Capital Infrastructure Committee

Cycle 3 – Wednesday, March 5, 2025
Start Time: 10:30 a.m.
Participation via TEAMS
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Agenda

#	Item	By	Start Time	Length	Action
1.	Call to Order and Land Acknowledgement	RW	10:30	2	
2.	Declaration of Conflict of Interest	RW	10:32	1	
3.	Approval of Agenda (including consent items)	RW	10:33	1	Approval
4.	Business Arising from the Minutes	RW	10:34	1	Information
KEY ITEMS					
5.	Engineering Space Needs (including appendices 1-3)	AVM/ SJ/JT	10:35	15	**Recommendation**
6.	Student Alumni Centre Project	AVM/ SJ/BC	10:50	15	Information
7.	Major Capital Projects Update – Facilities Management (including appendices 1-3)	SJ/SS	11:05	5	Information
8.	T2 Financial Update on Capital and Related Projects (including appendix 1)	SJ/ JT/GA	11:10	10	Information
9.	Burlington Update (including appendix 1)	SJ	11:20	5	Information
10.	Energy Conservation & Demand Management -Annual Scorecard (including appendix 1)	SJ/MQ	11:25	10	Information
KEY ITEMS (IN CAMERA)					
11.	DCRM Enbridge/CIB Project (IN CAMERA) (PowerPoint presentation)	SJ	11:35	20	Information

#	Item	By	Start Time	Length	Action
12.	ITS Capital Projects Update (IN CAMERA) (including appendix 1)	GA	11:55	15	Information
CONSENT ITEMS (IN CAMERA)			12:15	5 minutes (if needed)	
13.	IN CAMERA Record of Proceedings - Meeting #2 (2024-25) held on December 4, 2024 - (IN CAMERA)	RW			Approval
CONSENT ITEMS					
14.	Minutes of Previous Meeting - Meeting #2 (2024-25) held on December 4, 2024	RW			Approval
15.	Metrics - Facilities Management	SJ			Information
16.	Other Business	RW	12:20	5	
17.	ADJOURNMENT	RW	12:25		

Agenda Legend				
	RW	Rob Welch	AVM	Arja Vainio-Mattila
	SJ	Scott Johnstone	JT	Josh Tonnos
	EW	Ed Wall	GA	Gemma Ahn
	SS	Susan Strban	MQ	Mary Quintana
	BC	Brad Clarke		

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Board of Trustees

Report to the Financial Planning and Investment Committee

RECOMMENDATION ITEM

TOPIC: Engineering Space Needs

March 5th, 2025
Arja Vainio-Mattila, Provost and Vice-President, Academic
Scott Johnstone, Acting Vice-President, Administration
Josh Tonnos, Chief Financial Officer & Associate Vice-President, Financial Services

MOTION

THAT the Capital Infrastructure Committee recommend to the Board of Trustees that, subject to the Board approving the funding:

1. the Engineering Space Needs Phase 1 Project scope be added as a Major Capital Project; and
2. the President and Vice-President, Administration be authorized to execute the necessary documents related to the project, including all related procurement contracts for the supply of capital goods and services.

THAT the Financial Planning and Investment Committee recommend to the Board of Trustees that, subject to the Board approving the project:

1. University funding of $10 million sourced from existing debt as outlined in this report be approved; and
2. That this funding be released immediately to facilitate timely planning and execution of the project.

EXECUTIVE SUMMARY

1. Rationale

- To seek approval of the Engineering Space Needs – Phase 1 Capital Project, in terms of scope and funding; enabling Management to implement the project including design, tendering, selection, scheduling and project implementation.

2. Key Background

- With the shift away from utilizing 3401 Schmon Parkway as a dedicated engineering space, on campus solutions have been identified for the current space needs for the Yousef Haj-Ahmad Department of Engineering along with some research lab space at 3401 Schmon Parkway. Feasibility designs have been prepared demonstrating scalable options to meet Engineering's needs in terms of administrative office and support space, teaching labs, and research labs. This change is a result of limiting the expansion of engineering degree options to focus on the undergraduate Integrated Engineering program and obtain accreditation from Engineers Canada before planning for and expanding facilities and faculty and staff resources to accommodate expansion programs.

- The current space needs for Engineering include teaching lab requirements to deliver the undergraduate program. This is critical to Engineering seeking accreditation from Engineers Canada that would occur at the final year of Brock's first cohort of students who registered in 2024-25 (i.e., our first cohort of students will graduate from Brock as accredited engineers in 2027-28). The current space requirements also reflect an obligation to provide faculty members hired with research labs per the terms of employment and collective agreement.
- The longer-term space needs and options for Engineering (i.e., graduate program offerings, students, faculty, staff, etc.) are being considered; however, any recommendation to expand will be dependent on a range of factors and considerations, including:
    - Key milestones for the program being achieved (e.g., successful accreditation from Engineers Canada, steady enrolment, launch of the professional Masters program, etc.)
        - This may include items identified by Engineers Canada that will be required to achieve/maintain accreditation.
    - Collaboration with other academic units on campus to find opportunities where resources may be shared.
    - Requirements under the relevant collective agreements (e.g., research space for faculty members, staffing for labs, etc).
- Currently, the total estimated costs for Engineering Space Needs – Phase 1 is $10 million. A detailed breakdown can be seen in Appendix 1: Engineering Space Needs – Phase 1 scope and cost estimates. This represents a savings of $2.2 million compared to the funding estimated for phase 1 as part of the most recent external financing issuance approved at the May 2nd, 2024 committee meeting.
- As there was debt issued in the current fiscal year to support this project, the $10 million budget for phase 1 will be funded from the available debt.

3. Implications

- The Engineering Space Needs – Phase 1 will renovate the following areas:
    - Renovations to Scotia Bank Hall 208
    - Creation of teaching and research labs at 3401 Schmon Parkway
    - Refresh of existing labs on the main campus
- As this Committee is aware, the decision to move some of the space needs for Engineering to the main campus was made in the fall of last year as a part of a broader decision on how best to support the program over the next few years. While it was originally envisioned that engineering at Brock would grow rapidly, with four more undergraduate programs launching in 2026, it was later determined that this pace of growth would not allow the University to provide a high-quality, meaningful academic experience to our students. In addition, the four undergraduate programs were planned in traditional disciplines (e.g., mechanical, electrical, software, mechatronics) which does not align with the MCU's direction and priority on differentiation in Ontario. As a result of this material change in academic direction and focus on integrated engineering as our flagship offering, the University reevaluated its enrolment forecast numbers and financial projections for the program outlined in appendix 2. One important outcome of that analysis was the decision to not move forward with a major renovation of 3401 Schmon Parkway. The space needs outlined in this report reflect the core requirements of the integrated undergraduate engineering program. This approach allows for investments in facility expansion to occur in-line with enrolment growth and not in advance of meeting enrolment projections.

- In addition to enrolment, there were several other important considerations behind the decision not to use Schmon Parkway as a dedicated location for engineering, including a desire to reduce costs, better utilize existing space, reduce deferred capital renewal on the main campus, and align the capital investments more closely with the important goal of finding a home for engineering students on main campus, so that they can be integrated with the rest of the University.
- The engineering program is working towards launching its graduate offerings. The professional Master of Engineering (MEng) program will be a significant driver of tuition revenue for the University and will be the first focus for any graduate offerings. The current target launch date for the professional Masters program is fall 2027 with approximately 30 students growing to over 100 students by 2031. These enrolments are included in the updated enrolment charts in appendix 2.

- Research-based graduate offerings (i.e., MSc, PhD) which do not have a financial contribution but are critical to the research capacity of Engineering at Brock will follow.

4. Next Steps

- Upon approval, Administration will begin the planning and tendering process to implement this project.

5. Background Materials

Appendix 1 – Engineering Space Needs – Phase 1 scope and cost estimates (1 Page)
Appendix 2 – Business Case Metric Comparisons (1 Page)

Engineering Space Needs - Phase 1

Faculty of Math and Science - Engineering Space Various Locations
Order of Magnitude Cost Estimate

	Description	Quantity		Rate	Total
DEMOLITION					
1.1	Existing space demolition	14,406		$10	$144,060
1.2	Completed demolition at 3401 Schmon Parkway	-			$350,000
Demolition Total					**$494,060**
CONSTRUCTION		**GFA**			
2.1	**Site Development -3401 Site Access**			allowance	$61,500
2.2	**Proposed Teaching Lab Renovations**				
a.	SBH 208 Computer Labs and Examination Centre	6,700	sf	$400	$2,680,000
b.	MCH H222 Design Studio Refresh - ENGR 1P01 / 1P02	985	sf	$100	$98,500
c.	MCJ J202 Computer Lab - COSC/ENG	see 3.4		allowance	$0
d.	Fluid Mechanics / Thermodynamics and Heat Transfer	1,500	sf	$400	$600,000
e.	Manufacturing Processes / Mechanics of Materials	1,500	sf	$400	$600,000
f.	CRN 411 Promotion and Design Studio	400	sf	$100	$40,000
2.3	**Proposed Research Lab Renovations**				
a.	MCH H311C&D Research Lab Refresh	511	sf	$100	$51,100
b.	WC-A 101 Ryan Shroeder Lab Update	595	sf	$100	$59,500
c.	3401 Schmon Parkway - Hassan Askari Lab	1,000	sf	$400	$400,000
d.	3401 Schmon Parkway - Amir Mofidi Lab	1,000	sf	$400	$400,000
e.	MCB B212 Glaucio de Silva Carvalho (COSC)	102	sf	$100	$10,200
f.	MCB B213 Mohsin Jamil – (ENG) electrical/comp.	113	sf	$100	$11,300
Construction Total		14,406	sf	$348	**$5,012,100**
NET CONSTRUCTION					**$5,506,160**
Design Contingency				10%	$550,616
Construction Contingency				10%	$550,616
TOTAL CONSTRUCTION		**14,406**		**$459**	**$6,607,392**
SOFT COSTS					
3.1	Professional Fees				$1,500,739
3.2	Permit Fees				$63,134
3.3	FF&E - AV / IT [1.]				$750,000
3.4	Teaching Lab Equipment [2.]				excluded
3.5	FF&E - Furniture				$475,000
3.6	Move Costs -FM Custodial Internal				$0
3.7	Project Contingency			3%	$281,888
SOFT COST SUBTOTAL					**$3,070,761**
	net HST (3.41%)				$330,025
TOTAL PROJECT BUDGET		**14,406**		**$695**	**$10,008,178**

Notes:

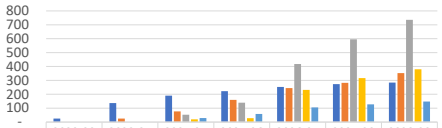
1 Instructional space AV/IT equipment, wireless access points, switches etc.

2 Budget excludes teaching lab equipment, research lab equipment and computer lab computers.

Comparison of Engineering Business Case Metrics

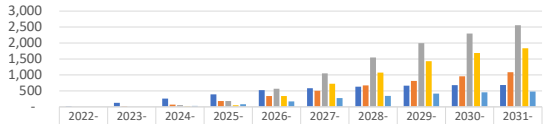
May 6, 2021 Proposal vs Update June 2023 vs Update September 2023 vs Update May 2024 vs March 2025

Student Intake



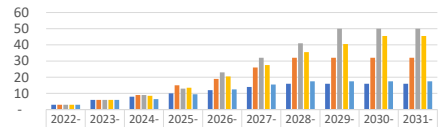
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
May 6, 2021 Original Plan	25	137	190	222	253	273	284
June 2023 Updated Plan	-	25	77	160	245	283	352
September 2023 Updated Plan	-	-	53	139	418	596	736
May 2024 Updated Plan	-	-	20	28	232	316	380
March 2025 Updated Plan	-	-	29	58	105	128	148

Total Student Enrolment



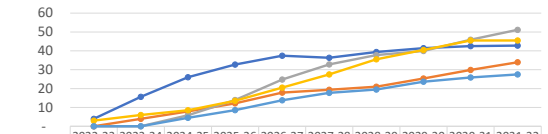
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
May 6, 2021 Original Plan	24	125	260	392	524	582	630	663	680	685
June 2023 Updated Plan	-	24	71	182	340	502	672	812	956	1,086
September 2023 Updated Plan	-	-	53	181	569	1,051	1,548	1,998	2,296	2,558
May 2024 Updated Plan	-	-	20	50	339	726	1,072	1,431	1,688	1,834
March 2025 Updated Plan	-	-	29	81	172	275	341	414	453	481

Faculty Count



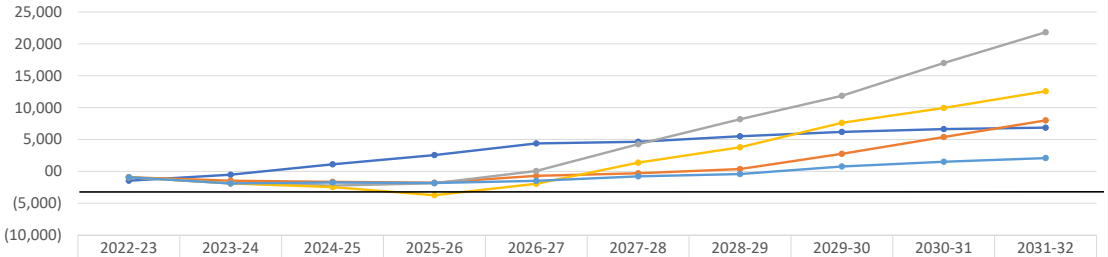
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
May 6, 2021 Original Plan	3	6	8	10	12	14	16	16	16	16
June 2023 Updated Plan	3	6	9	15	19	26	32	32	32	32
September 2023 Updated Plan	3	6	9	13	23	32	41	50	50	50
May 2024 Updated Plan	3	6	9	14	21	28	36	41	46	46
March 2025 Updated Plan	3	6	7	10	13	16	18	18	18	18

Student to Faculty Ratio



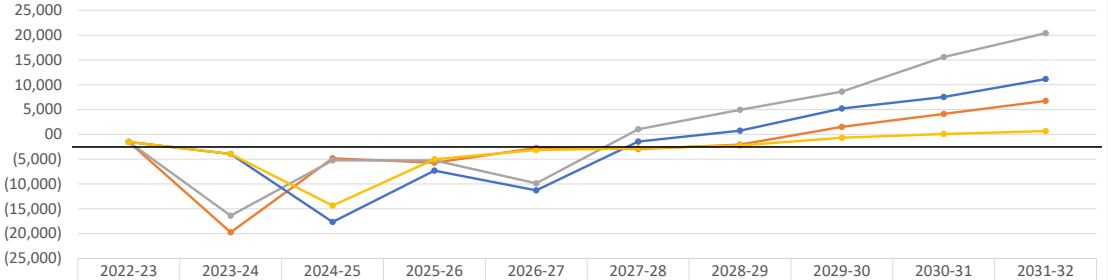
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
May 6, 2021 Original Plan	4	16	26	33	37	36	39	41	42	43
June 2023 Updated Plan	-	4	8	12	18	19	21	25	30	34
September 2023 Updated Plan	-	-	6	14	25	33	38	40	46	51
May 2024 Updated Plan	3	6	9	14	21	28	36	41	46	46
March 2025 Updated Plan	-	-	4	9	14	18	19	24	26	28

Operating Contribution Margin (Before Capital) in 000's



	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
May 6, 2021 Original Plan	(1,460)	(511)	1,118	2,559	4,385	4,652	5,514	6,184	6,632	6,865
June 2023 Updated Plan	(919)	(1,460)	(1,644)	(1,771)	(697)	(293)	367	2,764	5,386	7,995
September 2023 Updated Plan	(919)	(1,888)	(2,222)	(1,862)	73	4,259	8,185	11,855	17,000	21,817
May 2024 Updated Plan	(919)	(1,888)	(2,452)	(3,736)	(1,946)	1,368	3,773	7,622	9,953	12,564
March 2025 Updated Plan	(919)	(1,888)	(1,737)	(1,827)	(1,486)	(784)	(416)	761	1,511	2,087

Contribution Margin (Including Capital) in 000's



	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
June 2023 Updated Plan	(1,519)	(19,741)	(4,842)	(5,721)	(2,747)	(2,943)	(2,083)	1,514	4,136	6,745
September 2023 Updated Plan	(1,519)	(16,388)	(5,246)	(5,237)	(9,874)	1,031	4,958	8,627	15,573	20,390
May 2024 Updated Plan	(1,519)	(3,946)	(17,665)	(7,311)	(11,293)	(1,459)	746	5,195	7,526	11,137
March 2025 Updated Plan	(1,519)	(3,946)	(14,360)	(5,002)	(3,161)	(2,812)	(2,244)	(666)	83	659

Board of Trustees

Report to the Capital Infrastructure Committee

INFORMATION ITEM

TOPIC: Student Alumni Centre Project

March 5, 2025

Arja Vainio-Mattila, Provost & Vice-President, Academic
Scott Johnstone, Associate Vice-President, Infrastructure & Operations
Brad Clarke, Associate Vice-President, Students

EXECUTIVE SUMMARY

1. Purpose of the Report
    - The purpose of this report is to provide Committee members with an update on the Student Alumni Centre project.

2. Key Background
    - BUSU currently licenses the Student Alumni Centre and other service and 'storefront' spaces from the University. Since 2004, BUSU has been interested in expanding student space on campus. In 2019, BUSU ran a successful referendum to fund the construction and related expenses for a new Student Centre.
    - In June 2024, the Board of Trustees passed a motion that reserved the Student Alumni Centre site as the location for the BUSU's new/expanded Student Centre until the end of the 2025 calendar year. This motion was to provide BUSU with time to confirm the construction costs, financing plan, and legal agreements for the Project.
    - In August 2024, BUSU engaged Architects Tillman Ruth & Robinson (aTRR) to provide architectural consulting services for the expansion of the Student Alumni Centre. To date, BUSU and aTRR have met regularly and have completed the schematic design phase.
    - Brock leadership (i.e., the AVP Students and AVP Infrastructure & Operations) has been meeting with BUSU to discuss the project and ensure it is consistent with University interests and capacity. The University's assessment of the project to date is that it will help address known space needs on campus (e.g., student study and collaboration spaces, equity spaces, social and event spaces, affinity group/club spaces) and that the increased cost to future students by way of the associated student levy is reasonable given the Project elements. An interim plan has been determined to relocate student activities that will be displaced during construction.
    - Given the University's current fiscal landscape and existing debt load, Brock does not have the capacity to increase debt financing for this project or support it within its operating budget. BUSU, in consultation with Brock's Chief Financial Officer, engaged Doane Grant Thornton to develop a financing strategy with potential lenders that would not require any co-sign or security provided by Brock. The project generated strong market interest and BUSU subsequently secured conditional debt financing. Brock is

currently working with external counsel to review the financing terms and draft appropriate legal and contractual agreements (e.g., construction arrangements, project management, etc.) to protect the University's interests. Should BUSU, with Brock's support, and the external lender be unable to finalize the terms and contractual arrangements the Student Alumni Centre project would no longer be feasible.

3. Next Steps
    - Brock administration will continue to meet regularly with BUSU to support the project and ensure that outcomes and elements remain aligned with the principles set out by University leadership.
    - Based on BUSU's progress to date, Brock administration anticipates requesting a special meeting in March or April to approve the project.

4. Background Materials

    Appendix 1 – Student Alumni Centre Project Update (3 pages)

Appendix 1 – Student Alumni Centre Project

Project Status Update

Project Description:
BUSU has ran a successful referendum to fund a new Student Alumni Centre. The new facility will provide activity space, support space, office space, study space, etc. The new Student Alumni Centre will be constructed in a phased approach, allowing for future growth.

Impact:
Students, faculty, staff, and the Brock community.

Status/Issues:
Continue working on detailed design and investigating LEED certification.

Milestones:
Continue collaboration between BUSU, Brock, and aTRR. Tender documents ready for late summer 2025.

Architect Renderings:




Exterior Design
STUDENT ALUMNI CENTRE


Exterior Design
BUSU
STUDENT ALUMNI CENTRE





Project Team

Facilities Management	Braden Day, Project Manager
Architect	Architects Tillman Ruth and Robertson Inc.
General Contractor	TBD

Board of Trustees

Report to the Capital Infrastructure Committee

INFORMATION ITEM

TOPIC: Major Capital Projects Update - FM

March 5, 2025

Scott Johnstone, Acting Vice-President, Administration
Susan Strban, Director, Capital and Financial Management, Facilities Management

EXECUTIVE SUMMARY

1. Purpose of the Report
    - The purpose of this report is to provide Committee members with an overview of key Facilities Management and Ancillary Services projects aligned with the University's strategic priority of *offering a transformational and accessible academic and university experience.*
    - These projects, as well as others that FM is working on, all continue to enhance and strengthen the University's environment and help facilitate the University's mission of leadership, innovation and excellence in learning, teaching, research, scholarship, and creativity across disciplines.

2. Key Background
    - There are currently three active major capital projects underway:
        - Major upgrades to the District Energy System (DES) including a new boiler, heat pump, piping retrofits and overall optimization of control sequences to reduce Brock's carbon emissions by up to 67% and save $5M in carbon costs by 2030.
        - Design of Engineering space needs, including administrative offices and support space, teaching labs, graduate student space needs, and research labs.
        - Construction of a Research Farm on Merrittville Highway, including greenhouses, screen houses, aviary, vineyard, and a research facility.

Projects	Budget
District Energy System Electrification	$ 6,500,000
Engineering Space Needs	TBD
Research Farm	$ 8,412,285

- Project details follow in Appendices 1 to 3

- Market conditions continue to have a significant impact on Brock projects, including those identified above.

3. Next Steps
    - Continue to manage the construction process and to identify and mitigate any potential risks where possible to maintain project budget and schedule.

4. Background Materials

Appendix 1 – District Energy System Electrification (1 page)
Appendix 2 – Engineering Space Needs (1 page)
Appendix 3 – Research Farm (1 page)

Appendix 1 – District Energy System Electrification

Project Status Update

Project Description:
The District Energy System (DES) Electrification includes installing an electric boiler at Welch Hall, installing a heat pump in CAIRNS, recovering heat waste from CAIRNS' steam boiler for mechanical equipment, piping retrofits at Schmon Tower, Decew Residence, Welch Hall, Thistle Complex and Student Centre to supply the DES, and the optimization of control sequences DES and satellite generation assets. The goal of the project is to reduce Brock's carbon emissions by up to 67% thus reducing future costs of carbon by more than $5M by 2030.

Impact: Students, faculty, staff, and the Brock community.

Status/Issues:
All major equipment has been received. Construction schedule is on-time.

Upcoming Milestones:
Commissioning equipment.

Schedule

	Original	Current
Engineer	March 2023	March 2023
Retain Contractor(s)	March 2024	May 2024
Construction Commencement	April 2024	May 2024
Substantial Performance	March 2025	March 2025

Budget

Budget	$6,500,000	
Actuals	$4,789,932	
Commitments	$1,563,986	
Forecasted Future Spend	$146,082	
Total Projected Cost (estimate)	$6,500,000	
Variance to Budget	$0	0.0%

Note: Project funding is current and prior years capital ($3.6M) and a grant from the Ministry of Environment ($2.9M).

Project Team

Facilities Management	Drew Cullen, Manager, District Energy
Engineer	Eequinox Strategies Inc.
General Contractor	Modern Niagara Group Inc.

Appendix 2 – Engineering Space Needs

Project Status Update

Project Description:
Brock continues to investigate various options to accommodate its short-term and future space needs for the Yousef Haj-Ahmad Department of Engineering. Feasibility designs have been prepared demonstrating scalable options to meet Engineering's needs for administrative office and support space, teaching labs, and research labs.

Impact: Students, faculty, staff, and the Brock community.

Status/Issues:
Various locations throughout main campus and at 3401 Schmon Parkway have been identified to accommodate the space requirements for Engineering. Detailed designs of each area are underway.

Upcoming Milestones:
Finalize detailed design for SBH 208 and begin general contractor selection.

Schedule

	Original	Current
Retain Architect	November 2023	November 2023
Retain General Contractor	TBD	October 2024
Construction Commencement	TBD	October 2024
Occupancy	August 2025	August 2025

Budget

Budget	TDB	
Actuals	$907,095	
Commitments	$720,066	
Forecasted Future Spend	TBD	
Total Project Cost (estimate)	TBD	

Note: Project funding is from external financing obtained to purchase the property. Full project budget is still being developed.

Project Team

Facilities Management	John Rizzo, Senior Project Manager
Engineering Dept	Shahryar Rahnamayan
Architect	Architects Tillman Ruth Robinson Inc.
General Contractor	TBD

Appendix 3 – Research Farm

Project Status Update

Project Description:
The Clean Agriculture for Sustainable Production (CASP) Field Infrastructure will be a world-leading, farm-based research centre. This Research Farm will provide researchers with the facilities required to: i) advance clean plant research and sustainable agriculture from the fundamental stages of innovative, tissue-culture based plant propagation in protective settings to applied field research for high throughput sequencing-based screening for pathogens; ii) propagate plants free from disease in natural and mixed agricultural settings; iii) understand these interactions at the landscape level; and iv) apply this knowledge to urban areas and other ecosystems.

Impact: Students, faculty, staff, and the Brock community.

Status/Issues:
Electricity connection costs are favourable. Preliminary project cost estimates are unfavourable. Investigating options around reduced scope for tender documents.

Upcoming Milestones:
Continue procurement of equipment. Finalize documents for tenders.

Schedule

	Original	Current
Retain Architect	January 2024	January 2024
Retain Contractor	TBD	TBD
Construction Commencement	TBD	TBD
Substantial Performance	TBD	TBD

Budget

Budget	$8,412,285	
Actuals	$1,339,364	
Commitments	$164,158	
Forecasted Future Spend	$6,908,763	
Total Projected Cost (estimate)	$8,412,285	
Variance to Budget	$0	0.0%

Note: Project budget excludes $499k of in-kind contributions.

Project Team

Facilities Management	Braden Day, Project Manager, CPPM
Research	Sudarsana Poojari, Principal Scientist & Jim Willwerth, Assistant Professor
Architect	Cianfrone Architect Inc.
General Contractor	TBD

Board of Trustees

Report to the Capital Infrastructure Committee

INFORMATION ITEM

TOPIC: T2 Financial Update on Capital and Related Projects Plan

March 5, 2025

Scott Johnstone, Acting Vice-President, Administration
Josh Tonnos, Chief Financial Officer & Associate Vice-President, Financial Services
Gemma Ahn, Associate Vice-President & Head of Information Technology Services

EXECUTIVE SUMMARY

1. Purpose of the Report

- Provide the Capital Infrastructure Committee with the trimester two update of the Capital and Related Projects, consistent with the Committee Charter and reporting requirements.

2. Key Background

- Currently there are 89 open projects: 52 FM, 11 Residence and Ancillary, and 26 ITS. *Appendix 1 - Figure 1* illustrates the activity with respect to the number of projects.
- A breakdown of the Facilities Management, Residence and Ancillary, and Information Technology Services projects by category identifies a total of $39 million dollars remaining to spend.
    - The FM project funds remaining to spend is $26 million, such as the Engineering Space Needs ($9 million), the Research Farm ($7 million), and the District Energy System Electrification ($1.7 million).
    - The Residence and Ancillary funds remaining to spend is $3.4 million, including Residence HVAC Upgrades (0.7 million).
    - The ITS project funds remaining to spend is $9.6 million, such as Burlington Bateman ITS ($1.5 million), the Student Information System ($1.2 million), and the Identity Access Management & Security Operation Center ($1 million).

  Appendix 1 - Figure 2 illustrates the activity with respect to the type and dollar amount of projects by FM, Residence and Ancillary, and ITS.
- The FY 2024/25 Facility Renewal Program funding from the Ministry has been increased by $641 thousand ($4.22 million received vs $3.597 million budgeted), however no additional projects were identified, the funding was allocated to projects currently ongoing that were initially funded from university funds. This strategy supports meeting the $10.1 million mitigation target included in the approved 2024-25 funding budget.

3. Next Steps

- As this report serves as an update on project activity, the next steps will be another update of capital and related projects to be presented in Cycle 5.

4. Background Materials
    - Appendix 1 – T2 Financial Update on Capital and Related Projects Plan (1 page)

Figure 1: Status of Capital Projects as of December 31, 2024

	Facilities Management	Residence and Ancillary Services	Information Technology Services
Total projects opened April 30, 2024	74	13	41
Projects opened to December 31, 2024	1	0	0
Projects closed/completed to December 31, 2024	23	2	15
Total projects open to December 31, 2024	**52**	**11**	**26**

Figure 2: Capital and Related Project Summary (By Category) (000's)

Project	Revenue / Funding	Spending to December 31, 2024	Remaining to Spend
Facilities Management			
AODA* Projects	390	184	206
Above surface/sub surface utilities, drainage, roads, parking lots, sidewalks	1,519	728	791
Audits and studies	880	524	356
Buildings	6,519	2,649	3,870
Energy conservation and demand management	7,981	5,151	2,830
Major capital projects	18,413	2,246	16,167
Vehicles and wheeled equipment	980	844	136
FM - surplus/deficit	1,382	-	1,382
Total Facilities Management	**38,064**	**12,326**	**25,738**
Ancillary Services			
Above surface/sub surface utilities, drainage, roads, parking lots, sidewalks	465	328	137
Adaptations/renovations and major renewal projects	551	146	405
Buildings	5,200	3,002	2,198
Res - surplus/deficit	683	-	683
Total Ancillary Projects	**6,899**	**3,476**	**3,423**
Information Technology Services			
Enterprise software projects	8,250	3,515	4,735
Hardware projects	4,489	1,020	3,469
IT infrastructure projects	1,863	639	1,224
IT - surplus/deficit	168	-	168
Total Information Technology Services	**14,770**	**5,174**	**9,596**
Total Capital and Related Projects	**59,733**	**20,976**	**38,757**

***AODA -Accessibility for Ontarians with Disabilities**

Board of Trustees

Report to the Capital Infrastructure Committee

INFORMATION ITEM

TOPIC: Burlington Update

March 5, 2025
Scott Johnston, Vice-President, Administration (Acting)

EXECUTIVE SUMMARY

1. Purpose of the Report

- The purpose of this report is to keep Committee members informed regarding the status of the move to Burlington.

2. Key Background

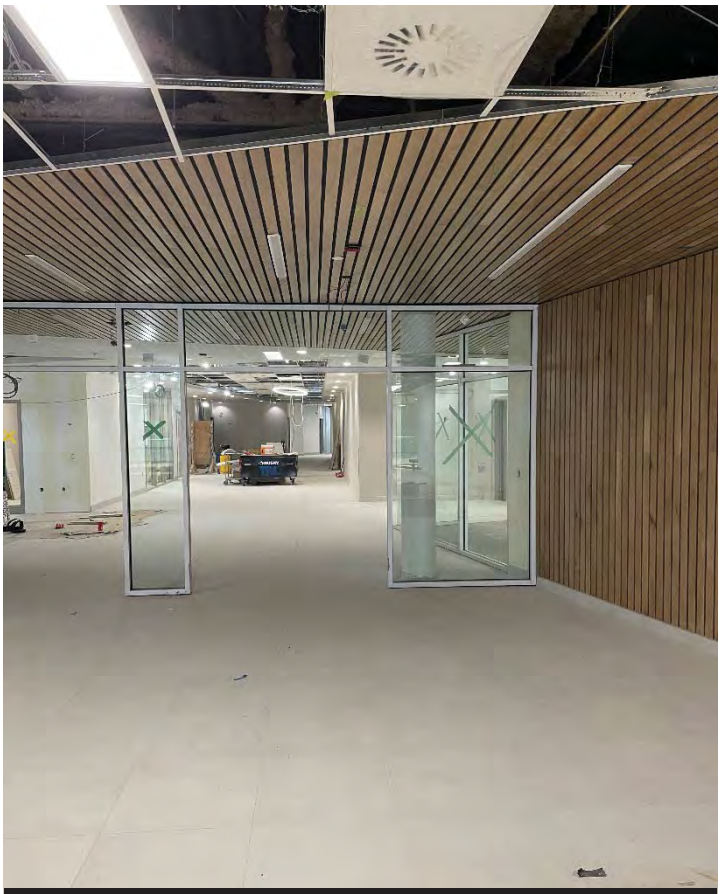
- Renovation and construction of the Robert Bateman Community Centre is continuing and on schedule for the Fall 2025 academic year opening.
- Construction of Brock's second floor tenant space, and ground floor library and fitness space, are proceeding well with the installation of interior finishes underway. *(**see Appendix 1**)*
- Facilities Management has procured the supply and installation of furniture, scheduled for delivery and installation this summer.
- The procurement for the supply and installation of audio video and IT equipment by Information Technology Services (ITS) is ongoing.
- Facilities Management is working with the University's move consultant to coordinate the move from Pearson to Bateman.

3. Next Steps

- May 1, 2025 - Brock receives access to Brock's tenant space.
- May to July 2025 - ITS managed installation of audio video and IT equipment.
- June and July 2025 – Move consultant managed furniture delivery and installation.
- July 2025 – Move from Pearson to Bateman.
- August 1, 2025 – Faculty and staff on site to prepare for September opening.

4. Background Materials

- Appendix 1: Progress Photos – January 22, 2025 – 2 pages



Brock Suite Main Entrance



Faculty Offices Reception Area



Main Corridor view towards Entrance



North Corridor view of Classroom Space

Appendix 1 Progress Photos - February 20, 2025



Science Instructional Lab



Science Preparation Room



North Corridor



Corridor view towards Main Lobby

Board of Trustees

Report to the Capital Infrastructure Committee

INFORMATION ITEM

TOPIC: Energy Conservation & Demand Management Annual Scorecard

March 5, 2025

Scott Johnstone, Associate Vice-President, Infrastructure & Operations
Mary Quintana, Director, Asset Management & Utilities

EXECUTIVE SUMMARY

1. Purpose of the Report

- The purpose of this report is to present updates on Brock's performance on energy conservation and Greenhouse Gases (GHGs).
- Energy and GHGs are directly related to compliance (O.Reg. 25/23, Electricity Act 1998, O.Reg. 241/19, O.Reg. 390/18), operational costs and the advancement of sustainability in the institution. Compliance obligations include reporting energy consumption, tracking progress on energy use reduction and preparing a 5-year plan detailing how the institution will reduce and conserve energy.

2. Key Background

- In compliance with regulations, Brock submitted the Energy Conservation and Demand Management Plan for 2024 – 2029 in June of 2024. Some of the mandatory requirements included: energy management goals, reporting energy performance between 2019 – 2024 and information on the measures implemented in the facilities.
    - In the past five years, Brock saved 18eGWh of energy and avoided an estimated 16,400 Tonnes of CO2e in greenhouse gas (GHG) emissions;
    - The University implemented measures that include long-term technical programs, behavioural change initiatives as well as made organizational adjustments to better support energy conservation and efficiency.
- Brock joined the Independent Electricity System Operator's (IESO) Strategic Energy Management (SEM) program. This program is helping Brock to improve the structure of its energy-impacting processes and practices while also providing valuable training to staff. Under this program, Facilities Management conducted an energy scan in the Roy and Lois Cairns' Health & Bioscience Research Complex, involving a variety of stakeholders to search for additional opportunities for energy savings.

- Brock's GHG emissions are linked to the use of natural gas for heating. The District Energy System (DES) Electrification Project, partially funded by the federal Low Carbon Economy Fund – Champions Stream, will allow Brock to heat its buildings via electric boilers and heat pumps in the future. This project also includes numerous measures to reduce energy consumption such as adding new controls and the installation of efficient equipment (e.g., variable frequency drives, and replacing old pumps with new ones). The electrification project will be completed in the spring and will be fine-tuned for each season over the next few months.
- Energy conservation and efficiency efforts have continued this year, with the installation of drives on fans serving MacKenzie Chown Blocks B & E, as well as a retrofit of all the lights in South Block, which was recently completed.
- In October 2024, Brock received Save On Energy's 2024 Energy Management Excellence Award – Education Sector and also received the 2025 Clean50 Top Project Award for the implementation of an Energy Management System that has been widely adopted across the higher education sector.

3. Next Steps
    - Facilities Management will continue implementing energy scans in buildings across campus. These will continue to involve different stakeholders to look for operational, technical and behavioural opportunities to save energy in each building.
    - Conservation and efficiency measures will continue to be implemented, favouring those which have multiple benefits (e.g., opportunities for teaching or research, increase safety, reduce liabilities, short simple paybacks).
    - Energy conservation and efficiency will be incorporated into Brock's Design Guidelines and where applicable. Green building design elements and rating systems such as Leadership in Energy and Environmental Design (LEED®), Building Owners and Managers Association (BOMA) Best, and Passive House will be considered both for operations & maintenance as well as for new designs.

4. Background Materials

    Appendix 1 – Energy Conservation and Demand Management Scorecard (2 pages)

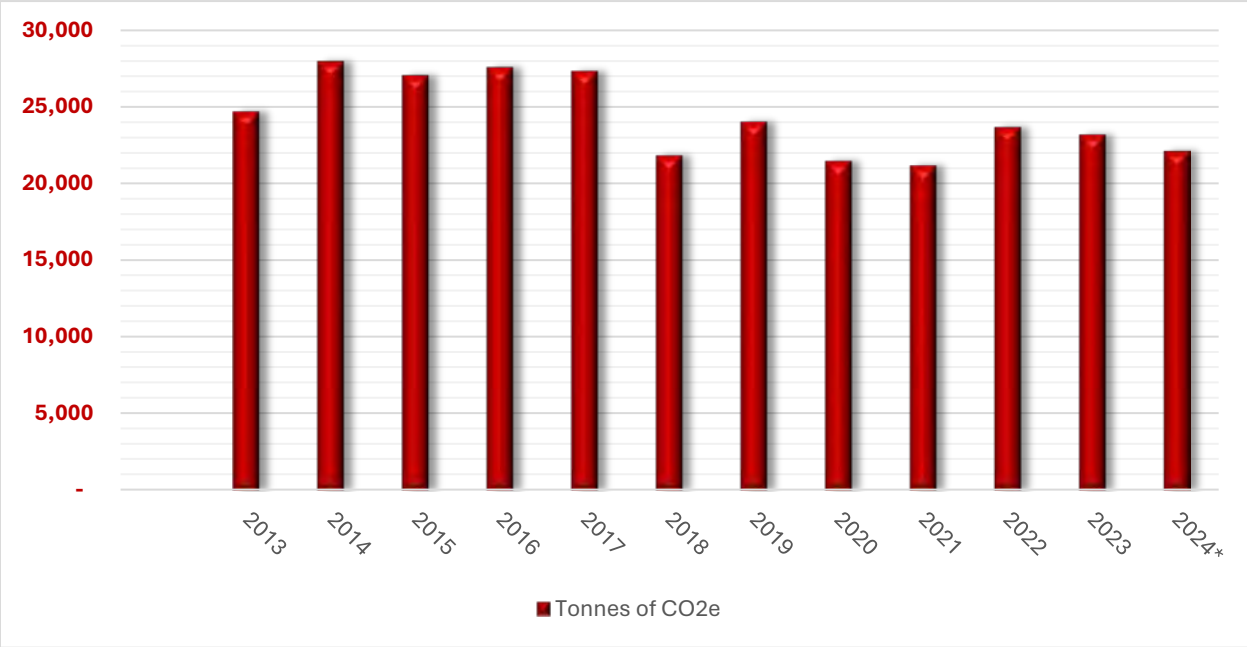
Appendix 1

Energy Conservation and Demand Management (ECDM)
2022 Annual Scorecard

Strategic priorities

Brock University's Integrated Strategic Plan, which has been endorsed by both the Board and the Senate, sets out the University's Integrated Strategic Priorities. In developing this ECDM, wherever possible, these strategic priorities were used as a lens through which decisions were made and priorities were set.

Carbon emissions



*Verified by an ISO-accredited third-party (taken from verification and/or SWIM reports); * Estimated*

Carbon Cost Per Year [CAD]

Pre-2018	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024[1]	2024-2025[2]
$0	$180,248	$344,798	$449,311	$749,327	$780,429	$1,015,000

1 Adjusted to reflect actual true-up costs
2 Estimated

Drivers for carbon emissions	Core principles
• Weather throughout the year • Gross square footage • Building performance • District Energy System (DES) operations • Carbon content of the fuels used • Campus occupancy	• Increase efficiency • Emissions reduction • Cost containment • Resilience and climate change adaptation • Maximize the assets' life

Major initiatives

Brock University has established calendar 2013 as the baseline for emission reductions. The new Carbon Reduction plan establishes the target of 75% reductions in Brock's overall greenhouse gas (GHG) emissions by 2030, and to be net zero carbon by 2050. Energy consumption on campus is intrinsically linked to carbon emissions and energy efficiency will play a critical role in achieving these targets.

1. **Generation**

   Changes to the operation of the DES

   The DES operation has continued to evolve, aiming to run the lowest number of engines possible, to abide to the five principles outlined above. These changes have enabled Brock to drastically limit the times when all four engines run simultaneously (i.e., during extremely cold or hot days) and for peak chasing under the Industrial Conservation Initiative (ICI) program. This allows flexibility for Facilities Management to meet the campus energy needs and contain costs, while also progressing towards a low-carbon operation.

2. **Operations**

   Controls modernization

   Efforts have continued to modernize the controls associated with the Building Automation System (BAS). The work includes new, non-proprietary software, hardware and update of the sequences. The modernization will facilitate the implementation of new programs, improve alarm management and allow more flexibility in the technologies and solutions used.

3. **Procurement**

   Expanding the vendor pool

   Solutions and technologies related to energy systems are being transitioned into non-proprietary solutions. This allows increased flexibility to choose lower-cost alternatives and increases competition, enabling a larger number of vendors to work on the building systems.

4. **Communications**

   A year of awards

   In recent months, Brock submitted to Times Higher Education – Impact Rankings and the Sustainability Tracking, Assessment & Rating System (STARS), receiving again a Silver rating under the latter. Brock University was the winner of the 2024 Save On Energy's Energy Management Excellence Award – Educational Sector and was also the recipient of a 2025 Clean50 Top Project. With these awards, there were numerous communications and materials (e.g., videos) created featuring Brock's achievements.

5. **Buildings**

   Retrofits for energy efficiency

   Lighting is one of the energy systems that are most visible to our community, while also directly impacting space performance. Retrofits to convert lights across campus continue, addressing South Block this year. Other efforts towards energy efficiency include the installation of Variable Frequency Drives in Mackenzie Chown fans serving blocks B&G.

Board of Trustees

(Circulated prior to approval)

Brock University
Niagara Region
1812 Sir Isaac Brock Way
St. Catharines, ON
L2S 3A1 Canada

MINUTES OF MEETING #2 – CYCLE 2 (2024-2025)

CAPITAL INFRASTRUCTURE COMMITTEE

WEDNESDAY, DECEMBER 4, 2024, 10:05 AM

REMOTE PARTICIPATION VIA MICROSOFT TEAMS

MEMBERS PRESENT:	Rob Welch (Committee Chair), Kevin Magee (Committee Vice-Chair), Réjeanne Aimey, Mark Arthur, Anteneh Ayanso, Lucy He, Allie Hughes, Anne McCourt, Matthew Melnyk, Anusha Pahuja, Lesley Rigg
REGRETS:	Nyarayi Kapisavanhu
KEY RESOURCE:	Stacey Duncan, Scott Johnstone, Jennifer Guarasci, Michelle McGinn, Yvonne Roussel, Meaghan Rusnell, Margaret Thompson, Arja Vainio-Mattila
ALSO PRESENT:	Invited staff members during specific agenda items and other members of the Brock community

1. Call to Order

The Committee Chair welcomed members and staff, called the meeting to order, and provided a land acknowledgement.

2. Declaration of Conflict of Interest

There were no conflicts of interest declared to any matter on the Agenda.

3. Approval of the Agenda

The Committee Chair referred members to the Agenda and confirmed that there were no items to be lifted.

On a motion by Trustee Magee, seconded by Trustee Arthur and carried, it was

RESOLVED that the Agenda, including consent items, be approved.

4. Business Arising from the Minutes – None

5. 2025-26 Preliminary Capital Plan and Related Projects Plan
[A Decision Item *TOPIC: 2025-26 Preliminary Capital Plan and Related Projects Plan* dated December 4, 2024 had been posted with the meeting materials together with Appendix 1 – 2025-26 Capital and Related Projects Plan.]

The Committee reviewed the request to approve the preliminary Fiscal Year 2025-26 Capital and Related Projects Plan as outlined in the Report. During review, the Vice-President, Administration (Interim) and the Associate Vice-President, Operations and Infrastructure expanded on matters outlined in the Report including the implications of the University's significant financial challenges on the funding available for capital projects and the teamwork involved in developing this preliminary plan to support those projects identified in the Report.

Discussion ensued during which members considered matters related to the constraints during the past two years to set aside funds for deferred capital renewal investments, the funding support for Brock's renewed Student Information System, and the need to continue to create reserves to support the future stability of the University.

On a motion by Trustee Magee, seconded by Trustee McCourt and carried, it was

RESOLVED that the Capital Infrastructure Committee approve the Fiscal Year 2025-2026 Capital and Related Projects Plan presented in Appendix 1 of the Report, subject to funding approval from the Board of Trustees.

6. Major Capital Projects Update – Facilities Management
[An Information Item *TOPIC: Major Capital Projects Update – Facilities Management* dated December 4, 2024 had been posted with the meeting materials together with the following appendices: 1 – District Energy System Electrification, 2 – Engineering Space Needs, and 3 – Research Farm.]

The Committee reviewed the Report that provided an overview of key Facilities Management and Ancillary Services projects aligned with the University's strategic priority of offering a transformational and accessible academic and university experience. During the review, the Director, Capital and Financial Management, Facilities Management provided highlights of the three major capital projects currently underway (District Energy System Electrification, Engineering Space Needs, and Research Farm). Clarification was provided on matters raised regarding the projects. In addition, the President and Vice-Chancellor thanked the Provost and the AVP, Infrastructure and Operations and their team for the copious amount of work involved to accommodate the space needs for the Yousef Haj-Ahmad Department of Engineering.

7. Utilities Portfolio Update
[An Information Item *TOPIC: Utilities Portfolio Update* dated December 4, 2024 had been posted with the meeting materials together with Appendix 1 – Portfolio Summary Natural Gas and Electricity.]

The Committee reviewed the Report that provided an update on the University's utilities (natural gas, electricity, carbon and domestic water) procurement and production strategies. During review, the Director, Asset Management & Utilities and the Associate Vice-President, Infrastructure & Operations provided highlights of the Report. The Committee recognized and expressed appreciation to the team for their continuous efforts within the energy market.

8. Student Alumni Centre Project
[An Information Item *TOPIC: Student Alumni Centre Project* dated December 4, 2024 had been posted with the meeting materials together with the following Appendices: 1 – Schematic Design, 2 – Project Budget Estimate, 3 – Doane Grant Thornton Project Impact: Market Update.]

The Committee reviewed the Report that provided a progress update regarding the Student Alumni Centre Project. During the review, the Associate Vice-President Students provided highlights. In response to a question, it was confirmed that the project is cost neutral to the University, and that the Brock University Students' Union is also responsible for ongoing maintenance costs of the Centre.

The Chair noted that a motion was required to move *in camera* for consideration of the following confidential Agenda items:

9. ITS Information Security, Identity Access Management & Zero Trust Update - *In camera*
10. Property Matter - *In camera*
11. 3401 Schmon Parkway - Oral Update - *In camera*

On a motion by Trustee Magee, seconded by Trustee McCourt and carried, the Committee move *in camera* at 10:48 a.m.

[During closed session, the Committee reviewed confidential Reports and approved a confidential motion for the consideration of the Board of Trustees.)

The Committee resumed open session at 11:17 a.m.

12. *In Camera* Record of Proceedings of Previous Meeting
[The *in camera* Record of Proceedings of the previous meeting had been posted with the meeting materials.]

The confidential Record of Proceedings from the previous meeting held on September 25, 2024 had been approved by consent.

13. Minutes of Previous Meeting
[The Minutes of the previous meeting had been posted with the meeting materials.]

The Minutes of the previous meeting held on September 25, 2024 were approved by consent.

14. Metrics - Facilities Management
[An Information Item *TOPIC: Metrics - Facilities Management* dated December 4, 2024 had been posted with the meeting materials.]

The Report was received by consent.

15. Other Business - None

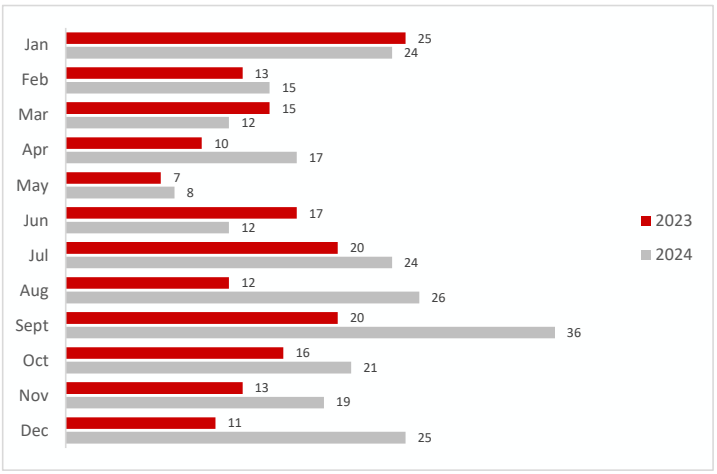
16. Adjournment

The meeting adjourned at 11:17 a.m.

1 Number of Emergency/After Hour Call-ins

* M&U and Grounds

	2023	2024
Jan	25	24
Feb	13	15
Mar	15	12
Apr	10	17
May	7	8
Jun	17	12
Jul	20	24
Aug	12	26
Sept	20	36
Oct	16	21
Nov	13	19
Dec	11	25

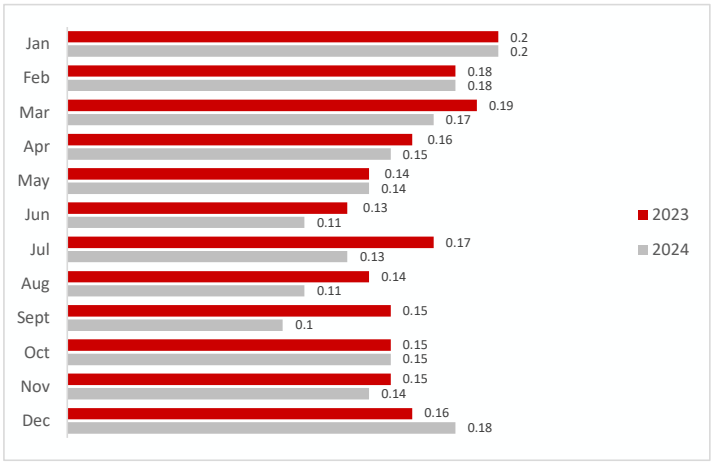


2 Energy Intensity (GJ/M2)

* Purchased Energy (Elec. and Gas)

Energy Intensity

	2023	2024
Jan	0.2	0.2
Feb	0.18	0.18
Mar	0.19	0.17
Apr	0.16	0.15
May	0.14	0.14
Jun	0.13	0.11
Jul	0.17	0.13
Aug	0.14	0.11
Sept	0.15	0.1
Oct	0.15	0.15
Nov	0.15	0.14
Dec	0.16	0.18
Annual	0.16	GJ/M2



3 Water Consumption (M3)

	2023	2024
Jan	18405	15850
Feb	13846	18029
Mar	12120	13235
Apr	23809	19626
May	15358	16347
Jun	17899	36472
Jul	22524	40794
Aug	29450	39154
Sept	32832	31563
Oct	34089	23666
Nov	25850	23122
Dec	15900	13493
Total	229,831	

