

**COMMITTEE OF THE WHOLE
NOVEMBER 14, 2023
VILLAGE BOARD ROOM
2200 HARNISH DRIVE, ALGONQUIN
7:30 P.M.**

Trustee Smith – Chairperson
Trustee Brehmer
Trustee Auger
Trustee Spella
Trustee Glogowski
Trustee Dianis
President Sosine

AGENDA

- 1. Roll Call – Establish a Quorum**
- 2. Public Comment – Audience Participation**
(Persons wishing to address the Committee must register with the Chairperson prior to roll call.)
- 3. Community Development**
- 4. General Administration**
 - A. Consider a Resolution Accepting the Algonquin Police Pension Municipal Compliance Report for Fiscal Year End April 30, 2023
 - B. Consider a Resolution Accepting the Actuarial Funding Report for the Algonquin Police Pension Fund for the Contribution Year May 1, 2023 to April 30, 2024
 - C. Consider a Resolution for the 2023 Property Tax Levy
- 5. Public Works & Safety**
 - A. Consider Certain Vehicles as Surplus
 - B. Consider an Agreement with Trotter & Associates for the Algonquin Shores Lift Station Upgrade Design
 - C. Consider a Resolution Amending the Village's Wetland Fee in Lieu for Wetland Mitigation
- 6. Executive Session (if needed)**
- 7. Other Business**
- 8. Adjournment**



VILLAGE OF ALGONQUIN
GENERAL SERVICES ADMINISTRATION

- M E M O R A N D U M -

DATE: November 9, 2023

TO: Tim Schloneger, Village Manager

FROM: Michael Kumbera, Deputy Village Manager/Chief Financial Officer

SUBJECT: Municipal Compliance Report

Pursuant to House Bill 5088, attached please find the Municipal Compliance Report for the Algonquin Police Pension Fund. The Police Pension Board is required to report annually to the Board of Trustees on the condition of the pension fund at the end of each fiscal year for tax levy purposes.

Recommendation:

Staff recommends the Committee of the Whole forward this item to the Village Board for acceptance by resolution at their meeting on November 21.

C: Amanda Lichtenberger, Deputy Chief Financial Officer

THE VILLAGE OF ALGONQUIN, ILLINOIS
POLICE PENSION FUND

PUBLIC ACT 95-0950
MUNICIPAL COMPLIANCE REPORT

FOR THE FISCAL YEAR ENDED
APRIL 30, 2023



October 4, 2023

Members of the Pension Board of Trustees
Algonquin Police Pension Fund
Algonquin, Illinois

Enclosed please find a copy of your Municipal Compliance Report for the Algonquin Police Pension Fund for the fiscal year ended April 30, 2023. We have prepared the report with the most recent information available at our office. Should you have more current information, or notice any inaccuracies, we are prepared to make any necessary revisions and return them to you.

The President and Secretary of the Pension Fund are required to sign the report on page 3. If not already included with the enclosed report, please also include a copy of the Pension Fund's most recent investment policy.

The signed Public Act 95-0950 - Municipal Compliance Report must be provided to the Municipality before the tax levy is filed on the last Tuesday in December. We are sending the report via email to promote an environmentally-friendly work atmosphere.

If you have any questions regarding this report, please contact your Client Manager or PSA.

Respectfully submitted,

Lauterbach & Amen, LLP

LAUTERBACH & AMEN, LLP

**THE VILLAGE OF ALGONQUIN, ILLINOIS
POLICE PENSION FUND**

**Public Act 95-950 - Municipal Compliance Report
For the Fiscal Year Ending April 30, 2023**

The Pension Board certifies to the Board of Trustees of the Village of Algonquin, Illinois on the condition of the Pension Fund at the end of its most recently completed fiscal year the following information:

- 1) The total cash and investments, including accrued interest, of the fund at market value and the total net position of the Pension Fund:

	<u>Current Fiscal Year</u>	<u>Preceding Fiscal Year</u>
Total Cash and Investments (including accrued interest)	<u>\$44,118,236</u>	<u>\$42,533,806</u>
Total Net Position	<u>\$44,118,236</u>	<u>\$42,533,806</u>

- 2) The estimated receipts during the next succeeding fiscal year from deductions from the salaries of police officers and from other sources:

Estimated Receipts - Employee Contributions	<u>\$516,100</u>
Estimated Receipts - All Other Sources	
Investment Earnings	<u>\$2,978,000</u>
Municipal Contribution	<u>\$2,050,508</u>

- 3) The estimated amount required during the next succeeding fiscal year to (a) pay all pensions and other obligations provided in Article 3 of the Illinois Pension Code, and (b) to meet the annual requirements of the fund as provided in Sections 3-125 and 3-127:

(a) Pay all Pensions and Other Obligations	<u>\$2,075,200</u>
(b) Annual Requirement of the Fund as Determined by:	
Illinois Police Officers' Pension Investment Fund	<u>N/A</u>
Private Actuary - Lauterbach & Amen, LLP	
Recommended Municipal Contribution	<u>\$2,050,508</u>
Alternative Municipal Contribution	<u>\$1,207,296</u>

**THE VILLAGE OF ALGONQUIN, ILLINOIS
POLICE PENSION FUND**

**Public Act 95-950 - Municipal Compliance Report
For the Fiscal Year Ending April 30, 2023**

- 4) The total net income received from investment of assets along with the assumed investment return and actual investment return received by the fund during its most recently completed fiscal year compared to the total net income, assumed investment return, and actual investment return received during the preceding fiscal year:

	<u>Current Fiscal Year</u>	<u>Preceding Fiscal Year</u>
Net Income Received from Investment of Assets	<u>\$380,442</u>	<u>(\$2,462,820)</u>
Assumed Investment Return		
Illinois Police Officers' Pension Investment Fund	<u>N/A</u>	<u>6.800%</u>
Private Actuary - Lauterbach & Amen, LLP	<u>6.750%</u>	<u>6.750%</u>
Actual Investment Return	<u>0.878%</u>	<u>(5.697)%</u>

- 5) The total number of active employees who are financially contributing to the fund:

Number of Active Members	<u>48</u>
--------------------------	-----------

- 6) The total amount that was disbursed in benefits during the fiscal year, including the number of and total amount disbursed to (i) annuitants in receipt of a regular retirement pension, (ii) recipients being paid a disability pension, and (iii) survivors and children in receipt of benefits:

	<u>Number of</u>	<u>Total Amount Disbursed</u>
(i) Regular Retirement Pension	<u>18</u>	<u>\$1,420,396</u>
(ii) Disability Pension	<u>4</u>	<u>\$205,847</u>
(iii) Survivors and Child Benefits	<u>0</u>	<u>\$0</u>
Totals	<u>22</u>	<u>\$1,626,243</u>

**THE VILLAGE OF ALGONQUIN, ILLINOIS
POLICE PENSION FUND**

**Public Act 95-950 - Municipal Compliance Report
For the Fiscal Year Ending April 30, 2023**

7) The funded ratio of the fund:

	<u>Current Fiscal Year</u>	<u>Preceding Fiscal Year</u>
Illinois Police Officers' Pension Investment Fund	<u>N/A</u>	<u>81.65%</u>
Private Actuary - Lauterbach & Amen, LLP	<u>81.57%</u>	<u>81.40%</u>

8) The unfunded liability carried by the fund, along with an actuarial explanation of the unfunded liability:

Unfunded Liability:

Illinois Police Officers' Pension Investment Fund	<u>N/A</u>
Private Actuary - Lauterbach & Amen, LLP	<u>\$10,670,783</u>

The accrued liability is the actuarial present value of the portion of the projected benefits that has been accrued as of the valuation date based upon the actuarial valuation method and the actuarial assumptions employed in the valuation. The unfunded accrued liability is the excess of the accrued liability over the actuarial value of assets.

9) Please see attached Investment/Cash Management policy if applicable

Please see Notes Page attached.

CERTIFICATION OF MUNICIPAL POLICE
PENSION FUND COMPLIANCE REPORT

The Board of Trustees of the Pension Fund, based upon information and belief, and to the best of our knowledge, hereby certify pursuant to §3-143 of the Illinois Pension Code 40 ILCS 5/3-143, that the preceding report is true and accurate.

Adopted this 25th day of October, 2023

President Stan W. Helgeson Date 10/25/23

Secretary Andrea Noble Date 10-25-23

**THE VILLAGE OF ALGONQUIN, ILLINOIS
POLICE PENSION FUND**

**Public Act 95-950 - Municipal Compliance Report
For the Fiscal Year Ending April 30, 2023**

INDEX OF ASSUMPTIONS

- 1) Total Cash and Investments - as Reported at Market Value in the Audited Financial Statements for the Years Ended April 30, 2023 and 2022.

Total Net Position - as Reported in the Audited Financial Statements for the Years Ended April 30, 2023 and 2022.

- 2) Estimated Receipts - Employee Contributions as Reported in the Audited Financial Statements for the Year Ended April 30, 2023 plus 3% Increase (Actuarial Salary Increase Assumption) Rounded to the Nearest \$100.

Estimated Receipts - All Other Sources:

Investment Earnings - Cash and Investments as Reported in the Audited Financial Statements for the Year Ended April 30, 2023, times 6.75% (Actuarial Investment Return Assumption) Rounded to the Nearest \$100.

Municipal Contributions - Recommended Tax Levy Requirement as Reported by Lauterbach & Amen, LLP, Actuarial Valuation for the Year Ended April 30, 2023.

- 3) (a) Pay all Pensions and Other Obligations - Total Non-Investment Deductions as Reported in the Audited Financial Statements for the Year Ended April 30, 2023, plus a 25% Increase, Rounded to the Nearest \$100.

(b) Annual Requirement of the Fund as Determined by:

Illinois Police Officers' Pension Investment Fund - No April 30, 2023 Actuarial Valuation available at the time of this report.

Private Actuary - Lauterbach & Amen, LLP:

Recommended Amount of Tax Levy as Reported by Lauterbach & Amen, LLP in the April 30, 2023 Actuarial Valuation.

Alternative Amount of Tax Levy as Reported by Lauterbach & Amen, LLP in the April 30, 2023 Actuarial Valuation.

**THE VILLAGE OF ALGONQUIN, ILLINOIS
POLICE PENSION FUND**

**Public Act 95-950 - Municipal Compliance Report
For the Fiscal Year Ending April 30, 2023**

INDEX OF ASSUMPTIONS

- 4) Net Income Received from Investment of Assets - Investment Income (Loss) net of Investment Expense, as Reported in the Audited Financial Statements for the Years Ended April 30, 2023 and 2022.

Assumed Investment Return:

Illinois Police Officers' Pension Investment Fund - Preceding Fiscal Year Interest Rate Assumption as Reported in the April 30, 2022 Actuarial Valuation. No April 30, 2023 Actuarial Valuation available at the time of this report.

Private Actuary - Current and Preceding Fiscal Year Interest Rate Assumption as Reported in the Years Ended April 30, 2023 and 2022 Actuarial Valuations.

Actual Investment Return -Net Income Received from Investments as Reported Above as a Percentage of the Average of the Beginning and Ending Balances of the Fiscal Year Cash Investments, Excluding Net Investment Income, Gains, and Losses for the Fiscal Year Return Being calculated, as Reported in the Audited Financial Statements for the Fiscal Years Ended April 30, 2023 and 2022.

- 5) Number of Active Members - Illinois Department of Insurance Annual Statement for April 30, 2023 - Schedule P.
- 6) (i) Regular Retirement Pension - Illinois Department of Insurance Annual Statement for April 30, 2023 - Schedule P for Number of Participants and Expense page 1 for Total Amount Disbursed.
- (ii) Disability Pension - Same as above.
- (iii) Survivors and Child Benefits - Same as above.

**THE VILLAGE OF ALGONQUIN, ILLINOIS
POLICE PENSION FUND**

**Public Act 95-950 - Municipal Compliance Report
For the Fiscal Year Ending April 30, 2023**

INDEX OF ASSUMPTIONS

7) The funded ratio of the fund:

Illinois Police Officers' Pension Investment Fund - Preceding Fiscal Year Net Present Assets as a percentage of Total Assets as Reported in the April 30, 2022 Actuarial Valuation. No April 30, 2023 Actuarial Valuation available at the time of this report.

Private Actuary - Current and Preceding Fiscal Year Net Present Assets as a percentage of Total Assets as Reported in the April 30, 2023 and 2022 Actuarial Valuations.

8) Unfunded Liability:

Illinois Police Officers' Pension Investment Fund - Deferred Asset (Unfunded Accrued Liability) - No April 30, 2023 Actuarial Valuation available at the time of this report.

Private Actuary - Deferred Asset (Unfunded Accrued Liability) as Reported by Lauterbach & Amen, LLP in the April 30, 2023 Actuarial Valuation.

CASH MANAGEMENT POLICY

of the

ALGONQUIN POLICE PENSION FUND

Adopted: January 26, 2022

This Cash Management Policy (“Policy”) is adopted by the Board of Trustees (“Board”) of the Algonquin Police Pension Fund (“APPF”).

1. INTRODUCTION

The purpose of this Cash Management Policy is to require cash forecasts so as to ensure sufficient operating liquidity by estimating the available cash deposits, expected inflows, and required disbursements during a given period. This Policy aims to ensure an efficient working process that allows the APPF to meet monthly benefit obligations and operating expenses and transfer excess funds to the Illinois Police Officers’ Pension Investment Fund (IPOPIF) for investment purposes.

2. SCOPE

This Policy will address the following procedures and processes for cash management.

- Objectives of the Cash Management Policy
- Authorized Representatives
- Cash Management Procedures
- Cash Flow Planning

3. OBJECTIVES

The cash forecast analysis is intended to measure and assess the APPF’s ability to meet its liquidity needs. Cash forecasting can reduce the need for liquidation of long-term investments before maturity in the event of a cash shortfall, and can identify idle funds and determine whether those funds could be transferred to the IPOPIF for investment purposes.

Outline the procedure for the APPF to transfer cash to the IPOPIF.

4. ACCOUNT REPRESENTATIVES

Account Representative for the purpose of transferring cash to the IPOPIF shall be the Treasurer. In order to initiate a transfer, it will also require the approval of either the President or the Secretary. The approval needs to be documented. Once approved, the Treasurer will make the transfer.

5. CASH MANAGEMENT PROCEDURES

The APPF shall keep, at a minimum, an estimated three (3) months of expenses in a local account. The amount of cash kept in the local account will fluctuate and will necessitate transfers to and from the IPOPIF. Requests to redeem cash from the IPOPIF can be made on a monthly basis and should occur via Automated Clearing House (ACH).

If the APPF has determined that it has a surplus of cash in the local account, it should transfer the funds to the IPOPIF for investment. The Treasurer (Account Representative) shall send transfers to the IPOPIF in the manner prescribed by the IPOPIF. The Treasurer shall indicate that the transfer is for the APPF, dollar amount to be transferred and the date the transfer will be made.

It is the responsibility of the APPF to ensure enough money is kept on hand to meet benefit obligations and other operating expenditures and to act in their fiduciary capacity as board members in the administration and payment of monthly retirement benefits and expenses.

6. CASH FLOW PLANNING

The APPF shall prepare an estimated cash flow projection annually on a calendar year basis. This cash flow projection should be presented and discussed at the Board's October meeting. The cash flow projection at a minimum should include the following:

- Estimated cash balance for 12 months
- Estimated employee contributions
- Estimated employer contributions
- Estimated pension benefits
- Estimated administrative expenses
- Estimated monthly net inflow and outflow
- Estimated monthly funding request/money transfer

The cash forecast should be based on conservative assumptions about both the cash receipts and disbursement portions of the analysis, and these assumptions should be reviewed and updated regularly.

The cash forecast should be updated periodically by the Board to ensure sufficient liquidity and actual cash flow results should be compared with the forecast projections.



VILLAGE OF ALGONQUIN
GENERAL SERVICES ADMINISTRATION

- M E M O R A N D U M -

DATE: November 9, 2023

TO: Tim Schloneger, Village Manager

FROM: Michael Kumbera, Deputy Village Manager/Chief Financial Officer

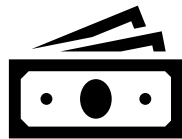
SUBJECT: Police Pension Fund Actuarial Report and Tax Levy Request

Attached is a copy of an independent actuarial report provided by Lauterbach and Amen for the Algonquin Police Pension Fund as of May 1, 2023. The fund is 81.46 percent funded (up 0.2 percent) from the prior year and the current funding policy remains 100 percent over a layered amortization period of 15 years. Some additional highlights of this year's report include:



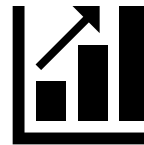
7.6%

Increase in
Recommended
Contribution



\$3.5M

Increase in
Actuarial Value of
Assets



0.8%

Rate of Return
(Market)



\$0.7M

Increase in
Unfunded Liability

The Algonquin Police Pension Fund Board of Trustees is requesting that the Village Board levy an amount of \$2,050,508 in accordance with the actuarial valuation results for the year beginning May 1, 2023. A copy of this request is attached to this memo.

Recommendation:

Staff recommends the Committee of the Whole forward this item to the Village Board for approval by resolution at their meeting on November 21.

C: Amanda Lichtenberger, Deputy Chief Financial Officer

Funding Actuarial Valuation
as of May 1, 2023



ALGONQUIN POLICE
PENSION FUND

For the Contribution Year
May 1, 2023 to April 30, 2024

LAUTERBACH & AMEN, LLP

Actuarial Funding Report



Lauterbach & Amen, LLP

CERTIFIED PUBLIC ACCOUNTANTS

ALGONQUIN POLICE PENSION FUND

Contribution Year Ending: April 30, 2024

Actuarial Valuation Date: May 1, 2023

Data Date: April 30, 2023

Submitted by:

Lauterbach & Amen, LLP
668 N. River Road
Naperville, IL 60563
Phone: 630.393.1483
www.lauterbachamen.com

Contact:

Todd A. Schroeder
Partner
June 29, 2023

LAUTERBACH & AMEN, LLP



TABLE OF CONTENTS

ACTUARIAL CERTIFICATION	5
MANAGEMENT SUMMARY	7
Recommended Contribution	8
Funded Status	8
Management Summary – Comments and Analysis	9
Actuarial Recommended Contribution – Reconciliation	16
VALUATION OF FUND ASSETS.....	17
Fair Value of Assets.....	18
Fair Value of Assets (Gain)/Loss.....	19
Development of the Actuarial Value of Assets.....	20
Actuarial Value of Assets (Gain)/Loss	20
Historical Asset Performance	21
RECOMMENDED CONTRIBUTION DETAIL.....	24
Actuarial Accrued Liability	25
Funded Status	25
Development of the Employer Normal Cost.....	26
Normal Cost as a Percentage of Expected Payroll.....	26
Recommended Contribution Breakdown.....	26
Schedule of Amortization – Unfunded Actuarial Accrued Liability	27
Actuarial Methods – Recommended Contribution	28
ALTERNATIVE CONTRIBUTION	29
Alternative Contribution	30
Funded Status – Alternative Contribution	30
Actuarial Methods – Alternative Contribution	32
ACTUARIAL VALUATION DATA.....	33
Active Members.....	34
Inactive Members	34
Summary Of Monthly Benefit Payments.....	34
Age and Service Distribution.....	35
ACTUARIAL FUNDING POLICIES	36
Actuarial Cost Method.....	37
Financing Unfunded Actuarial Accrued Liability.....	37
Actuarial Value of Assets	39



TABLE OF CONTENTS

ACTUARIAL ASSUMPTIONS	40
Nature of Actuarial Calculations	41
Selection of Actuarial Assumptions.....	41
Actuarial Assumptions in the Valuation Process.....	42
Assessment of Risk Exposures	43
Limitations of Risk Analysis	43
Assessment and Use of Actuarial Models.....	44
Actuarial Assumptions Utilized.....	45
LOW-DEFAULT-RISK OBLIGATION MEASURE	48
Low-Default-Risk Obligation Measure - Purpose	49
Low-Default-Risk Obligation Measure	49
Low Default Risk Obligation Measure vs Actuarial Liability	51
SUMMARY OF PRINCIPAL PLAN PROVISIONS	52
Establishment of the Fund	53
Administration	53
Member Contributions.....	53
Regular Retirement Pension Benefit.....	53
Regular Retirement Pension Benefit - Continued.....	54
Early Retirement Pension Benefit.....	54
Surviving Spouse Benefit	55
Surviving Spouse Benefit – Continued.....	56
Termination Benefit – Vested.....	56
Disability Benefit.....	57
GLOSSARY OF TERMS	58
Glossary of Terms.....	59



ACTUARIAL CERTIFICATION

This report documents the results of the Actuarial Valuation for the Algonquin Police Pension Fund. The information was prepared for use by the Algonquin Police Pension Fund and the Village of Algonquin, Illinois for determining the Recommended Contribution, under the selected Funding Policy, and the Alternative Contribution for the Contribution Year May 1, 2023 to April 30, 2024. It is not intended or suitable for other purposes. Determinations for purposes other than the Employer's Actuarial Recommended Contribution may be significantly different from the results herein.

The results in this report are based on the demographic data and financial information submitted by the Village of Algonquin, Illinois, and may include results from the prior Actuary. We did not prepare the Actuarial Valuations for the years prior to May 1, 2016. Those valuations were prepared by the prior Actuary whose reports have been furnished to us, and our disclosures are based on those reports. An audit of the prior Actuary's results was not performed, but high-level reviews were completed for general reasonableness, as appropriate, based on the purpose of this valuation. The accuracy of the results is dependent on the precision and completeness of the underlying information.

In addition, the results of the Actuarial Valuation involve certain risks and uncertainty as they are based on future assumptions, market conditions, and events that may never materialize as assumed. For this reason, certain assumptions and future results may be materially different than those presented in this report. See the *Management Summary* section of this report for a more detailed discussion of the Defined Benefit Plan Risks, as well as the limitations of this Actuarial Valuation on assessing those risks. We are not aware of any known events subsequent to the Actuarial Valuation Date, which are not reflected in this report but should be valued, that may materially impact the results.

The valuation results summarized in this report involve actuarial calculations that require assumptions about future events. The Village of Algonquin, Illinois selected certain assumptions, while others were the result of guidance and/or judgment from the Plan's Actuary or Advisors. We believe that the assumptions used in this valuation are reasonable and appropriate for the purposes for which they have been used. The selected assumptions represent our best estimate of the anticipated long-term experience of the Plan, and meet the guidelines set forth in the Actuarial Standards of Practice.

In preparing the results, our Actuaries used commercially available software (ProVal) developed by Winklevoss Technologies, LLC. This software is widely used for the purpose of performing Actuarial Valuations. Our Actuaries coded the plan provisions, assumptions, methods, and demographic data summarized in this report, and reviewed the liability and cost outputs for reasonableness. We are not aware of any material weaknesses or limitations in the software, and have determined it is appropriate for performing this valuation.





To the best of our knowledge, all calculations are in accordance with the applicable funding requirements, and the procedures followed and presentation of results conform to generally accepted actuarial principles and practices as prescribed by the Actuarial Standards Board. The undersigned consultants of Lauterbach & Amen, LLP, with actuarial credentials, meet the Qualification Standards of the American Academy of Actuaries to render this Actuarial Certification. There is no relationship between the Village of Algonquin, Illinois and Lauterbach & Amen, LLP that impairs our objectivity.

Respectfully Submitted,
LAUTERBACH & AMEN, LLP

Todd A. Schroeder, ASA, FCA, EA, MAAA

Robert L. Rietz, Jr., FCA, EA, MAAA





MANAGEMENT SUMMARY

Recommended Contribution
Funded Status
Management Summary – Comments and Analysis
Actuarial Recommended Contribution – Reconciliation

MANAGEMENT SUMMARY

RECOMMENDED CONTRIBUTION

	Prior Valuation	Current Valuation
Recommended Contribution	\$1,905,327	\$2,050,508
Expected Payroll	\$4,945,867	\$5,064,054
Recommended Contribution as a Percent of Expected Payroll	38.52%	40.49%

*The Recommended
Contribution has
Increased by
\$145,181 from the
Prior Valuation.*

FUNDED STATUS

	Prior Valuation	Current Valuation
Normal Cost	\$1,104,217	\$1,110,487
Fair Value of Assets	\$42,533,806	\$44,118,236
Actuarial Value of Assets	\$43,676,676	\$47,218,464
Actuarial Accrued Liability	\$53,658,680	\$57,889,247
Unfunded Actuarial Accrued Liability/(Surplus)	\$9,982,004	\$10,670,783
<u>Percent Funded</u>		
Actuarial Value of Assets	81.40%	81.57%
Fair Value of Assets	79.27%	76.21%

*The Percent
Funded has
Increased by 0.17%
on an Actuarial
Value of Assets
Basis.*



MANAGEMENT SUMMARY

MANAGEMENT SUMMARY – COMMENTS AND ANALYSIS

Contribution Results

The Recommended Contribution is based on the selected Funding Policy and methods that are outlined in the *Actuarial Funding Policies* section of this report.

“Contribution Risk” is defined by the Actuarial Standards of Practice as the potential for actual future contributions to deviate from expected future contributions. For example, when actual contributions are not made in accordance to the Plan’s Funding Policy, or when future experience deviates materially from assumed. While it is essential for the Actuary and Plan Sponsor to collaborate on implementing a sound and financially feasible Funding Policy, it is important to note that the Actuary is not required, and is not in the position to, evaluate the ability or willingness of the Plan Sponsor to make the Recommended Contribution under the selected Funding Policy.

As a result, while Contribution Risk may be a significant source of risk for the Plan, this Actuarial Valuation makes no attempt to assess the impact of future contributions falling short of those recommended under the selected Funding Policy. Notwithstanding the above, see the *Actuarial Recommended Contribution – Reconciliation* section of this report for the impact on the current Recommended Contribution of any contribution shortfalls or excesses from the prior year.

Defined Benefit Plan Risks

Asset Growth:

Pension funding involves preparing Fund assets to pay for benefits when Members retire. During their working careers, assets grow with contributions and investment earnings; and then, the Pension Fund distributes assets in retirement. Based on the Plan’s current mix of Members and Funded Status, the Plan should experience positive asset growth, on average, if the Recommended Contributions are made and expected investment earnings come in. In the current year, the Fund asset growth was positive by approximately \$1,584,400.

Asset growth is important in the long-term. Long-term cash flow out of the Pension Fund is primarily benefit payments, and expenses are a smaller portion. The Plan should monitor the impact of expected benefit payments on future asset growth. We assess and project all future benefit payments as part of the determination of liability. The assessment is made on all current Members of the Fund, both active and inactive. For active Members, the assessment includes the probability that Members terminate or retire and begin receiving benefits. In the next 5 years, benefit payments are anticipated to increase 65-70%, or approximately \$1,116,300. In the next 10 years, the expected increase in benefit payments is 140-145%, or approximately \$2,344,900. The estimated increase in benefit payments is being compared against the benefits paid to inactive Members during the fiscal year, excluding any refunds of Member Contributions.

Furthermore, plans with a large number of inactive Members have an increased “Longevity Risk”. Longevity Risk is the possibility that inactive Members may live longer than projected by the Plan’s mortality assumption. As shown in the previous paragraph, benefit payments are expected to increase over



MANAGEMENT SUMMARY

the next 5-year and 10-year horizons. The projected increases assume that current inactive Members pass away according to the Plan's mortality assumption. To the extent that current inactive Members live longer than expected, the future 5-year and 10-year benefit projections may be larger than the amounts disclosed in the previous paragraph. Higher levels of benefit payments, payable for a longer period of time, may cause a significant strain on the Plan's cash flow, future Recommended Contributions, and may lead to Plan insolvency.

Unfunded Liability:

Unfunded Liability represents the financial shortfall of the Actuarial Value of Assets compared to the Actuarial Accrued Liability. To the extent that Unfunded Liability exists, the Plan is losing potential investment earnings due to the financial shortfall. Contributions towards Unfunded Liability pay for the lost investment earnings, as well as the outstanding unfunded amount. If payments towards Unfunded Liability are not made, the Unfunded Liability will grow.

In the early 1990s, many Pension Funds in Illinois adopted an increasing payment towards Unfunded Liability due to a change in legislation. The initial payment decreased, and future payments are anticipated to increase annually after that. In many situations, payments early on were less than the interest on Unfunded Liability, which means that Unfunded Liability increased even though contributions were made at the recommended level.

The current Recommended Contribution includes a payment towards Unfunded Liability that is approximately \$672,600 greater than the interest on Unfunded Liability. All else being equal, and contributions being made, Unfunded Liability is expected to decrease. The Employer and Fund should anticipate improvement in the current Percent Funded in the short-term. The Employer and Fund should understand this impact as we progress forward to manage expectations.

Actuarial Value of Assets:

The Pension Fund smooths investment returns that vary from expectations over a 5-year period. The intention over time is that investment returns for purposes of funding recommendations are a combination of several years. The impact is intended to smooth out the volatility of Recommended Contributions over time, but not necessarily increase or decrease the level of contributions over the long-term.

When investment returns are smoothed, there are always gains or losses on the Fair Value of Assets that are going to be deferred for current funding purposes, and recognized in future years. Currently, the Pension Fund is deferring approximately \$3,100,200 in losses on the Fair Value of Assets. These are asset losses that will be recognized in upcoming periods, independent of the future performance of the Fair Value of Assets.

Cash Flow Risk:

Assets, liabilities, and Funded Status are good metrics to monitor over time to assess the progress of the Funding Policy. However, these metrics may provide limited forward-looking insights. Specifically, the



MANAGEMENT SUMMARY

maturity of a Pension Fund can pose certain risks that often cannot be assessed with a point-in-time metric such as Percent Funded.

For example, two different Pension Funds could have the same Percent Funded, but have completely different risk profiles. One Fund might mostly cover active Members with little to no Members in pay status, whereas a second Fund might mostly cover inactive Members with a significant level of annual benefit payments. The latter Fund has a greater “Cash Flow Risk”, i.e. a more significant chance that negative cash flows could lead to a deteriorating, rather than improving, Percent Funded over time.

It is important to note that, in general, positive net cash flows are good, but also need to be sufficient to cover the growth in the liabilities (i.e. the Normal Cost as well as interest on the Actuarial Accrued Liability). Typically, when cash flows are assumed to be insufficient to cover the growth in liabilities, the Percent Funded will decline, while future Recommended Contributions will increase.

Benefit Payment Risk:

Ideally, plans in a sound financial position will have the ratio of annual benefits payments to the Fair Value of Assets to be less than the Expected Rate of Return on Investments assumption (i.e. 6.75%). Theoretically, in this case it can be considered that investment returns will fully cover the annual benefit payments, and therefore, all Employer and Member Contributions made to the Fund will be used to pay for future benefit accruals and pay down the existing Unfunded Liability. To the extent that the ratio of the annual benefit payments to the Fair Value of Assets increases to above the Expected Rate of Return on Investments assumption, the Plan may experience some additional risks, such as the need to keep assets in more liquid investments, inability to pay down Unfunded Liability, and may lead to Plan insolvency.

As of the Valuation Date, the Algonquin Police Pension Fund has a ratio of benefit payments to the Fair Value of Assets of 3.69%. In this case, the Plan is currently in a sound financial position and has a reduced amount of Benefit Payment Risk and Cash Flow Risk. It would be expected that adherence to the current Funding Policy would lead to an increasing Percent Funded.

Fund Assets

The results in this report are based on the assets held in the Pension Fund. Assets consist of funds held for investment and for benefit payments as of the Actuarial Valuation Date. In addition, assets may be adjusted for other events representing dollars that are reasonably expected to be paid out from the Pension Fund or deposited into the Pension Fund after the Actuarial Valuation Date as well.



MANAGEMENT SUMMARY

The current Fund assets are unaudited. As of the date of this report, the audit of the Fund assets is not complete, not available, or has not been provided.

The current Fund assets are based on the year-end financials as prepared by the Pension Fund Accountant. The year-end financials represent a full accrual version of the fiduciary fund as of the end of the Fiscal Year, prepared in preparation for the audit. The changes to the fund cash balance as of the Fiscal Year End are non-cash items that can include accrued interest, due/unpaid expenses, prepaids, and other adjustments.

The Actuarial Value of Assets under the Funding Policy is equal to the Fair Value of Assets, with unexpected gains and losses smoothed over 5 years. More detail on the Actuarial Value of Assets can be found in the *Actuarial Funding Policies* section of this report.

*The Fund
Assets Used in
this Report
are
Unaudited.*



MANAGEMENT SUMMARY

Demographic Data

Demographic factors can change from year to year within the Pension Fund. Changes in this category include hiring new Members, Members retiring or becoming disabled, inactive Members passing away, and other changes. Demographic changes can cause an actuarial gain (contribution that is less than expected compared to the prior year) or an actuarial loss (contribution that is greater than expected compared to the prior year).

Demographic gains and losses occur when the assumptions over the one-year period for Member changes do not meet our long-term expectation. For example, if no Members become disabled during the year, we would expect a liability gain. If more Members become disabled than anticipated during the year, we would expect a liability loss. Generally, we expect short-term fluctuations in demographic experience to create gains or losses of 1%-3% of the Actuarial Accrued Liability in any given year, but to balance out in the long-term.

“Demographic Risk” occurs when Plan demographic experience differs significantly from expected. Similar to Longevity Risk discussed previously, additional risk is created when demographic experience differs from the assumed rates of disability, retirement, or termination. Under the chosen assumptions, actuarial gains and/or losses will always occur, as the assumptions will never be exactly realized. However, the magnitude of the gain and/or loss and its influence on the Recommended Contribution largely depends on the size of the Plan.

A key Demographic Risk is mortality improvement differing from expected. While the actuarial assumptions reflect small, continuous improvements in mortality experience and these assumptions are refined upon the completion of each actuarial experience study, the risk arises because there is a possibility of a sudden shift in mortality experience. This report reflects the impact of COVID-19 experience that has been accounted for in the underlying demographic data. This report does not reflect the ongoing impact of COVID-19, which is likely to influence demographic and economic experience, at least in the short-term. We will continue to monitor these developments and their impact on the Plan. Actual future experience will be reflected in each subsequent Actuarial Valuation, as experience emerges.

Based on the number of active Members in the Plan, the Recommended Contribution has a moderate risk of having a significant increase due to demographic experience. For example, 1 new disabled Member would typically generate a substantial increase to the Actuarial Accrued Liability, which in turn, may increase the Recommended Contribution.

In the current report, the key demographic changes were as follows:

New Hires: There were 2 Members of the Fund who were hired during the year. When a Member is admitted to the Pension Fund, the Employer Contribution will increase to reflect the new Member. The increase in the Recommended Contribution in the current year due to the new Member experience is approximately \$13,300.



MANAGEMENT SUMMARY

Retirement: There was 1 Member of the Fund who retired during the year. When a Member retires, the Normal Cost will decrease. Any change in the Actuarial Accrued Liability will be considered when determining the amount to pay towards Unfunded Liability each year. The increase in the Recommended Contribution in the current year due to the retirement experience is approximately \$32,900.

Termination: There was 1 Members of the Fund who terminated employment during the year. The Fund may be obligated to pay a benefit or a refund of Member Contributions to the Member in the future. The decrease in the Recommended Contribution in the current year due to the termination experience is approximately \$7,700.

Mortality: As inactive Members age and continue to collect benefits, the Fund liability will increase. In the current year, there were 21 inactive Members who maintained their benefit collection status throughout the year. The increase in the Recommended Contribution in the current year due to the mortality experience is approximately \$7,400.

Salary Increases: Salary increases were greater than anticipated in the current year. This caused an increase in the Recommended Contribution in the current year of approximately \$18,500.

Assumption Changes

The assumptions were not changed from the prior valuation.

Plan Changes

Public Act 102-0811 passed on May 13, 2022 and is effective as of January 1, 2023 for Article 3 Pension Funds. The Act establishes that a surviving spouse of a deceased police retiree may be eligible for a survivor's pension of up to 15 years of benefit payments if (a) the surviving spouse has attained age 62 and (b) if the police officer was married to the surviving spouse after retirement, and for at least 5 years prior to the officer's death. Previously, there was no survivor's pension for spouses married after retirement. In our opinion, under a prudent interpretation of the provisions, we believe the impact to be de minimis. The legal community has suggested some uncertainty about multiple provisions contained in the Act, and the IDOI Public Pension Division has not provided an interpretation. The client has not made an administrative interpretation as to how the provisions of the Act will impact future surviving spouses. Due to the uncertainty around the interpretation and the expected *de minimis* impact, we have not valued this contingency separately for active Members. However, for any current retirees who were married after retirement and have been married for at least 5 years, as well as any surviving spouses currently in receipt of benefits under this provision, we have valued the liability of the benefit granted.

Late in 2022, the IDOI Public Pension Division issued an unofficial opinion that Tier II disabled Members are entitled to an initial COLA increase on the later of the January 1st after the pensioner turns age 60 or the January 1st after the benefit date anniversary equal to the lesser of 3% of the original benefit or ½ CPI-U. The prior interpretation from the IDOI Public Pension Division was that Tier II disabled members were entitled to an initial COLA increase on the later of the January 1st after the pensioner turns age 60 or the January 1st after the benefit date anniversary equal to 3% of the original monthly benefit for each full year



MANAGEMENT SUMMARY

that has passed since the pension began. In accordance with the new opinion, we have included a change in liability due to a change in the substantive plan, which includes written provisions as well as administrative interpretations. See the *Actuarial Recommended Contribution – Reconciliation* section of this report for the impact of this change on the current valuation.

Funding Policy Changes

The Funding Policy was not changed from the prior valuation.

Output Smoothing

Contributions are determined annually by allocating dollars over a specified period of time. Procedures that are used to allocate contributions over a period of time may include asset smoothing, amortization period, and output smoothing. Each procedure becomes part of the Actuarial Methodology. Output smoothing involves measuring the impact of a specific result on a contribution and recognizing the result. The final contribution should maintain a reasonable relationship to the full Actuarially Determined Contribution.

The current results shown throughout the report reflect the full Actuarially Determined Contribution.



MANAGEMENT SUMMARY

ACTUARIAL RECOMMENDED CONTRIBUTION – RECONCILIATION

Actuarial Accrued Liability is expected to increase each year for both interest for the year and as active Members earn additional service years towards retirement. Similarly, Actuarial Accrued Liability is expected to decrease when the Fund pays benefits to inactive Members.

Contributions are expected to increase as expected pay increases under the Funding Policy for the Fund.

	<u>Actuarial Liability</u>	<u>Recommended Contribution</u>
Prior Valuation	\$ 53,658,680	\$ 1,905,327
Expected Changes	<u>3,100,552</u>	<u>57,158</u>
Initial Expected Current Valuation	<u>\$ 56,759,232</u>	<u>\$ 1,962,485</u>

Other increases or decreases in Actuarial Accrued Liability (key changes noted below) will increase or decrease the amount of Unfunded Liability in the Plan. To the extent that Unfunded Liability increases or decreases unexpectedly, the contribution towards Unfunded Liability will also change unexpectedly.

	<u>Actuarial Liability</u>	<u>Recommended Contribution</u>
Salary Increases Greater than Expected	\$ 86,251	\$ 18,453
Actuarial Experience	982,318	58,744
Plan Changes	61,446	(2,312)
Investment Return Less than Expected*	-	56,114
Contributions Greater than Expected	<u>-</u>	<u>(42,976)</u>
Total Increase/(Decrease)	<u>\$ 1,130,015</u>	<u>\$ 88,023</u>
Current Valuation	<u>\$ 57,889,247</u>	<u>\$ 2,050,508</u>

*Impact on the Recommended Contribution due to investment return is on an Actuarial Value of Assets basis.

The Actuarial Experience can be attributable to several factors including, but not limited to, demographic changes and benefit payment experience compared to expectation. Key demographic changes were discussed in the *Demographic Data* section of this report.





VALUATION OF FUND ASSETS

Fair Value of Assets
Fair Value of Assets (Gain)/Loss
Development of the Actuarial Value of Assets
Actuarial Value of Assets (Gain)/Loss
Historical Asset Performance

VALUATION OF FUND ASSETS

FAIR VALUE OF ASSETS

Statement of Assets

	Prior Valuation	Current Valuation
Cash and Cash Equivalents	\$ 414,179	\$ 388,733
Money Market	463,712	-
Illinois Funds	251,988	821,980
Fixed Income	12,100,724	-
Pooled Investment Accounts	-	42,907,523
Stock Equities	2,820,560	-
Mutual Funds	26,386,114	-
Receivables (Net of Payables)	96,529	-
	\$ 42,533,806	\$ 44,118,236
	\$ 42,533,806	\$ 44,118,236

The Total Fair Value of Assets has Increased by Approximately \$1,584,400 from the Prior Valuation.

Statement of Changes in Assets

Total Fair Value of Assets - Prior Valuation	\$ 42,533,806
Plus - Employer Contributions	2,280,000
Plus - Member Contributions	584,000
Plus - Return on Investments	380,598
Less - Benefit Payments and Refunds	(1,626,243)
Less - Other Expenses	(33,925)
Total Fair Value of Assets - Current Valuation	\$ 44,118,236

The Rate of Return on Investments on a Fair Value of Assets Basis for the Fund was Approximately 0.80% Net of Administrative Expense.

The Rate of Return on Investments shown above has been determined as a percent of the average of the prior and current Fair Value of Assets on the Statement of Changes in Assets. The Return on Investments is net of Other Expenses, and has been excluded from the Total Fair Value of Assets at the end of the Fiscal Year for this calculation.



VALUATION OF FUND ASSETS

FAIR VALUE OF ASSETS (GAIN)/LOSS

Current Year (Gain)/Loss on Fair Value of Assets

Total Fair Value of Assets - Prior Valuation	\$ 42,533,806
Employer and Member Contributions	2,864,000
Benefit Payments and Refunds	(1,626,243)
Expected Return on Investments	<u>2,912,806</u>
Expected Total Fair Value of Assets - Current Valuation	46,684,369
Actual Total Fair Value of Assets - Current Valuation	<u>44,118,236</u>
Current Fair Value of Assets (Gain)/Loss	<u><u>\$ 2,566,133</u></u>
Expected Return on Investments	\$ 2,912,806
Actual Return on Investments (Net of Expenses)	<u>346,673</u>
Current Fair Value of Assets (Gain)/Loss	<u><u>\$ 2,566,133</u></u>

*The Actual Return
on Investments on a
Fair Value of
Assets Basis was
Less than Expected
for the Current
Year.*

The (Gain)/Loss on the current Fair Value of Assets has been determined based on the Expected Rate of Return on Investments as shown in the *Actuarial Assumptions* section of this report.



VALUATION OF FUND ASSETS

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

Total Fair Value of Assets - Current Valuation		\$ 44,118,236
Adjustment for Prior (Gains)/Losses		
	Full Amount	Deferral
FYE 4/30/2023	\$ 2,566,133	2,052,906
FYE 4/30/2022	5,496,351	3,297,811
FYE 4/30/2021	(7,313,597)	(2,534,945)
FYE 4/30/2020	1,641,374	284,456
Total Deferred (Gain)/Loss		3,100,228
Initial Actuarial Value of Assets - Current Valuation		\$ 47,218,464
Less Contributions for the Current Year and Interest		-
Adjustment for the Corridor		-
Total Actuarial Value of Assets - Current Valuation		\$ 47,218,464

The Actuarial Value of Assets is Equal to the Fair Value of Assets with Unanticipated (Gains)/Losses Recognized Over 5 Years. The Actuarial Value of Assets is 107.03% of the Fair Value of Assets.

ACTUARIAL VALUE OF ASSETS (GAIN)/LOSS

Total Actuarial Value of Assets - Prior Valuation		\$ 43,676,676
Plus - Employer Contributions		2,280,000
Plus - Member Contributions		584,000
Plus - Return on Investments		2,337,956
Less - Benefit Payments and Refund		(1,626,243)
Less - Other Expenses		(33,925)
Total Actuarial Value of Assets - Current Valuation		\$ 47,218,464

The Rate of Return on Investments on an Actuarial Value of Assets Basis for the Fund was Approximately 5.20% Net of Administrative Expense.

The Actuarial Value of Assets incorporates portions of gains and losses over multiple years.



VALUATION OF FUND ASSETS

HISTORICAL ASSET PERFORMANCE

The chart below shows the historical Rates of Return on Investments for both Fair Value of Assets and Actuarial Value of Assets.

	Fair Value of Assets	Actuarial Value of Assets
FYE 4/30/2023	0.80%	5.20%
FYE 4/30/2022	(5.61%)	7.59%
FYE 4/30/2021	28.35%	11.50%
FYE 4/30/2020	1.67%	5.07%
FYE 4/30/2019	7.16%	5.75%
FYE 4/30/2018	6.36%	5.56%
FYE 4/30/2017	8.99%	5.44%
FYE 4/30/2016	(0.44%)	4.89%
8-Year Arithmetic Average	5.91%	6.37%
8-Year Geometric Average	5.51%	6.35%

The historical Rates of Return on Investments shown above were calculated based on the annual Return on Investments, as a percentage of the average value of the assets for the year. The historical Rates of Return on Investments shown above may not reflect the current investment allocation of the Pension Fund.

For purposes of determining the average value of assets for the year, the ending Fair Value of Assets has been adjusted to net out to the portion related to the Return on Investments themselves. All other cash flows are included.

For purposes of determining the annual Return on Investments we have adjusted the figures shown on the preceding pages. The figures shown on the preceding pages are net of Investment Expenses. We have made an additional adjustment to net out Administrative Expenses. Netting out Administrative Expenses allows us to capture returns for the year that can be used to make benefit payments as part of the ongoing actuarial process.

The adjustments we made are for actuarial reporting purposes only. By netting out Administrative Expenses and capturing Return on Investments that are available to pay benefits, it provides us a comparison to the Expected Rate of Return on Investments, but does not provide a figure that would be consistent with the rates of return that are determined by other parties. Therefore, this calculated Return on Investments should not be used to analyze investment performance of the Fund or the performance of the investment professionals.



VALUATION OF FUND ASSETS

Expected Rate of Return on Investments Assumption

The Expected Rate of Return on Investments for this valuation is 6.75%. Lauterbach & Amen, LLP does not provide investment advice. We look at a variety of factors when reviewing the Expected Rate of Return on Investments assumption selected by the client. These factors include: historical Rates of Return on Investments, capital market projections performed by the Consolidated Board's investment advisors, the Consolidated Board's investment policy, capital market forward-looking benchmark expected returns by independent investment companies, rates used by comparable pension systems, and other factors identified in the Actuarial Standards of Practice.

Generally speaking, the ideal assumption for Expected Rate of Return on Investments is one that has a 50% chance of being met over the long-term. Recently, we have observed the following factors that impact Expected Rate of Return on Investments:

- Volatility in the market has been high which drags down long-term geometric returns.
- Similar pension systems are looking to reduce future expectations. We generally see about 95% of similar pension systems using an Expected Rate of Return on Investments that is between 6.00% and 7.25%.
- We have reviewed studies conducted by Firms who gather information from multiple investment advisors who provide models and opinions on capital market returns. Those studies help guide us to see if the assumption is expected to have a 50% chance of being met over the long-term. Plans are generally aiming towards 40th to 60th percentile returns, which can help define a range of reasonableness.
- We have reviewed an index of high-quality fixed income rates that takes into consideration the pattern of your benefit payments. The purpose of the review is to provide additional disclosure in Funding Actuarial Valuations for the Low-Default-Risk Obligation Measure. The rates in this measure are low-risk and are being used as an approximate for risk-free rates. Investment funds that incorporate diversified investments which build in more risk would be expected to earn a positive risk premium, over and above the risk-free rates.



VALUATION OF FUND ASSETS

If actual returns going forward come in less than expected, the pension system risks deferring contributions to the future that should be made today and creating additional contribution volatility. Below is a chart detailing the impact on the Recommended Contribution by decreasing or increasing the Expected Rate of Return on Investments by 25 basis points:

	0.25% Decrease (6.50%)	Current Expected Rate of Return on Investments (6.75%)	0.25% Increase (7.00%)
Recommended Contribution	\$2,316,846	\$2,050,508	\$1,794,439

Currently, the client has selected an Expected Rate of Return assumption that falls within a reasonable range. We recommend the client review the Expected Rate of Return on Investments annually to ensure the selected rate remains within a reasonable range as market conditions change year-to-year.

“Investment Risk” is the potential that the actual Return on Investments will be different from what is expected. The selected Expected Rate of Return on Investments assumption is chosen to be a long-term assumption, producing a return that, on average, would produce a stable rate of return over a long-term horizon. Actual investment returns in the short-term may deviate from this long-term assumption due to current market conditions. Furthermore, establishing the Expected Rate of Return on Investments assumption may be dependent on the Illinois State Statutes pertaining to the limitations on types of investments Plan Sponsors may use. If the actual annual rates of return are less than the Expected Rate of Return on Investments, actuarial losses will be produced, thus increasing the Plan’s Unfunded Liability and, subsequently, future Recommended Contributions.

“Asset/Liability Mismatch” risk is a similar concept as Investment Risk, as it relates to setting the Expected Rate of Return on Investments assumption compared to the actual Return on Investments achieved. The Interest Rate used to discount future Plan liabilities is set equal to the Expected Rate of Return on Investments. It is expected that the selected Interest Rate be a rate that is reasonably expected to be achieved over the long-term. To the extent that the selected Interest Rate to value Plan liabilities is unreasonable, or significantly different than the actual Return on Investments earned over an extended period of time, additional Interest Rate risk is created. For example, determining Plan liabilities at an Interest Rate higher than what is expected to be achieved through investment returns results in Unfunded Liability that is not a true representation of the Plan’s condition and Percent Funded. As a result, the Actuarial Accrued Liability determined is an amount smaller than the liability that would be produced with an Interest Rate more indicative of future Expected Rate of Return on Investments. Therefore, the Recommended Contributions under the established Funding Policy may not be sufficient to appropriately meet the true pension obligations.





RECOMMENDED CONTRIBUTION DETAIL

Actuarial Accrued Liability
Funded Status
Development of the Employer Normal Cost
Normal Cost as a Percentage of Expected Payroll
Recommended Contribution Breakdown
Schedule of Amortization – Unfunded Actuarial Accrued Liability
Actuarial Methods – Recommended Contribution

RECOMMENDED CONTRIBUTION DETAIL

ACTUARIAL ACCRUED LIABILITY

	Prior Valuation	Current Valuation
Active Members	\$ 23,120,487	\$ 23,549,784
Inactive Members		
Terminated Members	2,133,812	3,264,355
Retired Members	24,933,383	27,592,794
Disabled Members	3,470,998	3,482,314
Other Beneficiaries	-	-
Total Inactive Members	<u>30,538,193</u>	<u>34,339,463</u>
Total Actuarial Accrued Liability	<u>\$ 53,658,680</u>	<u>\$ 57,889,247</u>

*The Total Actuarial
Accrued Liability
has Increased by
Approximately
\$4,230,600 from the
Prior Valuation.*

FUNDED STATUS

	Prior Valuation	Current Valuation
Total Actuarial Accrued Liability	\$ 53,658,680	\$ 57,889,247
Total Actuarial Value of Assets	<u>43,676,676</u>	<u>47,218,464</u>
Unfunded Actuarial Accrued Liability	<u>\$ 9,982,004</u>	<u>\$ 10,670,783</u>
Total Fair Value of Assets	<u>\$ 42,533,806</u>	<u>\$ 44,118,236</u>
<u>Percent Funded</u>		
Actuarial Value of Assets	<u>81.40%</u>	<u>81.57%</u>
Fair Value of Assets	<u>79.27%</u>	<u>76.21%</u>

*The Percent Funded
as of the Actuarial
Valuation Date is
Subject to Volatility
on Assets and
Liability in the
Short-Term.*



RECOMMENDED CONTRIBUTION DETAIL

DEVELOPMENT OF THE EMPLOYER NORMAL COST

	Prior Valuation	Current Valuation
Total Normal Cost	\$ 1,104,217	\$ 1,110,487
Estimated Member Contributions	(482,892)	(494,431)
Employer Normal Cost	<u>\$ 621,325</u>	<u>\$ 616,056</u>

*At a 100%
Funding Level,
the Normal Cost
Contribution is
Still Required.*

NORMAL COST AS A PERCENTAGE OF EXPECTED PAYROLL

	Prior Valuation	Current Valuation
Expected Payroll	<u>\$ 4,945,867</u>	<u>\$ 5,064,054</u>
Member Normal Cost Rate	<u>9.910%</u>	<u>9.910%</u>
Employer Normal Cost Rate	<u>12.42%</u>	<u>12.02%</u>
Total Normal Cost Rate	<u>22.33%</u>	<u>21.93%</u>

*Ideally, the
Employer
Normal Cost
Rate will Remain
Stable.*

RECOMMENDED CONTRIBUTION BREAKDOWN

	Prior Valuation	Current Valuation
Employer Normal Cost*	\$ 663,264	\$ 657,640
Amortization of Unfunded Accrued Liability/(Surplus)	<u>1,242,063</u>	<u>1,392,868</u>
Recommended Contribution	<u>\$ 1,905,327</u>	<u>\$ 2,050,508</u>

*The
Recommended
Contribution has
Increased by
7.62% from the
Prior Valuation.*

*Employer Normal Cost Contribution includes interest through the end of the Fiscal Year.



RECOMMENDED CONTRIBUTION DETAIL

SCHEDULE OF AMORTIZATION – UNFUNDED ACTUARIAL ACCRUED LIABILITY

Below is the schedule of remaining amortization balances for the Unfunded Liability.

Unfunded Liability Base	Initial Balance	Date Established	Current Balance	Years Remaining	Payment
Investment (Gain)/Loss	\$ 621,233	4/30/2023	\$ 621,233	15	\$ 56,114
Actuarial (Gain)/Loss	718,893	4/30/2023	718,893	15	64,935
Contribution Experience	(144,516)	4/30/2023	(144,516)	15	(13,054)
Plan Changes	61,446	4/30/2023	61,446	15	5,550
Investment (Gain)/Loss	(401,352)	4/30/2022	(392,190)	14	(37,341)
Actuarial (Gain)/Loss	(3,029,811)	4/30/2022	(2,960,647)	14	(281,884)
Contribution Experience	(1,927)	4/30/2022	(1,883)	14	(179)
Assumption Changes	396,931	4/30/2022	387,870	14	36,929
Investment (Gain)/Loss	(1,713,256)	4/30/2021	(1,627,755)	13	(164,179)
Actuarial (Gain)/Loss	223,736	4/30/2021	212,569	13	21,440
Contribution Experience	(430)	4/30/2021	(408)	13	(41)
Investment (Gain)/Loss	492,433	4/30/2020	452,248	12	48,605
Actuarial (Gain)/Loss	194,952	4/30/2020	179,045	12	19,242
Contribution Experience	(463)	4/30/2020	(426)	12	(46)
Assumption Changes	(32,162)	4/30/2020	(29,538)	12	(3,175)
Plan Changes	212,233	4/30/2020	194,915	12	20,948
Investment (Gain)/Loss	242,080	4/30/2019	213,438	11	24,611
Actuarial (Gain)/Loss	63,697	4/30/2019	56,158	11	6,475
Contribution Experience	(9,282)	4/30/2019	(8,183)	11	(944)
Investment (Gain)/Loss	320,616	4/30/2018	269,170	10	33,573
Contribution Experience	(992)	4/30/2018	(832)	10	(104)
Actuarial (Gain)/Loss	(325,744)	4/30/2018	(273,477)	10	(34,110)
Initial Unfunded Liability	<u>\$ 15,466,613</u>	4/30/2017	<u>\$ 12,743,653</u>	10	<u>\$ 1,589,503</u>
Total	<u>\$ 13,354,928</u>		<u>\$ 10,670,783</u>		<u>\$ 1,392,868</u>

The Actuarial (Gain)/Loss can be attributable to several factors including, but not limited to, demographic changes, Employer Contribution timing, Member Contribution experience, benefit payment experience, and salary increase experience compared to expectation.

The equivalent single amortization period based on the layered amortization of Unfunded Liability is 9.47 years for the current valuation.



RECOMMENDED CONTRIBUTION DETAIL

ACTUARIAL METHODS – RECOMMENDED CONTRIBUTION

Actuarial Valuation Date	May 1, 2023
Data Collection Date	April 30, 2023
Actuarial Cost Method	Entry Age Normal (Level % Pay)
Amortization Method	Level % Pay (Closed)
Amortization Target	Layered Targeting 100% Funded - See Previous Page
Asset Valuation Method	5-Year Smoothed Fair Value

The above methods constitute a sound Actuarially Determined Contribution under the parameters of Actuarial Standards of Practice.

The contributions and benefit values of the Pension Fund are calculated by applying actuarial assumptions to the benefit provisions and demographic data furnished, using the Actuarial Cost Method described. The Actuarial Cost and Amortization Methods allocate the projected obligations of the Plan over the working lifetimes of the Plan Members.

The Recommended Contribution amount shown in this report is based on the methods summarized above. The *Actuarial Funding Policies* section of this report includes a more detailed description of the Actuarial Funding Methods being used.

The Actuarial Funding Methods are meant to provide a systematic process for determining contributions on an annual basis. The methods do not impact the expectation of future benefit payments. The methods only impact the way contributions are made towards future benefit payments.

Different Actuarial Funding Methods may achieve funding goals with differing levels of success. Certain methods are more efficient and more stable on an annual basis.

In the current valuation, the Plan Sponsor has elected to use a 10% corridor in the determination of the Actuarial Value of Assets for both the Recommended and Alternative Contributions. In the event that the Actuarial Value of Assets exceeds 110% of the Fair Value of Assets or falls below 90% of the Fair Value of Assets, the excess gains or losses will be recognized immediately.





ALTERNATIVE CONTRIBUTION

Alternative Contribution
Funded Status – Alternative Contribution
Actuarial Methods – Alternative Contribution

ALTERNATIVE CONTRIBUTION

ALTERNATIVE CONTRIBUTION

	Prior Valuation	Current Valuation
Alternative Contribution	\$1,152,783	\$1,207,296
Expected Payroll	\$4,945,867	\$5,064,054
Alternative Contribution as a Percent of Expected Payroll	23.31%	23.84%

FUNDED STATUS – ALTERNATIVE CONTRIBUTION

	Prior Valuation	Current Valuation
Normal Cost	\$1,183,542	\$1,200,157
Fair Value of Assets	\$42,533,806	\$44,118,236
Actuarial Value of Assets	\$43,676,676	\$47,218,464
Actuarial Accrued Liability	\$54,223,168	\$58,591,687
Unfunded Actuarial Accrued Liability/(Surplus)	\$10,546,492	\$11,373,223
<u>Percent Funded</u>		
Actuarial Value of Assets	80.55%	80.59%
Fair Value of Assets	78.44%	75.30%



ALTERNATIVE CONTRIBUTION

The Alternative Contribution is based on Actuarial Funding Methods and funding parameters outlined in the Illinois State Statutes for pension funding. The resulting contribution is lower than the Recommended Contribution for the current year. The Alternative Contribution amount is not recommended because it represents only a deferral of contributions when compared to the Recommended Contribution method.

Actuarial Funding Methods for pensions are best applied to provide a balance between the long-term goals of a variety of stakeholders:

1. Members – the Members are interested in benefit security and having the funds available to pay benefits when retired
2. Employers – cost control and cost stability over the long-term
3. Taxpayers – paying for the services they are receiving from active Members

The Alternative Contribution methods are not intended to provide a better system in any of the above categories long-term. The parameters are not recommended for a long-term funding strategy.

The funding methods and parameters put into place in the Illinois State Statutes in 2011 were intended to provide short-term budget relief for Employer Contributions. An Employer using the parameters outlined in the Illinois State Statutes for current funding should view the contributions as short-term relief. Our recommendation in this situation is for a Pension Fund and an Employer to work towards a long-term funding strategy that better achieves the long-term funding goals, over a period that does not exceed 3-5 years.

The Securities and Exchange Commission in 2013 used the phrase “Statutory Underfunding” to describe situations where contributions appear to be more manageable in the short-term, but set up future Recommended Contributions that are less likely to be manageable.



ALTERNATIVE CONTRIBUTION

ACTUARIAL METHODS – ALTERNATIVE CONTRIBUTION

Actuarial Valuation Date	May 1, 2023
Data Collection Date	April 30, 2023
Actuarial Cost Method	Projected Unit Credit
Amortization Method	Level % Pay (Closed)
Amortization Target	90% Funded Over 17 Years
Asset Valuation Method	5-Year Smoothed Fair Value

The contribution and benefit values of the Pension Fund are calculated by applying actuarial assumptions to the benefit provisions and demographic data furnished, using the Actuarial Cost Method described. The Actuarial Cost and Amortization methods allocate the projected obligations of the Plan over the working lifetimes of the Plan Members.

The Actuarial Funding Methods are meant to provide a systematic process for determining contributions on an annual basis. The methods do not impact the expectation of future benefit payments. The methods only impact the way contributions are made towards future benefit payments.

Different Actuarial Funding Methods may achieve funding goals with differing levels of success. Certain methods are more efficient and more stable on an annual basis.

The guidelines in the Illinois State Statutes for pension funding are silent on the use of a corridor on the Fair Value of Assets in determination of the Actuarial Value of Assets. In the current valuation, the Plan Sponsor has elected to use a 10% corridor in the determination of the Actuarial Value of Assets for both the Alternative Contribution and the Recommended Contribution. In the event that the Actuarial Value of Assets exceeds 110% of the Fair Value of Assets or falls below 90% of the Fair Value of Assets, the excess gains or losses will be recognized immediately.





ACTUARIAL VALUATION DATA

Active Members
Inactive Members
Summary of Monthly Benefit Payments
Age and Service Distribution

ACTUARIAL VALUATION DATA

ACTIVE MEMBERS

	Prior Valuation	Current Valuation
Tier I	29	27
Tier II	19	21
Total Active Members	48	48
Total Payroll	\$ 4,872,775	\$ 4,989,216

INACTIVE MEMBERS

	Prior Valuation	Current Valuation
Terminated Members	6	7
Retired Members	17	18
Disabled Members	4	4
Other Beneficiaries	0	0
Total Inactive Members	27	29

SUMMARY OF MONTHLY BENEFIT PAYMENTS

	Prior Valuation	Current Valuation
Retired Members	\$ 114,249	\$ 126,311
Disabled Members	18,246	18,429
Other Beneficiaries	-	-
Total Inactive Members	\$ 132,495	\$ 144,739



ACTUARIAL VALUATION DATA

AGE AND SERVICE DISTRIBUTION

5/1/2023 Age and Service Distribution - Tier 1 Tier 2 Active Members												
	Service	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
Age												
Under 25		0 1	0 2									0 3
25 to 29			0 3	0 1								0 4
30 to 34		0 1	0 5	0 3								0 9
35 to 39			0 2	0 2	2 0	3 0						5 4
40 to 44				0 1		5 0	3 0					8 1
45 to 49							7 0	4 0				11 0
50 to 54						2 0	1 0					3 0
55 to 59												
60 to 64												
65 to 69												
70 & up												
Total		0 2	0 12	0 7	2 0	10 0	11 0	4 0				27 21





ACTUARIAL FUNDING POLICIES

Actuarial Cost Method
Financing Unfunded Actuarial Accrued Liability
Actuarial Value of Assets

ACTUARIAL FUNDING POLICIES

ACTUARIAL COST METHOD

The Actuarial Cost Method allocates the projected obligations of the Plan over the working lifetimes of the Plan Members.

In accordance with the Pension Fund's Funding Policy, the Actuarial Cost Method for the Recommended Contribution basis is Entry Age Normal (Level Percent of Pay). The Entry Age Normal Cost Method is a method under which the Actuarial Present Value of the projected benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age. The portion of this Actuarial Present Value allocated to a valuation year is called Normal Cost. The portion of the Actuarial Present Value not provided at an Actuarial Valuation Date by the Actuarial Present Value of future Normal Costs is called the Actuarial Accrued Liability.

The Entry Age Normal method attempts to create a level cost pattern. In contrast to other Actuarial Cost Methods which inherently lead to uneven or less predictable cost patterns, the Entry Age Normal method is generally understood to be less risky in terms of contribution stability from year to year.

The Conference of Consulting Actuaries Public Plans Community produced a "white paper" detailing Funding Policy model practices for public sector pension plans. Under the Level Cost Actuarial Methodology ("LCAM"), one of the principal elements to a Funding Policy is the Actuarial Cost Method. When deciding which Actuarial Cost Method to use, several objectives may be considered, such as the following:

- Each Member's benefit should be funded under a reasonable allocation method by the expected retirement date
- Pay-related benefit costs should reflect anticipated pay at retirement
- The expected cost of each year of service (i.e. Normal Cost) for each active Member should be reasonably related to the expected cost of that Member's benefit
- The Member's Normal Cost should emerge as a level percent of Member compensation
- No gains or losses should occur if all assumptions are met.

Following these criteria, the use of the Entry Age Normal Cost Method (Level Percent of Pay) is a model practice.

FINANCING UNFUNDED ACTUARIAL ACCRUED LIABILITY

The Unfunded Actuarial Accrued Liability may be amortized over a period either in level dollar amounts or as a level percentage of payroll.

When amortizing the Unfunded Actuarial Accrued Liability as a level percentage of payroll, additional risk is incurred since the amortization payments in the early years of the payment period may not be large enough to cover the interest accrued on the existing Unfunded Liability. As a result, the Unfunded Liability



ACTUARIAL FUNDING POLICIES

may increase initially, before the amortization payments grow large enough to cover all interest accruals. Generally speaking, the Plan Sponsor will be required to contribute a larger total contribution amount over the course of the funding period under a level percentage of payroll basis as compared to a level dollar payroll schedule.

The Government Finance Officers Association notes that best practices in public pension finance include utilizing amortization periods that do not exceed 20 years. Longer amortization periods elevate the risk of failing to reduce any Unfunded Liability. For example, when the amortization payment in full only covers interest on the Unfunded Liability, but does not reduce the existing Unfunded Liability, the required contribution will increase in future years.

A second principal element under the Level Cost Actuarial Methodology described above is to establish an Amortization Policy that determines the length of time and the structure of the increase or decrease in contributions required to systematically fund the Unfunded Actuarial Accrued Liability. When deciding on the Amortization Policy, several objectives may be considered, such as the following:

- Variations in the source of liability changes (i.e. gains or losses, Plan changes, assumption changes) should be funded over periods consistent with an appropriate balance between the policy objectives of demographic matching and volatility management
- The cost changes in Unfunded Actuarial Accrued Liability should emerge as a level percentage of Member compensation

The LCAM model practices for the Amortization Policy include the following:

- Layered fixed period amortization by source
- Level percent of pay amortization
- An amortization period ranging from 15-20 years for experience gains or losses
- An amortization period of 15-25 years for assumption changes

In accordance with the Pension Fund's Funding Policy for the Recommended Contribution, the Unfunded Actuarial Accrued Liability is amortized by level percent of payroll contributions to a 100% funding target over a layered amortization period of 15 years. See the *Actuarial Methods – Recommended Contribution* section of this report for more detail.

The equivalent single amortization period based on the layered amortization of Unfunded Liability is 9.47 years for the current valuation.

We believe that the amortization period is appropriate for the purpose of this valuation.



ACTUARIAL FUNDING POLICIES

ACTUARIAL VALUE OF ASSETS

The Pension Fund is an ongoing plan. The Employer wishes to smooth the effect of volatility in the Fair Value of Assets on the annual contribution. Therefore, the Actuarial Value of Assets is equal to the Fair Value of Assets with unanticipated gains/losses recognized over a five-year period.

The Asset Valuation Method is intended to create an Actuarial Value of Assets that remains reasonable in relation to the Fair Value of Assets over time. The method produces results that can fall either above or below the Fair Value of Assets. The period of recognition is short.

It is intended that the period of recognition is short enough to keep the Actuarial Value of Assets within a decent range of the Fair Value of Assets. In the event that the Actuarial Value of Assets exceeds or falls below a 10% corridor of the Fair Value of Assets, the additional gain or loss will be recognized immediately.





ACTUARIAL ASSUMPTIONS

Nature of Actuarial Calculations
Selection of Actuarial Assumptions
Actuarial Assumptions in the Valuation Process
Assessment of Risk Exposures
Limitations of Risk Analysis
Assessment and Use of Actuarial Models
Actuarial Assumptions Utilized

ACTUARIAL ASSUMPTIONS

NATURE OF ACTUARIAL CALCULATIONS

The results documented in this report are estimates based on data that may be imperfect and on assumptions about future events. Certain Plan Provisions may be approximated or deemed immaterial, and, therefore, are not valued. Assumptions may be made about demographic data or other factors. Reasonable efforts were made in this valuation to ensure that significant items in the context of the Actuarial Accrued Liability or costs are treated appropriately, and not excluded or included inappropriately.

Actual future experience will differ from the assumptions used in the calculations. As these differences arise, the expense for accounting purposes will be adjusted in future valuations to reflect such actual experience.

A range of results different from those presented in this report could be considered reasonable. The numbers are not rounded, but this is for convenience only and should not imply precision which is not inherent in actuarial calculations.

SELECTION OF ACTUARIAL ASSUMPTIONS

Actuaries and other service providers provide guidance to their clients in the selection of assumptions used in the Actuarial Valuation based on their industry-specific training and experience. The Actuaries' expertise is used in the determination of demographic assumptions as it relates to future expectations of Plan demographic activity, such as mortality, termination, and retirement rates. The selection of economic assumptions, such as Expected Rate of Return on Investments or the assumed inflation rate, is more subjective. Investment advisors and other services providers utilize their expertise and knowledge of capital markets to model future expectations. Some assumptions may have an influence on other assumptions. The role of the Actuary in the selection of the economic assumptions is to review available market information including historical economic information and forward-looking capital market projections from investment professionals and to assess whether or not sufficient backup exists to deem the assumption reasonable. The selection of economic assumptions is the responsibility of the client. For example, the inflation rate (an economic assumption) may directly correlate to the active member salary increase assumption (a demographic assumption). Once all demographic and economic assumptions have been determined, the Actuary will create various sets of assumptions which take into account the proposed assumptions individually and in the aggregate. The client will then make the final decision of which assumption set to use.



ACTUARIAL ASSUMPTIONS

ACTUARIAL ASSUMPTIONS IN THE VALUATION PROCESS

The contributions and benefit values of the Pension Fund are calculated by applying actuarial assumptions to the benefit provisions and demographic data furnished, using the Actuarial Cost Method described in the *Actuarial Funding Policies* section of this report.

The principal areas of financial risk which require assumptions about future experience are:

- Expected Rate of Return on Investments
- Patterns of Pay Increases for Members
- Rates of Mortality Among Active and Inactive Members
- Rates of Termination Among Active Members
- Rates of Disability Among Active Members
- Age Patterns of Actual Retirements

Actual experience of the Pension Fund will not coincide exactly with assumed experience. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments to the computed Recommended Contribution.

Details behind the selection of the actuarial assumptions can be found in the Actuarial Assumption Summary document provided to the client upon request. The client has reviewed and approved the assumptions as a reasonable expectation of the future anticipated experience under the Plan.



ACTUARIAL ASSUMPTIONS

ASSESSMENT OF RISK EXPOSURES

From time to time it becomes appropriate to modify one or more of the assumptions, to reflect experience trends (but not random year-to-year fluctuations). In addition, Actuarial Standards of Practice require that the Actuary minimally perform a qualitative assessment of key financial and demographic risks as part of the risk assessment process with each annual Actuarial Valuation. The risk assessments we perform include, but are not limited to, the following:

- Periodic demographic experience studies every 3 to 5 years to confirm the ongoing appropriateness of actuarial assumptions
- Highlight the impact of demographic experience over the past year, as well as other sources of change and volatility in the *Actuarial Recommended Contribution – Reconciliation* section of this report
- Detail year-over-year changes in contribution levels, assets, liabilities, and Funded Status in the *Recommended Contribution* and *Funded Status* sections in the *Management Summary* section of this report
- Review any material changes in the demographic data as summarized in the *Actuarial Valuation Data* section of this report
- Provide and discuss the Actuarial Assumption Summary document highlighting the rationale for each key assumption chosen by the client
- Identify potential Cash Flow Risk by highlighting expected benefit payments over the next 5-year and 10-year periods in the *Asset Growth* section in the *Management Summary* section of this report
- Describe the impact of any assumption, method, or policy change in the *Management Summary* section of this report
- Utilize supplemental information, such as the GASB Discount Rate sensitivity disclosures to understand, for example, what impact an alternative Expected Rate of Return on Investments assumption might have on the estimation of Actuarial Accrued Liability and Funded Status
- Utilize supplemental information, such as the GASB solvency test, to better understand the Cash Flow Risk and long-term sustainability of the Plan

LIMITATIONS OF RISK ANALYSIS

Since future experience may never be precisely as assumed, the process of selecting funding methods and actuarial assumptions may inherently create risk and volatility of results. A more detailed evaluation of the above risk exposures is beyond the scope and nature of the annual Actuarial Valuation process. For example, scenario tests, sensitivity tests, stress tests, and/or stochastic modeling for multi-year projections to assess the impact of alternative assumptions and methods, or modeling future experience different from the assumptions in these results, are not included in this Actuarial Valuation.

The Algonquin Police Pension Fund and/or the Village of Algonquin, Illinois should contact the Actuary if they desire a more detailed assessment of any of these forward-looking risk exposures.



ACTUARIAL ASSUMPTIONS

ASSESSMENT AND USE OF ACTUARIAL MODELS

Actuarial Valuations rely upon the use of actuarial modeling software to predict the occurrence of future events, which include specific demographic and financial potential outcomes. Actuarial assumptions are established to provide a guideline to use for such modeling.

- The model used in this Actuarial Valuation is intended to determine the Recommended Contribution, under the selected Funding Policy. The actuarial assumptions used were developed with this goal in mind.
- There are no known material limitations or inconsistencies among the actuarial assumptions or methods.
- The output from the model is reasonable based on the individual actuarial assumptions and based on the actuarial assumptions in the aggregate.
- The actuarial software used to calculate plan liabilities has been purchased from an outside vendor. We have performed thorough testing of the software, including review of sample participants, to ensure the intended purpose of the model, the operation of the model, sensitivities and dependencies, and strengths and limitations of the model are sufficient for this purpose.
- Demographic data and financial information have been provided by client professionals, financial advisors, and/or auditors, who are known to be experts in their respective fields. We rely on the fact that the information provided by these experts has been given for the intended purpose of this Actuarial Valuation.
- Where applicable, certain actuarial assumptions and Funding Policy may be required as prescribed by law. In such instances, we have followed legal guidance to ensure conformity.
- The Expected Rate of Return on Investments assumption has been chosen using input from several sources; including, but not limited to: client professionals, financial advisors, auditors, and other capital market outlooks. We have relied on the information provided, in the aggregate, to settle on the selected Expected Rate of Return on Investments assumption.

As stated in the *Limitations of Risk Analysis* section, future experience may never be precisely as assumed. As a result, the funding methods and actuarial assumptions used in the model may create volatility in the results when compared year after year. A more detailed evaluation of this volatility is beyond the scope and nature of the annual Actuarial Valuation process. In such cases, additional scenario tests, sensitivity tests, stress tests, and/or stochastic modeling for multi-year projections to assess the impact of alternative assumptions and methods, or modeling future experience different from the assumptions in these results, may be performed to determine a range of reasonable results.



ACTUARIAL ASSUMPTIONS

ACTUARIAL ASSUMPTIONS UTILIZED

Expected Rate of Return on Investments	6.75% Net of Administrative Expense
CPI-U	2.25%
Total Payroll Increases	3.00%
Individual Pay Increases *	3.75% - 8.65%

Individual pay increases include a long-term average increase for inflation, average annual increases for promotions, and any additional increases for a step program. Sample rates are as follows:

Service	Rate	Service	Rate
0	6.80%	8	3.75%
1	8.65%	9	3.75%
2	8.27%	10	3.75%
3	7.93%	15	3.75%
4	7.62%	20	3.75%
5	7.35%	25	3.75%
6	7.10%	30	3.75%
7	7.33%	35	3.75%

*Individual pay increases for active Members hired at age 40 or older are assumed annual increases at the ultimate rate reduced by 50 basis points, without adjustments in early service years.



ACTUARIAL ASSUMPTIONS

Retirement Rates

100% of the L&A Assumption Study for Police 2020 Cap Age 65.
Sample rates are as follows:

Age	Rate	Age	Rate
50	11.00%	58	16.25%
51	11.55%	59	16.25%
52	12.13%	60	16.25%
53	12.73%	61	16.25%
54	13.37%	62	18.00%
55	14.04%	63	20.00%
56	14.74%	64	20.00%
57	15.48%	65	100.00%

Termination Rates

100% of the L&A Assumption Study for Police 2020. Sample rates are as follows:

Age	Rate	Age	Rate
25	8.00%	40	2.17%
30	3.40%	45	1.56%
35	2.79%	50	0.46%

Disability Rates

100% of the L&A Assumption Study for Police 2020. Sample rates are as follows:

Age	Rate	Age	Rate
25	0.00%	40	0.38%
30	0.06%	45	0.53%
35	0.18%	50	0.48%

65% of active Members who become disabled are assumed to be in the Line of Duty.



ACTUARIAL ASSUMPTIONS

Mortality Rates

Active Mortality follows the Sex Distinct Raw Rates as developed in the PubS-2010(A) Study. Mortality improvement uses MP-2019 Improvement Rates applied on a fully generational basis.

50% of active Member deaths are assumed to be in the Line of Duty.

Retiree Mortality follows the L&A Assumption Study for Police 2020. These rates are experience weighted with the Sex Distinct Raw Rates as developed in the PubS-2010(A) Study improved to 2017 using MP-2019 Improvement Rates. These rates are then improved fully generationally using MP-2019 Improvement Rates.

Disabled Mortality follows the Sex Distinct Raw Rates as developed in the PubS-2010 Study for disabled participants. Mortality improvement uses MP-2019 Improvement Rates applied on a fully generational basis.

Spouse Mortality follows the Sex Distinct Raw Rates as developed in the PubS-2010(A) Study for contingent survivors. For all rates not provided there (ages 45 and younger) the PubG-2010 Study for general employees was used. Mortality improvement uses MP-2019 Improvement Rates applied on a fully generational basis.

Marital Assumptions

Active Members: 80% of active Members are assumed to be married. Female spouses are assumed to be 3 years younger than male spouses.

Retiree and Disabled Members: Actual spousal data was utilized for retiree and disabled Members.





LOW-DEFAULT-RISK OBLIGATION MEASURE

Low-Default-Risk Obligation Measure – Purpose
Low-Default-Risk Obligation Measure
Low-Default-Risk Obligation Measure vs Actuarial Liability

LOW-DEFAULT-RISK OBLIGATION MEASURE

LOW-DEFAULT-RISK OBLIGATION MEASURE - PURPOSE

The Pension Committee of the Actuarial Standards Board adopted changes to Actuarial Standards of Practice No. 4 (“ASOP 4”). ASOP 4 is titled “Measuring Pension Obligations and Determining Pension Plan Costs or Contributions”. The changes were adopted by the Actuarial Standards Board in December 2021 and are effective for reporting and Measurement Dates on or after February 15, 2023.

One change is the requirement for all Funding Actuarial Valuations to include a Low-Default-Risk Obligation Measure (“LDROM”). In its simplest form, the LDROM is a measure of Actuarial Liability determined using a low-risk Expected Rate of Return on Investments. The LDROM is not intended to replace the Actuarial Liability used to determine the Recommended Contribution amount calculated in this report. The intention is to provide additional information on the Funded Status of the Plan and benefit security.

The Low-Default-Risk Obligation Measure is shown below as of the Measurement Date. The discussion that follows provides more information on the assumptions and methods used to determine the LDROM and some interpretation of the results.

LOW-DEFAULT-RISK OBLIGATION MEASURE

	<u>Current Valuation</u>
Low-Default-Risk Obligation Measure	\$ 79,733,924
Fair Value of Assets	<u>44,118,236</u>
Obligation not Covered by Current Assets	<u>\$ 35,615,688</u>

*The Low-Default-Risk
Obligation Measure is Not
Intended to Replace the
Actuarial Liability Used to
Determine the Recommended
Contribution.*

The Obligation not Covered by Current Assets shown above is for illustration of the Low-Default-Risk Obligation Measure only and is not intended for any other purposes. The amount of Obligation not Covered by Current Assets should not be used for pension funding or financial statement reporting purposes. In addition, the Obligation not Covered by Current Assets amount should not be used for any other assessments related to pension funding, such as assessing Unfunded Liability for the purpose of issuing Pension Obligation Bonds. Discussion of any of these items should be handled separately.



LOW-DEFAULT-RISK OBLIGATION MEASURE

Selection of the Discount Rate

Under Actuarial Standards, a Discount Rate should be selected from a source that develops the rate using low-default-risk fixed income securities. In addition, the fixed income securities should be reasonably consistent with the pattern of expected benefit payments from the Fund.

The Low-Default-Risk Obligation Measure has been valued using the FTSE Pension Discount Curve. The FTSE Pension Discount Curve is determined using rates from corporate bonds that are rated AA (from the FTSE U.S. Broad Investment Grade Bond Index) and yields from the FTSE Russell's Treasury model curve. The result is a set of investment grade zero coupon bond rates with maturities from 6 months to 30 years.

The equivalent single discount rate that would produce the same liability as the FTSE Pension Discount Curve is 4.78%.

There are other indices constructed that are appropriate for this disclosure as well. They could produce Discount Rates that are higher or lower than the LDROM shown here. An increase/decrease in the discount rate of 50 basis points (0.50%) would decrease/increase the LDROM by (8.23%)/9.30%, respectively. In our opinion, the FTSE Pension Discount Curve meets the requirements of the disclosure of the LDROM. The curve is constructed using investment grade corporate bonds. In addition, the rates are updated monthly and the current rates used (as of the Measurement Date of this report) are reflective of current market conditions. Finally, the use of a yield curve as opposed to a single rate allows the flexibility for the LDROM to be determined in a manner consistent with the pattern of expected benefit payments.

The Discount Rate is intended for the current Measurement Date only. In order to stay consistent with the prevailing market conditions, the Discount Rate will be assessed and updated each year at each new Measurement Date.

Selection of the Actuarial Cost Method

The Standard requires the use of an immediate-gain Actuarial Cost Method. We have elected to use the Entry Age Normal cost method for measurement of the LDROM. Entry Age Normal is being applied on a percent of pay basis. The Cost Method is the same method used for the determination of the Recommended Contribution in this report.

Other immediate-gain Actuarial Cost Methods are available and acceptable for use in the determination of the LDROM. Other acceptable methods include benefits-based methods and accrued benefit methods. We selected the Entry Age Normal method due to the fact that benefit liability in this Fund is not typically settled with one-time payments. For example, the Plan does not pay lump sums (except refunds of Member Contributions) and is not anticipated to settle liability through the purchase of annuity contracts. Therefore, the usefulness of a benefits-based method is much more limited in interpretation of this measure as it relates to benefit security.



LOW-DEFAULT-RISK OBLIGATION MEASURE

Interpretation of the LDROM

The Low-Default-Risk Obligation Measure is higher than the liability used for the Recommended Contribution determination by \$21,844,677.

Actuarial Liability is determined in different ways based on the purpose of the measurement. The Actuarial Liability for Recommended Contribution purposes is used to develop a contribution amount that, when combined with other sources of funding (including Member Contributions and expected investment returns), would pay all future expected benefits. The expected investment returns under this scenario are based on the current asset allocation and capital market expectations of the Fund. Assets are invested in a way that involves risk. Actual returns can vary significantly year-to-year above and below expectations. The trade-off is a risk-premium over the long-term and above low-risk market rates.

The LDROM, by contrast, is developed using low-risk returns available in the market. These returns could be obtained theoretically with low-risk of deviation from expectation, and lower expectation (i.e. there is no risk-premium). The LDROM, then, can be thought of as the amount of money that should be set aside today to appropriately fund and prepare for all future benefit payments, if the assets were invested in relatively low volatility assets available in the market today.

The expected decrease in the liability for funding purposes as compared to the LDROM can be thought of as cost savings from investing in riskier assets, with higher long-term return expectations. At the same time, this difference also represents a risk factor for the Pension Fund as the Fund is reliant on receiving the expected return on investments, including a risk premium. Contributions, combined with these investment returns, are required in order to fund future benefit payments.

LOW DEFAULT RISK OBLIGATION MEASURE VS ACTUARIAL LIABILITY

	<u>Current Valuation</u>
Low-Default-Risk Obligation Measure	\$ 79,733,924
Actuarial Accrued Liability (Entry Age Normal)	<u>57,889,247</u>
Difference	<u>\$ 21,844,677</u>

*The Low-Default-Risk
Obligation Measure is Not
Intended to Replace the
Actuarial Liability Used to
Determine the Recommended
Contribution.*





SUMMARY OF PRINCIPAL PLAN PROVISIONS

Establishment of the Fund
Administration
Member Contributions
Regular Retirement Pension Benefit
Early Retirement Pension Benefit
Surviving Spouse Benefit
Termination Benefit – Vested
Disability Benefit

SUMMARY OF PRINCIPAL PLAN PROVISIONS

ESTABLISHMENT OF THE FUND

The Police Pension Fund is established and administered as prescribed by “Article 3 – Police Pension Fund – Municipalities 500,000 and Under” of the Illinois Pension Code.

ADMINISTRATION

The Police Pension Fund is administered by a Board of Trustees whose duties are to manage the Pension Fund, determine applications for pensions, authorize payment of pensions, establish rules, pay expenses, and keep records.

MEMBER CONTRIBUTIONS

Members contribute 9.910% of their pensionable salary.

REGULAR RETIREMENT PENSION BENEFIT

Tier I

Eligibility: Age 50 with at least 20 years of creditable service.

Benefit: 50% of final salary for the first 20 years of service, plus an additional 2.5% of final salary for each year of service beyond 20 years of service, and not to exceed 75% of final salary. “Final salary” is based on the police officer’s pensionable salary attached to rank held on the last day of service, unless the pensionable salary was greater at some point within the year prior to the last day of service. If so, the pensionable salary is averaged over the last 12 months.

Annual Increase in Benefit: A police officer is entitled to receive an initial increase equal to 1/12 of 3% of the original monthly benefit for each full month that has passed since the pension began. The initial increase date will be the later of the first day of the month after the pensioner turns age 55 or the first day of the month after the benefit date anniversary. Subsequent increases of 3% of the current monthly benefit will be granted every January 1st thereafter.



SUMMARY OF PRINCIPAL PLAN PROVISIONS

REGULAR RETIREMENT PENSION BENEFIT - CONTINUED

Tier II

Eligibility: Age 55 with at least 10 years of creditable service.

Benefit: 2.5% of final average salary for each year of service, and not to exceed 75% of final average salary. "Final average salary" is determined by dividing the total pensionable salary during 48 consecutive months of service within the last 60 months of service in which total pensionable salary was the highest, by the number of months of service in that period (or by dividing the total pensionable salary during 96 consecutive months of service within the last 120 months of service in which total pensionable salary was the highest, by the number of months of service in that period, if greater). Annual salary for this purpose will not exceed the salary cap, indexed by the lesser of 3% or the CPI-U for the 12 months ending with the September preceding each November 1st. The salary cap will not decrease.

Annual Increase in Benefit: The initial increase date will be the later of the January 1st after the pensioner turns age 60 or the January 1st after the benefit date anniversary. Subsequent increases will be granted every January 1st thereafter. The initial increase and subsequent increases will be the lesser of 3% of the original benefit or ½ of the CPI-U for the 12 months ending with the September preceding each November 1st.

EARLY RETIREMENT PENSION BENEFIT

Tier I

None.

Tier II

Eligibility: Age 50 with at least 10 years of creditable service.

Benefit: The regular retirement pension benefit reduced by ½ of 1% for each month that the police officer's age is between 50 and 55.

Annual Increase in Benefit: The initial increase date will be the later of the January 1st after the pensioner turns age 60 or the January 1st after the benefit date anniversary. Subsequent increases will be granted every January 1st thereafter. The initial increase and subsequent increases will be the lesser of 3% of the original benefit or ½ of the CPI-U for the 12 months ending with the September preceding each November 1st.



SUMMARY OF PRINCIPAL PLAN PROVISIONS

SURVIVING SPOUSE BENEFIT

Tier I

Eligibility: Married to an active police officer with at least 8 years of creditable service, a disabled pensioner at the time of death, or a retired pensioner on the last day of service.

Active Line of Duty Death Benefit: An eligible surviving spouse is entitled to receive 100% of the police officer's final pensionable salary attached to rank held on the last day of service.

Non-Duty Death Benefit:

Disabled or Retired Pensioner: An eligible surviving spouse is entitled to receive the pensioner's benefit at the time of death.

Active Member with 20+ Years of Service: An eligible surviving spouse is entitled to the police officer's eligible benefit at the time of death.

Active Member with 10-20 Years of Service: An eligible surviving spouse is entitled to receive 50% of the police officer's pensionable salary attached to rank held on the last day of service, unless the pensionable salary was greater at some point within the year prior to the last day of service. If so, the pensionable salary is averaged over the last 12 months.

Annual Increase in Benefit: None.

Tier II

Eligibility: Married to an active police officer with at least 8 years of creditable service, a disabled pensioner at the time of death, or a retired pensioner on the last day of service.

Active Line of Duty Death Benefit: An eligible surviving spouse is entitled to receive 100% of the police officer's final pensionable salary attached to rank held on the last day of service.

Non-Duty Death Benefit:

Disabled or Retired Pensioner, Active Member with 20+ Years of Service, and Active Member with 10-20 Years of service: An eligible surviving spouse is entitled to receive the greater of 66⅔% of the police officer's earned pension benefit at the time of death or 54% of the police officer's monthly salary at the time of death.

Annual Increase in Benefit: The initial increase date will be the January 1st after the surviving spouse turns age 60. Subsequent increases will be granted every January 1st thereafter. The initial increase and subsequent increases will be the lesser of 3% of the original benefit or ½ of the CPI-U for the 12 months ending with the September preceding each November 1st.



SUMMARY OF PRINCIPAL PLAN PROVISIONS

SURVIVING SPOUSE BENEFIT – CONTINUED

Public Act 102-0811 passed on May 13, 2022 and is effective as of January 1, 2023 for Article 3 Pension Funds. The Act establishes that a surviving spouse of a deceased police retiree may be eligible for a survivor's pension of up to 15 years of benefit payments if (a) the surviving spouse has attained age 62 and (b) if the police officer was married to the surviving spouse after retirement, and for at least 5 years prior to the officer's death. Previously, there was no survivor's pension for spouses married after retirement. In our opinion, under a prudent interpretation of the provisions, we believe the impact to be de minimis. The legal community has suggested some uncertainty about multiple provisions contained in the Act, and the IDOI Public Pension Division has not provided an interpretation. The client has not made an administrative interpretation as to how the provisions of the Act will impact future surviving spouses. Due to the uncertainty around the interpretation and the expected *de minimis* impact, we have not valued this contingency separately for active Members. However, for any current retirees who were married after retirement and have been married for at least 5 years, as well as any surviving spouses currently in receipt of benefits under this provision, we have valued the liability of the benefit granted.

TERMINATION BENEFIT – VESTED

Tier I

Eligibility: Age 60 with at least 8 but less than 20 years of creditable service.

Benefit: 2.5% of final salary for each year of service. "Final salary" is based on the police officer's pensionable salary attached to rank held on the last day of service, unless the pensionable salary was greater at some point within the year prior to the last day of service. If so, the pensionable salary is averaged over the last 12 months.

Annual Increase in Benefit: A police officer is entitled to receive an initial increase equal to 1/12 of 3% of the original monthly benefit for each full month that has passed since the pension began. The initial increase date will be the first day of the month after the benefit date anniversary. Subsequent increases of 3% of the current monthly benefit will be granted every January 1st thereafter.

Tier II

None.



SUMMARY OF PRINCIPAL PLAN PROVISIONS

DISABILITY BENEFIT

Tier I

Eligibility: Duty or Non-Duty Disability or Occupational Disease Disability with at least 1 day of creditable service.

Benefit: For a duty disability or an occupational disease disability with at least 5 years of creditable service, a police officer is entitled to receive the greater of 65% of final salary or the regular retirement pension benefit at the time of disability. For a non-duty disability, a police officer is entitled to receive 50% of their final salary. “Final salary” is based on the police officer’s pensionable salary attached to rank held on the last day of service.

Annual Increase in Benefit: A police officer is entitled to receive an initial increase equal to 3% of the original monthly benefit for each full year that has passed since the pension began. The initial increase date will be the later of the January 1st after following pensioner turns age 60 or the January 1st after the benefit date anniversary. Subsequent increases of 3% of the original monthly benefit will be granted every January 1st thereafter.

Tier II

Eligibility: Duty or Non-Duty Disability or Occupational Disease Disability with at least 1 day of creditable service.

Benefit: For a duty disability or an occupational disease disability with at least 5 years of creditable service, a police officer is entitled to receive the greater of 65% of final salary or the regular retirement pension benefit at the time of disability. For a non-duty disability, a police officer is entitled to receive 50% of their final salary. “Final salary” is based on the police officer’s pensionable salary attached to rank held on the last day of service.

Annual Increase in Benefit: The initial increase date will be the later of the January 1st after the pensioner turns age 60 or the January 1st after the benefit date anniversary. Subsequent increases will be granted every January 1st thereafter. The initial increase and subsequent increases will be the lesser of 3% of the original benefit or ½ of the CPI-U for the 12 months ending with the September preceding each November 1st.





GLOSSARY OF TERMS

Glossary of Terms

GLOSSARY OF TERMS

GLOSSARY OF TERMS

Actuarial Accrued Liability – The Actuarial Present Value of future benefits based on Members’ service rendered to the Measurement Date using the selected Actuarial Cost Method. It is that portion of the Actuarial Present Value of Plan benefits and expenses allocated to prior years of employment. It is not provided for by future Normal Costs.

Actuarial Cost Method – The method used to allocate the projected obligations of the Plan over the working lifetimes of the Plan Members.

Actuarial Value of Assets – The value of the assets used in the determination of the Unfunded Actuarial Accrued Liability. The Actuarial Value of Assets is related to the Fair Value of Assets, with adjustments made to spread unanticipated gains and losses for a given year over a period of several years. Actuarial Value of Assets is generally equally likely to fall above or below the Fair Value of Assets, and generally does not experience as much volatility over time as the Fair Value of Assets.

Asset Valuation Method – A valuation method designed to smooth random fluctuations in asset values. The objective underlying the use of an Asset Valuation Method is to provide for the long-term stability of Employer Contributions.

Funding Policy – A set of procedures for a Pension Fund that outlines the “best practices” for funding the pension benefits based on the goals of the Plan Sponsor. A Funding Policy discusses items such as assumptions, Actuarial Cost Method, assets, and other parameters that will best help the Plan Sponsor meet their goal of working in the best interest of the Plan Members.

Fair Value of Assets – The value of the cash, bonds, securities, and other assets held in the pension trust as of the Measurement Date.

Normal Cost – The present value of future benefits earned by Members during the current Fiscal Year. It is that portion of the Actuarial Present Value of benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

Unfunded Actuarial Accrued Liability – The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The Unfunded Actuarial Accrued Liability is amortized over a period either in level dollar amounts or as a level percentage of projected payroll.





Lauterbach & Amen, LLP

CERTIFIED PUBLIC ACCOUNTANTS

MEMORANDUM

TO: Village President and Board of Trustees
FROM: Stan W. Helgerson, President, Police Pension Fund
DATE: July 14, 2023
RE: 2023 Tax Levy Request

The Police Pension Fund Board is hereby requesting that the Village Board levy \$2,050,508 for the Police Pension Fund. The amount was determined by an actuary that was jointly hired by the Village and the Pension Board.

Thank you for your consideration.

cc: Algonquin Police Pension Board



VILLAGE OF ALGONQUIN
GENERAL SERVICES ADMINISTRATION

– M E M O R A N D U M –

DATE: October 16, 2023

TO: Tim Schloneger, Village Manager

FROM: Michael Kumbera, Deputy Village Manager/Chief Financial Officer

SUBJECT: *2023 Property Tax Levy*

The attached resolution establishes the amount the Village is requesting for its 2023 property tax levy. State statutes require that the corporate authorities of the Village pass a resolution estimating the amount of tax to be levied not less than 20 days prior to the adoption of the final levy, which is scheduled to be presented at the December 19 Village Board meeting.

Background

For the 2022 tax levy year, the Village’s portion of resident’s tax bill was approximately 6.4 percent (with some minor variations depending on exact location of household). In FY 23/24, property taxes comprise 27 percent of the General Fund revenue, which includes the Road and Bridge tax levy, which is levied by the township level of government.

The Village, a home-rule unit of government, is not subject to the Property Tax Extension Limitation Law (PTELL), however, the Village is required to comply with the “Truth in Taxation Law.” The law places requirements on the Village in the adoption of the 2023 property tax levy if the proposed 2023 gross property tax levy is 105 percent greater than the 2022 net property tax extension.

Property tax revenues are not used to support business-like activities that are accounted for in enterprise funds, such as the Village’s Water and Sewer Utility.

Recommendation

The recommendation for the 2023 Tax Levy is \$6,430,000. This is an increase of \$300,000 from the 2022 tax levy. The details are shown in Exhibit A which is attached. As the proposed levy is 104.89 percent of last year’s extensions, there is no requirement for a public hearing under the Truth in Taxation Statute. The recommendation does take into consideration several factors that will impact the FY 24/25 financial plan including:

- The actuarial contribution recommendation for the Algonquin Police Pension Fund which exceeds the statutory requirement with a 100 percent funding level by 2033.
- The proportion of state-shared revenues and their stability in the long-term.
- Operational and capital needs for the upcoming period.

- Growth in Equalized Assessed Valuation (EAV) from both property value appreciation and new construction.

Projected EAV

Based on preliminary data obtained from Kane and McHenry County, equalized assessed valuation in the Village is expected to increase for the ninth consecutive year. The estimate of EAV for 2023 is \$1,240,000,000 which is 10.3% more than last year which illustrates appreciation of real estate values and new construction. The assessors in each county use a three year history of property values including sales experience in determining the reassessment or current valuation. Assessments generally lag behind current market pricing by 18 months.

The estimated tax rate for 2023 would be 0.519 per \$100 of EAV (refer to Exhibit A for details) which is less than 2022. A draft resolution reflecting this data is also attached.

Requested Action

If the Committee of the Whole concurs, a resolution should be forwarded to the Village Board for approval at the November 21 Village Board meeting.

Attachments

RESOLUTION 2023-R-

**DETERMINING THE AMOUNT OF FUNDS TO BE LEVIED
FOR THE 2023 TAX YEAR THROUGH REAL ESTATE TAXES FOR THE
VILLAGE OF ALGONQUIN, KANE AND McHENRY COUNTIES, ILLINOIS**

**BE IT RESOLVED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE
VILLAGE OF ALGONQUIN, KANE AND McHENRY COUNTIES, ILLINOIS:**

1. That it is determined that the amount of taxes to be levied by the Village of Algonquin, exclusive of election costs, is \$6,430,000, which is less than 105 percent of the prior year's extension.
2. That the amount of taxes proposed to be levied is 104.89 percent of the prior year's extension.
3. That the intent of the Village to levy less than 105 percent does not require an advertisement in the newspaper or a public hearing in accordance with the Truth in Taxation Law (35 ILCS 200/18-55 et seq.).

Debby Sosine, Village President

(SEAL)

Attest: _____
Fred Martin, Village Clerk

**VILLAGE OF ALGONQUIN
PROPOSED REAL ESTATE TAX LEVY
2023 TAX LEVY**

EQUALIZED ASSESSED VALUATION *	\$1,240,000,000	(10.3% INCREASE)
PURPOSE	ESTIMATED RATE	PROPOSED LEVY
-----	-----	-----
CORPORATE	0.133	\$1,650,000
POLICE PENSION	0.184	2,280,000
SOCIAL SECURITY	0.000	0
IMRF	0.000	0
SCHOOL CROSSING GUARDS	0.000	0
LIABILITY INSURANCE	0.000	0
POLICE PROTECTION	0.202	2,500,000
ESDA	0.000	0
PARKS	0.000	0
TOTAL	=====	=====
	0.519	6,430,000

* *Estimated*

VILLAGE OF ALGONQUIN
SCHEDULE OF PROPERTY TAX RATES & EAV

<u>Tax Levy Year</u>	<u>Rate (\$/\$100)</u>	<u>Levy (\$)</u>	<u>EAV (\$)</u>	<u>% Change EAV</u>
1988	0.600	\$560,450	\$110,909,000	-
1989	0.599	\$693,900	\$135,617,000	22.3%
1990	0.520	\$870,250	\$166,102,000	22.5%
1991	0.554	\$1,099,915	\$192,167,000	15.7%
1992	0.566	\$1,154,155	\$211,172,000	9.9%
1993	0.529	\$1,344,234	\$232,032,000	9.9%
1994	0.556	\$1,439,688	\$269,127,000	16.0%
1995	0.477	\$1,677,581	\$308,854,325	14.8%
1996	0.484	\$1,841,828	\$356,504,156	15.4%
1997	0.486	\$1,873,385	\$419,401,278	17.6%
1998	0.483	\$2,098,213	\$429,661,002	2.4%
1999	0.494	\$2,280,130	\$463,158,850	7.8%
2000	0.489	\$2,350,739	\$513,584,881	10.9%
2001	0.502	\$2,870,821	\$578,127,467	12.6%
2002	0.456	\$3,031,293	\$658,305,942	13.9%
2003	0.484	\$3,613,946	\$747,072,297	13.5%
2004	0.477	\$3,975,083	\$834,437,331	11.7%
2005	0.464	\$4,392,662	\$947,091,750	13.5%
2006	0.464	\$4,829,500	\$1,038,991,569	9.7%
2007	0.470	\$5,242,000	\$1,115,890,792	7.4%
2008	0.485	\$5,601,000	\$1,155,073,386	3.5%
2009	0.484	\$5,601,000	\$1,157,591,396	0.2%
2010	0.523	\$5,601,000	\$1,077,620,673	-6.9%
2011	0.564	\$5,575,000	\$981,280,749	-8.9%
2012	0.621	\$5,481,000	\$887,200,696	-9.6%
2013	0.678	\$5,481,000	\$805,011,458	-9.3%
2014	0.705	\$5,481,000	\$777,811,422	-3.4%
2015	0.716	\$5,731,000	\$800,571,395	2.9%
2016	0.657	\$5,600,000	\$852,365,740	6.5%
2017	0.622	\$5,600,000	\$900,634,801	5.7%
2018	0.588	\$5,600,000	\$951,587,593	5.7%
2019	0.570	\$5,600,000	\$982,740,828	3.3%
2020	0.571	\$5,812,000	\$1,018,422,053	3.6%
2021	0.565	\$5,900,000	\$1,044,040,074	2.5%
2022	0.545	\$6,130,000	\$1,124,395,592	7.7%
2023	0.519	\$6,430,000	\$1,240,000,000	10.3%



VILLAGE OF ALGONQUIN
PUBLIC WORKS DEPARTMENT

– M E M O R A N D U M –

DATE: 10/20/2023

TO: Tim Schloneger, Village Manager

CC: Nadim Badran, Public Works Director

FROM: Vince Kilcullen, General Services Superintendent
Mike Reif, Internal Services Supervisor

SUBJECT: Vehicles To Be Deemed Surplus

The following vehicles are proposed to be declared surplus as part of the Village's program with Enterprise Fleet Management. The program achieves the lowest total cost of operation by cycling out vehicles on a timely basis.

Unit #: 102
Year: 2019
Make: Hyundai
Model: Sonata
ID/VIN: KMHE24L39KA085183
Description: Enterprise Lease Turn In

Unit #: 330
Year: 2023
Make: GMC
Model: Sierra
ID/VIN: 1GTRUAEK7PZ127846
Description: Enterprise Lease Turn In

Unit #: 331
Year: 2023
Make: GMC
Model: Sierra
ID/VIN: 1GTRUAEK5PZ127974
Description: Enterprise Lease Turn In

Unit #: 405
Year: 2019
Make: Hyundai
Model: Sonata
ID/VIN: KMHE24L30KA085184
Description: Enterprise Lease Turn In

Unit #: 205
Year: 2023
Make: GMC
Model: Sierra
ID/VIN: 1GTRUAEK4PZ128405
Description: Enterprise Lease Turn In



VILLAGE OF ALGONQUIN
PUBLIC WORKS DEPARTMENT

– M E M O R A N D U M –

DATE: November 14, 2023

TO: Tim Schloneger, Village Manager
Committee of the Whole

FROM: Clifton Ganek, P.E., Village Engineer

SUBJECT: Proposal for Design to Upgrade the Algonquin Shores Lift Station
Pressurized Main with Trotter & Associates, Inc.

Attached is a proposal to complete the design to upgrade an 815-foot section of the Algonquin Shores Lift Station's pressurized main. Initially, the Algonquin Shores Lift Station was constructed in 1980 to handle the capacity of the Riverwood Estates subdivision. The lift station was upgraded in 2000 when the Algonquin Lakes subdivisions began development to handle the increased capacity. In addition to the upgraded lift station, approximately 2,400 feet of new 10-inch pressurized main was installed at the intersection of Riverwood Drive and Stratford Lane.

However, the section of pressurized main from the intersection of Riverwood Drive and Stratford Lane to Souwanas Trail remained in place. The remaining pressurized main is a 6-inch diameter with several 90-degree bends and a 10-inch by 6-inch reducer at the connection point. Public Works staff believes that the existing 6-inch main needs to be replaced based on the condition of the pipe section removed during the Souwanas Trail Project at the future connection point. The attached photos show the sludge buildup on the interior of the pipe, limiting the design capacity of the pipe. Additionally, the sludge buildup is deteriorating the pipe, weakening the integrity and stability of the main.

Staff believes several factors, including the diameter of the pipe, the age of the pipe, and the number of 90-degree bends, have created these issues. Staff is proposing to replace the aging 6-inch pressurized main with a 10-inch main from Riverwood Drive and Stratford Drive to Souwanas Trail to match the existing diameter of the main and minimize the number of 90-degree bends. The proposed 10-inch main will be installed via directional bore to reduce impacts to the residents of the subdivision and to avoid impact to the recently restored Souwanas Creek.

Staff is proposing to utilize Trotter & Associates to complete the design, given their knowledge of the Village's wastewater infrastructure and experience with the Village.

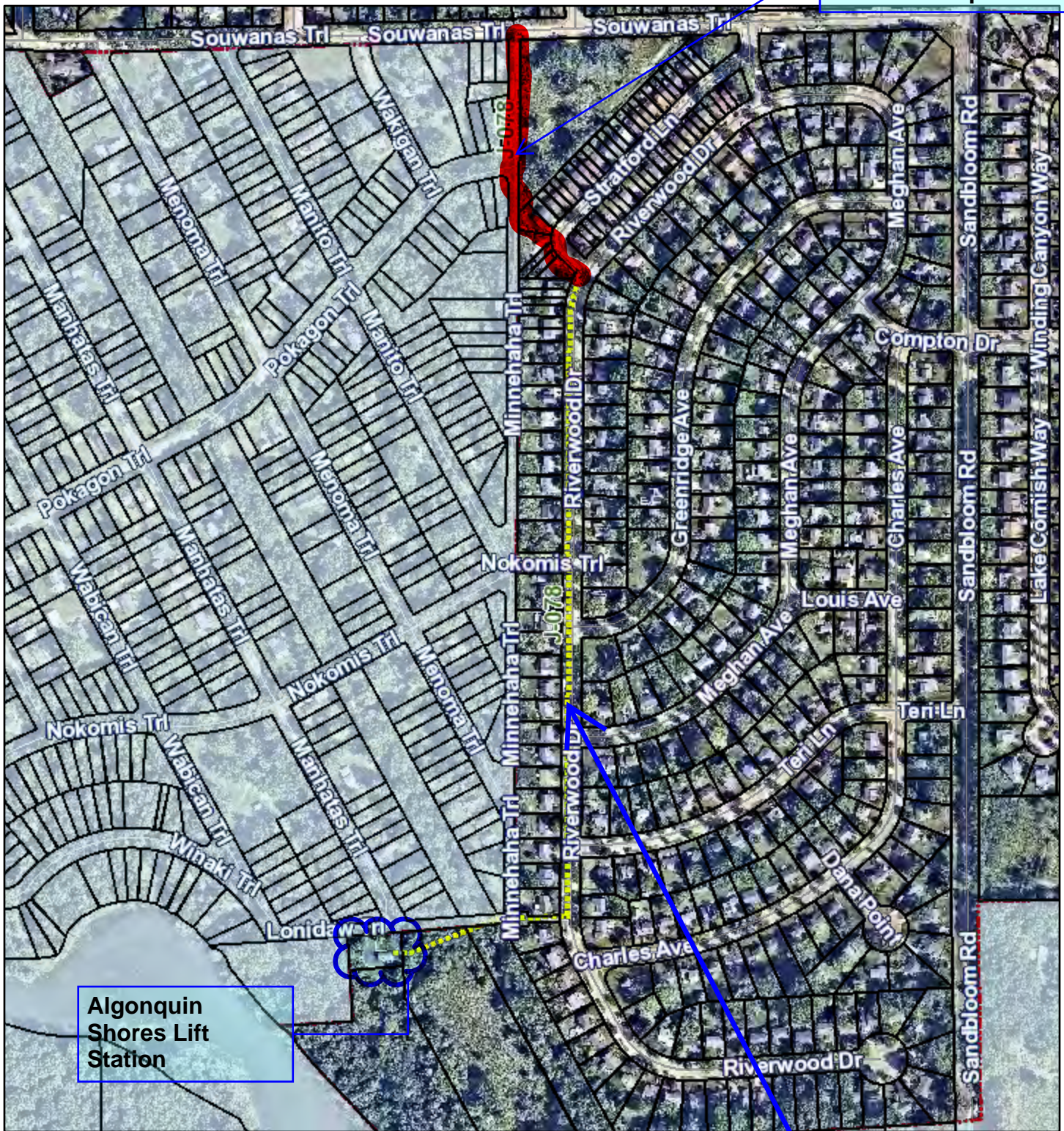
Trotter is currently designing the upsize of the pressurized main for the Braewood Lift Station. Ideally, both projects would be bid together this winter for a spring construction. This would allow for the main to be installed before completing the roadway on Souwanas Trail.

Trotter's proposal is in the amount of \$41,600 for the aforementioned design services. This project is unbudgeted, but due to the condition of the pressurized main and potential failure, staff recommends moving forward with the design this fiscal year. Available funds from the construction of the Highland Avenue Water Main Extension project in the Water and Sewer Fund will be used to cover the design costs for this project.

Therefore, the Public Works Department recommends that the Committee of the Whole take the necessary action to move the proposal with Trotter & Associates, Inc. to the Village Board in the amount of \$41,600.00 for approval.

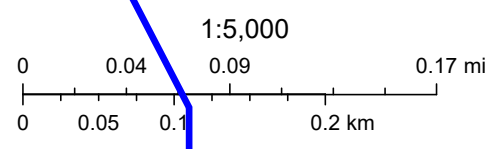
Algonquin Shores Pressurized Main

Existing 6-inch pressurized main to be replaced



11/7/2023, 12:35:42 PM

- - - - - Sewer Pressurized Mains
- Tax Parcels
- Road Centerlines
- Waterlines
- Not in Village
- Boundaries - Village Limit
- Building Floor Plans



10-inch pressurized main to remain

**MATERIAL BUILD UP INSIDE
PRESSURIZED MAIN REMOVED
ON SOUWANAS TRAIL PROJECT**





**DETERIORATED PIPE DUE TO MATERIAL
BUILD UP INSIDE PRESSURIZED MAIN. PIPE
REMOVED DURING SOUWNAS TRAIL
PROJECT**



November 2, 2023

Cliff Ganek
Village Engineer
Village of Algonquin
110 Meyer Drive
Algonquin, Illinois 60102

Re: Algonquin Shores Force Main Replacement
Professional Services Letter Agreement and Exhibits

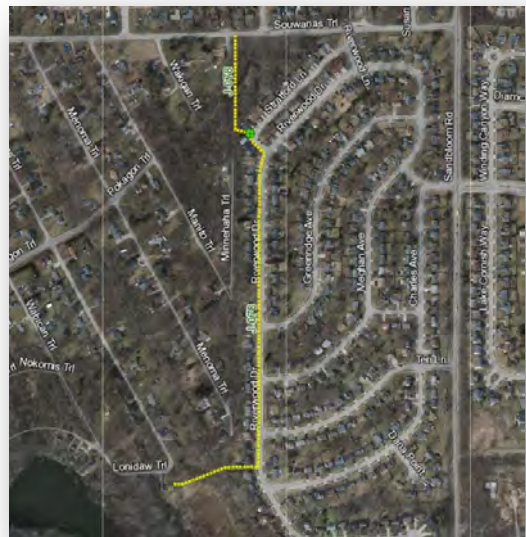
Dear Mr. Ganek,

Trotter and Associates, Inc. (ENGINEER) is pleased to provide professional services to the Village of Algonquin (CLIENT) for the Algonquin Shores Force Main Replacement (hereinafter referred to as the "PROJECT").

Project Background

The Algonquin Shores Lift Station is located at 525 Lonidaw Trail and was constructed in 2001. The station serves approximately 400 acres across the southeast portion of the Village. The station was originally located on Riverwood Drive but was relocated to Lonidaw Trail as part of the 2001 construction. The original force main alignment for the station was located within a front-yard easement along Riverwood Drive to Stratford Lane. The force main then continued north between residences at 1218 and 1220 Stratford Lane and discharged into a sanitary manhole on Souwanas Trail.

During the summer of 2000, a sanitary sewer extension and force main relocation project was completed along Riverwood Drive. As part of the project, approximately 1,900 feet of the existing force main along Riverwood Drive was upsized and relocated into the pavement between the existing lift station to the intersection of Riverwood Drive and Stratford Lane. A 10" x 6" reducer was installed to connect to the existing force main. The remaining 6" force main between Stratford Lane and the discharge sanitary manhole were never replaced.



The Village is currently reconstructing Souwanas Trail with completion of the project expected in the summer of 2024. The Village is requesting a proposal to complete the replacement and upsizing of the existing 815 LF of 6" force main that was not replaced as part of the 2000 force main relocation project. Replacement of the force main will be completed utilizing trenchless boring methods. There is currently an easement between 1218 and 1220 Stratford Lane and the new force main will be installed within the existing easement.

TAI is currently in the design phase to upsize the force main at the Braewood Lift Station. Options to bid the proposed Algonquin Shores Force Main Replacement project concurrently with the Braewood Force Main replacement project will be reviewed.

Project Understanding

The Village intends to replace the 6" Algonquin Shores Force Main between Stratford Lane and the discharge manhole on Souwanas Trail. Replacement of the force main will include the following:

1. Installation of approximately 815 feet of 10" force main via trenchless boring methods.
2. Installation of an air release valve.
3. Force main testing and final connections.
4. Abandonment of the existing 6" force main and air release valve vault.
5. Pavement patching, curb & gutter, and turf restoration.

Phase 1 Preliminary Design

During the Preliminary Design Phase, Engineer shall:

- A. Prepare a proposed force main alignment and review alternative installation options.
- B. Hold a Project Kick-off Meeting with Village staff, upon receipt of the Notice to Proceed, to establish project goals & schedule and review the proposed force main alignment.
- C. Perform site visits as necessary to determine site conditions.
- D. Obtain as-built and equipment information for existing pump station and force mains as needed (Village has provided data prior to this Agreement).
- E. Obtain utility locations, floodplain and floodway information on the existing site and determine site limitations.
- F. A wetland delineation has been completed in the area and provided by the Village. A wetland delineation is not included in the project scope.
- G. Coordinate for geotechnical services (services provided through the Village's geotechnical consultant).
- H. The existing site is owned by the Village and within Village easements. Conduct a topographic survey of the site, including property boundaries for design and permitting (Village to locate sanitary sewer and force main).
- I. Conduct a topographic survey along the alignment of the existing and proposed force main. The topographic survey limits for the force main will be between the intersection of Statford Lane and Riverwood Drive and the discharge manhole on Souwanas Trail. Survey will include all trees, pavement, sidewalk, located utilities and utility poles, curb and gutter, mailboxes, and landscaped areas.
- J. Prepare and submit 50% Preliminary Design documents and Engineer's Opinion of Probable Construction Cost.
- K. Attend preliminary design review meeting to address the Village's review comments and concerns.

Phase 2 Final Design

During the Final Design Phase, Engineer shall:

- A. Based on the approved Preliminary Design Phase, prepare 90% Engineering Plans and Specifications to show the scope, extent and character of the work to be furnished and performed by the Contractor for the Improvements. Drawings will include (but not necessarily limited to) the following:
 - i. General Construction Details and Notes;
 - ii. Force main alignment and profile drawings;
 - iii. Civil/Site drawings showing proposed restoration;

- L. Submit plans and specifications for IEPA Construction Permit.
- M. Submit plans and specifications for Illinois Historic Preservation Agency (IHPA) permitting.
- N. Submit plans and specifications as required for Illinois Department of Natural Resources (IDNR) Permitting.
- O. Submit plans and specifications as required for Kane County Stormwater and USACOE permitting.
- B. Prepare updated Engineer's Opinion of Probable Construction Cost.
- C. Revise plans and specification and resubmit as needed for all final permitting.
- D. Hold a meeting with Village staff to review and discuss 90% Engineering Plans and Specifications.
- E. Revise plans in accordance with additional comments and provide 100% complete plans to the Village for review and approval.
- F. Prepare an opinion of probable cost based on the Final Engineering Plans.
- G. Make minor revisions to the plans to incorporate changes and additional comments. Prepare electronic documents for distribution for bids.

Phase 3 Bidding

During the Bidding Phase, Engineer shall:

- A. Provide bidding assistance, which will include preparing the bid notice, distributing bid documents, and preparing bid addendums.
- B. Attend a pre-bid conference, if one is deemed necessary.
- C. Respond to questions about the bid documents pertaining to items included within the engineering components.
- D. Assist the Village in reviewing the bids and assembling a bid tabulation and recommendation letter for award of the contract.

The proposed force main is anticipated to be installed within existing Village right-of-way, property, and easements. Therefore, easement acquisition is not included in the scope of the project. These services can be provided if requested by Client for an additional fee.

Project Schedule

<u>Task</u>	<u>Anticipated Date</u>
Phase 1 Project Kick-off	November 2023
Phase 1 – Preliminary Design Completion	December 2023
Phase 2 – Final Design Completion	January 2024
Phase 3 – Bidding	February 2024

Compensation

An amount equal to the cumulative hours charged to the Project by each class of ENGINEER's employees times Standard Hourly Rates for each applicable billing class for all services performed on the Project, plus Reimbursable Expenses and ENGINEER's Consultant's charges, if any.

ENGINEER's Reimbursable Expenses Schedule and Standard Hourly Rates are attached to this Exhibit B. Reimbursable Expenses included in the contract are limited to items listed in Exhibit B. All expenses that are not included in Exhibit B shall be considered outside the contract and shall be considered as extra and compensated for at cost. For example: title commitments, permit fees, architectural renderings, special public meetings, out of town travel expenses, consultant services beyond those identified in the scope, or items specifically requested by the owner.

The total compensation for services will not exceed **\$41,600** based on the following distribution of compensation:

Preliminary Design Phase	\$19,400
Final Design Phase	\$16,600
Bidding and Negotiating Phase	\$5,400
Base Engineering Fees	\$41,400
Reimbursable Expenses	\$200
Total Authorized for Design Engineering	\$41,600

ENGINEER may alter the distribution of compensation between individual phases of the work noted herein to be consistent with services actually rendered, but shall not exceed the total estimated compensation amount unless approved in writing by CLIENT. The total estimated compensation for ENGINEER's services included in the breakdown by phases incorporates all labor, overhead, profit, and ENGINEER's Consultant's charges. The amounts billed for ENGINEER's services will be based on the cumulative hours charged to the PROJECT during the billing period by each class of ENGINEER's employees times Standard Hourly Rates for each applicable billing class, plus Reimbursable Expenses and ENGINEER's Consultant's charges. The Standard Hourly Rates and Reimbursable Expenses Schedule will be adjusted annually as of January 1st to reflect equitable changes in the compensation payable to ENGINEER.

Miscellaneous

This Agreement constitutes the entire agreement between the parties and supersedes any prior oral or written representations. This agreement may not be changed, modified, or amended except in writing signed by both parties. In the event of any conflict among the exhibits, the exhibit of the latest date shall control.

ENGINEER may have portions of the Services performed by its affiliated entities or their employees, in which event ENGINEER shall be responsible for such services and CLIENT shall look solely to ENGINEER as if ENGINEER performed the Services. In no case shall CLIENT'S approval of any subcontract relieve ENGINEER of any of its obligations under this Agreement. However, ENGINEER is not responsible whatsoever for any obligations its subcontractors might have to its [subcontractors'] employees, including but not limited to proper compensation of its employees.

In the event CLIENT uses a purchase order form or other CLIENT developed document to administer this Agreement, the use of such documents shall be for the CLIENT's convenience only, and any provisions, terms or conditions within the CLIENT developed document shall be deemed stricken, null and void. Any provisions, terms or conditions which the CLIENT would like to reserve shall be added to Exhibit C – Supplemental Conditions and agreed to by both parties.

ENGINEER acknowledges that this project and the scope of work performed thereto will require ENGINEER and all lower tiered subcontractors of ENGINEER to comply with all obligations under and pursuant to the any applicable local, state and/or federal prevailing wage laws (e.g. Davis-Bacon Act, Illinois Prevailing Wage Act, etc.), including but not limited to all wage, notice and/or record keeping requirements to the extent applicable, necessitated and required by law.

If during negotiations or discussion with a Client it becomes clear that Client has determined prevailing wages are not applicable to the work performed by Trotter & Associates, it is best to confirm that understanding in writing with appropriate indemnification language. The following is draft language to consider:

Trotter & Associates' services performed is based on its understanding through the actions, statements and/or omissions of CLIENT that this project [identify] and the work performed relating thereto is professional in nature and not subject to prevailing wage requirements (federal, state or local). If Trotter & Associates' understanding is incorrect, CLIENT agrees and acknowledges that it shall immediately notify Trotter & Associates in writing within forty-eight (48) hours from receiving this notice so that Trotter & Associates may submit a revised proposal and/or invoice reflecting the additional costs associated with applicable prevailing wage laws. If at any time it is determined that this project is or was subject to prevailing wage requirements under federal, state or local law, then CLIENT agrees and acknowledges that it shall reimburse and make whole Trotter & Associates for any back wages, penalties and/or interest owed to its employees or any other third party, including any appropriate governmental agency. CLIENT also agrees that prices, costs and/or applicable fees will also be increased prospectively as required by the increase in wage payments to Trotter & Associates' employees. CLIENT understands and acknowledges that it shall notify Trotter & Associates of any prevailing wage requirements or obligations under applicable laws relating to the work or services performed by Trotter & Associates. CLIENT also agrees to indemnify and hold Trotter & Associates harmless from any error, act or omission on its part with regard to prevailing wage notification that causes any claim, cause of action, harm or loss upon Trotter & Associates, including but not limited to prompt reimbursement to Trotter & Associates of any and all back wages, penalties and/or interest owed to its employees or any other third party, including reasonable attorneys' fees and costs associated with such claim, cause of action, harm or loss.

Contents of Agreement

This Letter Agreement and the Exhibits attached hereto and incorporated herein, represent the entire understanding with respect to the Project and may only be modified in writing signed by both parties.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

CLIENT:

Village of Algonquin

By: _____

Title: _____

Effective Date: _____

Address for giving notices:

2200 Harnish Drive
Algonquin, IL 60102

Designated Representative

Title:

Phone Number:

E-Mail Address:

ENGINEER:

Trotter and Associates, Inc.

By: _____

Title: _____

Date Signed: _____

Address for giving notices:

Designated Representative

Title:

Phone Number:

E-Mail Address:

ATTACHMENTS:

EXHIBIT A – STANDARD TERMS AND CONDITIONS

EXHIBIT B – SCHEDULE OF HOURLY RATES AND REIMBURSIBLE EXPENSES

EXHIBIT C – SUPPLEMENTAL GENERAL CONDITIONS

EXHIBIT D – CONTRACT ADDENDUM

THIS PAGE IS INTENTIONALLY LEFT BLANK

CLIENT Initial _____

TAI Initial _____



EXHIBIT A - STANDARD TERMS AND CONDITIONS

Table of Contents

ARTICLE 1 - SERVICES OF ENGINEER	1
1.01 Scope	1
ARTICLE 2 - CLIENT'S RESPONSIBILITIES	1
2.01 General	1
ARTICLE 3 - TIMES FOR RENDERING SERVICES	2
3.01 General	2
3.02 Suspension	2
ARTICLE 4 - PAYMENTS TO ENGINEER	3
4.01 Methods of Payment for Services and Reimbursable Expenses of ENGINEER	3
4.02 Other Provisions Concerning Payments	3
ARTICLE 5 - OPINIONS OF COST	3
5.01 Opinions of Probable Construction Cost	3
5.02 Designing to Construction Cost Limit	3
5.03 Opinions of Total Project Costs	3
ARTICLE 6 - GENERAL CONSIDERATIONS	3
6.01 Standards of Performance	3
6.02 Authorized Project Representatives	4
6.03 Design without Construction Phase Services	4
6.04 Use of Documents	4
6.05 Insurance	5
6.06 Termination	6
6.07 Controlling Law	6
6.08 Successors, Assigns, and Beneficiaries	6
6.09 Dispute Resolution	6
6.10 Hazardous Environmental Condition	6
6.11 Allocation of Risks	7
6.12 Notices	7
6.13 Survival	7
6.14 Severability	7
6.15 Waiver	7
6.16 Headings	7
6.16 Definitions	7

ARTICLE 1 - SERVICES OF ENGINEER

1.01 Scope

- A. ENGINEER shall provide the Professional Services set forth herein and in the Letter Agreement.

- B. Upon this Agreement becoming effective, ENGINEER is authorized to begin Services.

ARTICLE 2 - CLIENT'S RESPONSIBILITIES

2.01 General

- A. Provide ENGINEER with all criteria and full information as to CLIENT's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility, and expandability, and any budgetary limitations; and furnish copies of all design and construction standards which CLIENT will require to be included in the Drawings and Specifications; and furnish copies of CLIENT's standard forms, conditions, and related documents for ENGINEER to include in the Bidding Documents, when applicable.
- B. Furnish to ENGINEER any other available information pertinent to the Project including reports and data relative to previous designs, or investigation at or adjacent to the Site.
- C. Following ENGINEER's assessment of initially-available Project information and data and upon ENGINEER's request, furnish or otherwise make available such additional Project related information and data as is reasonably required to enable ENGINEER to complete its Basic and Additional Services. Such additional information or data would generally include the following:
1. Property descriptions.
 2. Zoning, deed, and other land use restrictions.
 3. Property, boundary, easement, right-of-way, and other special surveys or data, including establishing relevant reference points.
 4. Explorations and tests of subsurface conditions at or contiguous to the Site, drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site, or hydrographic surveys, with appropriate professional interpretation thereof.
 5. Environmental assessments, audits, investigations and impact statements, and other relevant environmental or cultural studies as to the Project, the Site, and adjacent areas.
 6. Data or consultations as required for the Project but not otherwise identified in the Agreement or the Exhibits thereto.
- D. Give prompt written notice to ENGINEER whenever CLIENT observes or otherwise becomes aware of a Hazardous Environmental Condition or of any other development that affects the scope or time of performance of ENGINEER's services, or any defect or nonconformance in ENGINEER's services or in the work of any Contractor.
- E. Authorize ENGINEER to provide Additional Services as set forth in Exhibit D - Addendum of the Agreement as required.

- F. Arrange for safe access to and make all provisions for ENGINEER to enter upon public and private property as required for ENGINEER to perform services under the Agreement.
- G. Examine all alternate solutions, studies, reports, sketches, Drawings, Specifications, proposals, and other documents presented by ENGINEER (including obtaining advice of an attorney, insurance counselor, and other advisors or consultants as CLIENT deems appropriate with respect to such examination) and render in writing timely decisions pertaining thereto.
- H. Provide reviews, approvals, and permits from all governmental authorities having jurisdiction to approve all phases of the Project designed or specified by ENGINEER and such reviews, approvals, and consents from others as may be necessary for completion of each phase of the Project.
- I. Provide, as required for the Project:
1. Accounting, bond and financial advisory, independent cost estimating, and insurance counseling services.
 2. Legal services with regard to issues pertaining to the Project as CLIENT requires, Contractor raises, or ENGINEER reasonably requests.
 3. Such auditing services as CLIENT requires to ascertain how or for what purpose Contractor has used the moneys paid.
 4. Placement and payment for advertisement for Bids in appropriate publications.
- J. Advise ENGINEER of the identity and scope of services of any independent consultants employed by CLIENT to perform or furnish services in regard to the Project, including, but not limited to, cost estimating, project peer review, value engineering, and constructability review.
- K. Furnish to ENGINEER data as to CLIENT's anticipated costs for services to be provided by others for CLIENT so that ENGINEER may make the necessary calculations to develop and periodically adjust ENGINEER's opinion of Total Project Costs.
- L. If CLIENT designates a manager or an individual or entity other than, or in addition to, ENGINEER to represent CLIENT at the Site, the duties, responsibilities, and limitations of authority of such other party shall be disclosed to the ENGINEER and coordinated in relation to the duties, responsibilities, and authority of ENGINEER.
- M. If more than one prime contract is to be awarded for the Work designed or specified by ENGINEER, designate a person or entity to have authority and responsibility for coordinating the activities among the various prime Contractors, and define and set forth the duties, responsibilities, and limitations of authority of such individual or entity and the relation thereof to the duties, responsibilities, and authority of ENGINEER is to be mutually agreed upon and made a part of this Agreement before such services begin.
- N. Attend the pre-bid conference, bid opening, pre-construction conferences, construction progress and other job related meetings, and Substantial Completion and final payment inspections.
- O. Provide the services of an independent testing laboratory to perform all inspections, tests, and approvals of Samples, materials, and equipment required by the Contract Documents, or to evaluate the performance of materials, equipment, and facilities of CLIENT, prior to their incorporation into the Work with appropriate professional interpretation thereof.
- P. Provide inspection or monitoring services by an individual or entity other than ENGINEER (and disclose the identity of such individual or entity to ENGINEER) as CLIENT determines necessary to verify:
1. That Contractor is complying with any Laws and Regulations applicable to Contractor's performing and furnishing the Work.
 2. That Contractor is taking all necessary precautions for safety of persons or property and complying with any special provisions of the Contract Documents applicable to safety.
- Q. Provide ENGINEER with the findings and reports generated by the entities providing services pursuant to paragraphs 2.01.O and P.

ARTICLE 3 - TIMES FOR RENDERING SERVICES

3.01 General

- A. ENGINEER's services and compensation under this Agreement have been agreed to in anticipation of the orderly and continuous progress of the Project through completion. Unless specific periods of time or specific dates for providing services are specified in this Agreement, ENGINEER's obligation to render services hereunder will be for a period which may reasonably be required for the completion of said services.
- B. If in this Agreement specific periods of time for rendering services are set forth or specific dates by which services are to be completed are provided, and if such periods of time or dates are changed through no fault of ENGINEER, the rates and amounts of compensation provided for herein shall be subject to equitable adjustment. If CLIENT has requested changes in the scope, extent, or character of the Project, the time of performance of ENGINEER's services shall be adjusted equitably.
- C. For purposes of this Agreement the term "day" means a calendar day of 24 hours.

3.02 Suspension

- A. If CLIENT fails to give prompt written authorization to proceed with any phase of services after completion of the immediately preceding phase, or if ENGINEER's services are delayed through no fault of ENGINEER, ENGINEER may, after giving seven days written notice to CLIENT, suspend services under this Agreement.
- B. If ENGINEER's services are delayed or suspended in whole or in part by CLIENT, or if ENGINEER's services are extended by Contractor's actions or inactions for more than 90 days through no fault of ENGINEER, ENGINEER shall be entitled to equitable adjustment of rates and amounts of compensation provided for elsewhere in this Agreement to reflect, reasonable costs incurred by ENGINEER in connection with, among other

things, such delay or suspension and reactivation and the fact that the time for performance under this Agreement has been revised.

ARTICLE 4 - PAYMENTS TO ENGINEER

4.01 Methods of Payment for Services and Reimbursable Expenses of ENGINEER

- A. *For Basic Services.* CLIENT shall pay ENGINEER for Basic Services performed or furnished under as outlined in the Letter Agreement
- B. *For Additional Services.* CLIENT shall pay ENGINEER for Additional Services performed or furnished as outlined in Exhibit D.
- C. *For Reimbursable Expenses.* CLIENT shall pay ENGINEER for Reimbursable Expenses incurred by ENGINEER and ENGINEER's Consultants as set forth in Exhibit B.

4.02 Other Provisions Concerning Payments

- A. *Preparation of Invoices.* Invoices will be prepared in accordance with ENGINEER's standard invoicing practices and will be submitted to CLIENT by ENGINEER, unless otherwise agreed.
- B. *Payment of Invoices.* Invoices are due and payable within 30 days of receipt. If CLIENT fails to make any payment due ENGINEER for services and expenses within 30 days after receipt of ENGINEER's invoice therefor, the amounts due ENGINEER will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) from said thirtieth day. In addition, ENGINEER may, after giving seven days written notice to CLIENT, suspend services under this Agreement until ENGINEER has been paid in full all amounts due for services, expenses, and other related charges. Payments will be credited first to interest and then to principal.
- C. *Disputed Invoices.* In the event of a disputed or contested invoice, only that portion so contested may be withheld from payment, and the undisputed portion will be paid.
- D. *Payments Upon Termination.*
 - 1. In the event of any termination under paragraph 6.06, ENGINEER will be entitled to invoice CLIENT and will be paid in accordance with Exhibit B for all services performed or furnished and all Reimbursable Expenses incurred through the effective date of termination.
 - 2. In the event of termination by CLIENT for convenience or by ENGINEER for cause, ENGINEER, in addition to invoicing for those items identified in subparagraph 4.02.D.1, shall be entitled to invoice CLIENT and shall be paid a reasonable amount for services and expenses directly attributable to termination, both before and after the effective date of termination, such as reassignment of personnel, costs of terminating contracts with ENGINEER's Consultants, and other related close-out costs, using methods and rates for Additional Services as set forth in Exhibit B.
- E. *Records of ENGINEER's Costs.* Records of ENGINEER's costs pertinent to ENGINEER's compensation under this Agreement shall be kept in accordance with generally accepted accounting

practices. To the extent necessary to verify ENGINEER's charges and upon CLIENT's timely request, copies of such records will be made available to CLIENT at cost.

- F. *Legislative Actions.* In the event of legislative actions after the Effective Date of the Agreement by any level of government that impose taxes, fees, or costs on ENGINEER's services or other costs in connection with this Project or compensation therefore, such new taxes, fees, or costs shall be invoiced to and paid by CLIENT as a Reimbursable Expense to which a Factor of 1.0 shall be applied. Should such taxes, fees, or costs be imposed, they shall be in addition to ENGINEER's estimated total compensation.

ARTICLE 5 - OPINIONS OF COST

5.01 Opinions of Probable Construction Cost

- A. ENGINEER's opinions of probable Construction Cost provided for herein are to be made on the basis of ENGINEER's experience and qualifications and represent ENGINEER's best judgment as an experienced and qualified professional generally familiar with the industry. However, since ENGINEER has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, ENGINEER cannot and does not guarantee that proposals, bids, or actual Construction Cost will not vary from opinions of probable Construction Cost prepared by ENGINEER. If CLIENT wishes greater assurance as to probable Construction Cost, CLIENT shall employ an independent cost estimator.

5.02 Designing to Construction Cost Limit

- A. If a Construction Cost limit is established between CLIENT and ENGINEER, such Construction Cost limit and a statement of ENGINEER's rights and responsibilities with respect thereto will be specifically set forth in Exhibit C - Supplemental General Conditions.

5.03 Opinions of Total Project Costs

- A. ENGINEER assumes no responsibility for the accuracy of opinions of Total Project Costs.

ARTICLE 6 - GENERAL CONSIDERATIONS

6.01 Standards of Performance

- A. The standard of care for all professional engineering and related services performed or furnished by ENGINEER under this Agreement will be the care and skill ordinarily used by members of ENGINEER's profession practicing under similar circumstances at the same time and in the same locality. ENGINEER makes no warranties, express or implied, under this Agreement or otherwise, in connection with ENGINEER's services.
- B. ENGINEER shall be responsible for the technical accuracy of its services and documents resulting therefrom, and CLIENT shall not be responsible for discovering deficiencies therein. ENGINEER shall correct such deficiencies without additional compensation except to the extent such action is directly attributable to deficiencies in CLIENT-furnished information.

- C. ENGINEER shall perform or furnish professional engineering and related services in all phases of the Project to which this Agreement applies. ENGINEER shall serve as CLIENT's prime professional for the Project. ENGINEER may employ such ENGINEER's Consultants as ENGINEER deems necessary to assist in the performance or furnishing of the services. ENGINEER shall not be required to employ any ENGINEER's Consultant unacceptable to ENGINEER.
- D. ENGINEER and CLIENT shall comply with applicable Laws or Regulations and CLIENT-mandated standards. This Agreement is based on these requirements as of its Effective Date. Changes to these requirements after the Effective Date of this Agreement may be the basis for modifications to CLIENT's responsibilities or to ENGINEER's scope of services, times of performance, or compensation.
- E. CLIENT shall be responsible for, and ENGINEER may rely upon, the accuracy and completeness of all requirements, programs, instructions, reports, data, and other information furnished by CLIENT to ENGINEER pursuant to this Agreement. ENGINEER may use such requirements, reports, data, and information in performing or furnishing services under this Agreement.
- F. CLIENT shall make decisions and carry out its other responsibilities in a timely manner and shall bear all costs incident thereto so as not to delay the services of ENGINEER.
- G. Prior to the commencement of the Construction Phase, CLIENT shall notify ENGINEER of any other notice or certification that ENGINEER will be requested to provide to CLIENT or third parties in connection with the Project. CLIENT and ENGINEER shall reach agreement on the terms of any such requested notice or certification, and CLIENT shall authorize such Additional Services as are necessary to enable ENGINEER to provide the notices or certifications requested.
- H. ENGINEER shall not be required to sign any documents, no matter by whom requested, that would result in the ENGINEER's having to certify, guarantee or warrant the existence of conditions whose existence the ENGINEER cannot ascertain. CLIENT agrees not to make resolution of any dispute with the ENGINEER or payment of any amount due to the ENGINEER in any way contingent upon the ENGINEER's signing any such certification.
- I. During the Construction Phase, ENGINEER shall not supervise, direct, or have control over Contractor's work, nor shall ENGINEER have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected by Contractor, for safety precautions and programs incident to the Contractor's work in progress, nor for any failure of Contractor to comply with Laws and Regulations applicable to Contractor's furnishing and performing the Work.
- J. ENGINEER neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform the Work in accordance with the Contract Documents.
- K. ENGINEER shall not be responsible for the acts or omissions of any Contractor(s), subcontractor or supplier, or of any of the Contractor's agents or employees or any other persons (except ENGINEER's own employees) at the Site or otherwise furnishing or performing any of the Contractor's work; or for any decision made on interpretations or clarifications of the

Contract Documents given by CLIENT without consultation and advice of ENGINEER.

- L. The General Conditions for any construction contract documents prepared hereunder are to be the "Standard General Conditions of the Construction Contract" as prepared by the Engineers Joint Contract Documents Committee (Document No. 1910-8, 1996 Edition) unless both parties mutually agree to use other General Conditions.

6.02 Authorized Project Representatives

- A. Contemporaneous with the execution of this Agreement, ENGINEER and CLIENT shall designate specific individuals to act as ENGINEER's and CLIENT's representatives with respect to the services to be performed or furnished by ENGINEER and responsibilities of CLIENT under this Agreement. Such individuals shall have authority to transmit instructions, receive information, and render decisions relative to the Project on behalf of each respective party.

6.03 Design without Construction Phase Services

- A. Should CLIENT provide Construction Phase services with either CLIENT's representatives or a third party, ENGINEER's Basic Services under this Agreement will be considered to be completed upon completion of the Final Design Phase or Bidding or Negotiating Phase as outlined in the Letter Agreement.
- B. It is understood and agreed that if ENGINEER's Basic Services under this Agreement do not include Project observation, or review of the Contractor's performance, or any other Construction Phase services, and that such services will be provided by CLIENT, then CLIENT assumes all responsibility for interpretation of the Contract Documents and for construction observation or review and waives any claims against the ENGINEER that may be in any way connected thereto.

6.04 Use of Documents

- A. All Documents are instruments of service in respect to this Project, and ENGINEER shall retain an ownership and property interest therein (including the right of reuse at the discretion of the ENGINEER) whether or not the Project is completed.
- B. Copies of CLIENT-furnished data that may be relied upon by ENGINEER are limited to the printed copies (also known as hard copies) that are delivered to the ENGINEER. Files in electronic media format of text, data, graphics, or of other types that are furnished by CLIENT to ENGINEER are only for convenience of ENGINEER. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk.
- C. Copies of Documents that may be relied upon by CLIENT are limited to the printed copies (also known as hard copies) that are signed or sealed by the ENGINEER. Files in electronic media format of text, data, graphics, or of other types that are furnished by ENGINEER to CLIENT are only for convenience of CLIENT. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk.
- D. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days,

after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the party delivering the electronic files. ENGINEER shall not be responsible to maintain documents stored in electronic media format after acceptance by CLIENT.

- E. When transferring documents in electronic media format, ENGINEER makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by ENGINEER at the beginning of this Project.
- F. CLIENT may make and retain copies of Documents for information and reference in connection with use on the Project by CLIENT. Such Documents are not intended or represented to be suitable for reuse by CLIENT or others on extensions of the Project or on any other project. Any such reuse or modification without written verification or adaptation by ENGINEER, as appropriate for the specific purpose intended, will be at CLIENT's sole risk and without liability or legal exposure to ENGINEER or to ENGINEER's Consultants. CLIENT shall indemnify and hold harmless ENGINEER and ENGINEER's Consultants from all claims, damages, losses, and expenses, including attorneys' fees arising out of or resulting therefrom.
- G. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- H. Any verification or adaptation of the Documents for extensions of the Project or for any other project will entitle ENGINEER to further compensation at rates as defined in Exhibit B.

6.05 Insurance

- A. ENGINEER shall procure and maintain insurance as set forth below:
 - 1. Workers Compensation & Employer's Liability
 - a. Each Occurrence: \$1,000,000
 - 2. General Liability
 - a. Each Occurrence: \$1,000,000
 - b. General Aggregate: \$2,000,000
 - 3. Excess or Umbrella Liability
 - a. Each Occurrence: \$5,000,000
 - b. General Aggregate: \$5,000,000
 - 4. Automobile Liability
 - a. Combined Single Limit (Bodily Injury and Property Damage):
Each Accident \$1,000,000
 - 5. Professional Liability
 - a. Each Occurrence: \$2,000,000
 - b. General Aggregate: \$2,000,000
- B. CLIENT shall cause ENGINEER and ENGINEER's Consultants to be listed as additional insureds on any general liability or property insurance policies carried by CLIENT which are applicable to the Project.
- C. CLIENT shall require Contractor to purchase and maintain general liability and other insurance as specified in the Contract Documents and to cause ENGINEER and ENGINEER's Consultants to be listed as additional insureds with respect to

such liability and other insurance purchased and maintained by Contractor for the Project

- D. CLIENT and ENGINEER shall each deliver to the other certificates of insurance evidencing the coverage.
- E. All policies of property insurance shall contain provisions to the effect that ENGINEER's and ENGINEER's Consultants' interests are covered and that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder.
- F. At any time, CLIENT may request that ENGINEER, at CLIENT's sole expense, provide additional insurance coverage, increased limits, or revised deductibles that are more protective. If so requested by CLIENT, with the concurrence of ENGINEER, and if commercially available, ENGINEER shall obtain and shall require ENGINEER's Consultants to obtain such additional insurance coverage, different limits, or revised deductibles for such periods of time as requested by CLIENT.

6.06 Termination

- A. The obligation to provide further services under this Agreement may be terminated:
1. *For cause,*
 - a. By either party upon 30 days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party.
 - b. By ENGINEER:
 - 1) upon seven days written notice if ENGINEER believes that ENGINEER is being requested by CLIENT to furnish or perform services contrary to ENGINEER's responsibilities as a licensed professional; or
 - 2) upon seven days written notice if the ENGINEER's services for the Project are delayed or suspended for more than 90 days for reasons beyond ENGINEER's control.
 - 3) ENGINEER shall have no liability to CLIENT on account of such termination.
 - c. Notwithstanding the foregoing, this Agreement will not terminate as a result of such substantial failure if the party receiving such notice begins, within seven days of receipt of such notice, to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt thereof; provided, however, that if and to the extent such substantial failure cannot be reasonably cured within such 30 day period, and if such party has diligently attempted to cure the same and thereafter continues diligently to cure the same, then the cure period provided for herein shall extend up to, but in no case more than, 60 days after the date of receipt of the notice.
 2. *For convenience,*
 - a. By CLIENT effective upon the receipt of notice by ENGINEER.
- B. The terminating party under paragraphs 6.06.A.1 or 6.06.A.2 may set the effective date of termination at a time up to 30 days later than otherwise provided to allow ENGINEER to demobilize personnel and equipment from the Site, to complete tasks whose value would otherwise be lost, to prepare notes as to the status of completed and uncompleted tasks, and to assemble Project materials in orderly files.

6.07 Controlling Law

- A. This Agreement is to be governed by the law of the state in which the Project is located.

6.08 Successors, Assigns, and Beneficiaries

- A. CLIENT and ENGINEER each is hereby bound and the partners, successors, executors, administrators and legal representatives of CLIENT and ENGINEER (and to the extent permitted by paragraph 6.08.B the assigns of CLIENT and ENGINEER) are hereby bound to the other party to this

Agreement and to the partners, successors, executors, administrators and legal representatives (and said assigns) of such other party, in respect of all covenants, agreements and obligations of this Agreement.

- B. Neither CLIENT nor ENGINEER may assign, sublet, or transfer any rights under or interest (including, but without limitation, moneys that are due or may become due) in this Agreement without the written consent of the other, except to the extent that any assignment, subletting, or transfer is mandated or restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.
- C. Unless expressly provided otherwise in this Agreement:
1. Nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by CLIENT or ENGINEER to any Contractor, Contractor's subcontractor, supplier, other individual or entity, or to any surety for or employee of any of them.
 2. All duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of CLIENT and ENGINEER and not for the benefit of any other party. The CLIENT agrees that the substance of the provisions of this paragraph 6.08.C shall appear in the Contract Documents.

6.09 Dispute Resolution

- A. CLIENT and ENGINEER agree to negotiate all disputes between them in good faith for a period of 30 days from the date of notice prior to exercising their rights under provisions of this Agreement, or under law. In the absence of such an agreement, the parties may exercise their rights under law.
- B. If and to the extent that CLIENT and ENGINEER have agreed on a method and procedure for resolving disputes between them arising out of or relating to this Agreement, such dispute resolution method and procedure is set forth in Exhibit C, "Supplemental Conditions."

6.10 Hazardous Environmental Condition

- A. CLIENT represents to Engineer that to the best of its knowledge a Hazardous Environmental Condition does not exist.
- B. CLIENT has disclosed to the best of its knowledge to ENGINEER the existence of all Asbestos, PCB's, Petroleum, Hazardous Waste, or Radioactive Material located at or near the Site, including type, quantity and location.
- C. If a Hazardous Environmental Condition is encountered or alleged, ENGINEER shall have the obligation to notify CLIENT and, to the extent of applicable Laws and Regulations, appropriate governmental officials.
- D. It is acknowledged by both parties that ENGINEER's scope of services does not include any services related to a Hazardous Environmental Condition. In the event ENGINEER or any other party encounters a Hazardous Environmental Condition, ENGINEER may, at its option and without liability for consequential or any other damages, suspend performance of services on the portion of the Project affected thereby until CLIENT: (i) retains appropriate specialist consultant(s) or contractor(s) to identify and, as appropriate, abate, remediate, or

remove the Hazardous Environmental Condition; and (ii) warrants that the Site is in full compliance with applicable Laws and Regulations.

- E. CLIENT acknowledges that ENGINEER is performing professional services for CLIENT and that ENGINEER is not and shall not be required to become an “arranger,” “operator,” “generator,” or “transporter” of hazardous substances, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1990 (CERCLA), which are or may be encountered at or near the Site in connection with ENGINEER’s activities under this Agreement.
- F. If ENGINEER’s services under this Agreement cannot be performed because of a Hazardous Environmental Condition, the existence of the condition shall justify ENGINEER’s terminating this Agreement for cause on 30 days notice.

6.11 Allocation of Risks

A. Indemnification

1. To the fullest extent permitted by law, ENGINEER shall indemnify and hold harmless CLIENT, CLIENT’s officers, directors, partners, and employees from and against any and all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused solely by the negligent acts or omissions of ENGINEER or ENGINEER’s officers, directors, partners, employees, and ENGINEER’s Consultants in the performance and furnishing of ENGINEER’s services under this Agreement.
2. To the fullest extent permitted by law, CLIENT shall indemnify and hold harmless ENGINEER, ENGINEER’s officers, directors, partners, employees, and ENGINEER’s Consultants from and against any and all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused solely by the negligent acts or omissions of CLIENT or CLIENT’s officers, directors, partners, employees, and CLIENT’s consultants with respect to this Agreement or the Project.
3. To the fullest extent permitted by law, ENGINEER’s total liability to CLIENT and anyone claiming by, through, or under CLIENT for any cost, loss, or damages caused in part by the negligence of ENGINEER and in part by the negligence of CLIENT or any other negligent entity or individual, shall not exceed the percentage share that ENGINEER’s negligence bears to the total negligence of CLIENT, ENGINEER, and all other negligent entities and individuals.
4. In addition to the indemnity provided under paragraph 6.11.A.2 of this Agreement, and to the fullest extent permitted by law, CLIENT shall indemnify and hold harmless ENGINEER and its officers, directors, partners, employees, and ENGINEER’s Consultants from and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused by, arising out of or resulting from a Hazardous Environmental Condition, provided that (i) any such cost, loss, or damage

is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than completed Work), including the loss of use resulting therefrom, and (ii) nothing in this paragraph 6.11.A.4. shall obligate CLIENT to indemnify any individual or entity from and against the consequences of that individual’s or entity’s own negligence or willful misconduct.

5. The indemnification provision of paragraph 6.11.A.1 is subject to and limited by the provisions agreed to by CLIENT and ENGINEER in Exhibit C, “Supplemental Conditions,” if any.

6.12 Notices

- A. Any notice required under this Agreement will be in writing, addressed to the appropriate party at its address on the signature page and given personally, or by registered or certified mail postage prepaid, or by a commercial courier service. All notices shall be effective upon the date of receipt.

6.13 Survival

- A. All express representations, indemnifications, or limitations of liability included in this Agreement will survive its completion or termination for any reason.

6.14 Severability

- A. Any provision or part of the Agreement held to be void or unenforceable under any Laws or Regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon CLIENT and ENGINEER, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

6.15 Waiver

- A. Non-enforcement of any provision by either party shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement.

6.16 Headings

- A. The headings used in this Agreement are for general reference only and do not have special significance.

6.16 Definitions

- A. Defined terms will be in accordance with EJCDC No. 1910-1 (1996 Edition)

This Page is intentionally left blank

CLIENT Initial _____

TAI Initial _____



**EXHIBIT B
SCHEDULE OF HOURLY RATES AND REIMBURSABLE EXPENSES**

2023 Schedule of Hourly Rates

***Rates will be escalated for Overtime & Holiday Pay to adjust for Premium Time based on the current Illinois Department of Labor Rules*

Classification	Billing Rate
Engineering Intern	\$69.00
Engineer Level I	\$124.00
Engineer Level II	\$136.00
Engineer Level III	\$145.00
Engineer Level IV	\$161.00
Engineer Level V	\$182.00
Engineer Level VI	\$208.00
Engineer VII	\$219.00
Engineer VIII	\$251.00
Principal Engineer	\$258.00
Architect Intern	\$69.00
Architect Level I	\$109.00
Architect Level II	\$131.00
Architect Level III	\$152.00
Architect Level IV	\$164.00
Architect Level V	\$184.00
Architect Level VI	\$200.00
Architect VII	\$216.00
Architect VIII	\$233.00
Principal Architect	\$250.00
Technician Level I	\$103.00
Technician Level II	\$125.00
Technician Level III	\$146.00
Technician Level IV	\$159.00
Senior Technician	\$175.00
GIS Specialist I	\$103.00
GIS Specialist II	\$136.00
GIS Specialist III	\$163.00
Clerical Level I	\$69.00
Clerical Level II	\$82.00
Clerical Level III	\$99.00
Survey Technician Level I	\$69.00
Survey Technician Level II	\$85.00
Survey Crew Chief	\$175.00
Professional Land Surveyor	\$210.00
Project Coordinator I	\$125.00
Project Coordinator II	\$135.00
Project Coordinator III	\$145.00
Department Director	\$208.00
Sub Consultants	Cost Plus 5%

Note: On January 1st of each year, the fees and hourly rates may be escalated by an amount not to exceed five (5) percent.

2023 Reimbursable Expenses

Item	Unit	Unit Price
Engineering Copies 1- 249 Sq. Ft.	Sq. Ft.	\$0.29
Engineering Copies 250-999 Sq. Ft.	Sq. Ft.	\$0.27
Engineering Copies 1000-3999 Sq. Ft.	Sq. Ft.	\$0.25
Engineering Copies 3999 Sq. Ft. & Up	Sq. Ft.	\$0.23
Mylar Engineering Copies up to 24" by 36"	Each	\$8.00
Color Presentation Grade Large Format Print	Sq. Ft.	\$5.15
Comb Binding > 120 Sheets	Each	\$4.75
Comb Binding < 120 Sheets	Each	\$3.50
Binding Strips (Engineering Plans)	Each	\$1.00
5 Mil Laminating	Each	\$1.25
Copy 11" x 17" - Color	Each	\$0.50
Copy 11" x 17" - Black and White	Each	\$0.25
Copy 8.5" x 11" - Color	Each	\$0.25
Copy 8.5" x 11" - Black and White	Each	\$0.12
Recorded Documents	Each	\$25.00
Plat Research	Time and Material	
Per Diem	Each Day	\$30.00
Field / Survey Truck	Each Day	\$45.00
Postage and Freight	Cost	
Mileage	Per Mile	Federal Rate

This Page is intentionally left blank

CLIENT Initial _____

TAI Initial _____



**EXHIBIT C
SUPPLEMENTAL CONDITIONS**

NONE AT THIS TIME

This Page Is Intentionally Left Blank

CLIENT Initial _____

TAI Initial _____



**EXHIBIT D
CONTRACT ADDENDUM**

Project Name: Algonquin Shores Force Main Replacement

Project No. _____

Addendum No. _____

This is an addendum attached to, made part of and incorporated by reference into the Agreement between CLIENT and ENGINEER for modification of scope and compensation for the PROJECT. All other terms and conditions of the original Agreement between CLIENT and ENGINEER are unchanged by this Contract Addendum and shall remain in full force and effect and shall govern the obligations of both CLIENT and ENGINEER, including obligations created by this Contract Addendum.

The contract modifications are described below:

- 1.
- 2.
- 3.

CONTRACT SUMMARY

Original Contract Amount \$ _____

Changes Prior to This Change \$ _____

Amount of This Change \$ _____

Revised Contract Amount: \$ _____

For purposes of expediency, ENGINEER and CLIENT agree that an executed electronic version of this Contract Addendum shall suffice. The original of this Contract Addendum shall be returned to ENGINEER after execution.

CLIENT:

ENGINEER:

VILLAGE OF ALGONQUIN

TROTTER AND ASSOCIATES, INC.

SIGNED:

TITLE

TITLE

This Page Is Intentionally Left Blank



VILLAGE OF ALGONQUIN
PUBLIC WORKS DEPARTMENT

– M E M O R A N D U M –

DATE: November 14th, 2023
TO: Tim Schloneger, Village Manager
FROM: Brad Andresen, Village Ecologist/Horticulturist
SUBJECT: Wetland Fee in Lieu for Wetland Mitigation

During a review of fees charged by Pubic Works, it was discovered that our current \$69,000.00/acre fee in lieu of wetland mitigation is no longer in line with current comparable agencies in our region.

Under the board-adopted Kane County Stormwater Management Ordinance, the Village can opt to charge a fee in lieu for wetland mitigation for developments that choose to impact isolated wetlands as part of the development. A search of comparable fees showed that Lake County, IL charges between \$114,000.00/acre and \$181,500.00/acre depending on the specific watershed. DuPage County, IL charges \$175,000.00/acre, and Kane County charges vary depending on location, but most recently charged \$106,666.00/acre.

The fee in lieu for wetland mitigation is meant to act as a deterrent to incentivize developers to restore and preserve existing isolated wetlands whenever possible, but allows for a solution if isolated wetlands are impacted during a project and allows the Village to collect the fee in lieu for wetland mitigation in these situations. Fees collected in this manner are placed into a restricted fund that are then used to ecologically restore additional wetlands within the Village of Algonquin open space network.

Therefore, it is our recommendation that the Committee of the Whole take action to move this matter forward to the Village Board for approval of the Resolution Authorizing the raising of the Fee in Lieu for Wetland Mitigation from \$69,000.00/acre to \$100,000.00/acre.

Resolution 2023-R-_____

A Resolution Authorizing the raising of the Fee in Lieu for Wetland Mitigation from \$69,000.00/acre to \$100,000.00/acre

WHEREAS, the Village of Algonquin, McHenry and Kane counties, Illinois, has adopted the Kane County Stormwater Management Ordinance.

WHEREAS, the Village of Algonquin, McHenry and Kane counties, Illinois is listed as a Certified Community under the Kane County Stormwater Management Ordinance.

WHEREAS, adjacent counties in Illinois and Wisconsin charge a fee in lieu of wetland mitigation between \$94,800.00/acre and \$175,000.00/acre. Kane county most recently charged \$106,666/acre as a fee-in-lieu of wetland mitigation.

NOW, THEREFORE, BE IT RESOLVED by the President and Board of Trustees of the Village of Algonquin, Kane and McHenry Counties, as follows:

The fee in-lieu for wetland mitigation be set at a rate of \$100,000.00/acre.

Passed this _____ day of _____, 2023.

(SEAL)

APPROVED:

ATTEST:

Village President Debby Sosine

Village Clerk Fred Martin