AGENDA

CITY OF BIRMINGHAM FIREMEN'S AND POLICEMEN'S SUPPLEMENTAL PENSION SYSTEM

Board Members:	Valerie Abbott, Chairperson
	Robert Webb, Member No. 1
	William Lipscomb, Member No. 2
	Marlon Tolliver, Member No. 3
	Hazel Anthony, Member No. 4
Meeting Time:	Wednesday, February 13, 2019 at
	1:30 p.m. in Mayor's Conference Room "A'
	Birmingham City Hall
Minutes:	Attached are the minutes of the
	January 9, 2019 meeting

- 1. Approval of the minutes for the January 9, 2019 meeting.
- 2. Approval of the financial statements for the month of December 2018.
- 3. Approval of investment activity for the month of January 2019. (Regions Investment Management) George McCurdy
- 4. Approval of investment activity for the month of January 2019. (Lazard) Anthony "Tony" Dote
- 5. Approval of investment activity for the month of January 2019. (Cooke & Bieler) Thad Fletcher
- 6. Approval of investment activity for the month of January 2019. (Great Lake Advisors) Laurie Watson
- 7. Approval of investment activity for the month of January 2019. (Penn Capital) Steve Loizeaux

- 8. Approval of investment activity for the month of January 2019. (FIS Group) Charles Curry
- 9. Approval of investment activity for the month of January 2019. (Blackstone) Michael Cambias
- 10. Approval of investment activity for the month of January 2019. (Ithaka Group) Scott O'Gorman, Jr.
- 11. Approval of investment activity for the month of January 2019. (Morningside Asset Management) Yolanda Foreman
- 12. Approval of investment activity for the month of January 2019. (Energy Opportunities) L. Farrell Crane
- 13. Lorren Oliver, Secretary, submits the following agenda item for discussion by the Board: the appearances of Mr. Greg Burchell, Mr. Daymeon Fishback, and Ms. Whitney McDade of Morgan Stanley.
- 14. Lorren Oliver, Secretary, submits the following agenda item for discussion by the Board: Approve to RESCIND the Service Pension application of Roosevelt Coar effective February 3, 2019. Mr. Coar was rehired on February 4, 2019 in the 911 Department.
- 15. Lorren Oliver, Secretary, submits the following agenda item for discussion by the Board: the application of Kevin L. Black, an employee with the Police Department, for SERVICE PENSION at the rate of \$2,470.67 per month, effective January 26, 2019 under the provisions of Act 59-556, Section 6 of the pension law.
- 16. Lorren Oliver, Secretary, submits the following agenda item for discussion by the Board: the application of Heath M. Boackle, an employee with the Police Department, for SERVICE PENSION at the rate of \$3,040.43 per month, effective February 2, 2019 under the provisions of Act 59-556, Section 6 of the pension law.
- 17. Lorren Oliver, Secretary, submits the following agenda item for discussion by the Board: the application of Edward A. Bussey, an employee with the Police Department, for SERVICE PENSION at the rate of \$2,896.81 per month (DROP Amount \$112,728.66, DROP Date 02/08/2016), effective February 9, 2019 under the provisions of Act 59-556, Section 6 of the pension law.
- 18. Lorren Oliver, Secretary, submits the following agenda item for discussion by the Board: the application of William L. DeVaughn, an employee with the Fire Department, for SERVICE PENSION at the rate of \$2,652.53 per month, effective January 19, 2019 under the provisions of Act 59-556, Section 6 of the pension law.

- 19. Lorren Oliver, Secretary, submits the following agenda item for discussion by the Board: the application of Jasper J. Juliano, an employee with the Fire Department, for SERVICE PENSION at the rate of \$3,579.88 per month (DROP Amount \$139,310.46, DROP Date 01/28/2016), effective January 29, 2019 under the provisions of Act 59-556, Section 6 of the pension law.
- 20. Lorren Oliver, Secretary, submits the following agenda item for discussion by the Board: the application of Kimball A. Karmondi, an employee with the Police Department, for SERVICE PENSION at the rate of \$2,450.42 per month (DROP Amount \$95,357.42, DROP Date 02/08/2016), effective February 9, 2019 under the provisions of Act 59-556, Section 6 of the pension law.
- 21. Lorren Oliver, Secretary, submits the following agenda item for discussion by the Board: the application of Herman C. Key, an employee with the Fire Department, for SERVICE PENSION at the rate of \$2,898.50 per month (DROP Amount \$112,794.48, DROP Date 01/18/2016), effective January 19, 2019 under the provisions of Act 59-556, Section 6 of the pension law.
- 22. Lorren Oliver, Secretary, submits the following agenda item for discussion by the Board: the application of Derrick Lewis, an employee with the Police Department, for SERVICE PENSION at the rate of \$2,419.73 per month (DROP Amount \$94,163.37, DROP Date 01/10/2016), effective January 11, 2019 under the provisions of Act 59-556, Section 6 of the pension law.
- 23. Lorren Oliver, Secretary, submits the following agenda item for discussion by the Board: the application of Markus R. McCay, an employee with the Fire Department, for SERVICE PENSION at the rate of \$2,879.34 per month, effective February 2, 2019 under the provisions of Act 59-556, Section 6 of the pension law.
- 24. Lorren Oliver, Secretary, submits the following agenda item for discussion by the Board: the application of Michael W. Russell, an employee with the Police Department, for SERVICE PENSION at the rate of \$2,584.45 per month, effective February 13, 2019 under the provisions of Act 59-556, Section 6 of the pension law.
- 25. Lorren Oliver, Secretary, submits the following agenda item for discussion by the Board: the application of Theodore L. Smith, an employee with the Fire Department, for SERVICE PENSION at the rate of \$3,539.94 per month (DROP Amount \$137,756.03, DROP Date 01/17/2016), effective January 18, 2019 under the provisions of Act 59-556, Section 6 of the pension law.

26. Lorren Oliver, Secretary, submits the following agenda item for discussion by the Board: the application of Ronald M. White, an employee with the Fire Department, for SERVICE PENSION at the rate of \$2,506.74 per month (DROP Amount \$97,549.45, DROP Date 01/17/2016), effective January 18, 2019 under the provisions of Act 59-556, Section 6 of the pension law.

THE BOARD OF MANAGERS OF THE CITY OF BIRMINGHAM FIREMEN'S AND POLICEMEN'S SUPPLEMENTAL PENSION SYSTEM met on Wednesday, January 9, 2019 in the Council Chambers at 1:30 p.m.

Board Member Robert Webb called the meeting to order: The following Board Members were present, namely:

Valerie Abbott, Chairperson Robert Webb, Member No. 1 William Lipscomb, Member No. 2 Marlon Tolliver, Member No. 3 Hazel Anthony, Member No. 4

Board Member William Lipscomb made the motion for the December 12, 2018 minutes to be approved. Board Member Marlon Tolliver seconded.

The Board Members APPROVED the December 12, 2018 minutes.

Board Member Webb referenced the financial statements for the month of November 2018, and stated the City of Birmingham Firemen's & Policemen's Supplemental Pension System got hammered on contributions from participants in the amount of \$800,000.00 and the outflow was \$1.6 million dollars.

Board Member Webb made the motion for the financial statements for the month of November 2018 to be approved, subject to the comments made. Chairperson Valerie Abbott seconded.

The Board Members APPROVED the financial statements for the month of November 2018, subject to the comments made.

The Board Members CONTINUED the investment activities for the month of December 2018 until next month's Board Meeting. (Regions Investment Management) – George McCurdy

The Board Members CONTINUED the investment activities for the month of December 2018 until next month's Board Meeting. (Orleans Capital) – Gary Welchel

The Board Members CONTINUED the investment activities for the month of December 2018 until next month's Board Meeting. (Lazard) – Anthony "Tony" Dote

The Board Members CONTINUED the investment activities for the month of December 2018 until next month's Board Meeting. (Energy Opportunities Capital Management, LLC) – L. Farrell Crane

The Board Members CONTINUED the investment activities for the month of December 2018 until next month's Board Meeting. (Cooke & Bieler) – Thad Fletcher

The Board Members CONTINUED the investment activities for the month of December 2018 until next month's Board Meeting. (Great Lake Advisors) – Laurie Watson

The Board Members CONTINUED the investment activities for the month of December 2018 until next month's Board Meeting. (Mesirow Financial) – Eugene Duffy

The Board Members CONTINUED the investment activities for the month of December 2018 until next month's Board Meeting. (Penn Capital) – Steve Loizeaux

The Board Members CONTINUED the investment activities for the month of December 2018 until next month's Board Meeting. (FIS Group) – Charles Curry

The Board Members CONTINUED the investment activities for the month of December 2018 until next month's Board Meeting. (Blackstone) – Michael Cambias

The Board Members CONTINUED the investment activities for the month of December 2018 until next month's Board Meeting. (Ithaka Group) – Scott O'Gorman, Jr.

The Board Members CONTINUED the investment activities for the month of December 2018 until next month's Board Meeting. (Morning Asset Management) – Yolanda Foreman

Board Member Webb made the motion for the Service Pension applications to be approved. Board Member Lipscomb seconded.

The Board Members APPROVED the application of Thomas L. Bailey, an employee with the Police Department, for SERVICE PENSION at the rate of \$2,706.04 per month, effective December 27, 2018 under the provisions of Act 59-556, Section 6 of the pension law.

The Board Members APPROVED the application of Preston P. Cockrell, an employee with the Police Department, for SERVICE PENSION at the rate of \$2,628.15 per month, effective December 22, 2018 under the provisions of Act 59-556, Section 6 of the pension law.

The Board Members APPROVED the application of James Coleman, an employee with the Fire Department, for SERVICE PENSION at the rate of \$3,042.30 per month (DROP Amount \$118,390.46, DROP Date 12/28/2015), effective December 29, 2018 under the provisions of Act 59-556, Section 6 of the pension law.

The Board Members APPROVED the application of Daniel Cook, Jr. an employee with the Police Department, for SERVICE PENSION at the rate of \$2,414.96 per month (DROP Amount \$93,977.66, DROP Date 01/08/2016), effective January 9, 2019 under the provisions of Act 59-556, Section 6 of the pension law.

The Board Members APPROVED the application of Tyrone Fornest, an employee with the Fire Department, for SERVICE PENSION at the rate of \$3,782.15 per month (DROP Amount \$147,181.77, DROP Date 12/28/2015), effective December 29, 2018 under the provisions of Act 59-556, Section 6 of the pension law.

The Board Members APPROVED the application of Antonio M. Hampton, an employee with the Police Department, for SERVICE PENSION at the rate of \$2,482.91 per month, effective December 5, 2018 under the provisions of Act 59-556, Section 6 of the pension law.

The Board Members APPROVED the application of James E. Johnson, an employee with the Police Department, for SERVICE PENSION at the rate of \$2,507.70 per month, effective December 22, 2018 under the provisions of Act 59-556, Section 6 of the pension law.

The Board Members APPROVED the application of Victor W. Langford, an employee with the Police Department, for SERVICE PENSION at the rate of \$2,487.45 per month, effective January 3, 2019 under the provisions of Act 59-556, Section 6 of the pension law.

The Board Members APPROVED the application of Robert I. McNeal, an employee with the Fire Department, for **CORRECTED SERVICE PENSION at the rate of \$2,618.46 per month, effective November 20, 2018 under the provisions of Act 59-556, Section 6 of the pension law. **NOTE: Mr. McNeal was previously approved for SERVICE PENSION at the rate of \$2,612.50 per month, effective November 20, 2018 under the provisions of Act 59-556, Section 6 of the pension law at the Board Meeting on Wednesday, December 12, 2018.

The Board Members APPROVED the application of Theodore L. Smith, an employee with the Fire Department, for SERVICE PENSION at the rate of \$3,539.94 per month (DROP Amount \$137,756.03, DROP Date 01/17/2016), effective January 18, 2019 under the provisions of Act 59-556, Section 6 of the pension law.

The Board Members APPROVED the application of John R. Tanks, an employee with the Police Department, for SERVICE PENSION at the rate of \$3,133.06 per month, effective December 13, 2018 under the provisions of Act 59-556, Section 6 of the pension law.

The Board Members APPROVED the application of Cameroun K. Tremble, an employee with the Police Department, for SERVICE PENSION at the rate of \$2,704.31 per month, effective December 15, 2018 under the provisions of Act 59-556, Section 6 of the pension law.

The Board Members APPROVED the application of Ronald M. White, an employee with the Fire Department, for SERVICE PENSION at the rate of \$2,506.74 per month (DROP Amount \$97,549.45, DROP Date 01/17/2016), effective January 18, 2019 under the provisions of Act 59-556, Section 6 of the pension law.

There was an appearance by Mr. Greg Burchell of Morgan Stanley. Mr. Burchell referenced the Projects List, and stated the asset allocation study will be updated. Mr. Burchell stated he is getting close to recommending an alternative investment for this quarter. The Investment Policy was completed for Board Members' review. The Annual Managers' Conference is tentatively set for May 8, 2019, the same date as the pension board meeting for Board Members' convenience.

Mr. Burchell referenced the Actuarial Project of Cashflow handout, and stated it needs to be updated. Mr. Burchell stated he believes the City will be making the required contribution for the firefighters and police officers this year. Mr. Burchell stated he will be getting with Mr. Aaron Saxton, Deputy Director of Finance, to see if the expectation is going forward. If so, it could change the dynamic of the cashflow little bit. Mr. Burchell stated he needs to get the updated information from the actuary.

Mr. Burchell referenced the handout, and stated the Board Members discussed extensively about cashflow going out of the Supplemental Pension System. The expected cashflow will become positive within the next the seven – ten years. The firefighters and police officers hired twenty – twenty-five years ago are retiring. As they retire, the cashflow will remain negative for a while but it will not be as bad after this coming year.

Board Member Webb referenced the cashflow handout, and stated the cashflow projection is the worst for 2019; \$5 million dollars will be going out of the Supplemental Pension System. Mr. Burchell stated that is correct.

Chairperson Abbott referenced the handout, and stated the City is hiring several people the projection will happen again. Mr. Burchell stated the cashflow will occur within the next twenty – twenty-five years.

Board Member Webb asked Chairperson Abbott if City is hiring more people. Chairperson Abbott stated the City is hiring more police officers than firefighters.

Board Member Webb stated the current hiring will help the City's contributions and employee contributions to the Supplemental Pension System; it will also help out with the cashflow. Mr. Burchell stated the current hiring will help out on the back end.

Board Member Webb stated the current hiring of police officers and firefighters are not reflected in the projections as shown in the handout. Mr. Burchell stated there are some basis assumptions that are made variables. The actuary does an experience review every four or five years; evaluating what is actually happening vs. what they are projecting to happen. The actuary will adjust those assumptions; impacting what the projected benefit calculations will be.

Mr. Burchell stated he wanted to bring this to the Board Members' attention because he and the Board Members have several discussions about how much money is coming out of the Supplemental Pension System. However, there is light at the end of the tunnel within the next ten years.

Chairperson Abbott stated for clarity the turnaround will turn around in 2028. Mr. Burchell stated the projections are based on the most current information that Morgan Stanley has, however they need to get actuary to rerun the numbers based on the projected contributions. Fifteen years ago, the Supplemental Pension System was actually cash positive but it turned around and went another way for a while until the pension fund worked through all those retirees.

Board Member Webb stated for clarity the assumption the Supplemental Pension will have more inflow when the projected outflow is fairly accurate. Mr. Burchell stated that is correct. In fact, the Supplemental Pension System will get to a point of not having to raise cash to fund pension payments; it is going to be a few years out but that is the hope. In December 2018, \$1 million dollars was liquidated to fund pension payments. Mr. Burchell stated he will address liquation of funds in February 2018.

Mr. Burchell stated there was a lot activity in the market since last month's Board Meeting. Mr. Burchell referenced the Wealth Management handout, and stated the market had a sharp decline in the fourth quarter dating back to 2014. The market hit a 200-week moving arrow which shows some support there and bounced off it, but a lot of it had to do with what is going on the trade world in China. The US pulled back approximately 2.5% in a single day last week, which is pretty daunting. However, it reversed last Friday when nonfarm payrolls came out really strong; an upbeat for the economy. US Federal Reserve Chairman Jeremy Powell stated in the news media that he is probably going to pause on the rate hike. Mr. Burchell stated that is good for the markets, but Morgan Stanley's Chief Equity Strategist Mr. Mike Wilson felt like it was a little overdone to sell off; it was later proven to be true.

Chairperson Abbott asked Mr. Burchell to explain what is "overdone". Mr. Burchell stated he is referring to the selloff in the markets. Board Member Webb stated for clarity that the market overreacted.

Chairperson Abbott stated who can blame them. The US has a "lunatic" in office and there may be more, but she finds it very frustrating. Board Member Webb stated the market ought to come back a little based on the fact it overreacted.

Mr. Burchell stated Board Member Webb is correct. Mr. Wilson felt like the market was proxying in on much lower earnings' reductions and profitability. Mr. Burchell referenced the handout, and stated inflation is being held in check. Personal consumption is actually down. The US is not seeing massive amounts of inflation, which is one of big things the Federal Reserve Board looks for when controlling the economy.

Mr. Burchell referenced the handout, and stated the S&P PE Ratio (Price to Earning) or Price per Square Foot came down to where it was seen below almost 14.1% in earnings, i.e. well below than what the average is. If a company earns \$1 dollar, the typical stock will trade around \$14.00. In early 2018, stocks were trading \$18.00 - \$22.00 a share. When adding all the earnings for S&P 500 companies, the total would be approximately \$155.00 based on that market multiple or price per square foot. Morgan Stanley's economists do not think it is going to be that low because they are calling for the S&P to have approximately \$176.00 in earnings; a 10% or 11% move at a fifteen multiple would be an upside for the market. In the fixed income bond market, the Federal Reserve Board might make a policy mistake if they increase their interest rates too much. Bond Yields went down dramatically, and Bond Prices went up. The actual evaluations of bonds in the Supplemental Pension System went higher, but the yields are close to one another; a three-to four-year corporate bond relative to the US dividend-yield is much more attractive.

Mr. Burchell referenced the handout, and discussed the hypothetical portfolios that Morgan Stanley tracks regarding volatility. Morgan Stanley likes global equities, US value, middle of the road between small and large, good companies with solid earnings (not some of these companies that do not have earnings), and more defensive. In terms of managers, Morgan Stanley likes active managers over behind the benchmark managers. Morgan Stanley was to have an unhedged strategy because it will help the dollar when it weakens; help out in the US dollar denominate in foreign investments. In fixed income, Morgan Stanley looks for income and rates as oppose to credit quality; they like the short duration. In terms of taxable and non-taxable, Morgan Stanley will maintain a more taxable position but there may be some opportunities in the non-taxable market. Morgan Stanley prefers investment grade over high yield; slightly liking to international fixed income; and likes emerging markets. In alternatives, Morgan Stanley likes higher volatility and higher alpha. For private investments, Morgan Stanley has a neutral reign in real estate and some selective exposure to private credit and private equity.

Mr. Burchell asked the Board Members to "hang on and buckle up" because Morgan Stanley thinks the US will see an earnings recession; not a recession in the economy necessarily but earnings will collapse a little bit within the next two quarters. A part of this belief is what was priced in the market, but over the length of the full calendar year Morgan Stanley thinks the positive earnings growth will be 6% or 7% which will be followed up by stock prices.

Board Member Webb referenced two handouts for comparisons, and stated for clarity fixed income has 21% but it is 25.4% because cash is being moved around, and 20% is the minimum. Mr. Burchell stated fixed income is 15%, but the Board Members can go as low as 12.5% legally according to the Investment Policy.

Board Member Webb stated for clarity given the concerns with fixed income the Board Members will be planning to evaluate that as they go into the next two quarters. Mr. Burchell stated that is correct.

Board Member Webb stated Mr. Burchell mentioned emerging markets earlier. The Supplemental Pension System has 28% in Lazard, and 71% in equities. Mr. Burchell stated the Board Members previously approved a rebound late last year; taking some money from growth and put it towards value. Cooke & Bieler has approximately 19% vs. the Ithaka Group at 12%. The allocation was lowered to small- and mid-cap, which are Morningside and Great Lakes Advisors. The allocation was raised for international.

Board Member Webb asked Mr. Burchell to explain alternatives' relation to low inflation and high inflation. Mr. Burchell stated an energy manager, like Energy Opportunities Capital Management LLC, buys energy-related stocks or oil-related stocks; it is more of a sector allocation. This particular sector allocation is a good place to be going forward, as it was painful during the last year. Oil prices had collapsed, but came back up again within the last two months. The real estate income fund should take up that capacity; a benefit for Energy Opportunities. Several banks provided for corporate real estate; offering a place to raise capital to finance commercial real estate. Opportunities has done really well; one of the Supplemental Pension System's best segments in 2018. Mesirow Financial is considered the pension fund's lower volatility, but they were liquidated. Mr. Burchell stated he will bring recommendations, probably more in private real estate; selected private equity; and private credit. It is going to be challenging because low volatility is not going to be an additive to the return of 7% - 7.5% above the actuarial rate; thus the reason Morgan Stanley is staying away from that. The things that are not additive will give up some diversification opportunity; otherwise the focus will be more on private real estate and private credit.

Mr. Burchell stated again the Asset Allocation Study will be updated and ready for Board Members' review at next month's Board Meeting; hopefully he will follow it up with a recommendation to add to alternatives. The challenge is finding the right fit for the size of the Supplemental Pension System; it is little bit limited. However, the Supplemental Pension System is a really good allocation in Blackstone. Mr. Burchell stated he will discuss the money managers' performance at next month's Board Meeting also; the look is pretty painful. Board Member Webb stated December 2018 was brutal.

Mr. Burchell stated December 2018 was a pretty tough time. Board Member Webb stated it is time to buy. Mr. Burchell stated that is correct. The Supplemental Pension System has money managers who are doing that; rebalancing their portfolio internally.

Board Member Webb made the motion to approve the Investment Analysis, as presented by Mr. Greg Burchell of Morgan Stanley. Chairperson Abbott seconded.

The Board Members APPROVED the Investment Analysis, as presented by Mr. Greg Burchell of Morgan Stanley.

Board Member Webb made the motion to adjourn. Chairperson Abbott seconded.

There being no further discussion, the Board Members APPROVED to be adjourned.

ATTEST:

Lorren Oliver Secretary Robert Webb Chair Pro – Tem



February 13, 2019

City of Birmingham Firefighters & Police Officers Supplemental Pension System

Project 1:

Morgan Stanley's Global Investment Committee believes that we are in a multi-year rate normalization period, with low expected bond total returns. We also expect increased volatility from equities yet with lower returns. To deal with these issues we will update the asset allocation study with the new actuarial projections, once received, reflecting the projected liability withdrawal schedule as a result of the change in projected benefits and increased contributions. — IN PROGRESS, Asset Allocation study to be presented in March

Results: Legislation has passed to lower the fixed income minimum threshold to 12.5%.

Recommendation:

- Diversify alternative investments by introducing additional asset classes, including Private Market investments.
 - 2/14/18: The R&R Board voted and approved private equity allocations to both Hamilton Lane and Grosvenor
 - o Morgan Stanley is to bring new manager ideas once due diligence is completed

Project 2:

Discussion: Investment Manager Conference

- The purpose of the conference is to discuss investment strategy and outlook from system asset managers. Open to the City of Birmingham Pension trustees and the public system members. Suggested date is May 8th.
- Educational meeting May 7th at 6:00 pm

Watch List: Piedmont, on Watch, June 13, 2018 – Due to manager transition. Invited to a future meeting

		Net Asset Values				
Cash Flow	Cash Disbursement	\$1,002,486	3%			
Penn Capital	Short Term High Yield	\$2,246,499	6%			
Regions	Core Fixed Income	\$563,915	2%			
Orleans	Core Fixed Income	\$1,921,202	5%			
Piedmont	Core Fixed Income	\$1,366,561	4%			
Total Fixed Income		\$7,100,663	\$7,100,663 20% *			
Cooke & Bieler	Large Value	\$6,882,408		19%		
Ithaka Group	Large Growth	\$4,663,114	13%			
Morningside	Small Cap Value	\$1,552,463	4%			
Great Lakes Advisors	Small/Mid	\$2,914,452	8%			
Lazard	Intl / EM	\$10,486,787	29%			
Total Equity	,	\$26,499,223		73%		
Enormy One	6	4750.044				
Energy Opp Blackstone	Specialty Real Estate Income Fund	\$750,941	**	2%		
Mesirow (Liquidated)		\$1,893,655	***	5%		
Total Alternatives	FOHF (in cash)	\$55,435	***	0%		
rotal Alternatives		\$2,700,031		7%		
TOTAL FUND BALANCE		\$36,299,917		100%		
TOTAL FISCAL YTD WITHDRAWALS	Pension and DROP Payments	(\$3,891,463) Date (\$8,391,463,00) 2018 Cale		cal Year to Date		
				8 Calendar YTD		
		(\$4,768,436)	201	7 Calendar Year		

Morgan Stanley

The above summary/prices/statistics have been obtained from Regions Financial, custodian of the assets, and are believed reliable but cannot be guaranteed.

^{*} Note: Total fixed income allocation, including cash held in equity mandates is 23.0%

^{**} Values as of 11/30/2018

^{***} Funds are currently in cash. 5% is to remain at Mesirow Financial through next audit

Fire & Police Supplemental Expected Acturial Fiscal Year Cashflow vs Actual

Plan Year	Expected	Expected Total	Expected				Annual Rate
Beginning	Benefit	Contributions -	Administrative	Expected	Actual Fiscal	Difference	of Withdrawal
<u>July 1</u>	Payments	10.44% of Payroll	<u>Expenses</u>	<u>Ca</u> shflow	YTD*	Fiscal YTD	(%)
2014	11,157,374	7,392,946	67,494	-3,831,922	-\$2,986,990	\$844,932	5.49%
2015	11,943,335	7,361,852	67,494	-4,648,977	-\$4,907,977	-\$259.000	9.68%
2016	12,594,500	7,545,899	69,181	-5,117,782	-\$6,398,463	-\$1,280,681	14.48%
2017	11,952,360	7,734,546	70,911	-4,288,725	-\$6,955,000	-\$2,666,275	15.97%
2018	12,558,580	7,927,910	72,684	-4,703,354	-\$3,891,463	\$811,891	9.78%
2019	13,455,328	8,126,108	74,501	-5,403,721		•	
2020	11,415,173	8,329,260	76,363	-3,162,276			
2021	12,205,615	8,537,492	78,272	-3,746,395			
2022	10,939,107	8,750,929	80,229	-2,268,407			
2023	10,935,235	8,969,702	82,235	-2,047,768			
2024	11,435,986	9,193,945	84,291	-2,326,332			
2025	11,185,315	9,423,793	86,398	-1,847,920			
2026	10,393,507	9,659,388	88,558	-822,677			
2027	10,877,433	9,900,873	90,772	-1,067,332			
2028	9,838,888	10,148,395	93,041	216,466			
2029	10,014,461	10,402,105	95,367	292,277			
2030	10,239,107	10,662,157	97,751	325,299			
2031	11,395,710	10,928,711	100,195	-567,194			
2032	10,850,809	11,201,929	102,700	248,420			
2033	11,484,765	11,481,977	105,268	-108,056			
2034	12,495,100	11,769,027	107,899	-833,972			
2035	11,938,237	12,063,252	110,597	14,418			

^{*}Actual FYTD withdrawals as of January 31, 2019

Note: These projections are based on the July 1, 2015 actuarial valuations for the Plans, and have not been adjusted to account for actual cash flows in the 2015-2016 year.

The contributions for both plans include expected contribution transfers from F&P to R&R for F&P retirees.

The above summary/prices/statistics have been obtained from sources believed reliable but are not necessarily complete and cannot be guaranteed. Past performance is no guarantee of future results.