University of Prince Edward Island Campus Plan Update



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Introduction

The 2018 UPEI Campus Plan Update provides a review and refresh of the 2006 UPEI Campus Master Plan resulting in a concise strategy to guide the development of capital projects in the coming decade.

The Campus Plan Update was prepared by Brook McIlroy Inc. under the guidance of the Property and Assets Committee of the Board of Governors and the office of the Vice-President Administration and Finance.

The Plan Update was developed over a seven month period involving four on-campus consultation periods that connected the planning team with approximately two hundred and fifty members of the campus community.

The Campus Plan Update refreshes key recommendations related to student experience; space needs for existing, growing and new programs; on-campus residences and other potential forms of accommodation; athletics and recreation, meeting and teaching facilities; open spaces; mobility and parking; accessibility; sustainability and way-finding. Updates have been made to the guiding principles, the campus plan maps and key guidelines. The Update also investigates the potential for mixed-use development of the North Campus for a range of uses that support the University's mission.



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1. Analysis

1.1 Introduction

This document is intended to update the University's Campus Master Plan, which was undertaken by the University and consultants from 2004 through 2006. Since the 2006 Campus Plan was completed, the UPEI Campus has evolved and changed, as has the way we live, learn, and build communities. Overview of the 2006 Campus Master Plan, the 2013 Campus Strategic plan, analysis of new projects on Campus, and community consultation have contributed to re-evaluation of the Campus Plan's guiding principles.

1.2 The 2006 Campus Master Plan

The original Campus Master Plan was undertaken from 2004 through 2006, at a time when the University was expecting stable undergraduate enrollment and increased graduate enrollment. Intended to complement and inform the Academic Plan, the Campus Master Plan focused on the physical campus: it's existing built form, possibilities for new buildings, and open space improvements that would help shape a cohesive campus for the future. Brook McIlroy Planning + Urban Design Inc., now Brook McIlroy (BMI) was retained to prepare the plan, and with the University established three main objectives:

- To conduct an analysis of the University's current space resources and scheduling practices that would reveal opportunities for a more efficient use of space in existing and proposed buildings.
- To provide the University with a vision for a physical framework designed to accommodate its growth in the next ten to twenty-five years. The Plan makes suggestions as to the location of buildings and

their interaction with one another through open space design.

• To provide design guidelines to improve the functionality and appearance of existing and future facilities and amenities, including elements such as the design of University and Belvedere Avenues as key gateways to the campus.

The Campus Master Plan has since been used as a guidebook to shape development on campus, helping create the attractive, dynamic campus that we see today. The Campus Master Plan proposed the following Guiding Principles:

- 1. The Campus builds on 200 years of post secondary education in PEI;
- 2. The Campus supports a continued emphasis on excellence in teaching and research;
- 3. The Plan helps to strengthen physical and virtual links to the

Community throughout the Island;

- 4. New buildings that complement existing facilities are integrated into the campus fabric;
- 5. The Campus is vibrant throughout the day and in all seasons, and offers an unparalleled quality of life;
- 6. The Campus is pedestrian-friendly;
- 7. The Campus encourages interdisciplinary collaboration and informal interaction;
- 8. The Campus is accessible to all;
- 9. Campus growth is based on the principles of sustainable development; and
- 10. The Campus reflects a student-centred approach to design and services.

A plan drawing of the proposed Master Plan improvements can be seen below



The 2006 Campus Master Plan

1.3 The UPEI Strategic Plan (2018-2023)

The UPEI Strategic Plan 2018-2023 was developed and approved by the UPEI Senate and UPEI Board of Governors following more than a year of consultation with campus groups and community members. Within the UPEI Strategic Plan 2018-2023, the University has renewed its commitment to delivering on its vision of being a leader in outstanding programs and experiential learning opportunities that enable our students to develop to their full potential in both the classroom and the community. The five plan pillars and associated strategic priorities are shown in Table 1.

PILLAR	EXAMPLES OF RELATED STRATEGIC PRIORITIES
	• Ensure students have the knowledge and skills needed to succeed in today's highly interconnected world through curriculum, programming and teaching excellence,
Education for a Connected	• Enhance multidisciplinary and interdisciplinary opportunities so faculty and staff can better work together on solutions to complex real world challenges
World	Increase experiential learning for students in all disciplines
	Continue to encourage and foster global mindsets, views and cultural awareness
	Make strategic investments in innovative and integrative technologies
	Develop, implement and maintain a campus-wide mental health strategy
	 Align supports and services to better meet needs of our increasingly diverse and international campus
	• Promote a greater understanding of reconciliation, inclusion, equity and social justice within our campus community
Inclusive Campus Culture	Better understand and implement calls to action of the Truth and Reconciliation Commission of Canada
	• Encourage UPEI student involvement in international experiences and contributions to solving multi- dimensional global challenges
	Develop additional approaches that support students in their transition from high school to university

Table 1: The UPEI Strategic Plan Pillars

PILLAR	EXAMPLES OF RELATED STRATEGIC PRIORITIES
Scholarship, Research, and Discovery	Identify and implement strategies that maximize the full potential of UPEI researchers' productivity and expertise
	• Cultivate interdisciplinary and multidisciplinary research that facilitates growth in research and graduate student knowledge and skills
	• Encourage the use and consideration of Indigenous ways to knowing to complement western forms of knowledge and scholarship within UPEI research and graduate programs
	• Continuously strengthen University partnerships with funders, government, and industry to support innovation and economic development
	Establish new sources of funding and continue to grow supports to benefit current graduate students and postdoctoral researchers
Community Partnerships	• Build a stronger focus on creating community and service-learning opportunities that add value and depth to our students' educational journeys and foster new levels of community connectivity
	Extend UPEI global partnerships to provide exciting connections for our learning community and stakeholders
	• Continue to strengthen UPEI's partnerships, contributions, and relevance to the community through mutually beneficial education, research, and impacts
	 In collaboration with Indigenous partners, engage in new and meaningful ways of indigenizing the UPEI campus and enhancing Indigenous student participation at UPEI
Responsible Growth and Resource Management	Evaluate opportunities related to existing and new programming
	• Continue to identify and market UPEI's distinctive strengths to prospective students and faculty, as well as partners and funders
	• Further align institutional planning to ensure the University's human, fiscal, and physical infrastructure are managed in a responsible, sustainable manner
	• Recruit, retain, and support talented faculty and staff who are committed to UPEI's mission and vision
	Proactively determine the critical needs of an evolving campus

1.4 Major Campus Improvements Since 2006

Since 2006, a number of changes have been made to the UPEI Campus. Buildings and open space improvements are shown in Figures 1 and 2 on the following pages. Additional renovations and campus improvements include: changes to access and egress including the roundabout entry at Belvedere Avenue and fencing along University Avenue, and renovations to Dalton Hall.

While new buildings such as the Health Science Centre have integrated large scale landscape improvements that incorporate adjacent buildings, other campus projects such as the daycare and the AVC Addition focused landscape improvements on the land immediately adjacent to the building. Heaving continues to be an issue with existing and new paving and asphalt sidewalks.

- 1 McDougall Hall
- **2** Sustainable Design Engineering Building
- **3** Daycare, 2008
- 4 Health Sciences Building and Landscape Improvements
- **5** Parking Lot Improvements
- 6 AVC Additions
- **7** Heritage Quad Improvements
- 8 Roundabout at Belvedere Ave
- 9 Fence Along University Ave
- 10 Dalton Hall Renovation



Campus Improvements Since the 2006 Master Plan





Sustainable Design Engineering Building







Daycare Facility

Health Sciences Building

Parking Lot Improvements



AVC Addition



Heritage Quad Improvements

1.5 Consultation with the Campus Community

The consulting team conducted consultation sessions on campus for four periods through November 2017 to March 2018 hosting meetings, open houses, pop-up stations and interviews with approximately 250 members of the campus community.

The input derived from these consultations has guided the recommendations contained in the Campus Plan Update.



Pop-Up consultation at W.A. Murphy Student Centre



Pop-Up consultation at McDougall Hall

1.6 Review of Guiding Principles

Feedback from consultation was taken into consideration in updating the Campus Plan's Guiding Principles. The following Principles were adapted from the 2006 Master Plan and should serve as building blocks for the campuses' future.

- 1. The UPEI Campus will provide an inspiring environment that supports excellence in teaching and research, building on 200 years of post-secondary education.
- 2. The Campus reflects a student-centred approach to design and services.
- 3. The Campus will strengthen the physical and virtual links to the broader community throughout the Island, recognizing its deep heritage and acknowledging the traditional territory of the Abegweit Mi'kmaq First Nation.
- 4. The Campus design encourages interdisciplinary collaboration, research, and community building with students, staff, and faculty.
- 5. The Campus is welcoming and accessible to all.
- 6. Campus redevelopment is based on the principles of sustainable development.
- 7. The Campus is vibrant in all seasons and provides an unparalleled quality of life.
- 8. New buildings that complement existing facilities will be integrated into the campus fabric.



2. The 2018 Campus Plan Update

2.1 Introduction

The Updated Campus Plan is intended to complement the 2006 Campus Master Plan, and focuses on near-term projects for the University to undertake. While the Key Structuring Elements remain the same, changes to the way we learn, live, and work creates the necessity to re-evaluate a number of the key building components of the 2006 Master Plan.

2.2 Key Structuring Elements

The 2006 Master Plan proposed nine key structuring elements, which have been revised and re-prioritized to reflect updates to the Campus Plan:

1. Campus Zones – The four zones include the Core Campus (which encompasses the Heritage District), the Athletic Campus, the South Campus and the North Campus. Each district has a special role. The clustering of complementary uses should be encouraged within walking distance and each district should maintain a distinct character that reflects excellence in sustainable development

2. A Network of Linked Open Spaces – the Campus Plan proposes the enhancement of existing open spaces with creation of an extensive pattern of new linked spaces linked by accessible pedestrian walkways.

3. Shared Spaces - Where possible, the University should seek to create opportunities for interdisciplinary collaboration in the construction of new buildings and open spaces. The Campus Plan suggests co-location of complementary faculties and student services to enhance space efficiency and create a compact campus.

4. Improved Access – The Plan proposes several new access points from bordering roadways to improve both vehicular and pedestrian traffic. Special attention should be given to campus edges, which can greatly enhance the presence of the University in the community.

5. Campus Capacity for Growth – The Campus Plan provides a growth path that will allow UPEI to respond to needs as they occur by identifying priority sites, the appropriate footprints of buildings and their possible uses. 6. UPEI's Role in City Building and Planning – The University Lands should be considered a nucleus within a regional cluster of activities in the areas of research, innovation, and lifelong learning. New residential development within walking distance should be encouraged to reduce the need for commuting and on campus parking.

7. Vision Partnership – UPEI should explore opportunities for creating joint planning strategies with the City of Charlottetown and the Province that strengthen the University's role as an economic and cultural driver of Prince Edward Island.



The Campus Districts





2.3 Core Campus

The Core Campus is composed of existing academic, support, and residence facilities, the heritage quadrangle, and a broader network of open space connections.

2.3.1 Integrated Learning Centre

The Integrated Learning Centre is proposed to replace the Kelley Building, and will serve as a hub for interdisciplinary collaboration and student services. The Learning Centre's location straddling the Heritage Quad and the newer core campus creates the opportunity for it to be a landmark building that recognizes the Campuses past, present, and future in its design. The Integrated Learning Centre may be four to five floors in height, and should have a permeable main floor, with its main entry area focussed on the north-west corner of the building. The heritage trees to the west of the existing Kelley Building should be preserved and protected through construction. Based on an initial evaluation the building area potential of the Integrated Learning Centre may support the following facilities:

- Indigenous Studies
- 2 Lecture Halls/160 students each
- 30 classrooms and labs
- Learning Commons
- 15 Seminar/Meeting rooms
- 60 Offices

2.3.2 Gathering Circle

A highly visible pavilion structure that acknowledges Indigenous peoples and cultures is recommended to be built in the quad on the east side of McDougall Hall and south of the proposed Integrated Learning Centre. Celebration of local Indigenous Cultures, a place for ceremony and music, as well as an outdoor classroom should be the key program elements of the space. Within the themes of reconciliation, the University should look to establish an approach to consult with local Indigenous peoples.





The Integrated Learning Centre should include large flexible gathering spaces for students to congregate

Indigenous learning spaces



Break out meeting spaces with smart technologies



Informal collaboration spaces





Fig. X Core Campus District

2.3.2 Learning Commons - Library Addition and Renovation

The Library Addition and Renovation should consider additional required collaborative learning spaces, including a Digital Learning Commons, Student Group Study Rooms, and Smart Classrooms. Additional required library storage and archival facilities should also be provided.

2.3.3 Learning Commons Quad

A long term goal should be the redevelopment of the area presently occupied by the Daycare building to become a Quad. Integration of the Daycare within an addition to the Library would enable the space currently occupied by the Daycare to be used as a key campus open space.

2.3.4 Teaching Hospital Addition

An addition to the Teaching Hospital will create additional space and MRI facilities that can meet growing demand for hospital facilities and expanded teaching opportunities. Pick-up and drop-off areas, parking, and pedestrian access should be considered as an important aspect to the construction of the addition.

2.3.5 Future Considerations

As the Core Campus evolves, building uses should be evaluated to ensure efficient use of space. While buildings such as the Day Care and the Chaplaincy Centre provide important amenities to the students, faculty and staff, their architectural character does not contribute to the existing campus character. The program of these buildings can potentially be folded into new construction of the Integrated Learning Centre, the Library Addition, or the new Residence building. Landscape screening and buffers should be utilized where possible adjacent to service buildings such as the Central Utilities Building.



Study Pods for group work



Quadrangle spaces with dense tree plantings

2.4 South Campus

The South Campus is residential in character, and is focused on creating a vibrant space for students to live. The corners of University Avenue and Belvedere Avenue present an opportunity to create a gateway to the University.

2.4.1 Student Residence

While the 2006 Campus Plan proposed a number of additional student residences in the south-west corner of the campus, the update recommends focusing on one additional residence in the near-term. The residence is intended to serve both the graduate and undergraduate student population, and will include additional facilities related to student services and amenities. An atrium could be developed in conjunction with the residence and connect to Andrew Hall, allowing for retail facilities to serve student needs. The Student Residence will also create an improved quadrangle between itself and Andrew Hall. Site grading and pedestrian paths from the corner of University and Belvedere Avenues should be provided recognizing this is currently an important pedestrian corridor.

A new 5 floor residence building can accommodate the following uses:

- 260 Beds with Single and Suite Units
- 2 Classrooms
- 4 Seminar/Meeting rooms
- Potential for 3 Retail Outlets

2.4.2 New Entry from University Ave

Another key improvement to the South Campus is the proposed new right in, right out entrance and exit onto University Ave. This will be described in the Mobility and Circulation section of the document.



South Campus



HUB Two Bedroom Residence Layout, University of Alberta



Sports Testing Facility, University of New Brunswick



Covered Field



Aerial View of the Athletic Campus

2.5 Athletic Campus

The 2023 Canada Games present a unique opportunity for the University to strengthen its athletics program. New facilities in the Athletic Campus will contribute to student life, the Department of Kinesiology, and the broader Prince Edward Island community.

2.5.1 Expansion of the Sports Centre

A new addition on the south side of the Sports Centre provides an opportunity to integrate Kineseology including offices, state of the art labs, and classrooms. This would include a High Performance Training Centre, a fourth gym and a relocated Fitness Centre.

2.5.2 Covered Field

Consideration should be given to the potential for a bubble either over the existing artificial turf field or in association with an additional half-size turf field. A covered field will expand access to field sports and training throughout the year.

2.5.3 Clubhouse Addition

Expansion of the Field Clubhouse will provide improved and expanded facilities to support team and visitor uses associated with field sports.

Students expressed interest in the ability to play sports such as soccer through the year with their peers.

2.5.4 Existing Field Improvements

Lighting for either the Alumni Field or Turf Field is recommended to extend usable hours.

2.6 North Campus

The North Campus is an area where the University can capitalize on community partnerships and outreach. Facilities within the North Campus should be developed as assets for the University, the Island, and Atlantic Canada.

2.6.1 The Vale Nature Area

The vegetated area north of the Athletic Campus has been designated a protected wetland by the Province. This creates an opportunity for amenity, recreation, and environmental teaching and learning. Boardwalk trails, wayfinding signage, and small places to sit and enjoy the space should create an accessible space for the campus community. The Vale Nature Area design and programming should be developed in consultation with related faculties, including but not limited to the Department of Environmental Studies, Wildlife Conservation, Sustainable Design Engineering, and Fine Arts.

2.6.2 Vale Buildings A and B

The Vale Buildings A and B are both four storey in height and should face onto the Vale nature area as well as the Vale Quad, which serves as a pedestrian linkage to the nature area. Buildings A and B will serve Academic purposes to be determined at the time of construction. While both Vale A and B should focus on Learning and Research facilities, it is recommended that Vale B may also include cultural facilities such as a theatre. The Vale Buildings provide approximately 13,800 square meters and 15,000 square meters of space.

2.6.4 Residential Buildings A + B

Residential Buildings A and B are intended to serve both the campus and the broader community providing unit sizes ranging from studio through three bedroom units. Focus should be placed on providing housing to graduate students, families, and seniors. The North Campus residential buildings provide opportunity for income generation, and as such the University should explore partnership opportunities with housing providers. Both residential buildings are approximately 8,400 square meters Gross Floor Area, and can accommodate approximately seventy units.

2.6.5 Meeting Centre and Visitor Centre

The Meeting Centre and Visitor Centre have a prominent placement on University Avenue, and should serve as a gateway to the North Campus. The Meeting Centre provides approximately 1500 square meters of gross floor area and can be configured to accommodate a 1,600 seat theatre, a 900 seat classroom, or a 935 seat banquet hall. Flexible building systems should be considered in construction of the Meeting Centre so that it can serve multiple uses for the campus and community. The Visitor Centre can accommodate approximately 160 suites as well as a restaurant, fitness area and kitchen facilities to service the Meeting Centre.

2.6.6 Construction of New Parking

New Parking areas proposed in the North Campus offer a total of approximately 800 spaces. All new parking lot construction should consider the parking design guidelines as outlined in Chapter Four of this document.



Bridges and boardwalks can be used in the Vale Nature Area to manage topography and wetlands



Animated corridors between buildings



Housing adjacent to institutional uses



North Campus



The Campus Plan Update recommends the creation of additional points of access on University Avenue, a potential emergency exit to Towers Road through the Charlottetown Mall parking lot, as well as extending Perimeter road to become a continuous ring road

2.7 Mobility and Circulation

The University has identified access and egress as an issue of concern, given the high amount of congestion seen during a campus evacuation event. The Campus Plan Update proposes three new access points and one new emergency exit, which will make the campus more permeable and provide clear circulation route.

In construction of new roadways, consideration should be given to creating an inviting space for pedestrians and cyclists, as well as integration of wayfinding signage, large campus maps at campus entrances, and gateway features. Streets and pathways on campus should be designed as a contiguous, connected network, and should visually connect to one another through paving materials and tree plantings.

The pedestrian and cycle network should follow recommendations made in the 2006 Campus Plan, however special attention should be paid to creating a hierarchy of pedestrian and cycle pathways. Consistently wide pathways on campus contribute to issues in wayfinding and accessibility. Three tiers of pathway are recommended for the campus: major pedestrian thoroughfares, which should be 5 m in width, minor pedestrian thoroughfares which should be 2.5 m in width, and walkways, which should be 1.5 m in width.



Varying walkway widths using the same form of paving create a clear, cohesive hierarchy of paths while complementing the built form surrounding them



3. Built Form and Open Space

3.1 Summary of Previous Work

Chapters 3 and 4 of the 2006 Campus Plan provide rigorous and comprehensive design guidelines for buildings and open space on campus, and should be used as a tool in future development.

The Built Form and Architectural Character guidelines proposed in Chapter 3 of the 2006 Campus Plan provide guidance for new and future additions to the campus, ensuring that development complements the existing campus fabric while expressing contemporary design and meeting programmatic needs.

The Open Space chapter of the 2006 Master Plan recommends a number of open space projects for the University to undertake, and gives design guidance accordingly. Movement across the campus is also outlined in great detail, and can generally be adapted to the Master Plan Update. Similar to Chapter 3 of the 2006 Master Plan, Chapter 4 gives detailed materials recommendations that suit the well established character of the campus.

3.2 Supporting Design Excellence

Increasingly, Campus projects are seen as opportunities to provide iconic spaces that utilize innovative building technology. The Campus Plan Update recommends that the University establish a design peer review panel to assess future projects on campus, their merits, and their contribution to the ensemble of spaces and buildings on campus. It is recommended that the University explore opportunities for the Integrated Learning Centre to become a singular 'feature' or landmark building that breaks the campus mold while recognizing its context and history.

3.3 Accessibility

As standards for accessible buildings and open spaces continue to improve, the University should meet the CSA Accessible Design standards and incorporate the best practices of Universal design in addition to existing building code regulations for Prince Edward Island.

3.4 Indigenous Placemaking

The University should seek to create spaces that respect and celebrate Indigenous cultures and the specific connections between experiential, land-based learning and Indigenous knowledge and world views. Participatory consultation through co-design processes is recommended for future projects. Co-design processes (also known as co-operative or participatory design) are a form of engagement that actively involve stakeholders in the design process to ensure that the final outcome is relevant and representative of the communities' wants and needs. Co-design processes with Indigenous communities provide opportunities for employment, internships, and training of Indigenous peoples in the place-making professions.

Indigenous place-making at the university should include a codesign process with the University of Prince Edward Islands' Indigenous population for creating spaces that welcome all, both Indigenous and non-Indigenous peoples.

3.5 Creating a Vibrant Campus, Year Round

For the many University students, the majority of their time spent on campus is over the winter months. While the campus is beautiful year round, a number of design strategies can be employed to enhance the winter experience. The following guidelines outline some strategies the University can undertake to create a vibrant campus year round. They are adapted from the City of Edmonton's Winter Design Guidelines, which is an excellent reference for designing for all seasons.

1. New buildings should incorporate strategies to block prevailing winds, create protected micro climates within the quads, and avoid 'wind tunnels' through major walking routes.

2. Access to light and sunshine should be maximized through building orientation and design.

3. Open spaces should create visual interest and delight through all seasons. Plantings and public art pieces should incorporate colour and contrast.

4. Infrastructure such as shelters and structures, furniture, and walkways should be easy to use and accessible during winter months.



The 'Ice Fountain' at Loussac Library in Anchorage Alaska creates visual interest in both winter and summer months.



4. Transportation

4.1 Re-envisioning a Commuter Campus

Although the goal of shifting the ratio of single car users to transit and active transportation users was set out in the 2006 Campus Plan, the University of Prince Edward Island continues to be a commuter campus. The following outlines a number of transportation demand management (TDM) strategies the University can undertake to decrease single-commuter car transportation to the campus and parking demand.

1. Manage Existing Parking Efficiently

The University should continue to conduct parking audits to evaluate parking demands throughout the year, at various times of the day, and during campus events. The University should test various incentives for multiple vehicle occupancy, and work with the Student Union to create communications strategies for these initiatives. Organization of existing parking lots should be evaluated to ensure that space is being utilized to see what efficiencies can be made.

2. Re-evaluate Parking Pricing

The University should continue to monitor annual parking costs, incentives for car pooling and other strategies to reduce the pressure to dedicate land area to parking lots.

3. Increase housing on and near campus

The Campus Master Plan already outlines a number of proposed residence buildings on the University Lands. Additionally, the Campus should seek partnerships to create off-campus housing options for students within walking and cycling distance of the University.

4. Make Cycling and Walking an Easy Choice

The University should study how its users are connecting to the campus via walking and cycling, and work to create inviting and accessible pedestrian and cycling greenways that serve as gateways to the campus. The University may consider working with the City of Charlottetown to promote active transportation routes on University Avenue and Belvedere Avenue. Additional bike racks should be installed and considered as an important landscape component in construction of new buildings and open space improvements.

4.2 Parking Lot Design Guidelines

As new parking lot construction occurs, there is an opportunity to integrate stormwater management and low impact development principles and follow the following guidelines:

- Reduce the impact of impervious surfaces through narrowed paved areas, use of permeable paving materials where possible and generous landscaping at the edges.
- Large expanses of unbroken surface parking within each lot should be avoided, and elements including landscaping, paved traffic islands, lighting and signage should be used to define smaller parking courts within surface lots.
- Clearly defined pedestrian walkways should connect directly to building entrances through surface parking areas. Pedestrian walkway surfaces should differ in material and appearance from vehicular routes. A variety of materials may be used, including permeable paving, patterned concrete, unit brick pavers, crushed limestone and asphalt.
- Light standards in the parking lot should be provided at the pedestrian level along walkways and at higher levels for security and vehicular circulation.

• Preferential parking and charging stations should be provided for electric vehicles and carpool vehicles. This would include allocating 5% of spaces for carpooling and 2% of spaces for electric or green vehicles.



Parking area broken up with landscaped aisles and permeable parking stalls



5. Sustainability

5.1 The Campus Commitment to Sustainability

Through the consultation process, a desire for more proactive efforts was expressed with respect to the development of facilities achieving net zero energy, net zero carbon sustainability targets. The University has proven itself as committed to sustainable design through its most recent construction of the School for Sustainable Design Engineering. The University should continue on its current path of following best practices in sustainability, and should strive for excellence and innovation in green building and site design.

In addition to following standards as set out in the 2006 Campus Plan, the update recommends an additional alternative approach to meeting sustainability targets known as 'Sustainability Knowledge Generation'. Sustainability Knowledge Generation promotes buildings and sites that develop or implement sustainability demonstration projects. These projects should advance knowledge or understanding in the field of sustainable site and building development, and should be designed or implemented in partnership with University faculty or staff. Eligible projects must demonstrate the application of new approaches and technology, or further test or evaluate existing approaches to sustainable building and site design.

5.2 Stormwater Management and LID

Low-Impact Development (LID) Infrastructure should be incorporated throughout the campus to provide quality water treatment and attenuate flows to reduce the burden of the

storm drainage system.

In general, stormwater flows should be managed to meet or exceed municipal and provincial objectives for water quality, water quantity, and water balance. The following are guidelines for Low-Impact Development:

- Consider opportunities for water re-use, such as rainwater harvesting.
- The University recently incorporated a Green Roof system into the School of Sustainable Design Engineering to help minimize runoff generated by the building. The University should integrate Green Roof systems in future building projects where feasible.
- LIDs should be designed to capture the runoff generated during the a 30mm 6 hour design storm
- Paved areas such as streets, driveways and surface parking should be reduced to minimize the volume of runoff flowing into the storm drainage system and to maximize landscaped surfaces.
- Impervious areas and snow storage areas should be graded to drain towards permeable surfaces.
- Bioretention areas should be incorporated into the edges of walkways, parking lots and other paved areas to minimize the dependency on the stormwater drainage system. They should also be located to capture runoff from building roofs.
- Bioretention areas should contain native grasses and other plants that can thrive in a wet environment. Salt tolerant species should also be selected when planted near paved surfaces.
- Public education displays can be used to increase public awareness of LID infrastructure, as well as any monitoring or research activities related to innovative stormwater management approaches.



Rain gardens accept stormwater runoff from nearby paved areas



Green roof systems minimize runoff generated by buildings



6. Implementation

6.1 Short, Medium and Long Term Projects

The Campus Plan Update provides a flexible framework by which the University can develop projects as funding is available. The key projects identified in the Campus Plan Update are summarized below. While all of these projects are desirable, those listed as near term priorities may be considered critical to the continued ability of UPEI to deliver its core mandate as a centre of excellence in post secondary education.

Near Term Priorities:

- Integrated Learning Centre (Kelley Building Replacement)
- Learning Commons Library Addition and Renovation
- Science Labs Addition
- South Campus Residence and Entry from University Ave.
- AVC Teaching Hospital Addition
- Campus Gateways Wayfinding Improvements and Maps

Other Priorities:

- Sports Centre Addition
- Covered Field and Field Improvements
- North Campus Meeting Centre and Visitor Centre
- North Campus Vale Nature Area
- North Campus Vale Buildings A and B including Theatre
- North Campus Vale Residential Buildings
- North Campus Learning Commons Quad/Daycare replacement

6.2 Additional Studies

Additional studies and audits provide the University the opportunity to holistically look at specific issues of concern on campus. While incorporating recommendations on a project by project basis is important to following the plan, a number of campus components should be evaluated and examined in detail with the existing campus and its future development in mind. The Campus Plan Update recommends the following additional studies or audits as the University gathers funding or support for improvements:

- Space Needs, Space Planning, Blocking/Massing Feasibility Studies for:
 - The Integrated Learning Centre;
 - The Learning Commons (Library Addition and Renovation);
 - Science Labs Addition
 - New Residence Building
- A Transportation Plan to advance new roadway entrance locations and the Perimeter Road link
- A Campus Parking Strategy
- A Joint Land-Use and Urban Planning Strategy with the City and Province for the lands surrounding the University.

6.3 Plan Review

The Campus Plan Update is intended to complement the 2006 Campus Plan, and to be used as a regulatory document that guides the University's land use decisions. As such, it is recommended that updates and evaluations of the Campus Plan occur every five years.

