

REPORT TO COUNTY COUNCIL

Single Source and Early Procurement of Woodingford Lodge Woodstock Air Handler Units

To: Warden and Members of County Council

From: Acting Director of Public Works

RECOMMENDATIONS

1. That County Council approve the single source equipment purchase for the replacement of air handler unit number 2 for \$375,800, excluding HST, at Woodingford Lodge Woodstock from Engineered Air, pursuant to Section 7.3 of the County's Purchasing Policy 6.07;
2. And further, that Council authorize the 2025 single source equipment early procurement for the replacement of air handler unit number 4 totalling \$276,500, excluding HST, at Woodingford Lodge Woodstock from Engineered Air, pursuant to Section 7.3 of the County's Purchasing Policy 6.07;
3. And further, that Council authorize the Chief Administrative Officer and Director of Public Works to sign all documents hereto.

REPORT HIGHLIGHTS

- The purpose of this report is to obtain County Council approval to single-source the equipment replacement of air handler unit number 2 for Woodingford Lodge Woodstock in 2024 and obtain approval for the early procurement and single-source of the equipment replacement of air handler unit number 4 for Woodingford Lodge Woodstock, for order in advance of the 2025 Business Plan and Budget process.
- Replacement of the two existing air handling units which incorporate an environmentally friendly Air Source Heat Pump, will lower the greenhouse gas emissions (GHG) by a combined 21 tonnes from air handling Unit number 2 and air handling unit number 4, by replacing natural gas with electricity as the primary fuel source.

- Single sourcing both air handler unit replacements to Engineered Air, who is the manufacturer and supplier of all existing air handler units at Woodingford Lodge Sites, will ensure consistency among all units. Procuring both units at the same time will allow for the units to be delivered and installed at the same time, thus leading to consistency of installation workmanship and cost savings.

IMPLEMENTATION POINTS

Following Council approval, a purchase order will be issued to Engineered Air, allowing manufacturing of the air handler units, equipped with the air source heat pumps. Manufacturing is estimated to take approximately 26 weeks. Following the manufacturing process, both units will be delivered to the site at the same time, making the installation minimally disruptive to residents and provide cost savings when installed simultaneously, as only one crane rental will be required.

As Engineered Air only manufactures and delivers the air handler equipment to site, a qualified vendor will be procured by request for quotation (RFQ) to install air handlers number 2 and 4, in accordance with the County Purchasing Policy Section 6.5, in the spring of 2025.

Financial Impact

Due to increasing market costs and the addition of new air source heat pump technology in the proposed replacement units, the overall cost of replacing the two air handler units is higher than the approved 2024 Budget of \$400,000 (\$200,000 per unit). The total equipment cost for air handler unit number 4 is \$276,500, with air handler unit number 2 being \$375,800, excluding non-refundable HST. The difference in unit size (air handler number 4 – 4,100 CFM and air handler number 2 – 8,200 CFM) creates the price gap when comparing the total individual unit replacement cost.

As noted in Council Report [WDFL 2024-04](#), a shift in funding sources due to a one-time funding investment from the Ministry of Long-Term Care will fund \$330,370 of the \$400,000 2024 air handling replacement project budget, with \$69,630 still being funded from the Woodingford Lodge Capital Reserve.

Table 1 below outlines the anticipated procurements in 2024 encompassing approved 2024 funds and the requested 2025 early procurements. Table 2 below summarizes the requested 2025 early procurement funding.

Table 1: Expenditure Summary – WFL Woodstock Air Handler Units (2) Single Source

Description	Amount
Supply of Air Handler Number 2 Equipment – 8,200 CFM Roof-Top Unit	\$375,800
Supply of Air Handler Number 4 Equipment – 4,100 CFM Roof-Top Unit	276,500
Total Award (excl. HST)	652,300
Non-Refundable HST (1.76%)	11,480
TOTAL COST	\$663,780

Table 2: Early Procurement Summary – 2025 WFL Air Handler Unit (1)

Item	Amount
Supply of Air Handler Number 4 Equipment – 4,100 CFM Roof-Top Unit	\$276,500
Total Award (excl. HST)	276,500
Non-Refundable HST (1.76%)	4,866
TOTAL COST	\$281,366

A request for \$281,366 for air handler number 4 equipment will be included in the 2025 capital budget, in accordance with the details outlined in this report. It is proposed that the 2025 procurement would be funded from the Woodingford Lodge Capital Reserve. Through the 2025 Business Plan and Budget process, staff will be proposing increases to the annual capital contribution to the reserve based on the funding gap analysis identified in the 2024 Asset Management Plan. In the event of funding challenges identified during the 2025 Business Plan and Budget process, staff will identify low risk capital projects that may be deferred.

The Single Source provisions under Section 7.3 of the County’s Purchasing Policy 6.07, allow a single source process if the goods are available from more than one supplier, but there are valid and sufficient reasons for selecting one supplier. In this procurement process, staff are recommending a single source supplier process pursuant to 7.3.2 c) which states “There is a need for compatibility with goods and/or services previously acquired or the required goods and/or services will be additional to similar goods and/or services being supplied under an existing contract (i.e. contract extension or renewal)”, supported by the reasons set out in this report. Approval authority for single source procurement for the value of \$120,000 or greater is subject to County Council, outlined under the provisions of Section 5.5 of the County’s Purchasing Policy 6.07.

Communications

The communication strategy for this project will be similar to other County projects. The equipment manufacturer and the County’s project manager will form an open channel of communication and will include other members of the project team and Woodingford Lodge staff as needed. These communications will commence upon approval of this report and will continue for the duration of the project. All requirements and regulations for this project type at the long-term care facility will be appropriately followed and reported to authorities having jurisdiction as required.




The County Project Manager along with Woodingford Lodge staff will develop a communication strategy to ensure that all affected staff, residents, or other stakeholders are prepared for the project to be carried out without interruption of service operations at Woodingford Lodge. Various communications and announcements within staff areas will prepare staff for the work to commence.

2023-2026 STRATEGIC PLAN

Oxford County Council approved the [2023-2026 Strategic Plan](#) on September 13, 2023. The Plan outlines 39 goals across three strategic pillars that advance Council’s vision of “Working together for a healthy, vibrant, and sustainable future.” These pillars are: (1) *Promoting community vitality*, (2) *Enhancing environmental sustainability*, and (3) *Fostering progressive government*.

The recommendations in this report supports the following strategic goals.

Strategic Plan Pillars and Goals

PILLAR 1	PILLAR 2	PILLAR 3
		
Promoting community vitality	Enhancing environmental sustainability	Fostering progressive government
<p>Goal 1.2 – Sustainable infrastructure and development</p> <p>Goal 1.3 – Community health, safety and well-being</p>		<p>Goal 3.1 – Continuous improvement and results-driven solutions</p>

See: [Oxford County 2023-2026 Strategic Plan](#)

DISCUSSION

Background

Woodstock Woodingford Lodge is approximately 20 years old, with 12 roof-top mounted air handler units servicing the facility, which are original to the building. All the air handler units service various areas, with air handlers 1 to 6 being the largest and servicing the residential wings. The other 6 air handlers service specific areas and equipment directly within the facility (i.e. kitchen hood ventilation and operational areas within the building, within specific daily timeframes aligning with facility operations), unlike units 1 to 6 which service the residential wings 24/7/365.

These air handler units differ from the recently installed resident room wall mounted heat pump units that heat and cool resident rooms directly while the air handler units provide fresh air, heated or cooled, to the common areas directly and to resident rooms indirectly. These two systems are designed to work together ensuring full heating and cooling coverage.

Approved through the 2024 Business Plan and Budget process, there is approved budget to replace air handlers number 2 and 4 at Woodingford Lodge Woodstock. As these units experience a high frequency of costly repairs and with air handler number 2 suffering fire damage as a result of a failure to the heat exchange within the unit and causing the humidifier to overheat, the replacements for both had been planned for 2024. Originally, all air handler units at this site were manufactured and delivered to site by Engineered Air and installed during the original construction of the facility.

Staff are now planning to carry out the 2024 project to replace both air handlers over the span of 2024 and 2025 at the Woodstock Woodingford Lodge site. Current timelines for HVAC equipment of this size estimate the delivery date into Spring 2025.

Comments

An efficient, GHG friendly air handler unit utilizing an 'Air Sourced Heat Pump' (heat pump) is planned to replace the existing air handler units. The new heat pump technology will be new to Woodingford Lodge Woodstock and uses electricity as the primary source of fuel with a natural gas fuel source back-up. This technology lowers the overall GHG emissions by using less natural gas and allows the heat pump to operate down to a lower ambient temperature, making the heat pump more effective.

Included in the 2024 Energy Management Plan, the incorporation of the new heat pump technology in the new air handler units will reduce GHG emissions from Woodingford Lodge Woodstock by 21 tonnes, annually.

Funds in 2024 and proposed 2025 funds are planned to be used to procure equipment in 2024. As the expected delivery date is 26 weeks following design approval, installation will be completed in the spring of 2025. In 2024, Engineered Air was contacted by staff clarifying the current conditions and remaining useful life of the components to explore options for air handler improvement and efficiencies.

With Engineered Air being the original air handler designer, the locations of the gas connections, ductwork connections, and the existing power supply are all incorporated into the 2024 designs allowing for the designs and installations to be as close to the existing unit footprint as possible. The nearly one-to-one layout design with the existing database of facility specifications allows Engineered Air to effectively design and manufacture the units at an accelerated pace compared to other manufacturers.

Staff are requesting early procurement so that both air handler units will be delivered to site at the same time and can be installed simultaneously. Installing both units simultaneously alleviates the requirement to shut down the facility HVAC system twice at different times of the year, with staff planning the shutdown for installation in spring 2025 during seasonal transitional periods where the temperature is more likely to be a comfortable average, suitable for HVAC disruptions. If procurement is delayed until the 2025 Budget and Business Plan was approved, the delivery date may fall within the hot summer months making temperature control within the facility challenging while the existing unit is offline during replacement.

Additionally, the majority of the installation cost is craning existing units off the roof and the new units onto the roof. Ensuring a mobile crane mobilizes to site only once so the units can be craned on the same day will significantly lower the installation cost by almost half.

CONCLUSIONS

Staff are seeking authorization to single source the equipment purchase of air handler unit number 2 and to proceed with early procurement and single source the equipment purchase of air handler number 4, as per the quote provided by Engineered Air for the consistent manufacturing of all air handler units at Woodingford Lodge Woodstock.

Authorization to single source the air handler equipment and for early procurement of the equipment will allow staff to control the final deliverables at all stages of the project when overseeing a single vendor for manufacturing and provide cost savings during the installation of the air handler units when installed simultaneously.

SIGNATURES

Report author:

Original signed by

Cole Warwick, FMP
Facilities Technician

Departmental approval:

Original signed by

Melissa Abercrombie, P.Eng., PMP,
Acting Director of Public Works

Approved for submission:

Original signed by

Benjamin R. Addley
Chief Administrative Officer