WELCOME

RESEARCH & COLLECTIONS
RESOURCE FACILITY

OPEN HOUSE #2

NOV 24, 2015 • 5:00 TO 8:00 PM

University of Alberta representatives are on hand to answer your questions. Please fill out the evaluation form.
WHY ARE WE HERE?

- To fulfill the consultation requirements of Appendix 18 of the Long Range Development Plan (LRDP) which indicates that when the U of A undertakes a substantial development it will hold two open houses: the first open house to show site options and conceptual plans, the second open house to show preliminary design.

- The Research and Collections Facility (RCRF) is a substantial development and tonight is the second open house and opportunity for our neighbours to review the proposed preliminary design for the RCRF.

- To have an opportunity to meet with U of A representatives and ask questions about the RCRF project.

- To provide feedback on the RCRF project.

WHAT IS THE RESEARCH & COLLECTIONS RESOURCE FACILITY?

BACKGROUND

The Book and Record Depository (BARD) is a library storage facility located off-campus. BARD is a high-density facility that houses less frequently accessed library materials, research collections and the University Archives. Together these constitute one of Canada’s most significant academic and cultural resources.

Over the past 7 years, the University has been investigating options to relocate the collection from BARD to a location that would provide better access by the academic body. After much research and discussion the U of A Board of Governors has decided that a new facility referred to as the Research & Collections Resource Facility will be built on the U of A South Campus.

There is an urgency to complete this project in time to receive the collection in the spring of 2017.

PROJECT GOALS

- Provide an appropriate, functional and welcoming space for staff, students and visitors for academic and special research purposes and goals;
- Be located in a more suitable, low-risk location, decreasing the liability exposure and risk profile, protecting the irreplaceable collection and the University Archives;
- Improve the proximity of the facility to North Campus, ideally accessible by LRT for better access by students, staff and researchers;
- Accommodate growth and the backlog of unprocessed materials to the collection;
- Accommodate up to one million items relocated from current on-campus storage facilities to free up valuable space for academic requirements; and
- Provide appropriate quantity, type and function of space for processing, storing, and digitizing materials in the collection.

FUNCTIONAL PROGRAM

Space is also required for staff, student and public use. The staff component includes office space for RCRF staff and Archives staff, additional book processing space, a collaboration space, lockers, kitchenette, copy room and office supplies storage.

Public support spaces are intended for the use of researchers and visitors wanting to access items from the University Archives, which must remain within the facility and are not able to be borrowed.

OPERATIONS

Staff:

The facility will have less than ten library staff.

Parking:

Staff requiring parking permit would be assigned at Lot 65, just east of Saville Parking Lot J. Accessible/visitor dropoff would be handled by 115A Street layby.

Facility operations:

The facility will include a digitization centre and a reading room for archives and other special materials by appointment as well as the operations required to send material to other libraries and to store it securely.

Public use:

The facility is open to the general public by appointment only and only for use of materials stored in the building that cannot be transferred to another library.

Truck traffic:

The library’s small vans will be delivering and picking up material at the facility on a daily schedule. There are no night time deliveries.

SUSTAINABLE DESIGN

There is a target established for the team to achieve Green Globes certification. Some architectural considerations include:

- Efficiency in the building envelope;
- Siting and orientation of the building;
- Energy model targets;
- Selection of products and materials that meet sustainable design criteria; and
- Consideration in developing a Building Service Life Plan.

CHALLENGES

The challenging aspects of the RCRF project are:

- Meeting program requirements while aligning with campus planning guidelines;
- Confirmation of 9.1m (30’) high density storage capacity to accommodate the combined BARD Collections, University Archives and Maps – achieved through the engagement of an expert racking designer and supplier (Space Saver) early in the validation phase to verify, optimize and develop project-specific overall reduced storage area, while meeting the 20 year capacity growth objective.
- Balancing LRDP Planning Principles with shorter and longer term operational needs of RCRF – achieved through extensive analysis of siting options and design that engages the public realm to improve researchers, students, staff and service access from the east. Ample opportunity for future growth in the west part of the site for potential academic and/or collection expansion was addressed through realizing reduced site coverage.
- Construction budget – higher cost due to geotechnical conditions confirmed to exist on site, and a racking system priced in USD Dollars, resulting from a less favourable CAD to USD exchange rate. This challenge has been addressed by budget adjustment within the overall approved project funding amount.
- Confirmation of Program through conversion of the programmed Component Gross Square Metres (CGSM) into Building Gross Square Metres (BGSfM) – addressed through a critical review and prioritizing of all functional areas, increased use of shared and open spaces resulting in a reduced general circulation and economized size of all reviewed operational components. Space program update, rationalizing and validation process included participation of Library Services.

OPPORTUNITIES

Development of Site #3 of Sector 12, District 2 brings a new Academic/Research facility onto South Campus. The purpose designed Research Collections and Resource Facility (RCRF) provides safe, environmentally controlled high density storage to establish a modern records depository with a holding capacity accommodating up to 20 years growth projections. The design is conceived to provide for expansion opportunities to accommodate future academic and/or storage needs. Through a mindful approach to the new facility site placement and site coverage, both the operational shorter-term library and collections considerations and longer-term campus growth goals are balanced.

RCRF provides for a venue for advanced collections and archive access and research. It includes a dedicated reading room for pre-arranged study that is critical for academic success, augmented by secure, purpose designed library and archives staff services, sorting and processing areas.

A rebranding of the University’s Research Collections and Resource endeavors through this facility.
Development will be graduated from lower density at the edges of campus to higher density in the center. South Campus will be developed based upon a series of Smart Growth and Planned Communities Principles that will ensure the creation of an exemplary campus community.

**LAND USE PATTERN**

The land use pattern follows five fundamental strategies:

1. **Faculty-specific sectors will be accommodated to the extent practical.**
2. A higher density main street will be developed connecting the LRT station in the north east corner of the site with an improved gateway feeding to the center of the sector, and is approved by the Board of Governors as the guiding document for physical planning.
3. Lower density uses will be located toward the periphery of the site to reduce the impact on surrounding neighbours; and
4. The campus will be pedestrian-oriented with distributed formal points of access from vehicles with sufficient parking on the periphery; and
5. Creation of a university support area in the southern portion of Sector 12 with direct vehicular access from 60 Avenue.

Developments will occur with consideration to suitable land use transitions and adjacent uses as determined at the sector plan level of detail.

**TRANSPORTATION**

Road access to Sector 12 (South Campus) will be from 122 Street at 63 Avenue and from 60 Avenue at 115 Street in the short/medium term; additional access points will be from 116 Street via Belgravia Road and from 65 Avenue via 113 Street in the longer term.

**PARKING**

Parking will be accommodated on-campus through a combination of surface and structured parking facilities located at the entrances to the campus. Initially, parking will be designed as surface lots. As development progresses and land is required, parking will be designed in structured facilities.

**PEDESTRIAN & BICYCLE CIRCULATION**

The campus street will be the major intra-campus spine for pedestrian and bicycle traffic. Development will be responsive to the University's Academic Plan, Strategic Research Plan and the Strategic Business Plan. It is a flexible document rather than a rigid template.

The LRDP identifies a set of Strategic Planning Principles that should form the basis for achievements of the goals, objectives and strategies expressed in the Academic, Research and the Business Plans. It identifies as well how the University lands and facilities should be developed in response to these plans and it outlines the operational planning initiatives and guidelines that will direct development.

The LRDP is the overall organizing framework for development and is approved by the Board of Governors as the guiding document for physical planning.

**SOUTH CAMPUS**

South Campus will accommodate growth of the University of Alberta for the next thirty years. Over time, it may accommodate faculties and other activities from North Campus, as well as new faculties and new areas of teaching, research and development. Architectural guidelines will encourage a diversity of quality architecture. Significant open space will be created as an amenity to those on-site and in the adjacent communities.

**CAMPUS-WIDE LAND USE AND DESIGN GUIDELINES**

The site selection and site plan for the RCRF have to meet the following guidelines which are explained in further detail on boards 4 & 5:

- **Continuity of Open Space:** To be a coherent and harmonious campus, the open space must be continuously and universally accessible, combined with equally accessible interior space that complements the exterior locations.

- **Character of the Public Realm:** South Campus will be a pedestrian campus. The pedestrian nature of movement throughout this area of development requires that considerable attention be paid to the scale of development and of components in the Public Realm. It is essential to firstly design the Public Realm and only thereafter the buildings that make up the campus. In other words, all control of building massing, interface, access and materiality are in place to work positively for the Public Realm and not against it.

- **Continuity in between districts:** The following elements will be activated integratively to provide continuity and coherence:
  - **Building Orientation:** buildings shall be oriented in a manner that provides maximum potential for the capture of solar energy comparable with the requirements for LEED.
  - **Caverns:** Where distances between buildings would be less than 30 metres, buildings shall not be placed where parallel sides exceed 20 metres in length. This ensures a minimum acceleration of wind in confined outdoor areas.
  - **Juxtaposition of Scale:** adjacent buildings should have compatible scales.
  - **Impact on the Public Realm:** buildings are expected to enhance the spaces into which they are placed. Public Realm Access to Sunlight — buildings shall be oriented to minimize the impact on sunlight access for the Public Realm in areas where this has been identified as essential.
  - **Transparency of Content:** it is the ability of the people to see that activity that helps define place, anchor memory and provide character.
  - **Complementarities of the Public Realm and Internal Space:** external spaces must be visible from and functionally integrated with adjacent internal space within buildings.

- **Development Controls:** the three basic controlling parameters for the districts will be:
  1. **Site Coverage:** the percentage of the designated development parcel that will be allowed to be covered by the building footprint.
  2. **Floor Area Ratio:** the amount of gross building floor area that will be allowed to be built on the designated development parcel.
  3. **Building Edge Performance:** this refers to the interface of a building with the Public Realm of the campus. The performance criteria indicate a requirement for the edge that could include: where the interface is expected to occur in a specific location and (or where the interface is required to exhibit a particular property (such as transparency).
This is what we heard:
1. It will be important for the archives to have a budget for proper archiving of the various collections. Not just a budget of the building.
2. Snow removal a challenge?
3. Will the design incorporate art on the building for aesthetics?
4. Ensure short and long-term pedestrian access from nearby LRT station and long-term connectivity to South Campus.
5. Bicycle parking needed.
6. Design for winter.
7. Pedestrian safety.
8. Site lighting.

This is what we did:
1. University of Alberta Libraries’ operating budget is separate from this project.
2. Facilities and Operations is responsible for maintaining snow removal for South Campus. The RCRF will be part of the maintenance program.
3. At this time the building program does not include art on the building.
4. The RCCF will be connected to the LRT Station via the existing multi-use trail located to the west of the facility. Long term pedestrian and connectivity to South Campus has been incorporated into the design.
5. Onsite bicycle parking will be incorporated into design.
6. The City of Edmonton Winter City design strategy has been incorporated into the design which includes lighting and interior/exterior relationship.
7. Pedestrian safety is a priority. Routes will be provided to ensure this.
8. Existing street lighting to be maintained through course of construction and design will provide appropriate and safe light levels.
ARCHITECTURAL PRINCIPLES & GUIDELINES

The initial development parameters for the site D2-#3 were applied as the guidelines informing the RCRF project design siting and design. Based on a revised and reduced in size site area of 14,900 m² (3.68 acre), at Schematic Design those resulted in the following outcome (see chart to right).

The noted Permeability for the back of the RCRF building is very low and reflects the functional requirement of effectively preventing the daylight (UV in particular) from reaching the collections area and in result damaging the stored material that requires protection. Only very limited and measured daylight access has been granted to the collections warehouse through strategic location of narrow windows, which correspond with the main racking aisles.

SITE SPECIFIC DEVELOPMENT GUIDELINES

<table>
<thead>
<tr>
<th>Criterion</th>
<th>RCRF (July 2015)</th>
<th>Site Specific Development Guidelines for D2 #3</th>
<th>Schematic Design</th>
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<tbody>
<tr>
<td>Floor Area Ratio (FAR)</td>
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<td>1.00±0.5</td>
<td>1.00</td>
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<tr>
<td>Permeability</td>
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<td>5±0%</td>
<td>5%</td>
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<td>Height at Ridge</td>
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<tr>
<td>Permeability</td>
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<td>5±0%</td>
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<tr>
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<td>60.0m²</td>
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<tr>
<td>Ground Floor</td>
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<td>56.4 m²</td>
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<tr>
<td>Penetration</td>
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<td>2 m</td>
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<td>Storage/Supplies</td>
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<td>150.0 m²</td>
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<td>8.2 m²</td>
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<tr>
<td>Recycle</td>
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<td>20.0 m²</td>
<td>20.0 m²</td>
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<td>Reception</td>
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<td>Vestibule</td>
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<td>4.4 m²</td>
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<td>147.0 m²</td>
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<td>Mudroom</td>
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<td>2,688 m²</td>
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While balancing the needs of the facility program with campus-wide land use and design guidelines, a number of criteria and design principles were identified by the team and used as a means to develop the following design solution. This includes the following:
- Provide authenticity and derive typology;
- Provide an appropriate functional distribution of the major operations, as programmed;
- Provide a solution that is contextual within the existing fabric of South Campus;
- Provide maximum expansion potential;
- Provide appropriate massing and human scale through articulation;
- Provide a balance between the expression of the building from outside and an the experience of the occupant inside;
- Provide a significant point of arrival to the facility.

CONCEPTUAL ELEVATION SKETCH (PER OPEN HOUSE #1)

FLOORPLAN

SITE PLAN
**PROPOSED PRELIMINARY DESIGN SOLUTION**

**DESIGN CONCEPT**

The design concept has been developed through the guidance of the campus wide land use and design guidelines, district specific design guidelines and site specific development guidelines. The approach was also informed by the parameters presented by U of A at an Open House held on 27 July 2015.

**Contextual Design**
- Proposed building framed by existing treed windbreakers.
- Building height increases toward future campus center.
- Building orientation supports Winter City design principles protecting pedestrian and delivery entry points.
- Service approach located north east edge of building.
- Main pedestrian entry on east facade.

**Spatial Organization**
- Building is composed of east-facing front-of-house and back-of-house Collections Space to west.
- Front-of-house is a one level volume which has been articulated into five components. The composition gives identity, clarity and human scale to the public realm.

The planning of the facility has been driven by the composition of three major groupings made up of:
- **Reading Room**
- **Main Entry**
- **Processing**, **Sorting**, **Loading Dock**, and
- **Collections Space**.

**PROPOSED PRELIMINARY DESIGN SOLUTION**

**SUPPORT SPECIALIZED SPACES**

- **COLLABORATION/MEETING ROOM** 50.0 m²
- **KITCHENETTE** 22.0 m²
- **W.C.5.7 m²**
- **OFFICE** 16.0 m²
- **VESTIBULE** 22.2 m²
- **RECYCLING BINS** 2 m
- **LOADING AREA TOTAL** 59.4 m²
- **PROCESSING** 8.0 m²
- **ARCHIVES OFFICE & PROCESSING** 14.1 m²
- **OFFICE** 20.0 m²
- **STORAGE/SUPPLIES** 52.4 m²
- **FREEZER ROOM/MICROFICHE/PRINTING** 130.0 m²
- **BATTERY VESTIBULE** 22.2 m²
- **PUMPS** 10.0 m²
- **FIRE HYDRANT** 8.5 m²
- **ROOM** 5.5 m²
- **ELECTRICAL LOAD ING AREA TOTAL** 20.4 m²
- **GENERAL STORAGE** 61.8 m²
- **MECHANICAL** 2510.8 m²
- **12.5 m²**
- **SUPPORT OFFICE** 66.5 m²

**Legends**

- **UNDERGROUND PARKING** 94.0 m²
- **SIDEWALK** 9 m
- **7 m**
- **31 m**
- **DROP-OFF**

**FRONT-OF-HOUSE**

- **Main Entry**: The major entry point to the facility for staff, visitors and researchers is just north of the Reading Room on the east side of the building.
- **Processing Area**: There is a relatively low number of staff to be accommodated and most of their work occurs within the Processing Area and Sorting Area. The volume required is primarily one storey, except for the **Loading Dock** which is a one and a half storey volume.
- **Reading Room**: Located at the southeast corner, this space is articulated as a one and a half storey volume. The glazed facade offers views to one of the current access points to South Campus and enough sun shading to provide protection to the items.
- **Loading Dock**: The vertical entry feature grants access to the Collections Space. The volume required is primarily one storey, except for the **Loading Dock**, which is a one and a half storey volume.
- **Collections Space**: The Collections space is a one level volume located to the west. The space is maintained under separate environmental controls. The large, sweeping barrel roof provides a lower roof profile while ensuring that roof penetrations are minimized. Rainwater will not accumulate on a curved roof as it would on a flat roof. Gutters and exterior downspouts become part of the roof profile and elevation detailing on both the north and south facades, providing vertical articulation. A change in colour and materiality along the top portion of these two facades draws the eye up above the tree lines. There is a second level, partially over the front-of-house, which accommodates the mechanical and electrical functions. The mechanical space on the second level has an integral mezzanine.

**LEGEND**

- **LOADING DOCK**
- **BOOKS COLLECTION & ARCHIVES**
- **BGSMA**
- **BOARD STAFF**
- **SUPPORT-SPECIALIZED SPACES**
- **FRONT-OF-HOUSE**
- **COLLECTIONS**
- **ARCHIVES**
- **RESEARCH & COLLECTIONS RESOURCE FACILITY**

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**East side by night** (All possible lighting methods will conform to sustainable design principles)

- Soffit uplighting along the east facade and main entry.
- Vertical entry feature as a ‘lantern.’
- Wall-washing LED wall packs on all exterior elevations.
PROPOSED PRELIMINARY DESIGN RENDERINGS

MATERIALITY

An insulated metal wall system is proposed minimizing the number of joints. This system is considered an all-in-one system with interior finish, insulation and exterior finish all integral to the panels which
• offers a stringent R-value,
• is cost effective, and
• possible to modulate the finishes.

The front-of-house is a combination of
• curtain wall with ceramic frit glazing,
• metal panel,
• wood-look metal wall and soffit panel,
• metal louvre screen at mechanical, and
• vertical entry feature is a translucent glass glad structure lit from within.
TIMELINES/MILESTONES

THANK YOU FOR COMING

Please submit your completed evaluations and comments in the box provided.

Should you have comments to submit after the open house, please visit: www.communityrelations.ualberta.ca.

We will receive comments until Dec 9, 2015.