

## Ramsey County, Minnesota Pre-Sale Summary for Issuance of Bonds

*\$19,475,000 General Obligation Capital Improvement Plan Refunding Bonds, Series 2020A*  
*\$28,030,000 Taxable General Obligation Refunding Bonds, Series 2020B*

The Board has under consideration the issuance of its 2020A Bonds and 2020B Bonds (collectively the Bonds) to refund six outstanding general obligation bond issues of the County. This document provides information relative to the proposed issuances.

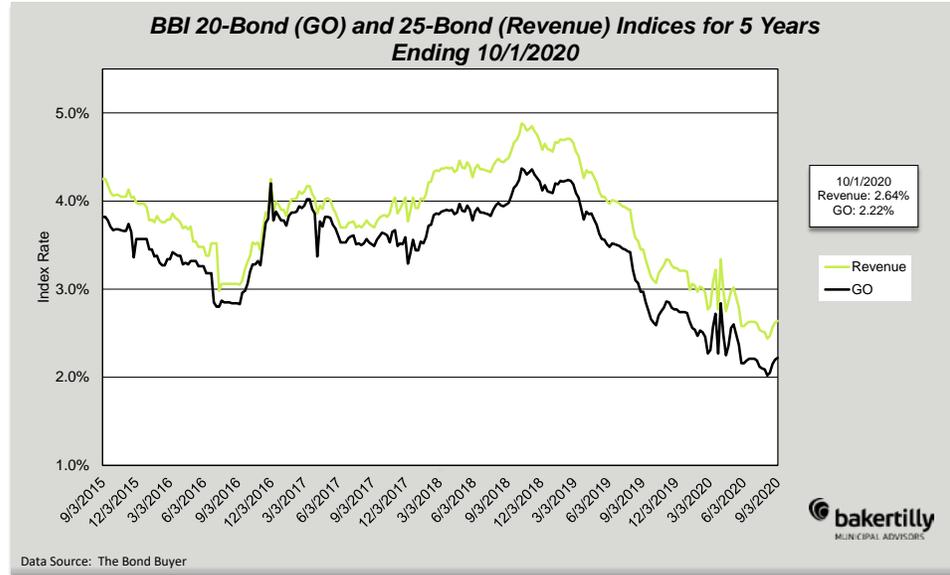
**KEY EVENTS:** The following summary schedule includes the timing of some of the key events that will occur relative to the Bond issuances:

|                                     |  |
|-------------------------------------|--|
| October 20, 2020                    | Board sets sale date and terms   |
| Week of October 26, 2020            | Rating conferences are conducted   |
| <b>November 16, 2020, 1:00 p.m.</b> | <b>Competitive proposals are received</b>                                |
| <b>November 17, 2020, 9:00 a.m.</b> | <b>Board considers award of the Bonds</b>                                |
| December 17, 2020                   | Proceeds are received  |
| February 1, 2021                    | Redemption date of Series 2011A, Series 2013A and Series 2013B Bonds     |
| February 1, 2022                    | Redemption date of the Series 2012A, Series 2014A and Series 2014C Bonds |

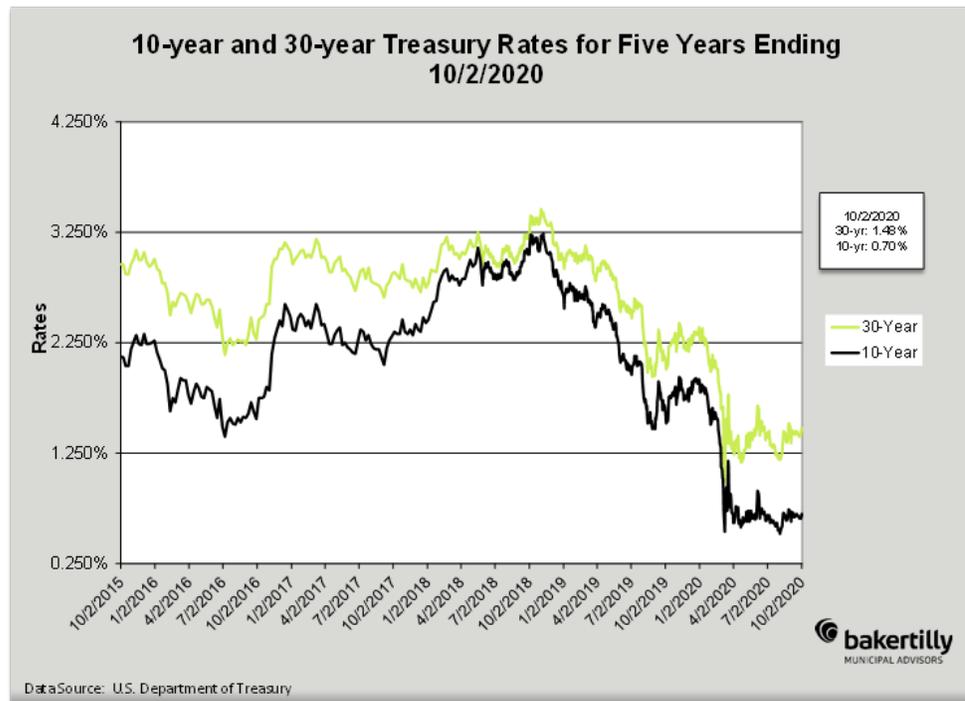
**RATING:** Applications will be made to Moody's Investors Service (Moody's) and S&P Global Ratings (S&P) for ratings on the Bonds. The County's general obligation debt is currently rated "Aaa" by Moody's and "AAA" by S&P.

**THE MARKET:**

Performance of the tax-exempt market is often measured by the Bond Buyer's Index ("BBI") which measures the yield of high grade municipal bonds in the 20<sup>th</sup> year for general obligation bonds rated Aa2 by Moody's or AA by S&P (the BBI 20-Bond GO Index) and the 30<sup>th</sup> year for revenue bonds rated A1 by Moody's or A+ by S&P (the BBI 25-Bond Revenue Index). The following chart illustrates these two indices over the past five years:



Interest rates for the taxable municipal market are quoted as a spread to U.S. Treasury Securities. To give you an indication of the relative position of that market, the chart below tracks the yield of the 10-year and 30-year U.S. Treasury over the last five years:



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\$19,475,000 General Obligation Capital Improvement Plan Refunding Bonds, Series 2020A (the "2020A Bonds")

**Description of Issue**

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**PURPOSE:** Proceeds of the 2020A Bonds along with an estimated reoffering premium will be used to refund the callable maturities of the County's (i) General Obligation Capital Improvement Plan Bonds, Series 2011A, dated June 16, 2011 (the "2011A Bonds") and (ii) General Obligation Capital Improvement Plan Bonds, Series 2013A, dated June 24, 2013 (the "2013A Bonds"). The 2011A Bonds and 2013A Bonds are collectively referred to as the "Prior CIP Bonds".

The purpose of these refundings is to achieve interest cost savings.

Details of these refunding transactions are provided in the table below under Structuring Summary.

**PRIOR CIP BONDS:** The Prior CIP Bonds were originally issued for the following purposes:

- Proceeds of the 2011A Bonds were originally used to finance portions of the County's 2011 adopted Capital Improvement Plan projects.
- Proceeds of the 2013A Bonds were originally used to finance portions of the County's 2013 - 2018 adopted Capital Improvement Plan projects and were originally structured as four purposes based on the project and repayment term.

**AUTHORITY:** The 2020A Bonds are being issued pursuant to Minnesota Statutes, Chapter 475 and the County's Home Rule Charter. The County's Home Rule Charter authorizes the issuance of bonds by ordinance adopted by the County Board.

**SECURITY AND SOURCE OF PAYMENT:** The 2020A Bonds will be general obligations of the County, secured by its full faith and credit and taxing power. The 2020A Bonds will be repaid with ad valorem property taxes.

On February 1, 2021, the call date of the Prior CIP Bonds, the County will (i) use the proceeds of the 2020A Bonds and reoffering premium to redeem the maturities as described in the table below under Structuring Summary and (ii) make its regularly scheduled February 1, 2021 payment of principal and interest on the Prior CIP Bonds in the amounts of \$1,309,521.88 for the 2011A Bonds and \$2,858,583.75 for the 2013A Bonds, from monies previously levied and collected for these payments. Beginning with the August 1, 2021 interest payment, the County will begin paying debt service on the 2020A Bonds, realizing interest cost savings.

The County will make its first levy for the 2020A Bonds in 2020 for collection in 2021. Each year's collection of taxes will be used to pay the August 1 interest payment due in the collection year and the February 1 principal and interest payment due in the following year.

**STRUCTURING SUMMARY:** In consultation with County staff, the 2020A Bonds have been structured to result in approximately level annual savings over terms matching the remaining terms and purposes of the respective Prior CIP Bonds.

Based on current interest rate estimates, the table below shows the details of the refunding of the Prior CIP Bonds and estimated interest cost savings net of all costs associated with the transaction:

| Refunded Issue           | 2011A Bonds        | 2013A Bonds                               |
|--------------------------|--------------------|---|
| Refunding Type           | Current Refunding  |   |
| Refunded Maturities      | Feb 1, 2022 - 2031 | Feb 1, 2022 - 2033                        |
| Refunded Principal       | \$9,965,000        | \$9,970,000                               |
| Redemption Date          | Feb 1, 2021        | Feb 1, 2021                               |
| <b>Estimated Savings</b> |                    |   |
| Net FV (\$)              | \$1,753,362        | \$816,514                                 |
| Net PV (\$)              | \$1,660,301        | \$772,520                                 |
| NPV/Refunded D/S         | 14.14%             | 7.10%                                     |
| Average Annual           | \$175,171          | 2022-2023 \$127,753<br>2024-2033 \$56,151 |

**SCHEDULES ATTACHED:**

Schedules attached for the 2020A Bonds include: (i) Refunding Summary, (ii) Pricing Summary, (iii) Debt Service Comparison as a whole and by purpose, (iv) Debt Service to Maturity and to Call for each of the Prior CIP Bonds, and (v) Net Debt Service as a whole and by purpose.

*Note: Values included in the attached schedules are estimates given current market conditions.*

**RISKS/SPECIAL CONSIDERATIONS:**

The outcome of this financing will rely on the market conditions at the time of the sale. Any projections included herein are estimates based on current market conditions.

The 2020A Bonds have been structured to result in additional proceeds generated from a premium bid. There is no guaranty that the winning bidder will price this issue with a premium in the amount estimated, which could result in less or more premium than what is currently shown in the attached schedules.

Refunding savings are estimates and will vary based on market conditions at the time of sale.

**SALE TERMS AND MARKETING:**

Variability of Issue Size: A specific provision in the sale terms permits modifications to the issue size and/or maturity structure to customize the issue once the price and interest rates are set on the day of sale.

Prepayment Provisions: 2020A Bonds maturing on or after February 1, 2030 may be prepaid at a price of par plus accrued interest on or after February 1, 2029.

Bank Qualification: The County is issuing more than \$10 million in tax-exempt obligations in 2020; therefore, the 2020A Bonds are not designated as bank qualified.

Bidding Parameters: Interest rates applied in the structuring of the 2020A Bonds are based on current market conditions and assume a reoffering premium sufficient to compensate the underwriter under a par bidding. Par bidding requires that an underwriter bids not less than 100% of the face amount of the bonds.

Excess Premium: The pricing of the 2020A Bonds may produce an amount of original issue premium that causes the amount of bond proceeds to be in excess of what is required to affect the refunding transaction. Any amount of surplus proceeds will be used, to reduce the par amount of the 2020A Bonds and the underwriter compensation will be adjusted accordingly.

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\$28,030,000 Taxable General Obligation Refunding Bonds, Series 2020B (the "2020B Bonds")

Description of Issue

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**PURPOSE:** Proceeds of the 2020B Bonds will be used to refund the callable maturities of the County's (i) General Obligation Capital Improvement Plan Bonds, Series 2012A, dated June 15, 2012 (the "2012A Bonds"); (ii) Taxable General Obligation Capital Improvement Plan Bonds, Series 2013B, dated June 24, 2013 (the "2013B Bonds"); (iii) Taxable General Obligation Capital Improvement Plan Bonds, Series 2014B (TCAAP), dated August 12, 2014 (the "2014B Bonds") and together with the 2013B Bonds, the ("TCAAP Bonds"); and (iv) General Obligation Library Bonds, Series 2014C, dated August 12, 2014 (the "2014C Bonds").

The 2012A Bonds, 2013B Bonds, 2014B Bonds and 2014C Bonds are collectively referred to as the "Prior GO Bonds". The 2012A Bonds, 2014B Bonds and 2014C Bonds are together herein referred to as the "Advance Refunded Bonds".

The purpose of these refundings is to achieve interest cost savings.

Details of these refunding transactions are provided in the table below under Structuring Summary.

**PRIOR GO BONDS:** The Prior GO Bonds were originally issued for the following purposes:

- Proceeds of the 2012A Bonds were originally used to finance portions of the County's 2012-2017 adopted Capital Improvement Program Plan projects.
- Proceeds of the 2013B Bonds were originally used to fund certain capital costs authorized in the County's Capital Improvement Program Plan under the County's home rule charter, including, in particular, acquisition and remediation of the Twin Cities Army Arsenal Plant (TCAAP) property located in the City of Arden Hills, Minnesota.
- Proceeds of the 2014B Bonds were originally used to fund certain capital costs authorized in the County's Capital Improvement Program Plan under the County's home rule charter, including, in particular, acquisition and remediation of the Twin Cities Army Ammunition Plant (TCAAP) property located in the City of Arden Hills, Minnesota.
- Proceeds of the 2014C Bonds were originally used to finance the cost of renovation and expansion improvements to the White Bear Lake Library.

**AUTHORITY:** The 2020B Bonds are being issued pursuant to Minnesota Statutes, Chapter 475 and the County's Home Rule Charter. The County's Home Rule Charter authorizes the issuance of bonds by ordinance adopted by the County Board.

**SECURITY AND SOURCE OF** The 2020B Bonds will be general obligations of the County, secured by its full faith and credit and taxing power. The 2020B Bonds will be repaid with ad valorem property taxes.

**PAYMENT:** For the portion of the 2020B Bonds being issued to refund the 2014C Bonds, taxes will only be levied on County taxable property outside of the City of Saint Paul.

Additionally, the County expects to use funds available, which may include proceeds of an interfund loan from the County's Solid Waste Fund, future TCAAP land sale proceeds, or other sources in amounts sufficient to pay the principal and interest due each year on the portions of the 2020B Bonds used to refund the TCAAP Bonds.

On February 1, 2021, the call date of the 2013B Bonds, certain portions of proceeds from the 2020B Bonds will be used to redeem the refunded maturities of the 2013B Bonds as detailed in the table below under Structuring Summary.

On February 1, 2022, the call date of the Advance Refunded Bonds, certain portions of proceeds from the 2020B Bonds will be used to redeem the refunded maturities of the Advance Refunded Bonds as detailed in the table below under Structuring Summary.

The County will be required to make its scheduled debt service payments on the Prior GO Bonds to and including their respective redemption dates in the amounts as detailed below. These amounts are net of principal and interest payments on those maturities of the Prior GO Bonds being prepaid and redeemed from proceeds of the 2020B Bonds.

It should be noted that the February 1, 2021 debt service payments will be made from monies previously levied and collected for these payments.

| Date         | 2012A Bonds           | 2013B Bonds         | 2014B Bonds         | 2014C Bonds         | Total                 |
|--------------|-----------------------|---------------------|---------------------|---------------------|-----------------------|
| Feb. 1, 2021 | \$1,045,900.00        | \$718,793.75        | \$421,022.00        | \$139,125.00        | \$2,324,840.75        |
| Aug. 1, 2021 | 20,800.00             | -                   | 5,733.00            | 2,100.00            | 28,633.00             |
| Feb. 1, 2022 | 1,060,800.00          | -                   | 425,733.00          | 142,100.00          | 1,628,633.00          |
| <b>Total</b> | <b>\$2,127,500.00</b> | <b>\$718,793.75</b> | <b>\$852,488.00</b> | <b>\$283,325.00</b> | <b>\$3,982,106.75</b> |

Beginning with the February 1, 2021 interest payment, the County will begin paying debt service on the 2020B Bonds, realizing interest cost savings.

**STRUCTURING SUMMARY:** In consultation with County Staff, the 2020B Bonds have been structured to provide for approximately level annual debt service savings for each purpose over terms matching that of the remaining terms of the Prior GO Bonds.

The refunding of the 2013B Bonds is being conducted as a current refunding, where the 2020B Bond proceeds allocable to this refunding are used within ninety (90) days of settlement to redeem the outstanding, callable maturities of the 2013B Bonds.

The refundings of the Advance Refunded Bonds are being conducted as "net" advance refundings in which those portions of the proceeds of the 2020B Bonds will be placed in an escrow account with a major bank, certain amounts of which are invested in permitted securities. These investments, their earnings, and any cash balances are structured to pay the interest on the Advance Refunded Bonds to and including the February 1, 2022 interest payment date (the first optional call date of the Advance Refunded Bonds), at which time the escrow account will redeem the principal amounts of the refunded maturities for the Advance Refunded Bonds. The County will make the regularly scheduled principal and

interest payments due on the unrefunded amounts of the Advance Refunded Bonds until the call date as previously described.

A verification agent will be retained to verify the sufficiency of the escrow account to satisfy its cashflow requirements.

Based on current interest rate estimates, the table below shows the details of the refunding of the Prior GO Bonds and estimated interest cost savings net of all costs associated with the transaction:

| Refunded Issue                   | 2012A Bonds           | 2013B Bonds       | 2014B Bonds           | 2014C Bonds           |
|----------------------------------|-----------------------|-------------------|-----------------------|-----------------------|
| Refunding Type                   | Net Advance Refunding | Current Refunding | Net Advance Refunding | Net Advance Refunding |
| Refunded Maturities (February 1) | 2023 to 2032          | 2022 to 2033      | 2023 to 2034          | 2023 to 2034          |
| Refunded Principal               | \$9,815,000           | \$8,170,000       | \$6,205,000           | \$2,430,000           |
| Redemption Date                  | Feb. 1, 2022          | Feb. 1, 2021      | Feb. 1, 2022          | Feb. 1, 2022          |
| <b>Estimated Savings</b>         |                       |                   |                       |                       |
| Net FV (\$)                      | \$1,185,171           | \$1,049,222       | \$775,254             | \$201,567             |
| Net PV (\$)                      | \$1,095,289           | \$950,465         | \$703,034             | \$182,888             |
| NPV/Refunded D/S                 | 9.481%                | 10.362%           | 9.666%                | 6.686%                |
| Average Annual                   | \$98,478              | \$80,941          | \$55,232              | \$14,277              |

**SCHEDULES ATTACHED:**

Schedules attached for the 2020B Bonds include: (i) Refunding Summary, (ii) Debt Service Comparison as a whole and by purpose, (iii) Debt Service to Maturity and to Call for each of the Prior GO Bonds, (iv) Net Debt Service as a whole and by purpose, and (v) refunding escrow fund cashflow.

Note: Values included in the attached schedules are estimates given current market conditions.

**RISKS/SPECIAL CONSIDERATIONS:**

The outcome of this financing will rely on the market conditions at the time of the sale. Any projections included herein are estimates based on current market conditions.

Refunding savings are estimates and will vary based on market conditions at the time of sale.

**SALE TERMS AND MARKETING:**

Variability of Issue Size: A specific provision in the sale terms permits modifications to the issue size and/or maturity structure to customize the issue once the price and interest rates are set on the day of sale.

Prepayment Provisions: 2020B Bonds maturing on or after February 1, 2031 may be prepaid at a price of par plus accrued interest on or after February 1, 2030.

Bank Qualification: The 2020B Bonds are being issued as taxable bonds of the County and, therefore, do not apply to the bank qualification limit of the County.

Excess Premium/Unused Discount: The pricing of the 2020B Bonds may produce an amount of original issue premium that causes the amount of bond proceeds to be in excess of what is required to affect the refunding transaction. Any amount of surplus proceeds will be used, to reduce the par amount of the 2020B Bonds and the underwriter compensation will be adjusted accordingly.

Federal Considerations: The Tax Cuts and Jobs Act signed into law on December 22, 2017, prohibits the issuance of tax-exempt bonds to advance refund outstanding tax-exempt bonds after 2017. Federal limitations restricting the issuance of advance refunding bonds do not apply to taxable bonds that refund tax-exempt bonds. Therefore, the 2020B Bonds are being issued as taxable obligations. Interest cost savings resulting from the issuance of taxable refunding bonds are possible because current taxable interest rates are estimated to be lower than the tax-exempt rates at the time of issuance of the Advance Refunded Bonds.

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### Post Issuance Compliance

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#### POST ISSUANCE COMPLIANCE:

The issuance of the Bonds will result in post-issuance compliance responsibilities. The responsibilities are in two primary areas: (i) compliance with federal arbitrage requirements and (ii) compliance with secondary disclosure requirements.

**Note: The 2020B Bonds are being issued as taxable obligations of the County, the proceeds of which, are not subject to federal arbitrage requirements.**

Federal arbitrage requirements include a wide range of implications that have been taken into account as this issue has been structured. Post-issuance compliance responsibilities for this tax-exempt issue include both rebate and yield restriction provisions of the IRS Code. In general terms the arbitrage requirements control the earnings on unexpended bond proceeds, including investment earnings, moneys held for debt service payments (which are considered to be proceeds under the IRS regulations), and/or reserves. Under certain circumstances any "excess earnings" will need to be paid to the IRS to maintain the tax-exempt status of the 2020A Bonds. Any interest earnings on gross bond proceeds or debt service funds should not be spent until it has been determined based on actual facts that they are not "excess earnings" as defined by the IRS Code.

The arbitrage rules provide for spend-down exceptions for proceeds that are spent within either a 6-month, 18-month or, for certain construction issues, a 24-month period each in accordance with certain spending criteria. Proceeds that qualify for an exception will be exempt from rebate. These exceptions are based on actual expenditures and not based on reasonable expectations, and expenditures, including any investment proceeds will have to meet the spending criteria to qualify for the exclusion. The County expects to meet the 6-month spending exception on the 2020A Bonds.

Regardless of whether the issue qualifies for an exemption from the rebate provisions, yield restriction provisions will apply to 2020A Bond proceeds (including interest earnings) unspent after three years and the debt service fund throughout the term of the 2020A Bonds. These moneys should be monitored until the 2020A Bonds are retired.

Secondary disclosure requirements result from an SEC requirement that underwriters provide ongoing disclosure information to investors. To meet this requirement, any prospective underwriter will require the County to commit to providing the information needed to comply under a continuing disclosure agreement.

Baker Tilly Municipal Advisors, LLC ("Baker Tilly MA") currently provides both arbitrage and continuing disclosure services to the County. Baker Tilly MA will work with County Staff to include the Bonds under the existing Agreement for Municipal Advisor Services

**SUPPLEMENTAL  
INFORMATION AND  
BOND RECORD:**

Supplementary information will be available to staff including detailed terms and conditions of sale, comprehensive structuring schedules and information to assist in meeting post-issuance compliance responsibilities.

Upon completion of the financing, a bond record will be provided that contains pertinent documents and final debt service calculations for the transaction.

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**\$19,475,000**  
**Ramsey County, Minnesota**  
 General Obligation Capital Improvement Plan Refunding Bonds, Series 2020A  
 Issue Summary

**Project Summary**

**Dated 12/17/2020 | Delivered 12/17/2020**

|   | Current Refunding of Series 2013A Bonds |                       |                           |                              |                        | Issue Summary          |
|---|---|-----------------------|---------------------------|------------------------------|------------------------|------------------------|
|   | Current Refunding of Series 2011A Bonds | 2013A Bonds-Other     | Series 2013A Bonds-Annual | Series 2013A Bonds-Broadband | Series 2013A Bonds-CAD |                        |
| <b>Sources Of Funds</b>                           |   |                       |                           |                              |                        |                        |
| Par Amount of Bonds.....                          | \$9,670,000.00                          | \$5,080,000.00        | \$1,080,000.00            | \$2,095,000.00               | \$1,550,000.00         | \$19,475,000.00        |
| Reoffering Premium.....                           | 424,153.65                              | 174,092.35            | 27,313.20                 | 53,167.55                    | 39,199.50              | 717,926.25             |
| <b>Total Sources.....</b>                         | <b>\$10,094,153.65</b>                  | <b>\$5,254,092.35</b> | <b>\$1,107,313.20</b>     | <b>\$2,148,167.55</b>        | <b>\$1,589,199.50</b>  | <b>\$20,192,926.25</b> |
| <b>Uses Of Funds</b>                              |   |                       |                           |                              |                        |                        |
| Deposit to Current Refunding Fund.....            | 9,965,000.00                            | 5,185,000.00          | 1,095,000.00              | 2,120,000.00                 | 1,570,000.00           | 19,935,000.00          |
| Total Underwriter's Discount (0.800%).....        | 77,360.00                               | 40,640.00             | 8,640.00                  | 16,760.00                    | 12,400.00              | 155,800.00             |
| Costs of Issuance.....                            | 50,137.52                               | 26,339.06             | 5,599.64                  | 10,862.26                    | 8,036.52               | 100,975.00             |
| Rounding Amount.....                              | 1,656.13                                | 2,113.29              | (1,926.44)                | 545.29                       | (1,237.02)             | 1,151.25               |
| <b>Total Uses.....</b>                            | <b>\$10,094,153.65</b>                  | <b>\$5,254,092.35</b> | <b>\$1,107,313.20</b>     | <b>\$2,148,167.55</b>        | <b>\$1,589,199.50</b>  | <b>\$20,192,926.25</b> |
| <b>Issues Refunded And Call Dates</b>             |   |                       |                           |                              |                        |                        |
| 2011A GO CIP Bonds - PS.....                      | 2/01/2021                               |                       |                           |                              |                        |                        |
| 2013A GO CIP Bonds - PS.....                      |   | 2/01/2021             |                           |                              |                        |                        |
| 2013A GO CIP Bonds - PS.....                      |   |                       | 2/01/2021                 |                              |                        |                        |
| 2013A GO CIP Bonds - PS.....                      |   |                       |                           | 2/01/2021                    |                        |                        |
| 2013A GO CIP Bonds - PS.....                      |   |                       |                           |                              | 2/01/2021              |                        |
| <b>PV Analysis Summary (Net to Net)</b>           |   |                       |                           |                              |                        |                        |
| Net PV Cashflow Savings @ 1.017%(Bond Yield)..... | 1,658,644.70                            | 629,520.88            | 34,179.33                 | 61,841.20                    | 47,483.11              | 2,431,669.22           |
| Contingency or Rounding Amount.....               | 1,656.13                                | 2,113.29              | (1,926.44)                | 545.29                       | (1,237.02)             | 1,151.25               |
| Net Present Value Benefit.....                    | \$1,660,300.83                          | \$631,634.17          | \$32,252.89               | \$62,386.49                  | \$46,246.09            | \$2,432,820.47         |
| Net PV Benefit / Refunded Principal.....          | 16.661%                                 | 12.182%               | 2.945%                    | 2.943%                       | 2.946%                 | 12.204%                |
| Net PV Benefit / Refunding Principal.....         | 17.170%                                 | 12.434%               | 2.986%                    | 2.978%                       | 2.984%                 | 12.492%                |
| Average Annual Cash Flow Savings.....             | 159,245.98                              | 51,639.94             | 11,570.00                 | 20,926.30                    | 16,070.37              | 197,594.23             |
| Total New Net D/S.....                            | 11,975,253.69                           | 6,113,999.49          | 1,678,727.50              | 3,212,283.61                 | 2,408,601.39           | 25,388,865.68          |
| Total Prior D/S.....                              | 13,726,959.48                           | 6,785,318.75          | 1,713,437.50              | 3,275,062.50                 | 2,456,812.50           | 27,957,590.73          |
| Total Cashflow Savings.....                       | 1,751,705.79                            | 671,319.26            | 34,710.00                 | 62,778.89                    | 48,211.11              | 2,568,725.05           |
| <b>Bond Statistics</b>                            |   |                       |                           |                              |                        |                        |
| Average Life.....                                 | 5.791 Years                             | 6.855 Years           | 1.622 Years               | 1.628 Years                  | 1.622 Years            | 5.058 Years            |
| Average Coupon.....                               | 1.7781913%                              | 1.7129897%            | 2.0000000%                | 2.0000000%                   | 2.0000000%             | 1.7724302%             |
| Net Interest Cost (NIC).....                      | 1.1588825%                              | 1.3297360%            | 0.9341781%                | 0.9326603%                   | 0.9341781%             | 1.2017163%             |
| Bond Yield for Arbitrage Purposes.....            | 1.0174589%                              | 1.0174589%            | 1.0174589%                | 1.0174589%                   | 1.0174589%             | 1.0174589%             |
| True Interest Cost (TIC).....                     | 1.1343065%                              | 1.3100607%            | 0.9225345%                | 0.9209951%                   | 0.9225345%             | 1.1787620%             |
| All Inclusive Cost (AIC).....                     | 1.2261016%                              | 1.3893261%            | 1.2426297%                | 1.2399039%                   | 1.2426297%             | 1.2843575%             |

**\$19,475,000**

**Ramsey County, Minnesota**

**General Obligation Capital Improvement Plan Refunding Bonds, Series 2020A  
Issue Summary**

**Pricing Summary**

| Maturity   | Type of Bond  | Coupon | Yield  | Maturity Value  | Price    | Dollar Price    |
|------------|---------------|--------|--------|-----------------|----------|-----------------|
| 02/01/2022 | Serial Coupon | 2.000% | 0.400% | 3,585,000.00    | 101.789% | 3,649,135.65    |
| 02/01/2023 | Serial Coupon | 2.000% | 0.450% | 3,670,000.00    | 103.269% | 3,789,972.30    |
| 02/01/2024 | Serial Coupon | 2.000% | 0.500% | 1,320,000.00    | 104.640% | 1,381,248.00    |
| 02/01/2025 | Serial Coupon | 2.000% | 0.600% | 1,345,000.00    | 105.691% | 1,421,543.95    |
| 02/01/2026 | Serial Coupon | 2.000% | 0.700% | 1,365,000.00    | 106.529% | 1,454,120.85    |
| 02/01/2027 | Serial Coupon | 2.000% | 0.800% | 1,400,000.00    | 107.155% | 1,500,170.00    |
| 02/01/2028 | Serial Coupon | 2.000% | 0.900% | 1,425,000.00    | 107.571% | 1,532,886.75    |
| 02/01/2029 | Serial Coupon | 2.000% | 1.050% | 1,455,000.00    | 107.377% | 1,562,335.35    |
| 02/01/2030 | Serial Coupon | 1.250% | 1.250% | 1,480,000.00    | 100.000% | 1,480,000.00    |
| 02/01/2031 | Serial Coupon | 1.500% | 1.500% | 1,505,000.00    | 100.000% | 1,505,000.00    |
| 02/01/2032 | Serial Coupon | 1.500% | 1.600% | 460,000.00      | 98.984%  | 455,326.40      |
| 02/01/2033 | Serial Coupon | 1.625% | 1.700% | 465,000.00      | 99.180%  | 461,187.00      |
| Total      | -             | -      | -      | \$19,475,000.00 | -        | \$20,192,926.25 |

**Bid Information**

|  |                 |
|--|-----------------|
| Par Amount of Bonds.....                   | \$19,475,000.00 |
| Reoffering Premium or (Discount).....      | 717,926.25      |
| Gross Production.....                      | \$20,192,926.25 |
| Total Underwriter's Discount (0.800%)..... | \$(155,800.00)  |
| Bid (102.886399%).....                     | 20,037,126.25   |
| Total Purchase Price.....                  | \$20,037,126.25 |
| Bond Year Dollars.....                     | \$98,495.28     |
| Average Life.....                          | 5.058 Years     |
| Average Coupon.....                        | 1.7724302%      |
| Net Interest Cost (NIC).....               | 1.2017163%      |
| True Interest Cost (TIC).....              | 1.1787620%      |

**\$19,475,000**

**Ramsey County, Minnesota**

**General Obligation Capital Improvement Plan Refunding Bonds, Series 2020A  
Issue Summary**

**Debt Service Comparison**

| Date         | Total P+I              | Existing D/S          | Net New D/S            | Old Net D/S            | Savings               |
|--------------|------------------------|-----------------------|------------------------|------------------------|-----------------------|
| 02/01/2021   | -                      | 4,168,105.63          | 4,168,105.63           | 4,168,105.63           | -                     |
| 02/01/2022   | 3,996,666.19           | -                     | 3,996,666.19           | 4,297,011.26           | 300,345.07            |
| 02/01/2023   | 3,965,131.26           | -                     | 3,965,131.26           | 4,268,511.26           | 303,380.00            |
| 02/01/2024   | 1,541,731.26           | -                     | 1,541,731.26           | 1,773,736.26           | 232,005.00            |
| 02/01/2025   | 1,540,331.26           | -                     | 1,540,331.26           | 1,773,186.26           | 232,855.00            |
| 02/01/2026   | 1,533,431.26           | -                     | 1,533,431.26           | 1,769,986.26           | 236,555.00            |
| 02/01/2027   | 1,541,131.26           | -                     | 1,541,131.26           | 1,769,086.26           | 227,955.00            |
| 02/01/2028   | 1,538,131.26           | -                     | 1,538,131.26           | 1,771,261.26           | 233,130.00            |
| 02/01/2029   | 1,539,631.26           | -                     | 1,539,631.26           | 1,770,743.76           | 231,112.50            |
| 02/01/2030   | 1,535,531.26           | -                     | 1,535,531.26           | 1,766,843.76           | 231,312.50            |
| 02/01/2031   | 1,542,031.26           | -                     | 1,542,031.26           | 1,771,093.76           | 229,062.50            |
| 02/01/2032   | 474,456.26             | -                     | 474,456.26             | 530,175.00             | 55,718.74             |
| 02/01/2033   | 472,556.26             | -                     | 472,556.26             | 527,850.00             | 55,293.74             |
| <b>Total</b> | <b>\$21,220,760.05</b> | <b>\$4,168,105.63</b> | <b>\$25,388,865.68</b> | <b>\$27,957,590.73</b> | <b>\$2,568,725.05</b> |

**PV Analysis Summary (Net to Net)**

|  |                |
|--|----------------|
| Net FV Cashflow Savings.....                                   | 2,568,725.05   |
| Gross PV Debt Service Savings.....                             | 2,431,669.22   |
| Net PV Cashflow Savings @ 1.017%(Bond Yield).....              | 2,431,669.22   |
| Contingency or Rounding Amount.....                            | 1,151.25       |
| Net Future Value Benefit.....                                  | \$2,569,876.30 |
| Net Present Value Benefit.....                                 | \$2,432,820.47 |
| Net PV Benefit / \$22,624,595.47 PV Refunded Debt Service..... | 10.753%        |
| Net PV Benefit / \$19,935,000 Refunded Principal.....          | 12.204%        |
| Net PV Benefit / \$19,475,000 Refunding Principal.....         | 12.492%        |

**Refunding Bond Information**

|                              |            |
|------------------------------|------------|
| Refunding Dated Date.....    | 12/17/2020 |
| Refunding Delivery Date..... | 12/17/2020 |

**\$9,670,000**

**Ramsey County, Minnesota**

General Obligation Capital Improvement Plan Refunding Bonds, Series 2020A  
Current Refunding of Series 2011A Bonds

**Debt Service Comparison**

| Date         | Total P+I              | Existing D/S          | Net New D/S            | Old Net D/S            | Savings               |
|--------------|------------------------|-----------------------|------------------------|------------------------|-----------------------|
| 02/01/2021   | -                      | 1,309,521.88          | 1,309,521.88           | 1,309,521.88           | -                     |
| 02/01/2022   | 1,067,406.81           | -                     | 1,067,406.81           | 1,240,843.76           | 173,436.95            |
| 02/01/2023   | 1,068,062.50           | -                     | 1,068,062.50           | 1,242,843.76           | 174,781.26            |
| 02/01/2024   | 1,069,962.50           | -                     | 1,069,962.50           | 1,243,443.76           | 173,481.26            |
| 02/01/2025   | 1,066,462.50           | -                     | 1,066,462.50           | 1,242,643.76           | 176,181.26            |
| 02/01/2026   | 1,062,662.50           | -                     | 1,062,662.50           | 1,240,443.76           | 177,781.26            |
| 02/01/2027   | 1,068,562.50           | -                     | 1,068,562.50           | 1,241,843.76           | 173,281.26            |
| 02/01/2028   | 1,063,962.50           | -                     | 1,063,962.50           | 1,241,618.76           | 177,656.26            |
| 02/01/2029   | 1,064,062.50           | -                     | 1,064,062.50           | 1,239,368.76           | 175,306.26            |
| 02/01/2030   | 1,063,762.50           | -                     | 1,063,762.50           | 1,240,093.76           | 176,331.26            |
| 02/01/2031   | 1,070,825.00           | -                     | 1,070,825.00           | 1,244,293.76           | 173,468.76            |
| <b>Total</b> | <b>\$10,665,731.81</b> | <b>\$1,309,521.88</b> | <b>\$11,975,253.69</b> | <b>\$13,726,959.48</b> | <b>\$1,751,705.79</b> |

**PV Analysis Summary (Net to Net)**

|  |                |
|--|----------------|
| Net FV Cashflow Savings.....                                   | 1,751,705.79   |
| Gross PV Debt Service Savings.....                             | 1,658,644.70   |
| Net PV Cashflow Savings @ 1.017%(Bond Yield).....              | 1,658,644.70   |
| Contingency or Rounding Amount.....                            | 1,656.13       |
| Net Future Value Benefit.....                                  | \$1,753,361.92 |
| Net Present Value Benefit.....                                 | \$1,660,300.83 |
| Net PV Benefit / \$11,739,759.17 PV Refunded Debt Service..... | 14.143%        |
| Net PV Benefit / \$9,965,000 Refunded Principal.....           | 16.661%        |
| Net PV Benefit / \$9,670,000 Refunding Principal.....          | 17.170%        |

**Refunding Bond Information**

|                              |            |
|------------------------------|------------|
| Refunding Dated Date.....    | 12/17/2020 |
| Refunding Delivery Date..... | 12/17/2020 |

**\$9,805,000**

**Ramsey County, Minnesota**

General Obligation Capital Improvement Plan Refunding Bonds, Series 2020A  
Current Refunding of Series 2013A Bonds

**Debt Service Comparison**

| Date       | Total P+I       | Existing D/S   | Net New D/S     | Old Net D/S     | Savings      |
|------------|-----------------|----------------|-----------------|-----------------|--------------|
| 02/01/2021 | -               | 2,858,583.75   | 2,858,583.75    | 2,858,583.75    | -            |
| 02/01/2022 | 2,929,259.38    | -              | 2,929,259.38    | 3,056,167.50    | 126,908.12   |
| 02/01/2023 | 2,897,068.76    | -              | 2,897,068.76    | 3,025,667.50    | 128,598.74   |
| 02/01/2024 | 471,768.76      | -              | 471,768.76      | 530,292.50      | 58,523.74    |
| 02/01/2025 | 473,868.76      | -              | 473,868.76      | 530,542.50      | 56,673.74    |
| 02/01/2026 | 470,768.76      | -              | 470,768.76      | 529,542.50      | 58,773.74    |
| 02/01/2027 | 472,568.76      | -              | 472,568.76      | 527,242.50      | 54,673.74    |
| 02/01/2028 | 474,168.76      | -              | 474,168.76      | 529,642.50      | 55,473.74    |
| 02/01/2029 | 475,568.76      | -              | 475,568.76      | 531,375.00      | 55,806.24    |
| 02/01/2030 | 471,768.76      | -              | 471,768.76      | 526,750.00      | 54,981.24    |
| 02/01/2031 | 471,206.26      | -              | 471,206.26      | 526,800.00      | 55,593.74    |
| 02/01/2032 | 474,456.26      | -              | 474,456.26      | 530,175.00      | 55,718.74    |
| 02/01/2033 | 472,556.26      | -              | 472,556.26      | 527,850.00      | 55,293.74    |
| Total      | \$10,555,028.24 | \$2,858,583.75 | \$13,413,611.99 | \$14,230,631.25 | \$817,019.26 |

**PV Analysis Summary (Net to Net)**

|  |              |
|--|--------------|
| Net FV Cashflow Savings.....                                   | 817,019.26   |
| Gross PV Debt Service Savings.....                             | 773,024.51   |
| Net PV Cashflow Savings @ 1.017%(Bond Yield).....              | 773,024.51   |
| Contingency or Rounding Amount.....                            | (504.88)     |
| Net Future Value Benefit.....                                  | \$816,514.38 |
| Net Present Value Benefit.....                                 | \$772,519.63 |
| Net PV Benefit / \$10,884,836.29 PV Refunded Debt Service..... | 7.097%       |
| Net PV Benefit / \$9,970,000 Refunded Principal.....           | 7.748%       |
| Net PV Benefit / \$9,805,000 Refunding Principal.....          | 7.879%       |

**Refunding Bond Information**

|                              |            |
|------------------------------|------------|
| Refunding Dated Date.....    | 12/17/2020 |
| Refunding Delivery Date..... | 12/17/2020 |

**\$16,000,000**

**Ramsey County, Minnesota**  
**General Obligation Capital Improvement Plan Bonds**  
**2011A GO CIP Bonds - PS - Other Projects - 20 Year**

**Debt Service To Maturity And To Call**

| Date         | Refunded Bonds        | D/S To Call           | Principal             | Coupon   | Interest              | Refunded D/S           |
|--------------|-----------------------|-----------------------|-----------------------|----------|-----------------------|------------------------|
| 12/17/2020   | -                     | -                     | -                     | -        | -                     | -                      |
| 02/01/2021   | 9,965,000.00          | 9,965,000.00          | -                     | 4.000%   | -                     | -                      |
| 08/01/2021   | -                     | -                     | -                     | -        | 207,921.88            | 207,921.88             |
| 02/01/2022   | -                     | -                     | 825,000.00            | 4.000%   | 207,921.88            | 1,032,921.88           |
| 08/01/2022   | -                     | -                     | -                     | -        | 191,421.88            | 191,421.88             |
| 02/01/2023   | -                     | -                     | 860,000.00            | 4.000%   | 191,421.88            | 1,051,421.88           |
| 08/01/2023   | -                     | -                     | -                     | -        | 174,221.88            | 174,221.88             |
| 02/01/2024   | -                     | -                     | 895,000.00            | 4.000%   | 174,221.88            | 1,069,221.88           |
| 08/01/2024   | -                     | -                     | -                     | -        | 156,321.88            | 156,321.88             |
| 02/01/2025   | -                     | -                     | 930,000.00            | 4.000%   | 156,321.88            | 1,086,321.88           |
| 08/01/2025   | -                     | -                     | -                     | -        | 137,721.88            | 137,721.88             |
| 02/01/2026   | -                     | -                     | 965,000.00            | 4.000%   | 137,721.88            | 1,102,721.88           |
| 08/01/2026   | -                     | -                     | -                     | -        | 118,421.88            | 118,421.88             |
| 02/01/2027   | -                     | -                     | 1,005,000.00          | 4.500%   | 118,421.88            | 1,123,421.88           |
| 08/01/2027   | -                     | -                     | -                     | -        | 95,809.38             | 95,809.38              |
| 02/01/2028   | -                     | -                     | 1,050,000.00          | 4.500%   | 95,809.38             | 1,145,809.38           |
| 08/01/2028   | -                     | -                     | -                     | -        | 72,184.38             | 72,184.38              |
| 02/01/2029   | -                     | -                     | 1,095,000.00          | 4.500%   | 72,184.38             | 1,167,184.38           |
| 08/01/2029   | -                     | -                     | -                     | -        | 47,546.88             | 47,546.88              |
| 02/01/2030   | -                     | -                     | 1,145,000.00          | 4.000%   | 47,546.88             | 1,192,546.88           |
| 08/01/2030   | -                     | -                     | -                     | -        | 24,646.88             | 24,646.88              |
| 02/01/2031   | -                     | -                     | 1,195,000.00          | 4.125%   | 24,646.88             | 1,219,646.88           |
| <b>Total</b> | <b>\$9,965,000.00</b> | <b>\$9,965,000.00</b> | <b>\$9,965,000.00</b> | <b>-</b> | <b>\$2,452,437.60</b> | <b>\$12,417,437.60</b> |

**Yield Statistics**

|  |             |
|--|-------------|
| Base date for Avg. Life & Avg. Coupon Calculation..... | 12/17/2020  |
| Average Life.....                                      | 5.960 Years |
| Average Coupon.....                                    | 4.1295209%  |
| Weighted Average Maturity (Par Basis).....             | 5.960 Years |
| Weighted Average Maturity (Original Price Basis).....  | 5.884 Years |

**Refunding Bond Information**

|                              |            |
|------------------------------|------------|
| Refunding Dated Date.....    | 12/17/2020 |
| Refunding Delivery Date..... | 12/17/2020 |

**\$22,700,000**

**Ramsey County, Minnesota**  
General Obligation Capital Improvement Plan Bonds  
2013A Bonds

**Debt Service To Maturity And To Call**

| Date       | Refunded Bonds | D/S To Call    | Principal      | Interest       | Refunded D/S    |
|------------|----------------|----------------|----------------|----------------|-----------------|
| 12/17/2020 | -              | -              | -              | -              | -               |
| 02/01/2021 | 9,970,000.00   | 9,970,000.00   | -              | -              | -               |
| 08/01/2021 | -              | -              | -              | 173,083.75     | 173,083.75      |
| 02/01/2022 | -              | -              | 2,710,000.00   | 173,083.75     | 2,883,083.75    |
| 08/01/2022 | -              | -              | -              | 105,333.75     | 105,333.75      |
| 02/01/2023 | -              | -              | 2,815,000.00   | 105,333.75     | 2,920,333.75    |
| 08/01/2023 | -              | -              | -              | 70,146.25      | 70,146.25       |
| 02/01/2024 | -              | -              | 390,000.00     | 70,146.25      | 460,146.25      |
| 08/01/2024 | -              | -              | -              | 65,271.25      | 65,271.25       |
| 02/01/2025 | -              | -              | 400,000.00     | 65,271.25      | 465,271.25      |
| 08/01/2025 | -              | -              | -              | 59,771.25      | 59,771.25       |
| 02/01/2026 | -              | -              | 410,000.00     | 59,771.25      | 469,771.25      |
| 08/01/2026 | -              | -              | -              | 53,621.25      | 53,621.25       |
| 02/01/2027 | -              | -              | 420,000.00     | 53,621.25      | 473,621.25      |
| 08/01/2027 | -              | -              | -              | 47,321.25      | 47,321.25       |
| 02/01/2028 | -              | -              | 435,000.00     | 47,321.25      | 482,321.25      |
| 08/01/2028 | -              | -              | -              | 40,687.50      | 40,687.50       |
| 02/01/2029 | -              | -              | 450,000.00     | 40,687.50      | 490,687.50      |
| 08/01/2029 | -              | -              | -              | 33,375.00      | 33,375.00       |
| 02/01/2030 | -              | -              | 460,000.00     | 33,375.00      | 493,375.00      |
| 08/01/2030 | -              | -              | -              | 25,900.00      | 25,900.00       |
| 02/01/2031 | -              | -              | 475,000.00     | 25,900.00      | 500,900.00      |
| 08/01/2031 | -              | -              | -              | 17,587.50      | 17,587.50       |
| 02/01/2032 | -              | -              | 495,000.00     | 17,587.50      | 512,587.50      |
| 08/01/2032 | -              | -              | -              | 8,925.00       | 8,925.00        |
| 02/01/2033 | -              | -              | 510,000.00     | 8,925.00       | 518,925.00      |
| Total      | \$9,970,000.00 | \$9,970,000.00 | \$9,970,000.00 | \$1,402,047.50 | \$11,372,047.50 |

**Yield Statistics**

|  |             |
|--|-------------|
| Base date for Avg. Life & Avg. Coupon Calculation..... | 12/17/2020  |
| Average Life.....                                      | 4.413 Years |
| Average Coupon.....                                    | 3.1865762%  |
| Weighted Average Maturity (Par Basis).....             | 4.413 Years |
| Weighted Average Maturity (Original Price Basis).....  | 4.238 Years |

**Refunding Bond Information**

|                              |            |
|------------------------------|------------|
| Refunding Dated Date.....    | 12/17/2020 |
| Refunding Delivery Date..... | 12/17/2020 |

**\$16,000,000**

**Ramsey County, Minnesota**  
**General Obligation Capital Improvement Plan Bonds**  
**2011A GO CIP Bonds**

**Total Refunded Debt Service**

| Date       | Principal      | Coupon | Interest       | Total P+I       |
|------------|----------------|--------|----------------|-----------------|
| 08/01/2021 | -              | -      | 207,921.88     | 207,921.88      |
| 02/01/2022 | 825,000.00     | 4.000% | 207,921.88     | 1,032,921.88    |
| 08/01/2022 | -              | -      | 191,421.88     | 191,421.88      |
| 02/01/2023 | 860,000.00     | 4.000% | 191,421.88     | 1,051,421.88    |
| 08/01/2023 | -              | -      | 174,221.88     | 174,221.88      |
| 02/01/2024 | 895,000.00     | 4.000% | 174,221.88     | 1,069,221.88    |
| 08/01/2024 | -              | -      | 156,321.88     | 156,321.88      |
| 02/01/2025 | 930,000.00     | 4.000% | 156,321.88     | 1,086,321.88    |
| 08/01/2025 | -              | -      | 137,721.88     | 137,721.88      |
| 02/01/2026 | 965,000.00     | 4.000% | 137,721.88     | 1,102,721.88    |
| 08/01/2026 | -              | -      | 118,421.88     | 118,421.88      |
| 02/01/2027 | 1,005,000.00   | 4.500% | 118,421.88     | 1,123,421.88    |
| 08/01/2027 | -              | -      | 95,809.38      | 95,809.38       |
| 02/01/2028 | 1,050,000.00   | 4.500% | 95,809.38      | 1,145,809.38    |
| 08/01/2028 | -              | -      | 72,184.38      | 72,184.38       |
| 02/01/2029 | 1,095,000.00   | 4.500% | 72,184.38      | 1,167,184.38    |
| 08/01/2029 | -              | -      | 47,546.88      | 47,546.88       |
| 02/01/2030 | 1,145,000.00   | 4.000% | 47,546.88      | 1,192,546.88    |
| 08/01/2030 | -              | -      | 24,646.88      | 24,646.88       |
| 02/01/2031 | 1,195,000.00   | 4.125% | 24,646.88      | 1,219,646.88    |
| Total      | \$9,965,000.00 | -      | \$2,452,437.60 | \$12,417,437.60 |

**Yield Statistics**

|  |             |
|--|-------------|
| Base date for Avg. Life & Avg. Coupon Calculation..... | 12/17/2020  |
| Average Life.....                                      | 5.960 Years |
| Average Coupon.....                                    | 4.1295209%  |
| Weighted Average Maturity (Par Basis).....             | 5.960 Years |
| Weighted Average Maturity (Original Price Basis).....  | 5.884 Years |

**Refunding Bond Information**

|                              |            |
|------------------------------|------------|
| Refunding Dated Date.....    | 12/17/2020 |
| Refunding Delivery Date..... | 12/17/2020 |

**\$22,700,000**

**Ramsey County, Minnesota**  
**General Obligation Capital Improvement Plan Bonds**  
**2013A Bonds**

**Total Refunded Debt Service**

| DATE       | Principal      | Coupon | Interest       | Total P+I       |
|------------|----------------|--------|----------------|-----------------|
| 08/01/2021 |                |        | 173,083.75     | 173,083.75      |
| 02/01/2022 | 2,710,000.00   | 5.000% | 173,083.75     | 2,883,083.75    |
| 08/01/2022 |                | -      | 105,333.75     | 105,333.75      |
| 02/01/2023 | 2,815,000.00   | 2.500% | 105,333.75     | 2,920,333.75    |
| 08/01/2023 |                | -      | 70,146.25      | 70,146.25       |
| 02/01/2024 | 390,000.00     | 2.500% | 70,146.25      | 460,146.25      |
| 08/01/2024 |                | -      | 65,271.25      | 65,271.25       |
| 02/01/2025 | 400,000.00     | 2.750% | 65,271.25      | 465,271.25      |
| 08/01/2025 |                | -      | 59,771.25      | 59,771.25       |
| 02/01/2026 | 410,000.00     | 3.000% | 59,771.25      | 469,771.25      |
| 08/01/2026 |                | -      | 53,621.25      | 53,621.25       |
| 02/01/2027 | 420,000.00     | 3.000% | 53,621.25      | 473,621.25      |
| 08/01/2027 |                | -      | 47,321.25      | 47,321.25       |
| 02/01/2028 | 435,000.00     | 3.050% | 47,321.25      | 482,321.25      |
| 08/01/2028 |                | -      | 40,687.50      | 40,687.50       |
| 02/01/2029 | 450,000.00     | 3.250% | 40,687.50      | 490,687.50      |
| 08/01/2029 |                | -      | 33,375.00      | 33,375.00       |
| 02/01/2030 | 460,000.00     | 3.250% | 33,375.00      | 493,375.00      |
| 08/01/2030 |                | -      | 25,900.00      | 25,900.00       |
| 02/01/2031 | 475,000.00     | 3.500% | 25,900.00      | 500,900.00      |
| 08/01/2031 |                | -      | 17,587.50      | 17,587.50       |
| 02/01/2032 | 495,000.00     | 3.500% | 17,587.50      | 512,587.50      |
| 08/01/2032 |                | -      | 8,925.00       | 8,925.00        |
| 02/01/2033 | 510,000.00     | 3.500% | 8,925.00       | 518,925.00      |
| Total      | \$9,970,000.00 |        | \$1,402,047.50 | \$11,372,047.50 |

**Yield Statistics**

|  |             |
|--|-------------|
| Base date for Avg. Life & Avg. Coupon Calculation..... | 12/17/2020  |
| Average Life.....                                      | 4.413 Years |
| Average Coupon.....                                    | 3.1865762%  |
| Weighted Average Maturity (Par Basis).....             | 4.413 Years |
| Weighted Average Maturity (Original Price Basis).....  | 4.238 Years |

**Refunding Bond Information**

|                              |            |
|------------------------------|------------|
| Refunding Dated Date.....    | 12/17/2020 |
| Refunding Delivery Date..... | 12/17/2020 |

**\$19,475,000**

**Ramsey County, Minnesota**

General Obligation Capital Improvement Plan Refunding Bonds, Series 2020A

Issue Summary

**NET DEBT SERVICE SCHEDULE**

| Date       | Principal       | Coupon | Interest       | Total P+I       | Existing D/S   | Net New D/S     | 105% Overlevy   | Fiscal Total |
|------------|-----------------|--------|----------------|-----------------|----------------|-----------------|-----------------|--------------|
| 12/17/2020 | -               | -      | -              | -               | -              | -               | -               | -            |
| 02/01/2021 | -               | -      | -              | -               | 4,168,105.63   | 4,168,105.63    | 4,376,510.91    | 4,376,510.91 |
| 08/01/2021 | -               | -      | 228,250.56     | 228,250.56      | -              | 228,250.56      | 239,663.09      | -            |
| 02/01/2022 | 3,585,000.00    | 2.000% | 183,415.63     | 3,768,415.63    | -              | 3,768,415.63    | 3,956,836.41    | 4,196,499.50 |
| 08/01/2022 | -               | -      | 147,565.63     | 147,565.63      | -              | 147,565.63      | 154,943.91      | -            |
| 02/01/2023 | 3,670,000.00    | 2.000% | 147,565.63     | 3,817,565.63    | -              | 3,817,565.63    | 4,008,443.91    | 4,163,387.82 |
| 08/01/2023 | -               | -      | 110,865.63     | 110,865.63      | -              | 110,865.63      | 116,408.91      | -            |
| 02/01/2024 | 1,320,000.00    | 2.000% | 110,865.63     | 1,430,865.63    | -              | 1,430,865.63    | 1,502,408.91    | 1,618,817.82 |
| 08/01/2024 | -               | -      | 97,665.63      | 97,665.63       | -              | 97,665.63       | 102,548.91      | -            |
| 02/01/2025 | 1,345,000.00    | 2.000% | 97,665.63      | 1,442,665.63    | -              | 1,442,665.63    | 1,514,798.91    | 1,617,347.82 |
| 08/01/2025 | -               | -      | 84,215.63      | 84,215.63       | -              | 84,215.63       | 88,426.41       | -            |
| 02/01/2026 | 1,365,000.00    | 2.000% | 84,215.63      | 1,449,215.63    | -              | 1,449,215.63    | 1,521,676.41    | 1,610,102.82 |
| 08/01/2026 | -               | -      | 70,565.63      | 70,565.63       | -              | 70,565.63       | 74,093.91       | -            |
| 02/01/2027 | 1,400,000.00    | 2.000% | 70,565.63      | 1,470,565.63    | -              | 1,470,565.63    | 1,544,093.91    | 1,618,187.82 |
| 08/01/2027 | -               | -      | 56,565.63      | 56,565.63       | -              | 56,565.63       | 59,393.91       | -            |
| 02/01/2028 | 1,425,000.00    | 2.000% | 56,565.63      | 1,481,565.63    | -              | 1,481,565.63    | 1,555,643.91    | 1,615,037.82 |
| 08/01/2028 | -               | -      | 42,315.63      | 42,315.63       | -              | 42,315.63       | 44,431.41       | -            |
| 02/01/2029 | 1,455,000.00    | 2.000% | 42,315.63      | 1,497,315.63    | -              | 1,497,315.63    | 1,572,181.41    | 1,616,612.82 |
| 08/01/2029 | -               | -      | 27,765.63      | 27,765.63       | -              | 27,765.63       | 29,153.91       | -            |
| 02/01/2030 | 1,480,000.00    | 1.250% | 27,765.63      | 1,507,765.63    | -              | 1,507,765.63    | 1,583,153.91    | 1,612,307.82 |
| 08/01/2030 | -               | -      | 18,515.63      | 18,515.63       | -              | 18,515.63       | 19,441.41       | -            |
| 02/01/2031 | 1,505,000.00    | 1.500% | 18,515.63      | 1,523,515.63    | -              | 1,523,515.63    | 1,599,691.41    | 1,619,132.82 |
| 08/01/2031 | -               | -      | 7,228.13       | 7,228.13        | -              | 7,228.13        | 7,589.54        | -            |
| 02/01/2032 | 460,000.00      | 1.500% | 7,228.13       | 467,228.13      | -              | 467,228.13      | 490,589.54      | 498,179.07   |
| 08/01/2032 | -               | -      | 3,778.13       | 3,778.13        | -              | 3,778.13        | 3,967.04        | -            |
| 02/01/2033 | 465,000.00      | 1.625% | 3,778.13       | 468,778.13      | -              | 468,778.13      | 492,217.04      | 496,184.07   |
| Total      | \$19,475,000.00 | -      | \$1,745,760.05 | \$21,220,760.05 | \$4,168,105.63 | \$25,388,865.68 | \$26,658,308.96 | -            |

**SIGNIFICANT DATES**

|                        |            |
|------------------------|------------|
| Dated Date.....        | 12/17/2020 |
| Delivery Date.....     | 12/17/2020 |
| First Coupon Date..... | 8/01/2021  |

**Yield Statistics**

|  |             |
|--|-------------|
| Bond Year Dollars.....                 | \$98,495.28 |
| Average Life.....                      | 5.058 Years |
| Average Coupon.....                    | 1.7724302%  |
| Net Interest Cost (NIC).....           | 1.2017163%  |
| True Interest Cost (TIC).....          | 1.1787620%  |
| Bond Yield for Arbitrage Purposes..... | 1.0174589%  |
| All Inclusive Cost (AIC).....          | 1.2843575%  |

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|                                |             |
|--------------------------------|-------------|
| Net Interest Cost.....         | 1.0082696%  |
| Weighted Average Maturity..... | 5.048 Years |

**\$9,670,000**

**Ramsey County, Minnesota**  
**General Obligation Capital Improvement Plan Refunding Bonds, Series 2020A**  
**Current Refunding of Series 2011A Bonds**

**NET DEBT SERVICE SCHEDULE**

| Date         | Principal             | Coupon   | Interest            | Total P+I              | Existing D/S          | Net New D/S            | 105% Overlevy          | Fiscal Total |
|--------------|-----------------------|----------|---------------------|------------------------|-----------------------|------------------------|------------------------|--------------|
| 12/17/2020   | -                     | -        | -                   | -                      | -                     | -                      | -                      | -            |
| 02/01/2021   | -                     | -        | -                   | -                      | 1,309,521.88          | 1,309,521.88           | 1,374,997.97           | 1,374,997.97 |
| 08/01/2021   | -                     | -        | 112,225.56          | 112,225.56             | -                     | 112,225.56             | 117,836.84             | -            |
| 02/01/2022   | 865,000.00            | 2.000%   | 90,181.25           | 955,181.25             | -                     | 955,181.25             | 1,002,940.31           | 1,120,777.15 |
| 08/01/2022   | -                     | -        | 81,531.25           | 81,531.25              | -                     | 81,531.25              | 85,607.81              | -            |
| 02/01/2023   | 905,000.00            | 2.000%   | 81,531.25           | 986,531.25             | -                     | 986,531.25             | 1,035,857.81           | 1,121,465.63 |
| 08/01/2023   | -                     | -        | 72,481.25           | 72,481.25              | -                     | 72,481.25              | 76,105.31              | -            |
| 02/01/2024   | 925,000.00            | 2.000%   | 72,481.25           | 997,481.25             | -                     | 997,481.25             | 1,047,355.31           | 1,123,460.63 |
| 08/01/2024   | -                     | -        | 63,231.25           | 63,231.25              | -                     | 63,231.25              | 66,392.81              | -            |
| 02/01/2025   | 940,000.00            | 2.000%   | 63,231.25           | 1,003,231.25           | -                     | 1,003,231.25           | 1,053,392.81           | 1,119,785.63 |
| 08/01/2025   | -                     | -        | 53,831.25           | 53,831.25              | -                     | 53,831.25              | 56,522.81              | -            |
| 02/01/2026   | 955,000.00            | 2.000%   | 53,831.25           | 1,008,831.25           | -                     | 1,008,831.25           | 1,059,272.81           | 1,115,795.63 |
| 08/01/2026   | -                     | -        | 44,281.25           | 44,281.25              | -                     | 44,281.25              | 46,495.31              | -            |
| 02/01/2027   | 980,000.00            | 2.000%   | 44,281.25           | 1,024,281.25           | -                     | 1,024,281.25           | 1,075,495.31           | 1,121,990.63 |
| 08/01/2027   | -                     | -        | 34,481.25           | 34,481.25              | -                     | 34,481.25              | 36,205.31              | -            |
| 02/01/2028   | 995,000.00            | 2.000%   | 34,481.25           | 1,029,481.25           | -                     | 1,029,481.25           | 1,080,955.31           | 1,117,160.63 |
| 08/01/2028   | -                     | -        | 24,531.25           | 24,531.25              | -                     | 24,531.25              | 25,757.81              | -            |
| 02/01/2029   | 1,015,000.00          | 2.000%   | 24,531.25           | 1,039,531.25           | -                     | 1,039,531.25           | 1,091,507.81           | 1,117,265.63 |
| 08/01/2029   | -                     | -        | 14,381.25           | 14,381.25              | -                     | 14,381.25              | 15,100.31              | -            |
| 02/01/2030   | 1,035,000.00          | 1.250%   | 14,381.25           | 1,049,381.25           | -                     | 1,049,381.25           | 1,101,850.31           | 1,116,950.63 |
| 08/01/2030   | -                     | -        | 7,912.50            | 7,912.50               | -                     | 7,912.50               | 8,308.13               | -            |
| 02/01/2031   | 1,055,000.00          | 1.500%   | 7,912.50            | 1,062,912.50           | -                     | 1,062,912.50           | 1,116,058.13           | 1,124,366.25 |
| <b>Total</b> | <b>\$9,670,000.00</b> | <b>-</b> | <b>\$995,731.81</b> | <b>\$10,665,731.81</b> | <b>\$1,309,521.88</b> | <b>\$11,975,253.69</b> | <b>\$12,574,016.37</b> | <b>-</b>     |

**SIGNIFICANT DATES**

|                        |            |
|------------------------|------------|
| Dated Date.....        | 12/17/2020 |
| Delivery Date.....     | 12/17/2020 |
| First Coupon Date..... | 8/01/2021  |

**Yield Statistics**

|  |             |
|--|-------------|
| Bond Year Dollars.....                 | \$55,996.89 |
| Average Life.....                      | 5.791 Years |
| Average Coupon.....                    | 1.7781913%  |
| Net Interest Cost (NIC).....           | 1.1588825%  |
| True Interest Cost (TIC).....          | 1.1343065%  |
| Bond Yield for Arbitrage Purposes..... | 1.0174589%  |
| All Inclusive Cost (AIC).....          | 1.2261016%  |

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|                                |             |
|--------------------------------|-------------|
| Net Interest Cost.....         | 0.9799896%  |
| Weighted Average Maturity..... | 5.778 Years |

**\$9,805,000**

**Ramsey County, Minnesota**  
 General Obligation Capital Improvement Plan Refunding Bonds, Series 2020A  
 Current Refunding of Series 2013A Bonds

**NET DEBT SERVICE SCHEDULE**

| Date         | Principal             | Coupon   | Interest            | Total P+I              | Existing D/S          | Net New D/S            | 105% Overlevy          | Fiscal Total |
|--------------|-----------------------|----------|---------------------|------------------------|-----------------------|------------------------|------------------------|--------------|
| 12/17/2020   | -                     | -        | -                   | -                      | -                     | -                      | -                      | -            |
| 02/01/2021   | -                     | -        | -                   | -                      | 2,858,583.75          | 2,858,583.75           | 3,001,512.94           | 3,001,512.94 |
| 08/01/2021   | -                     | -        | 116,025.00          | 116,025.00             | -                     | 116,025.00             | 121,826.25             | -            |
| 02/01/2022   | 2,720,000.00          | 2.000%   | 93,234.38           | 2,813,234.38           | -                     | 2,813,234.38           | 2,953,896.10           | 3,075,722.35 |
| 08/01/2022   | -                     | -        | 66,034.38           | 66,034.38              | -                     | 66,034.38              | 69,336.10              | -            |
| 02/01/2023   | 2,765,000.00          | 2.000%   | 66,034.38           | 2,831,034.38           | -                     | 2,831,034.38           | 2,972,586.10           | 3,041,922.20 |
| 08/01/2023   | -                     | -        | 38,384.38           | 38,384.38              | -                     | 38,384.38              | 40,303.60              | -            |
| 02/01/2024   | 395,000.00            | 2.000%   | 38,384.38           | 433,384.38             | -                     | 433,384.38             | 455,053.60             | 495,357.20   |
| 08/01/2024   | -                     | -        | 34,434.38           | 34,434.38              | -                     | 34,434.38              | 36,156.10              | -            |
| 02/01/2025   | 405,000.00            | 2.000%   | 34,434.38           | 439,434.38             | -                     | 439,434.38             | 461,406.10             | 497,562.20   |
| 08/01/2025   | -                     | -        | 30,384.38           | 30,384.38              | -                     | 30,384.38              | 31,903.60              | -            |
| 02/01/2026   | 410,000.00            | 2.000%   | 30,384.38           | 440,384.38             | -                     | 440,384.38             | 462,403.60             | 494,307.20   |
| 08/01/2026   | -                     | -        | 26,284.38           | 26,284.38              | -                     | 26,284.38              | 27,598.60              | -            |
| 02/01/2027   | 420,000.00            | 2.000%   | 26,284.38           | 446,284.38             | -                     | 446,284.38             | 468,598.60             | 496,197.20   |
| 08/01/2027   | -                     | -        | 22,084.38           | 22,084.38              | -                     | 22,084.38              | 23,188.60              | -            |
| 02/01/2028   | 430,000.00            | 2.000%   | 22,084.38           | 452,084.38             | -                     | 452,084.38             | 474,688.60             | 497,877.20   |
| 08/01/2028   | -                     | -        | 17,784.38           | 17,784.38              | -                     | 17,784.38              | 18,673.60              | -            |
| 02/01/2029   | 440,000.00            | 2.000%   | 17,784.38           | 457,784.38             | -                     | 457,784.38             | 480,673.60             | 499,347.20   |
| 08/01/2029   | -                     | -        | 13,384.38           | 13,384.38              | -                     | 13,384.38              | 14,053.60              | -            |
| 02/01/2030   | 445,000.00            | 1.250%   | 13,384.38           | 458,384.38             | -                     | 458,384.38             | 481,303.60             | 495,357.20   |
| 08/01/2030   | -                     | -        | 10,603.13           | 10,603.13              | -                     | 10,603.13              | 11,133.29              | -            |
| 02/01/2031   | 450,000.00            | 1.500%   | 10,603.13           | 460,603.13             | -                     | 460,603.13             | 483,633.29             | 494,766.57   |
| 08/01/2031   | -                     | -        | 7,228.13            | 7,228.13               | -                     | 7,228.13               | 7,589.54               | -            |
| 02/01/2032   | 460,000.00            | 1.500%   | 7,228.13            | 467,228.13             | -                     | 467,228.13             | 490,589.54             | 498,179.07   |
| 08/01/2032   | -                     | -        | 3,778.13            | 3,778.13               | -                     | 3,778.13               | 3,967.04               | -            |
| 02/01/2033   | 465,000.00            | 1.625%   | 3,778.13            | 468,778.13             | -                     | 468,778.13             | 492,217.04             | 496,184.07   |
| <b>Total</b> | <b>\$9,805,000.00</b> | <b>-</b> | <b>\$750,028.24</b> | <b>\$10,555,028.24</b> | <b>\$2,858,583.75</b> | <b>\$13,413,611.99</b> | <b>\$14,084,292.59</b> | <b>-</b>     |

**SIGNIFICANT DATES**

|                        |            |
|------------------------|------------|
| Dated Date.....        | 12/17/2020 |
| Delivery Date.....     | 12/17/2020 |
| First Coupon Date..... | 8/01/2021  |

**Yield Statistics**

|  |             |
|--|-------------|
| Bond Year Dollars.....                 | \$34,820.89 |
| Average Life.....                      | 6.855 Years |
| Average Coupon.....                    | 1.7129897%  |
| Net Interest Cost (NIC).....           | 1.3297360%  |
| True Interest Cost (TIC).....          | 1.3100607%  |
| Bond Yield for Arbitrage Purposes..... | 1.0174589%  |
| All Inclusive Cost (AIC).....          | 1.3893261%  |

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|                                |             |
|--------------------------------|-------------|
| Net Interest Cost.....         | 1.1822925%  |
| Weighted Average Maturity..... | 6.800 Years |

**\$28,030,000**

**Ramsey County, Minnesota**  
Taxable General Obligation Refunding Bonds, Series 2020B  
Issue Summary

**Refunding Summary**

**Dated 12/17/2020 | Delivered 12/17/2020**

|  | <b>Advance Refunding of Series 2012A Bonds</b> | <b>Current Refunding of Series 2013B Bonds (TCAAP)</b> | <b>Advance Refunding of Series 2014B Bonds (TCAAP)</b> | <b>Advance Refunding of Series 2014C Bonds</b> | <b>Issue Summary</b>   |
|--|--|--|--|--|------------------------|
| <b>Sources Of Funds</b>                    |  |  |  |  |                        |
| Par Amount of Bonds.....                   | \$10,545,000.00                                | \$8,285,000.00   | \$6,625,000.00   | \$2,575,000.00                                 | \$28,030,000.00        |
| <b>Total Sources.....</b>                  | <b>\$10,545,000.00</b>                         | <b>\$8,285,000.00</b>                                  | <b>\$6,625,000.00</b>                                  | <b>\$2,575,000.00</b>                          | <b>\$28,030,000.00</b> |
| <b>Uses Of Funds</b>                       |  |  |  |  |                        |
| Deposit to Net Cash Escrow Fund.....       | 10,391,370.23                                  | 8,170,000.00   | 6,528,629.20   | 2,536,628.31                                   | 27,626,627.74          |
| Total Underwriter's Discount (0.800%)..... | 84,360.00                                      | 66,280.00  | 53,000.00  | 20,600.00                                      | 224,240.00             |
| Costs of Issuance.....                     | 65,835.71                                      | 51,725.83  | 41,361.93  | 16,076.53                                      | 175,000.00             |
| Rounding Amount.....                       | 3,434.06                                       | (3,005.83)   | 2,008.87   | 1,695.16                                       | 4,132.26               |
| <b>Total Uses.....</b>                     | <b>\$10,545,000.00</b>                         | <b>\$8,285,000.00</b>                                  | <b>\$6,625,000.00</b>                                  | <b>\$2,575,000.00</b>                          | <b>\$28,030,000.00</b> |

**Flow of Funds Detail**

|   |                 |                |                |                |                 |
|---|-----------------|----------------|----------------|----------------|-----------------|
| State and Local Government Series (SLGS) rates for..... | 8/21/2020       |                |                | 8/21/2020      |                 |
| Date of OMP Candidates.....                             |                 |                | 8/20/2020      |                |                 |
| Primary Purpose Fund Solution Method.....               | Net Funded      | Gross Funded   | Net Funded     | Net Funded     | Net Funded      |
| Total Cost of Investments.....                          | \$10,391,370.23 | \$8,170,000.00 | \$6,528,629.20 | \$2,536,628.31 | \$27,626,627.74 |
| Interest Earnings @ 0.113%.....                         | 12,529.77       | -              | 130,125.00     | 3,077.94       | 145,732.71      |
| Total Draw s.....                                       | \$10,403,900.00 | \$8,170,000.00 | \$6,538,254.63 | \$2,539,706.25 | \$27,651,860.88 |

**Issues Refunded And Call Dates**

|  |           |           |           |           |  |
|--|-----------|-----------|-----------|-----------|--|
| 2012A GO CIP Bonds.....                    | 2/01/2022 |           |           |           |  |
| 2013B Txble GO CIP Bonds (TCAAP) - PS..... |           | 2/01/2021 |           |           |  |
| 2014B Txble GO CIP Bonds (TCAAP) - PS..... |           |           | 2/01/2022 |           |  |
| 2014C GO Library Bonds - PS.....           |           |           |           | 2/01/2022 |  |

**PV Analysis Summary (Net to Net)**

|  |                |               |              |              |                |
|--|----------------|---------------|--------------|--------------|----------------|
| Net PV Cashflow Savings @ 1.571%(TIC)..... | 1,091,855.29   | 953,470.46    | 701,025.31   | 181,193.32   | 2,927,327.76   |
| Contingency or Rounding Amount.....        | 3,434.06       | (3,005.83)    | 2,008.87     | 1,695.16     | 4,132.26       |
| Net Present Value Benefit.....             | \$1,095,289.35 | \$950,464.63  | \$703,034.18 | \$182,888.48 | \$2,931,460.02 |
| Net PV Benefit / Refunded Principal.....   | 11.159%        | 11.634%       | 11.330%      | 7.526%       | 11.012%        |
| Net PV Benefit / Refunding Principal.....  | 10.387%        | 11.472%       | 10.612%      | 7.102%       | 10.458%        |
| Average Annual Cash Flow Savings.....      | 98,478.12      | 80,940.62     | 55,231.80    | 14,276.59    | 229,077.35     |
| Total New Net D/S.....                     | 13,666,262.61  | 9,809,138.17  | 8,238,572.25 | 3,162,409.03 | 34,876,382.06  |
| Total Prior D/S.....                       | 14,848,000.00  | 10,861,366.25 | 9,011,817.38 | 3,362,281.25 | 38,083,464.88  |
| Total Cashflow Savings.....                | 1,181,737.39   | 1,052,228.08  | 773,245.19   | 199,872.32   | 3,207,082.92   |

**Bond Statistics**

|  |             |             |             |             |             |
|--|-------------|-------------|-------------|-------------|-------------|
| Average Life.....                      | 6.662 Years | 6.734 Years | 7.654 Years | 7.821 Years | 7.024 Years |
| Average Coupon.....                    | 1.4146322%  | 1.4435901%  | 1.5008646%  | 1.5098720%  | 1.4547895%  |
| Net Interest Cost (NIC).....           | 1.5347196%  | 1.5623978%  | 1.6053810%  | 1.6121574%  | 1.5686829%  |
| Bond Yield for Arbitrage Purposes..... | 1.4378767%  | 1.4378767%  | 1.4378767%  | 1.4378767%  | 1.4378767%  |
| True Interest Cost (TIC).....          | 1.5376102%  | 1.5646990%  | 1.6075169%  | 1.6145911%  | 1.5710403%  |
| All Inclusive Cost (AIC).....          | 1.6381713%  | 1.6646536%  | 1.6961305%  | 1.7014066%  | 1.6669628%  |

File | Refunding Ramsey County MN.sf | 2020 TX GO Ref Bonds - Re | Issue Summary | 10/3/2020 | 10:14 PM

**\$28,030,000**

**Ramsey County, Minnesota**  
Taxable General Obligation Refunding Bonds, Series 2020B  
Issue Summary

**Debt Service Comparison**

| Date       | Total P+I       | Existing D/S   | Net New D/S     | Old Net D/S     | Savings        |
|------------|-----------------|----------------|-----------------|-----------------|----------------|
| 02/01/2021 | 188,862.81      | 2,324,840.75   | 2,513,703.56    | 2,668,794.38    | 155,090.82     |
| 02/01/2022 | 1,293,152.50    | 1,657,266.00   | 2,950,418.50    | 3,203,385.75    | 252,967.26     |
| 02/01/2023 | 2,668,010.00    | -              | 2,668,010.00    | 2,921,494.75    | 253,484.76     |
| 02/01/2024 | 2,654,120.00    | -              | 2,654,120.00    | 2,912,691.25    | 258,571.26     |
| 02/01/2025 | 2,681,757.50    | -              | 2,681,757.50    | 2,939,710.00    | 257,952.50     |
| 02/01/2026 | 2,684,337.50    | -              | 2,684,337.50    | 2,942,360.00    | 258,022.50     |
| 02/01/2027 | 2,670,717.50    | -              | 2,670,717.50    | 2,929,945.00    | 259,227.50     |
| 02/01/2028 | 2,664,517.50    | -              | 2,664,517.50    | 2,923,616.25    | 259,098.76     |
| 02/01/2029 | 2,659,355.00    | -              | 2,659,355.00    | 2,916,946.25    | 257,591.26     |
| 02/01/2030 | 2,792,530.00    | -              | 2,792,530.00    | 3,051,273.75    | 258,743.76     |
| 02/01/2031 | 2,756,842.50    | -              | 2,756,842.50    | 3,016,766.25    | 259,923.76     |
| 02/01/2032 | 2,744,762.50    | -              | 2,744,762.50    | 2,997,678.75    | 252,916.26     |
| 02/01/2033 | 1,595,872.50    | -              | 1,595,872.50    | 1,750,333.75    | 154,461.26     |
| 02/01/2034 | 839,437.50      | -              | 839,437.50      | 908,468.75      | 69,031.26      |
| Total      | \$30,894,275.31 | \$3,982,106.75 | \$34,876,382.06 | \$38,083,464.88 | \$3,207,082.92 |

**PV Analysis Summary (Net to Net)**

|  |                |
|--|----------------|
| Net FV Cashflow Savings.....                                   | 3,207,082.92   |
| Gross PV Debt Service Savings.....                             | 2,927,327.76   |
| Net PV Cashflow Savings @ 1.571%(TIC).....                     | 2,927,327.76   |
| Contingency or Rounding Amount.....                            | 4,132.26       |
| Net Future Value Benefit.....                                  | \$3,211,215.18 |
| Net Present Value Benefit.....                                 | \$2,931,460.02 |
| Net PV Benefit / \$30,733,304.39 PV Refunded Debt Service..... | 9.538%         |
| Net PV Benefit / \$26,620,000 Refunded Principal.....          | 11.012%        |
| Net PV Benefit / \$28,030,000 Refunding Principal.....         | 10.458%        |

**Refunding Bond Information**

|                              |            |
|------------------------------|------------|
| Refunding Dated Date.....    | 12/17/2020 |
| Refunding Delivery Date..... | 12/17/2020 |

**\$10,545,000**

**Ramsey County, Minnesota**  
Taxable General Obligation Refunding Bonds, Series 2020B  
Advance Refunding of Series 2012A Bonds

**Debt Service Comparison**

| Date       | Total P+I       | Existing D/S   | Net New D/S     | Old Net D/S     | Savings        |
|------------|-----------------|----------------|-----------------|-----------------|----------------|
| 02/01/2021 | 96,192.61       | 1,045,900.00   | 1,142,092.61    | 1,242,200.00    | 100,107.39     |
| 02/01/2022 | 297,085.00      | 1,081,600.00   | 1,378,685.00    | 1,474,200.00    | 95,515.00      |
| 02/01/2023 | 1,101,177.50    | -              | 1,101,177.50    | 1,197,600.00    | 96,422.50      |
| 02/01/2024 | 1,095,357.50    | -              | 1,095,357.50    | 1,195,400.00    | 100,042.50     |
| 02/01/2025 | 1,088,082.50    | -              | 1,088,082.50    | 1,187,000.00    | 98,917.50      |
| 02/01/2026 | 1,088,867.50    | -              | 1,088,867.50    | 1,187,600.00    | 98,732.50      |
| 02/01/2027 | 1,082,107.50    | -              | 1,082,107.50    | 1,181,800.00    | 99,692.50      |
| 02/01/2028 | 1,074,302.50    | -              | 1,074,302.50    | 1,174,800.00    | 100,497.50     |
| 02/01/2029 | 1,069,947.50    | -              | 1,069,947.50    | 1,166,600.00    | 96,652.50      |
| 02/01/2030 | 1,214,947.50    | -              | 1,214,947.50    | 1,312,200.00    | 97,252.50      |
| 02/01/2031 | 1,176,967.50    | -              | 1,176,967.50    | 1,275,400.00    | 98,432.50      |
| 02/01/2032 | 1,153,727.50    | -              | 1,153,727.50    | 1,253,200.00    | 99,472.50      |
| Total      | \$11,538,762.61 | \$2,127,500.00 | \$13,666,262.61 | \$14,848,000.00 | \$1,181,737.39 |

**PV Analysis Summary (Net to Net)**

|  |                |
|--|----------------|
| Net FV Cashflow Savings.....                                   | 1,181,737.39   |
| Gross PV Debt Service Savings.....                             | 1,091,855.29   |
| Net PV Cashflow Savings @ 1.538%(TIC).....                     | 1,091,855.29   |
| Contingency or Rounding Amount.....                            | 3,434.06       |
| Net Future Value Benefit.....                                  | \$1,185,171.45 |
| Net Present Value Benefit.....                                 | \$1,095,289.35 |
| Net PV Benefit / \$11,552,495.29 PV Refunded Debt Service..... | 9.481%         |
| Net PV Benefit / \$9,815,000 Refunded Principal.....           | 11.159%        |
| Net PV Benefit / \$10,545,000 Refunding Principal.....         | 10.387%        |

**Refunding Bond Information**

|                              |            |
|------------------------------|------------|
| Refunding Dated Date.....    | 12/17/2020 |
| Refunding Delivery Date..... | 12/17/2020 |

**\$8,285,000**

**Ramsey County, Minnesota**  
Taxable General Obligation Refunding Bonds, Series 2020B  
Current Refunding of Series 2013B Bonds (TCAAP)

**Debt Service Comparison**

| Date       | Total P+I      | Existing D/S | Net New D/S    | Old Net D/S     | Savings        |
|------------|----------------|--------------|----------------|-----------------|----------------|
| 02/01/2021 | 12,606.92      | 718,793.75   | 731,400.67     | 718,793.75      | (12,606.92)    |
| 02/01/2022 | 768,147.50     | -            | 768,147.50     | 858,212.50      | 90,065.00      |
| 02/01/2023 | 764,490.00     | -            | 764,490.00     | 853,587.50      | 89,097.50      |
| 02/01/2024 | 765,500.00     | -            | 765,500.00     | 852,225.00      | 86,725.00      |
| 02/01/2025 | 760,475.00     | -            | 760,475.00     | 848,925.00      | 88,450.00      |
| 02/01/2026 | 764,110.00     | -            | 764,110.00     | 850,175.00      | 86,065.00      |
| 02/01/2027 | 755,950.00     | -            | 755,950.00     | 844,535.00      | 88,585.00      |
| 02/01/2028 | 752,110.00     | -            | 752,110.00     | 842,425.00      | 90,315.00      |
| 02/01/2029 | 752,177.50     | -            | 752,177.50     | 842,605.00      | 90,427.50      |
| 02/01/2030 | 746,752.50     | -            | 746,752.50     | 836,872.50      | 90,120.00      |
| 02/01/2031 | 745,902.50     | -            | 745,902.50     | 835,410.00      | 89,507.50      |
| 02/01/2032 | 749,542.50     | -            | 749,542.50     | 838,035.00      | 88,492.50      |
| 02/01/2033 | 752,580.00     | -            | 752,580.00     | 839,565.00      | 86,985.00      |
| Total      | \$9,090,344.42 | \$718,793.75 | \$9,809,138.17 | \$10,861,366.25 | \$1,052,228.08 |

**PV Analysis Summary (Net to Net)**

|   |                |
|---|----------------|
| Net FV Cashflow Savings.....                                  | 1,052,228.08   |
| Gross PV Debt Service Savings.....                            | 953,470.46     |
| Net PV Cashflow Savings @ 1.565%(TIC).....                    | 953,470.46     |
| Contingency or Rounding Amount.....                           | (3,005.83)     |
| Net Future Value Benefit.....                                 | \$1,049,222.25 |
| Net Present Value Benefit.....                                | \$950,464.63   |
| Net PV Benefit / \$9,172,190.46 PV Refunded Debt Service..... | 10.362%        |
| Net PV Benefit / \$8,170,000 Refunded Principal.....          | 11.634%        |
| Net PV Benefit / \$8,285,000 Refunding Principal.....         | 11.472%        |

**Refunding Bond Information**

|                              |            |
|------------------------------|------------|
| Refunding Dated Date.....    | 12/17/2020 |
| Refunding Delivery Date..... | 12/17/2020 |

**\$6,625,000**

**Ramsey County, Minnesota**  
Taxable General Obligation Refunding Bonds, Series 2020B  
Advance Refunding of Series 2014B Bonds (TCAAP)

**Debt Service Comparison**

| Date       | Total P+I      | Existing D/S | Net New D/S    | Old Net D/S    | Savings      |
|------------|----------------|--------------|----------------|----------------|--------------|
| 02/01/2021 | 55,799.25      | 421,022.00   | 476,821.25     | 532,106.88     | 55,285.63    |
| 02/01/2022 | 168,132.50     | 431,466.00   | 599,598.50     | 653,635.75     | 54,037.26    |
| 02/01/2023 | 597,692.50     | -            | 597,692.50     | 652,169.75     | 54,477.26    |
| 02/01/2024 | 594,632.50     | -            | 594,632.50     | 649,828.75     | 55,196.26    |
| 02/01/2025 | 595,807.50     | -            | 595,807.50     | 651,628.75     | 55,821.26    |
| 02/01/2026 | 595,915.00     | -            | 595,915.00     | 652,978.75     | 57,063.76    |
| 02/01/2027 | 594,675.00     | -            | 594,675.00     | 652,703.75     | 58,028.76    |
| 02/01/2028 | 597,850.00     | -            | 597,850.00     | 651,335.00     | 53,485.00    |
| 02/01/2029 | 600,092.50     | -            | 600,092.50     | 653,835.00     | 53,742.50    |
| 02/01/2030 | 591,917.50     | -            | 591,917.50     | 649,595.00     | 57,677.50    |
| 02/01/2031 | 593,470.00     | -            | 593,470.00     | 649,800.00     | 56,330.00    |
| 02/01/2032 | 599,590.00     | -            | 599,590.00     | 652,600.00     | 53,010.00    |
| 02/01/2033 | 600,185.00     | -            | 600,185.00     | 654,400.00     | 54,215.00    |
| 02/01/2034 | 600,325.00     | -            | 600,325.00     | 655,200.00     | 54,875.00    |
| Total      | \$7,386,084.25 | \$852,488.00 | \$8,238,572.25 | \$9,011,817.38 | \$773,245.19 |

**PV Analysis Summary (Net to Net)**

|   |              |
|---|--------------|
| Net FV Cashflow Savings.....                                  | 773,245.19   |
| Gross PV Debt Service Savings.....                            | 701,025.31   |
| Net PV Cashflow Savings @ 1.608%(TIC).....                    | 701,025.31   |
| Contingency or Rounding Amount.....                           | 2,008.87     |
| Net Future Value Benefit.....                                 | \$775,254.06 |
| Net Present Value Benefit.....                                | \$703,034.18 |
| Net PV Benefit / \$7,273,025.31 PV Refunded Debt Service..... | 9.666%       |
| Net PV Benefit / \$6,205,000 Refunded Principal.....          | 11.330%      |
| Net PV Benefit / \$6,625,000 Refunding Principal.....         | 10.612%      |

**Refunding Bond Information**

|                              |            |
|------------------------------|------------|
| Refunding Dated Date.....    | 12/17/2020 |
| Refunding Delivery Date..... | 12/17/2020 |

**\$2,575,000**

**Ramsey County, Minnesota**  
Taxable General Obligation Refunding Bonds, Series 2020B  
Advance Refunding of Series 2014C Bonds

**Debt Service Comparison**

| Date       | Total P+I      | Existing D/S | Net New D/S    | Old Net D/S    | Savings      |
|------------|----------------|--------------|----------------|----------------|--------------|
| 02/01/2021 | 24,264.03      | 139,125.00   | 163,389.03     | 175,693.75     | 12,304.72    |
| 02/01/2022 | 59,787.50      | 144,200.00   | 203,987.50     | 217,337.50     | 13,350.00    |
| 02/01/2023 | 204,650.00     | -            | 204,650.00     | 218,137.50     | 13,487.50    |
| 02/01/2024 | 198,630.00     | -            | 198,630.00     | 215,237.50     | 16,607.50    |
| 02/01/2025 | 237,392.50     | -            | 237,392.50     | 252,156.25     | 14,763.76    |
| 02/01/2026 | 235,445.00     | -            | 235,445.00     | 251,606.25     | 16,161.26    |
| 02/01/2027 | 237,985.00     | -            | 237,985.00     | 250,906.25     | 12,921.26    |
| 02/01/2028 | 240,255.00     | -            | 240,255.00     | 255,056.25     | 14,801.26    |
| 02/01/2029 | 237,137.50     | -            | 237,137.50     | 253,906.25     | 16,768.76    |
| 02/01/2030 | 238,912.50     | -            | 238,912.50     | 252,606.25     | 13,693.76    |
| 02/01/2031 | 240,502.50     | -            | 240,502.50     | 256,156.25     | 15,653.76    |
| 02/01/2032 | 241,902.50     | -            | 241,902.50     | 253,843.75     | 11,941.26    |
| 02/01/2033 | 243,107.50     | -            | 243,107.50     | 256,368.75     | 13,261.26    |
| 02/01/2034 | 239,112.50     | -            | 239,112.50     | 253,268.75     | 14,156.26    |
| Total      | \$2,879,084.03 | \$283,325.00 | \$3,162,409.03 | \$3,362,281.25 | \$199,872.32 |

**PV Analysis Summary (Net to Net)**

|   |              |
|---|--------------|
| Net FV Cashflow Savings.....                                  | 199,872.32   |
| Gross PV Debt Service Savings.....                            | 181,193.32   |
| Net PV Cashflow Savings @ 1.615%(TIC).....                    | 181,193.32   |
| Contingency or Rounding Amount.....                           | 1,695.16     |
| Net Future Value Benefit.....                                 | \$201,567.48 |
| Net Present Value Benefit.....                                | \$182,888.48 |
| Net PV Benefit / \$2,735,593.32 PV Refunded Debt Service..... | 6.686%       |
| Net PV Benefit / \$2,430,000 Refunded Principal.....          | 7.526%       |
| Net PV Benefit / \$2,575,000 Refunding Principal.....         | 7.102%       |

**Refunding Bond Information**

|                              |            |
|------------------------------|------------|
| Refunding Dated Date.....    | 12/17/2020 |
| Refunding Delivery Date..... | 12/17/2020 |

**\$16,050,000**

**Ramsey County, Minnesota**  
General Obligation Capital Improvement Plan Bonds, Series 2012A  
Other Projects

**Debt Service To Maturity And To Call**

| Date       | Refunded Bonds | Refunded Interest | D/S To Call     | Principal      | Coupon | Interest       | Refunded D/S    |
|------------|----------------|-------------------|-----------------|----------------|--------|----------------|-----------------|
| 12/17/2020 | -              | -                 | -               | -              | -      | -              | -               |
| 02/01/2021 | -              | 196,300.00        | 196,300.00      | -              | 4.000% | 196,300.00     | 196,300.00      |
| 08/01/2021 | -              | 196,300.00        | 196,300.00      | -              | -      | 196,300.00     | 196,300.00      |
| 02/01/2022 | 9,815,000.00   | 196,300.00        | 10,011,300.00   | -              | 4.000% | 196,300.00     | 196,300.00      |
| 08/01/2022 | -              | -                 | -               | -              | -      | 196,300.00     | 196,300.00      |
| 02/01/2023 | -              | -                 | -               | 805,000.00     | 4.000% | 196,300.00     | 1,001,300.00    |
| 08/01/2023 | -              | -                 | -               | -              | -      | 180,200.00     | 180,200.00      |
| 02/01/2024 | -              | -                 | -               | 835,000.00     | 4.000% | 180,200.00     | 1,015,200.00    |
| 08/01/2024 | -              | -                 | -               | -              | -      | 163,500.00     | 163,500.00      |
| 02/01/2025 | -              | -                 | -               | 860,000.00     | 4.000% | 163,500.00     | 1,023,500.00    |
| 08/01/2025 | -              | -                 | -               | -              | -      | 146,300.00     | 146,300.00      |
| 02/01/2026 | -              | -                 | -               | 895,000.00     | 4.000% | 146,300.00     | 1,041,300.00    |
| 08/01/2026 | -              | -                 | -               | -              | -      | 128,400.00     | 128,400.00      |
| 02/01/2027 | -              | -                 | -               | 925,000.00     | 4.000% | 128,400.00     | 1,053,400.00    |
| 08/01/2027 | -              | -                 | -               | -              | -      | 109,900.00     | 109,900.00      |
| 02/01/2028 | -              | -                 | -               | 955,000.00     | 4.000% | 109,900.00     | 1,064,900.00    |
| 08/01/2028 | -              | -                 | -               | -              | -      | 90,800.00      | 90,800.00       |
| 02/01/2029 | -              | -                 | -               | 985,000.00     | 4.000% | 90,800.00      | 1,075,800.00    |
| 08/01/2029 | -              | -                 | -               | -              | -      | 71,100.00      | 71,100.00       |
| 02/01/2030 | -              | -                 | -               | 1,170,000.00   | 4.000% | 71,100.00      | 1,241,100.00    |
| 08/01/2030 | -              | -                 | -               | -              | -      | 47,700.00      | 47,700.00       |
| 02/01/2031 | -              | -                 | -               | 1,180,000.00   | 4.000% | 47,700.00      | 1,227,700.00    |
| 08/01/2031 | -              | -                 | -               | -              | -      | 24,100.00      | 24,100.00       |
| 02/01/2032 | -              | -                 | -               | 1,205,000.00   | 4.000% | 24,100.00      | 1,229,100.00    |
| Total      | \$9,815,000.00 | \$588,900.00      | \$10,403,900.00 | \$9,815,000.00 | -      | \$2,905,500.00 | \$12,720,500.00 |

**Yield Statistics**

|  |             |
|--|-------------|
| Base date for Avg. Life & Avg. Coupon Calculation..... | 12/17/2020  |
| Average Life.....                                      | 7.023 Years |
| Average Coupon.....                                    | 4.0000000%  |
| Weighted Average Maturity (Par Basis).....             | 7.023 Years |
| Weighted Average Maturity (Original Price Basis).....  | 6.960 Years |

**Refunding Bond Information**

|                              |            |
|------------------------------|------------|
| Refunding Dated Date.....    | 12/17/2020 |
| Refunding Delivery Date..... | 12/17/2020 |

**\$12,000,000**

**Ramsey County, Minnesota**

Taxable General Obligation Capital Improvement Plan Bonds, Series 2013B

**Debt Service To Maturity And To Call**

| Date       | Refunded Bonds | D/S To Call    | Principal      | Coupon | Interest       | Refunded D/S    |
|------------|----------------|----------------|----------------|--------|----------------|-----------------|
| 12/17/2020 | -              | -              | -              | -      | -              | -               |
| 02/01/2021 | 8,170,000.00   | 8,170,000.00   | -              | 2.500% | -              | -               |
| 08/01/2021 | -              | -              | -              | -      | 136,606.25     | 136,606.25      |
| 02/01/2022 | -              | -              | 585,000.00     | 2.500% | 136,606.25     | 721,606.25      |
| 08/01/2022 | -              | -              | -              | -      | 129,293.75     | 129,293.75      |
| 02/01/2023 | -              | -              | 595,000.00     | 2.750% | 129,293.75     | 724,293.75      |
| 08/01/2023 | -              | -              | -              | -      | 121,112.50     | 121,112.50      |
| 02/01/2024 | -              | -              | 610,000.00     | 3.000% | 121,112.50     | 731,112.50      |
| 08/01/2024 | -              | -              | -              | -      | 111,962.50     | 111,962.50      |
| 02/01/2025 | -              | -              | 625,000.00     | 3.000% | 111,962.50     | 736,962.50      |
| 08/01/2025 | -              | -              | -              | -      | 102,587.50     | 102,587.50      |
| 02/01/2026 | -              | -              | 645,000.00     | 3.200% | 102,587.50     | 747,587.50      |
| 08/01/2026 | -              | -              | -              | -      | 92,267.50      | 92,267.50       |
| 02/01/2027 | -              | -              | 660,000.00     | 3.350% | 92,267.50      | 752,267.50      |
| 08/01/2027 | -              | -              | -              | -      | 81,212.50      | 81,212.50       |
| 02/01/2028 | -              | -              | 680,000.00     | 3.650% | 81,212.50      | 761,212.50      |
| 08/01/2028 | -              | -              | -              | -      | 68,802.50      | 68,802.50       |
| 02/01/2029 | -              | -              | 705,000.00     | 3.650% | 68,802.50      | 773,802.50      |
| 08/01/2029 | -              | -              | -              | -      | 55,936.25      | 55,936.25       |
| 02/01/2030 | -              | -              | 725,000.00     | 3.650% | 55,936.25      | 780,936.25      |
| 08/01/2030 | -              | -              | -              | -      | 42,705.00      | 42,705.00       |
| 02/01/2031 | -              | -              | 750,000.00     | 3.650% | 42,705.00      | 792,705.00      |
| 08/01/2031 | -              | -              | -              | -      | 29,017.50      | 29,017.50       |
| 02/01/2032 | -              | -              | 780,000.00     | 3.650% | 29,017.50      | 809,017.50      |
| 08/01/2032 | -              | -              | -              | -      | 14,782.50      | 14,782.50       |
| 02/01/2033 | -              | -              | 810,000.00     | 3.650% | 14,782.50      | 824,782.50      |
| Total      | \$8,170,000.00 | \$8,170,000.00 | \$8,170,000.00 | -      | \$1,972,572.50 | \$10,142,572.50 |

**Yield Statistics**

|  |             |
|--|-------------|
| Base date for Avg. Life & Avg. Coupon Calculation..... | 12/17/2020  |
| Average Life.....                                      | 6.978 Years |
| Average Coupon.....                                    | 3.4598307%  |
| Weighted Average Maturity (Par Basis).....             | 6.978 Years |
| Weighted Average Maturity (Original Price Basis).....  | 6.979 Years |

**Refunding Bond Information**

|                              |            |
|------------------------------|------------|
| Refunding Dated Date.....    | 12/17/2020 |
| Refunding Delivery Date..... | 12/17/2020 |

**\$9,500,000**

**Ramsey County, Minnesota**

Taxable General Obligation Capital Improvement Plan Bonds, Series 2014B (TCAAP)

**Debt Service To Maturity And To Call**

| Date       | Refunded Bonds | Refunded Interest | D/S To Call    | Principal      | Coupon | Interest       | Refunded D/S   |
|------------|----------------|-------------------|----------------|----------------|--------|----------------|----------------|
| 12/17/2020 | -              | -                 | -              | -              | -      | -              | -              |
| 02/01/2021 | -              | 111,084.88        | 111,084.88     | -              | 2.580% | 111,084.88     | 111,084.88     |
| 08/01/2021 | -              | 111,084.88        | 111,084.88     | -              | -      | 111,084.88     | 111,084.88     |
| 02/01/2022 | 6,205,000.00   | 111,084.88        | 6,316,084.88   | -              | 2.730% | 111,084.88     | 111,084.88     |
| 08/01/2022 | -              | -                 | -              | -              | -      | 111,084.88     | 111,084.88     |
| 02/01/2023 | -              | -                 | -              | 430,000.00     | 2.870% | 111,084.88     | 541,084.88     |
| 08/01/2023 | -              | -                 | -              | -              | -      | 104,914.38     | 104,914.38     |
| 02/01/2024 | -              | -                 | -              | 440,000.00     | 3.000% | 104,914.38     | 544,914.38     |
| 08/01/2024 | -              | -                 | -              | -              | -      | 98,314.38      | 98,314.38      |
| 02/01/2025 | -              | -                 | -              | 455,000.00     | 3.000% | 98,314.38      | 553,314.38     |
| 08/01/2025 | -              | -                 | -              | -              | -      | 91,489.38      | 91,489.38      |
| 02/01/2026 | -              | -                 | -              | 470,000.00     | 3.250% | 91,489.38      | 561,489.38     |
| 08/01/2026 | -              | -                 | -              | -              | -      | 83,851.88      | 83,851.88      |
| 02/01/2027 | -              | -                 | -              | 485,000.00     | 3.375% | 83,851.88      | 568,851.88     |
| 08/01/2027 | -              | -                 | -              | -              | -      | 75,667.50      | 75,667.50      |
| 02/01/2028 | -              | -                 | -              | 500,000.00     | 3.500% | 75,667.50      | 575,667.50     |
| 08/01/2028 | -              | -                 | -              | -              | -      | 66,917.50      | 66,917.50      |
| 02/01/2029 | -              | -                 | -              | 520,000.00     | 3.700% | 66,917.50      | 586,917.50     |
| 08/01/2029 | -              | -                 | -              | -              | -      | 57,297.50      | 57,297.50      |
| 02/01/2030 | -              | -                 | -              | 535,000.00     | 3.700% | 57,297.50      | 592,297.50     |
| 08/01/2030 | -              | -                 | -              | -              | -      | 47,400.00      | 47,400.00      |
| 02/01/2031 | -              | -                 | -              | 555,000.00     | 4.000% | 47,400.00      | 602,400.00     |
| 08/01/2031 | -              | -                 | -              | -              | -      | 36,300.00      | 36,300.00      |
| 02/01/2032 | -              | -                 | -              | 580,000.00     | 4.000% | 36,300.00      | 616,300.00     |
| 08/01/2032 | -              | -                 | -              | -              | -      | 24,700.00      | 24,700.00      |
| 02/01/2033 | -              | -                 | -              | 605,000.00     | 4.000% | 24,700.00      | 629,700.00     |
| 08/01/2033 | -              | -                 | -              | -              | -      | 12,600.00      | 12,600.00      |
| 02/01/2034 | -              | -                 | -              | 630,000.00     | 4.000% | 12,600.00      | 642,600.00     |
| Total      | \$6,205,000.00 | \$333,254.63      | \$6,538,254.63 | \$6,205,000.00 | -      | \$1,954,329.38 | \$8,159,329.38 |

**Yield Statistics**

|  |             |
|--|-------------|
| Base date for Avg. Life & Avg. Coupon Calculation..... | 12/17/2020  |
| Average Life.....                                      | 8.038 Years |
| Average Coupon.....                                    | 3.7502937%  |
| Weighted Average Maturity (Par Basis).....             | 8.038 Years |
| Weighted Average Maturity (Original Price Basis).....  | 8.045 Years |

**Refunding Bond Information**

|                              |            |
|------------------------------|------------|
| Refunding Dated Date.....    | 12/17/2020 |
| Refunding Delivery Date..... | 12/17/2020 |

**\$3,300,000**

**Ramsey County, Minnesota**  
General Obligation Library Bonds, Series 2014C

**Debt Service To Maturity And To Call**

| Date       | Refunded Bonds | Refunded Interest | D/S To Call    | Principal      | Coupon | Interest     | Refunded D/S   |
|------------|----------------|-------------------|----------------|----------------|--------|--------------|----------------|
| 12/17/2020 | -              | -                 | -              | -              | -      | -            | -              |
| 02/01/2021 | -              | 36,568.75         | 36,568.75      | -              | 3.000% | 36,568.75    | 36,568.75      |
| 08/01/2021 | -              | 36,568.75         | 36,568.75      | -              | -      | 36,568.75    | 36,568.75      |
| 02/01/2022 | 2,430,000.00   | 36,568.75         | 2,466,568.75   | -              | 3.000% | 36,568.75    | 36,568.75      |
| 08/01/2022 | -              | -                 | -              | -              | -      | 36,568.75    | 36,568.75      |
| 02/01/2023 | -              | -                 | -              | 145,000.00     | 2.000% | 36,568.75    | 181,568.75     |
| 08/01/2023 | -              | -                 | -              | -              | -      | 35,118.75    | 35,118.75      |
| 02/01/2024 | -              | -                 | -              | 145,000.00     | 2.125% | 35,118.75    | 180,118.75     |
| 08/01/2024 | -              | -                 | -              | -              | -      | 33,578.13    | 33,578.13      |
| 02/01/2025 | -              | -                 | -              | 185,000.00     | 3.000% | 33,578.13    | 218,578.13     |
| 08/01/2025 | -              | -                 | -              | -              | -      | 30,803.13    | 30,803.13      |
| 02/01/2026 | -              | -                 | -              | 190,000.00     | 3.000% | 30,803.13    | 220,803.13     |
| 08/01/2026 | -              | -                 | -              | -              | -      | 27,953.13    | 27,953.13      |
| 02/01/2027 | -              | -                 | -              | 195,000.00     | 3.000% | 27,953.13    | 222,953.13     |
| 08/01/2027 | -              | -                 | -              | -              | -      | 25,028.13    | 25,028.13      |
| 02/01/2028 | -              | -                 | -              | 205,000.00     | 3.000% | 25,028.13    | 230,028.13     |
| 08/01/2028 | -              | -                 | -              | -              | -      | 21,953.13    | 21,953.13      |
| 02/01/2029 | -              | -                 | -              | 210,000.00     | 3.000% | 21,953.13    | 231,953.13     |
| 08/01/2029 | -              | -                 | -              | -              | -      | 18,803.13    | 18,803.13      |
| 02/01/2030 | -              | -                 | -              | 215,000.00     | 3.000% | 18,803.13    | 233,803.13     |
| 08/01/2030 | -              | -                 | -              | -              | -      | 15,578.13    | 15,578.13      |
| 02/01/2031 | -              | -                 | -              | 225,000.00     | 3.250% | 15,578.13    | 240,578.13     |
| 08/01/2031 | -              | -                 | -              | -              | -      | 11,921.88    | 11,921.88      |
| 02/01/2032 | -              | -                 | -              | 230,000.00     | 3.250% | 11,921.88    | 241,921.88     |
| 08/01/2032 | -              | -                 | -              | -              | -      | 8,184.38     | 8,184.38       |
| 02/01/2033 | -              | -                 | -              | 240,000.00     | 3.375% | 8,184.38     | 248,184.38     |
| 08/01/2033 | -              | -                 | -              | -              | -      | 4,134.38     | 4,134.38       |
| 02/01/2034 | -              | -                 | -              | 245,000.00     | 3.375% | 4,134.38     | 249,134.38     |
| Total      | \$2,430,000.00 | \$109,706.25      | \$2,539,706.25 | \$2,430,000.00 | -      | \$648,956.25 | \$3,078,956.25 |

**Yield Statistics**

|  |             |
|--|-------------|
| Base date for Avg. Life & Avg. Coupon Calculation..... | 12/17/2020  |
| Average Life.....                                      | 8.139 Years |
| Average Coupon.....                                    | 3.1416622%  |
| Weighted Average Maturity (Par Basis).....             | 8.139 Years |
| Weighted Average Maturity (Original Price Basis).....  | 8.117 Years |

**Refunding Bond Information**

|                              |            |
|------------------------------|------------|
| Refunding Dated Date.....    | 12/17/2020 |
| Refunding Delivery Date..... | 12/17/2020 |

**\$28,030,000**

**Ramsey County, Minnesota**  
**Taxable General Obligation Refunding Bonds, Series 2020B**  
**Issue Summary**

**NET DEBT SERVICE SCHEDULE**

| Date       | Principal       | Coupon | Interest       | Total P+I       | Existing D/S   | Net New D/S     | 105% Overlevy   | Fiscal Total |
|------------|-----------------|--------|----------------|-----------------|----------------|-----------------|-----------------|--------------|
| 12/17/2020 | -               | -      | -              | -               | -              | -               | -               | -            |
| 02/01/2021 | 145,000.00      | 0.500% | 43,862.81      | 188,862.81      | 2,324,840.75   | 2,513,703.56    | 2,639,388.74    | 2,639,388.74 |
| 08/01/2021 | -               | -      | 179,076.25     | 179,076.25      | 28,633.00      | 207,709.25      | 218,094.71      | -            |
| 02/01/2022 | 935,000.00      | 0.550% | 179,076.25     | 1,114,076.25    | 1,628,633.00   | 2,742,709.25    | 2,879,844.71    | 3,097,939.43 |
| 08/01/2022 | -               | -      | 176,505.00     | 176,505.00      | -              | 176,505.00      | 185,330.25      | -            |
| 02/01/2023 | 2,315,000.00    | 0.600% | 176,505.00     | 2,491,505.00    | -              | 2,491,505.00    | 2,616,080.25    | 2,801,410.50 |
| 08/01/2023 | -               | -      | 169,560.00     | 169,560.00      | -              | 169,560.00      | 178,038.00      | -            |
| 02/01/2024 | 2,315,000.00    | 0.750% | 169,560.00     | 2,484,560.00    | -              | 2,484,560.00    | 2,608,788.00    | 2,786,826.00 |
| 08/01/2024 | -               | -      | 160,878.75     | 160,878.75      | -              | 160,878.75      | 168,922.69      | -            |
| 02/01/2025 | 2,360,000.00    | 0.950% | 160,878.75     | 2,520,878.75    | -              | 2,520,878.75    | 2,646,922.69    | 2,815,845.38 |
| 08/01/2025 | -               | -      | 149,668.75     | 149,668.75      | -              | 149,668.75      | 157,152.19      | -            |
| 02/01/2026 | 2,385,000.00    | 1.200% | 149,668.75     | 2,534,668.75    | -              | 2,534,668.75    | 2,661,402.19    | 2,818,554.38 |
| 08/01/2026 | -               | -      | 135,358.75     | 135,358.75      | -              | 135,358.75      | 142,126.69      | -            |
| 02/01/2027 | 2,400,000.00    | 1.300% | 135,358.75     | 2,535,358.75    | -              | 2,535,358.75    | 2,662,126.69    | 2,804,253.38 |
| 08/01/2027 | -               | -      | 119,758.75     | 119,758.75      | -              | 119,758.75      | 125,746.69      | -            |
| 02/01/2028 | 2,425,000.00    | 1.450% | 119,758.75     | 2,544,758.75    | -              | 2,544,758.75    | 2,671,996.69    | 2,797,743.38 |
| 08/01/2028 | -               | -      | 102,177.50     | 102,177.50      | -              | 102,177.50      | 107,286.38      | -            |
| 02/01/2029 | 2,455,000.00    | 1.500% | 102,177.50     | 2,557,177.50    | -              | 2,557,177.50    | 2,685,036.38    | 2,792,322.75 |
| 08/01/2029 | -               | -      | 83,765.00      | 83,765.00       | -              | 83,765.00       | 87,953.25       | -            |
| 02/01/2030 | 2,625,000.00    | 1.550% | 83,765.00      | 2,708,765.00    | -              | 2,708,765.00    | 2,844,203.25    | 2,932,156.50 |
| 08/01/2030 | -               | -      | 63,421.25      | 63,421.25       | -              | 63,421.25       | 66,592.31       | -            |
| 02/01/2031 | 2,630,000.00    | 1.600% | 63,421.25      | 2,693,421.25    | -              | 2,693,421.25    | 2,828,092.31    | 2,894,684.63 |
| 08/01/2031 | -               | -      | 42,381.25      | 42,381.25       | -              | 42,381.25       | 44,500.31       | -            |
| 02/01/2032 | 2,660,000.00    | 1.650% | 42,381.25      | 2,702,381.25    | -              | 2,702,381.25    | 2,837,500.31    | 2,882,000.63 |
| 08/01/2032 | -               | -      | 20,436.25      | 20,436.25       | -              | 20,436.25       | 21,458.06       | -            |
| 02/01/2033 | 1,555,000.00    | 1.700% | 20,436.25      | 1,575,436.25    | -              | 1,575,436.25    | 1,654,208.06    | 1,675,666.13 |
| 08/01/2033 | -               | -      | 7,218.75       | 7,218.75        | -              | 7,218.75        | 7,579.69        | -            |
| 02/01/2034 | 825,000.00      | 1.750% | 7,218.75       | 832,218.75      | -              | 832,218.75      | 873,829.69      | 881,409.38   |
| Total      | \$28,030,000.00 | -      | \$2,864,275.31 | \$30,894,275.31 | \$3,982,106.75 | \$34,876,382.06 | \$36,620,201.16 | -            |

**SIGNIFICANT DATES**

|                        |            |
|------------------------|------------|
| Dated Date.....        | 12/17/2020 |
| Delivery Date.....     | 12/17/2020 |
| First Coupon Date..... | 2/01/2021  |

**Yield Statistics**

|  |              |
|--|--------------|
| Bond Year Dollars.....                 | \$196,885.89 |
| Average Life.....                      | 7.024 Years  |
| Average Coupon.....                    | 1.4547895%   |
| Net Interest Cost (NIC).....           | 1.5686829%   |
| True Interest Cost (TIC).....          | 1.5710403%   |
| Bond Yield for Arbitrage Purposes..... | 1.4378767%   |
| All Inclusive Cost (AIC).....          | 1.6669628%   |

**IRS Form 8038**

|                                |             |
|--------------------------------|-------------|
| Net Interest Cost.....         | 1.4547895%  |
| Weighted Average Maturity..... | 7.024 Years |

**\$10,545,000**

**Ramsey County, Minnesota**  
Taxable General Obligation Refunding Bonds, Series 2020B  
Advance Refunding of Series 2012A Bonds

**NET DEBT SERVICE SCHEDULE**

| Date       | Principal       | Coupon | Interest     | Total P+I       | Existing D/S   | Net New D/S     | 105% Overlevy   | Fiscal Total |
|------------|-----------------|--------|--------------|-----------------|----------------|-----------------|-----------------|--------------|
| 12/17/2020 | -               | -      | -            | -               | -              | -               | -               | -            |
| 02/01/2021 | 80,000.00       | 0.500% | 16,192.61    | 96,192.61       | 1,045,900.00   | 1,142,092.61    | 1,199,197.24    | 1,199,197.24 |
| 08/01/2021 | -               | -      | 66,042.50    | 66,042.50       | 20,800.00      | 86,842.50       | 91,184.63       | -            |
| 02/01/2022 | 165,000.00      | 0.550% | 66,042.50    | 231,042.50      | 1,060,800.00   | 1,291,842.50    | 1,356,434.63    | 1,447,619.25 |
| 08/01/2022 | -               | -      | 65,588.75    | 65,588.75       | -              | 65,588.75       | 68,868.19       | -            |
| 02/01/2023 | 970,000.00      | 0.600% | 65,588.75    | 1,035,588.75    | -              | 1,035,588.75    | 1,087,368.19    | 1,156,236.38 |
| 08/01/2023 | -               | -      | 62,678.75    | 62,678.75       | -              | 62,678.75       | 65,812.69       | -            |
| 02/01/2024 | 970,000.00      | 0.750% | 62,678.75    | 1,032,678.75    | -              | 1,032,678.75    | 1,084,312.69    | 1,150,125.38 |
| 08/01/2024 | -               | -      | 59,041.25    | 59,041.25       | -              | 59,041.25       | 61,993.31       | -            |
| 02/01/2025 | 970,000.00      | 0.950% | 59,041.25    | 1,029,041.25    | -              | 1,029,041.25    | 1,080,493.31    | 1,142,486.63 |
| 08/01/2025 | -               | -      | 54,433.75    | 54,433.75       | -              | 54,433.75       | 57,155.44       | -            |
| 02/01/2026 | 980,000.00      | 1.200% | 54,433.75    | 1,034,433.75    | -              | 1,034,433.75    | 1,086,155.44    | 1,143,310.88 |
| 08/01/2026 | -               | -      | 48,553.75    | 48,553.75       | -              | 48,553.75       | 50,981.44       | -            |
| 02/01/2027 | 985,000.00      | 1.300% | 48,553.75    | 1,033,553.75    | -              | 1,033,553.75    | 1,085,231.44    | 1,136,212.88 |
| 08/01/2027 | -               | -      | 42,151.25    | 42,151.25       | -              | 42,151.25       | 44,258.81       | -            |
| 02/01/2028 | 990,000.00      | 1.450% | 42,151.25    | 1,032,151.25    | -              | 1,032,151.25    | 1,083,758.81    | 1,128,017.63 |
| 08/01/2028 | -               | -      | 34,973.75    | 34,973.75       | -              | 34,973.75       | 36,722.44       | -            |
| 02/01/2029 | 1,000,000.00    | 1.500% | 34,973.75    | 1,034,973.75    | -              | 1,034,973.75    | 1,086,722.44    | 1,123,444.88 |
| 08/01/2029 | -               | -      | 27,473.75    | 27,473.75       | -              | 27,473.75       | 28,847.44       | -            |
| 02/01/2030 | 1,160,000.00    | 1.550% | 27,473.75    | 1,187,473.75    | -              | 1,187,473.75    | 1,246,847.44    | 1,275,694.88 |
| 08/01/2030 | -               | -      | 18,483.75    | 18,483.75       | -              | 18,483.75       | 19,407.94       | -            |
| 02/01/2031 | 1,140,000.00    | 1.600% | 18,483.75    | 1,158,483.75    | -              | 1,158,483.75    | 1,216,407.94    | 1,235,815.88 |
| 08/01/2031 | -               | -      | 9,363.75     | 9,363.75        | -              | 9,363.75        | 9,831.94        | -            |
| 02/01/2032 | 1,135,000.00    | 1.650% | 9,363.75     | 1,144,363.75    | -              | 1,144,363.75    | 1,201,581.94    | 1,211,413.88 |
| Total      | \$10,545,000.00 | -      | \$993,762.61 | \$11,538,762.61 | \$2,127,500.00 | \$13,666,262.61 | \$14,349,575.74 | -            |

**SIGNIFICANT DATES**

|                        |            |
|------------------------|------------|
| Dated Date.....        | 12/17/2020 |
| Delivery Date.....     | 12/17/2020 |
| First Coupon Date..... | 2/01/2021  |

**Yield Statistics**

|  |             |
|--|-------------|
| Bond Year Dollars.....                 | \$70,248.83 |
| Average Life.....                      | 6.662 Years |
| Average Coupon.....                    | 1.4146322%  |
| Net Interest Cost (NIC).....           | 1.5347196%  |
| True Interest Cost (TIC).....          | 1.5376102%  |
| Bond Yield for Arbitrage Purposes..... | 1.4378767%  |
| All Inclusive Cost (AIC).....          | 1.6381713%  |

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|                                |             |
|--------------------------------|-------------|
| Net Interest Cost.....         | 1.4146322%  |
| Weighted Average Maturity..... | 6.662 Years |

**\$8,285,000**

**Ramsey County, Minnesota**  
Taxable General Obligation Refunding Bonds, Series 2020B  
Current Refunding of Series 2013B Bonds (TCAAP)

**NET DEBT SERVICE SCHEDULE**

| Date       | Principal      | Coupon | Interest     | Total P+I      | Existing D/S | Net New D/S    | 105% Overlevy   | Fiscal Total |
|------------|----------------|--------|--------------|----------------|--------------|----------------|-----------------|--------------|
| 12/17/2020 | -              | -      | -            | -              | -            | -              | -               | -            |
| 02/01/2021 | -              | -      | 12,606.92    | 12,606.92      | 718,793.75   | 731,400.67     | 767,970.70      | 767,970.70   |
| 08/01/2021 | -              | -      | 51,573.75    | 51,573.75      | -            | 51,573.75      | 54,152.44       | -            |
| 02/01/2022 | 665,000.00     | 0.550% | 51,573.75    | 716,573.75     | -            | 716,573.75     | 752,402.44      | 806,554.88   |
| 08/01/2022 | -              | -      | 49,745.00    | 49,745.00      | -            | 49,745.00      | 52,232.25       | -            |
| 02/01/2023 | 665,000.00     | 0.600% | 49,745.00    | 714,745.00     | -            | 714,745.00     | 750,482.25      | 802,714.50   |
| 08/01/2023 | -              | -      | 47,750.00    | 47,750.00      | -            | 47,750.00      | 50,137.50       | -            |
| 02/01/2024 | 670,000.00     | 0.750% | 47,750.00    | 717,750.00     | -            | 717,750.00     | 753,637.50      | 803,775.00   |
| 08/01/2024 | -              | -      | 45,237.50    | 45,237.50      | -            | 45,237.50      | 47,499.38       | -            |
| 02/01/2025 | 670,000.00     | 0.950% | 45,237.50    | 715,237.50     | -            | 715,237.50     | 750,999.38      | 798,498.75   |
| 08/01/2025 | -              | -      | 42,055.00    | 42,055.00      | -            | 42,055.00      | 44,157.75       | -            |
| 02/01/2026 | 680,000.00     | 1.200% | 42,055.00    | 722,055.00     | -            | 722,055.00     | 758,157.75      | 802,315.50   |
| 08/01/2026 | -              | -      | 37,975.00    | 37,975.00      | -            | 37,975.00      | 39,873.75       | -            |
| 02/01/2027 | 680,000.00     | 1.300% | 37,975.00    | 717,975.00     | -            | 717,975.00     | 753,873.75      | 793,747.50   |
| 08/01/2027 | -              | -      | 33,555.00    | 33,555.00      | -            | 33,555.00      | 35,232.75       | -            |
| 02/01/2028 | 685,000.00     | 1.450% | 33,555.00    | 718,555.00     | -            | 718,555.00     | 754,482.75      | 789,715.50   |
| 08/01/2028 | -              | -      | 28,588.75    | 28,588.75      | -            | 28,588.75      | 30,018.19       | -            |
| 02/01/2029 | 695,000.00     | 1.500% | 28,588.75    | 723,588.75     | -            | 723,588.75     | 759,768.19      | 789,786.38   |
| 08/01/2029 | -              | -      | 23,376.25    | 23,376.25      | -            | 23,376.25      | 24,545.06       | -            |
| 02/01/2030 | 700,000.00     | 1.550% | 23,376.25    | 723,376.25     | -            | 723,376.25     | 759,545.06      | 784,090.13   |
| 08/01/2030 | -              | -      | 17,951.25    | 17,951.25      | -            | 17,951.25      | 18,848.81       | -            |
| 02/01/2031 | 710,000.00     | 1.600% | 17,951.25    | 727,951.25     | -            | 727,951.25     | 764,348.81      | 783,197.63   |
| 08/01/2031 | -              | -      | 12,271.25    | 12,271.25      | -            | 12,271.25      | 12,884.81       | -            |
| 02/01/2032 | 725,000.00     | 1.650% | 12,271.25    | 737,271.25     | -            | 737,271.25     | 774,134.81      | 787,019.63   |
| 08/01/2032 | -              | -      | 6,290.00     | 6,290.00       | -            | 6,290.00       | 6,604.50        | -            |
| 02/01/2033 | 740,000.00     | 1.700% | 6,290.00     | 746,290.00     | -            | 746,290.00     | 783,604.50      | 790,209.00   |
| Total      | \$8,285,000.00 | -      | \$805,344.42 | \$9,090,344.42 | \$718,793.75 | \$9,809,138.17 | \$10,299,595.08 | -            |

**SIGNIFICANT DATES**

|                        |            |
|------------------------|------------|
| Dated Date.....        | 12/17/2020 |
| Delivery Date.....     | 12/17/2020 |
| First Coupon Date..... | 2/01/2021  |

**Yield Statistics**

|  |             |
|--|-------------|
| Bond Year Dollars.....                 | \$55,787.61 |
| Average Life.....                      | 6.734 Years |
| Average Coupon.....                    | 1.4435901%  |
| Net Interest Cost (NIC).....           | 1.5623978%  |
| True Interest Cost (TIC).....          | 1.5646990%  |
| Bond Yield for Arbitrage Purposes..... | 1.4378767%  |
| All Inclusive Cost (AIC).....          | 1.6646536%  |

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|                                |             |
|--------------------------------|-------------|
| Net Interest Cost.....         | 1.4435901%  |
| Weighted Average Maturity..... | 6.734 Years |

**\$6,625,000**

**Ramsey County, Minnesota**  
Taxable General Obligation Refunding Bonds, Series 2020B  
Advance Refunding of Series 2014B Bonds (TCAAP)

**NET DEBT SERVICE SCHEDULE**

| Date       | Principal      | Coupon | Interest     | Total P+I      | Existing D/S | Net New D/S    | 105%<br>Overlevy | Fiscal Total |
|------------|----------------|--------|--------------|----------------|--------------|----------------|------------------|--------------|
| 12/17/2020 | -              | -      | -            | -              | -            | -              | -                | -            |
| 02/01/2021 | 45,000.00      | 0.500% | 10,799.25    | 55,799.25      | 421,022.00   | 476,821.25     | 500,662.31       | 500,662.31   |
| 08/01/2021 | -              | -      | 44,066.25    | 44,066.25      | 5,733.00     | 49,799.25      | 52,289.21        | -            |
| 02/01/2022 | 80,000.00      | 0.550% | 44,066.25    | 124,066.25     | 425,733.00   | 549,799.25     | 577,289.21       | 629,578.43   |
| 08/01/2022 | -              | -      | 43,846.25    | 43,846.25      | -            | 43,846.25      | 46,038.56        | -            |
| 02/01/2023 | 510,000.00     | 0.600% | 43,846.25    | 553,846.25     | -            | 553,846.25     | 581,538.56       | 627,577.13   |
| 08/01/2023 | -              | -      | 42,316.25    | 42,316.25      | -            | 42,316.25      | 44,432.06        | -            |
| 02/01/2024 | 510,000.00     | 0.750% | 42,316.25    | 552,316.25     | -            | 552,316.25     | 579,932.06       | 624,364.13   |
| 08/01/2024 | -              | -      | 40,403.75    | 40,403.75      | -            | 40,403.75      | 42,423.94        | -            |
| 02/01/2025 | 515,000.00     | 0.950% | 40,403.75    | 555,403.75     | -            | 555,403.75     | 583,173.94       | 625,597.88   |
| 08/01/2025 | -              | -      | 37,957.50    | 37,957.50      | -            | 37,957.50      | 39,855.38        | -            |
| 02/01/2026 | 520,000.00     | 1.200% | 37,957.50    | 557,957.50     | -            | 557,957.50     | 585,855.38       | 625,710.75   |
| 08/01/2026 | -              | -      | 34,837.50    | 34,837.50      | -            | 34,837.50      | 36,579.38        | -            |
| 02/01/2027 | 525,000.00     | 1.300% | 34,837.50    | 559,837.50     | -            | 559,837.50     | 587,829.38       | 624,408.75   |
| 08/01/2027 | -              | -      | 31,425.00    | 31,425.00      | -            | 31,425.00      | 32,996.25        | -            |
| 02/01/2028 | 535,000.00     | 1.450% | 31,425.00    | 566,425.00     | -            | 566,425.00     | 594,746.25       | 627,742.50   |
| 08/01/2028 | -              | -      | 27,546.25    | 27,546.25      | -            | 27,546.25      | 28,923.56        | -            |
| 02/01/2029 | 545,000.00     | 1.500% | 27,546.25    | 572,546.25     | -            | 572,546.25     | 601,173.56       | 630,097.13   |
| 08/01/2029 | -              | -      | 23,458.75    | 23,458.75      | -            | 23,458.75      | 24,631.69        | -            |
| 02/01/2030 | 545,000.00     | 1.550% | 23,458.75    | 568,458.75     | -            | 568,458.75     | 596,881.69       | 621,513.38   |
| 08/01/2030 | -              | -      | 19,235.00    | 19,235.00      | -            | 19,235.00      | 20,196.75        | -            |
| 02/01/2031 | 555,000.00     | 1.600% | 19,235.00    | 574,235.00     | -            | 574,235.00     | 602,946.75       | 623,143.50   |
| 08/01/2031 | -              | -      | 14,795.00    | 14,795.00      | -            | 14,795.00      | 15,534.75        | -            |
| 02/01/2032 | 570,000.00     | 1.650% | 14,795.00    | 584,795.00     | -            | 584,795.00     | 614,034.75       | 629,569.50   |
| 08/01/2032 | -              | -      | 10,092.50    | 10,092.50      | -            | 10,092.50      | 10,597.13        | -            |
| 02/01/2033 | 580,000.00     | 1.700% | 10,092.50    | 590,092.50     | -            | 590,092.50     | 619,597.13       | 630,194.25   |
| 08/01/2033 | -              | -      | 5,162.50     | 5,162.50       | -            | 5,162.50       | 5,420.63         | -            |
| 02/01/2034 | 590,000.00     | 1.750% | 5,162.50     | 595,162.50     | -            | 595,162.50     | 624,920.63       | 630,341.25   |
| Total      | \$6,625,000.00 | -      | \$761,084.25 | \$7,386,084.25 | \$852,488.00 | \$8,238,572.25 | \$8,650,500.86   | -            |

**SIGNIFICANT DATES**

|                        |            |
|------------------------|------------|
| Dated Date.....        | 12/17/2020 |
| Delivery Date.....     | 12/17/2020 |
| First Coupon Date..... | 2/01/2021  |

**Yield Statistics**

|  |             |
|--|-------------|
| Bond Year Dollars.....                 | \$50,709.72 |
| Average Life.....                      | 7.654 Years |
| Average Coupon.....                    | 1.5008646%  |
| Net Interest Cost (NIC).....           | 1.6053810%  |
| True Interest Cost (TIC).....          | 1.6075169%  |
| Bond Yield for Arbitrage Purposes..... | 1.4378767%  |
| All Inclusive Cost (AIC).....          | 1.6961305%  |

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|                                |             |
|--------------------------------|-------------|
| Net Interest Cost.....         | 1.5008646%  |
| Weighted Average Maturity..... | 7.654 Years |

File | Refunding Ramsey County MN.sf | 2020 TX GO Ref Bonds - Re | Advance Refunding of Seri | 10/ 3/2020 | 10:14 PM

**\$2,575,000**

**Ramsey County, Minnesota**  
Taxable General Obligation Refunding Bonds, Series 2020B  
Advance Refunding of Series 2014C Bonds

**NET DEBT SERVICE SCHEDULE**

| Date       | Principal      | Coupon | Interest     | Total P+I      | Existing D/S | Net New D/S    | 105%<br>Overlevy | Fiscal Total |
|------------|----------------|--------|--------------|----------------|--------------|----------------|------------------|--------------|
| 12/17/2020 | -              | -      | -            | -              | -            | -              | -                | -            |
| 02/01/2021 | 20,000.00      | 0.500% | 4,264.03     | 24,264.03      | 139,125.00   | 163,389.03     | 171,558.48       | 171,558.48   |
| 08/01/2021 | -              | -      | 17,393.75    | 17,393.75      | 2,100.00     | 19,493.75      | 20,468.44        | -            |
| 02/01/2022 | 25,000.00      | 0.550% | 17,393.75    | 42,393.75      | 142,100.00   | 184,493.75     | 193,718.44       | 214,186.88   |
| 08/01/2022 | -              | -      | 17,325.00    | 17,325.00      | -            | 17,325.00      | 18,191.25        | -            |
| 02/01/2023 | 170,000.00     | 0.600% | 17,325.00    | 187,325.00     | -            | 187,325.00     | 196,691.25       | 214,882.50   |
| 08/01/2023 | -              | -      | 16,815.00    | 16,815.00      | -            | 16,815.00      | 17,655.75        | -            |
| 02/01/2024 | 165,000.00     | 0.750% | 16,815.00    | 181,815.00     | -            | 181,815.00     | 190,905.75       | 208,561.50   |
| 08/01/2024 | -              | -      | 16,196.25    | 16,196.25      | -            | 16,196.25      | 17,006.06        | -            |
| 02/01/2025 | 205,000.00     | 0.950% | 16,196.25    | 221,196.25     | -            | 221,196.25     | 232,256.06       | 249,262.13   |
| 08/01/2025 | -              | -      | 15,222.50    | 15,222.50      | -            | 15,222.50      | 15,983.63        | -            |
| 02/01/2026 | 205,000.00     | 1.200% | 15,222.50    | 220,222.50     | -            | 220,222.50     | 231,233.63       | 247,217.25   |
| 08/01/2026 | -              | -      | 13,992.50    | 13,992.50      | -            | 13,992.50      | 14,692.13        | -            |
| 02/01/2027 | 210,000.00     | 1.300% | 13,992.50    | 223,992.50     | -            | 223,992.50     | 235,192.13       | 249,884.25   |
| 08/01/2027 | -              | -      | 12,627.50    | 12,627.50      | -            | 12,627.50      | 13,258.88        | -            |
| 02/01/2028 | 215,000.00     | 1.450% | 12,627.50    | 227,627.50     | -            | 227,627.50     | 239,008.88       | 252,267.75   |
| 08/01/2028 | -              | -      | 11,068.75    | 11,068.75      | -            | 11,068.75      | 11,622.19        | -            |
| 02/01/2029 | 215,000.00     | 1.500% | 11,068.75    | 226,068.75     | -            | 226,068.75     | 237,372.19       | 248,994.38   |
| 08/01/2029 | -              | -      | 9,456.25     | 9,456.25       | -            | 9,456.25       | 9,929.06         | -            |
| 02/01/2030 | 220,000.00     | 1.550% | 9,456.25     | 229,456.25     | -            | 229,456.25     | 240,929.06       | 250,858.13   |
| 08/01/2030 | -              | -      | 7,751.25     | 7,751.25       | -            | 7,751.25       | 8,138.81         | -            |
| 02/01/2031 | 225,000.00     | 1.600% | 7,751.25     | 232,751.25     | -            | 232,751.25     | 244,388.81       | 252,527.63   |
| 08/01/2031 | -              | -      | 5,951.25     | 5,951.25       | -            | 5,951.25       | 6,248.81         | -            |
| 02/01/2032 | 230,000.00     | 1.650% | 5,951.25     | 235,951.25     | -            | 235,951.25     | 247,748.81       | 253,997.63   |
| 08/01/2032 | -              | -      | 4,053.75     | 4,053.75       | -            | 4,053.75       | 4,256.44         | -            |
| 02/01/2033 | 235,000.00     | 1.700% | 4,053.75     | 239,053.75     | -            | 239,053.75     | 251,006.44       | 255,262.88   |
| 08/01/2033 | -              | -      | 2,056.25     | 2,056.25       | -            | 2,056.25       | 2,159.06         | -            |
| 02/01/2034 | 235,000.00     | 1.750% | 2,056.25     | 237,056.25     | -            | 237,056.25     | 248,909.06       | 251,068.13   |
| Total      | \$2,575,000.00 | -      | \$304,084.03 | \$2,879,084.03 | \$283,325.00 | \$3,162,409.03 | \$3,320,529.48   | -            |

**SIGNIFICANT DATES**

|                        |            |
|------------------------|------------|
| Dated Date.....        | 12/17/2020 |
| Delivery Date.....     | 12/17/2020 |
| First Coupon Date..... | 2/01/2021  |

**Yield Statistics**

|  |             |
|--|-------------|
| Bond Year Dollars.....                 | \$20,139.72 |
| Average Life.....                      | 7.821 Years |
| Average Coupon.....                    | 1.5098720%  |
| Net Interest Cost (NIC).....           | 1.6121574%  |
| True Interest Cost (TIC).....          | 1.6145911%  |
| Bond Yield for Arbitrage Purposes..... | 1.4378767%  |
| All Inclusive Cost (AIC).....          | 1.7014066%  |

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|                                |             |
|--------------------------------|-------------|
| Net Interest Cost.....         | 1.5098720%  |
| Weighted Average Maturity..... | 7.821 Years |

File | Refunding Ramsey County MN.sf | 2020 TX GO Ref Bonds - Re | Advance Refunding of Seri | 10/ 3/2020 | 10:14 PM

**\$19,745,000**

**Ramsey County, Minnesota**  
Taxable General Obligation Refunding Bonds, Series 2020B  
Advance Refunding Summary

**Escrow Fund Cashflow**

| Date       | Principal       | Rate   | Interest     | Receipts        | Disbursements   | Cash Balance |
|------------|-----------------|--------|--------------|-----------------|-----------------|--------------|
| 12/17/2020 | -               | -      | -            | 130.17          | -               | 130.17       |
| 01/28/2021 | 68,000.00       | 0.110% | -            | 68,000.00       | -               | 68,130.17    |
| 01/31/2021 | -               | -      | 43,502.50    | 43,502.50       | -               | 111,632.67   |
| 02/01/2021 | 231,134.00      | 0.070% | 1,735.13     | 232,869.13      | 343,953.63      | 548.18       |
| 07/31/2021 | 68,000.00       | 1.125% | 43,502.50    | 111,502.50      | -               | 112,050.68   |
| 08/01/2021 | 225,856.00      | 0.110% | 7,013.54     | 232,869.54      | 343,953.63      | 966.59       |
| 01/31/2022 | 6,272,000.00    | 1.375% | 43,120.00    | 6,315,120.00    | -               | 6,316,086.59 |
| 02/01/2022 | 12,471,008.00   | 0.110% | 6,859.04     | 12,477,867.04   | 18,793,953.63   | -            |
| Total      | \$19,335,998.00 | -      | \$145,732.71 | \$19,481,860.88 | \$19,481,860.88 | -            |

**Investment Parameters**

|   |                 |
|---|-----------------|
| Investment Model [PV, GIC, or Securities].....          | Securities      |
| Default investment yield target.....                    | Bond Yield      |
| Cash Deposit.....                                       | 130.17          |
| Cost of Investments Purchased w ith Bond Proceeds.....  | 19,456,497.57   |
| Total Cost of Investments.....                          | \$19,456,627.74 |
| Target Cost of Investments at bond yield.....           | \$19,178,434.15 |
| Actual positive or (negative) arbitrage.....            | (278,193.59)    |
| Yield to Receipt.....                                   | 0.1183248%      |
| Yield for Arbitrage Purposes.....                       | 1.4378767%      |
| State and Local Government Series (SLGS) rates for..... | 8/21/2020       |

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**\$8,285,000**

**Ramsey County, Minnesota**  
Taxable General Obligation Refunding Bonds, Series 2020B  
Current Refunding of Series 2013B Bonds (TCAAP)

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**Current Refunding Escrow**

| Date       | Principal      | Rate | Receipts       | Disbursements  | Cash Balance |
|------------|----------------|------|----------------|----------------|--------------|
| 12/17/2020 | -              | -    | -              | -              | -            |
| 02/01/2021 | 8,170,000.00   | -    | 8,170,000.00   | 8,170,000.00   | -            |
| Total      | \$8,170,000.00 | -    | \$8,170,000.00 | \$8,170,000.00 | -            |

**Investment Parameters**

Investment Model [PV, GIC, or Securities]..... GIC  
Default investment yield target..... Unrestricted