



DENVER
THE MILE HIGH CITY

City and County of Denver

Investment Portfolio Performance Report

Quarter Ended

09/30/2022

Prepared By:

Cash & Capital
Funding Division

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I. Economic Commentary

Market volatility intensified in the 3rd quarter of 2022. Financial conditions tightened as global central banks continued with more restrictive monetary policy to combat persistent inflation and to maintain financial market stability. Corporate earnings mostly exceeded Wall Street expectations, but caution remained as evidence of slower economic conditions began to mount. In September, yields increased significantly. The 2-year treasury increased 79 basis points to 4.28%, the 5-year rose 74 basis points to 4.09% and the 10-year gained 64 basis points to 3.83%.

The Federal Open Market Committee (FOMC) increased short term rates to the target range of 3.00% to 3.25%, delivering its third 75-basis point increase. Fed Chair Powell continued to message that the Federal Reserve is committed to its 2% long-term inflation target. Most market participants expect the Federal Reserve to increase the federal funds rate in the near term until economic data consistently points to weakening inflationary pressures.

Inflation remained near its 40-year peak. The Consumer Price Index (CPI) was up 8.2% year-over-year in September, down slightly from 8.3% in August. Core CPI (CPI less food and energy) jumped to 6.6% year-over-year in the same period. Shelter, food, and medical care services were primary contributors. Core PCE was up 4.9% year-over-year in August, up slightly from 4.7% in July.

Nonfarm payrolls increased 263,000 in September. Trends in employment remain strong, with the three-month moving average payroll at 372,000. The monthly unemployment rate increased slightly to 3.7% for the month of September. The U-6, a broader measure of unemployment fell to 6.7% from 7.0% in the same period. Wage growth eased in September, with average hourly earnings rising 5.0% down from 5.2% in a year-over-year gain in August.

Manufacturing data weakened with the ISM Index decreasing to 50.9 in September, the lowest since May 2020. The index remaining above 50 suggests the manufacturing sector continues to expand, but at a slower pace. The housing sector saw mortgage rates accelerate higher. A 30-year fixed rate mortgage loan increased to 6.94%, the highest since 2006. Home price increases receded from 18.7% in June to 16.1% in July. Total housing starts declined 7.7% reflecting a shift from single family units to more affordable multi-family units. Single-family starts fell by 4.7%. Rising mortgage rates and affordability remain a headwind for the housing sector.

Exposure to credit securities in the portfolios increased in the third quarter. Credit spreads widened while treasury yields increased during the quarter. The City's investment portfolio outperformed the stated benchmark indices by 0.49% year to date on a total return basis.

Portfolios	Market Value
Managed Portfolios	\$6,532,333,082
Special Purpose Portfolios	\$3,311,737
Denver CRRSAA Escrow Account	\$48,796,625
Denver ARPA Escrow Account	\$204,906,139
Finance Administrated	\$6,789,347,583



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II. Consolidated Portfolio

\$6,018,785,828

Total Return			
	1-Month	3-Month	YTD
Total Return	-1.26%	-1.36%	-4.27%
Blended Benchmark (TR)	-1.36%	-1.48%	-4.75%
Excess Return	0.10%	0.12%	0.48%

Current Return			
	1-Month	3-Month	YTD
Current Return	1.60%	1.72%	1.64%
Blended Benchmark (CR)	3.32%	2.92%	2.06%
Excess Return	-1.72%	-1.20%	-0.42%

Year-to-Date earnings on a current return basis for the Consolidated Portfolio were \$75,007,079.

The 1-5 Year Strategy Blended Benchmark consists of 67.50% Intercontinental Exchange (ICE) BofAML 1-5 Year US Treasury & Agency Index, 17.50% ICE BofAML 1-5 Year AAA-A US Corporate Index, 7.50% ICE BofAML AAA US Asset Backed Securities, 5.00% ICE BofAML 0-3 Year US Agency CMOs and 2.50% ICE BofAML 3-5 Year US Mortgage Backed Securities Index. Prior to 1/1/2016 the benchmark was the BofA Merrill Lynch 1-5 Year US Treasury & Agency Index.

The 1-10 Year Strategy Blended Benchmark consists of 65.00% ICE BofAML 1-10 Year US Treasury & Agency Index, 15.00% ICE BofAML 1-5 Year AAA-A US Corporate Index, 5.00% ICE BofAML AAA US Asset Backed Securities, 7.50% ICE BofAML 0-10 Year US Agency CMOs and 7.50% ICE BofAML 0-10 Year US Mortgage Backed Securities Index. Prior to 1/1/2016 the benchmark was the BofA Merrill Lynch 1-10 Year US Treasury & Agency Index.

Factors Affecting Performance & Management Strategies

- Chandler's proprietary Horizon Model that the City uses with the intent to meet or outperform the benchmarks over time (the Intercontinental Exchange (ICE) BofAML Treasury/Agency 1-5 year index and the ICE BofAML Treasury/Agency 1-10 year index) is revised on a regular basis, reflecting the volatility of both bond market interest rates and interest rate curve movements. The City evaluates the portfolios each time a new Horizon Model is received. The key variables subject to potential revision as a result of Horizon Model changes include duration, composition, and structure.
- The portfolios were modestly short benchmark duration in both the 1-5 year strategy and the 1-10 year strategy. We expect duration to move closer to the benchmark as additional allocation of longer duration securities are added to the portfolio. Safety of principal is paramount in investing the City's funds.
- Corporate Bonds, Collateralized Mortgage Obligations, Mortgage-Backed Securities, and Asset-Backed Securities are asset classes approved by voters for implementation in 2014 by an amendment to the City Charter. Purchases of the new asset classes increased as a percentage of total composition due to asset purchases outpaced maturities. Purchases in the voter approved asset classes increased during the quarter due to increased issuance by approved credit issuers.
- The Consolidated Portfolio benchmarking indices are comprised of five ICE BofAML indices, creating a static weighted blended benchmark. A total of two blended benchmarks are used for the 1-5 year and 1-10 year strategies to closely reflect the portfolio duration and asset allocation constraints.



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Consolidated Portfolio Composition

Characteristics		Credit Quality (S&P)
Average Duration	2.05	
Average Coupon	2.26%	
Average Yield to Maturity	3.73%	
Average Rating (S&P)	AA+	
Average Life	2.19 yrs	

Asset Allocation	Maturity Distribution

- The Consolidated Portfolio's net assets increased by approximately \$755 million during the third quarter of 2022. On September 30th, 2022, net assets were \$6.02 billion, compared to \$5.26 billion on June 30th, 2022, as inflows exceeded outflows, and Denver International Airport had a debt issuance and bond refunding.
- The weighted average maturity (WAM), an aggregate portfolio measure of total years remaining until the maturity of all underlying holdings, ended higher in the third quarter. The WAM increased due to increased exposure to longer term assets. While modestly short to benchmark duration, rebalancing and securities purchase activity in the intermediate strategies extended duration more closely with the model and benchmark. The model continues to remain modestly short of benchmark duration.



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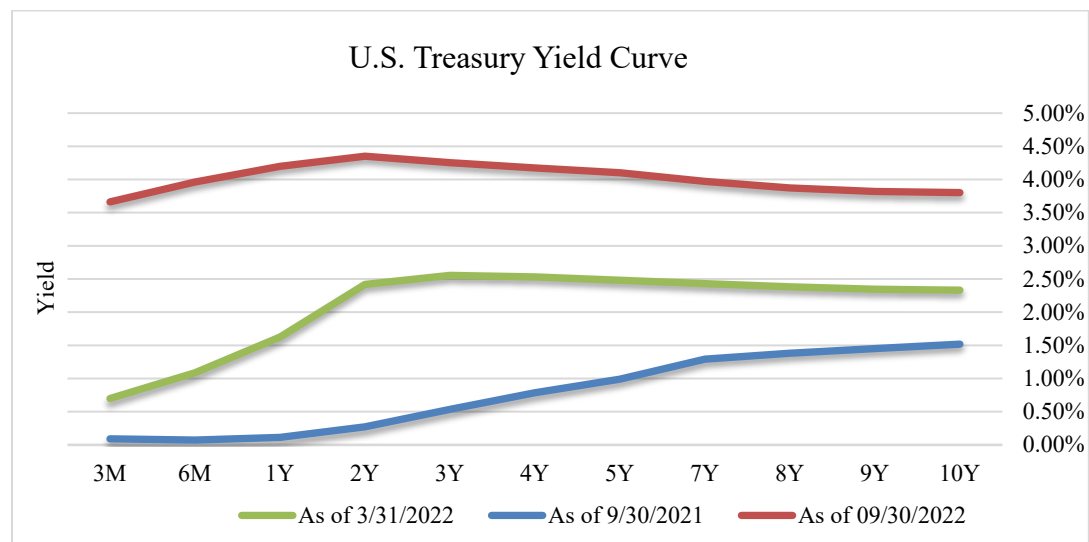
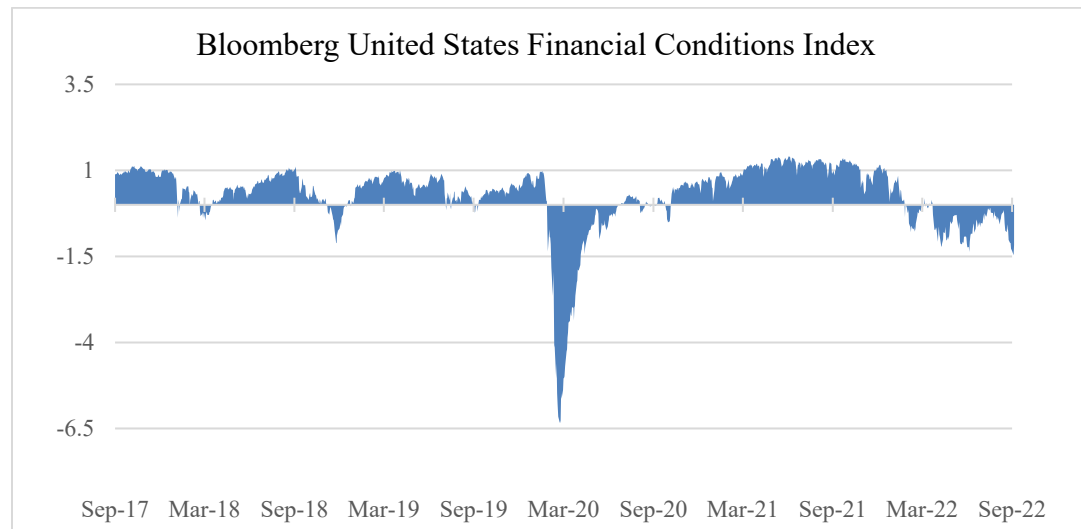
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Portfolio Management Environment



- The Federal Reserve increased the Fed funds rate to a range of 3.00%-3.25% at the end of the third quarter of 2022. The Fed signaled that they will continue to increase rates in 2022.
- The United States SOFR rate was 2.98% as of September 30th, 2022; an increase of 148 basis points from June 30th, 2022.
- As of September 30th, 2022, the yield of the two-year Treasury index was 4.28%, and the five-year Treasury index was yielding 4.09%. A year earlier, as of September 30th 2021, the yield of the two-year Treasury index was 0.27%, and the five-year Treasury index was yielding 0.96%.
- The median of economists' forecast is for a 3.31% ten-year Treasury yield at the end of the year 2022.
- Volatility in rates of the yield curve increased for both short-term and long-term yields. At the end of the third quarter, the two-year, five-year, and ten-year were at 4.28%, 4.09%, and 3.83%, respectively.

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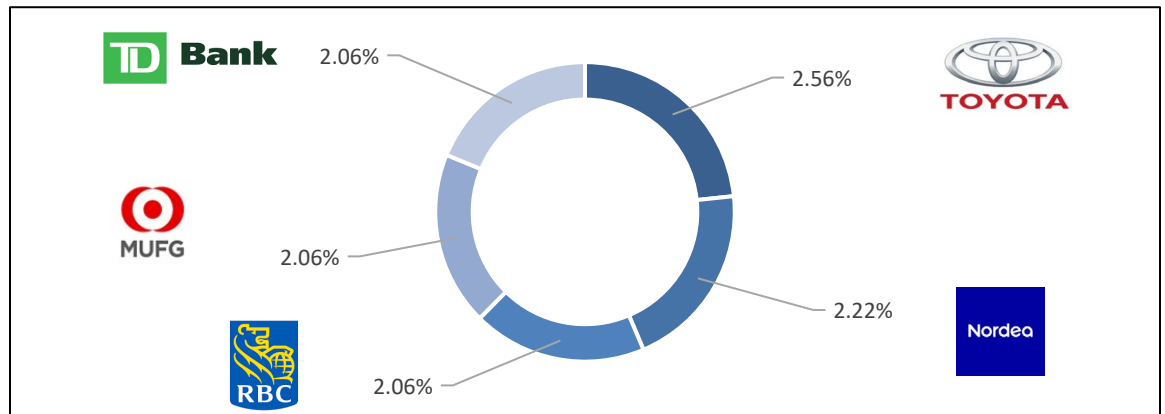
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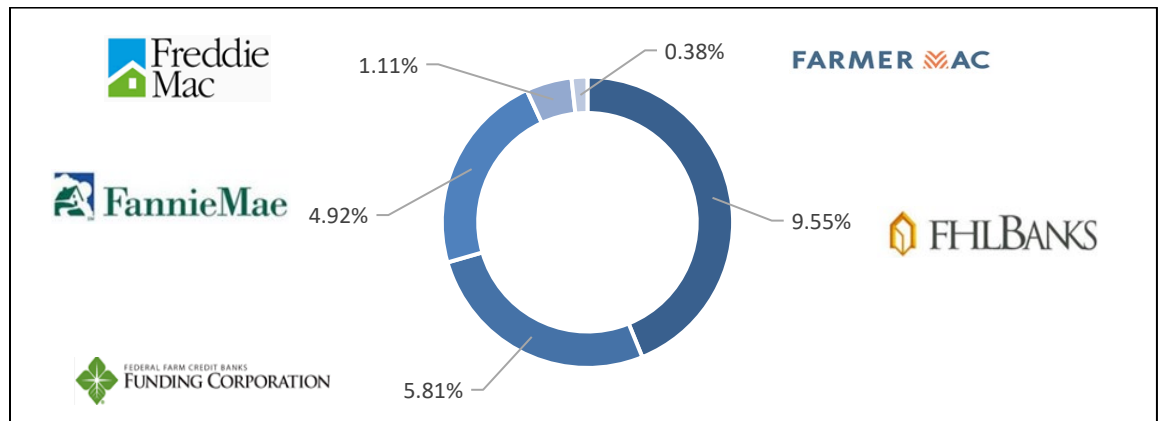
Consolidated Top Holdings

Top 5 Credit Holdings			
Issuer	Market Value	% Of Portfolio	Industry
Toyota Motor Credit Corp	154,756,799	2.56%	Automobiles
Nordea Bank	134,635,106	2.22%	Financials
Royal Bank of Canada NY	124,796,569	2.06%	Financials
MUFG Bank Ltd/NY	124,736,000	2.06%	Financials
Toronto Dominion	124,647,896	2.06%	Financials
Total	\$663,572,370	10.96%	

*Credit holdings include commercial paper, asset-backed securities, and corporate bonds.



Top 5 Agency Holdings		
Issuer	Market Value	% of Portfolio
FHLB	577,949,009	9.55%
FFCB	351,849,254	5.81%
FNMA	297,792,084	4.92%
FHLMC	67,236,215	1.11%
FAMCA	23,149,660	0.38%
Total	\$1,317,976,222	21.77%





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III. Airport Reserve Portfolio

\$476,665,206

Total Return			
	1-Month	3-Month	YTD
Total Return	-2.50%	-2.96%	-8.03%
Blended Benchmark (TR)	-2.70%	-3.19%	-8.74%
Excess Return	0.20%	0.23%	0.71%

Current Return			
	1-Month	3-Month	YTD
Current Return	2.17%	2.02%	1.97%
Blended Benchmark (CR)	3.62%	3.31%	2.56%
Excess Return	-1.45%	-1.29%	-0.59%

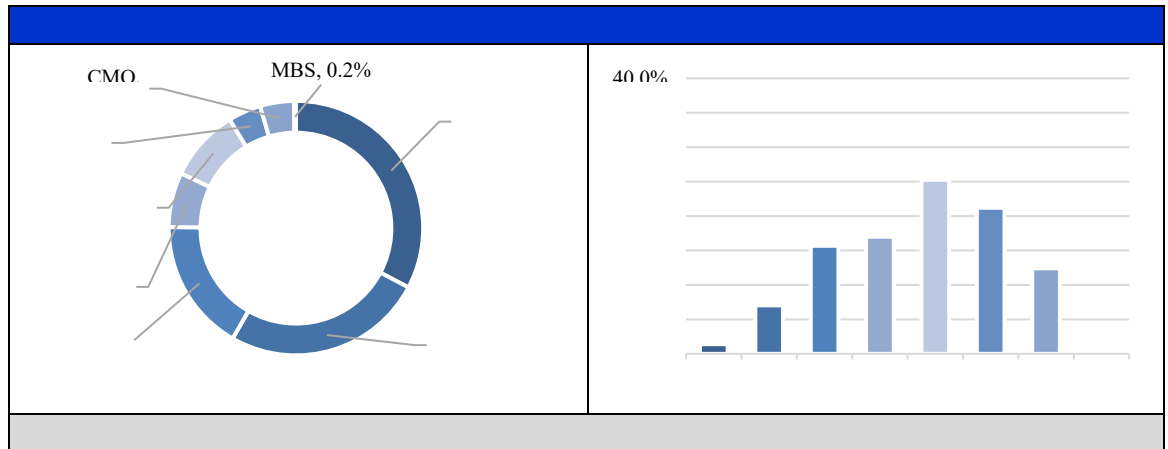
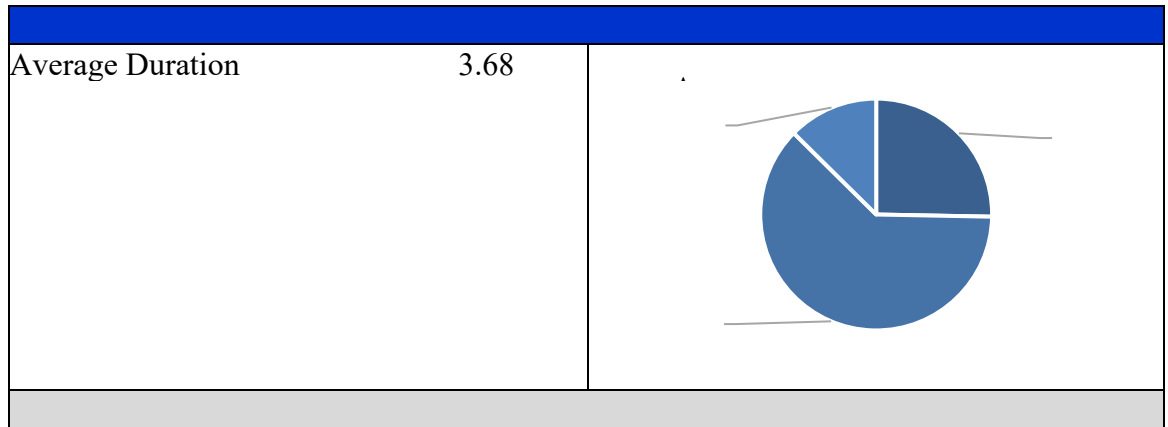
Year-to-Date earnings on a current return basis for the Reserve Portfolio were \$6,242,318.

The 1-5 Year Strategy Blended Benchmark consists of 67.50% ICE BofAML 1-5 Year US Treasury & Agency Index, 17.50% ICE BofAML 1-5 Year AAA-A US Corporate Index, 7.50% ICE BofAML AAA US Asset Backed Securities, 5.00% ICE BofAML 0-3 Year US Agency CMOs and 2.50% ICE BofAML 3-5 Year US Mortgage Backed Securities Index. Prior to 1/1/2016 the benchmark was the BofA Merrill Lynch 1-5 Year US Treasury & Agency Index.

The 1-10 Year Strategy Blended Benchmark consists of 65.00% ICE BofAML 1-10 Year US Treasury & Agency Index, 15.00% ICE BofAML 1-5 Year AAA-A US Corporate Index, 5.00% ICE BofAML AAA US Asset Backed Securities, 7.50% ICE BofAML 0-10 Year US Agency CMOs and 7.50% ICE BofAML 0-10 Year US Mortgage Backed Securities Index. Prior to 1/1/2016 the benchmark was the BofA Merrill Lynch 1-10 Year US Treasury & Agency Index.

- The Airport Bond Reserve portfolio has a maximum maturity constraint of 10 years. On an ongoing basis, liquidity is generated from income received from the portfolio holdings, as well as from periodic bond calls of Agency securities. All income received during the year is transferred out of this portfolio into the Airport Operating funds contained in the Consolidated Portfolio (subject to ongoing adjustments to the required portfolio balance stated in the bond indenture).
- The Airport Reserve Portfolio benchmarking indices are comprised of five ICE BofAML indices, creating a static weighted blended benchmark. A total of one blended benchmark is utilized for the 1-10 year strategy to closely reflect the portfolio duration and asset allocation constraints.

Airport Reserve Portfolio Composition





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IV. Workers Compensation Portfolio Composition

\$36,882,048

Characteristics		Credit Quality (S&P)
Average Duration	3.54	
Average Coupon	2.85%	
Average Yield to Maturity	4.48%	
Average Rating (S&P)	AA+	
Average Life	4.35yrs	

Asset Allocation	Maturity Distribution

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- WC liabilities have a much longer term expected average duration than most other funds managed by the City. For this reason, management has determined that it is prudent to extend the duration of the invested assets associated with these obligations.
- A combination of cash and securities were transferred from the Consolidated Portfolio to the newly established WC portfolio in August 2009. An allocation to cash equivalents appropriate to fund the liquidity needs of the unit was set aside (and is monitored and adjusted monthly), and the balance of the funds were invested in treasury, corporate, agency, municipal, and structured fixed income securities. The annualized current return for the third quarter of 2022 was 2.60%.
- Year-to-Date earnings on a current return basis for the Worker's Compensation were \$723,619.



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V. Special Purpose Portfolios

\$3,311,737

In addition to the actively managed investments, the Cash & Capital Funding Division manages one additional portfolio. The Denver Cableland Trust portfolio was established to fund the annual maintenance expenses for Cableland, a facility donated to the City. The portfolio is authorized by the Investment Policy to contain longer term securities and higher per issuer constraints within the Consolidated and Reserve portfolios. Most of the investments in these portfolios were purchased in market environments that featured much higher interest rates than those currently available. The investment income and principal of the portfolio is pledged for specific purposes.

	Market Value	2022 Current Return	2022 Earnings
Denver Cableland Trust	\$3,311,737	3.46%	\$96,391

Escrows

Cash & Capital Funding Division also manages certain investments held in escrow accounts at external financial institutions on behalf of Denver International Airport. As of September 30th, 2022, there was an outstanding balance of \$253,702,764 between two escrow accounts.

Investment Policy

The City operates under a written Investment Policy, a copy of which can be obtained on the City's website (www.denvergov.org) or by contacting the Cash & Capital Funding Division at 720-913-3091.

Caroline Hendrickson
Director of Cash & Investments

Gregory T. King
Portfolio Administrator

STATEMENT OF REVIEW OF PORTFOLIO PERFORMANCE

Chandler Asset Management, a Registered Investment Advisor with the Securities and Exchange Commission and noticed filed in the State of Colorado, as Independent Consultant to the City and County of Denver, periodically reviews the City's Investment portfolio and represents the following:

1. The investments, as of September 30, 2022, are authorized by the Denver City Charter and are in compliance with the City's Investment Policy;
2. Upon review of the City's Investment Portfolio Performance Report and relying on the independent market pricing provided by Interactive Data Corporation, the City's securities appear to be priced accurately. Chandler Asset Management has performed no independent verification of the securities pricing provided herein; and
3. Investment performance as reported in the City's attached Investment Portfolio Performance Report, for the period ending September 30, 2022, appears to be accurately reflected.

Signed this 15th day of December 2022



Rhea Gutierrez
Senior Compliance Officer