

**COUNTY OF CALHOUN**

**STATE OF MICHIGAN**

**COMPREHENSIVE FINANCIAL PLAN**

**FOR PENSION OBLIGATIONS**

**Updated February 4, 2021**

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# Comprehensive Financial Plan

This Comprehensive Financial Plan (the “Plan”) is being prepared pursuant to Act 329, Public Acts of Michigan, 2012 (“Act 329”), as amended. In accordance with Act 329, the County of Calhoun (the “County”), has chosen to issue bonds to finance all or a portion of the County’s unfunded pension liability.

The County qualifies to issue such bonds as the County meets the minimum bond rating requirement of Act 329, has closed its defined benefit pension plans for divisions #01 DB Plan Excl. Exec Mgmt and #20 Sheriff POAM & COAM pre 2005, has established a defined contribution plan for such employees not eligible to participate in the defined benefit plan, and has the legal capacity to issue bonds in the required amount. The County’s outstanding limited tax general obligation bond rating of “AA” from Standard & Poor’s Rating Service was affirmed on June 16, 2020 in association with this issuance of limited tax general obligation bonds. A copy of the rating rationale is included in Appendix D herein.

As noted above, the County has the legal debt capacity to issue the bonds, as computed below (as of December 31, 2020):

2020 State Equalized Value (SEV)		\$4,711,045,332
Plus Assessed Value Equivalent of 2019 Taxable Value <small>(Act 198 Exception)</small>		<u>\$ 89,671,235</u>
Total State Equalized Valuation (SEV)		\$4,800,716,567
Legal Debt Limit – 10% of SEV		\$ 480,071,657
Total Bonded Debt Outstanding 12/31/2020	\$ 76,692,650	
Less Exempt Debt: Bonds	<u>-0-</u>	
Debt Subject to Legal Limit		<u>\$ 76,692,650</u>
LEGAL DEBT MARGIN AVAILABLE		<u>\$ 403,379,007</u>

## Pension Plans

The County has a defined benefit plan and a defined contribution plan that provide benefits to members and their beneficiaries. The defined benefit pension plan consists of seven closed Divisions, all of which have unfunded accrued liabilities.

Plan/Division	Description of Covered	Number of Covered	Date Closed to New Hires	Assets	Liabilities	UAL/ (Overfunded)
01-DB Plan Excl.Exec M	County-wide employees excluding exec mgmt. and all others covered below	Active—344 Vested Former—50 Retirees & Benef.—158	2/29/2020	\$34.07M	\$48.56M	\$14.49M
02-COAM Spvs & Elctd Of	Supervisory employees in the Sheriff's Office	Active – 5 Vested Former -0 Retirees & Benef.—21	12/31/2005	\$8.88M	\$9.74M	\$0.86M
10—UAW Road Dept.	Road Department supervisors & office employees	Active—8 Vested Former—7 Retirees & Benef.—16	09/01/2018	\$5.41M	\$5.63M	\$0.22M
11-NonUnion CCRC	Former Road Commission Non-Union: Road Commission was completely dissolved 11/1/2012	Active - 0 Vested Former – 3 Retirees & Benef. – 3	11/1/2012	\$1.14M	\$1.28M	\$0.14M
12-Management CCRC	Former Road Commission Management: Road Commission was completely dissolved 11/1/2012	Active – 0 Vested Former – 1 Retirees & Benef. - 2	11/1/2012	\$0.65M	\$0.74M	\$0.09M
13—Teamsters Road Dept.	Road Department road workers & mechanics	Active—40 Vested Former—13 Retirees & Benef.—54	09/01/2018	\$12.02M	\$12.45M	\$0.43M
20—Sheriff POAM & COAM	Non-supervisory employees and all new hires within Sheriff's Office	Active—170 Vested Former—23 Retirees & Benef.—59	2/29/2020	\$31.06M	\$43.53M	\$12.47M
<b>Total Municipality</b>		<b>Active—567 Vested Former—97 Retirees &amp; Benef.—313 Total Participants—977</b>		\$93.23M	\$121.93M	\$28.7M

## **Defined Benefit Plan**

As of December 31, 2019, the most recent actuarial valuation date, the defined benefit plan as a whole was 76.5% funded; division 1 at 70.2%, division 2 at 91.1%, division 10 at 96.0%, division 11 at 89.1%, division 12 at 88.7%, division 13 at 96.6%, and division 20 at 71.4%. As of December 31, 2018, the defined benefit plan funded percentage was 79%. The decrease in funding percentage is primarily attributable to an 8.36% increase in the actuarial accrued liability with only a 4.73% increase in assets. The actual market rate of return for 2019 was 13.41%, 6.06%, greater than the long-term assumed level of 7.35%. The smoothed actuarial rate of investment return, however, was 4.77%. As of December 31, 2019, the actuarial accrued liability for benefits was \$121,935,973 and the actuarial value of assets \$93,236,028, resulting in an unfunded liability of \$28,699,945. The covered payroll (annual payroll for active employees covered by the plan) was \$29,561,462. The ratio for the unfunded actuarial accrued liability to the covered payroll was 97.1%.

As of December 31, 2019, Divisions 01 & 20, for which the County plans to issue bonds, were 70.7% funded in aggregate. The actuarial accrued liability for these two divisions was \$92,088,329 and the actuarial value of assets was \$65,129,677, resulting in an unfunded liability of \$26,958,652. The main actuarial assumptions used in determining the actuarial valuation of the general employees plan as of December 31, 2019 included:

- Entry Age Normal Method
- A 7.35% investment rate of return
- A 5-year smoothing of investment returns

The County has closed Divisions 01 and 20 to new hires effective February 29, 2020 following agreement with the associated union groups, and Board of Commissioners approval on January 16, 2020. The County Board approved on February 4, 2021 a Notice of Intent to issue up to \$30,000,000 in Pension Obligation Bonds for these two divisions, with an estimated present value savings of approximately \$11,000,000 over the life of a 20-year bond issuance.

## **Defined Contribution Plan**

The County's defined contribution plan is open to all full-time employees. The County's required contributions are set at various rates based on Board policy and labor agreements with various bargaining units. The government's contributions for each employee, and interest allocated to an employee's account, are fully vested after five years of service, except for Sheriff Department employees who are vested after ten years. In accordance with these provisions, the County contributed \$158,839 and employees contributed \$485,961 for the year ended December 31, 2020.

A history of the County's contribution to the defined contribution plan is shown below:

Year	Employer	Employee
2020	\$158,839	\$485,961
2019	\$165,062	\$488,734
2018	\$151,309	\$445,551
2017	\$155,023	\$457,671
2016	\$176,181	\$450,065
2015	\$170,356	\$430,072
2014	\$195,663	\$482,141
2013	\$255,402	\$521,677
2012	\$252,640	\$511,095
2011	\$283,052	\$654,794
2010	\$276,382	\$599,605
2009	\$278,610	\$618,756
2008	\$284,978	\$666,244
2007	\$276,734	\$662,341

## **Bond Issuance Considerations**

The County intends to issue bonds as authorized by Act 329 to partially or fully fund the unfunded pension liability for the closed divisions #01 and #20 defined benefit pension plan. Given the near historic low interest rates, the County anticipates receiving favorable interest rates for the Pension Obligation Bonds.

The County recognizes that the value of assets and liabilities may change depending on market conditions and actuarial experiences differing from projections, respectively. The County recognizes that such changes may result in additional required contributions to the plans. The County also recognizes that such changes may also result in the plan becoming overfunded.

Assuming the Pension Obligation Bonds are issued for 20 years under current interest rates (base case), the estimated annual bond debt service and remaining UAL payments are expected to average just under \$2,000,000. Provided below is a comparison of the annual unfunded accrued liability amortization payment, provided by MERS, to the estimated annual bond payments.

Based on the preceding analysis, the County has determined that it is financially beneficial to pursue the issuance of Pension Obligation Bonds in the approximate principal amount of \$30,000,000 or less, which will be within the limit of 95% of its Actuarial Accrued Liabilities

(AAL). The Pension Obligation Bonds will be used to cover the unfunded actuarial accrued liability of the closed Division(s) #01, and #20 defined benefit liability.

## **Description of Action Required to Meet Obligations**

The County allocates pension costs to the various funds (20) that receive pension benefits. Similarly, the annual debt service for the Pension Obligation Bonds will be allocated proportionately to the funds receiving pension benefits. Revenue sources for the funds that will be allocated portions of the annual bond payments include annual operating levies, state shared revenues, special millages, and other sources of annual revenue.

The County's Administration completes an annual budget for each fund and presents it to the County Board of Commissioners for approval. The annual debt service amounts for each fund within the budget will be included in the annual budget process to be presented and approved by the Board of Commissioners annually. The Bonds will carry the County's limited tax general obligation full faith and credit pledge; therefore, the annual debt service will be legally required to be part of the County's total budget.

For pension plans with over 100 members, Section 518(3) of Act 329 requires the County to conduct an internal or external review to verify eligible participants in the plan and that they are receiving the appropriate benefits consistent with their plan. As of December 31, 2020, the County, through an internal review conducted by its Human Resources and Finance Departments, has confirmed that all plan participants receiving pension benefits are eligible to receive such pension benefits. Such pension benefits have also been deemed to be appropriate under the Pension Plan.

## **Plan Compliance**

As outlined in Act 329, the Plan contains the following elements:

- **An analysis of the current and future obligations with respect to each retirement program of the County.** The County has a defined benefit plan as well as a defined contribution pension plan. Information regarding the defined benefit plan was obtained from MERS. Information with respect to both plans is contained within Appendix A.
- **Evidence that the issuance coupled with any other legally available funds, is sufficient to eliminate the unfunded pension liability** for the employees, Divisions 1 and 20 defined benefit plans. The Divisions' unfunded pension liability provided by MERS is \$26,958,652 as of December 31, 2019. The Sources and Uses of Funds provided

by the County's financial advisor, Bendzinski & Co. demonstrates that the bond proceeds will fully cover the liability of \$26,958,652. Further information provided by Bendzinski & Co. is included under Appendix B.

- **The debt service amortization schedule.** The preliminary debt service amortization schedules for the Pension Obligation Bonds provided by Bendzinski & Co. can be found under Appendix C.
- **A description of actions required to satisfy the debt service amortization schedule.** The Pension Obligation Bonds are a limited tax general obligation of the County, paid from various County funds. A description of actions the County takes to allocate costs to its various funds, create the annual budget and obtain budget approval from the County Board of Commissioners can be found under Appendix E.
- **Certification that the Comprehensive Financial Plan is complete and accurate.** A certification from the County attesting that the Plan is complete with information provided by reliable sources provided below.

Act 329 also requires the Plan be prepared and made publicly available. Accordingly, the County has prepared this updated Plan, which has been approved by the County Board on February 4, 2021 and has been made available for public review.

## **Certification**

The County has prepared this Comprehensive Financial Plan for Pension Benefits as required under Act 329 for the issuance of Pension Obligation Bonds. In preparing this plan, information has been obtained from the MERS, and Bendzinski & Co.

The County believes the information provided by these firms to be reliable.

I certify that this Comprehensive Financial Plan is complete and accurate to the best of my knowledge and belief.



By: Kelli D. Scott, Administrator/Controller

Dated: February 4, 2021



## Other Post-Employment Benefits

The County offers two post-retirement medical plans (OPEB): the General County Retiree Health Plan for employees with all county departments except the Road Department; and the Road Department Retiree Health Plan for employees of the County Road Department, established by and inherited from the former Calhoun County Road Commission. Both are single employer plans administered by the County by policy and both can be amended at the County's discretion. Currently active members are not obligated to make contributions to the plans. Obligations with the General County Plan are liquidated within governmental activities. Obligations of the Road Department Plan are liquidated by the road fund within the Road Department, with revenue sources primarily coming from gas tax and registration fees, entirely separate from the County's normal operations. The latest actuarial valuations for both plans were performed for the fiscal year ended December 31, 2019.

A summary of the County's Retiree Health Plans as reported within our 2019 Comprehensive Audited Financial Report (CAFR) is shown below:

	<b>General County Plan</b>	<b>Road Dept. Plan</b>	<b>Combined</b>
Retirees & Survivors	133	64	197
Active Members	528	66	594
Total Plan Members	661	130	791
2019 % Funded	0%	0%	0%
2019 Net Liability	\$13,739,265	\$10,743,658	\$24,482,923
2019 ADC	\$938,961	\$573,461	\$1,512,422
Govern. Funds Rev.	\$65,338,666	\$21,477,831	\$86,816,497
ADC as % of GFR	1.4%	2.7%	1.7%
2019 Covered P/R	\$27,176,150	\$4,031,800	\$31,207,950
Liab as % of Covered P/R	50.6%	266.5%	78.5%
2019 Actual Contribution	\$347,329	\$531,752	\$879,081
Liability per Plan Member	\$20,786	\$82,644	\$30,952

Appendix A:  
Analysis of Current and Future Retirement Program Obligations  
of the County of Calhoun County Government

## State Reporting

The following information has been prepared to provide some of the information necessary to complete the pension reporting requirements for the State of Michigan’s Local Government Retirement System Annual Report (Form No. 5572). Additional resources are available at [www.mersofmich.com](http://www.mersofmich.com) and on the State [website](#).

Form 5572		
Line Reference	Description	Result
<b>10 Membership as of December 31, 2019</b>		
11	Indicate number of active members	567
12	Indicate number of inactive members (excluding pending refunds)	97
13	Indicate number of retirees and beneficiaries	313
<b>14 Investment Performance for Calendar Year Ending December 31, 2019<sup>1</sup></b>		
15	Enter actual rate of return - prior 1-year period	14.02%
16	Enter actual rate of return - prior 5-year period	6.39%
17	Enter actual rate of return - prior 10-year period	7.97%
<b>18 Actuarial Assumptions</b>		
19	Actuarial assumed rate of investment return <sup>2</sup>	7.35%
20	Amortization method utilized for funding the system's unfunded actuarial accrued liability, if any	Level Percent
21	Amortization period utilized for funding the system's unfunded actuarial accrued liability, if any <sup>3</sup>	19
22	Is each division within the system closed to new employees? <sup>4</sup>	No
<b>23 Uniform Assumptions</b>		
24	Enter retirement pension system's actuarial value of assets using uniform assumptions	\$92,696,035
25	Enter retirement pension system's actuarial accrued liabilities using uniform assumptions	\$132,105,777
27	Actuarially Determined Contribution (ADC) using uniform assumptions, Fiscal Year Ending December 31, 2020	\$4,543,836

1. The Municipal Employees’ Retirement System’s investment performance has been provided to GRS from MERS Investment Staff and included here for reporting purposes. This investment performance figures reported are net of investment expenses on a rolling calendar-year basis for the previous 1-, 5-, and 10-year periods as required under PA 530.
2. Net of administrative and investment expenses.
3. Populated with the longest amortization period remaining in the amortization schedule, across all divisions in the plan. This is when each division and the plan in total is expected to reach 100% funded if all assumptions are met.
4. If all divisions within the employer are closed, “yes.” If at least one division is open (including shadow divisions) indicate “no.”



October 7, 2020

In care of:  
Municipal Employees' Retirement System of Michigan  
1134 Municipal Way  
Lansing, Michigan 48917

**Re: Calhoun Co (1311) – Division 01 – Projections of Amortization Payment of Unfunded Accrued Liability**

The purpose of this letter is to illustrate the pattern of the annual amortization payments to fund the Unfunded Accrued Liability (UAL) as of December 31, 2019, under the amortization policy which would be followed. The results are calculated using a 7.35%, 6.35% and 5.35% return assumption, all with a 3.00% wage inflation assumption for analysis of application requests to issue Long-Term Securities under PA 575 of 2018. This legislation limits the amount of Unfunded Accrued Liability available for bonding. We recommend consultation with your bond consultant and legal counsel to ensure compliance with this legislation. The report shows these amortization payments of the UAL calculated using both the actuarial value and market value of assets. The report consists of separate sections containing the following additional detail.

- An executive summary that provides a brief explanation of the results.
- Results sections illustrating the pattern in annual amortization payments under the three alternate interest rate scenarios, two demographic scenarios, and both the market and actuarial valuation of assets.

This report was prepared at the request of MERS on behalf of the municipality and is intended for use by the municipality and those designated or approved by the municipality. **The report may be provided to parties other than the municipality only in its entirety.** GRS is not responsible for unauthorized use of this report.

This valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

The valuation was based upon information furnished by MERS staff, concerning Retirement System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the municipality and MERS staff.

The estimates from this study should not be used for short term budgeting purposes because the assumptions are designed to be a long-term expectation of future events. These estimates illustrate the long-term pattern of amortization payments under different funding policies. A projection of contribution rates for budgeting purposes would require additional analysis, which is beyond the scope of this study.

This report does not reflect the recent and still developing impact of COVID-19, which is likely to influence demographic and economic experience, at least in the short-term. We will continue to monitor these developments and their impact on the MERS Defined Benefit and Hybrid plans. Actual experience will be reflected in each subsequent annual valuation, as experience emerges.

The Plan Document Article VI sec. 71 (1)(d), provides the MERS Board with the authority to set actuarial assumptions and methods after consultation with the actuary. This report was prepared using certain assumptions approved by the Board. The MERS Board adopted the actuarial assumptions based on the recommendations of both the current and prior actuary. A description of these assumptions and methods can be found as follows:

- Plan Document, v04302020,
- Actuarial Policy, DOC 8062 (2020-06-25), and
- 2019 Appendix to the Annual Actuarial Valuation Report.

On February 27, 2020, the Board adopted new demographic assumptions for use beginning with the December 31, 2020 annual valuation report. These assumptions include a version of the Pub-2010 mortality tables and fully generational mortality improvements with scale MP-2019. Changes resulting from these studies will have an impact on the level of calculated employer contributions. The 2020 Demographic Assumptions were used in select exhibits in this report.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the municipality as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices and in conformity with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

David T. Kausch and Kurt Dosson are Members of the American Academy of Actuaries (MAAA) and meet the Academy's Qualification Standards to render the actuarial opinions contained herein.



Municipal Employees' Retirement System of Michigan

October 7, 2020

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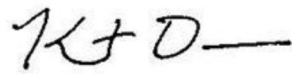
The signing actuaries are independent of the plan sponsor.

If you have any questions or need additional information, please contact your MERS representative at 800-767-MERS.

Sincerely,



David T. Kausch, FSA, EA, FCA, MAAA



Kurt Dosson, ASA, MAAA



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## **EXECUTIVE SUMMARY**



## Executive Summary

A discussion of pension obligation bonds is beyond the scope of this letter. However, it is important for the employer to understand and acknowledge the following implications of funding the UAL using pension obligation bonds:

- 1. The employer will continue to be responsible for funding the employer normal cost as long as there are active members in the plan,**
- 2. If future financial or demographic experience is less favorable than assumed, additional UAL may emerge which would require additional employer contributions, and**
- 3. Fully funding the current UAL does not guarantee that there will be no employer contribution requirements in the future.**

This actuarial report was not developed for purposes of bond disclosures and may not be appropriate for that purpose. It is possible that we may have included material that is not appropriate to the situation, or that we may have omitted material that is appropriate or even required. We do not accept responsibility for errors in the bond disclosure even if such errors are directly related to the services we have performed. We are not registered municipal advisors with the SEC.

Our calculations were based on the following:

- Demographic information, financial information, benefit provisions and funding methods provided by MERS for the December 31, 2019 annual actuarial valuation, except where otherwise noted.
- Assumption sets, without any phase-in of the impact of assumption changes:
  - Investment Rate of Return/Wage Inflation/Demographic Assumptions:
    - 7.35%/3.00%/2019 Demographic Assumptions,
    - 6.35%/3.00%/2019 Demographic Assumptions,
    - 5.35%/3.00%/2019 Demographic Assumptions,
    - 7.35%/3.00%/2020 Demographic Assumptions,
    - 6.35%/3.00%/2020 Demographic Assumptions, and
    - 5.35%/3.00%/2020 Demographic Assumptions.
- The employer contributions through December 31, 2020 are not affected, and are based on previous annual actuarial valuations.
- No bonding proceeds are incorporated as part of the calculations. Beginning asset values are those used in the December 31, 2019 actuarial valuation.
- As requested by MERS, the results in this report reflect a modified baseline. Division 01 closed to Defined Contribution (DC) effective August 1, 2020.
  - 11 members elected a frozen benefit, and were reflected as frozen actives in this report. Frozen benefit amounts were provided by MERS.
  - Additionally, the division reflects the new Closed – Not Linked status.
  - These changes are valued as if they happened on the valuation date, December 31, 2019.
  - The changes may affect the risk profile of the Plan. At this time, we do not believe additional risk assessment is necessary.

As always, the MERS actuaries will closely watch the funding progress of all divisions. The actuaries may recommend changes to the amortization policy in the future if they deem it necessary for the financial security of benefits provided by the municipality, which could result in more accelerated employer contributions than those shown in this report.

Issuance of a POB may affect the risk profile of the Plan. Contribution of POB bond proceeds to the plan improves the funded status of the Plan, and also increases the potential for contribution volatility in future annual actuarial valuation reports. At this time, we do not believe additional risk assessment is necessary. Plan maturity risk metrics will be updated in future annual actuarial valuation reports.

We projected the annual amortization payments, starting with the amortization periods in effect for the calendar year beginning January 1, 2020, under the amortization policies available for each division as in effect for the December 31, 2019 annual actuarial valuation. **Any normal cost payments are in addition to the amortization payment, and are not affected by the amortization policy used.**

These results are for illustration purposes only. Actual amortization payments will depend on the results of future annual actuarial valuations.

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**SUPPLEMENTAL VALUATION RESULTS – DIVISION 01**

**Calhoun Co (1311) – Division 01**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Using 7.35% Interest Rate, 3.00% Wage Inflation, and 2019 Demographic Assumptions\***

Calendar Year Beginning January 1,	Based on the Actuarial Value of Assets		Based on the Market Value of Assets	
	Beginning of Year UAL Balance	Amortization Payment	Beginning of Year UAL Balance	Amortization Payment
	2020	\$13,900,000	\$870,000	\$14,400,000
2021	14,100,000	1,080,000	14,500,000	1,120,000
2022	14,000,000	1,120,000	14,400,000	1,150,000
2023	13,800,000	1,150,000	14,300,000	1,190,000
2024	13,700,000	1,180,000	14,100,000	1,220,000
2025	13,400,000	1,220,000	13,900,000	1,260,000
2026	13,200,000	1,260,000	13,600,000	1,300,000
2027	12,800,000	1,290,000	13,300,000	1,340,000
2028	12,400,000	1,330,000	12,900,000	1,380,000
2029	12,000,000	1,370,000	12,400,000	1,420,000
2030	11,400,000	1,410,000	11,800,000	1,460,000
2031	10,800,000	1,460,000	11,200,000	1,510,000
2032	10,100,000	1,500,000	10,400,000	1,550,000
2033	9,260,000	1,550,000	9,570,000	1,600,000
2034	8,340,000	1,590,000	8,620,000	1,650,000
2035	7,300,000	1,640,000	7,550,000	1,700,000
2036	6,140,000	1,690,000	6,340,000	1,750,000
2037	4,840,000	1,740,000	5,000,000	1,800,000
2038	3,390,000	1,790,000	3,500,000	1,850,000
2039	1,780,000	1,850,000	1,840,000	1,910,000

\* The amortization schedules shown above assume all actuarial assumptions are met in future years, including actuarial and market rates of return at the stated interest rate.

**Calhoun Co (1311) – Division 01**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Using 6.35% Interest Rate, 3.00% Wage Inflation, and 2019 Demographic Assumptions\***

Calendar Year Beginning January 1,	Based on the Actuarial Value of Assets		Based on the Market Value of Assets	
	Beginning of Year UAL Balance	Amortization Payment	Beginning of Year UAL Balance	Amortization Payment
2020	\$18,800,000	\$870,000	\$19,300,000	\$870,000
2021	19,100,000	1,360,000	19,600,000	1,400,000
2022	19,000,000	1,410,000	19,400,000	1,440,000
2023	18,700,000	1,450,000	19,200,000	1,480,000
2024	18,400,000	1,490,000	18,900,000	1,530,000
2025	18,000,000	1,540,000	18,500,000	1,570,000
2026	17,600,000	1,580,000	18,000,000	1,620,000
2027	17,100,000	1,630,000	17,500,000	1,670,000
2028	16,500,000	1,680,000	16,900,000	1,720,000
2029	15,800,000	1,730,000	16,200,000	1,770,000
2030	15,000,000	1,780,000	15,400,000	1,820,000
2031	14,100,000	1,830,000	14,500,000	1,880,000
2032	13,100,000	1,890,000	13,500,000	1,940,000
2033	12,000,000	1,950,000	12,300,000	1,990,000
2034	10,800,000	2,000,000	11,000,000	2,050,000
2035	9,400,000	2,060,000	9,630,000	2,110,000
2036	7,870,000	2,130,000	8,060,000	2,180,000
2037	6,170,000	2,190,000	6,320,000	2,240,000
2038	4,310,000	2,260,000	4,410,000	2,310,000
2039	2,250,000	2,320,000	2,310,000	2,380,000

\* The amortization schedules shown above assume all actuarial assumptions are met in future years, including actuarial and market rates of return at the stated interest rate.

**Calhoun Co (1311) – Division 01**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Using 5.35% Interest Rate, 3.00% Wage Inflation, and 2019 Demographic Assumptions\***

Calendar Year Beginning January 1,	Based on the Actuarial Value of Assets		Based on the Market Value of Assets	
	Beginning of Year UAL	Amortization	Beginning of Year UAL	Amortization
	Balance	Payment	Balance	Payment
2020	\$24,700,000	\$870,000	\$25,200,000	\$870,000
2021	25,100,000	1,650,000	25,600,000	1,680,000
2022	24,800,000	1,700,000	25,300,000	1,730,000
2023	24,400,000	1,750,000	24,800,000	1,780,000
2024	23,900,000	1,800,000	24,300,000	1,840,000
2025	23,300,000	1,860,000	23,700,000	1,890,000
2026	22,600,000	1,910,000	23,100,000	1,950,000
2027	21,900,000	1,970,000	22,300,000	2,010,000
2028	21,000,000	2,030,000	21,400,000	2,070,000
2029	20,100,000	2,090,000	20,500,000	2,130,000
2030	19,000,000	2,150,000	19,400,000	2,190,000
2031	17,800,000	2,220,000	18,100,000	2,260,000
2032	16,500,000	2,290,000	16,800,000	2,330,000
2033	15,000,000	2,350,000	15,300,000	2,400,000
2034	13,400,000	2,420,000	13,700,000	2,470,000
2035	11,600,000	2,500,000	11,900,000	2,540,000
2036	9,700,000	2,570,000	9,880,000	2,620,000
2037	7,570,000	2,650,000	7,710,000	2,700,000
2038	5,260,000	2,730,000	5,360,000	2,780,000
2039	2,740,000	2,810,000	2,790,000	2,860,000

\* The amortization schedules shown above assume all actuarial assumptions are met in future years, including actuarial and market rates of return at the stated interest rate.

**Calhoun Co (1311) – Division 01**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Using 7.35% Interest Rate, 3.00% Wage Inflation, and 2020 Demographic**  
**Assumptions\***

Calendar Year Beginning January 1,	Based on the Actuarial Value of Assets		Based on the Market Value of Assets	
	Beginning of Year UAL	Amortization	Beginning of Year UAL	Amortization
	Balance	Payment	Balance	Payment
2020	\$16,800,000	\$870,000	\$17,200,000	\$870,000
2021	17,100,000	1,320,000	17,600,000	1,360,000
2022	17,000,000	1,360,000	17,500,000	1,400,000
2023	16,800,000	1,400,000	17,300,000	1,440,000
2024	16,600,000	1,440,000	17,100,000	1,480,000
2025	16,400,000	1,490,000	16,800,000	1,530,000
2026	16,000,000	1,530,000	16,500,000	1,570,000
2027	15,600,000	1,580,000	16,000,000	1,620,000
2028	15,100,000	1,620,000	15,500,000	1,670,000
2029	14,600,000	1,670,000	15,000,000	1,720,000
2030	13,900,000	1,720,000	14,300,000	1,770,000
2031	13,100,000	1,770,000	13,500,000	1,820,000
2032	12,300,000	1,830,000	12,600,000	1,880,000
2033	11,300,000	1,880,000	11,600,000	1,930,000
2034	10,100,000	1,940,000	10,400,000	1,990,000
2035	8,880,000	2,000,000	9,130,000	2,050,000
2036	7,470,000	2,060,000	7,680,000	2,110,000
2037	5,890,000	2,120,000	6,050,000	2,180,000
2038	4,130,000	2,180,000	4,240,000	2,240,000
2039	2,170,000	2,250,000	2,230,000	2,310,000

\* The amortization schedules shown above assume all actuarial assumptions are met in future years, including actuarial and market rates of return at the stated interest rate.

**Calhoun Co (1311) – Division 01**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Using 6.35% Interest Rate, 3.00% Wage Inflation, and 2020 Demographic Assumptions\***

Calendar Year Beginning January 1,	Based on the Actuarial Value of Assets		Based on the Market Value of Assets	
	Beginning of Year UAL	Amortization	Beginning of Year UAL	Amortization
	Balance	Payment	Balance	Payment
2020	\$22,500,000	\$870,000	\$23,000,000	\$870,000
2021	23,000,000	1,640,000	23,500,000	1,680,000
2022	22,800,000	1,690,000	23,300,000	1,730,000
2023	22,500,000	1,740,000	23,000,000	1,780,000
2024	22,200,000	1,800,000	22,600,000	1,830,000
2025	21,700,000	1,850,000	22,200,000	1,890,000
2026	21,200,000	1,900,000	21,600,000	1,940,000
2027	20,600,000	1,960,000	21,000,000	2,000,000
2028	19,800,000	2,020,000	20,200,000	2,060,000
2029	19,000,000	2,080,000	19,400,000	2,120,000
2030	18,100,000	2,140,000	18,400,000	2,190,000
2031	17,000,000	2,210,000	17,400,000	2,250,000
2032	15,800,000	2,270,000	16,100,000	2,320,000
2033	14,500,000	2,340,000	14,800,000	2,390,000
2034	13,000,000	2,410,000	13,200,000	2,460,000
2035	11,300,000	2,490,000	11,500,000	2,540,000
2036	9,470,000	2,560,000	9,660,000	2,610,000
2037	7,430,000	2,640,000	7,580,000	2,690,000
2038	5,180,000	2,720,000	5,290,000	2,770,000
2039	2,710,000	2,800,000	2,770,000	2,850,000

\* The amortization schedules shown above assume all actuarial assumptions are met in future years, including actuarial and market rates of return at the stated interest rate.



**Calhoun Co (1311) – Division 01**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Using 5.35% Interest Rate, 3.00% Wage Inflation, and 2020 Demographic Assumptions\***

Calendar Year Beginning January 1,	Based on the Actuarial Value of Assets		Based on the Market Value of Assets	
	Beginning of Year UAL	Amortization Payment	Beginning of Year UAL	Amortization Payment
	Balance	Payment	Balance	Payment
2020	\$29,500,000	\$870,000	\$30,000,000	\$870,000
2021	30,200,000	1,980,000	30,700,000	2,010,000
2022	29,800,000	2,040,000	30,200,000	2,070,000
2023	29,300,000	2,100,000	29,700,000	2,140,000
2024	28,700,000	2,170,000	29,100,000	2,200,000
2025	28,000,000	2,230,000	28,400,000	2,270,000
2026	27,200,000	2,300,000	27,600,000	2,330,000
2027	26,300,000	2,370,000	26,700,000	2,400,000
2028	25,300,000	2,440,000	25,700,000	2,480,000
2029	24,100,000	2,510,000	24,500,000	2,550,000
2030	22,800,000	2,590,000	23,200,000	2,630,000
2031	21,400,000	2,670,000	21,700,000	2,710,000
2032	19,800,000	2,750,000	20,100,000	2,790,000
2033	18,000,000	2,830,000	18,300,000	2,870,000
2034	16,100,000	2,910,000	16,400,000	2,960,000
2035	14,000,000	3,000,000	14,200,000	3,050,000
2036	11,600,000	3,090,000	11,800,000	3,140,000
2037	9,100,000	3,180,000	9,240,000	3,230,000
2038	6,320,000	3,280,000	6,410,000	3,330,000
2039	3,290,000	3,380,000	3,340,000	3,430,000

\* The amortization schedules shown above assume all actuarial assumptions are met in future years, including actuarial and market rates of return at the stated interest rate.

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## **IMPORTANT COMMENTS**

## Important Comments

1. The actuarial value of assets used to determine both the funded ratio and the required employer contribution is based on a smoothed value of assets. Only a portion of each year's investment market gain or loss is recognized in the current actuarial value of assets; the remaining portions of gains and losses will be reflected in future years' actuarial value of assets. This reduces the asset volatility impact on the determined required employer contribution and funded ratio. The smoothed actuarial rate of return for 2019 was 4.77%.

As of December 31, 2019, the actuarial value of assets is 101% of market value. This means that there is a net outstanding asset loss that is not yet recognized in the actuarial value of assets. Absent future asset gains offsetting the net outstanding asset loss, the net outstanding asset loss will be recognized in future actuarial valuations and is expected to decrease funded ratios and increase employer contribution requirements.

2. Unless otherwise indicated, a funded status measurement is based upon the actuarial accrued liability and the actuarial value of assets. The measurement is:
  - a. Inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.
  - b. Inappropriate for assessing benefit security for the membership.
  - c. Dependent upon the actuarial cost method which, in combination with the amortization policy and asset valuation method, affects the timing and amounts of future contributions. The amounts of future contributions will differ from those assumed due to future actual experience differing from assumed.

A funded status measurement of 100% is not synonymous with no required future contributions. If the funded status were 100%, the Plan would still require future normal cost contributions (i.e., the cost of the active membership accruing an additional year of service credit).

3. The results do not show the potential impact on other post-employment benefits (such as retiree health care insurance) or ancillary benefits (such as life insurance).
4. The results of separate actuarial valuations generally cannot be added together to produce a correct estimate of the employer contributions. The total can be considerably greater than the sum of the parts due to the interaction of various plan provisions and assumptions used.
5. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. The scope of this supplemental actuarial valuation does not include an analysis of the potential range of such future measurements.

## Important Comments (Concluded)

6. This report was prepared using ProVal's valuation model, a software product of Winklevoss Technologies. We are relying on the ProVal model. We performed tests of the ProVal model with this assignment and made a reasonable attempt to understand the developer's intended purpose of, general operation of, major sensitivities and dependencies within, and key strengths and limitations of the ProVal model. In our professional judgment, the ProVal valuation model has the capability to provide results that are consistent with the purposes of the valuation.
7. This report was prepared using our financing and projection model which in our professional judgment has the capability to provide results that are consistent with the purposes of the request. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.



October 7, 2020

In care of:  
Municipal Employees' Retirement System of Michigan  
1134 Municipal Way  
Lansing, Michigan 48917

**Re: Calhoun Co (1311) – Division 20 – Projections of Amortization Payment of Unfunded Accrued Liability**

The purpose of this letter is to illustrate the pattern of the annual amortization payments to fund the Unfunded Accrued Liability (UAL) as of December 31, 2019, under the amortization policy which would be followed. The results are calculated using a 7.35%, 6.35% and 5.35% return assumption, all with a 3.00% wage inflation assumption for analysis of application requests to issue Long-Term Securities under PA 575 of 2018. This legislation limits the amount of Unfunded Accrued Liability available for bonding. We recommend consultation with your bond consultant and legal counsel to ensure compliance with this legislation. The report shows these amortization payments of the UAL calculated using both the actuarial value and market value of assets. The report consists of separate sections containing the following additional detail.

- An executive summary that provides a brief explanation of the results.
- Results sections illustrating the pattern in annual amortization payments under the three alternate interest rate scenarios, two demographic scenarios, and both the market and actuarial valuation of assets.

This report was prepared at the request of MERS on behalf of the municipality and is intended for use by the municipality and those designated or approved by the municipality. **The report may be provided to parties other than the municipality only in its entirety.** GRS is not responsible for unauthorized use of this report.

This valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

The valuation was based upon information furnished by MERS staff, concerning Retirement System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the municipality and MERS staff.

The estimates from this study should not be used for short term budgeting purposes because the assumptions are designed to be a long-term expectation of future events. These estimates illustrate the long-term pattern of amortization payments under different funding policies. A projection of contribution rates for budgeting purposes would require additional analysis, which is beyond the scope of this study.

This report does not reflect the recent and still developing impact of COVID-19, which is likely to influence demographic and economic experience, at least in the short-term. We will continue to monitor these developments and their impact on the MERS Defined Benefit and Hybrid plans. Actual experience will be reflected in each subsequent annual valuation, as experience emerges.

The Plan Document Article VI sec. 71 (1)(d), provides the MERS Board with the authority to set actuarial assumptions and methods after consultation with the actuary. This report was prepared using certain assumptions approved by the Board. The MERS Board adopted the actuarial assumptions based on the recommendations of both the current and prior actuary. A description of these assumptions and methods can be found as follows:

- Plan Document, v04302020,
- Actuarial Policy, DOC 8062 (2020-06-25), and
- 2019 Appendix to the Annual Actuarial Valuation Report.

On February 27, 2020, the Board adopted new demographic assumptions for use beginning with the December 31, 2020 annual valuation report. These assumptions include a version of the Pub-2010 mortality tables and fully generational mortality improvements with scale MP-2019. Changes resulting from these studies will have an impact on the level of calculated employer contributions. The 2020 Demographic Assumptions were used in select exhibits in this report.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the municipality as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices and in conformity with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

David T. Kausch and Kurt Dosson are Members of the American Academy of Actuaries (MAAA) and meet the Academy's Qualification Standards to render the actuarial opinions contained herein.



Municipal Employees' Retirement System of Michigan

October 7, 2020

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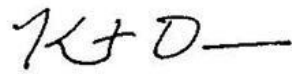
The signing actuaries are independent of the plan sponsor.

If you have any questions or need additional information, please contact your MERS representative at 800-767-MERS.

Sincerely,



David T. Kausch, FSA, EA, FCA, MAAA



Kurt Dosson, ASA, MAAA



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## **EXECUTIVE SUMMARY**

## Executive Summary

A discussion of pension obligation bonds is beyond the scope of this letter. However, it is important for the employer to understand and acknowledge the following implications of funding the UAL using pension obligation bonds:

- 1. The employer will continue to be responsible for funding the employer normal cost as long as there are active members in the plan,**
- 2. If future financial or demographic experience is less favorable than assumed, additional UAL may emerge which would require additional employer contributions, and**
- 3. Fully funding the current UAL does not guarantee that there will be no employer contribution requirements in the future.**

This actuarial report was not developed for purposes of bond disclosures and may not be appropriate for that purpose. It is possible that we may have included material that is not appropriate to the situation, or that we may have omitted material that is appropriate or even required. We do not accept responsibility for errors in the bond disclosure even if such errors are directly related to the services we have performed. We are not registered municipal advisors with the SEC.

Our calculations were based on the following:

- Demographic information, financial information, benefit provisions and funding methods provided by MERS for the December 31, 2019 annual actuarial valuation, except where otherwise noted.
- Assumption sets, without any phase-in of the impact of assumption changes:
  - Investment Rate of Return/Wage Inflation/Demographic Assumptions:
    - 7.35%/3.00%/2019 Demographic Assumptions,
    - 6.35%/3.00%/2019 Demographic Assumptions,
    - 5.35%/3.00%/2019 Demographic Assumptions,
    - 7.35%/3.00%/2020 Demographic Assumptions,
    - 6.35%/3.00%/2020 Demographic Assumptions, and
    - 5.35%/3.00%/2020 Demographic Assumptions.
- The employer contributions through December 31, 2020 are not affected, and are based on previous annual actuarial valuations.
- No bonding proceeds are incorporated as part of the calculations. Beginning asset values are those used in the December 31, 2019 actuarial valuation.
- As requested by MERS, the results in this report reflect a modified baseline. Division 20 closed to Defined Contribution (DC) effective August 1, 2020.
  - 1 member elected a frozen benefit, and was reflected as a frozen active in this report. Frozen benefit amounts were provided by MERS.
  - The member contribution rate was changed to 10%.
  - Additionally, the division reflects the new Closed – Not Linked status.
  - These changes are valued as if they happened on the valuation date, December 31, 2019.
  - The changes may affect the risk profile of the Plan. At this time, we do not believe additional risk assessment is necessary.

As always, the MERS actuaries will closely watch the funding progress of all divisions. The actuaries may recommend changes to the amortization policy in the future if they deem it necessary for the financial security of benefits provided by the municipality, which could result in more accelerated employer contributions than those shown in this report.

Issuance of a POB may affect the risk profile of the Plan. Contribution of POB bond proceeds to the plan improves the funded status of the Plan, and also increases the potential for contribution volatility in future annual actuarial valuation reports. At this time, we do not believe additional risk assessment is necessary. Plan maturity risk metrics will be updated in future annual actuarial valuation reports.

We projected the annual amortization payments, starting with the amortization periods in effect for the calendar year beginning January 1, 2020, under the amortization policies available for each division as in effect for the December 31, 2019 annual actuarial valuation. **Any normal cost payments are in addition to the amortization payment, and are not affected by the amortization policy used.**

These results are for illustration purposes only. Actual amortization payments will depend on the results of future annual actuarial valuations.

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**SUPPLEMENTAL VALUATION RESULTS – DIVISION 20**

**Calhoun Co (1311) – Division 20**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Using 7.35% Interest Rate, 3.00% Wage Inflation, and 2019 Demographic Assumptions\***

Calendar Year Beginning January 1,	Based on the Actuarial Value of Assets		Based on the Market Value of Assets	
	Beginning of Year UAL Balance	Amortization Payment	Beginning of Year UAL Balance	Amortization Payment
	2020	\$12,500,000	\$798,000	\$12,900,000
2021	12,600,000	970,000	13,000,000	1,000,000
2022	12,500,000	999,000	12,900,000	1,030,000
2023	12,400,000	1,030,000	12,800,000	1,060,000
2024	12,200,000	1,060,000	12,600,000	1,100,000
2025	12,000,000	1,090,000	12,400,000	1,130,000
2026	11,800,000	1,120,000	12,200,000	1,160,000
2027	11,500,000	1,160,000	11,900,000	1,200,000
2028	11,100,000	1,190,000	11,500,000	1,230,000
2029	10,700,000	1,230,000	11,100,000	1,270,000
2030	10,200,000	1,270,000	10,600,000	1,310,000
2031	9,650,000	1,300,000	9,980,000	1,350,000
2032	9,010,000	1,340,000	9,320,000	1,390,000
2033	8,280,000	1,380,000	8,560,000	1,430,000
2034	7,460,000	1,420,000	7,710,000	1,470,000
2035	6,530,000	1,470,000	6,750,000	1,520,000
2036	5,490,000	1,510,000	5,680,000	1,560,000
2037	4,330,000	1,560,000	4,470,000	1,610,000
2038	3,030,000	1,600,000	3,140,000	1,660,000
2039	1,590,000	1,650,000	1,650,000	1,710,000

\* The amortization schedules shown above assume all actuarial assumptions are met in future years, including actuarial and market rates of return at the stated interest rate.

**Calhoun Co (1311) – Division 20**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Using 6.35% Interest Rate, 3.00% Wage Inflation, and 2019 Demographic Assumptions\***

Calendar Year Beginning January 1,	Based on the Actuarial Value of Assets		Based on the Market Value of Assets	
	Beginning of		Beginning of	
	Year UAL Balance	Amortization Payment	Year UAL Balance	Amortization Payment
2020	\$18,000,000	\$798,000	\$18,500,000	\$798,000
2021	18,400,000	1,310,000	18,800,000	1,340,000
2022	18,200,000	1,350,000	18,600,000	1,380,000
2023	18,000,000	1,390,000	18,400,000	1,420,000
2024	17,700,000	1,430,000	18,100,000	1,460,000
2025	17,300,000	1,470,000	17,700,000	1,510,000
2026	16,900,000	1,520,000	17,300,000	1,550,000
2027	16,400,000	1,560,000	16,800,000	1,600,000
2028	15,800,000	1,610,000	16,200,000	1,650,000
2029	15,200,000	1,660,000	15,500,000	1,700,000
2030	14,400,000	1,710,000	14,700,000	1,750,000
2031	13,600,000	1,760,000	13,900,000	1,800,000
2032	12,600,000	1,810,000	12,900,000	1,860,000
2033	11,500,000	1,870,000	11,800,000	1,910,000
2034	10,300,000	1,920,000	10,600,000	1,970,000
2035	9,020,000	1,980,000	9,230,000	2,030,000
2036	7,550,000	2,040,000	7,730,000	2,090,000
2037	5,920,000	2,100,000	6,060,000	2,150,000
2038	4,130,000	2,160,000	4,230,000	2,220,000
2039	2,160,000	2,230,000	2,210,000	2,280,000

\* The amortization schedules shown above assume all actuarial assumptions are met in future years, including actuarial and market rates of return at the stated interest rate.

**Calhoun Co (1311) – Division 20**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Using 5.35% Interest Rate, 3.00% Wage Inflation, and 2019 Demographic Assumptions\***

Calendar Year Beginning January 1,	Based on the Actuarial Value of Assets		Based on the Market Value of Assets	
	Beginning of Year UAL Balance	Amortization Payment	Beginning of Year UAL Balance	Amortization Payment
	2020	\$24,900,000	\$798,000	\$25,300,000
2021	25,400,000	1,670,000	25,800,000	1,700,000
2022	25,000,000	1,720,000	25,500,000	1,750,000
2023	24,600,000	1,770,000	25,000,000	1,800,000
2024	24,100,000	1,820,000	24,500,000	1,850,000
2025	23,500,000	1,880,000	23,900,000	1,910,000
2026	22,900,000	1,930,000	23,300,000	1,970,000
2027	22,100,000	1,990,000	22,500,000	2,020,000
2028	21,300,000	2,050,000	21,600,000	2,090,000
2029	20,300,000	2,110,000	20,600,000	2,150,000
2030	19,200,000	2,180,000	19,500,000	2,210,000
2031	18,000,000	2,240,000	18,300,000	2,280,000
2032	16,700,000	2,310,000	16,900,000	2,350,000
2033	15,200,000	2,380,000	15,400,000	2,420,000
2034	13,500,000	2,450,000	13,800,000	2,490,000
2035	11,800,000	2,520,000	12,000,000	2,570,000
2036	9,790,000	2,600,000	9,960,000	2,640,000
2037	7,650,000	2,680,000	7,780,000	2,720,000
2038	5,310,000	2,760,000	5,400,000	2,800,000
2039	2,770,000	2,840,000	2,810,000	2,890,000

\* The amortization schedules shown above assume all actuarial assumptions are met in future years, including actuarial and market rates of return at the stated interest rate.

**Calhoun Co (1311) – Division 20**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Using 7.35% Interest Rate, 3.00% Wage Inflation, and 2020 Demographic**  
**Assumptions\***

Calendar Year Beginning January 1,	Based on the Actuarial Value of Assets		Based on the Market Value of Assets	
	Beginning of Year UAL	Amortization Payment	Beginning of Year UAL	Amortization Payment
	Balance		Balance	
2020	\$14,000,000	\$798,000	\$14,400,000	\$798,000
2021	14,200,000	1,100,000	14,600,000	1,130,000
2022	14,100,000	1,130,000	14,600,000	1,160,000
2023	14,000,000	1,160,000	14,400,000	1,200,000
2024	13,800,000	1,200,000	14,200,000	1,230,000
2025	13,600,000	1,230,000	14,000,000	1,270,000
2026	13,300,000	1,270,000	13,700,000	1,310,000
2027	13,000,000	1,310,000	13,400,000	1,350,000
2028	12,600,000	1,350,000	12,900,000	1,390,000
2029	12,100,000	1,390,000	12,500,000	1,430,000
2030	11,500,000	1,430,000	11,900,000	1,470,000
2031	10,900,000	1,470,000	11,200,000	1,520,000
2032	10,200,000	1,520,000	10,500,000	1,560,000
2033	9,360,000	1,560,000	9,640,000	1,610,000
2034	8,430,000	1,610,000	8,680,000	1,660,000
2035	7,380,000	1,660,000	7,600,000	1,710,000
2036	6,200,000	1,710,000	6,390,000	1,760,000
2037	4,890,000	1,760,000	5,040,000	1,810,000
2038	3,430,000	1,810,000	3,530,000	1,870,000
2039	1,800,000	1,870,000	1,860,000	1,920,000

\* The amortization schedules shown above assume all actuarial assumptions are met in future years, including actuarial and market rates of return at the stated interest rate.



**Calhoun Co (1311) – Division 20**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Using 6.35% Interest Rate, 3.00% Wage Inflation, and 2020 Demographic Assumptions\***

Calendar Year Beginning January 1,	Based on the Actuarial Value of Assets		Based on the Market Value of Assets	
	Beginning of Year UAL Balance	Amortization Payment	Beginning of Year UAL Balance	Amortization Payment
	2020	\$20,000,000	\$798,000	\$20,400,000
2021	20,400,000	1,460,000	20,800,000	1,490,000
2022	20,200,000	1,500,000	20,600,000	1,530,000
2023	19,900,000	1,540,000	20,400,000	1,580,000
2024	19,600,000	1,590,000	20,000,000	1,620,000
2025	19,200,000	1,640,000	19,600,000	1,670,000
2026	18,800,000	1,690,000	19,200,000	1,720,000
2027	18,200,000	1,740,000	18,600,000	1,770,000
2028	17,600,000	1,790,000	17,900,000	1,830,000
2029	16,800,000	1,840,000	17,200,000	1,880,000
2030	16,000,000	1,900,000	16,400,000	1,940,000
2031	15,100,000	1,960,000	15,400,000	2,000,000
2032	14,000,000	2,010,000	14,300,000	2,060,000
2033	12,800,000	2,070,000	13,100,000	2,120,000
2034	11,500,000	2,140,000	11,700,000	2,180,000
2035	10,000,000	2,200,000	10,200,000	2,250,000
2036	8,390,000	2,270,000	8,570,000	2,320,000
2037	6,580,000	2,340,000	6,720,000	2,380,000
2038	4,590,000	2,410,000	4,690,000	2,460,000
2039	2,400,000	2,480,000	2,450,000	2,530,000

\* The amortization schedules shown above assume all actuarial assumptions are met in future years, including actuarial and market rates of return at the stated interest rate.

**Calhoun Co (1311) – Division 20**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Using 5.35% Interest Rate, 3.00% Wage Inflation, and 2020 Demographic Assumptions\***

Calendar Year Beginning January 1,	Based on the Actuarial Value of Assets		Based on the Market Value of Assets	
	Beginning of Year UAL Balance	Amortization Payment	Beginning of Year UAL Balance	Amortization Payment
	2020	\$27,300,000	\$798,000	\$27,700,000
2021	28,000,000	1,840,000	28,400,000	1,870,000
2022	27,600,000	1,890,000	28,000,000	1,920,000
2023	27,100,000	1,950,000	27,500,000	1,980,000
2024	26,600,000	2,010,000	27,000,000	2,040,000
2025	25,900,000	2,070,000	26,300,000	2,100,000
2026	25,200,000	2,130,000	25,600,000	2,160,000
2027	24,400,000	2,190,000	24,700,000	2,230,000
2028	23,400,000	2,260,000	23,800,000	2,290,000
2029	22,300,000	2,330,000	22,700,000	2,360,000
2030	21,100,000	2,400,000	21,500,000	2,430,000
2031	19,800,000	2,470,000	20,100,000	2,510,000
2032	18,300,000	2,540,000	18,600,000	2,580,000
2033	16,700,000	2,620,000	17,000,000	2,660,000
2034	14,900,000	2,700,000	15,100,000	2,740,000
2035	12,900,000	2,780,000	13,100,000	2,820,000
2036	10,800,000	2,860,000	11,000,000	2,910,000
2037	8,430,000	2,950,000	8,560,000	2,990,000
2038	5,850,000	3,040,000	5,940,000	3,080,000
2039	3,050,000	3,130,000	3,090,000	3,180,000

\* The amortization schedules shown above assume all actuarial assumptions are met in future years, including actuarial and market rates of return at the stated interest rate.

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## **IMPORTANT COMMENTS**

## Important Comments

1. The actuarial value of assets used to determine both the funded ratio and the required employer contribution is based on a smoothed value of assets. Only a portion of each year's investment market gain or loss is recognized in the current actuarial value of assets; the remaining portions of gains and losses will be reflected in future years' actuarial value of assets. This reduces the asset volatility impact on the determined required employer contribution and funded ratio. The smoothed actuarial rate of return for 2019 was 4.77%.

As of December 31, 2019, the actuarial value of assets is 101% of market value. This means that there is a net outstanding asset loss that is not yet recognized in the actuarial value of assets. Absent future asset gains offsetting the net outstanding asset loss, the net outstanding asset loss will be recognized in future actuarial valuations and is expected to decrease funded ratios and increase employer contribution requirements.

2. Unless otherwise indicated, a funded status measurement is based upon the actuarial accrued liability and the actuarial value of assets. The measurement is:
  - a. Inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.
  - b. Inappropriate for assessing benefit security for the membership.
  - c. Dependent upon the actuarial cost method which, in combination with the amortization policy and asset valuation method, affects the timing and amounts of future contributions. The amounts of future contributions will differ from those assumed due to future actual experience differing from assumed.

A funded status measurement of 100% is not synonymous with no required future contributions. If the funded status were 100%, the Plan would still require future normal cost contributions (i.e., the cost of the active membership accruing an additional year of service credit).

3. The results do not show the potential impact on other post-employment benefits (such as retiree health care insurance) or ancillary benefits (such as life insurance).
4. The results of separate actuarial valuations generally cannot be added together to produce a correct estimate of the employer contributions. The total can be considerably greater than the sum of the parts due to the interaction of various plan provisions and assumptions used.
5. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. The scope of this supplemental actuarial valuation does not include an analysis of the potential range of such future measurements.

## Important Comments (Concluded)

6. This report was prepared using ProVal's valuation model, a software product of Winklevoss Technologies. We are relying on the ProVal model. We performed tests of the ProVal model with this assignment and made a reasonable attempt to understand the developer's intended purpose of, general operation of, major sensitivities and dependencies within, and key strengths and limitations of the ProVal model. In our professional judgment, the ProVal valuation model has the capability to provide results that are consistent with the purposes of the valuation.
7. This report was prepared using our financing and projection model which in our professional judgment has the capability to provide results that are consistent with the purposes of the request. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

Appendix B:  
Evidence that the Pension Obligation Bonds will  
Eliminate the Unfunded Pension Liability  
For the Closed Division(s) Employees Defined Benefit Plan

The County allocates pension costs to the various funds (20) that receive pension benefits. Similarly, the annual debt service for the Pension Obligation Bonds will be allocated proportionately to the funds receiving pension benefits. Revenue sources for the funds that will be allocated portions of the annual bond payments include annual operating levies, state shared revenues, special millages, and other sources of annual revenue.

The County's Administration completes an annual budget for each fund and present it to the County Board of Commissioners for approval. The annual debt service amounts for each fund within the budget will be included in the annual budget process to be presented and approved by the Board of Commissioners annually. The Bonds will carry the County's limited tax general obligation full faith and credit pledge; therefore, the annual debt service will be legally required to be part of the County's total budget.

Appendix C:  
Debt Service Amortization Schedule

**Calhoun County (1311)**  
**Projected Amortization Payments**  
 Based on December 31, 2019 Actuarial Valuation Data  
 Closed Amortization Policy - Using 7.35% Interest Rate and 3.00% Wage Inflation, and 2019 Demographic Assumptions  
 Actuarial Value

Calendar Year Beginning January 1	Without Bonding		With Bonding				Savings			
	Total UAL Payments (a)	Interest Due	Principal Due	Total Debt Service Payment (b)	UAL Payments Already Made (c)	Remaining UAL Payments (d)	Total Bond D/S and Remaining UAL Payments	Difference	Arbitrage Yield Present Value (e)	All-In TIC Present Value (f)
2021	2,050,000	243,188	605,000	848,188	512,500	350,140	1,710,828	339,172	334,843	334,519
2022	2,119,000	433,564	1,090,000	1,523,564		361,925	1,885,489	233,511	225,287	224,680
2023	2,180,000	429,422	1,090,000	1,519,422		372,344	1,891,766	288,234	271,758	270,557
2024	2,240,000	424,190	1,095,000	1,519,190		382,592	1,901,782	338,218	311,632	309,717
2025	2,310,000	417,182	1,105,000	1,522,182		394,548	1,916,730	393,270	354,115	351,330
2026	2,380,000	406,132	1,115,000	1,521,132		406,504	1,927,636	452,364	398,060	394,247
2027	2,450,000	393,867	1,130,000	1,523,867		418,460	1,942,327	507,673	436,569	431,639
2028	2,520,000	377,143	1,145,000	1,522,143		430,416	1,952,559	567,441	476,867	470,666
2029	2,600,000	359,052	1,160,000	1,519,052		444,080	1,963,132	636,868	523,039	515,344
2030	2,680,000	336,432	1,185,000	1,521,432		457,744	1,979,176	700,824	562,473	553,239
2031	2,760,000	312,140	1,210,000	1,522,140		471,408	1,993,548	766,453	601,154	590,262
2032	2,840,000	286,125	1,235,000	1,521,125		485,072	2,006,197	833,804	639,105	626,440
2033	2,930,000	257,720	1,265,000	1,522,720		500,444	2,023,164	906,837	679,275	664,661
2034	3,010,000	227,360	1,295,000	1,522,360		514,108	2,036,468	973,533	712,648	696,110
2035	3,110,000	194,985	1,325,000	1,519,985		531,188	2,051,173	1,058,828	757,457	738,598
2036	3,200,000	160,535	1,360,000	1,520,535		546,560	2,067,095	1,132,906	792,016	770,961
2037	3,300,000	124,495	1,395,000	1,519,495		563,640	2,083,135	1,216,866	831,364	807,862
2038	3,390,000	85,574	1,435,000	1,520,574		579,012	2,099,586	1,290,414	861,560	835,756
2039	3,500,000	44,103	1,475,000	1,519,103		597,800	2,116,903	1,383,098	902,438	873,895
	\$ 51,569,000	\$ 5,513,205	\$ 22,715,000	\$ 28,228,205	\$ 512,500	\$ 8,807,985	\$ 37,548,690	\$ 14,020,310	\$ 10,671,660	\$ 10,460,484

- (a) Based on GRS Letter dated October 7, 2020
  - (b) Estimated only based on estimated interest rates as of 1/21/2021
  - (c) Assumes 3 months of UAL payments will be made prior to the bonds being sold
  - (d) Assumes \$22,354,236 payment towards UAL, leaving 17.08% of UAL payments remaining unfunded
  - (e) Represents Arbitrage Yield
  - (f) Represents All-In TIC
- |  |  |              |
|--|--|--------------|
|  | UAL Funded with Bond Proceeds:                     | \$22,354,236 |
|  | Estimated Bond Amount:                             | \$22,715,000 |
|  | Arbitrage Yield:                                   | 2.327%       |
|  | All-In TIC:  | 2.505%       |
|  | NPV Savings as % of Principal based on Arb. Yield: | 46.98%       |
|  | NPV Savings as % of Principal based on All-In TIC: | 46.05%       |



**Calhoun County (1311)**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Closed Amortization Policy - Using 7.35% Interest Rate and 3.00% Wage Inflation, and 2019 Demographic Assumptions +50 Basis Points**  
**Actuarial Value**

Calendar Year Beginning January 1	Without Bonding		With Bonding				Savings			
	Total UAL Payments (a)	Interest Due	Principal Due	Total Debt Service Payment (b)	UAL Payments Already Made (c)	Remaining UAL Payments (d)	Total Bond D/S and Remaining UAL Payments	Difference	Arbitrage Yield Present Value (e)	All-In TIC Present Value (f)
2021	2,050,000	309,395	580,000	889,395	512,500	350,140	1,752,035	297,965	293,351	293,064
2022	2,119,000	549,326	1,040,000	1,589,326		361,925	1,951,251	167,749	160,599	160,160
2023	2,180,000	540,174	1,050,000	1,590,174		372,344	1,962,518	217,483	202,473	201,565
2024	2,240,000	529,884	1,060,000	1,589,884		382,592	1,972,476	267,525	242,197	240,687
2025	2,310,000	517,800	1,075,000	1,592,800		394,548	1,987,348	322,653	284,054	281,787
2026	2,380,000	501,675	1,090,000	1,591,675		406,504	1,998,179	381,822	326,879	323,701
2027	2,450,000	484,235	1,105,000	1,589,235		418,460	2,007,695	442,306	368,222	364,002
2028	2,520,000	462,356	1,130,000	1,592,356		430,416	2,022,772	497,229	402,535	397,224
2029	2,600,000	438,852	1,150,000	1,588,852		444,080	2,032,932	567,069	446,421	439,757
2030	2,680,000	410,677	1,180,000	1,590,677		457,744	2,048,421	631,580	483,501	475,448
2031	2,760,000	380,587	1,210,000	1,590,587		471,408	2,061,995	698,006	519,624	510,071
2032	2,840,000	348,522	1,245,000	1,593,522		485,072	2,078,594	761,407	551,198	540,115
2033	2,930,000	313,662	1,275,000	1,588,662		500,444	2,089,106	840,895	591,961	579,040
2034	3,010,000	276,687	1,315,000	1,591,687		514,108	2,105,795	904,206	618,984	604,411
2035	3,110,000	237,237	1,355,000	1,592,237		531,188	2,123,425	986,576	656,755	640,166
2036	3,200,000	195,232	1,395,000	1,590,232		546,560	2,136,792	1,063,209	688,260	669,697
2037	3,300,000	151,289	1,440,000	1,591,289		563,640	2,154,929	1,145,071	720,821	700,149
2038	3,390,000	103,913	1,485,000	1,588,913		579,012	2,167,925	1,222,075	748,090	725,359
2039	3,500,000	53,572	1,535,000	1,588,572		597,800	2,186,372	1,313,629	781,968	756,877
	\$ 51,569,000	\$ 6,805,067	\$ 22,715,000	\$ 29,520,067	\$ 512,500	\$ 8,807,985	\$ 38,840,552	\$ 12,728,448	\$ 9,087,893	\$ 8,903,282

- (a) Based on GRS Letter dated October 7, 2020
  - (b) Estimated only based on estimated interest rates as of 1/21/2021
  - (c) Assumes 3 months of UAL payments will be made prior to the bonds being sold
  - (d) Assumes \$22,354,236 payment towards UAL, leaving 17.08% of UAL payments remaining unfunded
  - (e) Represents Arbitrage Yield
  - (f) Represents All-In TIC
- |  |  |              |
|--|--|--------------|
|  | UAL Funded with Bond Proceeds:                     | \$22,354,236 |
|  | Estimated Bond Amount:                             | \$22,715,000 |
|  | Arbitrage Yield:                                   | 2.835%       |
|  | All-In TIC:  | 3.015%       |
|  | NPV Savings as % of Principal based on Arb. Yield: | 40.01%       |
|  | NPV Savings as % of Principal based on All-In TIC: | 39.20%       |

**Calhoun County (1311)**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Closed Amortization Policy - Using 7.35% Interest Rate and 3.00% Wage Inflation, and 2019 Demographic Assumptions -50 Basis Points**  
**Actuarial Value**

Calendar Year Beginning January 1	Without Bonding		With Bonding				Savings			
	Total UAL Payments (a)	Interest Due	Principal Due	Total Debt Service Payment (b)	UAL Payments Already Made (c)	Remaining UAL Payments (d)	Total Bond D/S and Remaining UAL Payments	Difference	Arbitrage Yield Present Value (e)	All-In TIC Present Value (f)
2021	2,050,000	183,540	630,000	813,540	512,500	350,140	1,676,180	373,820	370,049	369,696
2022	2,119,000	327,910	1,125,000	1,452,910		361,925	1,814,835	304,165	295,678	294,893
2023	2,180,000	325,885	1,130,000	1,455,885		372,344	1,828,229	351,771	335,802	334,339
2024	2,240,000	322,721	1,130,000	1,452,721		382,592	1,835,313	404,687	379,364	377,067
2025	2,310,000	318,427	1,135,000	1,453,427		394,548	1,847,975	462,025	425,321	422,024
2026	2,380,000	312,752	1,140,000	1,452,752		406,504	1,859,256	520,744	470,748	466,302
2027	2,450,000	305,912	1,150,000	1,455,912		418,460	1,874,372	575,628	510,999	505,309
2028	2,520,000	294,642	1,160,000	1,454,642		430,416	1,885,058	634,942	553,510	546,414
2029	2,600,000	282,114	1,175,000	1,457,114		444,080	1,901,194	698,806	598,221	589,544
2030	2,680,000	265,077	1,190,000	1,455,077		457,744	1,912,821	767,180	644,935	634,496
2031	2,760,000	246,632	1,210,000	1,456,632		471,408	1,928,040	831,961	686,807	674,538
2032	2,840,000	226,667	1,230,000	1,456,667		485,072	1,941,739	898,262	728,197	713,968
2033	2,930,000	204,527	1,250,000	1,454,527		500,444	1,954,971	975,030	776,206	759,741
2034	3,010,000	180,777	1,275,000	1,455,777		514,108	1,969,885	1,040,116	813,120	794,514
2035	3,110,000	155,277	1,300,000	1,455,277		531,188	1,986,465	1,123,536	862,528	841,355
2036	3,200,000	127,977	1,325,000	1,452,977		546,560	1,999,537	1,200,464	905,001	881,279
2037	3,300,000	99,489	1,355,000	1,454,489		563,640	2,018,129	1,281,871	948,982	922,531
2038	3,390,000	68,460	1,385,000	1,453,460		579,012	2,032,472	1,357,529	986,907	957,762
2039	3,500,000	35,358	1,420,000	1,455,358		597,800	2,053,158	1,446,842	1,032,908	1,000,695
	\$ 51,569,000	\$ 4,284,140	\$ 22,715,000	\$ 26,999,140	\$ 512,500	\$ 8,807,985	\$ 36,319,626	\$ 15,249,374	\$ 12,325,284	\$ 12,086,466

- (a) Based on GRS Letter dated October 7, 2020
  - (b) Estimated only based on estimated interest rates as of 1/21/2021
  - (c) Assumes 3 months of UAL payments will be made prior to the bonds being sold
  - (d) Assumes \$22,354,236 payment towards UAL, leaving 17.08% of UAL payments remaining unfunded
  - (e) Represents Arbitrage Yield
  - (f) Represents All-In TIC
- |  |  |              |
|--|--|--------------|
|  | UAL Funded with Bond Proceeds:                     | \$22,354,236 |
|  | Estimated Bond Amount:                             | \$22,715,000 |
|  | Arbitrage Yield:                                   | 1.833%       |
|  | All-In TIC:  | 2.007%       |
|  | NPV Savings as % of Principal based on Arb. Yield: | 54.26%       |
|  | NPV Savings as % of Principal based on All-In TIC: | 53.21%       |

**Calhoun County (1311)**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Closed Amortization Policy - Using 6.35% Interest Rate and 3.00% Wage Inflation, and 2019 Demographic Assumptions**  
**Actuarial Value**

Calendar Year Beginning January 1	Without Bonding		With Bonding				Savings			
	Total UAL Payments (a)	Interest Due	Principal Due	Total Debt Service Payment (b)	UAL Payments Already Made (c)	Remaining UAL Payments (d)	Total Bond D/S and Remaining UAL Payments	Difference	Arbitrage Yield Present Value (e)	All-In TIC Present Value (f)
2021	2,670,000	243,188	605,000	848,188	667,500	1,114,191	2,629,879	40,121	39,609	39,571
2022	2,760,000	433,564	1,090,000	1,523,564		1,151,748	2,675,312	84,688	81,705	81,485
2023	2,840,000	429,422	1,090,000	1,519,422		1,185,132	2,704,554	135,446	127,704	127,139
2024	2,920,000	424,190	1,095,000	1,519,190		1,218,516	2,737,706	182,294	167,964	166,933
2025	3,010,000	417,182	1,105,000	1,522,182		1,256,073	2,778,255	231,745	208,672	207,031
2026	3,100,000	406,132	1,115,000	1,521,132		1,293,630	2,814,762	285,238	250,997	248,592
2027	3,190,000	393,867	1,130,000	1,523,867		1,331,187	2,855,054	334,946	288,034	284,781
2028	3,290,000	377,143	1,145,000	1,522,143		1,372,917	2,895,060	394,940	331,901	327,584
2029	3,390,000	359,052	1,160,000	1,519,052		1,414,647	2,933,699	456,301	374,745	369,232
2030	3,490,000	336,432	1,185,000	1,521,432		1,456,377	2,977,809	512,191	411,078	404,330
2031	3,590,000	312,140	1,210,000	1,522,140		1,498,107	3,020,247	569,754	446,877	438,780
2032	3,700,000	286,125	1,235,000	1,521,125		1,544,010	3,065,135	634,866	486,620	476,977
2033	3,820,000	257,720	1,265,000	1,522,720		1,594,086	3,116,806	703,195	526,735	515,403
2034	3,920,000	227,360	1,295,000	1,522,360		1,635,816	3,158,176	761,825	557,673	544,731
2035	4,040,000	194,985	1,325,000	1,519,985		1,685,892	3,205,877	834,124	596,709	581,853
2036	4,170,000	160,535	1,360,000	1,520,535		1,740,141	3,260,676	909,325	635,710	618,811
2037	4,290,000	124,495	1,395,000	1,519,495		1,790,217	3,309,712	980,289	669,734	650,802
2038	4,420,000	85,574	1,435,000	1,520,574		1,844,466	3,365,040	1,054,960	704,356	683,261
2039	4,550,000	44,103	1,475,000	1,519,103		1,898,715	3,417,818	1,132,183	738,722	715,357
	\$ 67,160,000	\$ 5,513,205	\$ 22,715,000	\$ 28,228,205	\$ 667,500	\$ 28,025,868	\$ 56,921,573	\$ 10,238,427	\$ 7,645,546	\$ 7,482,652

- (a) Based on GRS Letter dated October 7, 2020
  - (b) Estimated only based on estimated interest rates as of 1/21/2021
  - (c) Assumes 3 months of UAL payments will be made prior to the bonds being sold
  - (d) Assumes \$22,354,236 payment towards UAL, leaving 41.73% of UAL payments remaining unfunded
  - (e) Represents Arbitrage Yield
  - (f) Represents All-In TIC
- |  |  |              |
|--|--|--------------|
|  | UAL Funded with Bond Proceeds:                     | \$22,354,236 |
|  | Estimated Bond Amount:                             | \$22,715,000 |
|  | Arbitrage Yield:                                   | 2.327%       |
|  | All-In TIC:  | 2.505%       |
|  | NPV Savings as % of Principal based on Arb. Yield: | 33.66%       |
|  | NPV Savings as % of Principal based on All-In TIC: | 32.94%       |

**Calhoun County (1311)**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Closed Amortization Policy - Using 6.35% Interest Rate and 3.00% Wage Inflation, and 2019 Demographic Assumptions +50 Basis Points**  
**Actuarial Value**

Calendar Year Beginning January 1	Without Bonding	With Bonding					Savings			
	Total UAL Payments (a)	Interest Due	Principal Due	Total Debt Service Payment (b)	UAL Payments Already Made (c)	Remaining UAL Payments (d)	Total Bond D/S and Remaining UAL Payments	Difference	Arbitrage Yield Present Value (e)	All-In TIC Present Value (f)
2021	2,670,000	309,395	580,000	889,395	667,500	1,114,191	2,671,086	(1,086)	(1,069)	(1,068)
2022	2,760,000	549,326	1,040,000	1,589,326		1,151,748	2,741,074	18,927	18,120	18,070
2023	2,840,000	540,174	1,050,000	1,590,174		1,185,132	2,775,306	64,695	60,230	59,960
2024	2,920,000	529,884	1,060,000	1,589,884		1,218,516	2,808,400	111,601	101,035	100,405
2025	3,010,000	517,800	1,075,000	1,592,800		1,256,073	2,848,873	161,128	141,852	140,720
2026	3,100,000	501,675	1,090,000	1,591,675		1,293,630	2,885,305	214,696	183,802	182,015
2027	3,190,000	484,235	1,105,000	1,589,235		1,331,187	2,920,422	269,579	224,426	221,854
2028	3,290,000	462,356	1,130,000	1,592,356		1,372,917	2,965,273	324,728	262,886	259,417
2029	3,390,000	438,852	1,150,000	1,588,852		1,414,647	3,003,499	386,502	304,270	299,729
2030	3,490,000	410,677	1,180,000	1,590,677		1,456,377	3,047,054	442,947	339,094	333,446
2031	3,590,000	380,587	1,210,000	1,590,587		1,498,107	3,088,694	501,307	373,193	366,333
2032	3,700,000	348,522	1,245,000	1,593,522		1,544,010	3,137,532	562,469	407,183	398,995
2033	3,820,000	313,662	1,275,000	1,588,662		1,594,086	3,182,748	637,253	448,604	438,812
2034	3,920,000	276,687	1,315,000	1,591,687		1,635,816	3,227,503	692,498	474,057	462,896
2035	4,040,000	237,237	1,355,000	1,592,237		1,685,892	3,278,129	761,872	507,172	494,361
2036	4,170,000	195,232	1,395,000	1,590,232		1,740,141	3,330,373	839,628	543,527	528,867
2037	4,290,000	151,289	1,440,000	1,591,289		1,790,217	3,381,506	908,494	571,896	555,495
2038	4,420,000	103,913	1,485,000	1,588,913		1,844,466	3,433,379	986,621	603,957	585,606
2039	4,550,000	53,572	1,535,000	1,588,572		1,898,715	3,487,287	1,062,714	632,605	612,307
	\$ 67,160,000	\$ 6,805,067	\$ 22,715,000	\$ 29,520,067	\$ 667,500	\$ 28,025,868	\$ 58,213,435	\$ 8,946,565	\$ 6,196,839	\$ 6,058,221

- (a) Based on GRS Letter dated October 7, 2020
  - (b) Estimated only based on estimated interest rates as of 1/21/2021
  - (c) Assumes 3 months of UAL payments will be made prior to the bonds being sold
  - (d) Assumes \$22,354,236 payment towards UAL, leaving 41.73% of UAL payments remaining unfunded
  - (e) Represents Arbitrage Yield
  - (f) Represents All-In TIC
- |  |  |              |
|--|--|--------------|
|  | UAL Funded with Bond Proceeds:                     | \$22,354,236 |
|  | Estimated Bond Amount:                             | \$22,715,000 |
|  | Arbitrage Yield:                                   | 2.835%       |
|  | All-In TIC:  | 3.015%       |
|  | NPV Savings as % of Principal based on Arb. Yield: | 27.28%       |
|  | NPV Savings as % of Principal based on All-In TIC: | 26.67%       |

**Calhoun County (1311)**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Closed Amortization Policy - Using 6.35% Interest Rate and 3.00% Wage Inflation, and 2019 Demographic Assumptions -50 Basis Points**  
**Actuarial Value**

Calendar Year Beginning January 1	Without Bonding		With Bonding				Savings			
	Total UAL Payments (a)	Interest Due	Principal Due	Total Debt Service Payment (b)	UAL Payments Already Made (c)	Remaining UAL Payments (d)	Total Bond D/S and Remaining UAL Payments	Difference	Arbitrage Yield Present Value (e)	All-In TIC Present Value (f)
2021	2,670,000	183,540	630,000	813,540	667,500	1,114,191	2,595,231	74,769	74,094	74,024
2022	2,760,000	327,910	1,125,000	1,452,910		1,151,748	2,604,658	155,342	151,462	151,062
2023	2,840,000	325,885	1,130,000	1,455,885		1,185,132	2,641,017	198,983	190,889	190,061
2024	2,920,000	322,721	1,130,000	1,452,721		1,218,516	2,671,237	248,763	234,802	233,387
2025	3,010,000	318,427	1,135,000	1,453,427		1,256,073	2,709,500	300,500	279,068	276,916
2026	3,100,000	312,752	1,140,000	1,452,752		1,293,630	2,746,382	353,618	323,110	320,074
2027	3,190,000	305,912	1,150,000	1,455,912		1,331,187	2,787,099	402,901	362,214	358,202
2028	3,290,000	294,642	1,160,000	1,454,642		1,372,917	2,827,559	462,441	409,047	403,830
2029	3,390,000	282,114	1,175,000	1,457,114		1,414,647	2,871,761	518,239	451,022	444,514
2030	3,490,000	265,077	1,190,000	1,455,077		1,456,377	2,911,454	578,547	495,401	487,423
2031	3,590,000	246,632	1,210,000	1,456,632		1,498,107	2,954,739	635,262	535,206	525,694
2032	3,700,000	226,667	1,230,000	1,456,667		1,544,010	3,000,677	699,324	579,692	568,423
2033	3,820,000	204,527	1,250,000	1,454,527		1,594,086	3,048,613	771,388	629,133	615,856
2034	3,920,000	180,777	1,275,000	1,455,777		1,635,816	3,091,593	828,408	664,759	649,626
2035	4,040,000	155,277	1,300,000	1,455,277		1,685,892	3,141,169	898,832	709,658	692,326
2036	4,170,000	127,977	1,325,000	1,452,977		1,740,141	3,193,118	976,883	758,863	739,073
2037	4,290,000	99,489	1,355,000	1,454,489		1,790,217	3,244,706	1,045,294	798,932	776,777
2038	4,420,000	68,460	1,385,000	1,453,460		1,844,466	3,297,926	1,122,075	843,808	819,016
2039	4,550,000	35,358	1,420,000	1,455,358		1,898,715	3,354,073	1,195,927	884,865	857,410
	\$ 67,160,000	\$ 4,284,140	\$ 22,715,000	\$ 26,999,140	\$ 667,500	\$ 28,025,868	\$ 55,692,508	\$ 11,467,492	\$ 9,376,024	\$ 9,183,694

- (a) Based on GRS Letter dated October 7, 2020
  - (b) Estimated only based on estimated interest rates as of 1/21/2021
  - (c) Assumes 3 months of UAL payments will be made prior to the bonds being sold
  - (d) Assumes \$22,354,236 payment towards UAL, leaving 41.73% of UAL payments remaining unfunded
  - (e) Represents Arbitrage Yield
  - (f) Represents All-In TIC
- |  |  |              |
|--|--|--------------|
|  | UAL Funded with Bond Proceeds:                     | \$22,354,236 |
|  | Estimated Bond Amount:                             | \$22,715,000 |
|  | Arbitrage Yield:                                   | 1.636%       |
|  | All-In TIC:  | 1.809%       |
|  | NPV Savings as % of Principal based on Arb. Yield: | 41.28%       |
|  | NPV Savings as % of Principal based on All-In TIC: | 40.43%       |

**Calhoun County (1311)**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Closed Amortization Policy - Using 5.35% Interest Rate and 3.00% Wage Inflation, and 2019 Demographic Assumptions**  
**Actuarial Value**

Calendar Year Beginning January 1	Without Bonding		With Bonding				Savings			
	Total UAL Payments (a)	Interest Due	Principal Due	Total Debt Service Payment (b)	UAL Payments Already Made (c)	Remaining UAL Payments (d)	Total Bond D/S and Remaining UAL Payments	Difference	Arbitrage Yield Present Value (e)	All-In TIC Present Value (f)
2021	3,320,000	243,188	605,000	848,188	830,000	1,828,656	3,506,844	(186,844)	(184,459)	(184,281)
2022	3,420,000	433,564	1,090,000	1,523,564		1,883,736	3,407,300	12,700	12,253	12,220
2023	3,520,000	429,422	1,090,000	1,519,422		1,938,816	3,458,238	61,762	58,232	57,974
2024	3,620,000	424,190	1,095,000	1,519,190		1,993,896	3,513,086	106,914	98,510	97,905
2025	3,740,000	417,182	1,105,000	1,522,182		2,059,992	3,582,174	157,826	142,112	140,995
2026	3,840,000	406,132	1,115,000	1,521,132		2,115,072	3,636,204	203,796	179,331	177,614
2027	3,960,000	393,867	1,130,000	1,523,867		2,181,168	3,705,035	254,965	219,255	216,779
2028	4,080,000	377,143	1,145,000	1,522,143		2,247,264	3,769,407	310,593	261,017	257,622
2029	4,200,000	359,052	1,160,000	1,519,052		2,313,360	3,832,412	367,588	301,888	297,447
2030	4,330,000	336,432	1,185,000	1,521,432		2,384,964	3,906,396	423,604	339,980	334,398
2031	4,460,000	312,140	1,210,000	1,522,140		2,456,568	3,978,708	481,293	377,494	370,654
2032	4,600,000	286,125	1,235,000	1,521,125		2,533,680	4,054,805	545,196	417,889	409,607
2033	4,730,000	257,720	1,265,000	1,522,720		2,605,284	4,128,004	601,997	450,932	441,230
2034	4,870,000	227,360	1,295,000	1,522,360		2,682,396	4,204,756	665,245	486,974	475,673
2035	5,020,000	194,985	1,325,000	1,519,985		2,765,016	4,285,001	735,000	525,799	512,708
2036	5,170,000	160,535	1,360,000	1,520,535		2,847,636	4,368,171	801,830	560,561	545,659
2037	5,330,000	124,495	1,395,000	1,519,495		2,935,764	4,455,259	874,742	597,624	580,730
2038	5,490,000	85,574	1,435,000	1,520,574		3,023,892	4,544,466	945,534	631,297	612,390
2039	5,650,000	44,103	1,475,000	1,519,103		3,112,020	4,631,123	1,018,878	664,793	643,767
	\$ 83,350,000	\$ 5,513,205	\$ 22,715,000	\$ 28,228,205	\$ 830,000	\$ 45,909,180	\$ 74,967,385	\$ 8,382,615	\$ 6,141,480	\$ 6,001,090

- |   |  |              |
|---|--|--------------|
| (a) Based on GRS Letter dated October 7, 2020   | UAL Funded with Bond Proceeds:                     | \$22,354,236 |
| (b) Estimated only based on estimated interest rates as of 1/21/2021                            | Estimated Bond Amount:                             | \$22,715,000 |
| (c) Assumes 3 months of UAL payments will be made prior to the bonds being sold                 | Arbitrage Yield:                                   | 2.327%       |
| (d) Assumes \$22,354,236 payment towards UAL, leaving 55.08% of UAL payments remaining unfunded | All-In TIC:  | 2.505%       |
| (e) Represents Arbitrage Yield  | NPV Savings as % of Principal based on Arb. Yield: | 27.04%       |
| (f) Represents All-In TIC   | NPV Savings as % of Principal based on All-In TIC: | 26.42%       |

**Calhoun County (1311)**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Closed Amortization Policy - Using 5.35% Interest Rate and 3.00% Wage Inflation, and 2019 Demographic Assumptions +50 Basis Points**  
**Actuarial Value**

Calendar Year Beginning January 1	Without Bonding		With Bonding				Savings			
	Total UAL Payments (a)	Interest Due	Principal Due	Total Debt Service Payment (b)	UAL Payments Already Made (c)	Remaining UAL Payments (d)	Total Bond D/S and Remaining UAL Payments	Difference	Arbitrage Yield Present Value (e)	All-In TIC Present Value (f)
2021	3,320,000	309,395	580,000	889,395	830,000	1,828,656	3,548,051	(228,051)	(224,519)	(224,299)
2022	3,420,000	549,326	1,040,000	1,589,326		1,883,736	3,473,062	(53,062)	(50,800)	(50,661)
2023	3,520,000	540,174	1,050,000	1,590,174		1,938,816	3,528,990	(8,990)	(8,369)	(8,332)
2024	3,620,000	529,884	1,060,000	1,589,884		1,993,896	3,583,780	36,221	32,791	32,587
2025	3,740,000	517,800	1,075,000	1,592,800		2,059,992	3,652,792	87,209	76,776	76,163
2026	3,840,000	501,675	1,090,000	1,591,675		2,115,072	3,706,747	133,254	114,079	112,970
2027	3,960,000	484,235	1,105,000	1,589,235		2,181,168	3,770,403	189,598	157,841	156,032
2028	4,080,000	462,356	1,130,000	1,592,356		2,247,264	3,839,620	240,381	194,602	192,034
2029	4,200,000	438,852	1,150,000	1,588,852		2,313,360	3,902,212	297,789	234,432	230,932
2030	4,330,000	410,677	1,180,000	1,590,677		2,384,964	3,975,641	354,360	271,277	266,759
2031	4,460,000	380,587	1,210,000	1,590,587		2,456,568	4,047,155	412,846	307,339	301,689
2032	4,600,000	348,522	1,245,000	1,593,522		2,533,680	4,127,202	472,799	342,269	335,387
2033	4,730,000	313,662	1,275,000	1,588,662		2,605,284	4,193,946	536,055	377,364	369,127
2034	4,870,000	276,687	1,315,000	1,591,687		2,682,396	4,274,083	595,918	407,942	398,337
2035	5,020,000	237,237	1,355,000	1,592,237		2,765,016	4,357,253	662,748	441,186	430,042
2036	5,170,000	195,232	1,395,000	1,590,232		2,847,636	4,437,868	732,133	473,941	461,158
2037	5,330,000	151,289	1,440,000	1,591,289		2,935,764	4,527,053	802,947	505,454	490,958
2038	5,490,000	103,913	1,485,000	1,588,913		3,023,892	4,612,805	877,195	536,972	520,657
2039	5,650,000	53,572	1,535,000	1,588,572		3,112,020	4,700,592	949,409	565,158	547,024
	\$ 83,350,000	\$ 6,805,067	\$ 22,715,000	\$ 29,520,067	\$ 830,000	\$ 45,909,180	\$ 76,259,247	\$ 7,090,753	\$ 4,755,734	\$ 4,638,566

- (a) Based on GRS Letter dated October 7, 2020
  - (b) Estimated only based on estimated interest rates as of 1/21/2021
  - (c) Assumes 3 months of UAL payments will be made prior to the bonds being sold
  - (d) Assumes \$22,354,236 payment towards UAL, leaving 55.08% of UAL payments remaining unfunded
  - (e) Represents Arbitrage Yield
  - (f) Represents All-In TIC
- |  |              |
|--|--------------|
| UAL Funded with Bond Proceeds:                     | \$22,354,236 |
| Estimated Bond Amount:                             | \$22,715,000 |
| Arbitrage Yield:                                   | 2.835%       |
| All-In TIC:  | 3.015%       |
| NPV Savings as % of Principal based on Arb. Yield: | 20.94%       |
| NPV Savings as % of Principal based on All-In TIC: | 20.42%       |

**Calhoun County (1311)**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Closed Amortization Policy - Using 5.35% Interest Rate and 3.00% Wage Inflation, and 2019 Demographic Assumptions -50 Basis Points**  
**Actuarial Value**

Calendar Year Beginning January 1	Without Bonding		With Bonding				Savings			
	Total UAL Payments (a)	Interest Due	Principal Due	Total Debt Service Payment (b)	UAL Payments Already Made (c)	Remaining UAL Payments (d)	Total Bond D/S and Remaining UAL Payments	Difference	Arbitrage Yield Present Value (e)	All-In TIC Present Value (f)
2021	3,320,000	183,540	630,000	813,540	830,000	1,828,656	3,472,196	(152,196)	(150,823)	(150,680)
2022	3,420,000	327,910	1,125,000	1,452,910		1,883,736	3,336,646	83,354	81,272	81,057
2023	3,520,000	325,885	1,130,000	1,455,885		1,938,816	3,394,701	125,299	120,202	119,681
2024	3,620,000	322,721	1,130,000	1,452,721		1,993,896	3,446,617	173,383	163,652	162,666
2025	3,740,000	318,427	1,135,000	1,453,427		2,059,992	3,513,419	226,581	210,421	208,798
2026	3,840,000	312,752	1,140,000	1,452,752		2,115,072	3,567,824	272,176	248,694	246,358
2027	3,960,000	305,912	1,150,000	1,455,912		2,181,168	3,637,080	322,920	290,310	287,094
2028	4,080,000	294,642	1,160,000	1,454,642		2,247,264	3,701,906	378,094	334,439	330,173
2029	4,200,000	282,114	1,175,000	1,457,114		2,313,360	3,770,474	429,526	373,815	368,421
2030	4,330,000	265,077	1,190,000	1,455,077		2,384,964	3,840,041	489,960	419,545	412,789
2031	4,460,000	246,632	1,210,000	1,456,632		2,456,568	3,913,200	546,801	460,678	452,491
2032	4,600,000	226,667	1,230,000	1,456,667		2,533,680	3,990,347	609,654	505,362	495,538
2033	4,730,000	204,527	1,250,000	1,454,527		2,605,284	4,059,811	670,190	546,597	535,062
2034	4,870,000	180,777	1,275,000	1,455,777		2,682,396	4,138,173	731,828	587,258	573,889
2035	5,020,000	155,277	1,300,000	1,455,277		2,765,016	4,220,293	799,708	631,396	615,975
2036	5,170,000	127,977	1,325,000	1,452,977		2,847,636	4,300,613	869,388	675,359	657,746
2037	5,330,000	99,489	1,355,000	1,454,489		2,935,764	4,390,253	939,747	718,261	698,343
2038	5,490,000	68,460	1,385,000	1,453,460		3,023,892	4,477,352	1,012,649	761,519	739,145
2039	5,650,000	35,358	1,420,000	1,455,358		3,112,020	4,567,378	1,082,622	801,031	776,177
	\$ 83,350,000	\$ 4,284,140	\$ 22,715,000	\$ 26,999,140	\$ 830,000	\$ 45,909,180	\$ 73,738,320	\$ 9,611,680	\$ 7,778,988	\$ 7,610,724

- |   |  |              |
|---|--|--------------|
| (a) Based on GRS Letter dated October 7, 2020   | UAL Funded with Bond Proceeds:                     | \$22,354,236 |
| (b) Estimated only based on estimated interest rates as of 1/21/2021                            | Estimated Bond Amount:                             | \$22,715,000 |
| (c) Assumes 3 months of UAL payments will be made prior to the bonds being sold                 | Arbitrage Yield:                                   | 1.636%       |
| (d) Assumes \$22,354,236 payment towards UAL, leaving 55.08% of UAL payments remaining unfunded | All-In TIC:  | 1.809%       |
| (e) Represents Arbitrage Yield  | NPV Savings as % of Principal based on Arb. Yield: | 34.25%       |
| (f) Represents All-In TIC   | NPV Savings as % of Principal based on All-In TIC: | 33.51%       |



**Calhoun County (1311)**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Closed Amortization Policy - Using 7.35% Interest Rate and 3.00% Wage Inflation, and 2019 Demographic Assumptions**  
**Market Value**

Calendar Year Beginning January 1	Without Bonding		With Bonding				Savings			
	Total UAL Payments (a)	Interest Due	Principal Due	Total Debt Service Payment (b)	UAL Payments Already Made (c)	Remaining UAL Payments (d)	Total Bond D/S and Remaining UAL Payments	Difference	Arbitrage Yield Present Value (e)	All-In TIC Present Value (f)
2021	2,120,000	252,235	630,000	882,235	530,000	351,072	1,763,307	356,693	352,140	351,806
2022	2,180,000	449,685	1,130,000	1,579,685		361,008	1,940,693	239,307	230,879	230,268
2023	2,250,000	445,391	1,135,000	1,580,391		372,600	1,952,991	297,009	280,031	278,815
2024	2,320,000	439,943	1,140,000	1,579,943		384,192	1,964,135	355,865	327,891	325,912
2025	2,390,000	432,647	1,145,000	1,577,647		395,784	1,973,431	416,569	375,093	372,195
2026	2,460,000	421,197	1,155,000	1,576,197		407,376	1,983,573	476,427	419,233	415,288
2027	2,540,000	408,492	1,170,000	1,578,492		420,624	1,999,116	540,884	465,127	459,966
2028	2,610,000	391,176	1,185,000	1,576,176		432,216	2,008,392	601,608	505,578	499,119
2029	2,690,000	372,453	1,205,000	1,577,453		445,464	2,022,917	667,083	547,851	539,933
2030	2,770,000	348,956	1,230,000	1,578,956		458,712	2,037,668	732,333	587,758	578,278
2031	2,860,000	323,741	1,255,000	1,578,741		473,616	2,052,357	807,644	633,458	622,182
2032	2,940,000	296,758	1,280,000	1,576,758		486,864	2,063,622	876,378	671,734	658,655
2033	3,030,000	267,318	1,310,000	1,577,318		501,768	2,079,086	950,914	712,287	697,231
2034	3,120,000	235,878	1,340,000	1,575,878		516,672	2,092,550	1,027,450	752,111	734,962
2035	3,220,000	202,378	1,375,000	1,577,378		533,232	2,110,610	1,109,390	793,621	774,208
2036	3,310,000	166,628	1,410,000	1,576,628		548,136	2,124,764	1,185,236	828,593	806,951
2037	3,410,000	129,263	1,450,000	1,579,263		564,696	2,143,959	1,266,041	864,952	840,928
2038	3,510,000	88,808	1,490,000	1,578,808		581,256	2,160,064	1,349,936	901,291	874,768
2039	3,620,000	45,747	1,530,000	1,575,747		599,472	2,175,219	1,444,781	942,675	913,379
	\$ 53,350,000	\$ 5,718,693	\$ 23,565,000	\$ 29,283,693	\$ 530,000	\$ 8,834,760	\$ 38,648,453	\$ 14,701,547	\$ 11,192,304	\$ 10,974,843

(a) Based on GRS Letter dated October 7, 2020

(b) Estimated only based on estimated interest rates as of 1/21/2021

(c) Assumes 3 months of UAL payments will be made prior to the bonds being sold

(d) Assumes \$23,201,416 payment towards UAL, leaving 16.56% of UAL payments remaining unfunded

(e) Represents Arbitrage Yield

(f) Represents All-In TIC

UAL Funded with Bond Proceeds: \$23,201,416

Estimated Bond Amount: \$23,565,000

Arbitrage Yield: 2.327%

All-In TIC: 2.502%

NPV Savings as % of Principal based on Arb. Yield: 47.50%

NPV Savings as % of Principal based on All-In TIC: 46.57%

**Calhoun County (1311)**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Closed Amortization Policy - Using 7.35% Interest Rate and 3.00% Wage Inflation, and 2019 Demographic Assumptions +50 Basis Points**  
**Market Value**

Calendar Year Beginning January 1	Without Bonding		With Bonding				Savings			
	Total UAL Payments (a)	Interest Due	Principal Due	Total Debt Service Payment (b)	UAL Payments Already Made (c)	Remaining UAL Payments (d)	Total Bond D/S and Remaining UAL Payments	Difference	Arbitrage Yield Present Value (e)	All-In TIC Present Value (f)
2021	2,120,000	320,994	600,000	920,994	530,000	351,072	1,802,066	317,934	313,010	312,709
2022	2,180,000	569,935	1,080,000	1,649,935		361,008	2,010,943	169,057	161,851	161,416
2023	2,250,000	560,431	1,090,000	1,650,431		372,600	2,023,031	226,969	211,305	210,374
2024	2,320,000	549,749	1,100,000	1,649,749		384,192	2,033,941	286,059	258,975	257,390
2025	2,390,000	537,209	1,115,000	1,652,209		395,784	2,047,993	342,007	301,091	298,732
2026	2,460,000	520,484	1,130,000	1,650,484		407,376	2,057,860	402,140	344,271	340,984
2027	2,540,000	502,404	1,145,000	1,647,404		420,624	2,068,028	471,972	392,916	388,494
2028	2,610,000	479,733	1,170,000	1,649,733		432,216	2,081,949	528,051	427,483	421,943
2029	2,690,000	455,397	1,195,000	1,650,397		445,464	2,095,861	594,139	467,726	460,869
2030	2,770,000	426,120	1,225,000	1,651,120		458,712	2,109,832	660,169	505,380	497,112
2031	2,860,000	394,882	1,255,000	1,649,882		473,616	2,123,498	736,502	548,274	538,374
2032	2,940,000	361,625	1,290,000	1,651,625		486,864	2,138,489	801,512	580,221	568,762
2033	3,030,000	325,505	1,325,000	1,650,505		501,768	2,152,273	877,728	617,879	604,633
2034	3,120,000	287,080	1,365,000	1,652,080		516,672	2,168,752	951,249	651,176	636,116
2035	3,220,000	246,130	1,405,000	1,651,130		533,232	2,184,362	1,035,639	689,402	672,297
2036	3,310,000	202,575	1,445,000	1,647,575		548,136	2,195,711	1,114,290	721,311	702,202
2037	3,410,000	157,057	1,495,000	1,652,057		564,696	2,216,753	1,193,247	751,130	729,970
2038	3,510,000	107,872	1,540,000	1,647,872		581,256	2,229,128	1,280,873	784,063	760,661
2039	3,620,000	55,666	1,595,000	1,650,666		599,472	2,250,138	1,369,863	815,421	789,720
	\$ 53,350,000	\$ 7,060,844	\$ 23,565,000	\$ 30,625,844	\$ 530,000	\$ 8,834,760	\$ 39,990,604	\$ 13,359,396	\$ 9,542,885	\$ 9,352,758

(a) Based on GRS Letter dated October 7, 2020

(b) Estimated only based on estimated interest rates as of 1/21/2021

(c) Assumes 3 months of UAL payments will be made prior to the bonds being sold

(d) Assumes \$23,201,416 payment towards UAL, leaving 16.56% of UAL payments remaining unfunded

(e) Represents Arbitrage Yield

(f) Represents All-In TIC

UAL Funded with Bond Proceeds: \$23,201,416

Estimated Bond Amount: \$23,565,000

Arbitrage Yield: 2.835%

All-In TIC: 3.012%

NPV Savings as % of Principal based on Arb. Yield: 40.50%

NPV Savings as % of Principal based on All-In TIC: 39.69%

**Calhoun County (1311)**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Closed Amortization Policy - Using 7.35% Interest Rate and 3.00% Wage Inflation, and 2019 Demographic Assumptions -50 Basis Points**  
**Market Value**

Calendar Year Beginning January 1	Without Bonding		With Bonding				Savings			
	Total UAL Payments (a)	Interest Due	Principal Due	Total Debt Service Payment (b)	UAL Payments Already Made (c)	Remaining UAL Payments (d)	Total Bond D/S and Remaining UAL Payments	Difference	Arbitrage Yield Present Value (e)	All-In TIC Present Value (f)
2021	2,120,000	190,409	650,000	840,409	530,000	351,072	1,721,481	398,519	394,499	394,130
2022	2,180,000	340,186	1,170,000	1,510,186		361,008	1,871,194	308,806	300,189	299,406
2023	2,250,000	338,080	1,170,000	1,508,080		372,600	1,880,680	369,320	352,554	351,045
2024	2,320,000	334,804	1,175,000	1,509,804		384,192	1,893,996	426,004	399,346	396,971
2025	2,390,000	330,339	1,180,000	1,510,339		395,784	1,906,123	483,877	445,435	442,043
2026	2,460,000	324,439	1,185,000	1,509,439		407,376	1,916,815	543,185	491,032	486,477
2027	2,540,000	317,329	1,190,000	1,507,329		420,624	1,927,953	612,047	543,325	537,384
2028	2,610,000	305,667	1,205,000	1,510,667		432,216	1,942,883	667,117	581,555	574,231
2029	2,690,000	292,653	1,215,000	1,507,653		445,464	1,953,117	736,883	630,812	621,825
2030	2,770,000	275,036	1,235,000	1,510,036		458,712	1,968,748	801,253	673,572	662,864
2031	2,860,000	255,893	1,255,000	1,510,893		473,616	1,984,509	875,491	722,736	710,054
2032	2,940,000	235,186	1,275,000	1,510,186		486,864	1,997,050	942,951	764,416	749,746
2033	3,030,000	212,236	1,295,000	1,507,236		501,768	2,009,004	1,020,997	812,790	795,856
2034	3,120,000	187,631	1,320,000	1,507,631		516,672	2,024,303	1,095,698	856,560	837,309
2035	3,220,000	161,231	1,350,000	1,511,231		533,232	2,044,463	1,175,538	902,437	880,677
2036	3,310,000	132,881	1,375,000	1,507,881		548,136	2,056,017	1,253,984	945,334	920,994
2037	3,410,000	103,318	1,405,000	1,508,318		564,696	2,073,014	1,336,986	989,768	962,669
2038	3,510,000	71,144	1,440,000	1,511,144		581,256	2,092,400	1,417,601	1,030,561	1,000,665
2039	3,620,000	36,728	1,475,000	1,511,728		599,472	2,111,200	1,508,801	1,077,122	1,044,123
	\$ 53,350,000	\$ 4,445,186	\$ 23,565,000	\$ 28,010,186	\$ 530,000	\$ 8,834,760	\$ 37,374,946	\$ 15,975,054	\$ 12,914,043	\$ 12,668,470

(a) Based on GRS Letter dated October 7, 2020

(b) Estimated only based on estimated interest rates as of 1/21/2021

(c) Assumes 3 months of UAL payments will be made prior to the bonds being sold

(d) Assumes \$23,201,416 payment towards UAL, leaving 16.56% of UAL payments remaining unfunded

(e) Represents Arbitrage Yield

(f) Represents All-In TIC

UAL Funded with Bond Proceeds: \$23,201,416

Estimated Bond Amount: \$23,565,000

Arbitrage Yield: 1.833%

All-In TIC: 2.003%

NPV Savings as % of Principal based on Arb. Yield: 54.80%

NPV Savings as % of Principal based on All-In TIC: 53.76%

**Calhoun County (1311)**  
**Projected Amortization Payments**  
 Based on December 31, 2019 Actuarial Valuation Data  
 Closed Amortization Policy - Using 6.35% Interest Rate and 3.00% Wage Inflation, and 2019 Demographic Assumptions  
 Market Value

Calendar Year Beginning January 1	Without Bonding		With Bonding				Savings			
	Total UAL Payments (a)	Interest Due	Principal Due	Total Debt Service Payment (b)	UAL Payments Already Made (c)	Remaining UAL Payments (d)	Total Bond D/S and Remaining UAL Payments	Difference	Arbitrage Yield Present Value (e)	All-In TIC Present Value (f)
2021	2,740,000	252,235	630,000	882,235	685,000	1,118,742	2,685,977	54,023	53,334	53,283
2022	2,820,000	449,685	1,130,000	1,579,685		1,151,406	2,731,091	88,909	85,778	85,551
2023	2,900,000	445,391	1,135,000	1,580,391		1,184,070	2,764,461	135,539	127,791	127,236
2024	2,990,000	439,943	1,140,000	1,579,943		1,220,817	2,800,760	189,240	174,364	173,312
2025	3,080,000	432,647	1,145,000	1,577,647		1,257,564	2,835,211	244,789	220,416	218,714
2026	3,170,000	421,197	1,155,000	1,576,197		1,294,311	2,870,508	299,492	263,539	261,059
2027	3,270,000	408,492	1,170,000	1,578,492		1,335,141	2,913,633	356,367	306,454	303,054
2028	3,370,000	391,176	1,185,000	1,576,176		1,375,971	2,952,147	417,853	351,155	346,668
2029	3,470,000	372,453	1,205,000	1,577,453		1,416,801	2,994,254	475,746	390,713	385,066
2030	3,570,000	348,956	1,230,000	1,578,956		1,457,631	3,036,587	533,414	428,109	421,204
2031	3,680,000	323,741	1,255,000	1,578,741		1,502,544	3,081,285	598,716	469,590	461,231
2032	3,800,000	296,758	1,280,000	1,576,758		1,551,540	3,128,298	671,702	514,852	504,828
2033	3,900,000	267,318	1,310,000	1,577,318		1,592,370	3,169,688	730,312	547,044	535,481
2034	4,020,000	235,878	1,340,000	1,575,878		1,641,366	3,217,244	802,756	587,631	574,233
2035	4,140,000	202,378	1,375,000	1,577,378		1,690,362	3,267,740	872,260	623,986	608,722
2036	4,270,000	166,628	1,410,000	1,576,628		1,743,441	3,320,069	949,931	664,093	646,747
2037	4,390,000	129,263	1,450,000	1,579,263		1,792,437	3,371,700	1,018,300	695,697	676,374
2038	4,530,000	88,808	1,490,000	1,578,808		1,849,599	3,428,407	1,101,593	735,484	713,840
2039	4,660,000	45,747	1,530,000	1,575,747		1,902,678	3,478,425	1,181,575	770,941	746,982
	\$ 68,770,000	\$ 5,718,693	\$ 23,565,000	\$ 29,283,693	\$ 685,000	\$ 28,078,791	\$ 58,047,484	\$ 10,722,516	\$ 8,010,969	\$ 7,843,582

(a) Based on GRS Letter dated October 7, 2020

(b) Estimated only based on estimated interest rates as of 1/21/2021

(c) Assumes 3 months of UAL payments will be made prior to the bonds being sold

(d) Assumes \$23,201,416 payment towards UAL, leaving 40.83% of UAL payments remaining unfunded

(e) Represents Arbitrage Yield

(f) Represents All-In TIC

UAL Funded with Bond Proceeds: \$23,201,416

Estimated Bond Amount: \$23,565,000

Arbitrage Yield: 2.327%

All-In TIC: 2.502%

NPV Savings as % of Principal based on Arb. Yield: 34.00%

NPV Savings as % of Principal based on All-In TIC: 33.28%

**Calhoun County (1311)**  
**Projected Amortization Payments**  
 Based on December 31, 2019 Actuarial Valuation Data  
 Closed Amortization Policy - Using 6.35% Interest Rate and 3.00% Wage Inflation, and 2019 Demographic Assumptions +50 Basis Points  
 Market Value

Calendar Year Beginning January 1	Without Bonding		With Bonding				Savings			
	Total UAL Payments (a)	Interest Due	Principal Due	Total Debt Service Payment (b)	UAL Payments Already Made (c)	Remaining UAL Payments (d)	Total Bond D/S and Remaining UAL Payments	Difference	Arbitrage Yield Present Value (e)	All-In TIC Present Value (f)
2021	2,740,000	320,994	600,000	920,994	685,000	1,118,742	2,724,736	15,264	15,027	15,013
2022	2,820,000	569,935	1,080,000	1,649,935		1,151,406	2,801,341	18,659	17,864	17,816
2023	2,900,000	560,431	1,090,000	1,650,431		1,184,070	2,834,501	65,499	60,979	60,710
2024	2,990,000	549,749	1,100,000	1,649,749		1,220,817	2,870,566	119,434	108,126	107,464
2025	3,080,000	537,209	1,115,000	1,652,209		1,257,564	2,909,773	170,227	149,862	148,688
2026	3,170,000	520,484	1,130,000	1,650,484		1,294,311	2,944,795	225,205	192,797	190,957
2027	3,270,000	502,404	1,145,000	1,647,404		1,335,141	2,982,545	287,455	239,306	236,612
2028	3,370,000	479,733	1,170,000	1,649,733		1,375,971	3,025,704	344,296	278,724	275,113
2029	3,470,000	455,397	1,195,000	1,650,397		1,416,801	3,067,198	402,802	317,099	312,450
2030	3,570,000	426,120	1,225,000	1,651,120		1,457,631	3,108,751	461,250	353,101	347,325
2031	3,680,000	394,882	1,255,000	1,649,882		1,502,544	3,152,426	527,574	392,742	385,650
2032	3,800,000	361,625	1,290,000	1,651,625		1,551,540	3,203,165	596,836	432,054	423,522
2033	3,900,000	325,505	1,325,000	1,650,505		1,592,370	3,242,875	657,126	462,586	452,668
2034	4,020,000	287,080	1,365,000	1,652,080		1,641,366	3,293,446	726,555	497,362	485,860
2035	4,140,000	246,130	1,405,000	1,651,130		1,690,362	3,341,492	798,509	531,550	518,362
2036	4,270,000	202,575	1,445,000	1,647,575		1,743,441	3,391,016	878,985	568,991	553,918
2037	4,390,000	157,057	1,495,000	1,652,057		1,792,437	3,444,494	945,506	595,181	578,414
2038	4,530,000	107,872	1,540,000	1,647,872		1,849,599	3,497,471	1,032,530	632,044	613,180
2039	4,660,000	55,666	1,595,000	1,650,666		1,902,678	3,553,344	1,106,657	658,746	637,983
	\$ 68,770,000	\$ 7,060,844	\$ 23,565,000	\$ 30,625,844	\$ 685,000	\$ 28,078,791	\$ 59,389,635	\$ 9,380,365	\$ 6,504,141	\$ 6,361,702

(a) Based on GRS Letter dated October 7, 2020

(b) Estimated only based on estimated interest rates as of 1/21/2021

(c) Assumes 3 months of UAL payments will be made prior to the bonds being sold

(d) Assumes \$23,201,416 payment towards UAL, leaving 40.83% of UAL payments remaining unfunded

(e) Represents Arbitrage Yield

(f) Represents All-In TIC

UAL Funded with Bond Proceeds: \$23,201,416

Estimated Bond Amount: \$23,565,000

Arbitrage Yield: 2.835%

All-In TIC: 3.012%

NPV Savings as % of Principal based on Arb. Yield: 27.60%

NPV Savings as % of Principal based on All-In TIC: 27.00%

**Calhoun County (1311)**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Closed Amortization Policy - Using 6.35% Interest Rate and 3.00% Wage Inflation, and 2019 Demographic Assumptions -50 Basis Points**  
**Market Value**

Calendar Year Beginning January 1	Without Bonding		With Bonding				Savings			
	Total UAL Payments (a)	Interest Due	Principal Due	Total Debt Service Payment (b)	UAL Payments Already Made (c)	Remaining UAL Payments (d)	Total Bond D/S and Remaining UAL Payments	Difference	Arbitrage Yield Present Value (e)	All-In TIC Present Value (f)
2021	2,740,000	190,409	650,000	840,409	685,000	1,118,742	2,644,151	95,849	94,882	94,793
2022	2,820,000	340,186	1,170,000	1,510,186		1,151,406	2,661,592	158,408	153,988	153,586
2023	2,900,000	338,080	1,170,000	1,508,080		1,184,070	2,692,150	207,850	198,414	197,565
2024	2,990,000	334,804	1,175,000	1,509,804		1,220,817	2,730,621	259,379	243,148	241,702
2025	3,080,000	330,339	1,180,000	1,510,339		1,257,564	2,767,903	312,097	287,302	285,115
2026	3,170,000	324,439	1,185,000	1,509,439		1,294,311	2,803,750	366,250	331,085	328,014
2027	3,270,000	317,329	1,190,000	1,507,329		1,335,141	2,842,470	427,530	379,526	375,376
2028	3,370,000	305,667	1,205,000	1,510,667		1,375,971	2,886,638	483,362	421,367	416,061
2029	3,470,000	292,653	1,215,000	1,507,653		1,416,801	2,924,454	545,546	467,017	460,364
2030	3,570,000	275,036	1,235,000	1,510,036		1,457,631	2,967,667	602,334	506,351	498,301
2031	3,680,000	255,893	1,255,000	1,510,893		1,502,544	3,013,437	666,563	550,261	540,606
2032	3,800,000	235,186	1,275,000	1,510,186		1,551,540	3,061,726	738,275	598,493	587,006
2033	3,900,000	212,236	1,295,000	1,507,236		1,592,370	3,099,606	800,395	637,174	623,899
2034	4,020,000	187,631	1,320,000	1,507,631		1,641,366	3,148,997	871,004	680,906	665,602
2035	4,140,000	161,231	1,350,000	1,511,231		1,690,362	3,201,593	938,408	720,397	703,026
2036	4,270,000	132,881	1,375,000	1,507,881		1,743,441	3,251,322	1,018,679	767,946	748,173
2037	4,390,000	103,318	1,405,000	1,508,318		1,792,437	3,300,755	1,089,245	806,366	784,288
2038	4,530,000	71,144	1,440,000	1,511,144		1,849,599	3,360,743	1,169,258	850,022	825,363
2039	4,660,000	36,728	1,475,000	1,511,728		1,902,678	3,414,406	1,245,595	889,221	861,979
	\$ 68,770,000	\$ 4,445,186	\$ 23,565,000	\$ 28,010,186	\$ 685,000	\$ 28,078,791	\$ 56,773,977	\$ 11,996,023	\$ 9,583,867	\$ 9,390,822

- (a) Based on GRS Letter dated October 7, 2020
  - (b) Estimated only based on estimated interest rates as of 1/21/2021
  - (c) Assumes 3 months of UAL payments will be made prior to the bonds being sold
  - (d) Assumes \$23,201,416 payment towards UAL, leaving 40.83% of UAL payments remaining unfunded
  - (e) Represents Arbitrage Yield
  - (f) Represents All-In TIC
- |  |  |              |
|--|--|--------------|
|  | UAL Funded with Bond Proceeds:                     | \$23,201,416 |
|  | Estimated Bond Amount:                             | \$23,565,000 |
|  | Arbitrage Yield:                                   | 1.833%       |
|  | All-In TIC:  | 2.003%       |
|  | NPV Savings as % of Principal based on Arb. Yield: | 40.67%       |
|  | NPV Savings as % of Principal based on All-In TIC: | 39.85%       |

**Calhoun County (1311)**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Closed Amortization Policy - Using 5.35% Interest Rate and 3.00% Wage Inflation, and 2019 Demographic Assumptions**  
**Market Value**

Calendar Year Beginning January 1	Without Bonding	With Bonding					Savings			
	Total UAL Payments (a)	Interest Due	Principal Due	Total Debt Service Payment (b)	UAL Payments Already Made (c)	Remaining UAL Payments (d)	Total Bond D/S and Remaining UAL Payments	Difference	Arbitrage Yield Present Value (e)	All-In TIC Present Value (f)
2021	3,350,000	252,235	630,000	882,235	837,500	1,814,360	3,534,095	(184,095)	(181,745)	(181,573)
2022	3,450,000	449,685	1,130,000	1,579,685		1,868,520	3,448,205	1,795	1,732	1,727
2023	3,550,000	445,391	1,135,000	1,580,391		1,922,680	3,503,071	46,929	44,246	44,054
2024	3,660,000	439,943	1,140,000	1,579,943		1,982,256	3,562,199	97,801	90,113	89,569
2025	3,770,000	432,647	1,145,000	1,577,647		2,041,832	3,619,479	150,521	135,534	134,487
2026	3,880,000	421,197	1,155,000	1,576,197		2,101,408	3,677,605	202,395	178,098	176,422
2027	4,000,000	408,492	1,170,000	1,578,492		2,166,400	3,744,892	255,108	219,377	216,943
2028	4,120,000	391,176	1,185,000	1,576,176		2,231,392	3,807,568	312,432	262,561	259,207
2029	4,240,000	372,453	1,205,000	1,577,453		2,296,384	3,873,837	366,163	300,716	296,370
2030	4,370,000	348,956	1,230,000	1,578,956		2,366,792	3,945,748	424,253	340,498	335,006
2031	4,500,000	323,741	1,255,000	1,578,741		2,437,200	4,015,941	484,060	379,662	372,903
2032	4,640,000	296,758	1,280,000	1,576,758		2,513,024	4,089,782	550,218	421,736	413,524
2033	4,780,000	267,318	1,310,000	1,577,318		2,588,848	4,166,166	613,834	459,795	450,076
2034	4,920,000	235,878	1,340,000	1,575,878		2,664,672	4,240,550	679,450	497,369	486,029
2035	5,060,000	202,378	1,375,000	1,577,378		2,740,496	4,317,874	742,126	530,893	517,906
2036	5,220,000	166,628	1,410,000	1,576,628		2,827,152	4,403,780	816,220	570,616	555,711
2037	5,380,000	129,263	1,450,000	1,579,263		2,913,808	4,493,071	886,929	605,945	589,115
2038	5,540,000	88,808	1,490,000	1,578,808		3,000,464	4,579,272	960,728	641,435	622,559
2039	5,700,000	45,747	1,530,000	1,575,747		3,087,120	4,662,867	1,037,133	676,697	655,667
	\$ 84,130,000	\$ 5,718,693	\$ 23,565,000	\$ 29,283,693	\$ 837,500	\$ 45,564,808	\$ 75,686,001	\$ 8,443,999	\$ 6,175,278	\$ 6,035,704

(a) Based on GRS Letter dated October 7, 2020

(b) Estimated only based on estimated interest rates as of 1/21/2021

(c) Assumes 3 months of UAL payments will be made prior to the bonds being sold

(d) Assumes \$23,201,416 payment towards UAL, leaving 54.16% of UAL payments remaining unfunded

(e) Represents Arbitrage Yield

(f) Represents All-In TIC

UAL Funded with Bond Proceeds: \$23,201,416

Estimated Bond Amount: \$23,565,000

Arbitrage Yield: 2.327%

All-In TIC: 2.502%

NPV Savings as % of Principal based on Arb. Yield: 26.21%

NPV Savings as % of Principal based on All-In TIC: 25.61%

**Calhoun County (1311)**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Closed Amortization Policy - Using 5.35% Interest Rate and 3.00% Wage Inflation, and 2019 Demographic Assumptions +50 Basis Points**  
**Market Value**

Calendar Year Beginning January 1	Without Bonding		With Bonding				Savings			
	Total UAL Payments (a)	Interest Due	Principal Due	Total Debt Service Payment (b)	UAL Payments Already Made (c)	Remaining UAL Payments (d)	Total Bond D/S and Remaining UAL Payments	Difference	Arbitrage Yield Present Value (e)	All-In TIC Present Value (f)
2021	3,350,000	320,994	600,000	920,994	837,500	1,814,360	3,572,854	(222,854)	(219,403)	(219,192)
2022	3,450,000	569,935	1,080,000	1,649,935		1,868,520	3,518,455	(68,455)	(65,537)	(65,361)
2023	3,550,000	560,431	1,090,000	1,650,431		1,922,680	3,573,111	(23,111)	(21,516)	(21,421)
2024	3,660,000	549,749	1,100,000	1,649,749		1,982,256	3,632,005	27,995	25,344	25,189
2025	3,770,000	537,209	1,115,000	1,652,209		2,041,832	3,694,041	75,959	66,872	66,348
2026	3,880,000	520,484	1,130,000	1,650,484		2,101,408	3,751,892	128,108	109,673	108,626
2027	4,000,000	502,404	1,145,000	1,647,404		2,166,400	3,813,804	186,196	155,008	153,263
2028	4,120,000	479,733	1,170,000	1,649,733		2,231,392	3,881,125	238,875	193,381	190,875
2029	4,240,000	455,397	1,195,000	1,650,397		2,296,384	3,946,781	293,219	230,832	227,447
2030	4,370,000	426,120	1,225,000	1,651,120		2,366,792	4,017,912	352,089	269,535	265,126
2031	4,500,000	394,882	1,255,000	1,649,882		2,437,200	4,087,082	412,918	307,388	301,838
2032	4,640,000	361,625	1,290,000	1,651,625		2,513,024	4,164,649	475,352	344,111	337,315
2033	4,780,000	325,505	1,325,000	1,650,505		2,588,848	4,239,353	540,648	380,591	372,431
2034	4,920,000	287,080	1,365,000	1,652,080		2,664,672	4,316,752	603,249	412,953	403,403
2035	5,060,000	246,130	1,405,000	1,651,130		2,740,496	4,391,626	668,375	444,922	433,883
2036	5,220,000	202,575	1,445,000	1,647,575		2,827,152	4,474,727	745,274	482,437	469,656
2037	5,380,000	157,057	1,495,000	1,652,057		2,913,808	4,565,865	814,135	512,485	498,048
2038	5,540,000	107,872	1,540,000	1,647,872		3,000,464	4,648,336	891,665	545,816	529,525
2039	5,700,000	55,666	1,595,000	1,650,666		3,087,120	4,737,786	962,215	572,766	554,712
	\$ 84,130,000	\$ 7,060,844	\$ 23,565,000	\$ 30,625,844	\$ 837,500	\$ 45,564,808	\$ 77,028,152	\$ 7,101,848	\$ 4,747,657	\$ 4,631,712

(a) Based on GRS Letter dated October 7, 2020

(b) Estimated only based on estimated interest rates as of 1/21/2021

(c) Assumes 3 months of UAL payments will be made prior to the bonds being sold

(d) Assumes \$23,201,416 payment towards UAL, leaving 54.16% of UAL payments remaining unfunded

(e) Represents Arbitrage Yield

(f) Represents All-In TIC

UAL Funded with Bond Proceeds:	\$23,201,416
Estimated Bond Amount:	\$23,565,000
Arbitrage Yield:	2.835%
All-In TIC:	3.012%
NPV Savings as % of Principal based on Arb. Yield:	20.15%
NPV Savings as % of Principal based on All-In TIC:	19.66%



**Calhoun County (1311)**  
**Projected Amortization Payments**  
**Based on December 31, 2019 Actuarial Valuation Data**  
**Closed Amortization Policy - Using 5.35% Interest Rate and 3.00% Wage Inflation, and 2019 Demographic Assumptions -50 Basis Points**  
**Market Value**

Calendar Year Beginning January 1	Without Bonding	With Bonding					Savings			
	Total UAL Payments (a)	Interest Due	Principal Due	Total Debt Service Payment (b)	UAL Payments Already Made (c)	Remaining UAL Payments (d)	Total Bond D/S and Remaining UAL Payments	Difference	Arbitrage Yield Present Value (e)	All-In TIC Present Value (f)
2021	3,350,000	190,409	650,000	840,409	837,500	1,814,360	3,492,269	(142,269)	(140,834)	(140,702)
2022	3,450,000	340,186	1,170,000	1,510,186		1,868,520	3,378,706	71,294	69,305	69,124
2023	3,550,000	338,080	1,170,000	1,508,080		1,922,680	3,430,760	119,240	113,827	113,340
2024	3,660,000	334,804	1,175,000	1,509,804		1,982,256	3,492,060	167,940	157,431	156,495
2025	3,770,000	330,339	1,180,000	1,510,339		2,041,832	3,552,171	217,829	200,523	198,997
2026	3,880,000	324,439	1,185,000	1,509,439		2,101,408	3,610,847	269,153	243,311	241,054
2027	4,000,000	317,329	1,190,000	1,507,329		2,166,400	3,673,729	326,271	289,637	286,470
2028	4,120,000	305,667	1,205,000	1,510,667		2,231,392	3,742,059	377,941	329,467	325,319
2029	4,240,000	292,653	1,215,000	1,507,653		2,296,384	3,804,037	435,963	373,208	367,891
2030	4,370,000	275,036	1,235,000	1,510,036		2,366,792	3,876,828	493,173	414,585	407,994
2031	4,500,000	255,893	1,255,000	1,510,893		2,437,200	3,948,093	551,907	455,611	447,616
2032	4,640,000	235,186	1,275,000	1,510,186		2,513,024	4,023,210	616,791	500,010	490,414
2033	4,780,000	212,236	1,295,000	1,507,236		2,588,848	4,096,084	683,917	544,449	533,105
2034	4,920,000	187,631	1,320,000	1,507,631		2,664,672	4,172,303	747,698	584,512	571,375
2035	5,060,000	161,231	1,350,000	1,511,231		2,740,496	4,251,727	808,274	620,496	605,534
2036	5,220,000	132,881	1,375,000	1,507,881		2,827,152	4,335,033	884,968	667,146	649,969
2037	5,380,000	103,318	1,405,000	1,508,318		2,913,808	4,422,126	957,874	709,112	689,697
2038	5,540,000	71,144	1,440,000	1,511,144		3,000,464	4,511,608	1,028,393	747,616	725,929
2039	5,700,000	36,728	1,475,000	1,511,728		3,087,120	4,598,848	1,101,153	786,105	762,022
	\$ 84,130,000	\$ 4,445,186	\$ 23,565,000	\$ 28,010,186	\$ 837,500	\$ 45,564,808	\$ 74,412,494	\$ 9,717,506	\$ 7,665,516	\$ 7,501,640

(a) Based on GRS Letter dated October 7, 2020

(b) Estimated only based on estimated interest rates as of 1/21/2021

(c) Assumes 3 months of UAL payments will be made prior to the bonds being sold

(d) Assumes \$23,201,416 payment towards UAL, leaving 54.16% of UAL payments remaining unfunded

(e) Represents Arbitrage Yield

(f) Represents All-In TIC

UAL Funded with Bond Proceeds:	\$23,201,416
Estimated Bond Amount:	\$23,565,000
Arbitrage Yield:	1.833%
All-In TIC:	2.003%
NPV Savings as % of Principal based on Arb. Yield:	32.53%
NPV Savings as % of Principal based on All-In TIC:	31.83%

### Actuarial Value of Assets

Summary of Savings Nominal Savings			
	Current IR	Current IR +50 BPS	Current IR -50 BPS
<i>Expected UAL ROR (7.35%)</i>	\$ 14,020,309.85	\$ 12,728,448.25	\$ 15,249,374.44
<i>Expected UAL ROR -100 BPS (6.35%)</i>	\$ 10,238,427.05	\$ 8,946,565.45	\$ 11,467,491.64
<i>Expected UAL ROR -200 BPS (5.35%)</i>	\$ 8,382,615.05	\$ 7,090,753.45	\$ 9,611,679.64

Summary of Present Value Savings Discounted to Arbitrage Yield			
	Current IR	Current IR +50 BPS	Current IR -50 BPS
<i>Expected UAL ROR (7.35%)</i>	\$ 10,671,659.51	\$ 9,087,893.37	\$ 12,325,284.28
<i>Expected UAL ROR -100 BPS (6.35%)</i>	\$ 7,645,545.84	\$ 6,196,838.74	\$ 9,376,024.26
<i>Expected UAL ROR -200 BPS (5.35%)</i>	\$ 6,141,479.71	\$ 4,755,734.32	\$ 7,778,987.65

Summary of Present Value Savings Discounted to All-In TIC			
	Current IR	Current IR +50 BPS	Current IR -50 BPS
<i>Expected UAL ROR (7.35%)</i>	\$ 10,460,483.83	\$ 8,903,282.49	\$ 12,086,465.83
<i>Expected UAL ROR -100 BPS (6.35%)</i>	\$ 7,482,652.17	\$ 6,058,220.71	\$ 9,183,693.79
<i>Expected UAL ROR -200 BPS (5.35%)</i>	\$ 6,001,089.89	\$ 4,638,565.83	\$ 7,610,723.87

### Actuarial Value of Assets

Summary of Savings Nominal Savings			
	Current IR	Current IR +50 BPS	Current IR -50 BPS
<i>Expected UAL ROR (7.35%)</i>	61.72%	56.04%	67.13%
<i>Expected UAL ROR -100 BPS (6.35%)</i>	45.07%	39.39%	50.48%
<i>Expected UAL ROR -200 BPS (5.35%)</i>	36.90%	31.22%	42.31%

Summary of Present Value Savings Discounted to Arbitrage Yield			
	Current IR	Current IR +50 BPS	Current IR -50 BPS
<i>Expected UAL ROR (7.35%)</i>	46.98%	40.01%	54.26%
<i>Expected UAL ROR -100 BPS (6.35%)</i>	33.66%	27.28%	41.28%
<i>Expected UAL ROR -200 BPS (5.35%)</i>	27.04%	20.94%	34.25%

Summary of Present Value Savings Discounted to All-In TIC			
	Current IR	Current IR +50 BPS	Current IR -50 BPS
<i>Expected UAL ROR (7.35%)</i>	46.05%	39.20%	53.21%
<i>Expected UAL ROR -100 BPS (6.35%)</i>	32.94%	26.67%	40.43%
<i>Expected UAL ROR -200 BPS (5.35%)</i>	26.42%	20.42%	33.51%

### Market Value of Assets

Summary of Savings Nominal Savings			
	Current IR	Current IR +50 BPS	Current IR -50 BPS
<i>Expected UAL ROR (7.35%)</i>	\$ 14,701,547.10	\$ 13,359,395.79	\$ 15,975,054.02
<i>Expected UAL ROR -100 BPS (6.35%)</i>	\$ 10,722,516.10	\$ 9,380,364.79	\$ 11,996,023.02
<i>Expected UAL ROR -200 BPS (5.35%)</i>	\$ 8,443,999.10	\$ 7,101,847.79	\$ 9,717,506.02

Summary of Present Value Savings Discounted to Arbitrage Yield			
	Current IR	Current IR +50 BPS	Current IR -50 BPS
<i>Expected UAL ROR (7.35%)</i>	\$ 11,192,304.14	\$ 9,542,884.89	\$ 12,914,043.18
<i>Expected UAL ROR -100 BPS (6.35%)</i>	\$ 8,010,969.27	\$ 6,504,141.36	\$ 9,583,866.88
<i>Expected UAL ROR -200 BPS (5.35%)</i>	\$ 6,175,278.46	\$ 4,747,657.22	\$ 7,665,515.88

Summary of Present Value Savings Discounted to All-In TIC			
	Current IR	Current IR +50 BPS	Current IR -50 BPS
<i>Expected UAL ROR (7.35%)</i>	\$ 10,974,842.96	\$ 9,352,757.97	\$ 12,668,470.00
<i>Expected UAL ROR -100 BPS (6.35%)</i>	\$ 7,843,581.77	\$ 6,361,702.46	\$ 9,390,821.52
<i>Expected UAL ROR -200 BPS (5.35%)</i>	\$ 6,035,703.86	\$ 4,631,712.20	\$ 7,501,640.20

### Market Value of Assets

Summary of Savings Nominal Savings			
	Current IR	Current IR +50 BPS	Current IR -50 BPS
<i>Expected UAL ROR (7.35%)</i>	62.39%	56.69%	67.79%
<i>Expected UAL ROR -100 BPS (6.35%)</i>	45.50%	39.81%	50.91%
<i>Expected UAL ROR -200 BPS (5.35%)</i>	35.83%	30.14%	41.24%

Summary of Present Value Savings Discounted to Arbitrage Yield			
	Current IR	Current IR +50 BPS	Current IR -50 BPS
<i>Expected UAL ROR (7.35%)</i>	47.50%	40.50%	54.80%
<i>Expected UAL ROR -100 BPS (6.35%)</i>	34.00%	27.60%	40.67%
<i>Expected UAL ROR -200 BPS (5.35%)</i>	26.21%	20.15%	32.53%

Summary of Present Value Savings Discounted to All-In TIC			
	Current IR	Current IR +50 BPS	Current IR -50 BPS
<i>Expected UAL ROR (7.35%)</i>	46.57%	39.69%	53.76%
<i>Expected UAL ROR -100 BPS (6.35%)</i>	33.28%	27.00%	39.85%
<i>Expected UAL ROR -200 BPS (5.35%)</i>	25.61%	19.66%	31.83%

Appendix D:  
Evidence of Rating

June 16, 2020

County of Calhoun  
315 South Green Street  
Marshall, MI 49068--1518  
Attention: Ms. Kelli D. Scott, Administrator/Controller

Re: *US\$13,265,000 Calhoun County, Michigan, General Obligation Limited Tax Bonds, Series 2020, dated:  
Date of delivery, due: April 01, 2035*

Dear Ms. Scott:

Pursuant to your request for an S&P Global Ratings rating on the above-referenced obligations, S&P Global Ratings has assigned a rating of "AA" . S&P Global Ratings views the outlook for this rating as negative. A copy of the rationale supporting the rating is enclosed.

This letter constitutes S&P Global Ratings' permission for you to disseminate the above-assigned ratings to interested parties in accordance with applicable laws and regulations. However, permission for such dissemination (other than to professional advisors bound by appropriate confidentiality arrangements or to allow the Issuer to comply with its regulatory obligations) will become effective only after we have released the ratings on [standardandpoors.com](http://standardandpoors.com). Any dissemination on any Website by you or your agents shall include the full analysis for the rating, including any updates, where applicable. Any such dissemination shall not be done in a manner that would serve as a substitute for any products and services containing S&P Global Ratings' intellectual property for which a fee is charged.

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Please send hard copies to:  
S&P Global Ratings  
Public Finance Department  
55 Water Street  
New York, NY 10041-0003

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Sincerely yours,

S&P Global Ratings  
a division of Standard & Poor's Financial Services LLC

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cc: **Mr. Bradley Wilcox**  
**Mr. Kevin M. Bendzinski**  
**Ms. Kim Archambault, Ms.**  
**Ms. Martha E. Lyford**  
**Mr. Robert J. Bendzinski, CIPMA**  
**Mr. Stephen N. Hayduk, CPA**

**S&P Global Ratings**  
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Appendix E:  
County Budget



**GENERAL FUND**

		<b>2019 Actual</b>	<b>2020 Amended Budget</b>	<b>2021 Directive</b>	<b>2021 Final Recom</b>	<b>2021 Final Recom/ 2020 Amended % Incr/ (Decr)</b>
<b>REVENUES</b>						
	Taxes and Special Assessments	21,241,471	22,027,926	22,542,301	22,762,809	3.34%
	Licenses and permits	72,918	52,603	58,209	58,209	10.66%
	Federal Grants	374,165	3,856,347	330,000	431,038	-88.82%
	State Grants	4,689,306	4,802,801	4,482,561	4,703,360	-2.07%
	Charges for services	10,644,020	10,009,569	10,376,325	10,449,671	4.40%
	Fines and forfeits	514,618	439,426	550,346	550,347	25.24%
	Interest	126,886	103,126	108,744	19,000	-81.58%
	Other revenues	4,446,602	4,321,939	4,235,786	5,343,058	23.63%
	Operating Transfer In	2,618,813	1,672,500	1,730,000	1,783,500	6.64%
	<b>Total Revenues</b>	<b>44,728,799</b>	<b>47,286,237</b>	<b>44,414,272</b>	<b>46,100,992</b>	<b>-2.51%</b>
<b>EXPENDITURES</b>						
<b>Legislative</b>	<b>1101 Board of Commissioners</b>					
	Personnel Services	89,050	96,775	114,321	98,710	2.00%
	Fringe Benefits	8,228	8,941	8,212	9,120	2.00%
	Supplies	582	700	643	650	-7.14%
	Other Services & Charges	29,008	34,684	31,856	36,871	6.31%
	Capital Outlay	-	-	-	-	0.00%
	Operating Transfer Out	-	-	-	-	0.00%
	<b>Sub-total</b>	<b>126,868</b>	<b>141,100</b>	<b>155,032</b>	<b>145,351</b>	<b>3.01%</b>
	<b>Personnel Services</b>	89,050	96,775	114,321	98,710	2.00%
	<b>Fringe Benefits</b>	8,228	8,941	8,212	9,120	2.00%
	<b>Supplies</b>	582	700	643	650	-7.14%
	<b>Other Services &amp; Charges</b>	29,008	34,684	31,856	36,871	6.31%
	<b>Capital Outlay</b>	-	-	-	-	0.00%
	<b>Debt Service</b>	-	-	-	-	0.00%
	<b>Operating Transfer Out</b>	-	-	-	-	0.00%
	<b>LEGISLATIVE TOTAL</b>	<b>126,868</b>	<b>141,100</b>	<b>155,032</b>	<b>145,351</b>	<b>3.01%</b>
<b>Judicial</b>	<b>1131 Circuit Court</b>					
	Personnel Services	544,144	537,747	508,813	555,343	3.27%
	Fringe Benefits	156,626	208,295	191,311	229,005	9.94%
	Supplies	6,871	8,000	7,348	7,000	-12.50%
	Other Services & Charges	97,078	140,693	129,221	110,859	-21.21%
	Capital Outlay	856	5,500	5,052	2,000	-63.64%
	Operating Transfer Out	6,808	8,200	7,531	12,743	55.40%
	<b>Sub-total</b>	<b>812,383</b>	<b>908,435</b>	<b>849,276</b>	<b>916,950</b>	<b>0.94%</b>

**GENERAL FUND**

	<b>2019 Actual</b>	<b>2020 Amended Budget</b>	<b>2021 Directive</b>	<b>2021 Final Recom</b>	<b>2021 Final Recom/ 2020 Amended % Incr/ (Decr)</b>
<b>1132 Due Process Costs</b>					
Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	829,147	703,350	646,001	752,005	6.92%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	683,258	699,910	697,607	697,607	-0.33%
<b>Sub-total</b>	<b>1,512,405</b>	<b>1,403,260</b>	<b>1,343,608</b>	<b>1,449,612</b>	<b>3.30%</b>
<b>1133 Circuit - Family Division</b>					
Personnel Services	260,784	333,524	492,458	227,216	-31.87%
Fringe Benefits	92,326	137,576	126,359	90,129	-34.49%
Supplies	1,049	4,500	4,133	2,000	-55.56%
Other Services & Charges	76,055	110,309	101,315	97,387	-11.71%
Capital Outlay	893	8,500	7,807	3,500	-58.82%
Operating Transfer Out	76,475	127,379	116,993	365,045	186.58%
<b>Sub-total</b>	<b>507,582</b>	<b>721,788</b>	<b>849,064</b>	<b>785,277</b>	<b>8.80%</b>
<b>1136 District Court</b>					
Personnel Services	2,032,677	2,162,533	2,126,445	2,167,919	0.25%
Fringe Benefits	550,111	731,647	671,991	813,118	11.14%
Supplies	22,862	20,500	18,829	20,500	0.00%
Other Services & Charges	322,805	342,265	314,358	335,736	-1.91%
Capital Outlay	1,683	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>2,930,138</b>	<b>3,256,945</b>	<b>3,131,623</b>	<b>3,337,273</b>	<b>2.47%</b>
<b>1141 Friend of the Court</b>					
Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	-	-	-	-	0.00%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	2,046,024	1,655,685	1,577,818	1,576,145	-4.80%
<b>Sub-total</b>	<b>2,046,024</b>	<b>1,655,685</b>	<b>1,577,818</b>	<b>1,576,145</b>	<b>-4.80%</b>
<b>1148 Probate Court</b>					
Personnel Services	427,201	439,267	448,290	427,274	-2.73%
Fringe Benefits	109,946	146,526	134,579	154,131	5.19%
Supplies	3,676	3,000	2,755	2,000	-33.33%
Other Services & Charges	60,009	76,792	70,531	68,319	-11.03%
Capital Outlay	-	2,900	2,664	1,925	-33.62%
Operating Transfer Out	-	-	-	8,197	0.00%
<b>Sub-total</b>	<b>600,831</b>	<b>668,485</b>	<b>658,818</b>	<b>661,846</b>	<b>-0.99%</b>

**GENERAL FUND**

	<b>2019 Actual</b>	<b>2020 Amended Budget</b>	<b>2021 Directive</b>	<b>2021 Final Recom</b>	<b>2021 Final Recom/ 2020 Amended % Incr/ (Decr)</b>
<b>1151 Circuit Court Probation</b>					
Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	5,468	5,500	5,052	5,200	-5.45%
Other Services & Charges	15,514	17,133	15,736	17,551	2.44%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>20,982</b>	<b>22,633</b>	<b>20,788</b>	<b>22,751</b>	<b>0.52%</b>
<b>1169 Court Services</b>					
Personnel Services	31,101	34,227	31,436	37,032	8.20%
Fringe Benefits	13,469	20,426	18,761	22,708	11.17%
Supplies	972	848	779	850	0.24%
Other Services & Charges	10,167	14,039	12,894	8,085	-42.41%
Capital Outlay	-	1,000	918	500	-50.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>55,709</b>	<b>70,540</b>	<b>64,788</b>	<b>69,175</b>	<b>-1.94%</b>
<b>Personnel Services</b>	<b>3,295,905</b>	<b>3,507,298</b>	<b>3,607,442</b>	<b>3,414,784</b>	<b>-2.64%</b>
<b>Fringe Benefits</b>	<b>922,479</b>	<b>1,244,470</b>	<b>1,143,001</b>	<b>1,309,091</b>	<b>5.19%</b>
<b>Supplies</b>	<b>40,899</b>	<b>42,348</b>	<b>38,895</b>	<b>37,550</b>	<b>-11.33%</b>
<b>Other Services &amp; Charges</b>	<b>1,410,774</b>	<b>1,404,581</b>	<b>1,290,056</b>	<b>1,389,942</b>	<b>-1.04%</b>
<b>Capital Outlay</b>	<b>3,432</b>	<b>17,900</b>	<b>16,441</b>	<b>7,925</b>	<b>-55.73%</b>
<b>Debt Service</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.00%</b>
<b>Operating Transfer Out</b>	<b>2,812,565</b>	<b>2,491,174</b>	<b>2,399,949</b>	<b>2,659,737</b>	<b>6.77%</b>
<b>JUDICIAL TOTAL</b>	<b>8,486,054</b>	<b>8,707,771</b>	<b>8,495,784</b>	<b>8,819,029</b>	<b>1.28%</b>
<b>General Government</b>					
<b>1172 County Administrator</b>					
Personnel Services	336,156	341,330	343,935	301,929	-11.54%
Fringe Benefits	82,766	97,063	89,149	79,262	-18.34%
Supplies	2,166	1,605	1,474	1,500	-6.54%
Other Services & Charges	22,588	31,747	29,158	41,380	30.34%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	17,669	-	-	-	0.00%
<b>Sub-total</b>	<b>461,345</b>	<b>471,745</b>	<b>463,717</b>	<b>424,071</b>	<b>-10.11%</b>
<b>1173 Communications</b>					
Personnel Services	80,693	80,069	73,540	99,835	24.69%
Fringe Benefits	11,603	30,777	28,268	33,329	8.29%
Supplies	426	150	138	-	-100.00%
Other Services & Charges	14,441	4,263	3,915	24,626	477.67%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>107,163</b>	<b>115,259</b>	<b>105,861</b>	<b>157,790</b>	<b>36.90%</b>

**GENERAL FUND**

	<b>2019 Actual</b>	<b>2020 Amended Budget</b>	<b>2021 Directive</b>	<b>2021 Final Recom</b>	<b>2021 Final Recom/ 2020 Amended % Incr/ (Decr)</b>
<b>1175 Administrative Services</b>					
Personnel Services	66,615	68,265	88,135	69,618	1.98%
Fringe Benefits	22,835	25,447	23,372	28,854	13.39%
Supplies	47	200	184	200	0.00%
Other Services & Charges	1,848	2,758	2,533	2,942	6.67%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>91,344</b>	<b>96,670</b>	<b>114,224</b>	<b>101,614</b>	<b>5.11%</b>
<b>1191 Clerk - Elections</b>					
Personnel Services	61,784	74,917	68,809	62,513	-16.56%
Fringe Benefits	18,021	24,145	22,176	26,639	10.33%
Supplies	7,034	55,000	9,070	6,204	-88.72%
Other Services & Charges	14,245	152,399	15,636	20,766	-86.37%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>101,084</b>	<b>306,461</b>	<b>115,691</b>	<b>116,122</b>	<b>-62.11%</b>
<b>1205 Finance</b>					
Personnel Services	255,159	267,616	294,949	280,450	4.80%
Fringe Benefits	63,939	86,518	79,464	94,491	9.22%
Supplies	3,022	4,055	3,724	3,000	-26.02%
Other Services & Charges	123,714	167,014	153,396	104,486	-37.44%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>445,834</b>	<b>525,203</b>	<b>531,533</b>	<b>482,427</b>	<b>-8.14%</b>
<b>1210 Corporation Counsel</b>					
Personnel Services	159,215	179,427	164,797	177,406	-1.13%
Fringe Benefits	40,224	57,329	52,655	59,494	3.78%
Supplies	201	500	459	300	-40.00%
Other Services & Charges	38,675	108,703	99,840	43,187	-60.27%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>238,315</b>	<b>345,959</b>	<b>317,751</b>	<b>280,387</b>	<b>-18.95%</b>
<b>1216 Clerk of the Circuit Court</b>					
Personnel Services	546,371	562,541	516,673	554,982	-1.34%
Fringe Benefits	154,531	222,669	204,513	248,824	11.75%
Supplies	6,977	7,000	6,429	7,000	0.00%
Other Services & Charges	67,616	75,361	69,216	82,036	8.86%
Capital Outlay	1,896	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>777,391</b>	<b>867,571</b>	<b>796,832</b>	<b>892,842</b>	<b>2.91%</b>

**GENERAL FUND**

	<b>2019 Actual</b>	<b>2020 Amended Budget</b>	<b>2021 Directive</b>	<b>2021 Final Recom</b>	<b>2021 Final Recom/ 2020 Amended % Incr/ (Decr)</b>
<b>1219 Clerk - Register of Deeds</b>					
Personnel Services	443,062	445,595	409,262	436,713	-1.99%
Fringe Benefits	124,873	175,971	161,623	181,011	2.86%
Supplies	7,092	8,000	7,348	8,000	0.00%
Other Services & Charges	44,790	61,013	56,038	58,150	-4.69%
Capital Outlay	-	1,500	1,378	1,500	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>619,817</b>	<b>692,079</b>	<b>635,649</b>	<b>685,374</b>	<b>-0.97%</b>
<b>1225 Equalization</b>					
Personnel Services	219,578	227,323	291,170	189,432	-16.67%
Fringe Benefits	61,372	82,380	75,663	62,711	-23.88%
Supplies	1,375	1,200	1,102	1,200	0.00%
Other Services & Charges	91,508	58,846	54,048	155,519	164.28%
Capital Outlay	-	700	643	700	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>373,834</b>	<b>370,449</b>	<b>422,626</b>	<b>409,562</b>	<b>10.56%</b>
<b>1226 Human Resources</b>					
Personnel Services	292,651	294,441	270,432	310,029	5.29%
Fringe Benefits	51,876	62,240	57,165	67,287	8.11%
Supplies	1,268	1,200	1,102	1,200	0.00%
Other Services & Charges	28,881	32,652	29,990	38,085	16.64%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>374,677</b>	<b>390,533</b>	<b>358,690</b>	<b>416,601</b>	<b>6.67%</b>
<b>1229 Prosecuting Attorney</b>					
Personnel Services	1,805,338	1,819,972	1,727,923	1,804,706	-0.84%
Fringe Benefits	479,596	606,211	556,783	633,861	4.56%
Supplies	12,716	12,000	11,022	9,800	-18.33%
Other Services & Charges	293,796	267,363	245,563	421,815	57.77%
Capital Outlay	1,661	-	-	1,470	0.00%
Operating Transfer Out	272,048	234,181	215,087	287,845	22.92%
<b>Sub-total</b>	<b>2,865,155</b>	<b>2,939,727</b>	<b>2,756,377</b>	<b>3,159,497</b>	<b>7.48%</b>
<b>1233 Purchasing</b>					
Personnel Services	48,377	49,376	45,350	50,349	1.97%
Fringe Benefits	16,145	22,623	20,778	25,638	13.33%
Supplies	285	500	459	500	0.00%
Other Services & Charges	6,069	7,099	6,520	6,887	-2.99%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>70,875</b>	<b>79,598</b>	<b>73,108</b>	<b>83,374</b>	<b>4.74%</b>

**GENERAL FUND**

	<b>2019 Actual</b>	<b>2020 Amended Budget</b>	<b>2021 Directive</b>	<b>2021 Final Recom</b>	<b>2021 Final Recom/ 2020 Amended % Incr/ (Decr)</b>
<b>1253 Treasurer</b>					
Personnel Services	255,451	230,216	238,292	241,600	4.94%
Fringe Benefits	70,376	82,076	75,384	91,627	11.64%
Supplies	2,241	3,500	3,215	3,500	0.00%
Other Services & Charges	26,247	32,320	29,685	31,709	-1.89%
Capital Outlay	-	3,600	3,306	3,600	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>354,315</b>	<b>351,712</b>	<b>349,882</b>	<b>372,036</b>	<b>5.78%</b>
<b>1257 MSU Extension</b>					
Personnel Services	35,595	37,350	55,737	38,630	3.43%
Fringe Benefits	10,942	12,879	22,766	14,302	11.05%
Supplies	225	-	-	-	0.00%
Other Services & Charges	86,833	87,341	85,380	84,812	-2.90%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>133,596</b>	<b>137,570</b>	<b>163,883</b>	<b>137,744</b>	<b>0.13%</b>
<b>1275 Water Resources Commissioner</b>					
Personnel Services	130,084	148,321	136,227	151,069	1.85%
Fringe Benefits	41,837	52,995	48,674	57,255	8.04%
Supplies	275	600	551	600	0.00%
Other Services & Charges	15,838	28,532	26,206	23,592	-17.31%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>188,033</b>	<b>230,448</b>	<b>211,658</b>	<b>232,516</b>	<b>0.90%</b>
<b>1748 Community Development</b>					
Personnel Services	176,989	188,040	172,708	150,260	-20.09%
Fringe Benefits	59,222	65,851	60,482	54,233	-17.64%
Supplies	967	2,000	1,837	2,000	0.00%
Other Services & Charges	9,310	47,145	43,301	14,220	-69.84%
Capital Outlay	-	-	-	200	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>246,488</b>	<b>303,036</b>	<b>278,328</b>	<b>220,913</b>	<b>-27.10%</b>
<b>1749 GIS</b>					
Personnel Services	106,599	113,784	104,507	121,056	6.39%
Fringe Benefits	22,578	33,247	30,536	37,527	12.87%
Supplies	26	100	92	100	0.00%
Other Services & Charges	24,736	29,069	26,699	29,759	2.37%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>153,940</b>	<b>176,200</b>	<b>161,833</b>	<b>188,442</b>	<b>6.95%</b>

**GENERAL FUND**

	<b>2019 Actual</b>	<b>2020 Amended Budget</b>	<b>2021 Directive</b>	<b>2021 Final Recom</b>	<b>2021 Final Recom/ 2020 Amended % Incr/ (Decr)</b>
<b>1421 Planning</b>					
Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	522	1,000	918	738	-26.20%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>522</b>	<b>1,000</b>	<b>918</b>	<b>738</b>	<b>-26.20%</b>
<b>1972 Soil Conservation Appropriation</b>					
Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	6,296	7,800	7,164	8,000	2.56%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>6,296</b>	<b>7,800</b>	<b>7,164</b>	<b>8,000</b>	<b>2.56%</b>
<b>1974 Homer Lake Management Board</b>					
Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	2,500	2,500	2,296	2,500	0.00%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>2,500</b>	<b>2,500</b>	<b>2,296</b>	<b>2,500</b>	<b>0.00%</b>
<b>Personnel Services</b>	<b>5,019,717</b>	<b>5,128,583</b>	<b>5,002,446</b>	<b>5,040,577</b>	<b>-1.72%</b>
<b>Fringe Benefits</b>	<b>1,332,736</b>	<b>1,740,421</b>	<b>1,609,451</b>	<b>1,796,345</b>	<b>3.21%</b>
<b>Supplies</b>	<b>46,344</b>	<b>97,610</b>	<b>48,206</b>	<b>45,104</b>	<b>-53.79%</b>
<b>Other Services &amp; Charges</b>	<b>920,453</b>	<b>1,204,925</b>	<b>987,504</b>	<b>1,195,209</b>	<b>-0.81%</b>
<b>Capital Outlay</b>	<b>3,557</b>	<b>5,800</b>	<b>5,327</b>	<b>7,470</b>	<b>28.79%</b>
<b>Debt Service</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.00%</b>
<b>Operating Transfer Out</b>	<b>289,717</b>	<b>234,181</b>	<b>215,087</b>	<b>287,845</b>	<b>22.92%</b>
<b>GENERAL GOVERNMENT TOTAL</b>	<b>7,612,524</b>	<b>8,411,520</b>	<b>7,868,021</b>	<b>8,372,550</b>	<b>-0.46%</b>
<b>Public Safety</b>					
<b>1305 Sheriff - Administration</b>					
Personnel Services	425,169	457,632	420,319	472,430	3.23%
Fringe Benefits	240,149	364,117	334,428	376,601	3.43%
Supplies	1,110	800	735	980	22.50%
Other Services & Charges	95,500	81,261	74,635	81,507	0.30%
Capital Outlay	-	1,000	918	980	-2.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>761,927</b>	<b>904,810</b>	<b>831,035</b>	<b>932,498</b>	<b>3.06%</b>

**GENERAL FUND**

	<b>2019 Actual</b>	<b>2020 Amended Budget</b>	<b>2021 Directive</b>	<b>2021 Final Recom</b>	<b>2021 Final Recom/ 2020 Amended % Incr/ (Decr)</b>
<b>1306 Sheriff - Support Services</b>					
Personnel Services	311,601	318,624	292,645	282,904	-11.21%
Fringe Benefits	98,413	121,203	111,321	118,140	-2.53%
Supplies	3,975	5,200	4,776	4,312	-17.08%
Other Services & Charges	3,014	2,152	1,977	2,502	16.26%
Capital Outlay	-	500	459	490	-2.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>417,003</b>	<b>447,679</b>	<b>411,177</b>	<b>408,348</b>	<b>-8.79%</b>
<b>1308 Sheriff - Cisd Liaison Officer</b>					
Personnel Services	50,860	62,437	63,998	44,316	-29.02%
Fringe Benefits	11,459	13,643	13,984	23,499	72.24%
Supplies	385	300	308	539	79.67%
Other Services & Charges	5,657	4,609	4,724	4,304	-6.62%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>68,362</b>	<b>80,989</b>	<b>83,014</b>	<b>72,658</b>	<b>-10.29%</b>
<b>1309 Sheriff - Pennfield Liaison Officer</b>					
Personnel Services	46,177	58,637	60,103	42,944	-26.76%
Fringe Benefits	20,190	26,907	27,580	23,394	-13.06%
Supplies	71	100	103	245	145.00%
Other Services & Charges	2,993	3,879	3,976	4,206	8.43%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>69,431</b>	<b>89,523</b>	<b>91,761</b>	<b>70,789</b>	<b>-20.93%</b>
<b>1310 Sheriff - Homer Village</b>					
Personnel Services	106,855	156,730	160,648	153,905	-1.80%
Fringe Benefits	32,154	61,641	63,182	63,458	2.95%
Supplies	523	700	718	490	-30.00%
Other Services & Charges	7,965	8,948	9,172	7,903	-11.68%
Capital Outlay	3,664	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>151,160</b>	<b>228,019</b>	<b>233,719</b>	<b>225,756</b>	<b>-0.99%</b>
<b>1311 Sheriff - Detective Division</b>					
Personnel Services	181,349	202,505	185,994	140,338	-30.70%
Fringe Benefits	57,062	71,539	65,706	31,189	-56.40%
Supplies	389	200	184	343	71.50%
Other Services & Charges	9,333	6,895	6,333	8,815	27.85%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>248,134</b>	<b>281,139</b>	<b>258,216</b>	<b>180,685</b>	<b>-35.73%</b>



**GENERAL FUND**

	<b>2019 Actual</b>	<b>2020 Amended Budget</b>	<b>2021 Directive</b>	<b>2021 Final Recom</b>	<b>2021 Final Recom/ 2020 Amended % Incr/ (Decr)</b>
<b>1315 Sheriff - Road Patrol</b>					
Personnel Services	1,388,581	1,223,361	1,152,045	1,323,762	8.21%
Fringe Benefits	577,080	586,069	538,283	567,709	-3.13%
Supplies	22,571	36,800	33,799	29,400	-20.11%
Other Services & Charges	443,102	469,439	431,163	481,494	2.57%
Capital Outlay	5,436	5,000	4,592	4,900	-2.00%
Operating Transfer Out	66,557	140,634	129,167	82,505	-41.33%
<b>Sub-total</b>	<b>2,503,327</b>	<b>2,461,303</b>	<b>2,289,050</b>	<b>2,489,770</b>	<b>1.16%</b>
<b>1316 Sheriff - Pennfield Township</b>					
Personnel Services	573,811	572,752	587,071	600,952	4.92%
Fringe Benefits	181,537	249,923	256,171	255,594	2.27%
Supplies	2,671	2,700	2,768	3,332	23.41%
Other Services & Charges	39,205	40,016	41,016	37,958	-5.14%
Capital Outlay	210	2,000	2,050	1,960	-2.00%
Debt Service	9,483	20,000	20,500	19,600	-2.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>806,918</b>	<b>887,391</b>	<b>909,576</b>	<b>919,396</b>	<b>3.61%</b>
<b>1317 Sheriff - City of Springfield</b>					
Personnel Services	575,554	594,257	609,113	621,991	4.67%
Fringe Benefits	181,582	239,268	245,250	233,972	-2.21%
Supplies	1,516	1,200	1,230	1,274	6.17%
Other Services & Charges	28,975	35,760	36,654	11,473	-67.92%
Capital Outlay	5,691	-	-	5,880	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>793,319</b>	<b>870,485</b>	<b>892,247</b>	<b>874,590</b>	<b>0.47%</b>
<b>1318 Sheriff - Alcohol, Tobacco, &amp; Firearms</b>					
Personnel Services	649	3,380	3,104	636	-81.18%
Fringe Benefits	138	1,455	1,336	136	-90.65%
Supplies	-	-	-	-	0.00%
Other Services & Charges	23	2,013	1,849	-	-100.00%
Capital Outlay	-	970	891	-	-100.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>810</b>	<b>7,818</b>	<b>7,181</b>	<b>772</b>	<b>-90.13%</b>
<b>1319 Sheriff - Convis Township</b>					
Personnel Services	53,774	58,837	60,308	60,673	3.12%
Fringe Benefits	21,782	26,802	27,472	29,221	9.03%
Supplies	94	200	205	196	-2.00%
Other Services & Charges	1,872	4,779	4,898	4,353	-8.91%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>77,522</b>	<b>90,618</b>	<b>92,883</b>	<b>94,443</b>	<b>4.22%</b>

**GENERAL FUND**

	<b>2019 Actual</b>	<b>2020 Amended Budget</b>	<b>2021 Directive</b>	<b>2021 Final Recom</b>	<b>2021 Final Recom/ 2020 Amended % Incr/ (Decr)</b>
<b>1320 Sheriff - Training</b>					
Personnel Services	61,401	62,540	57,441	62,584	0.07%
Fringe Benefits	24,367	27,539	25,294	29,384	6.70%
Supplies	215	200	184	196	-2.00%
Other Services & Charges	58,639	59,013	54,201	68,730	16.47%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>144,622</b>	<b>149,292</b>	<b>137,119</b>	<b>160,894</b>	<b>7.77%</b>
<b>1321 Sheriff - IRS Enforcement</b>					
Personnel Services	879	3,500	3,215	3,430	-2.00%
Fringe Benefits	318	1,540	1,414	1,510	-1.95%
Supplies	-	1,600	1,470	-	-100.00%
Other Services & Charges	2,256	10,310	9,469	6,174	-40.12%
Capital Outlay	12,353	17,465	16,041	22,614	29.48%
Operating Transfer Out	8,914	8,914	8,187	8,736	-2.00%
<b>Sub-total</b>	<b>24,719</b>	<b>43,329</b>	<b>39,796</b>	<b>42,464</b>	<b>-2.00%</b>
<b>1322 Sheriff - FOC Warrant Officer</b>					
Personnel Services	50,087	56,637	58,053	58,566	3.41%
Fringe Benefits	22,327	26,546	27,210	28,953	9.07%
Supplies	-	300	308	294	-2.00%
Other Services & Charges	6,197	7,039	7,215	6,615	-6.02%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>78,610</b>	<b>90,522</b>	<b>92,785</b>	<b>94,428</b>	<b>4.31%</b>
<b>1325 Sheriff - Chemical Waste</b>					
Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	1,826	3,000	2,755	2,940	-2.00%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>1,826</b>	<b>3,000</b>	<b>2,755</b>	<b>2,940</b>	<b>-2.00%</b>
<b>1326 Sheriff - Civil Process</b>					
Personnel Services	87,456	91,626	84,155	97,557	6.47%
Fringe Benefits	30,915	33,661	30,916	37,393	11.09%
Supplies	217	370	340	363	-1.89%
Other Services & Charges	39,602	47,289	43,433	39,926	-15.57%
Capital Outlay	-	-	-	4,802	0.00%
Debt Service	4,712	4,572	4,199	4,481	-1.99%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>162,903</b>	<b>177,518</b>	<b>163,044</b>	<b>184,522</b>	<b>3.95%</b>

**GENERAL FUND**

	<b>2019 Actual</b>	<b>2020 Amended Budget</b>	<b>2021 Directive</b>	<b>2021 Final Recom</b>	<b>2021 Final Recom/ 2020 Amended % Incr/ (Decr)</b>
<b>1331 Sheriff - Marine Safety</b>					
Personnel Services	18,664	39,319	36,113	40,062	1.89%
Fringe Benefits	3,581	14,041	12,896	14,562	3.71%
Supplies	-	400	367	392	-2.00%
Other Services & Charges	7,594	6,050	5,557	5,929	-2.00%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>29,839</b>	<b>59,810</b>	<b>54,933</b>	<b>60,945</b>	<b>1.90%</b>
<b>1351 Sheriff - Corrections Jail</b>					
Personnel Services	6,124,877	6,066,267	5,623,248	6,265,681	3.29%
Fringe Benefits	2,233,641	2,996,728	2,752,387	3,065,949	2.31%
Supplies	219,871	225,400	207,022	250,292	11.04%
Other Services & Charges	3,041,694	3,205,151	2,943,816	3,079,047	-3.93%
Capital Outlay	645	2,000	1,837	-	-100.00%
Debt Service	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>11,620,728</b>	<b>12,495,546</b>	<b>11,528,309</b>	<b>12,660,969</b>	<b>1.32%</b>
<b>1370 Community Corrections Admin</b>					
Personnel Services	197,455	218,430	238,862	195,126	-10.67%
Fringe Benefits	61,040	82,745	75,998	99,157	19.83%
Supplies	2,321	2,000	1,837	392	-80.40%
Other Services & Charges	17,124	25,243	23,185	24,767	-1.89%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>277,940</b>	<b>328,418</b>	<b>339,882</b>	<b>319,442</b>	<b>-2.73%</b>
<b>1426 Emergency Services</b>					
Personnel Services	74,001	75,859	69,674	75,093	-1.01%
Fringe Benefits	23,893	26,445	24,289	28,612	8.19%
Supplies	536	350	321	343	-2.00%
Other Services & Charges	7,310	10,942	10,050	8,446	-22.81%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>105,741</b>	<b>113,596</b>	<b>104,334</b>	<b>112,494</b>	<b>-0.97%</b>
<b>1430 Animal Control</b>					
Personnel Services	55,891	57,637	52,937	60,575	5.10%
Fringe Benefits	23,084	26,695	24,518	29,214	9.44%
Supplies	849	200	184	392	96.00%
Other Services & Charges	93,509	78,691	79,162	79,609	1.17%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>173,333</b>	<b>163,223</b>	<b>156,800</b>	<b>169,790</b>	<b>4.02%</b>

**GENERAL FUND**

	<b>2019 Actual</b>	<b>2020 Amended Budget</b>	<b>2021 Directive</b>	<b>2021 Final Recom</b>	<b>2021 Final Recom/ 2020 Amended % Incr/ (Decr)</b>
<b>Personnel Services</b>	10,424,655	10,380,967	9,819,044	10,603,525	2.14%
<b>Fringe Benefits</b>	3,854,861	4,998,507	4,659,636	5,057,647	1.18%
<b>Supplies</b>	257,316	279,020	256,856	293,775	5.29%
<b>Other Services &amp; Charges</b>	3,913,464	4,112,479	3,795,240	3,966,698	-3.54%
<b>Capital Outlay</b>	27,998	28,935	26,789	41,626	43.86%
<b>Debt Service</b>	14,195	24,572	24,699	24,081	-2.00%
<b>Operating Transfer Out</b>	75,471	149,548	137,354	91,241	-38.99%
<b>PUBLIC SAFETY TOTAL</b>	<b>18,567,959</b>	<b>19,974,028</b>	<b>18,719,618</b>	<b>20,078,593</b>	<b>0.52%</b>

**Public Works**

1445 **Drain Assessments**

Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	286,279	391,100	275,000	330,360	-15.53%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>286,279</b>	<b>391,100</b>	<b>275,000</b>	<b>330,360</b>	<b>-15.53%</b>

<b>Personnel Services</b>	-	-	-	-	0.00%
<b>Fringe Benefits</b>	-	-	-	-	0.00%
<b>Supplies</b>	-	-	-	-	0.00%
<b>Other Services &amp; Charges</b>	286,279	391,100	275,000	330,360	-15.53%
<b>Capital Outlay</b>	-	-	-	-	0.00%
<b>Debt Service</b>	-	-	-	-	0.00%
<b>Operating Transfer Out</b>	-	-	-	-	0.00%
<b>PUBLIC WORKS TOTAL</b>	<b>286,279</b>	<b>391,100</b>	<b>275,000</b>	<b>330,360</b>	<b>-15.53%</b>

**Health & Welfare**

1631 **Substance Abuse**

Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	334,769	335,604	332,282	332,415	-0.95%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>334,769</b>	<b>335,604</b>	<b>332,282</b>	<b>332,415</b>	<b>-0.95%</b>

1648 **Medical Examiner**

Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	-	-	-	-	0.00%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	338,853	359,690	364,293	346,509	-3.66%
<b>Sub-total</b>	<b>338,853</b>	<b>359,690</b>	<b>364,293</b>	<b>346,509</b>	<b>-3.66%</b>

**GENERAL FUND**

	<b>2019 Actual</b>	<b>2020 Amended Budget</b>	<b>2021 Directive</b>	<b>2021 Final Recom</b>	<b>2021 Final Recom/ 2020 Amended % Incr/ (Decr)</b>
<b>1966 Health Fund Appropriation</b>					
Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	-	-	-	-	0.00%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	920,180	1,146,106	988,924	982,313	-14.29%
<b>Sub-total</b>	<b>920,180</b>	<b>1,146,106</b>	<b>988,924</b>	<b>982,313</b>	<b>-14.29%</b>
<b>1967 Mental Health Appropriation</b>					
Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	-	-	-	-	0.00%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	265,000	265,000	265,000	265,000	0.00%
<b>Sub-total</b>	<b>265,000</b>	<b>265,000</b>	<b>265,000</b>	<b>265,000</b>	<b>0.00%</b>
<b>1968 Medical Care Facility MOE</b>					
Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	-	-	-	-	0.00%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	36,000	36,000	36,000	0.00%
<b>Sub-total</b>	<b>-</b>	<b>36,000</b>	<b>36,000</b>	<b>36,000</b>	<b>0.00%</b>
<b>1969 Child Care Fund Appropriation</b>					
Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	-	-	-	-	0.00%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	1,547,645	1,461,996	1,374,919	1,700,551	16.32%
<b>Sub-total</b>	<b>1,547,645</b>	<b>1,461,996</b>	<b>1,374,919</b>	<b>1,700,551</b>	<b>16.32%</b>
<b>1970 DHS Appropriation</b>					
Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	-	-	-	-	0.00%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	472,033	992,300	911,391	992,300	0.00%
<b>Sub-total</b>	<b>472,033</b>	<b>992,300</b>	<b>911,391</b>	<b>992,300</b>	<b>0.00%</b>

**GENERAL FUND**

	2019 Actual	2020 Amended Budget	2021 Directive	2021 Final Recom	2021 Final Recom/ 2020 Amended % Incr/ (Decr)
<b>Personnel Services</b>	-	-	-	-	0.00%
<b>Fringe Benefits</b>	-	-	-	-	0.00%
<b>Supplies</b>	-	-	-	-	0.00%
<b>Other Services &amp; Charges</b>	334,769	335,604	332,282	332,415	-0.95%
<b>Capital Outlay</b>	-	-	-	-	0.00%
<b>Debt Service</b>	-	-	-	-	0.00%
<b>Operating Transfer Out</b>	3,543,711	4,261,092	3,940,527	4,322,673	1.45%
<b>HEALTH &amp; WELFARE TOTAL</b>	<b>3,878,479</b>	<b>4,596,696</b>	<b>4,272,809</b>	<b>4,655,088</b>	<b>1.27%</b>
<b>Other Functions</b>					
1673 <b>MRLEC Appropriation</b>					
Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	73,329	73,329	73,329	73,329	0.00%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>73,329</b>	<b>73,329</b>	<b>73,329</b>	<b>73,329</b>	<b>0.00%</b>
1875 <b>Intragovernmental Service</b>					
Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	-	-	-	-	0.00%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	2,313,314	1,750,150	1,607,449	2,306,188	31.77%
<b>Sub-total</b>	<b>2,313,314</b>	<b>1,750,150</b>	<b>1,607,449</b>	<b>2,306,188</b>	<b>31.77%</b>
1890 <b>Contingency</b>					
Personnel Services	-	(185,751)	-	-	-100.00%
Fringe Benefits	-	(627,155)	(400,000)	(1,668,000)	165.96%
Supplies	-	-	-	-	0.00%
Other Services & Charges	-	559,300	400,000	400,000	-28.48%
Capital Outlay	-	-	-	-	0.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>-</b>	<b>(253,606)</b>	<b>-</b>	<b>(1,268,000)</b>	<b>-100.00%</b>
1992 <b>COVID-19</b>					
Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	190,000	-	-	-100.00%
Other Services & Charges	-	800,000	-	-	-100.00%
Capital Outlay	-	10,000	-	-	-100.00%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>-</b>	<b>1,000,000</b>	<b>-</b>	<b>-</b>	<b>0.00%</b>

**GENERAL FUND**

	2019 Actual	2020 Amended Budget	2021 Directive	2021 Final Recom	2021 Final Recom/ 2020 Amended % Incr/ (Decr)
<b>Personnel Services</b>	-	(185,751)	-	-	-100.00%
<b>Fringe Benefits</b>	-	(627,155)	(400,000)	(1,668,000)	165.96%
<b>Supplies</b>	-	190,000	-	-	-100.00%
<b>Other Services &amp; Charges</b>	73,329	1,432,629	473,329	473,329	-66.96%
<b>Capital Outlay</b>	-	10,000	-	-	-100.00%
<b>Debt Service</b>	-	-	-	-	0.00%
<b>Operating Transfer Out</b>	2,313,314	1,750,150	1,607,449	2,306,188	31.77%
<b>OTHER FUNCTIONS TOTAL</b>	<b>2,386,643</b>	<b>2,569,873</b>	<b>1,680,778</b>	<b>1,111,517</b>	<b>-56.75%</b>

**Debt Service**

1910 **Court Complex Bond Appropriation**

Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	-	-	-	-	0.00%
Capital Outlay	-	-	-	-	0.00%
Debt Service	591,000	592,481	592,125	590,957	-0.26%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>591,000</b>	<b>592,481</b>	<b>592,125</b>	<b>590,957</b>	<b>-0.26%</b>

1911 **Installment Purchase Appropriation**

Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	-	-	-	-	0.00%
Capital Outlay	-	-	-	-	0.00%
Debt Service	71,403	69,977	68,551	68,551	-2.04%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>71,403</b>	<b>69,977</b>	<b>68,551</b>	<b>68,551</b>	<b>-2.04%</b>

1912 **Sungard Appropriation**

Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	-	-	-	-	0.00%
Capital Outlay	-	-	-	-	0.00%
Debt Service	71,106	74,153	73,646	73,646	-0.68%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>71,106</b>	<b>74,153</b>	<b>73,646</b>	<b>73,646</b>	<b>-0.68%</b>

1913 **GOLT Debt Appropriation**

Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%

**GENERAL FUND**

	<b>2019 Actual</b>	<b>2020 Amended Budget</b>	<b>2021 Directive</b>	<b>2021 Final Recom</b>	<b>2021 Final Recom/ 2020 Amended % Incr/ (Decr)</b>
Other Services & Charges	-	-	-	-	0.00%
Capital Outlay	-	-	-	-	0.00%
Debt Service	1,384,720	1,395,690	1,542,791	1,540,293	10.36%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>1,384,720</b>	<b>1,395,690</b>	<b>1,542,791</b>	<b>1,540,293</b>	<b>10.36%</b>
<b>1914 RLEC Debt Appropriation</b>					
Personnel Services	-	-	-	-	0.00%
Fringe Benefits	-	-	-	-	0.00%
Supplies	-	-	-	-	0.00%
Other Services & Charges	-	-	-	-	0.00%
Capital Outlay	-	-	-	-	0.00%
Debt Service	169,991	167,591	170,116	170,116	1.51%
Operating Transfer Out	-	-	-	-	0.00%
<b>Sub-total</b>	<b>169,991</b>	<b>167,591</b>	<b>170,116</b>	<b>170,116</b>	<b>1.51%</b>
<b>Personnel Services</b>	-	-	-	-	0.00%
<b>Fringe Benefits</b>	-	-	-	-	0.00%
<b>Supplies</b>	-	-	-	-	0.00%
<b>Other Services &amp; Charges</b>	-	-	-	-	0.00%
<b>Capital Outlay</b>	-	-	-	-	0.00%
<b>Debt Service</b>	2,288,220	2,299,892	2,447,229	2,443,563	6.25%
<b>Operating Transfer Out</b>	-	-	-	-	0.00%
<b>DEBT SERVICE TOTAL</b>	<b>2,288,220</b>	<b>2,299,892</b>	<b>2,447,229</b>	<b>2,443,563</b>	<b>6.25%</b>
<b>Sub-Total Expenditures</b>	<b>43,633,026</b>	<b>47,091,980</b>	<b>43,914,272</b>	<b>45,956,051</b>	
Capital - Major Projects	960,000	-	500,000		
<b>Total Expenditures</b>	<b>44,593,026</b>	<b>47,091,980</b>	<b>44,414,272</b>	<b>45,956,051</b>	<b>-2.41%</b>
<b>Rev Over/(Under) Expend</b>	<b>135,773</b>	<b>194,257</b>	<b>0</b>	<b>144,941</b>	
<b>Beginning Fund Balance</b>	<b>4,896,214</b>	<b>5,031,987</b>	<b>5,226,244</b>	<b>5,226,244</b>	
<b>Ending Fund Balance</b>	<b>5,031,987</b>	<b>5,226,244</b>	<b>5,226,244</b>	<b>5,371,185</b>	



## CERTIFICATE REGARDING COMPREHENSIVE FINANCIAL PLAN

This certificate is executed to accompany the Application of the County of Calhoun, Michigan (the "County") for Approval to issue the County's proposed General Obligation Limited Tax Pension Obligation Bonds, Series 2021 (the "Bonds"). As Administrator/Controller of the County, I am the person who prepared the Comprehensive Financial Plan (CFP) for Pension Obligations of the County updated February 4, 2021 (the "CFP") in accordance with the requirements of Act 34 of 2001, as amended ("Act 34"). I certify as follows:

- (a) The requirement of subsection (a) of Section 518(5) of Act 34 ("Section 518(5)") that the CFP include an analysis of the current and future obligations with respect to each retirement program of the County is fulfilled on pages 1 through 3, 7, and Appendix A of the CFP.
- (b) The requirements of subsection (b) of Section 518(5) that the CFP include evidence that the issuance of the Bonds, together with any other lawfully available funds, is sufficient to eliminate the unfunded pension liability for the Divisions 1 and 20 defined benefit plans is fulfilled on pages 5 through 6 and Appendix B of the CFP.
- (c) The requirement of subsection (c) of Section 518(5) that the CFP include the County's debt limit calculation is fulfilled on page 1 of the CFP.
- (d) The requirement of subsection (d) of Section 518(5) that the CFP include a debt service schedule for the Bonds that does not materially deviate from level or descending annual debt service is fulfilled on pages 1-18 of Appendix C of the CFP.
- (e) The requirement of subsection (e) of Section 518(5) that the CFP include evidence that the projected net present value savings between the actuarially determined amortization payments at the plan's investment rate of return and the Bonds is at least 15% of the par amount of the Bonds is fulfilled on pages 1-18 of Appendix C of the CFP.
- (f) The requirement of subsection (f) of Section 518(5) that the CFP include a comparison of the current investment rate of return assumption of the defined benefit plan and the actual annualized investment rates of returns for the past year, 5 years, and 10 years of those plans is fulfilled on the final page of Appendix A to the CFP.
- (g) The requirement of subsection (g) of Section 518(5) that the CFP include acknowledgement that since the actuarial value of the defined benefit plan's assets and liabilities are subject to change, it is possible the unfunded accrued pension liability may increase after the issuance of the Bonds,

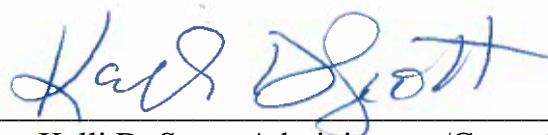
thereby requiring the County to make additional actuarially determined amortization payments to the defined benefit plan beyond the principal and interest payments due on the Bonds, is fulfilled on page 4 of the CFP.

- (h) In fulfillment of the requirement of subsection (h) of Section 518(5) the County hereby certifies that the County's most recent audit report indicates the sum of all the County's defined benefit plans' actual contributions for the most recent 3 fiscal years are 100% or greater than the sum of all the County's defined benefit plans' actuarially determined contributions for the most recent 3 fiscal years.

"Actuarially determined contributions" means that term as used in accordance with generally accepted accounting principles, rules, or regulations.

- (i) In fulfillment of the requirement of subsection (i) of Section 518(5) the County hereby certifies that the County is compliant on any reporting requirements in accordance with the protecting local government retirement and benefits act, 2017 PA 202, MCL 38.2801 to 38.2812.
- (j) The requirement of subsection (j) of Section 518(5) that the CFP include a certification by the person preparing the plan that the comprehensive financial plan is complete and accurate is fulfilled on page 6 of the CFP.
- (k) The requirement of subsection (k) of Section 518(5) relating to deposit of bond proceeds in a health care trust fund is not applicable to the Bonds.
- (l) The requirement of Section 518(5) of Act 34 of 2001, as amended that the County conduct an internal or external review to verify eligible participants in the plan and determine that they are receiving appropriate pension or other postemployment benefits consistent with their respective plan within 1 year prior to the issuance of the Bonds is fulfilled on page 5 of the CFP.

The CFP was posted on the County's website and was made available for review at the Clerk's office prior to February 12, 2021, the date that the Notice of Intent to Issue the Bonds was published in the Battle Creek Enquirer.



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Kelli D. Scott, Administrator/Controller  
County of Calhoun, Michigan

Dated: April 23, 2021

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