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August 2, 2024

**Via E-Mail: [scrow@mfrf.com](mailto:scrow@mfrf.com)**

Board of Trustees  
Midland Firemen's Relief and Retirement Fund  
c/o Ms. Shera Crow, Administrator  
P.O. Box 4296  
Midland, TX 79709

Re: Special Studies

Members of the Board of Trustees:

As a result of the July 17, 2024 Actuarial Committee meeting, we have studied the individual effects on the fund's December 31, 2023 actuarial valuation of each of the potential changes in benefit provisions described below. **The combined effect would be somewhat less than the sum of the effects individually.**

Description of the Changes:

1. Change the normal form of retirement benefits from joint and 75% to the surviving spouse to a life only annuity. The plan would offer actuarially equivalent options to protect the spouse, e.g., joint and 100%, joint and 75%, and joint and 50%. These optional forms would reduce the monthly benefit to the retiring member electing one of the options. For example, the joint and 75% option would reduce the monthly benefit by 6.5% so that it would be 93.5% as much as the standard life only form.
2. Change the optional DROP plan benefits with this package of changes
  - a. Increase by two years the minimum age and service requirements for all of the DROP plan benefits (from age 50/20 years to age 52/22 years and from 25 years at any age to 27 years). So the earliest age and service to get the maximum 36-month RETRO DROP lump sum would be age 55/25 years or 30 years of service.
  - b. Discontinue the crediting of interest in the determination of a DROP lump sum.
  - c. Exclude firefighter contributions from the determination of a DROP lump sum.
3. Discontinue the supplemental benefit of \$500 per month for those retiring after the plan change effective date at age 50 or above.
4. Change the benefit formula definition of final average salary from the highest 60-month average to the highest 84-month average (changing from a 5-year average to a 7-year average), both being consecutive number of months.

5. Change the benefit formula from 75% of final average salary for the first 20 years of service plus \$80 for each year of service above 20 years to a set of graded percents of final average salary that will reduce the benefit for the first 20 years and increase the benefit for years above 20 years (3.3% per year for the first 20 years, 2.0% per year for years 21-30, and 1.0% per year for years above 30).
6. Combination of above items 2-5.
7. Combination of above items 2-5 but with item 4 modified from an 84-month final average salary (7-year average) to a 72-month final average salary (6-year average).
8. Change the benefit formula by the “freeze and restart” method. The frozen benefit as of December 31, 2024 would be based on the service and 60-month average salary and benefit formula as of that date. The additional benefit for service after December 31, 2024 would be 3% of the average salary at retirement per year of service. The benefit at retirement would be the two pieces added together. For death and disability, we assumed that the 3% would be applicable for all service with 20 years minimum service (ie, the frozen benefit would not apply).

In the December 31, 2023 actuarial valuation, the shortfall expressed as an increase in the city contribution rate as of January 1, 2025 was 19.8% in order to have an amortization period of 25 years. For purposes of disclosing the individual effect of each of the potential changes, we are using the equivalent reduction in the 19.8% contribution rate shortfall.

Plan Changes	Effective Decrease in the 19.8% of Payroll Shortfall
1. Life only annuity normal form	1.7%
2. Package of DROP plan benefits changes	1.9
3. No extra \$500 monthly benefit	1.4
4. 84-month final average salary	1.3
5. Graded percents benefit formula	1.6
6. Combined effect of items 2-5	5.6
7. Combined effect 2-5 but w/ 72-mnth ave sal	5.1
8. “Freeze and restart” benefit formula	4.2

**Please note that the sum of amounts shown above are not exactly the effect of the changes in combination, as indicated by comparing the sum of items 2-5 with item 6 above. If the board would like alternate combinations of changes studied other than items 6 and 7 above, then we will follow up with those additional scenarios as directed by the board.**

We assumed that the effective date of each of the changes would be January 1, 2025. Just as the transition for the changes that were effective January 1, 2024 had a grandfathered group, we have assumed that the transition for the changes effective January 1, 2025 would protect the same group. So, the firefighters eligible for normal retirement as of December 31,

2023 or who will become eligible for normal retirement if they continue with the fire department until December 31, 2025 would not be affected by the January 1, 2025 changes in benefit provisions. There were 26 such firefighters in the December 31, 2023 actuarial valuation.

For items modifying the normal retirement benefit (Items 1, 4, and 5), all of the other active firefighters would have a frozen vested accrued benefit determined with the present plan provisions, based on the service and pay history as of December 31, 2024. It would be a minimum benefit and would have the current joint and 75% to surviving spouses form of benefit. At retirement, a member would get the greatest of (1) the minimum benefit as of December 31, 2024, (2) the frozen accrued minimum benefit as of December 31, 2023, and (3) the normal service retirement benefit under the new plan effective January 1, 2025.

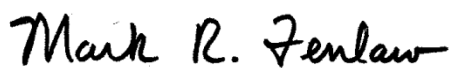
The definition of "vested accrued benefit" in Section 2(11) of TLFFRA specifically excludes optional forms of payment such as one of the DROP plans. So the package of DROP plan benefits changes would be effective for all except the 26 grandfathered active members. In addition, the definition of the \$500 supplemental retirement benefit in Section I of the present plan document excludes it from being part of a frozen vested benefit for an active firefighter.

We changed the assumed retirement rates for plan changes 2, 5, 8 and the combinations of 2 and 5. Appendix A compares the assumed rates for the plan as of January 1, 2024 to the assumed rates for the plan changes.

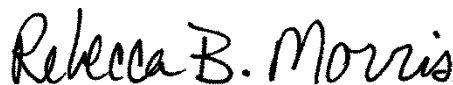
The "freeze and restart" benefit formula would have a significant reducing effect of 4.2% of payroll. Because it has a more varied effect on individual firefighters depending on their current service and service at retirement, we have attached Appendices B, C and D to compare the current formula to the proposed new benefit formulas described above as item 5 and 8. Appendix B compares the dollar amount of the benefit formulas for representative hypothetical employees with current years of service of 0,5,10,15 and 20 and with three ages at hire. Appendix C and D is designed to help better understand where the more significant differences between the three benefit formulas occur. All three appendices exclude the \$500 supplemental benefit.

Please let us know if you have any questions or would like to discuss these results further.

Sincerely,



Mark R. Fenlaw, F.S.A.



Rebecca B. Morris, A.S.A.

MRF/RBM:ph  
Enclosures

## Appendix A

### Midland Firemen's Relief and Retirement Fund

#### Assumed Rates of Retirement per Year for Firefighters Eligible to Retire

Age	January 1, 2024 Plan of Benefits	DROP Changes (Item 2)	New Benefit Formula (Items 5 and 8)	Combined (Items 2 and 5)
50	30%	25%	25%	15%
51	10	10	8	5
52	10	20	8	20
53	40	10	35	10
54	25	20	25	25
55	25	50	25	50
56-59	50	50	50	50
60	100	100	100	100
Average Age	53.6	53.8	53.9	54.2

This Appendix A is part of an August 2, 2024 report to the board of trustees.

# Appendix B

## Midland Firemen's Relief and Retirement Fund

### Examples of Projected Future Retirement Benefits\*

	Current Formula <u>75% + \$80</u>	Proposed Formula Item 5 <u>3.3% + 2.0% + 1.0%</u>	Proposed Formula Item 8 <u>Frozen 12/31/2024 Benefit + 3.0% for future yrs</u>
<b>Age at Hire 20, Current Age 20, Current Service 0</b>			
<u>Future Retirement</u>			
Age	50		
Service	30		
Ave Mnthly Salary	23,000		
Monthly Benefit	18,050	19,780	20,700
<u>Future Retirement</u>			
Age	52		
Service	32		
Ave Mnthly Salary	24,500		
Monthly Benefit	19,335	21,560	23,520
<b>Age at Hire 25, Current Age 25, Current Service 0</b>			
<u>Future Retirement</u>			
Age	50		
Service	25		
Ave Mnthly Salary	20,000		
Monthly Benefit	15,400	15,200	15,000
<u>Future Retirement</u>			
Age	52		
Service	27		
Ave Mnthly Salary	21,000		
Monthly Benefit	16,310	16,800	17,010
<b>Age at Hire 30, Current Age 30, Current Service 0</b>			
<u>Future Retirement</u>			
Age	50		
Service	20		
Ave Mnthly Salary	17,000		
Monthly Benefit	12,750	11,220	10,200
<u>Future Retirement</u>			
Age	52		
Service	22		
Ave Mnthly Salary	18,000		
Monthly Benefit	13,660	12,600	11,880

\*The above monthly benefits do not include the additional \$500 per month benefit.

# Appendix B

## Midland Firemen's Relief and Retirement Fund

### Examples of Projected Future Retirement Benefits\*

	Current Formula <u>75% + \$80</u>	Proposed Formula Item 5 <u>3.3% + 2.0% + 1.0%</u>	Proposed Formula Item 8 <u>Frozen 12/31/2024 Benefit + 3.0% for future yrs</u>
<b>Age at Hire 20, Current Age 25, Current Service 5</b>			
<u>Future Retirement</u>			
Age	50		
Service	30		
Ave Mnthly Salary	22,000		
Monthly Benefit	17,300	18,920	17,700
<u>Future Retirement</u>			
Age	52		
Service	32		
Ave Mnthly Salary	23,000		
Monthly Benefit	18,210	20,240	19,830
<b>Age at Hire 25, Current Age 30, Current Service 5</b>			
<u>Future Retirement</u>			
Age	50		
Service	25		
Ave Mnthly Salary	19,000		
Monthly Benefit	14,650	14,440	12,600
<u>Future Retirement</u>			
Age	52		
Service	27		
Ave Mnthly Salary	20,000		
Monthly Benefit	15,560	16,000	14,400
<b>Age at Hire 30, Current Age 35, Current Service 5</b>			
<u>Future Retirement</u>			
Age	50		
Service	20		
Ave Mnthly Salary	16,000		
Monthly Benefit	12,000	10,560	8,400
<u>Future Retirement</u>			
Age	52		
Service	22		
Ave Mnthly Salary	17,000		
Monthly Benefit	12,910	11,900	9,870

\*The above monthly benefits do not include the additional \$500 per month benefit.

# Appendix B

## Midland Firemen's Relief and Retirement Fund

### Examples of Projected Future Retirement Benefits\*

	Current Formula <u>75% + \$80</u>	Proposed Formula Item 5 <u>3.3% + 2.0% + 1.0%</u>	Proposed Formula Item 8 <u>Frozen 12/31/2024 Benefit + 3.0% for future yrs</u>
<b>Age at Hire 20, Current Age 30, Current Service 10</b>			
<u>Future Retirement</u>			
Age	50		
Service	30		
Ave Mnthly Salary	20,000		
Monthly Benefit	15,800	17,200	15,400
<u>Future Retirement</u>			
Age	52		
Service	32		
Ave Mnthly Salary	21,000		
Monthly Benefit	16,710	18,480	17,260
<b>Age at Hire 25, Current Age 35, Current Service 10</b>			
<u>Future Retirement</u>			
Age	50		
Service	25		
Ave Mnthly Salary	17,000		
Monthly Benefit	13,150	12,920	11,050
<u>Future Retirement</u>			
Age	52		
Service	27		
Ave Mnthly Salary	18,000		
Monthly Benefit	14,060	14,400	12,580
<b>Age at Hire 30, Current Age 40, Current Service 10</b>			
<u>Future Retirement</u>			
Age	50		
Service	20		
Ave Mnthly Salary	15,000		
Monthly Benefit	11,250	9,900	7,900
<u>Future Retirement</u>			
Age	52		
Service	22		
Ave Mnthly Salary	16,000		
Monthly Benefit	12,160	11,200	9,160

\*The above monthly benefits do not include the additional \$500 per month benefit.

# Appendix B

## Midland Firemen's Relief and Retirement Fund

### Examples of Projected Future Retirement Benefits\*

	Current Formula <u>75% + \$80</u>	Proposed Formula Item 5 <u>3.3% + 2.0% + 1.0%</u>	Proposed Formula Item 8 <u>Frozen 12/31/2024 Benefit + 3.0% for future yrs</u>
<b>Age at Hire 20, Current Age 35, Current Service 15</b>			
<u>Future Retirement</u>			
Age	50		
Service	30		
Ave Mnthly Salary	16,000		
Monthly Benefit	12,800	13,760	13,000
<u>Future Retirement</u>			
Age	52		
Service	32		
Ave Mnthly Salary	17,000		
Monthly Benefit	13,710	14,960	14,470
<b>Age at Hire 25, Current Age 40, Current Service 15</b>			
<u>Future Retirement</u>			
Age	50		
Service	25		
Ave Mnthly Salary	14,000		
Monthly Benefit	10,900	10,640	10,000
<u>Future Retirement</u>			
Age	52		
Service	27		
Ave Mnthly Salary	15,000		
Monthly Benefit	11,810	12,000	11,200
<b>Age at Hire 30, Current Age 45, Current Service 15</b>			
<u>Future Retirement</u>			
Age	50		
Service	20		
Ave Mnthly Salary	12,000		
Monthly Benefit	9,000	7,920	7,600
<u>Future Retirement</u>			
Age	52		
Service	22		
Ave Mnthly Salary	13,000		
Monthly Benefit	9,910	9,100	8,530

\*The above monthly benefits do not include the additional \$500 per month benefit.

# Appendix B

## Midland Firemen's Relief and Retirement Fund

### Examples of Projected Future Retirement Benefits\*

	Current Formula <u>75% + \$80</u>	Proposed Formula Item 5 <u>3.3% + 2.0% + 1.0%</u>	Proposed Formula Item 8 <u>Frozen 12/31/2024 Benefit + 3.0% for future yrs</u>
<b>Age at Hire 20, Current Age 40, Current Service 20</b>			
<u>Future Retirement</u>			
Age	50		
Service	30		
Ave Mnthly Salary	13,000		
Monthly Benefit	10,550	11,180	11,200
<u>Future Retirement</u>			
Age	52		
Service	32		
Ave Mnthly Salary	14,000		
Monthly Benefit	11,460	12,320	12,340
<b>Age at Hire 25, Current Age 45, Current Service 20</b>			
<u>Future Retirement</u>			
Age	50		
Service	25		
Ave Mnthly Salary	11,500		
Monthly Benefit	9,025	8,740	9,025
<u>Future Retirement</u>			
Age	52		
Service	27		
Ave Mnthly Salary	12,000		
Monthly Benefit	9,560	9,600	9,820

\*The above monthly benefits do not include the additional \$500 per month benefit.

# Appendix C

## Midland Firemen's Relief and Retirement Fund

### Examples of Projected Future Retirement Benefits--Relative Comparison of the Two Proposed Benefit Formulas to the Current Formula\*

Current Service	Age at Hire	Current Age	Retirement Age/Service	Comparison to Current Formula	
				Proposed Formula Item 5	Proposed Formula Item 8
0	20	20	50&30	9.6%	14.7%
0	20	20	52&32	11.5%	21.6%
0	25	25	50&25	-1.3%	-2.6%
0	25	25	52&27	3.0%	4.3%
0	30	30	50&20	-12.0%	-20.0%
0	30	30	52&22	-7.8%	-13.0%
5	20	25	50&30	9.4%	2.3%
5	20	25	52&32	11.1%	8.9%
5	25	30	50&25	-1.4%	-14.0%
5	25	30	52&27	2.8%	-7.5%
5	30	35	50&20	-12.0%	-30.0%
5	30	35	52&22	-7.8%	-23.5%
10	20	30	50&30	8.9%	-2.5%
10	20	30	52&32	10.6%	3.3%
10	25	35	50&25	-1.7%	-16.0%
10	25	35	52&27	2.4%	-10.5%
10	30	40	50&20	-12.0%	-29.8%
10	30	40	52&22	-7.9%	-24.7%
15	20	35	50&30	7.5%	1.6%
15	20	35	52&32	9.1%	5.5%
15	25	40	50&25	-2.4%	-8.3%
15	25	40	52&27	1.6%	-5.2%
15	30	45	50&20	-12.0%	-15.6%
15	30	45	52&22	-8.2%	-13.9%
20	20	40	50&30	6.0%	6.2%
20	20	40	52&32	7.5%	7.7%
20	25	45	50&25	-3.2%	0.0%
20	25	45	52&27	0.4%	2.7%

	--increase of 10% or more
	--decrease of 10% to 19%
	--decrease of 20% to 30%

\*The above comparison is made based on the monthly benefits shown in Appendix B which do not include the additional \$500 per month benefit.

# Appendix D

## Midland Firemen's Relief and Retirement Fund

### Examples of Projected Future Retirement Benefits--Comparison of Percent per Year of Service of the Current Formula and the Two Proposed Benefit Formulas\*

Current Service	Age at Hire	Current Age	Retirement Age/Service	Percent per Year of Service		
				Current Formula	Proposed Formula Item 5	Proposed Formula Item 8
0	20	20	50&30	2.62%	2.87%	3.00%
0	20	20	52&32	2.47%	2.75%	3.00%
0	25	25	50&25	3.08%	3.04%	3.00%
0	25	25	52&27	2.88%	2.96%	3.00%
0	30	30	50&20	3.75%	3.30%	3.00%
0	30	30	52&22	3.45%	3.18%	3.00%
5	20	25	50&30	2.62%	2.87%	2.68%
5	20	25	52&32	2.47%	2.75%	2.69%
5	25	30	50&25	3.08%	3.04%	2.65%
5	25	30	52&27	2.88%	2.96%	2.67%
5	30	35	50&20	3.75%	3.30%	2.63%
5	30	35	52&22	3.45%	3.18%	2.64%
10	20	30	50&30	2.63%	2.87%	2.57%
10	20	30	52&32	2.49%	2.75%	2.57%
10	25	35	50&25	3.09%	3.04%	2.60%
10	25	35	52&27	2.89%	2.96%	2.59%
10	30	40	50&20	3.75%	3.30%	2.63%
10	30	40	52&22	3.45%	3.18%	2.60%
15	20	35	50&30	2.67%	2.87%	2.71%
15	20	35	52&32	2.52%	2.75%	2.66%
15	25	40	50&25	3.11%	3.04%	2.86%
15	25	40	52&27	2.92%	2.96%	2.77%
15	30	45	50&20	3.75%	3.30%	3.17%
15	30	45	52&22	3.47%	3.18%	2.98%
20	20	40	50&30	2.71%	2.87%	2.87%
20	20	40	52&32	2.56%	2.75%	2.75%
20	25	45	50&25	3.14%	3.04%	3.14%
20	25	45	52&27	2.95%	2.96%	3.03%

\*The above comparison is made based on the monthly benefits shown in Appendix B which do not include the additional \$500 per month benefit.

This Appendix D is part of an August 2, 2024 report to the Board of Trustees.