

Manchester Employees' Contributory Retirement System

Investment Objectives & Guidelines

Developed in Cooperation with

NEPC, LLC



Version 2016-1

Updated November 8, 2016

INVESTMENT OBJECTIVES AND GUIDELINES

The City of Manchester, NH Employees' Contributory Retirement System

INTRODUCTION

The Manchester Employees' Contributory Retirement System, (MECRS) the "Fund" or the "Plan" is a "defined benefit" plan and operates pursuant to Section 8.09 of the City Charter of Manchester, New Hampshire, in accordance with the State of New Hampshire Laws of 1973, Chapter 218 as amended, and is intended to create a tax-qualified governmental retirement plan under sections 401(a) and 414(d) of the Internal Revenue Code as amended. This defined benefit plan is superior to defined contribution plans in that it calculates the retirement benefit based upon average final earnings, creditable service, and age at retirement as opposed to simply the total accumulation of dollars in the plan. The System is governed by a seven member board in accordance with Articles I and II of its By Laws and operates in accordance with Administrative Rules established for that purpose. The System exists for the benefit of its membership.

The Retirement System applies to all full-time and permanent employees of the City, the Manchester school district, Manchester public library, and the Manchester contributory retirement system including elected and appointed officials. Trustees of the retirement system who are not otherwise eligible to participate are prohibited from being member in the plan. The Retirement System does not cover certain categories of employees, such as temporary employees, members of boards and commissions who are not full-time or permanent part-time employees of the City, trustees of the plan who are not otherwise eligible to participate, Group II members of the fire and police departments, and teachers who are eligible to participate in a state-administered retirement system, and other persons who are eligible to participate in the New Hampshire Retirement System.

The management of the MECRS is vested in a seven (7) member Board of Trustees established pursuant to New Hampshire law. The Board of Trustees shall exercise reasonable care, skill and caution and invest and manage trust assets as a prudent investor would, by considering the purposes, terms, distribution requirements and other circumstances of the Plan. Investments of the Plan shall be made in full accordance with any and all applicable City and State statutes, as well as any other applicable legislation or regulation, state, federal or otherwise.

This policy statement is issued for the guidance of fiduciaries, including the members of the Board of Trustees, administrative staff, and investment managers, in the course of investing the assets of the Plan.

Policy guidelines may be amended by the Board of Trustees both upon their own initiative and upon consideration of the advice and recommendations of the investment managers and fund professionals. Proposed modification must be in writing to the Plan, must be reviewed by the Plan's Investment Consultant, and must be voted into effect by the MECRS Board at a scheduled meeting prior to being placed in effect.

STATEMENT OF GOALS AND OBJECTIVES
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This statement of investment goals and objectives is set forth in keeping with the fiduciary requirements under existing state and federal laws. Its purpose is to set forth an appropriate set of goals and objectives for the Plan's assets and to define guidelines within which the investment managers may formulate and execute their investment decisions.

1. Achieving a total return, consistent with prudent investment management, greater than the earnings assumption for the Plan in order to satisfy long term plan liabilities and maintaining an acceptable funded ratio is the primary goal of the Plan. The total return target is 7.25% net of fees compounded annually, which considers the actuarial rate of return of 7.25% Total return, as used herein, includes income plus realized and unrealized gains and losses on Plan assets. In addition, assets of the Plan shall be invested to ensure that principal is preserved and enhanced over time.
2. The total return for the overall Plan shall meet or exceed the Plan's Policy Index (as described in Appendix I). As a secondary comparison, the Plan shall also be compared with comparable public pension funds as represented by the Consultants Public Pension Fund peer group universe (IF Universe), with the understanding that the Plan's funded status and overall investment risk profile may differ from the average public pension fund in that universe.
3. Total portfolio risk exposure and risk-adjusted returns will be regularly evaluated and compared with a universe of similar funds for the Plan and each investment manager. Total portfolio risk exposure should generally rank in the mid-range of comparable funds. Risk-adjusted returns are expected to consistently rank in the top-half of comparable funds.

Investment managers shall exceed the return of the designated benchmark index noted below and rank in the top-half of the appropriate asset class and style universe. Specific guidelines and benchmarks and performance requirements for the Investment Managers are specified in Appendix IV.

Asset Class	Benchmark	Asset Class Universe	Style Universe
Domestic Large Cap Equity	S&P 500, Russell 1000 Growth or Value Index	Equity Funds	Large Core, Growth or Value
Domestic SMID Cap Equity	Russell 2500 Growth or Value Index	Equity Funds	SMID CAP Universe
Developed International Equity	MSCI EAFE Index	Developed Int'l Equity Funds	NA
International Small Cap Equity	MSCI EAFE Small Cap Index	NA	NA
Emerging International Equity	MSCI Emerging Markets Free	Emerging Int'l Equity Funds	NA
Domestic Fixed Income	BC Aggregate	Fixed Income Funds	Core Bonds, Core Plus Bonds
Absolute Return Fixed Income	BC Multiverse	International Fixed Income Funds	NA
Real Estate	NCREIF	Real Estate Funds	NA
Global Tactical Asset	60% MSCI ACWI & 40%	NA	NA

Allocation	Citigroup WGBI Index		
Private Equity	Cambridge Private Equity	NA	NA
Hedge Fund of Funds	HFRI Fund of Funds	NA	NA
Liquid Alternatives	TBD based on manager	NA	NA
Real Assets	TBD based on manager	NA	NA

4. The Retirement Board is aware that there may be deviations from these performance targets. Normally, results are evaluated over a three- to five-year time horizon, but shorter-term results will be regularly reviewed and earlier action taken if in the best interest of the Plan.

INVESTMENT GUIDELINES

The overall capital structure targets and permissible ranges for eligible asset classes are detailed in Appendix I.

Full discretion, within the parameters of the guidelines described herein, is granted to the investment managers regarding the asset allocation, the selection of securities, and the timing of transactions.

1. Equity investments, i.e., common stocks, convertibles, warrants and rights are permitted; subject to the guidelines in Appendix I. Equity specialists may vary equity commitment from 90% to 100% of assets under management. The managers should determine that the securities to be purchased are of an investment grade suitable for this Plan. American Depository Receipts (ADRs), which are dollar denominated foreign securities traded on the domestic U.S. stock exchanges, e.g., Reuters, Nestle, Sony, may be held by each domestic stock manager in proportions which each manager shall deem appropriate.
2. Domestic fixed income investments are permitted, subject to the guidelines in Appendix I, and may include U.S. Government and Agency obligations, mortgage backed securities; including non-agency mortgages and commercial mortgage-backed securities; asset-backed securities; corporate bonds; debentures; commercial paper; and taxable municipals.
3. The minimum quality rating of any fixed income issue held in an investment grade portfolio shall be B as rated by Moody's, or the equivalent as defined by Fitch or Standard & Poor's, and the overall weighted average quality shall be A or higher. The ratings in this Policy Statement are for guidance only; the investment managers are responsible for making an independent analysis of the credit worthiness of securities and their suitability as investments regardless of the classifications provided by rating agencies.
4. The average duration (interest rate sensitivity) of an actively managed fixed income portfolio shall be within +/- 30% of its benchmark index. Given the nature of their process, absolute return managers may have additional flexibility around this target.
5. Investment in Non US Fixed Income, specifically global sovereign and emerging market

debt local currency, securities is permissible. It is expected that investment in these securities will be via a commingled vehicle, therefore being managed under separate guidelines than the ones listed herein. However, as described below, commingled investment vehicles selected by the Board are exempt from the policies and restrictions specified herein.

6. Securities of an individual issuer, excepting the U.S. government and agencies and sovereign nations and their agencies, shall not constitute more than 5% of an investment manager's portfolio at any time, at market value.
7. Investment managers may maintain reserve and cash equivalent investments. However, these investments should be made on the basis of safety and liquidity, and only secondarily by yield available. Such securities shall carry the equivalent of Standard & Poor's A1 or A2 ratings.
8. The use of exchange traded funds (ETF's) is permitted in the portfolio, so long as it is within the parameters of the guidelines listed above. It is understood that an allocation to ETF's is meant to represent broad market exposure via an individual security, therefore, any allocation that falls outside of the parameters of these guidelines requires prior Board approval.

Ineligible Investments

Unless specifically approved by the Plan, certain securities, strategies and investments are ineligible for inclusion within separately managed accounts in the Plan's asset base. Among these are:

- Derivative instruments except as permitted in the Derivatives Policy in Appendix II or specifically provided for in individual manager guidelines.
- Privately-placed or other non-marketable debt, except securities issued under Rule 144a.
- Lettered, legend or other so-called restricted stock.
- Commodities – Except by a manager investing in Real Assets.
- Straight preferred stocks and non-taxable municipal securities should not normally be held unless pricing anomalies in the marketplace suggest the likelihood of near-term capital gains when normal spread relationships resume.
- Short sales – Except by GTAA managers in a 130/30 scenario.
- Direct investments in private placements, real estate, oil and gas and venture capital.
- Any transaction prohibited by ERISA.

Benefit Payments

Investment managers will be given 30 days notice of cash needs and an estimation of the liquidity requirements from their funds. They will be expected to manage their funds to provide for anticipated withdrawals without impairing the investment process.

Proxy Voting

Responsibility for the exercise of ownership rights through proxy solicitations shall rest solely with the investment managers, who shall exercise this responsibility strictly for the economic benefit of the portfolios. Managers shall annually report to the Plan standing policies with respect to proxy voting, including any changes that have occurred in those policies.

Commingled Funds

Mutual funds and other types of commingled investment vehicles provide, under some circumstances, lower costs and better diversification than can be obtained with a separately managed fund pursuing the same investment objectives. However, commingled investment funds cannot customize investment policies and guidelines to the specific needs of individual clients. The Board is willing to accept the policies of such funds in order to achieve the lower costs and diversification benefits of commingled funds. Therefore, commingled investment vehicles selected by the Board are exempt from the policies and restrictions specified herein.

Alternative Investments

The Board recognizes that certain Alternative Investment strategies (such as hedge funds, absolute return and private equity strategies) do in fact make use of derivatives and other instruments which may not be in full compliance with the guidelines set out for separately managed portfolios. Given that virtually all alternative investment strategies will be in a commingled format, the above Guidelines for Pooled Funds will apply. To the extent that the Board selects an Alternative Investment manager offering a separately managed account, the Board may use its discretion in terms of granting exceptions to these guidelines to that manager and any such exceptions shall be documented in appendices of the investment management / subscription agreement.

Hedge Fund/Liquid Alternative Investments

The Board of Trustees has determined that a strategic allocation to hedge fund and liquid alternative strategies may improve the overall performance characteristics of the Fund's investment program by enhancing expected returns, reducing risk, or a combination of both. The objective of the hedge fund and liquid alternative program is to reduce the volatility of the total fund while attempting to maximize returns in a variety of market conditions.

Real Asset Investments

It is the intent of the Board to invest in real assets with a manager or managers who will invest across multiple asset classes. Allocation of asset classes is tactical in nature and will be determined by the manager. The investment will be made through a comingled vehicle.

Real asset investments are defined as investments designed to benefit from and provided a hedge against rising and high inflation. Further, they are also designed to yield an inflation

adjusted “real” return. In addition, due to their counter cyclical nature and relatively low correlation to traditional broad markets, real assets also provide significant diversification to the entire portfolio.

Real asset strategies will vary significantly by mandate, however, will encompass a wide array of exposure to inflation sensitive assets. The exposure may include the following:

- **Inflation Linked Bonds** – Must follow investment guidelines for fixed income investments. Inflation linked bonds are described as bonds whose principal is adjusted for inflation such that income payments are inflation adjusted, such as TIPS. Both domestic and global securities may be utilized.
- **Commodities** – Exposure to energy, agriculture, livestock and precious metals is permitted through the use of derivatives, subject to guidelines in Appendix II. Receipt of physical commodities is prohibited.
- **Global Equities** – Must follow investment guidelines set for equity investments. The following publically traded equities may be utilized:
 1. Energy
 2. Farmland/Agribusiness
 3. Global Climate Change
 4. Metals and Mining
 5. Global Natural Resources
- **Real Estate** – Investments in publically traded Real Estate Investment Trusts (REIT's) is permitted. Private placement real estate investments require separate Board approval.

Although real asset investments have the potential for capital appreciation, their main objective is to outpace inflation over the long term; helping to preserve purchasing power caused by rising input prices.

Manager Probation

Investment Managers may be placed on a watch list in response to the Board's concerns about the Manager's recent or long-term investment results, failure of the Investment Manager to comply with any of this Investment Policy Statement (IPS), significant changes in the Investment Manager's firm, changes in the Manager's investment strategy, anticipated changes in Fund structure, or any other reasons which the Board deems appropriate. A Manager may be placed on probationary status when:

- Performance fails, over four consecutive quarters or any six quarters during a ten quarter period, to achieve median same style universe performance levels as defined by the Fund; and
- During this same period the return does not meet the return of the benchmark index.

Nothing in the general guidelines above precludes the Fund from placing a Manager on the watch list for performance in a lesser time period or taking other actions if deemed appropriate by the Fund.

Liquidity and Cash Management

Purpose and Objective: In order to ensure adequate liquidity for the operation of the System, while also avoiding the retention of significant amounts of excess cash which could adversely impact the investment returns of the System, upon the recommendation of its investment consultant, the Board has determined to allocate funds temporarily to an S&P 500 index account, (See appendix IV, Section 17) while the Retirement System awaits capital calls associated with commitments to other investment classes. This policy recognizes that some longer term objectives include routine periodic capital calls on investment commitments, and the collection of distributions and redemptions which, by their nature, are paid out over time and not at specific dates. Because the Board contracts with an investment consultant to recommend investment allocations and depends upon administrative staff to carry out the objectives approved by the Board, a need exists for a policy which authorizes administrative staff to execute the directives of the Board. The Board hereby delegates liquidity and cash flow management authority to administrative staff, in keeping with directives it has issued by motion at regularly scheduled public meetings, to invest funds in an S&P 500 institutional mutual fund or like vehicle, approved by the Board.

Limitations, Reporting Requirements and Market Volatility: This policy requires that the Board be informed on a monthly basis, of the cash balances held by the System. Furthermore, the report shall identify projected receipts and disbursements for the upcoming quarter in as accurate a manner as possible, given the uncertainty of capital calls and distributions from asset classes such as private equity. The monthly cash management report shall be compiled by a member of the administrative staff who shall sign the document. Said document shall also be reviewed by another member of the administrative staff who shall also sign the report. Said report shall be included on the consent agenda of each monthly meeting, where its acceptance by the Board will acknowledge their oversight of the delegated cash management practices.

In order to avoid the opportunity cost associated with low rates of return on cash, the Board may direct administrative staff to place funds, which are committed for future capital calls, in an S&P 500 Index Fund. Those reserves will become subject to the market volatility of the S&P 500 index. Each authority for deposit of funds in the S&P 500 Index Fund shall be given by a majority vote of the Board in a meeting which is scheduled and duly posted. The Board acknowledges that capital calls from investment commitments, which cannot to precisely timed, may require administrative staff to redeem shares of the S&P Index Fund without specific prior Board authorization in order to meet the liquidity needs at a time which results in an investment loss.

Policy adopted: July 9, 2013.

ROLES AND RESPONSIBILITIES

Board of Trustees

The Board of Trustees (Trustees) have a fiduciary obligation to review the total investment program. The Trustees and their investment consultants shall carry out that review in accordance with an approved investment policy and provide overall direction to the staff in the execution of the investment policy. The Trustees and their administrative staff, with the assistance of the investment consultant, are responsible for evaluating, hiring, and terminating investment managers, consultants and custodian banks.

Investment Consultant

The Investment Consultant shall assist the Trustees in developing and modifying policy objectives and guidelines, including the development of asset allocation strategies, recommendations on long term asset allocation and the appropriate mix of investment manager styles and strategies. The consultant shall also provide assistance in manager searches and selection, and in investment performance calculation, evaluation, and analysis. The consultant shall provide timely information, written and/or oral, on investment strategies, instruments, managers and other related issues, as requested by the Board of Trustees

Investment Managers

The duties and responsibilities of each of the investment advisors retained by the Plan include:

1. Managing the Plan's assets in accordance with the policy guidelines and objectives expressed herein.
2. Meeting with the Board of Trustees at their request. Each manager shall report to the Plan and the Investment Consultant as outlined in Appendix III. Quarterly reports should be submitted in writing within 30 days at the end of a quarter.
3. Working with the custodian bank to verify monthly accounting reports.
4. Acknowledging in writing to the Plan the investment manager's intention to comply with this Statement as it currently exists or as modified in the future.

Custodian Bank

In order to maximize the Plan's return, no money should be allowed to remain idle. Dividends, interest, proceeds from sales, new contributions and all other monies are to be invested or reinvested promptly.

The custodian bank(s) will be responsible for performing the following functions:

1. Accept daily instructions from designated staff.
2. Notify investment managers of proxies, tenders, rights, fractional shares or other dispositions of holdings.
3. Resolve any problems that designated staff may have relating to the custodial account.
4. Safekeeping of securities.

5. Collection of interest and dividends.
6. Daily cash sweep of idle principal and income cash balances.
7. Processing of all investment manager transactions.
8. Collection of proceeds from maturing securities.
9. Disbursement of all income or principal cash balances as directed.
10. Collect asset values from pooled accounts, hedge funds, private equity investments and other alternative asset classes not "held / custodized" by the bank for inclusion in the Plan's comprehensive monthly valuation reports.
11. Providing monthly statements by investment account and a consolidated statement of all assets to the Plan and its investment consultant.
12. Working with the investment consultant and the Fund accountant to ensure accuracy in reporting.
13. Provide written statements revealing monthly reconciliation of custody and investment managers' accounting statements.

OTHER CONSIDERATIONS

It is the intent of the Plan to revise this statement of goals and objectives to reflect modifications and revisions to the Plan, which may develop from time to time. It is also the practice of the Plan to review these goals and objectives at least once per year and to communicate any material change thereto to the investment managers.

This Policy statement is prepared to provide appropriate guidelines for the investment managers, consistent with the Plans' return objectives and risk tolerances. Should any investment manager believe that the guidelines are unduly restrictive or inappropriate, the Plan expects to be advised accordingly.

IMPLEMENTATION

All monies invested for the Plan by its investment managers after the adoption of this Investment Policy shall conform to this policy. The Investment Policy statement was adopted by the Board of Trustees of the City of Manchester, NH at their meeting on January 8, 2008, most recently amended on July 9, 2013, and updated to reflect manager changes on November 8, 2016.



Certified By: _____
Gerard E. Fleury – Executive Director

Date: November 8, 2016

City of Manchester, NH

ASSET ALLOCATION POLICY

In order to have a reasonable probability of achieving the target return at an acceptable risk level, the Plan has adopted the asset allocation policy outlined below. The actual asset allocation will be reviewed on a quarterly basis and will be readjusted when an asset class weighting is outside its target range.

<u>ASSET CLASS</u>	<u>TARGET %</u>	<u>TARGET RANGE %</u>	<u>TARGET BENCHMARK</u>
EQUITY			
Domestic Equity			Russell 3000
<i>Large Capitalization</i>	12	10-20	<i>Russell 1000</i>
<i>SMid Capitalization</i>	6	4-8	<i>Russell 2500</i>
<i>S&P 500 Index Funds</i>	4	0-10	<i>S&P 500</i>
International Equity			MSCI ACWI
<i>Developed International Equity</i>	10	7-15	<i>MSCI EAFE</i>
<i>International Small Cap Equity</i>	5	2-8	<i>MSCI EAFE Small Cap</i>
<i>Emerging International Equity</i>	5	2-8	<i>MSCI Emerging Markets</i>
FIXED INCOME			
<i>Core Bonds</i>	9	7-11	<i>Barcap Aggregate</i>
<i>Core Plus Bonds</i>	6	4-9	<i>Barcap Aggregate</i>
<i>Absolute Return</i>	5	2-8	<i>Manager Specific</i>
ALTERNATIVES			
<i>Real Estate/Real Assets</i>	10	8-15	<i>NCREIF</i>
<i>Global Asset Allocation</i>	10	8-15	<i>60% ACWI / 40% WGBI</i>
<i>Private Equity</i>	6	0-10	<i>Cambridge Private Equity</i>
<i>Hedge Fund of Funds</i>	5	0-7	<i>HFRI Fund of Funds</i>
<i>Liquid Alternatives</i>	5	0-7	<i>Manager Specific</i>
CASH			
<i>Short Term</i>	2	0 – 4	<i>90-Day T-Bill</i>

The Plan's Policy Index is a custom benchmark designed to indicate the returns that a passive investor would earn by consistently following the asset allocation targets set forth in this investment policy statement. It is useful in separating the impact of investment policy from execution of the investment strategy in evaluating the performance of the Fund's investment program.

The Policy Index is calculated by multiplying the target commitment to each asset class by the rate of return of the appropriate market index, as listed above, on a monthly basis.

Rebalancing

The Board, with the assistance of the consultant, will review asset allocation at least quarterly to determine if the asset allocation is consistent with the exposure ranges described herein. The MECRS Executive Director will direct investment managers to transfer funds to rebalance the asset allocation as necessary following prior Board authorization. The transfers should be on a pro-rata basis. The Board will consider market conditions and transaction costs, as well as any other relevant factors when rebalancing.

The Fund shall strive to maintain a neutral bias with respect to Style Allocation (Growth versus Value) in its equity investments. The Trustees recognize that over the long run, returns from Growth and Value investing tend to approximate each other; over shorter periods, however, returns between the two can be significantly different. The Board, as part of the normal rebalancing responsibilities, shall use appropriate judgment and care when rebalancing portfolios.

City of Manchester, NH

DERIVATIVES POLICY STATEMENT

A. Objectives

This derivatives policy statement identifies and allows common derivative investments and strategies which are consistent with applicable law and the Investment Policy Statement and requires investment managers to petition for the inclusion of additional derivative instruments and strategies. The guidelines also require investment managers to follow certain controls, documentation and risk management procedures.

B. Definition and Classification of Derivatives

A derivative is a security or contractual agreement which derives its value from some underlying security, commodity, currency, or index. These guidelines classify derivatives into four separate categories distributed across two classes: derivative contracts and derivative securities:

1. Derivative Contracts

- a) Forward-based derivatives, including forward contracts, futures contracts, swaps, and similar instruments
- b) Option-based derivatives, including put options, call options, interest rate caps and floors, and similar instruments

2. Derivative Securities

- a) Collateralized Mortgage Obligations (CMOs)
- b) Structured Notes

C. Allowed Uses of Derivatives

1. Derivative Contracts

- a) **Hedging.** To the extent that the non-derivative component of a portfolio is exposed to clearly defined risks and derivative contracts exist which can be used to reduce those risks, the investment managers are permitted to use such derivatives for hedging purposes, including cross-hedging of currency exposures, subject to the documentation requirements below.
- b) **Creation of Market Exposures.** Investment managers are permitted to use derivatives to replicate the risk/return profile of an asset or asset class, provided that the guidelines for the investment manager allow for such exposures to be created with the underlying assets themselves.

- c) **Management of Country and Asset Allocation Exposure.** Managers charged with tactically changing the exposure of their portfolio to different countries and/or asset classes are permitted to use derivative contracts for this purpose.

2. Derivative Securities

- a) **"Plain Vanilla" CMOs.** For the purpose of this policy, we will define a "plain vanilla" CMO as one which can be shown that the CMO is less exposed to interest rate and prepayment risk than the underlying collateral.
- b) **Other CMOs.** CMOs which are not plain vanilla are restricted to 10% of a manager's portfolio.
- c) **Structured Notes.** Structured notes may be used so long as the exposure implied by their payment formula would be allowed if created without use of structured notes.

D. Prohibited Uses of Derivatives

Any use of derivatives not listed in section C is prohibited without written approval of the Plan. Investment managers are encouraged to solicit such approval if they believe the list in section C is too restrictive. By way of amplification, it is noted that the following two uses of derivatives are prohibited:

1. **Leverage.** Derivatives shall not be used to magnify exposure to an asset, asset class, interest rate, or any other financial variable beyond that which would be allowed by a portfolio's investment guidelines if derivatives were not used.
2. **Unrelated Speculation.** Derivatives shall not be used to create exposures to securities, currencies, indices, or any other financial variable unless such exposures would be allowed by a portfolio's investment guidelines if created with non-derivative securities.

E. Transaction-Level Risk Control Procedures and Documentation Requirements

For each over-the-counter derivative transaction, except foreign exchange forward contracts, investment managers are required to obtain at least two competitive bids or offers. For small-issue CMOs, it is acceptable to obtain competitive prices on similar securities.

For all derivatives transactions, investment managers should maintain adequate records to prove that all derivative contracts used are employed for allowed strategies. In addition, the following requirements apply to derivative securities:

- a) **"Plain Vanilla" CMOs**

- Document that the CMO is in fact "plain vanilla", according to the definition in section C.2.a.

- b) **Other CMOs**

- These CMOs must be stress tested to estimate how their value and duration will change with extreme changes in interest rates. An extreme change is one of at least 300 basis points.

c) Structured Notes

Document that note does not create exposures which would not be allowed if created without derivatives.

F. Portfolio-Level Risk Control Procedures and Documentation Requirements

1. Counterparty Credit Risk

Managers are required to measure and monitor exposure to counterparty credit risk. All counterparties must have commercial paper credit ratings of at least A1 or equivalent rating.

2. Ongoing Monitoring of Risk Exposures

The duration and other risk exposure limits specified in the managers' guidelines are expected to be satisfied on an ongoing basis. Thus, managers must monitor changing risk exposures. Fixed income managers investing in CMOs should pay particular attention to the changing duration of their CMOs, and should anticipate potential changes in duration at the time CMOs are purchased so that interest rate and prepayment rate changes do not inadvertently move the portfolio out of compliance.

3. Valuation of Holdings

The investment managers and custodian shall provide the Plan with their pricing policies including a list of sources used. The Plan should be notified of any exceptions to these policies. The custodian is required to obtain prices independent of the manager, or to notify the Plan that independent prices are not available.

The investment managers are required to reconcile the valuations of all derivatives positions with the custodian not less than monthly.

4. Quarterly Reporting

Each manager using derivatives shall submit within thirty days of the end of each quarter a report, to both the Board and the investment consultant, with the following information:

- a) A list of all derivative positions as of quarter-end.
- b) An assessment of how the derivatives positions affect the risk exposures of the total portfolio.
- c) An explanation of any significant pricing discrepancies between the manager and custodian bank.
- d) An explanation of any events of non-compliance.
- e) For managers of commingled funds, a list of derivative positions and assessment of the effect on the risk exposure of the portfolio.

G. Guidelines for Use of Pooled Funds which Employ Derivatives

Mutual funds and other types of commingled investment vehicles provide, under some circumstances, lower costs and better diversification than can be obtained with separately

managed fund pursuing the same investment objectives. However, commingled investment funds cannot customize investment policies and guidelines to the specific needs of individual clients. The Plan is willing to accept the policies of such funds in order to achieve the lower costs and diversification benefits of commingled funds.

Therefore commingled investment vehicles are exempt from all policies specified above except F.4.e if:

1. The investment practices of the commingled fund are consistent with the spirit of this derivatives policy, and are not significantly different in letter
2. The benefits of using a commingled vehicle rather than a separate account are beneficial to the Fund in either a “financial” or “administrative” manner.

City of Manchester, NH

INVESTMENT MANAGER REPORTING REQUIREMENTS

As Necessary (based on occurrence)

1. Review of Organizational Structure
 - A. Organizational changes (i.e., ownership).
 - B. Discussion of any material changes to the investment process.
 - C. Departures/additions to investment staff.
 - D. Material changes in assets under management for the product managed on behalf of the Plan and for total firm.
 - E. Managers shall disclose all pertinent information regarding any and all regulatory findings and/or litigation in which they were/are involved.

Quarterly

1. Summary of Investment Guidelines
 - A. Discuss adherence to guidelines.
 - B. Comments, concerns, or suggestions regarding the policy statement.
2. Performance Review
 - A. Present total fund and asset class returns for last calendar quarter, year-to-date, last year, last three years, last five years and since inception versus designated benchmarks.
 - B. Discuss performance relative to benchmarks, provide attribution analysis which identifies returns due to allocation and selection decisions, as appropriate.
 - C. Provide portfolio characteristics relative to benchmark.
3. Provide Portfolio Holdings
 - A. Present book value and current market value.
 - B. List individual securities by sector, asset class, or country, as appropriate.

Annually

1. Review of Investment Process and Evaluation of Portfolio Management Process
 - A. Brief review of investment process.
 - B. Investment strategy used over the past year and underlying rationale.
 - C. Evaluation (in hindsight) of strategy's appropriateness.
 - D. Evaluation of strategy's success/disappointments.
 - E. Current investment strategy and underlying rationale.
 - F. Written annual report of the proxy votes for all shares of stock in companies held in the manager's investment program that provides explanations of votes other than those considered routine. These reports shall specifically note any instances where proxies were not voted in accordance with the manager's standing policy.

- G. Each manager shall provide an annual commission report to be delivered to the Board and Investment Consultant within forty-five (45) days of the end of each calendar year [December 31]. The report shall cover all trades executed during the prior calendar year.
- H. On an annual basis, each manager shall submit their soft dollar policy, as well as their soft dollar “usage”, to be delivered to the Board and Investment Consultant within forty-five (45) days of the end of each calendar year [December 31].
- I. Managers shall annually report to the Board, standing policies with respect to ethics and professional practice, within forty five (45) days of the end of the calendar year [December 31]. Managers shall annually report to the Board compliance with the CFA Institute (CFAI) Code of Ethics. Managers shall disclose if they are made aware of any Chartered Financial Analyst (CFA) charterholders employed by their firm that have been publicly censured by the CFAI.

City of Manchester, NH
Statement of Investment Performance Measurement for
Pzena Investment Management
Large Capitalization Value Equity Account

1) REPRESENTATIVE MARKET INDEX:

Russell 1000 Value Index

PERFORMANCE OBJECTIVE:

Pzena shall meet or exceed their index over a *full market cycle, net of management fees.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

IF Large Capitalization Value Manager Universe

3) GUIDELINE EXCEPTIONS:

Client's policy on directed brokerage is limited to 30%.

Securities of an individual issuer, excepting the U.S. government and agencies and sovereign nations and their agencies, shall not constitute more than 5% of an investment manager's portfolio at time of purchase, and 7.5% at market value thereafter.

* A "full market cycle" is defined as an investment period of 3 to 5 years.

City of Manchester, NH
Statement of Investment Performance Measurement for
Sands Capital Management
Large Capitalization Growth Equity Account

1) REPRESENTATIVE MARKET INDEX:

Russell 1000 Growth Index

PERFORMANCE OBJECTIVE:

Sands Capital Management shall meet or exceed their index over a *full market cycle, net of management fees.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

IF Large Capitalization Growth Manager Universe

3) GUIDELINE EXCEPTIONS:

Sands Capital Management shall be except from language found in Section 6 of the Investment Guidelines and instead shall abide by the following:

“Securities of an individual issuer, excepting the U.S. government and agencies and sovereign nations and their agencies, shall not constitute more than 12% of this investment manager’s portfolio at any time, at market value.”

* A “full market cycle” is defined as an investment period of 3 to 5 years.

City of Manchester, NH
Statement of Investment Performance Measurement for
Rothschild Asset Management
Small/Mid Capitalization Core Equity Account

1) REPRESENTATIVE MARKET INDEX:

Russell 2500 Index

PERFORMANCE OBJECTIVE:

Rothschild shall meet or exceed their Index over a *full market cycle, net of management fees.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

IF Small and Mid Capitalization Core Equity Manager Universe

3) GUIDELINE EXCEPTIONS:

None

* A "full market cycle" is defined as an investment period of 3 to 5 years.

City of Manchester, NH
Statement of Investment Performance Measurement for
Vanguard – Ticker VINIX
S&P 500 Index Fund

1) REPRESENTATIVE MARKET INDEX:

S&P 500

PERFORMANCE OBJECTIVE:

Shall meet the index over a *full market cycle, net of management fees.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

Not applicable

3) GUIDELINE EXCEPTIONS:

None

* A “full market cycle” is defined as an investment period of 3 to 5 years.

City of Manchester, NH
Statement of Investment Performance Measurement for
Causeway
International Equity "Value" Account

1) REPRESENTATIVE MARKET INDEX:

Primary - MSCI EAFE Index
Secondary – MSCI EAFE Value Index

PERFORMANCE OBJECTIVE:

Causeway shall meet or exceed their index over a *full market cycle, net of management fees.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

IF International Equity Manager Universe

3) GUIDELINE EXCEPTIONS:

None

* A "full market cycle" is defined as an investment period of 3 to 5 years.

City of Manchester, NH
Statement of Investment Performance Measurement for
Gryphon
International Equity "Growth" Account

1) REPRESENTATIVE MARKET INDEX:

Primary - MSCI EAFE Index
Secondary – MSCI EAFE Growth Index

PERFORMANCE OBJECTIVE:

Gryphon shall meet or exceed their index over a *full market cycle, net of management fees.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

IF International Equity Manager Universe

3) GUIDELINE EXCEPTIONS:

None

* A "full market cycle" is defined as an investment period of 3 to 5 years.

City of Manchester, NH
Statement of Investment Performance Measurement for
City of London
Emerging Markets Equity Account

1) REPRESENTATIVE MARKET INDEX:

MSCI Emerging Markets Free

PERFORMANCE OBJECTIVE:

City of London shall meet or exceed their index over a *full market cycle, net of management fees.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

IF Emerging Markets Equity Manager Universe

3) GUIDELINE EXCEPTIONS:

None

* A "full market cycle" is defined as an investment period of 3 to 5 years.

City of Manchester, NH
Statement of Investment Performance Measurement for
Income Research & Management
Investment Grade Fixed Income Account

1) REPRESENTATIVE MARKET INDEX:

Barclay Capital Aggregate Index

PERFORMANCE OBJECTIVE:

Income Research & Management shall meet or exceed their index over a *full market cycle, net of management fees.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

IF Core Bond Manager Universe

3) GUIDELINE EXCEPTIONS:

None

* A "full market cycle" is defined as an investment period of 3 to 5 years.

City of Manchester, NH
Statement of Investment Performance Measurement for
Loomis Sayles
Core “Plus” Fixed Income Account

1) REPRESENTATIVE MARKET INDEX:

Primary: Barclay Capital Government Credit Index
Secondary: Barclay Capital Aggregate Index

PERFORMANCE OBJECTIVE:

Loomis Sayles shall meet or exceed their index by 100 basis points over a *full market cycle, net of management fees.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

IF Core “Plus” Bond Manager Universe

3) GUIDELINE EXCEPTIONS:

None

* A “full market cycle” is defined as an investment period of 3 to 5 years.

City of Manchester, NH
Statement of Investment Performance Measurement for
Blackrock SIO – Ticker Symbol BSIKX
Strategic Income Opportunity Global Fixed Income Account

1) REPRESENTATIVE MARKET INDEX:

Primary: Barclays Capital Multiverse Index
Secondary: Barclays Capital US Aggregate Index

PERFORMANCE OBJECTIVE:

Blackrock seeks total return that is consistent with preservation of capital.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

IF Global Bond Manager Universe

3) GUIDELINE EXCEPTIONS:

None

* A “full market cycle” is defined as an investment period of 3 to 5 years.

City of Manchester, NH
Statement of Investment Performance Measurement for
Mellon Capital Management
Global Asset Allocation Account

1) REPRESENTATIVE MARKET INDEX:

60% MSCI ACWI-IMI & 40% Citigroup WGBI GDP Weighted Index

PERFORMANCE OBJECTIVE:

Mellon Capital shall meet or exceed their index over a *full market cycle, net of management fees.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

IF Tactical Asset Allocation Universe

3) GUIDELINE EXCEPTIONS:

None

* A "full market cycle" is defined as an investment period of 3 to 5 years.

City of Manchester, NH
Statement of Investment Performance Measurement for
Pacific Investment Management Company (PIMCO)
All Asset Fund

1) REPRESENTATIVE MARKET INDEX:

Primary: CPI + 5%

Secondary: 30.0% Barclays US TIPS 1-10 Years / 10.0% S&P 500 / 40.0% Barclays
Capital Aggregate / 10.0% Barclays Capital High Yield / 10.0% JP Morgan EMBI+ TR

PERFORMANCE OBJECTIVE:

PIMCO shall meet or exceed their index over a *full market cycle, net of management fees.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

IF Tactical Asset Allocation Universe

3) GUIDELINE EXCEPTIONS:

None

* A "full market cycle" is defined as an investment period of 3 to 5 years.

City of Manchester, NH
Statement of Investment Performance Measurement for
Permal
Hedge Fund of Fund (Multi-Strategy) Account

1) REPRESENTATIVE MARKET INDEX:

HFRI Fund of Funds Index

PERFORMANCE OBJECTIVE:

Permal shall meet or exceed their index over a *full market cycle, net of management fees.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

IF Hedge Fund Manager Universe

3) GUIDELINE EXCEPTIONS:

None

* A "full market cycle" is defined as an investment period of 3 to 5 years.

City of Manchester, NH
Statement of Investment Performance Measurement for
Standard Life Investments
Global Absolute Return Strategy – Pooled Account

1) REPRESENTATIVE MARKET INDEX:

Primary Benchmark: 3 Month LIBOR + 5%
Secondary Benchmark: Credit Suisse Multi Strategy Index

PERFORMANCE OBJECTIVE:

Standard Life will seek to deliver Cash plus 5% per year (gross) over a rolling 3 year period.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

None

3) GUIDELINE EXCEPTIONS:

None

* A “full market cycle” is defined as an investment period of 3 to 5 years.

City of Manchester, NH
Statement of Investment Performance Measurement for
Lexington Partners VII
Private Equity Fund of Funds Account - Secondary

1) REPRESENTATIVE MARKET INDEX:

Cambridge Private Equity Index

PERFORMANCE OBJECTIVE:

Lexington Partners shall exceed the average return produced by private equity funds of similar vintage over the life of the partnership.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

Not Applicable

3) GUIDELINE EXCEPTIONS:

None

City of Manchester, NH
Statement of Investment Performance Measurement for
Lexington Partners VIII
Private Equity Fund of Funds Account - Secondary

1) REPRESENTATIVE MARKET INDEX:

Cambridge Private Equity Index

PERFORMANCE OBJECTIVE:

Lexington Partners shall exceed the average return produced by private equity funds of similar vintage over the life of the partnership.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

Not Applicable

3) GUIDELINE EXCEPTIONS:

None

City of Manchester, NH
Statement of Investment Performance Measurement for
Newstone Capital Partners
Private Debt – Mezzanine Debt

1) REPRESENTATIVE MARKET INDEX:

Cambridge Private Equity Index

PERFORMANCE OBJECTIVE:

Newstone Partners shall exceed the average return produced by private equity funds of similar vintage over the life of the partnership.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

Not Applicable

3) GUIDELINE EXCEPTIONS:

None

City of Manchester, NH
Statement of Investment Performance Measurement for
Private Advisors Fund IV
Private Equity Small Company Buyout Fund VI - Buyouts

1) REPRESENTATIVE MARKET INDEX:

Cambridge Private Equity Index

PERFORMANCE OBJECTIVE:

Private Advisors shall exceed the average return produced by private equity funds of similar vintage over the life of the partnership.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

Not Applicable

3) GUIDELINE EXCEPTIONS:

None

City of Manchester, NH
Statement of Investment Performance Measurement for
Crescent Direct Lending Fund
Private Debt - Senior Lending

1) REPRESENTATIVE MARKET INDEX:

Primary: Cambridge Private Equity Index
Secondary; Barclays Capital Aggregate Bond Index

PERFORMANCE OBJECTIVE:

Crescent shall exceed the average return produced by private debt funds of similar vintage, as well as a broad based fixed income index over the life of the partnership.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

Not Applicable

3) GUIDELINE EXCEPTIONS:

None

City of Manchester, NH
Statement of Investment Performance Measurement for
Prudential
Real Estate Account

1) REPRESENTATIVE MARKET INDEX:

NCREIF Equity Index

PERFORMANCE OBJECTIVE:

Prudential shall meet or exceed their index over a *full market cycle, net of management fees.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

IF Real Estate Manager Universe

3) GUIDELINE EXCEPTIONS:

None

* A "full market cycle" is defined as an investment period of 3 to 5 years.

City of Manchester, NH
Statement of Investment Performance Measurement for
Kayne Anderson Energy Partners VII
Private Energy Opportunity Fund – Opportunistic

1) REPRESENTATIVE MARKET INDEX:

Cambridge Private Equity Index

PERFORMANCE OBJECTIVE:

Kayne Anderson Energy Partners shall exceed the average return produced by private equity funds of similar vintage over the life of the partnership.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

Not Applicable

3) GUIDELINE EXCEPTIONS:

None

City of Manchester, NH
Statement of Investment Performance Measurement for
TA Associates Realty
Private Real Estate Account – Value Add

1) REPRESENTATIVE MARKET INDEX:

Primary: NCREIF Property Index
Secondary: Cambridge Private Equity Index

PERFORMANCE OBJECTIVE:

TA shall exceed the average return produced by private estate funds of similar vintage, as well as a broad based real estate benchmark, over the life of the partnership.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

Not Applicable

3) GUIDELINE EXCEPTIONS:

None

City of Manchester, NH
Statement of Investment Performance Measurement for
DSF Group - Realty
Private Real Estate Account – Value Add

1) REPRESENTATIVE MARKET INDEX:

Primary: NCREIF Property Index
Secondary: Cambridge Private Equity Index

PERFORMANCE OBJECTIVE:

DSF Group shall exceed the average return produced by private estate funds of similar vintage, as well as a broad based real estate benchmark, over the life of the partnership.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

Not Applicable

3) GUIDELINE EXCEPTIONS:

None

City of Manchester, NH
Statement of Investment Performance Measurement for
Blue Vista Realty
Private Real Estate Account – Value Add

1) REPRESENTATIVE MARKET INDEX:

Primary: NCREIF Property Index
Secondary: Cambridge Private Equity Index

PERFORMANCE OBJECTIVE:

Blue Vista shall exceed the average return produced by private estate funds of similar vintage, as well as a broad based real estate benchmark, over the life of the partnership.

2) A UNIVERSE OF PEER INVESTMENT MANAGERS:

Not Applicable

3) GUIDELINE EXCEPTIONS:

None