payroll (\$000) | 41 | 578 | | 310 | 1,595 | 6,683 | 7,359 | 625 | | |
| 45-49 | No. of Members | | 4 | 1 | 2 | 3 | 57 | 83 | 21 | 3 | |
| | Payroll (\$000) | | 277 | 77 | 152 | 234 | 4,201 | 5,991 | 1,686 | 239 | |
| 50-54 | No. of Members | | 2 | | 2 | 7 | 14 | 39 | 19 | 21 | 4 |
| | Payroll (\$000) | | 97 | | 132 | 496 | 1,009 | 2,802 | 1,511 | 1,881 | 327 |
| 55-59 | No. of Members | | | | 1 | 1 | 5 | 13 | 10 | 12 | 6 |
| | Payroll (\$000) | | | | 59 | 74 | 329 | 915 | 710 | 957 | 561 |
| 60-64 | No. of Members | | 1 | | | | 1 | 5 | | 5 | 1 |
| | Payroll (\$000) | | 57 | | | | 74 | 350 | | 405 | 87 |
| 65 & Over | No. of Members | | | | | | 1 | | | | |
| | Payroll (\$000) | | | | | | 59 | | | | |
| TOTAL MEMBERS | | 12 | 101 | 1 | 91 | 123 | 204 | 256 | 58 | 41 | 11 |
| TOTAL ANNUAL PAYROLL | | 342 | 5,148 | 77 | 5,985 | 8,818 | 15,417 | 19,009 | 4,533 | 3,482 | 976 |

INSTRUCTIONS: Print or type the requested information in the space provided. Round to the nearest dollar. Enter zero, if applicable. Refer to attachments or exhibits only to explain or support data entered on the schedule.

Section I - Statement of Net Assets Available for Benefits as of the Valuation Date

| A. Assets: | | Item No. |
|--|---------------|----------|
| 1. Cash | \$ 0 | (1) |
| 2. Accrued Interest and Dividends Receivable | \$ 0 | (2) |
| 3. Other Receivables (Specify) | | |
| _____ | \$ 0 | (3) |
| _____ | \$ 0 | (4) |
| _____ | \$ 0 | (5) |
| 4. Investments at Market Value (Specify) | | |
| <u>ALLOCATION OF AGGREGATE TRUST</u> | \$ 81,203,837 | (6) |
| _____ | \$ 0 | (7) |
| _____ | \$ 0 | (8) |
| _____ | \$ 0 | (9) |
| _____ | \$ 0 | (10) |
| 5. Insurance/Annuity Cash Surrender Value (Individual Policies) | \$ 0 | (11) |
| 6. Other Assets (Specify) | | |
| _____ | \$ 0 | (12) |
| _____ | \$ 0 | (13) |
| _____ | \$ 0 | (14) |
| Total Assets | \$ 81,203,837 | (15) |
| | | |
| B. Current Liabilities: | | |
| 1. Accounts Payable and Accrued Administrative Expenses | \$ 0 | (16) |
| 2. Other Current Liabilities (Specify) | | |
| _____ | \$ 0 | (17) |
| _____ | \$ 0 | (18) |
| _____ | \$ 0 | (19) |
| Total Current Liabilities | \$ 0 | (20) |
| | | |
| C. Net Assets Available for Benefits (Market Value) as of valuation date | \$ 81,203,837 | (21) |

Section II - Statement of Revenues, Expenses and Change in Fund Assets for the Year Ended on the Valuation Date

| | Item No. | |
|--|----------------|------|
| A. Net Assets at Beginning of Year (Market Value) | \$ 118,795,037 | (1) |
| B. Revenues: | | |
| Member Contributions | \$ 3,501,221 | (2) |
| Total Municipal Contributions | \$ 20,132,321 | (3) |
| a. State Aid Portions \$ <u>5,442,251</u> b. Local Portion \$ <u>14,690,070</u> | | |
| Interest Earnings | \$ 4,630,721 | (4) |
| Dividend Income | \$ 0 | (5) |
| Realized Capital Gains | \$ 0 | (6) |
| Other Revenues or Credits (Specify) | | |
| <u>PASS THROUGH CONTRIBUTIONS</u> | \$ 1,498,504 | (7) |
| | \$ 0 | (8) |
| | \$ 0 | (9) |
| Total Revenues | \$ 29,762,767 | (10) |
| C. Expenses: | | |
| Total Benefit Payments (Lump Sum) | \$ 0 | (11) |
| Total Benefit Payments (Monthly) | \$ 31,181,260 | (12) |
| Annuity Purchases (Lump Sum) | \$ 0 | (13) |
| Insurance Premiums | \$ 0 | (14) |
| Refund of Member Contributions | \$ 206,226 | (15) |
| Administrative Expenses | \$ 1,295,159 | (16) |
| Realized Capital Losses | \$ 0 | (17) |
| Lump Sum DROP Account Payments | \$ 0 | (18) |
| Other Expenses or Debits (Specify) | | |
| <u>PASS THROUGH PAYMENTS</u> | \$ 1,498,504 | (19) |
| <u>NET DEPRECIATION</u> | \$ 33,172,819 | (20) |
| Total Expenses | \$ 67,353,968 | (21) |
| D. Net Change in Market Value of Assets (Unrealized Capital Gains or Losses) | \$ 0 | (22) |
| E. Net Assets at End of Year (Market Value) | \$ 81,203,837 | (23) |

Section III - Presentation of the Determination of the Minimum Municipal Obligation (MMO) for Year Ended on Valuation Date

INSTRUCTIONS: Enter data reflecting the minimum municipal obligation developed in the fall of 2007 for the plan year beginning in 2008. [Section 302(C) of Act 205 of 1984.]

| | Item No. |
|--|---|
| A. IDENTIFICATION OF THE ACTUARIAL VALUATION REPORT (AVR) used to determine Funding requirement. (Enter valuation date used in 2007 or earlier year.) | <u>01</u> / <u>01</u> / <u>2005</u> (23) Mo. Da. Yr. |
| B. DEVELOPMENT OF MINIMUM MUNICIPAL OBLIGATION under Section 302(c) of Act 205 of 1984. (Enter "N/A" if the asset value exceeded the present value of future benefits in the actuarial valuation report identified in Part A.) | |
| 1. TOTAL ANNUAL PAYROLL projected for year ended on valuation date | \$ <u>51,034,682</u> (24) |
| 2. TOTAL NORMAL COST, expressed as a percentage of total annual payroll, derived from actuarial valuation report identified in item 23 | <u>11.390</u> % (25) |
| 3. TOTAL PROJECTED NORMAL COST for year ended on valuation date (Item 24 x Item 25) | \$ <u>5,812,850</u> (26) |
| 4. TOTAL AMORTIZATION REQUIREMENT for year ended on valuation date ¹ | \$ <u>16,301,723</u> (27) |
| 5. TOTAL ADMINISTRATIVE EXPENSES projected for year ended on valuation date | \$ <u>816,555</u> (28) |
| 6. TOTAL FINANCIAL REQUIREMENTS (Item 26 + 27 + 28) | \$ <u>22,931,128</u> (29) |
| 7. MEMBER CONTRIBUTIONS projected for year ended on valuation date | \$ <u>3,162,430</u> (30) |
| 8. FUNDING ADJUSTMENT determined pursuant to Section 302(c)(2) of Act 205 of 1984 for year ended on valuation date ² | \$ <u>0</u> (31) |
| 9. MINIMUM MUNICIPAL OBLIGATION (MMO) for year ended on valuation date (Item 29 - 30 - 31) | \$ <u>19,768,698</u> (32) |
| 10. DELINQUENT MMO PLUS INTEREST from plan year beginning in 2005 | \$ <u>0</u> (33) |
| 11. TOTAL MMO for year ended on valuation date (Item 32 + Item 33) | \$ <u>19,768,698</u> (34) |

¹ If the amount entered differs from the amount reported in the actuarial valuation report identified in item 23 above due to the scheduled termination of one or more amortization bases established pursuant to Chapter 2 of Act 205, attach an exhibit reconciling the difference.

² Funding adjustment is applicable where assets exceed actuarial accrued liability and is equal to 10% of the amount of the excess.

SCHEDULE C - Actuarial Data as of JANUARY 1, 2009 CITY OF PITTSBURGH ALLEGHENY
Page 1 of 4 (Valuation Date) (Municipality) (County)

INSTRUCTIONS: Complete all items using the entry age normal actuarial cost method. Enter zero, if applicable, and round to the nearest dollar. Refer to attachments or exhibits only to explain or support data entered on the schedule.

Section I - Presentation of Actuarial Present Value of Future Benefits as of the Valuation Date

Table with columns for Item No., Description, and Amount. Includes sections A (Active Members), B (Non-Active Members and Benefit Recipients), C (Total Actuarial Present Value of Future Benefits), D (Total Adjustments for Ancillary Benefits), and E (Total Actuarial Present Value of Future Benefits).

1 A signed statement and accompanying documentation, as specified in Section 203.5 of the Act 205 regulations, must be attached if adjustments are made.

Section II - Unfunded Actuarial Accrued Liability and Amortization Contributions as of Valuation Date

Part A - Initial Unfunded Actuarial Accrued Liability.

| Amount of Initial Liability | Date Established | Target Date | Original Amortization Period | Remaining Balance | Level Dollar Amortization Contribution |
|-----------------------------|------------------|-------------|------------------------------|-------------------|--|
| \$ 131,617,548 | 1998 | 2037 | 40 | \$ 173,258,009 | \$ 7,746,181 (16) |

Part B - Changes in Unfunded Actuarial Accrued Liability since the last actuarial valuation report prepared and submitted under Act 205.

| Source | Amount of Liability | Date Established | Target Date | Amortization Period | Amortization Contribution |
|-----------------------------------|-------------------------|------------------|-------------|---------------------|---------------------------|
| Benefit Plan Modification | N/A | N/A | N/A | N/A | N/A |
| Actuarial Assumption Modification | (544,220) | 2009 | 2028 | 20 | (51,324) |
| Actuarial Losses (+) or Gains (-) | 40,957,810 ² | 2009 | 2028 | 20 | 3,862,633 |
| Post-Retirement Adjustments | N/A | N/A | N/A | N/A | N/A |
| Total | \$ 40,413,590 | XXXXXX | XXXXXX | XXXXXX | \$ 3,811,309 (17) |

Part C - Aggregation of Changes in Unfunded Actuarial Accrued Liability since initially established in 1985.

| Description | Remaining Balance of Aggregated Liability | Date of Aggregation | Aggregated Target Date | Aggregated Amortization Period | Aggregated Amortization Contribution |
|---|---|------------------------|------------------------|--------------------------------|--------------------------------------|
| Aggregation of all prior changes (exclude changes in Section B) | \$ 68,621,026 | 2007 | 2021 | 13 | \$ 8,196,785 (18) |
| Aggregation of all changes (include changes in Section B) | \$ 109,034,616 | Current Valuation Date | 2023 | 15 | \$ 12,008,094 (19) |

¹ Level percentage of future payroll amortization contribution should be entered where the municipality has previously implemented that amortization approach pursuant to Section 607 of Act 205.

² Attach exhibit of the actuarial valuation report showing development of expected unfunded actuarial accrued liability.

Section III - Presentation of Actuarial Assumptions and Methods

A. Actuarial Assumptions

1. Interest Rate -

SEE ATTACHED

2. Salary Projection -

3. Disability Rates -

4. Termination Rates -

5. Mortality -

6. Retirement Age -

7. Asset Smoothing -

8. Other (Specify) - _____

9. Other (Specify) - _____

B. Actuarial Cost Method (Specify) _____

Section IV - Presentation of Benefit Plan Provisions SEE ATTACHED

A. Eligibility Requirements

Normal Retirement _____
Early Retirement _____
Vesting _____

B. Retirement Benefit (Describe fully including Social Security offsets, service increments, etc. and include period over which final average salary is determined if benefit salary related.)

C. Survivor Benefit (Describe fully including indication of whether benefit is automatic or provided at the election of individual members.)

D. Disability benefit (Describe fully including offset provisions, service requirements, extent of disability, etc.)

Service Related _____

Non-Service Related _____

E. Post Retirement Adjustments (Describe fully including frequency of adjustment, basis for adjustment, minimum/maximum adjustments, etc.)

F. DROP Benefit (Specify and describe.)

G. Other Benefit (Specify and describe.)

H. Member Contributions

Amount or Rate _____
Interest Rate Credited to Member Contributions _____ %

Attachment to Schedule C, Section III

Actuarial Basis of Valuation

Actuarial Assumptions: January 1, 2009

Economic

- Interest Rate 8.00 percent increase per annum
- Salary Projection 5.75 percent increase per annum
- Merit and Longevity Increase: 2.25 percent increase per annum
- Inflation: 3.5 percent increase per annum

Employee Characteristics

- Mortality: RP-2000 Mortality Tables, with adjustments to reflect Pittsburgh Pension Plan mortality experience as confirmed by experience studies. The adjusted rates are based upon the following:
 - Active Participants RP-2000 Mortality Tables – Employee Rates of Mortality
 - Inactive Participants RP-2000 Mortality Tables for Healthy Annuitants, adjusted by blue collar ratios (Table 5-5 of *RP-2000 Mortality Tables Report*) and set forward 2 years in age for healthy and deferred retirees and set forward 5 years in age for disabled retirees.
 - Surviving Beneficiaries: RP-2000 Rates, adjusted for healthy inactives as above, and further adjusted by ratios of female beneficiary experience to overall female RP-2000 Healthy Annuitant Mortality Rates (Appendix D of *RP-2000 Mortality Tables Report*)

Sample Rates (Rounded):

| Age | Active Male Participant | Male Regular Retiree | Male Disabled Retiree | Male Beneficiary |
|-----|-------------------------|----------------------|-----------------------|------------------|
| 45 | 0.15 % | 0.45 % | 0.56 % | 0.57 % |
| 55 | 0.30 % | 0.88 % | 1.06 % | 1.16 % |
| 65 | 0.76 % | 2.01 % | 2.68 % | 2.54 % |
| 75 | N/A | 5.27 % | 7.05 % | 5.60 % |
| 85 | N/A | 13.86 % | 18.34 % | 14.36 % |

| Age | Active Female Participant | Female Regular Retiree | Female Disabled Retiree | Female Beneficiary |
|-----|---------------------------|------------------------|-------------------------|--------------------|
| 45 | 0.11 % | 0.19 % | 0.23 % | 0.23 % |
| 55 | 0.23 % | 0.44 % | 0.62 % | 0.62 % |
| 65 | 0.58 % | 1.37 % | 1.86 % | 1.74 % |
| 75 | N/A | 3.69 % | 4.90 % | 3.93 % |
| 85 | N/A | 10.24 % | 13.67 % | 10.61 % |

Attachment to Schedule C, Section III - Continued

- Withdrawal

Sample rates:

| Age | Rate |
|-----|-------|
| 20 | 2.04% |
| 25 | 1.98% |
| 30 | 1.90% |
| 35 | 1.76% |
| 40 | 1.31% |
| 45 | 0.66% |
| 50 | 0.15% |
| 55 | 0.00% |

- Disablement

Sample rates:

| Age | Male | Female |
|-----|-------|--------|
| 30 | .22% | .26% |
| 40 | .50% | .98% |
| 50 | 1.53% | 1.94% |
| 60 | 4.56% | 3.49% |

- Retirement Age

Percentage of employees eligible for retirement who retire at each age:

| Age | Percentage |
|-----|------------|
| 50 | 20 |
| 51 | 20 |
| 52 | 12 |
| 53 | 12 |
| 54 | 10 |
| 55 | 10 |
| 56 | 10 |
| 57 | 10 |
| 58 | 10 |
| 59 | 10 |
| 60 | 10 |
| 61 | 10 |
| 62 | 10 |
| 63 | 10 |
| 64 | 10 |
| 65 | 100 |

- Duty Related Mortality

20 percent of deaths in active service are assumed to be duty related.

- Duty Related Disability

50 percent of disabilities occurring during employment are assumed to occur in the line of duty.

- Percentage Married

80 percent of male participants and 65 percent of female participants.

- Spouse Age

Female spouse assumed to be two years younger than male spouse.

Attachment to Schedule C, Section III – Continued

Actuarial Value of Assets

- Description of Method

The Actuarial Value of Assets is determined by a Tabular Smoothing method which takes the Actuarial Value of Assets from the prior valuation report and brings it forward using a specified interest rate. The Actuarial Value of Assets in the prior report, contributions by year and annual disbursements are each credited with interest at a rate of one percent less than the prior valuation's interest rate assumption. The resulting value is further subject to a minimum of 70% and a maximum of 130% of the market value of assets.

Attachment to Schedule C, Section IV

Summary of Plan Provisions

| | |
|--|--|
| <i>Plan Year</i> | ▼ Twelve-month period beginning January 1 and ending December 31 |
| <i>Plan Established</i> | ▼ September 1, 1935 |
| Principal Definitions | |
| <i>Employee</i> | ▼ Any person employed by the City of Pittsburgh Bureau of Police, including all substitute uniformed employees of the Bureau. |
| <i>Retirement Benefit Commencement Date</i> | ▼ Assumed to be the first day of the month coincident with or next following eligibility-for and election to retire |
| <i>Service Increment</i> | ▼ An additional monthly benefit of \$20 for each completed year of service between 20 and 25 years, plus \$25 for each year of service in excess of 25 years |
| <i>Service</i> | ▼ Assumed to be completed years of service calculated from date of hire through date of retirement or severance, plus periods of service purchased |
| <i>Normal Form of Payment</i> | ▼ Monthly pension benefit payable for life |
| Participation Requirements | |
| <i>Entry Date</i> | ▼ Date of hire |
| Compensation | ▼ Base wages and longevity pay |
| <i>Average Compensation</i> | ▼ Compensation averaged over the 12-month period prior to retirement or severance. |
| <i>Members hired after December 31, 1991</i> | ▼ Compensation averaged over 36 months prior to retirement or severance. |
| Normal Retirement | |
| <i>Eligibility</i> | ▼ Later of age 50 or Completion of 20 years of service |
| <i>Monthly Benefit</i> | ▼ Equal to 50% of average compensation plus service increment if any |

Attachment to Schedule C, Section IV – Continued

Disability

Eligibility

- ▼ Permanent disablement in line of duty *or*
- ▼ Permanent disablement (not in line of duty) after completing 10 years of service

Benefit Amount

- ▼ 50% of earnings in year prior to disablement

Members Hired after December 31, 1991

- ▼ Sum of this benefit and member's workers' compensation benefit shall not exceed member's regular salary at time of disablement

Benefit Commencement Date

- ▼ First day of calendar month following determination of disablement *and*
- ▼ Continuing for the duration of disability prior to normal retirement date and life thereafter

Vesting

- ▼ If member completed 20 years of service, may collect normal retirement benefit based on average compensation at termination (providing terminated member continues contributions at rate in effect at termination)
- ▼ Benefit deferred to age 50

Terminated Participants

- ▼ If contributions continue at same rate in effect at termination and continue to age 50, member may receive monthly benefit based on rate of pay in effect had officer worked until age 50

Death Benefits

Accidental Death

- ▼ Benefit plus return of member's accumulated contributions
- ▼ Benefit plus workers' compensation or other payments equal to 50% of member's wages at death
- ▼ Payable for 500 weeks or until surviving spouse dies
- ▼ If no surviving spouse or unmarried children, dependent parents receive payments

- Children Benefits

(No surviving spouse/ or discontinued payment to surviving spouse)

- ▼ Unmarried child under age 18 receives payments equal to 25% of payments to spouse

Attachment to Schedule C, Section IV – Continued

- *Children Benefits (Cont'd)*

- ▼ Total payments to one family may not exceed 50% of member's wages at time of death
- ▼ \$60 minimum monthly payment if only one child
- ▼ If maximum amount payable, divide equally among entitled children
- ▼ Payments terminate when child reaches age 18, dies, marries
- ▼ Payments may continue indefinitely to incompetent child

Death Prior to Retirement Active service/ not accidental

- ▼ If so elected, spouse paid benefit equal to 50% of pension member would have received if retired on date of death
- ▼ No election, accumulated contributions without interest paid to beneficiary or estate

Death After Retirement

- ▼ If so elected, spouse paid benefit equal to 50% of pension member was receiving
- ▼ No surviving spouse, benefit may be paid to surviving children or dependent parents

Employee Contributions

- ▼ Participants will contribute 6.0 percent of their compensation plus \$1 per month. Members who elect the surviving spouse benefit contribute an additional 1/2 percent of compensation. The \$1 per month contribution will cease at age 65.

Refund

- ▼ Accumulated contributions without interest

SECTION V
Development of Contribution Requirements
Table 09-1
Normal Cost and Actuarial Accrued Liability

| | | | | | |
|--|---|--------------------|----------------------|----------------------|----------------------|
| A. Normal Cost | | | | | |
| 1. | Retirement Benefits | | | \$4,792,956 | |
| 2. | Disability Benefits | | | 2,322,675 | |
| 3. | Preretirement Death Benefits | | | 149,333 | |
| 4. | Postretirement Death Benefits | | | - | |
| 5. | Refunds to Withdrawals | | | 260,833 | |
| 6. | Medicare Premium Benefits | | | - | |
| 7. | Vested Benefits | | | 78,250 | |
| 8. | Total | | | <u>\$7,604,047</u> | |
| B. Actuarial Accrued Liability | | | | | |
| 1. | Actuarial Present Value of Benefits at Attained Age | | | | |
| | | <u>Deferred</u> | <u>In Payment</u> | <u>Active</u> | <u>All</u> |
| | Retirement Benefits | \$1,056,134 | \$155,178,117 | \$147,269,073 | \$303,503,324 |
| | Disability Benefits | 329,993 | 83,274,166 | 47,054,425 | 130,658,584 |
| | Survivor Benefits | - | 27,034,748 | - | 27,034,748 |
| | Preretirement Death Benefits | - | - | 2,502,125 | 2,502,125 |
| | Postretirement Death Benefits | - | - | - | - |
| | Refunds to Withdrawals | - | - | 2,013,429 | 2,013,429 |
| | Medicare Premium Benefits | - | - | - | - |
| | Vested Benefits | - | - | 2,087,498 | 2,087,498 |
| | Total | <u>\$1,386,127</u> | <u>\$265,487,031</u> | <u>\$200,926,550</u> | <u>\$467,799,708</u> |
| 2. | Actuarial Present Value of Future Normal Costs | | | | |
| | Retirement Benefits | | | \$50,640,081 | |
| | Disability Benefits | | | 24,027,532 | |
| | Preretirement Death Benefits | | | 1,576,589 | |
| | Postretirement Death Benefits | | | - | |
| | Refunds to Withdrawals | | | 2,790,469 | |
| | Medicare Premium Benefits | | | - | |
| | Vested Benefits | | | 907,424 | |
| | Total | | | <u>\$79,942,095</u> | (\$79,942,095) |
| 3. | Actuarial Accrued Liability | | | | \$387,857,613 |
| C. Unfunded Actuarial Accrued Liability | | | | | |
| 1. | Actuarial Accrued Liability | | | | \$387,857,613 |
| 2. | Actuarial Value of Assets | | | | <u>(105,564,988)</u> |
| 3. | Unfunded Actuarial Accrued Liability | | | | \$282,292,625 |

SECTION V
Development of Contribution Requirements
Table 09-2
Actuarial (Gain) Loss Determination

| | | | |
|---|-------------------|---------------------|----------------------|
| A. Reconciliation of Funded Status | | | |
| 1. Unfunded Actuarial Accrued Liability as of 01/01/2007 | | | \$238,632,923 |
| | 2007 | 2008 | |
| 2. Normal Cost and Administrative Expenses Assumed | \$ 6,869,927 | \$ 7,264,948 | 14,134,875 |
| 3. Interest Charged at Valuation Rate | | | 45,478,312 |
| 4. Contributions Made | | | |
| | 2007 | 2008 | |
| a. Municipality | \$ 14,453,383 | \$ 14,690,070 | |
| b. State Aid Allocated | 5,470,103 | 5,442,251 | |
| c. Employees | <u>3,234,709</u> | <u>3,501,221</u> | (46,791,738) |
| 5. Interest Credited at Valuation Rate | | | (3,336,277) |
| 6. Special Adjustment Because of Higher Act 82 Interest Rate | | | <u>(3,472,527)</u> |
| 7. Expected Unfunded Actuarial Accrued Liability Before Adjustments | | | \$ 244,645,568 |
| 8. Experience from Investment Return | | | |
| a. Comparative Interest Rate Amortization Tabulation (Gain) Loss | | \$ 49,215,320 | |
| b. Other Investment Return (Gain) Loss | | <u>(11,500,673)</u> | 37,714,647 |
| 9. Experience (Gain) Loss from all Other Sources | | | 476,630 |
| 10. Increase (Decrease) in Unfunded Actuarial Accrued Liability: | | | |
| a. Benefit Modifications for Actives | | \$0 | |
| b. Benefit Modifications for Retirees | | 0 | |
| c. Change in Actuarial Asset Valuation Method | | (24,361,151) | |
| d. Change in Actuarial Assumption (Interest Rate) | | <u>23,816,931</u> | <u>(544,220)</u> |
| 11. Actual Unfunded Actuarial Accrued Liability | | | <u>\$282,292,625</u> |
| B. Loss (Gain) to be Amortized | | | |
| 1. Experience (Gain) Loss from 01/01/2007 | | | \$ 38,191,277 |
| 2. Actuarially Required Contributions and Bond Proceeds with Interest | | 52,894,548 | |
| 3. Actual Contributions with Interest | | <u>(50,128,015)</u> | |
| 4. Contribution (Gain) Loss | | | <u>2,766,533</u> |
| 5. Loss (Gain) to be Amortized | | | \$ 40,957,810 |
| C. Comparative Interest Rate Amortization Tabulation | | | |
| 1. Balance Calculated Using Actual Investment Return | 2007 | 2008 | |
| a. Act 82 Amortization Balance at January 1 | \$ 115,707,992 | \$ 137,681,032 | |
| b. Act 82 Amortization Payment | <u>7,746,181</u> | <u>7,746,181</u> | |
| c. Comparative Interest Rate Balance on January 1 | 123,454,173 | 145,427,213 | |
| d. Actual Investment Return on Balance | <u>14,226,859</u> | <u>(36,742,185)</u> | |
| e. Actual Act 82 Amortization Balance at December 31 (c +d) | 137,681,032 | 108,685,028 | \$ 108,685,028 |
| 2. Balance Calculated Using Ten Percent Investment Return | 2007 | 2008 | |
| a. Comparative Interest Rate Balance on January 1 | 123,454,173 | 143,545,771 | |
| b. Interest at Ten Percent | <u>12,345,417</u> | <u>14,354,577</u> | |
| c. Comparative Act 82 Amortization Balance at December 31 | 135,799,590 | 157,900,348 | \$ 157,900,348 |
| 3. Comparative Interest Rate Amortization Tabulation (Gain) Loss (2) - (1) | | | \$ 49,215,320 |

SECTION V
Development of Contribution Requirements
Table 09-3
Amortization of Unfunded Actuarial Accrued Liability

| Source | Original Amount | Year Est. | Target Year | Remaining Balance | Remaining Payments | Annual Amount |
|--|--------------------|--------------|----------------|----------------------|-----------------------|------------------|
| Initial | \$ 131,617,548 | 1998 | 2037 | \$ 173,258,009 | 29 | \$ 7,746,181 |
| Assumption Change | \$ (2,912,234) | 1998 | 2017 | \$ (1,903,798) | 9 | \$ (282,185) |
| Experience Loss | \$ 815,131 | 1999 | 2013 | \$ 391,239 | 5 | \$ 90,730 |
| Experience Gain | \$ (6,646,327) | 2000 | 2014 | \$ (3,679,730) | 6 | \$ (737,022) |
| Experience Loss | \$ 21,763,126 | 2001 | 2015 | \$ 13,520,933 | 7 | \$ 2,404,628 |
| Assumption Change | \$ 597,864 | 2002 | 2021 | \$ 488,411 | 13 | \$ 57,217 |
| Experience Loss | \$ 3,850,682 | 2002 | 2016 | \$ 2,631,369 | 8 | \$ 423,979 |
| Investment Loss | \$ 18,838,751 | 2002 | 2032 | \$ 17,151,517 | 24 | \$ 1,508,348 |
| Assumption Change | \$ (4,706,925) | 2003 | 2022 | \$ (3,999,561) | 14 | \$ (449,198) |
| Ben. Mod. - Retired | \$ 5,143,958 | 2003 | 2012 | \$ 2,582,392 | 4 | \$ 721,924 |
| Experience Loss | \$ 7,363,935 | 2003 | 2017 | \$ 5,451,735 | 9 | \$ 808,067 |
| Investment Loss | \$ 26,217,850 | 2003 | 2032 | \$ 24,711,371 | 24 | \$ 2,173,181 |
| Assumption Change | \$ (369,251) | 2005 | 2024 | \$ (335,431) | 16 | \$ (35,089) |
| Experience Loss | \$ 14,390,731 | 2005 | 2019 | \$ 12,113,291 | 11 | \$ 1,571,098 |
| Experience Gain | \$ (542,011) | 2007 | 2021 | \$ (502,712) | 13 | \$ (58,893) |
| Aggregate Changes through Last Valuation | N/A | N/A | 2021 | \$ 68,621,026 | 13 | \$ 8,196,785 |
| Assumption Change | \$ (544,220) | 2009 | 2028 | \$ (544,220) | 20 | \$ (51,324) |
| Ben. Mod. - Actives | N/A | | | \$ - | | |
| Ben. Mod. - Retired | N/A | | | \$ - | | |
| Experience Loss | \$ 40,957,810 | 2009 | 2028 | \$ 40,957,810 | 20 | \$ 3,862,633 |
| Aggregate Changes 2009 | N/A | N/A | 2028 | \$ 40,413,590 | 20 | \$ 3,811,309 |
| Aggregate Changes | N/A | N/A | 2023 | \$ 109,034,616 | 15 | \$ 12,008,094 |
| Aggregate | N/A | N/A | | \$ 282,292,625 | | \$ 19,754,275 |
| Details of the Calculation of Act 82 Payment | | | | | | |
| 1. Act 82 Unfunded Actuarial Accrued Liability | | | | | | \$ 131,617,548 |
| 2. Forty Year Amortization Payment | | | | | | \$ 10,972,874 |
| 3. Future Value at End of 40 Year Period | | | | | | \$ 3,771,242,164 |
| 4. Payment to Provide the Same Future Value With 10% Annual Earnings | | | | | | \$ 7,746,181 |

SECTION V
Development of Contribution Requirements
Table 09-4
Required Municipal Contributions

The Financial Requirement of the Plan is based on the Normal Cost Percentage and other components shown below. The Normal Cost Percentage is applied to the payroll of the members for the applicable fiscal year.

| | |
|---|---------------|
| 1. Normal Cost (Table 09-1) | \$7,604,047 |
| 2. Total Annual Payroll | \$63,787,288 |
| 3. Percentages for Budget | |
| a. Normal Cost (1 divided by 2) | 11.921% |
| b. Administrative Expense (as a % of Payroll) | 1.700% |
| c. Gross Normal Cost | 13.621% |
| 4. Net Amortization Payment (Table 09-3) | \$19,754,275 |
| 5. Funding Adjustment | \$0 |

Alternative Amortization Payment

The city has voluntarily elected to amortize the entire unfunded liability over a thirty year period commencing January 1, 2009.

| | |
|----------------------------------|---------------|
| Thirty Year Amortization Payment | \$ 23,217,898 |
|----------------------------------|---------------|

Exhibit I

Actuarial Data as of JANUARY 1, 2009. For: POLICEMEN'S of CITY OF PITTSBURGH in ALLEGHENY
 Page 1 of 6 (Valuation Date) (Pension Plan) (Municipality) (County)

GENERAL INSTRUCTIONS: This exhibit is to be completed only if the municipality is reporting the issuance of bonds (or notes, if applicable) to fund unfunded actuarial accrued liabilities under section 404 of Act 205 of 1984. The bond issue proceeds contributed to the pension plan are amortization contributions allocated under section 202(b)(4) of Act 205. **The data requested in this exhibit is modified to reflect the funded status of the pension plan that would exist had the bond issue proceeds not been contributed to the pension plan.** Print or type the data requested, rounded to the nearest dollar, in the space provided. Enter zero or negative values, if applicable. Do not leave blanks or refer to exhibits.

NOTE: Earnings on bond issue proceeds contributed to the pension fund are to be calculated proportionately, based on the ratio of borrowed assets to total assets at market value as of the valuation date occurring on or immediately following the date on which the borrowed assets were contributed.

A. Summary of Modified Actuarial Data

| | | | | |
|----|---|----|--------------------|-------|
| 1. | ACTUARIAL ACCRUED LIABILITY as of valuation date (Enter amount reported in item 42 on page 4 of the reporting form.) | \$ | <u>387,857,613</u> | (E1) |
| 2. | TOTAL FUND ASSETS | | | |
| a. | Market Value of Assets ¹ | \$ | <u>0</u> | (E2) |
| b. | Actuarial Value of Assets reported in Item 2a above | \$ | <u>0</u> | (E3) |
| 3. | UNFUNDED ACTUARIAL ACCRUED LIABILITY as of valuation date (+ or -) . . . (Item 1 minus Item 2b) | \$ | <u>387,857,613</u> | (E4) |
| 4. | AMORTIZATION CONTRIBUTIONS | | | |
| a. | For amortization of initial unfunded actuarial accrued liability established 1/1/85. ² | | | |
| 1) | Amortization period remaining (years) | | <u>29</u> | (E5) |
| 2) | Amortization contribution calculated as a level dollar amount for the plan year beginning on valuation date | \$ | <u>14,773,769</u> | (E6) |
| 3) | Amortization contribution calculated as a level percentage of payroll for the plan year beginning on valuation date ³ | \$ | <u>N/A</u> | (E7) |
| b. | For amortization of all increases or decreases in unfunded actuarial accrued liability occurring after 1/1/85 or the initial UAL's establishment. ² | | | |
| 1) | Aggregated amortization period (years) | | <u>12</u> | (E8) |
| 2) | Aggregated amortization contribution calculated as a level dollar amount for the plan year beginning on valuation date | \$ | <u>7,153,894</u> | (E9) |
| c. | Modified Total Amortization Requirement ⁴ | \$ | <u>N/A</u> | (E10) |
| d. | Total Amortization Requirement (Item E6 + E9 or Item E7 + E9 or Item E10, whichever is applicable) | \$ | <u>21,927,663</u> | (E11) |

¹The value must equal the Total Fund Assets that would have existed had the bond issue proceeds not been contributed to the pension fund, as developed in Schedule II of this exhibit.

²Initial unfunded actuarial accrued liability may be established later than 1/1/85 if coincidental with the establishment of the pension plan or with the initiation of a new amortization schedule authorized by Act 82 of 1998.

³Enter N/A unless municipality has been certified to use level percentage of payroll amortization pursuant to Section 607 of Act 205.

⁴If the municipality has formally elected to apply the limit on the amortization contribution under section 202(b)(4), enter the modified total amortization requirement calculated as the amount required to amortize the unfunded actuarial accrued liability over ten years. Otherwise, enter N/A.

Exhibit I

Actuarial Data as of JANUARY 1, 2009. For: POLICEMEN'S of CITY OF PITTSBURGH in ALLEGHENY
 Page 2 of 6 (Valuation Date) (Pension Plan) (Municipality) (County)

INSTRUCTIONS: A modified aggregated amortization period must be developed for each contribution to the pension fund comprised of bond issue proceeds. The modified aggregated amortization period will not change once it is calculated and reported in this exhibit. The modified aggregated amortization period is not used for funding purposes.

B. Development of Modified Aggregated Amortization Period

| | Contribution Comprised of Bond Issue Proceeds ¹ | Date of Contribution | Modified Aggregated Amortization Contribution Target Date ² (MO/DA/YR) | Modified Aggregated Amortization Period Initially Established ² (Years) | Modified Aggregated Amortization Period Remaining (Years) |
|-----|--|----------------------|---|--|---|
| 1. | \$ 119,407,735 | 03/10/98 | 03/10/2037 | 40 | 29 |
| 2. | \$ | | | | |
| 3. | \$ | | | | |
| 4. | \$ | | | | |
| 5. | \$ | | | | |
| 6. | \$ | | | | |
| 7. | \$ | | | | |
| 8. | \$ | | | | |
| 9. | \$ | | | | |
| 10. | \$ | | | | |

¹ Contributions to the pension plan shall consist of original bond issue proceeds used to fund unfunded actuarial accrued liability and shall not include refinancing of an amount previously borrowed.

² Determined under section 404 of Act 205 using the unfunded accrued liability and total amortization requirement shown in Part A of this exhibit and the plan's assumed rate of investment earnings. In the event that the period calculated is indeterminate or is in excess of 30 years, the amortization period initially established shall not exceed 30 years.

Commission Use Only

| | |
|----------|-------|
| Total \$ | _____ |
| | _____ |
| | _____ |
| | _____ |

Exhibit I

Actuarial Data as of JANUARY 1, 2009. For: POLICEMEN'S of CITY OF PITTSBURGH in ALLEGHENY
 Page 3 of 6 (Valuation Date) (Pension Plan) (Municipality) (County)

INSTRUCTIONS: Provide unfunded actuarial accrued liability and amortization contributions as of valuation date developed under section 404 of Act 205. Bond issue proceeds used to fund unfunded actuarial accrued liabilities are not reflected in the data provided. Submission of the exhibits prepared in compliance with section 202(b)(3) of Act 205 may be required.

Part C - Modified Unfunded Actuarial Accrued Liability and Amortization Contributions

| Initial Unfunded Actuarial Accrued Liability | | | | | |
|--|------------------|-------------|------------------------------|-------------------|---|
| Amount of Initial Liability | Date Established | Target Date | Original Amortization Period | Remaining Balance | Level Dollar Amortization Contribution ¹ |
| \$ 251,025,283 | 1998 | 2037 | 40 | \$ 330,443,328 | \$ 14,773,769 (E11) |

| Changes in Unfunded Actuarial Accrued Liability Since the Last Actuarial Valuation Report Prepared and Submitted Under Act 205 | | | | | | |
|--|----------------------|------------------|-------------|---------------------|---------------------------|--|
| Source | Amount of Liability | Date Established | Target Date | Amortization Period | Amortization Contribution | |
| Benefit Plan Modification | N/A | N/A | N/A | N/A | N/A | |
| Actuarial Assumption Modification | 23,816,931 | 2009 | 2028 | 20 | 2,246,118 | |
| Actuarial Losses (+) or Gains (-) | (2,009,753) | 2009 | 2028 | 20 | (189,535) | |
| Post-Retirement Adjustments | N/A | N/A | N/A | N/A | N/A | |
| Total | \$ 21,807,178 | XXXXXX | XXXXXX | XXXXXX | \$ 2,056,583 (E12) | |

| Aggregation of Changes in Unfunded Actuarial Accrued Liability Since Initially Established in 1985 | | | | | |
|--|---|------------------------|------------------------|--------------------------|--------------------------------------|
| Description | Remaining Balance of Aggregated Liability | Date of Aggregation | Aggregated Target Date | Agg. Amortization Period | Aggregated Amortization Contribution |
| Aggregation of all prior changes (exclude changes in Section B) | \$ 35,607,107 | 2007 | 2018 | 10 | 5,097,311 (E13) |
| Aggregation of all changes (include changes in Section B) | \$ 57,414,285 ² | Current Valuation Date | 2020 | 12 | \$ 7,153,894 (E14) |

¹Level percentage of future payroll amortization contribution should be entered where the municipality has previously implemented that amortization approach pursuant to Section 607 of Act 205.

²The sum of this item (aggregated balance of all changes in UAL) and the remaining balance of the initial liability must equal the amount in Exhibit I, Part A, Item E4.

Exhibit I

Actuarial Data as of JANUARY 1, 2009. For: POLICEMEN'S of CITY OF PITTSBURGH in ALLEGHENY
 Page 4 of 6 (Valuation Date) (Pension Plan) (Municipality) (County)

INSTRUCTIONS: A separate Part D for debt service requirements is required for each instance where bond issue proceeds are contributed to the pension plan. If more than one Part D is required, please submit color coded copies or request additional originals from the Commission's office.

NOTES: 1) If the bond issue proceeds contributed to an individual pension plan were less than 100% of the total bond issue proceeds contributed, the total debt service requirements must be proportionately allocated among the individual pension plans based on the ratio of the bond issue proceeds contributed to each individual pension plan to the total bond issue proceeds contributed.

2) Debt service requirements determined and reported on this exhibit are not modified if refinancing occurs.

D. Identification and Allocation of Total Debt Service Requirements for Debt Issued to Finance Pension Plan Contributions

| | | | | |
|----------------------------------|---|--|---|------------------------|
| Date of Original Borrowing | Total Principal Amount Borrowed and Contributed to Pension Plans | Amount of Total Principal Contributed to this Pension Plan | Percentage of Total Debt Service Allocated to this Pension Plan | Date of Refinancing |
| <u>3/10/98</u> | \$ <u>255,865,000.00</u> (A) | \$ <u>120,512,415.10</u> (B) | <u>47.6</u> % (B÷A) | <u>N/A</u> |

| | Plan Year | Required Principal Payment | Required Interest Payment | Premium or Discount Amortized | Principal Balance at Valuation Date |
|----|-----------|-------------------------------|------------------------------|----------------------------------|--|
| 1 | 1998 | \$ - | \$ 3,921,658.75 | \$ - | \$ 120,512,415.10 |
| 2 | 1999 | 471,000.00 | 7,830,011.75 | - | 120,512,415.10 |
| 3 | 2000 | 471,000.00 | 7,803,518.00 | - | 120,041,415.10 |
| 4 | 2001 | 471,000.00 | 7,776,882.95 | - | 119,570,415.10 |
| 5 | 2002 | 471,000.00 | 7,749,753.35 | - | 119,099,415.10 |
| 6 | 2003 | 471,000.00 | 7,722,411.80 | - | 118,628,415.10 |
| 7 | 2004 | 471,000.00 | 7,694,787.65 | - | 118,157,415.10 |
| 8 | 2005 | 1,179,855.01 | 7,645,426.83 | - | 117,686,415.10 |
| 9 | 2006 | 1,092,720.01 | 7,576,976.41 | - | 116,506,560.09 |
| 10 | 2007 | 1,158,660.01 | 7,508,582.50 | - | 115,413,840.08 |
| 11 | 2008 | 1,208,115.01 | 7,436,244.85 | - | 114,255,180.07 |
| 12 | 2009 | 1,304,670.00 | 7,353,582.89 | - | 113,047,065.06 |
| 13 | 2010 | 1,417,710.00 | 7,263,616.00 | - | 111,742,395.06 |
| 14 | 2011 | 1,521,330.00 | 7,171,771.00 | - | 110,324,685.06 |
| 15 | 2012 | 3,716,190.01 | 7,007,169.44 | - | 108,803,355.06 |
| 16 | 2013 | 5,173,935.00 | 6,725,837.03 | - | 105,087,165.05 |
| 17 | 2014 | 5,505,990.01 | 6,382,619.91 | - | 99,913,230.05 |
| 18 | 2015 | 5,988,765.01 | 6,009,040.37 | - | 94,407,240.04 |
| 19 | 2016 | 6,386,760.00 | 5,606,835.82 | - | 88,418,475.03 |
| 20 | 2017 | 8,593,395.01 | 5,119,980.78 | - | 82,031,715.03 |

(Continue on additional pages, if necessary.)

(CONTINUED FROM PAGE 4 OF 6)

| | Plan Year | Required Principal Payment | Required Interest Payment | Premium or Discount Amortized | Principal Balance at Valuation Date |
|----|-----------|----------------------------|---------------------------|-------------------------------|-------------------------------------|
| 1 | 2018 | \$ 6,233,685.01 | \$ 4,638,100.67 | \$ - | \$ 73,438,320.02 |
| 2 | 2019 | 9,434,130.01 | 4,124,179.63 | - | 67,204,635.01 |
| 3 | 2020 | 10,079,400.01 | 3,480,233.14 | - | 57,770,505.00 |
| 4 | 2021 | 10,767,060.01 | 2,792,299.96 | - | 47,691,104.99 |
| 5 | 2022 | 11,504,175.00 | 2,057,349.21 | - | 36,924,044.98 |
| 6 | 2023 | 12,290,744.99 | 1,272,116.86 | - | 25,419,869.98 |
| 7 | 2024 | 13,129,124.99 | 433,261.15 | - | 13,129,124.99 |
| 8 | | | | | |
| 9 | | | | | |
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| 20 | | | | | |

(Continue on additional pages, if necessary.)



Exhibit I

Actuarial Data as of JANUARY 1, 2009. For: POLICEMEN'S of CITY OF PITTSBURGH in ALLEGHENY
Page 5 of 6 (Valuation Date) (Pension Plan) (Municipality) (County)

Schedule I

STATEMENT OF RECEIPTS AND DISBURSEMENTS
INCLUDING BOND ISSUE ASSETS
FOR THE PERIOD ENDING JANUARY 1, 2009

| | | |
|---|----|---------------------|
| TOTAL FUND ASSETS AT JANUARY 1, 2007 ¹ | \$ | <u>114,889,067</u> |
| RECEIPTS: | | |
| Employer Contributions | \$ | <u>29,143,453</u> |
| Employee Contributions | \$ | <u>6,735,930</u> |
| State Aid | \$ | <u>10,912,354</u> |
| Supplemental State Assistance | \$ | <u>0</u> |
| Investment Income | \$ | <u>12,372,103</u> |
| Net Change in Market Value | \$ | <u>(28,183,096)</u> |
| Other Receipts (Identify) <small>PASS THROUGH CONTRIBUTIONS</small> | \$ | <u>2,828,318</u> |
| TOTAL RECEIPTS | \$ | <u>33,809,062</u> |
| DISBURSEMENTS: | | |
| Monthly Benefit Payments | \$ | <u>62,063,940</u> |
| Refund of Employee Contributions | \$ | <u>467,365</u> |
| Administrative Expenses | \$ | <u>2,134,671</u> |
| Other Disbursements (Identify) | \$ | <u>2,828,318</u> |
| TOTAL DISBURSEMENTS <small>PASS THROUGH PAYMENTS</small> | \$ | <u>67,494,294</u> |
| TOTAL FUND ASSETS AT JANUARY 1, 2009 ² | \$ | <u>81,203,837</u> |

¹ All filers should prepare this schedule for a two-year period. Value must equal Total Fund Assets at Market Value reported in Section V of the January 1, 2007, actuarial valuation reporting form if bonds were issued on or after that date. If bonds were issued prior to that date, the assets reported should be from Exhibit I of the January 1, 2007, actuarial valuation reporting form.

² Value must equal Total Fund Assets at market value reported in Section V of the current Act 205 actuarial valuation reporting form.

Exhibit I

Actuarial Data as of JANUARY 1, 2009. For: POLICEMEN'S of CITY OF PITTSBURGH in ALLEGHENY
 Page 6 of 6 (Valuation Date) (Pension Plan) (Municipality) (County)

Schedule II

STATEMENT OF RECEIPTS AND DISBURSEMENTS
EXCLUDING BOND ISSUE ASSETS
 FOR THE PERIOD ENDING JANUARY 1, 2009

| | | |
|---|----|-------------------|
| TOTAL FUND ASSETS AT JANUARY 1, 2007 ¹ | \$ | <u>0</u> |
| RECEIPTS: | | |
| Employer Contributions ² | \$ | <u>46,323,272</u> |
| Employee Contributions | \$ | <u>6,735,930</u> |
| State Aid | \$ | <u>10,912,354</u> |
| Supplemental State Assistance | \$ | <u>0</u> |
| Investment Income ³ | \$ | <u>0</u> |
| Net Change in Market Value ⁴ | \$ | <u>0</u> |
| Other Receipts (Identify) <small>PASS THROUGH CONTRIBUTIONS</small> | \$ | <u>2,828,318</u> |
| TOTAL RECEIPTS | \$ | <u>66,799,876</u> |
| DISBURSEMENTS: | | |
| Monthly Benefit Payments | \$ | <u>62,063,940</u> |
| Refund of Employee Contributions | \$ | <u>467,365</u> |
| Administrative Expenses ⁵ | \$ | <u>1,440,253</u> |
| Other Disbursements (Identify) <small>PASS THROUGH PAYMENTS</small> | \$ | <u>2,828,318</u> |
| TOTAL DISBURSEMENTS | \$ | <u>66,799,876</u> |
| TOTAL FUND ASSETS AT JANUARY 1, 2009 ⁶ | \$ | <u>0</u> |

¹ All filers should prepare this schedule for a two-year period. Value must equal Total Fund Assets at Market Value reported in Section V of the January 1, 2007, actuarial valuation reporting form if bonds were issued on or after that date. If bonds were issued prior to that date, the assets reported should be from Exhibit I of the January 1, 2007, actuarial valuation reporting form.

² This amount includes hypothetical amortization contributions that would have been made had bond issue proceeds not been deposited.

³ This amount does not include earnings on bond issue proceeds, but does include assumed interest earnings on hypothetical amortization contributions.

⁴ This amount represents the proportionate change in market value attributable to assets excluding bond issue proceeds.

⁵ Investment expenses attributable to bond issue proceeds should be excluded from this amount.

⁶ Value must equal Total Fund Assets at market value reported in Exhibit I, Page 1, Item E2.