

OUTLINE OF ISSUE
Advice, Discussion, Information Item

Agenda Title: **Devonian Botanic Garden (DBG): Ecological Learning Centre Revised Concept Design**

Item

Proposed by	Pat Jansen, Associate Vice-President, Planning and Project Delivery, Facilities and Operations
Presenter	Ben Louie, University Architect, Facilities and Operations Lee Foote, Director, Devonian Botanic Garden, Faculty of Agriculture, Life and Environmental Sciences

Details

Responsibility	Vice-President (Facilities and Operations)
The Purpose of the item is (please be specific)	To provide GFC Facilities Development Committee (FDC) with context and rationale for the revised concept design (February 2017) for the Ecological Learning Centre (ELC) at the Devonian Botanic Garden.
Timeline/Implementation Date	N/A
Supplementary Notes and context	In February 2015, GFC FDC discussed and provided advice on the previous version of the concept design of the ELC with 2,789 square metre (m ²) programme area. It has since been reduced to 881 m ² to meet the minimal operational requirement, and a supported fundraising campaign target while facilitating expansion and growth over time, consistent with the sector plan of the garden.

Engagement and Routing (Include meeting dates)

Participation: (parties who have seen the proposal and in what capacity)	<u>Those who have been informed:</u>
	<ul style="list-style-type: none"> • Dean of ALES
	<u>Those who have been consulted:</u>
	<ul style="list-style-type: none"> • Staff of Devonian Botanic Garden
	<u>Those who are actively participating:</u>
	<ul style="list-style-type: none"> • Lee Foote, Director, DBG • Ruby Swanson, General Manager, DBG • Ben Louie, University Architect • Todd Were, Director, Project Management Office

Alignment/Compliance

Alignment with Guiding Documents	<p><u>Comprehensive Institutional Plan</u></p> <p><u>Institutional Strategic Plan - For the Public Good</u> BUILD...As a community, we recognize that our future is built on shared values...</p> <p>5. OBJECTIVE: Build and strengthen trust, connection, and a sense of belonging among all members of the university community through a focus on shared values.</p> <p>vi. Strategy: Encourage and support institution-wide initiatives, services, and programs, such as arts and cultural activities,</p>
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	<p>intramurals, student groups, volunteering, clubs, and centres, which bring students from all faculties into community with each other.</p> <p>BUILD...and our story is built on the accomplishments and contributions of our people.</p> <p>6. OBJECTIVE: Build and support an integrated, cross-institutional strategy to demonstrate and enhance the University of Alberta’s local, national, and international story, so that it is shared, understood, and valued by the full University of Alberta community and our many stakeholders.</p> <p>iii. Strategy: Communicate, using both quantitative and qualitative evidence, how the University of Alberta serves as a cornerstone of the community bringing widespread economic and societal benefits to all Albertans, as well as to national and international partners and stakeholders.</p> <p>ENGAGE...Our ability to contribute to society will flow in large measure from our ability to connect with our communities...</p> <p>16. OBJECTIVE: Enhance, increase, and sustain reciprocal, mutually beneficial community relations, community engagement, and community-engaged research and scholarship that will extend the reach, effectiveness, benefit, and value of our university-community connections.</p> <p>i. Strategy: Identify and embrace opportunities to build, strengthen, and extend the University of Alberta’s connections to and engagement with external stakeholders, including the general public, neighbouring communities, ethnic and cultural communities, and other communities of practice.</p> <p>iv. Strategy: Continue to build mutually beneficial, authentic relationships with alumni and donors.</p> <p>v. Strategy: Welcome increased community access, participation, and engagement at all University of Alberta sites, such as our downtown campus at Enterprise Square and our sport facilities at South Campus.</p> <p>ENGAGE...that support institutional partnerships locally, nationally, and internationally.</p> <p>18. OBJECTIVE: Seek, build, strengthen, and sustain partnerships with local, national, or international research agencies, governments, government ministries and agencies, universities, Indigenous communities, libraries, not-for-profits, industry, business, and community organizations.</p> <p>ii. Strategy: Participate and provide leadership in municipal, provincial, national, and international consortia, networks, and programs.</p>
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	<p>SUSTAIN...and our commitment to sustainability.</p> <p>20. OBJECTIVE: Continue to build and support an integrated approach to social, economic, and environmental sustainability that incorporates teaching and learning, research, outreach, capacity building, and the operations that support them.</p> <ul style="list-style-type: none"> i. Strategy: Integrate sustainability into teaching, learning, research, and outreach in ways that foster critical, interdisciplinary, long-term systemic thinking on sustainability. ii. Strategy: Embed social, economic, and environmental sustainability into the development and care of the university's natural and built environments. iii. Strategy: Enhance awareness of, and engagement with, the university's environmental sustainability features, practices, and resources across the University of Alberta campuses and external communities. <p>SUSTAIN...and infrastructure.</p> <p>23. OBJECTIVE: Ensure that the University of Alberta's campuses, facilities, utility, and information technology infrastructure can continue to meet the needs and strategic goals of the university.</p> <ul style="list-style-type: none"> iv. Strategy: Engage and strategically partner with stakeholders to explore and develop joint-use projects.
<p>Compliance with Legislation, Policy and/or Procedure Relevant to the Proposal (please <u>quote</u> legislation and include identifying section numbers)</p>	<p><u>Post-Secondary Learning Act (PSLA):</u></p> <p>The <i>PSLA</i> gives GFC responsibility, subject to the authority of the Board of Governors, over academic affairs (Section 26(1)) and provides that GFC may make recommendations to the Board of Governors on a building program and related matters (Section 26(1) (o)).</p> <p>Section 18(1) of the <i>PSLA</i> give the Board of Governors the authority to make any bylaws "appropriate for the management, government and control of the university buildings and land."</p> <p>Section 19 of the <i>Act</i> requires that the Board "consider the recommendations of the general faculties council, if any, on matters of academic import prior to providing for (a) the support and maintenance of the university, (b) the betterment of existing buildings, (c) the construction of any new buildings the board considers necessary for the purposes of the university [and] (d) the furnishing and equipping of the existing and newly erected buildings [.] [...]"</p> <p>Section 67(1) of the <i>Act</i> governs the terms under which university land may be leased.</p> <p><u>GFC Facilities Development Committee Terms of Reference</u></p>

	<p>3. MANDATE OF THE COMMITTEE</p> <p>2. Delegation of Authority Notwithstanding anything to the contrary in the terms of reference above, the Board of Governors and General Faculties Council have delegated to the Facilities Development Committee the following powers and authority:</p> <p>A. Facilities</p> <p>1. To approve proposed General Space Programmes for academic units.</p> <p>2 (i) To approve proposals concerning the design and use of all new facilities and the repurposing of existing facilities and to routinely report these decisions for information to the Board of Governors.</p> <p>(ii) In considering such proposals, GFC FDC may provide advice, upon request, to the Provost and Vice-President (Academic), Vice-President (Facilities and Operations), and/or the University Architect (or their respective delegates) on the siting of such faculties.</p> <p>B. Other Matters The Chair of FDC will bring forward to FDC items where the Office of the Provost and Vice-President (Academic) and/or the Office of the Vice-President (Facilities and Operations), in consultation with other units or officers of the University, is seeking the advice of the Committee.</p> <p><u>UAPPOL</u> Space Management Policy and Space Management Procedure</p> <p>The respective roles of GFC FDC and the Vice-President (Facilities and Operations) with regard to institutional space management are set out in the Board-approved Policy and attendant Procedure.</p>
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Attachments

1. Briefing Note (1 page)
2. Space Comparison Matrix - \$20.3 Mil Option, Prog in HQ and Option 3 (1 page)
3. Space Comparison Matrix – Option 3, Option 2, Option 1 (1 page)
4. DBG – Ecological Learning Centre 2016 Option 3 (\$5 million) (11 pages)
5. DBG – Ecological Learning Centre 2016 Option 2 (\$6 million) (11 pages)
6. DBG – Ecological Learning Centre 2016 Option 1 (\$7.2 million) (12 pages)

Prepared by: Ben Louie, University Architect, ben.louie@ualberta.ca

Office of the University Architect
Planning and Project Delivery
Facilities and Operations

Devonian Botanic Garden - Ecological Learning Centre Revised Concept Design

Background

The Ecological Learning Centre (ELC) will be located at the Devonian Botanic Garden (DBG). The DBG is wholly owned and operated by the University of Alberta and is a department within the Faculty of Agriculture, Life and Environmental Sciences (ALES). The DBG, a destination and a gateway to learning and discovery, is an academic and research facility since 1959 and has been an active education and visitor centre with 150 educational programmes, attracting over 60,000 visitors per year. It aspires to hosting 250,000 annual visitors with the development of a proposed Islamic Garden and increased activity programming. The planning and design of visitor facilities need to accommodate this growth.

The existing administration building and site trailers have exceeded their expected life span and do not meet the functional accommodation needs of the DBG. The ELC is intended to adhere to and express in real form the mission expressed in the business case which was approved in October 2009.

In anticipation of programmes and operational redistribution when the Islamic Garden is developed, as well as responding to and constraining the scale of the fundraising efforts, the proposed functional programme of the revised ELC was reduced to 2,789 square metres (m²) from the initial 5,470 m² (48 per cent reduction in floor area) in February 2015.

Capitalizing on the utilization of existing functionally inadequate infrastructure, a plan was developed to renovate and repurpose the existing facility to house the administration and staff offices, while reducing current level of deferred maintenance at the same time. The renovation of the Head Quarter building was completed in January 2017.

With a further reduced program area dedicated to supporting visitor experience and programming Manasc Isaac, the architect for the previous schematic design was retained to provide a design solution that can be expanded from an initial program area of 881 m² (310 m² enclosed and 571 m² exterior but, covered). The program area summaries and the resultant design solution (options 3, 2 and 1) are included in this submission.

The design will be advanced once the Islamic Garden's Functional Programme is confirmed and additional funding becomes available.

University of Alberta
Devonian Botanical Garden
Space Programme Comparison:
Ecological Learning Centre (May 2014) with New Entry Pavilion Option 3 (2016)

Project Name	"New Entry Pavilion" 2014			Remain in Headquarters Building 2016			"Ecological Learning Centre 2016" Option 3		
Project Cost	\$ 20.3 million						\$ 5 million		
Project Height	2 Storey						1 Storey		
Space Programme	Notes	Areas per Schematic Design 2014	Space Programme in Renovated Headquarters Building	Notes	Areas in Original 2012 Concept	Space Programme Revised	Notes	Option 3 Schematic Design 2016	Outdoor Programmable Space Under Maple Leaf Roof
Visitor Centre		46.5							
Retail Shop		214.9				Gift Shop	Removed		
Ticket Office	Part of Visitor Centre					Gift Kiosk & Ticket Office	Added to replace Gift Shop	10	
Volunteer and Crafters	Remains in HQ Building		Volunteer and Crafters	Remains in HQ Building	299				
Cultural Display Area	Added Functional in New Entry Pavilion Concept	74				Cultural Display Area	Removed		
Café	Food Services Modified as Café	199.8				Food Services Modified as Café (Includes Kitchen Area)	Moved from north to former Gift Shop area	119	
Food Services 2	Modified as Kitchen and Servery - for inside and outside serving	116.5							
Visitor Orientation Centre	Combined Volunteer Orientation with Event Hall and Renamed "Lecture and Interpretive Theatre"	340.2				Lecture and Interpretive Theatre	Removed as interior space - can be an outdoor but under Maple Leaf roof		
						Largest Outdoor Programmable Space Under Maple Leaf Roof #2	Not included in Gross Area - Can be easily added too		571
						Caterer Set-up	Removed		
Education Centre	3 Class Rooms (2 can be combined as 1 space)	440.9							
Administration	Includes Library (410 m2) and Staff Room(32.1 m2)	407.7	Administration	Remains in HQ Building	407.7				
Horticultural Staff	Remains in HQ Building		Horticultural Staff	Remains in HQ Building	128.2				
Prairie Div Centre	Remains in HQ Building		Prairie Div Centre	Remains in HQ Building	270.4				
Visiting Researcher	Remains in HQ Building		Visiting Researcher	Remains in HQ Building	94.3				
Net Programme		1840.5				Net Programme		129	
Programme Support Spaces #1		948.5				Programme Support Spaces #1		181	
TOTAL BUILDING AREA		2789	TOTAL BUILDING AREA TRANSFERRED TO HEADQUARTERS BUILDING		1200	TOTAL BUILDING AREA		310	
TOTAL OUTDOOR PROGRAMME SPACE UNDER MAPLE ROOFSpace						TOTAL OUTDOOR PROGRAMME SPACE UNDER MAPLE ROOFSpace			571
						TOTAL PROGRAMMABLE AREA - INDOORS (ENCLOSED) PLUS OUTDOOR UNDER ROOF (SEASONAL) AREA			881
							note #5		

Programme Support Spaces #1
Programme Support Spaces include: Vestibules, Entry Lobby, Walkways, Stairs, Washrooms, Mechanical and Electrical Rooms, Janitorial Rooms, Store Rooms (such as Table and Chair Storage)

#2
Largest Outdoor Programmable Space Under Maple Leaf Roof
Expansion Space which can be converted to enclosed space without modification to existing For Example: Re-introduce Lecture and Interpretive Space

#5
Note
Please Note: The Total Programmable Area for Option 3 is of lower amount as former Café area is outdoors and not under roof therefore is not a Programmable Area

University of Alberta
Devonian Botanical Garden
Space Programme Comparison
Ecological Learning Centre (2016)
Options 1, 2 and 3

Project Name	"Ecological Learning Centre 2016" Option 3				"Ecological Learning Centre 2016" Option 2				"Ecological Learning Centre 2016" Option 1					
	Project Cost	\$ 5 million				Project Cost	\$ 6 million				Project Cost	\$ 7.2 million		
Project Height	1 Storey				Project Height	1 Storey				Project Height	1 Storey			
Space Programme Revised	Notes	Option 3 Schematic Design 2016	Outdoor Programmable Space Under Maple Leaf Roof	Space Programme Revised	Notes	Option 2 Schematic Design 2016	Outdoor Programmable Space Under Maple Leaf Roof	Space Programme Revised	Notes	Option 1 Schematic Design 2016	Outdoor Programmable Space Under Maple Leaf Roof			
									Notes	m2				
									<i>Visitor Centre</i>	<i>No longer included</i>				
Gift Shop	Removed			Gift Shop	Formerly "Retail Shop"	99.4		Gift Shop	Formerly "Retail Sh	99.4				
Gift kiosk & Ticket Office	Added to replace Gift Shop	10		Ticket Office	Part of Gift Shop			Ticket Office	Part of Gift Shop					
Cultural Display Area	Removed			Cultural Display Area	Part of Gift Shop and Entrance Area			Cultural Display Area	Part of Gift Shop and Entrance Area					
Food Services Modified as Café (Includes Kitchen Area)	Moved from north to former Gift Shop area	119		Café	Food Services Modified as Café (Includes Kitchen Area)	113.4		Café	Food Services Modified as café (Includes Kitchen Area)	113.4				
								Café - Outdoor Patio	NOT included in Gross Area, nor included in covered Gross Outdoor Programme Space Area	Not Programmable Space	76			
								Food Services 2	Removed from Scope					
Lecture and Interpretive Theatre	Removed as interior space - can be an outdoor but under Maple Leaf roof			Lecture and Interpretive Theatre - Interior Space		114.9		Lecture and Interpretive Theatre		138.7				
Largest Outdoor Programmable Space Under Maple Leaf Roof *2	Not included in Gross Area - Can be easily added too		571	Larger Outdoor Programmable Space Under Maple Leaf Roof *2	Not included in Gross Area - Can be easily added too		479	Outdoor Programmable space Under Maple Leaf Roof *3	Not included in Gross Area - Can be easily added too		387			
Caterer Set-up	Removed			Caterer Set-up	Removed			Caterer Set-up	New - Added	12.4				
								Education Centre	Removed from Scope					
Net Programme		129		Net Programme		327.7		Net Programme		363.9				
Programme Support Spaces *1		181		Programme Support Spaces *1		245.3		Programme Support Spaces *1		301.5				
Gross-up Factor		2.40		Gross-up Factor		1.75		Gross-up Factor		1.83				
TOTAL BUILDING AREA		310		TOTAL BUILDING AREA		573		TOTAL BUILDING AREA		665				
TOTAL OUTDOOR PROGRAMME SPACE UNDER MAPLE ROOFSpace			571	TOTAL OUTDOOR PROGRAMME SPACE UNDER MAPLE ROOFSpace			479	TOTAL OUTDOOR PROGRAMME SPACE UNDER MAPLE ROOFSpace			387			
TOTAL PROGRAMMABLE AREA - INDOORS (ENCLOSED) PLUS OUTDOOR UNDER ROOF (SEASONAL) AREA			881	TOTAL PROGRAMMABLE AREA - INDOORS (ENCLOSED) PLUS OUTDOOR UNDER ROOF (SEASONAL) AREA			1052	TOTAL PROGRAMMABLE AREA - INDOORS (ENCLOSED) PLUS OUTDOOR UNDER ROOF (SEASONAL) AREA			1052			
		note *5												

Programme Support Spaces *1
*5
Programme Support Spaces include:
Vestibules, Entry Lobby, Walkways, Stairs, Washrooms, Mechanical and Electrical Rooms, Janitoria l Rooms, Store Rooms (such as Table and Chair Storage)

Note

Please Note: The Total Programmable Area for Option 3 is of lower amount as former Café area is outdoors and not under roof therefore is not a Programmable Area

***2**
Largest Outdoor Programmable Space Under Maple Leaf Roof

Expansion Space which can be converted to enclosed space without modification to existing For Example: Re-introduce Lecture and Interpretive Space

***3**
Outdoor Programmable space Under Maple Leaf Roof

This is potential expansion space beyond \$ 7.2 mil budget)