2012-2016 Capital Plan

University of Lethbridge

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1.0 EXECUTIVE SUMMARY

The University of Lethbridge updates its Capital Plan on an annual basis. The 2012-2016 Capital Plan forms the University's request to Government for funding of priority capital projects over the next five years.

The Capital Plan continues to complement and respond to University of Lethbridge key strategic documents including but not limited to: its 2009-2013 Strategic Plan; the Comprehensive Institutional Plan; the Research Plan; and the Core Campus Expansion Plan.

The University of Lethbridge Capital Plan also strives to align itself with Government goals, business plans and other key Government strategic documents. University Senior Administration communicates regularly and works closely with Ministers and other Government officials to discuss the capital needs and priorities of the institution. These relations will continue to be important as the University sets new capital priorities and deals with issues affecting existing facilities.

The highest capital priority of the University of Lethbridge is a new science complex in order to deliver up to date science programs and accommodate the University's strong commitment to research. To continue to excel in research and to adapt to the comprehensive institution with more emphasis on graduate student education, the U of L requires new facilities that will provide more dedicated space for these programs and functions. New science facilities would increase the capacity for training by providing space for principal investigators, new graduate and undergraduate students, and technical support personnel.

The University currently has 41 buildings on campus totaling 188,303 gross square metres (gsm) averaging 23 years of age. The University has identified approximately $70 million in deferred maintenance projects over the next ten years. Due to the aging of the buildings, deferred maintenance on existing facilities continues to be a matter of concern. Although the data shows that the University does maintain its facilities better than most other post-secondary institutions, the large existing deferred maintenance balance is still of concern for the University.

The University believes that energy efficiency and ease of maintenance are integral to the planning of all capital projects. The University follows the principles of Leadership in Energy and Environmental Design (LEED) in building sustainable facilities that are better for the environmental and at the same time minimizing the amount of ongoing maintenance costs to the University. The 1st Choice Savings Centre for Sport and Wellness and Markin Hall are the first buildings on campus to officially receive the silver level in LEED.

CAPITAL PRIORITIES SUMMARY

The University uses Alberta Infrastructure's BLIMS system for categorizing capital projects into Preservation, Expansion or New Facilities. The following are the University's identified priority capital projects. More information is described in section 3.0 "The Plan" and Appendix C.

Table 1: Capital Priorities Summary

			Estimated Project Cost (Jan 2012 dollars)
	New Facility Projects		
1	Science Complex		
	- Science Facility	229,500,000	
	- Central Plant Facility & Distribution Systems	30,600,000	$ 260,100,000
2	First Nations Gathering Centre		7,732,000
3	Art Learning Centre		
	- Visual Art Study Centre	16,320,000	
	- Art Gallery	30,600,000	46,920,000
4	Office/Classroom Complex		76,500,000
	Total New Facility Projects		**$ 391,252,000**
	Expansion Projects		
1	Student Residences - upgrade University Hall		7,500,000
2	Student Residences - upgrade Piikani House		5,000,000
3	Alberta Water & Environmental Sciences Building - Phase 2		24,480,000
	Total Expansion Projects		**$ 36,980,000**
	Preservation Projects		
1	Dr. Foster James Penny Building Upgrades (downtown facility)		2,300,000
2	Tunnel & South Plaza Replacement		3,264,000
	Total Preservation Projects		**$ 5,564,000**
	TOTAL PRIORITY CAPITAL PROJECTS		**$ 433,796,000**
	Projects in Progress		
1	Science Complex - Planning Phase		$ 2,780,731
2	Physical Education Building Upgrades		5,600,000
3	2012-13 Deferred Maintenance Projects		7,849,100
4	Student Residences - Aperture Park		32,000,000
	Total Projects in Progress		**$ 48,229,831**

Note - Estimated Project Costs are in current dollars (January 2012) and will be adjusted depending on construction start dates.

2.0 INTRODUCTION

The University of Lethbridge updates its Capital Plan on an annual basis for submission to the Government of Alberta. The Capital Plan is used to help inform the Government on key initiatives and directions of the University. This version of the Capital Plan will share information about our current situation, provide a review of the previous year and then discuss our capital priorities and key initiatives over the next ten years.

The Capital Plan continues to complement and respond to University of Lethbridge key strategic documents including but not limited to: its 2009-2013 Strategic Plan; the Comprehensive Institutional Plan; the Research Plan; and the Core Campus Expansion Plan. There are also many key drivers of the capital plan that the University monitors closely and plans for accordingly, including: additional program space requirements; staffing levels, deferred maintenance; Infrastructure Maintenance Program (IMP) funding; the University's operating budget and student enrolment expectations.

The University of Lethbridge Capital Plan also strives to align itself with Government goals, business plans and other key Government strategic documents. University Senior Administration communicates regularly and works closely with Ministers and other Government officials to discuss the capital needs and priorities of the institution. These relations continue to be important as the University sets new capital priorities and deals with issues affecting existing capital facilities.

The University of Lethbridge aligns its capital priorities with the Government of Alberta's key objectives, as outlined in the January 29, 2008 *Alberta's 20-Year Strategic Capital Plan (http://www.treasuryboard.alberta.ca/docs/20YSCPweb.pdf)*:

- *Expanding access to meet the projected demand in the Alberta Access Plan through individual Institution Access Plans and their inclusion in the broader Alberta Access Plan.*
- *Ensuring the necessary capital maintenance and renewal of existing and planned post-secondary facilities.*
- *Developing and enhancing technology programs to meet the demands of an increasing number of students and employers.*
- *Addressing key workforce challenges particularly in the health care field.*

Short-Term Plans and Priorities

- *Accessibility for More Albertans*
- *Responding to economic growth*
- *Fostering economic diversity*

Medium-Term Plans and Priorities

- *Technical Trades Training*
- *Health workforce*
- *Arts, Science and Technology*
- *Addressing ongoing needs for capital maintenance and renewal*

In addition to identifying the University's priority capital projects for Government, the Capital Plan also focuses on important issues like deferred maintenance, lights-on funding, space constraints and changing technology, all of which have an effect on the University's growing capital infrastructure.

2.1 REVIEW OF PREVIOUS YEAR

2.1.1 Major Capital Projects

The following projects were started and/or completed during the previous year:

Residence Spaces: 99 additional residence beds were created in University Hall and Kainai Apartments. Vacated space due to movement of departments to Markin Hall allowed for the addition of 62 residence beds in University Hall. Kainai Apartments were also reconfigured to make room for another 37 residence beds.

Residence Complex: Fall 2011 saw construction beginning on a new 11,589 sq ft residence complex that is expected to be complete in 2013 at a cost of approximately $32 million.

Science Complex Planning: The University received $2.7 million in planning funds from AET, which is the highest capital priority project for the University.

2.1.2 Other Capital Projects, Renovations and Repairs

Dr. Foster James Penny Building: A 2,862.7 gsm building located in downtown Lethbridge was donated to the U of L in October 2007. Space programming for the building will incorporate some of the needs for the Faculty of Fine Arts, University Advancement, the School of Graduate Studies, and offices and meeting rooms, thus creating a downtown presence that helps build connections with the Lethbridge community. Renovations are currently underway with a portion of the building now open.

Physical Education Building: The 1st Choice Savings Centre for Sport and Wellness was added on and attached to the existing Physical Education Building, which is approximately 40 years old. Some of the old facility was not renovated with the new building addition. Renovations to this space will be proceeding after $5.6 million funding from the Province was approved for the project.

2.1.3 Funded Capital Projects Summary

The following table shows the funded capital projects, both completed and in progress over the last ten years. Over the past 20-year period, the University funded 31% of the completed capital projects with 56% coming from government grants and research agencies. Section three of this document entitled "The Plan" will show that new, expansion, and preservation projects will require the majority of funding to come from government grants and research agencies as the University does not have sufficient funds required for major capital projects.

TABLE 2: MAJOR CAPITAL PROJECTS FUNDING SOURCE SUMMARY

PROJECT	COMPLETION YEAR	PROJECT COST	FUNDING SOURCES				
			University	Donations	City of Leth	Gov't *	TOTAL
COMPLETED PROJECTS:							
Students' Union Building	89/90	**$ 10,900,000**	$ -	$ 2,906,650	$ -	$ 7,993,350	**$ 10,900,000**
Student Residences (apartments & townhomes)	89/90	**$ 19,851,862**	$ -	$ -	$ -	$ 19,851,862	**$ 19,851,862**
Turcotte Hall	89/90	**$ 2,901,000**	$ -	$ 417,000	$ -	$ 2,484,000	**$ 2,901,000**
Hepler Hall	98/99	**$ 747,894**	$ 747,894	$ -	$ -	$ -	**$ 747,894**
Art Storage Vault	98/99	**$ 320,088**	$ 320,088	$ -	$ -	$ -	**$ 320,088**
PE Classroom Annex	98/99	**$ 1,107,750**	$ 1,107,750	$ -	$ -	$ -	**$ 1,107,750**
Anderson Hall	99/00	**$ 5,812,919**	$ 5,812,919	$ -	$ -	$ -	**$ 5,812,919**
Library Storage Building	99/00	**$ 67,282**	$ 67,282	$ -	$ -	$ -	**$ 67,282**
University Library	01/02	**$ 33,668,656**	$19,345,218	$ 9,567,438	$ -	$ 4,756,000	**$ 33,668,656**
Canadian Centre for Behavioural NeuroScience (CCBN)	01/02	**$ 8,593,438**	$ 783,775	$ 2,525	$ -	$ 7,807,138	**$ 8,593,438**
Student Residences (townhomes)	03/04	**$ 5,896,598**	$ 5,896,598	$ -	$ -	$ -	**$ 5,896,598**
CCBN Expansion	06/07	**$ 3,265,148**	$ 1,030,613	$ 301,500	$ -	$ 1,933,035	**$ 3,265,148**
1st Choice Savings Centre for Sport & Wellness	06/07	**$ 30,776,265**	$20,474,655	$ 4,992,099	$ 5,300,000	$ 9,511	**$ 30,776,265**
Parkway Service Complex	07/08	**$ 6,053,990**	$ 353,990	$ -	$ -	$ 5,700,000	**$ 6,053,990**
Turcotte Hall Expansion	07/08	**$ 10,866,161**	$ 8,566,161	$ -	$ -	$ 2,300,000	**$ 10,866,161**
Alberta Water & Environmental Science Building - Phase	08/09	**$ 24,112,903**	**$ 557,658**	**$ 103,325**	**$ -**	**$ 23,451,920**	**$ 24,112,903**
Community Sports Stadium	09/10	**$ 12,098,444**	**$ 4,732,951**	**$ 53,979**	**$ 3,723,439**	**$ 3,588,075**	**$ 12,098,444**
Daycare Facility	09/10	**$ 1,967,078**	**$ 1,612,078**	**$ 280,000**	**$ -**	**$ 75,000**	**$ 1,967,078**
Markin Hall	10/11	**$ 53,114,142**	**$ -**	**$ 3,114,142**	**$ -**	**$ 50,000,000**	**$ 53,114,142**
		$232,121,618	$71,409,630	$ 21,738,658	$ 9,023,439	$129,949,891	$232,121,618
% Total Project Cost			31%	9%	4%	56%	100%
PROJECTS IN PROGRESS:							
Student Residences (Aperture Park 3)	12/13	**$ 32,000,000**	**$29,997,058**	**$ 2,942**	**$ 2,000,000**	**$ -**	**$ 32,000,000**
Science Complex - Planning		**$ 2,780,731**	**$ -**	**$ -**	**$ -**	**$ 2,780,731**	**$ 2,780,731**
		$ 34,780,731	**$29,997,058**	**$ 2,942**	**$ 2,000,000**	**$ 2,780,731**	**$ 34,780,731**
% Total Project Cost			86%	0%	6%	8%	100%

*Government money includes funds from Advanced Education & Technology, Alberta Infrastructure and Provincial/Federal Research agencies.

2.1.4 Highlights of Successes

2009-2013 Strategic Plan: The current Strategic Plan was released in January 2009. There was extensive consultation within the University community and external stakeholders in updating the plan. The plan strengthens the University's commitments of its Capital Plan. From the Strategic Plan:

> *"We establish and sustain facilities for pursuing original research and creative activities, and conduct research in all disciplines, developing and sustaining centres of research excellence in areas where we have special expertise or that have particular relevance to the region.*
>
> *We build mutually supportive relationships and partnerships with governments, institutions, communities, organizations, and individuals, to evolve and improve the value of the University to the region, the province, the country, and the world."*

The University is currently in the process of updating its Strategic plan, with the projected release in 2012-13 fiscal year.

Government funding for Preservation Projects: Advanced Education and Technology provided funding in part to be used for the preservation of supported infrastructure:

- $20.5 M for the Safety Systems Upgrade project in University Hall;
- $5.415 M for the Structure and Building Envelop project in University Hall.
- $5.6 million to renovate the University's Physical Education Building, which is approximately 40 years old. Some of the Building was not renovated when the 1st Choice Savings Centre for Sport and Wellness was added on and attached to the existing building, and the old portion requires renovation.

Government funding for New Projects:

Advanced Education and Technology approved $2.78 million funding for planning for the new science complex, which is the highest capital priority for the University. The science complex will deliver up to date science programs and accommodate the University's commitment to research, enabling the University to continue to excel in research and to further our role as a comprehensive university by providing more dedicated space for these programs and functions. New science facilities will increase capacity by providing appropriate space for principal investigators, new graduate and undergraduate students, and technical support personnel.

2.2 CURRENT SITUATION

2.2.1 State of Assets

The University currently has 41 buildings on campus totaling 188,303 gsm and averaging 23.4 years of age. The following chart shows the breakdown by building age and area.

FIGURE 1: NUMBER OF BUILDINGS BY AGE

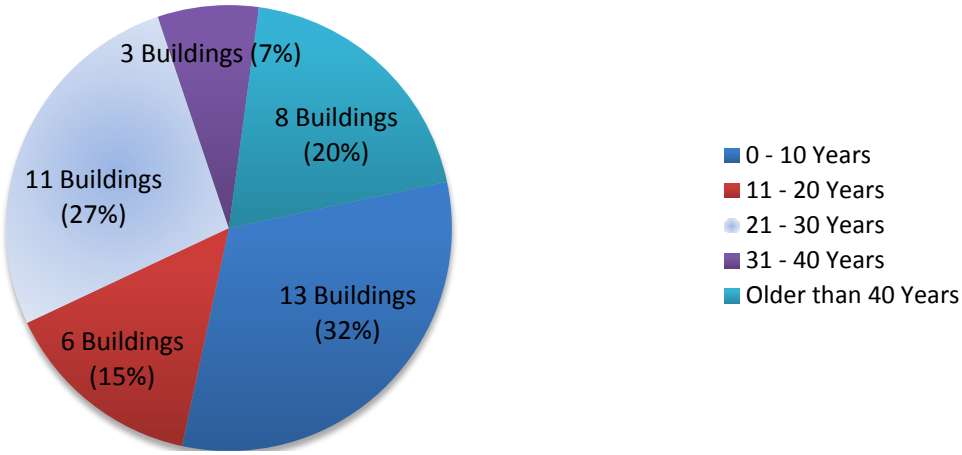
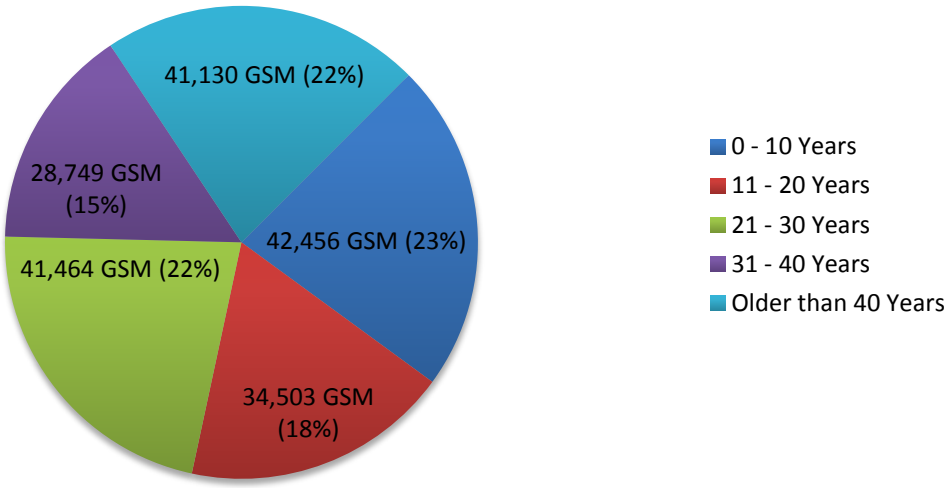


FIGURE 2: BUILDING GROSS SQUARE METRES (GSM) BY AGE



2.2.2 Deferred Maintenance

In 2007 Advanced Education and Technology provided $25,915,000 in capital grants to help address the deferred maintenance projects backlog. The majority of this funding is being used to reduce deferred maintenance in the University Hall structure, building envelope and safety system upgrades. The University has a Facility Condition Index (FCI) on all University buildings estimated at 10.5%.

The FCI is the ratio of the cost to correct current and future physical condition deficiencies, relative to current facility replacement values. The percentages are calculated by taking the deferred maintenance amount per facility by the facility's replacement cost.

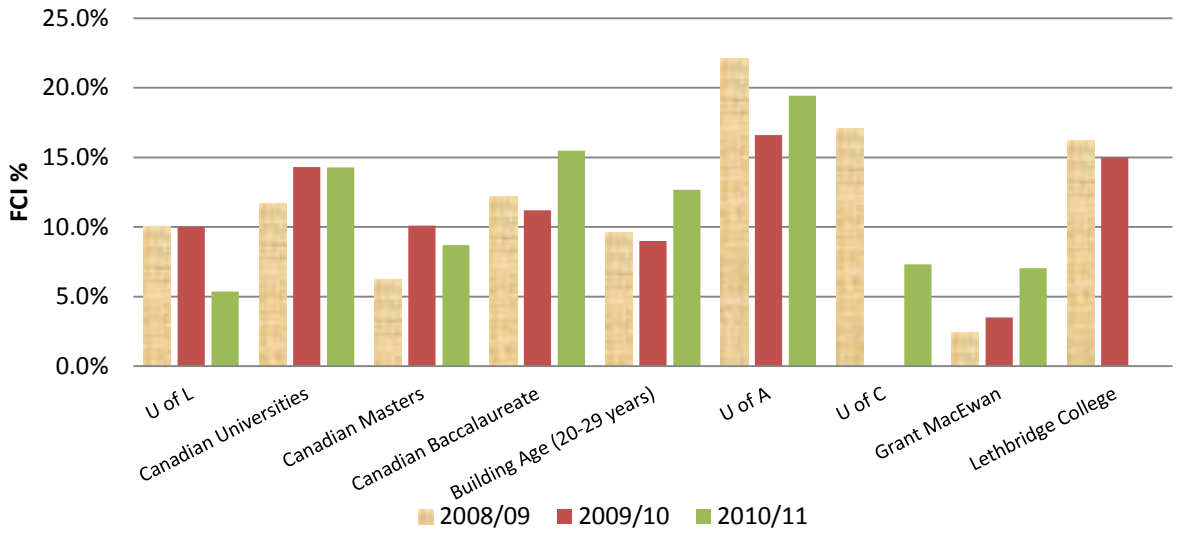
Alberta Infrastructure's interpretation of FCI values for building infrastructure is as follows (from Alberta Infrastructure's Annual Report 2009-2010):

Condition	FCI Definition	
Good	Facilities with an FCI of less than 15%	Adequate for intended use and expected to provide continued service life with average maintenance.
Fair	Facilities with an FCI that is equal to or greater than 15%, or equal to or less than 40%	Aging components are nearing the end of their life cycle and require additional expenditures for renewal or refurbishing.
Poor	Facilities with an FCI of greater than 40%	Upgrading is required to comply with minimum codes or standards and deterioration has reached the point where major repairs or replacement are necessary.

Please Note: Data described in this section will vary slightly as a result of when it was reported and the way data is gathered for various sources.

The following data was reported by APPA: The Association of Higher Education Facilities Officers:

FIGURE 3: DEFERRED MAINTENANCE BACKLOG BY INSTITUTION TYPE (APPA DATA)



Figures 4 and 5 show the total deferred maintenance on University buildings from data provided by Alberta Infrastructure as of March 2011. Total deferred maintenance was estimated at $102 M. It is estimated that approximately $60 M in deferred maintenance should be addressed between 2012 and 2015, including ancillary and residential buildings.

FIGURE 4: TOTAL DEFERRED MAINTENANCE ON UNIVERSITY BUILDINGS BY RENEWAL YEAR

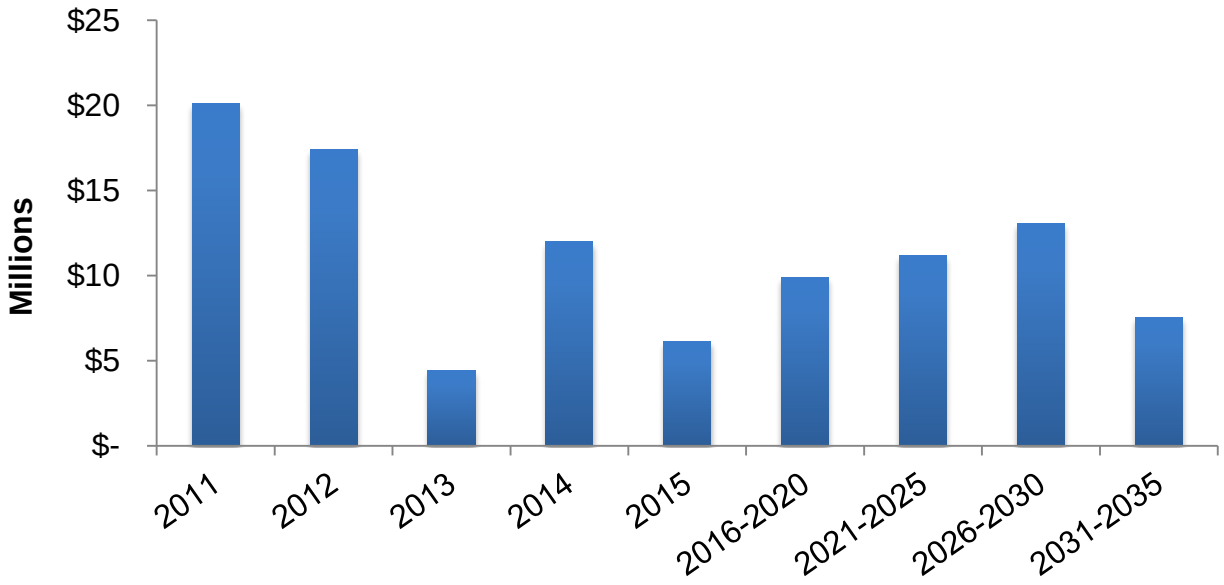


FIGURE 5: TOTAL DEFERRED MAINTENANCE ON UNIVERSITY BUILDINGS BY BUILDING COMPONENT

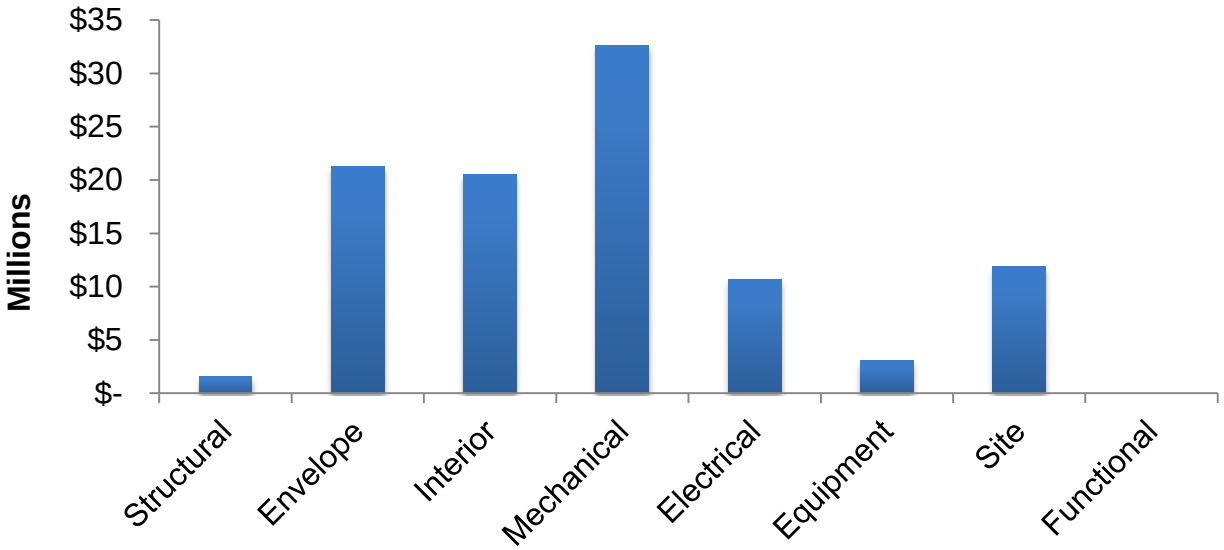
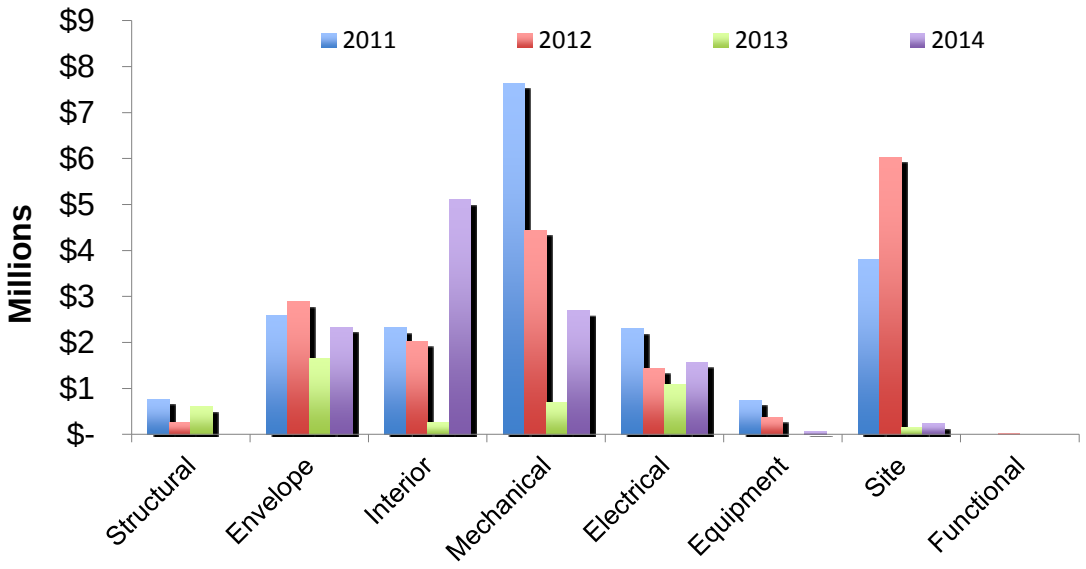


FIGURE 6: 2011-2014 DEFERRED MAINTENANCE ON UNIVERSITY BUILDINGS BY BUILDING COMPONENT AND RENEWAL YEAR

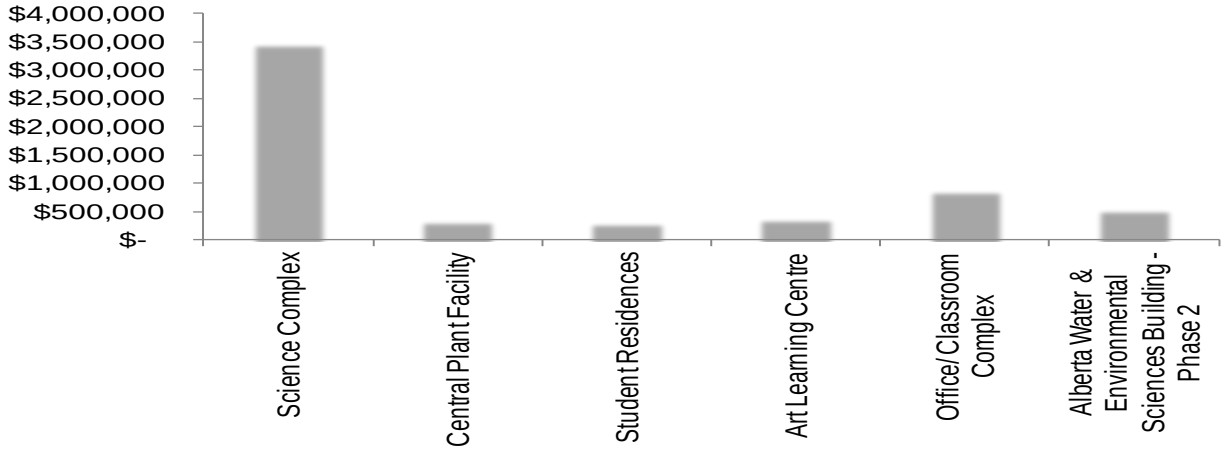


The University is grateful to Advanced Education and Technology and Alberta Infrastructure for providing funding support to help deal with these deficiencies. It continues to be a challenge to meet these escalating deficiencies.

Lights-on Funding

The University's Capital Plan includes the creation or expansion of the following major capital projects over the next five years: Science Complex; Central Plant Facility; Student Residences; Art Learning Centre; Office/Classroom Complex; and Alberta Water & Environmental Sciences Building – Phase 2. It is estimated that $6 M in lights-on-funding will be required to maintain these facilities once they are completed.

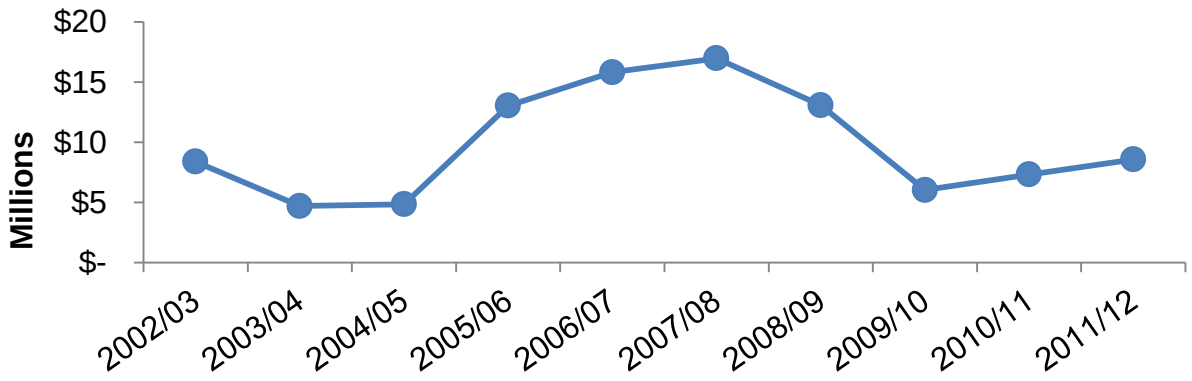
FIGURE 7: LIGHTS-ON FUNDING FOR MAJOR CAPITAL PROJECTS



2.2.3 Capital Reserves

University reserves are set up from time to time through one-time dollars to be used for special purposes. Over the years the reserve balances have increased and decreased in relation to the funding of various new building construction projects. The University cannot continue to rely on capital reserves to make up shortfalls in capital budgets. The following figure shows the last ten-year capital reserve balances for the University.

FIGURE 8: TEN-YEAR CAPITAL RESERVE BALANCES



2.2.4 Project Cost Escalations

Future cost escalations will likely continue to be an issue for the University and the Government. Shown in the table below is a forecast of what escalated construction costs may be over the next year, five years, and ten years, using a projected escalation of construction costs. Five years from the total Expansion and New Projects budget is estimated to be $46 to $115 million more and in ten years $90 to $267 million more than the current estimated construction costs.

TABLE 3: FUTURE CONSTRUCTION COST ESCALATIONS

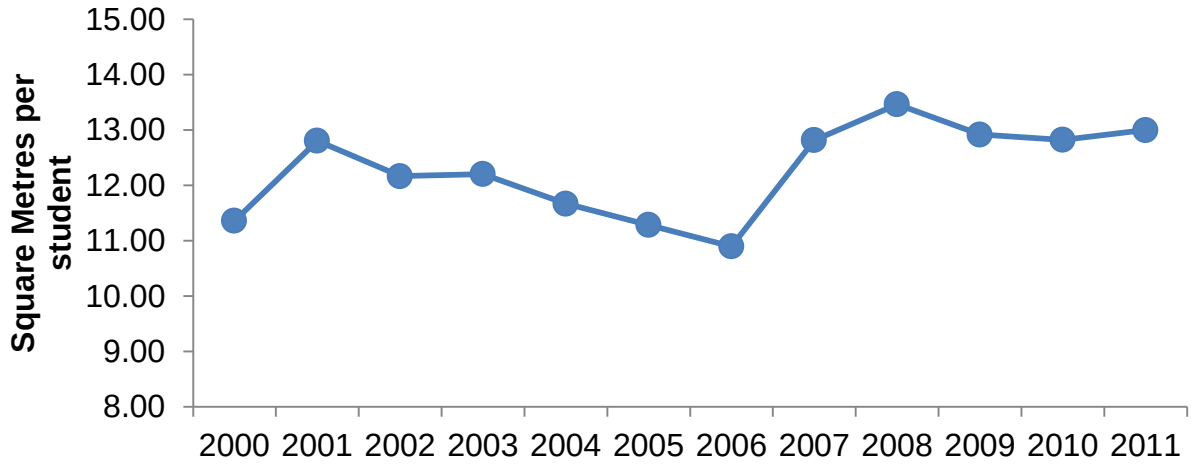
FUTURE CONSTRUCTION COST ESCALATIONS

PROJECTS	Project Cost (Jan 2013)	Over 1 Year		Over 5 Years		Over 10 Years	
		2%	5%	2%	5%	2%	5%
New Projects							
Science Facility	$ 229,500,000	234,090,000	240,975,000	253,386,544	292,906,619	279,759,219	373,831,317
Central Plant Facility	$ 30,600,000	31,212,000	32,130,000	33,784,873	39,054,216	37,301,229	49,844,176
First Nations Gathering Centre	$ 7,732,000	7,886,640	8,118,600	8,536,753	9,868,209	9,425,265	12,594,613
Art Learning Centre	$ 46,920,000	47,858,400	49,266,000	51,803,471	59,883,131	57,195,218	76,427,736
Office/Classroom Complex	$ 76,500,000	78,030,000	80,325,000	84,462,181	97,635,540	93,253,073	124,610,439
Expansion Projects							
Student Residences - upgrade University Hall	$ 7,500,000	7,650,000	7,875,000	8,280,606	9,572,112	9,142,458	12,216,710
Student Residences - upgrade Piikani House	$ 5,000,000	5,100,000	5,250,000	5,520,404			
Alberta Water & Environmental Sciences Building - Phase 2	$ 24,480,000	24,969,600	25,704,000	27,027,898	31,243,373	29,840,983	39,875,340
Preservation Projects							
Dr. Foster James Penny Building Upgrades	$ 2,300,000	2,346,000	2,415,000	2,539,386	2,935,448	2,803,687	3,746,458
Tunnel & South Plaza Replacements	$ 3,264,000	3,329,280	3,427,200	3,603,720	4,165,783	3,978,798	5,316,712
Total Capital Cost	**$433,796,000**	**$442,471,920**	**$455,485,800**	**$478,945,836**	**$547,264,429**	**$522,699,931**	**$698,463,500**
Increase in Cost		**$ 8,675,920**	**$ 21,689,800**	**$ 45,149,836**	**$113,468,429**	**$ 88,903,931**	**$264,667,500**

2.2.5 Space

Over the past 10 years the University has seen growth in both enrolments and new buildings on campus. These buildings have helped to ease some of the space pressures the University has been faced with. As shown in the graph below the net assignable space per student has remained relatively the same over the last 10 years.

FIGURE 9: NET ASSIGNABLE SPACE PER STUDENT



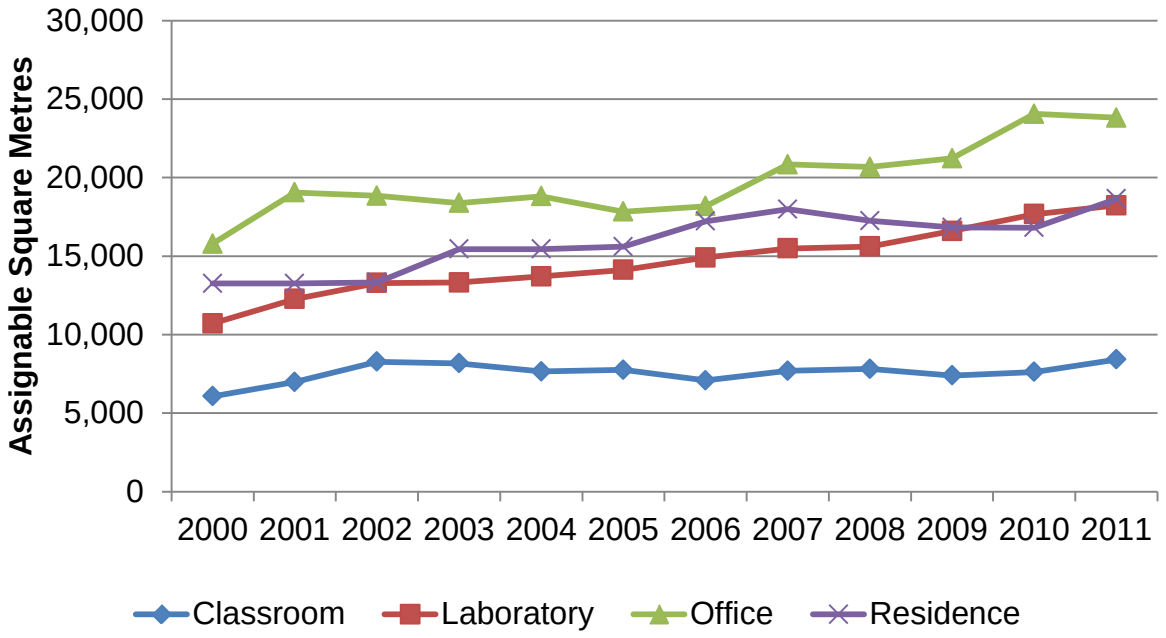
The majority of space additions over the past ten years were for Markin Hall, 1st Choice Savings Centre for Sport and Wellness, expansion to Turcotte Hall, Library Building and classrooms and offices. There continues to be a critical need for research and student teaching lab spaces. The addition of Markin Hall in 2010 and renovations to the vacated spaces in University Hall and Anderson Hall provided much needed additional space to accommodate our current enrolment and office needs, but it will not address the extreme need for offices, safe science labs, formal and informal learning spaces, and residence spaces.

The University has developed its capital plan to address the following four primary spaces:

- Classrooms;
- Laboratory;
- Offices;
- Residences.

Figure 10's graph shows the assignable space by use category over the past 10 years.

FIGURE 10: NET ASSIGNABLE SPACE BY CATEGORY



2.2.6 Technology

There is an increasing dependency on technology by all University stakeholders. This requires appropriate facilities such as primary and secondary data centres with backup power and air-conditioning to ensure 24-7-365 access to technology services.

Cyber infrastructure, or technical infrastructure required by researchers, is also growing. The University expects to be required to accommodate significantly more information technology systems over the next few years requiring additional data centres or the expansion of existing centres and the use of iclouds.

Access to these technical services in the data centres requires a robust and redundant network for delivery. The core and secondary networks run essential services such as telephone and security systems. Fiber networks between buildings must be redundant to ensure service is not interrupted. We have installed some redundancy and, as the campus grows, need to add additional redundancy.

Wireless networks are also becoming increasingly important to the University. We need to increase the number of locations wireless is available, add capacity to existing locations to handle the large number of users, and increase the data transfer speed as new standards are available.

Students are increasingly bringing laptops to campus and thus require access to power in order to charge up their batteries. The University is in need of upgrading its infrastructure to allow for more electrical outlets to accommodate the students.

2.2.7 Facility Performance Indicators

The University continues to perform well when comparing data from the Association of Higher Education Facilities Officers (APPA) survey. APPA provides the most comprehensive data available on facilities management costs and staffing information in North America. The graphs below show how the University's maintenance and operations compare to other institutions (2010-11 data).

FIGURE 11: EXPENDITURES ON GROUNDS ($/ACRE)

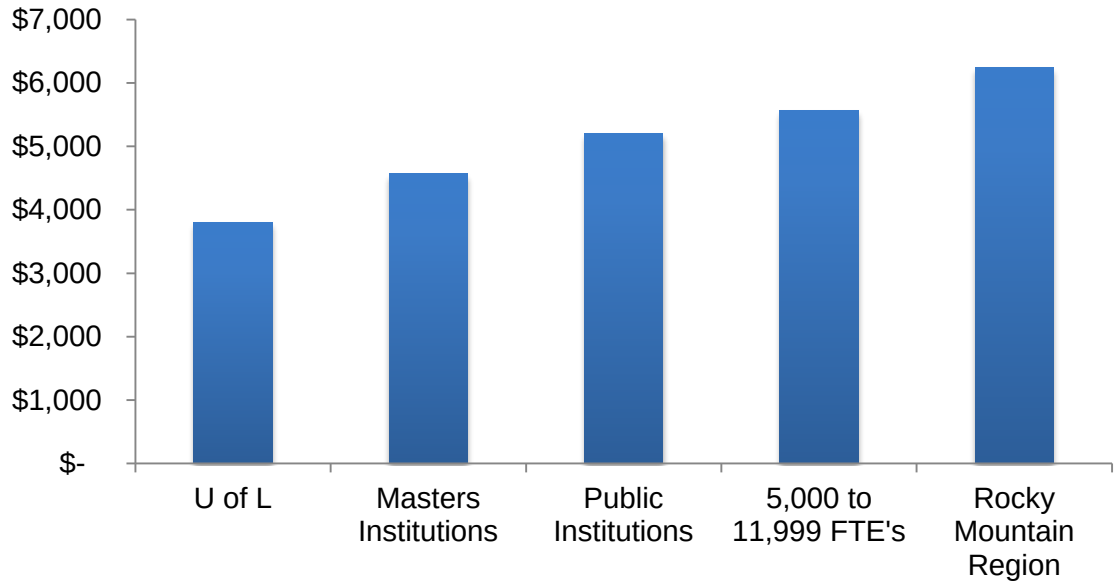


FIGURE 12: OPERATING COSTS PER STUDENT FTE

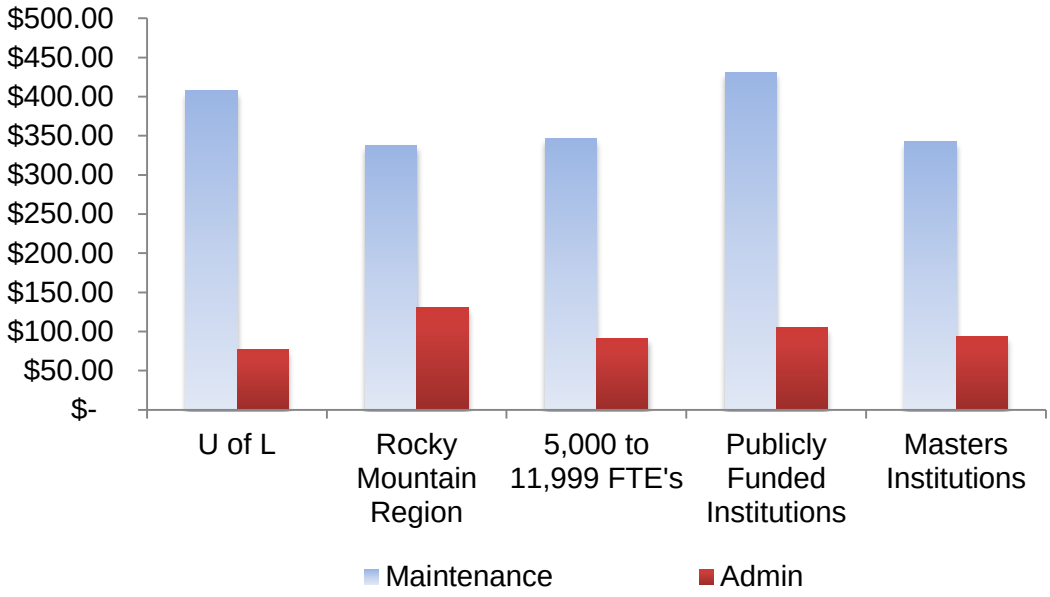


FIGURE 13: MAINTENANCE COSTS PER STUDENT

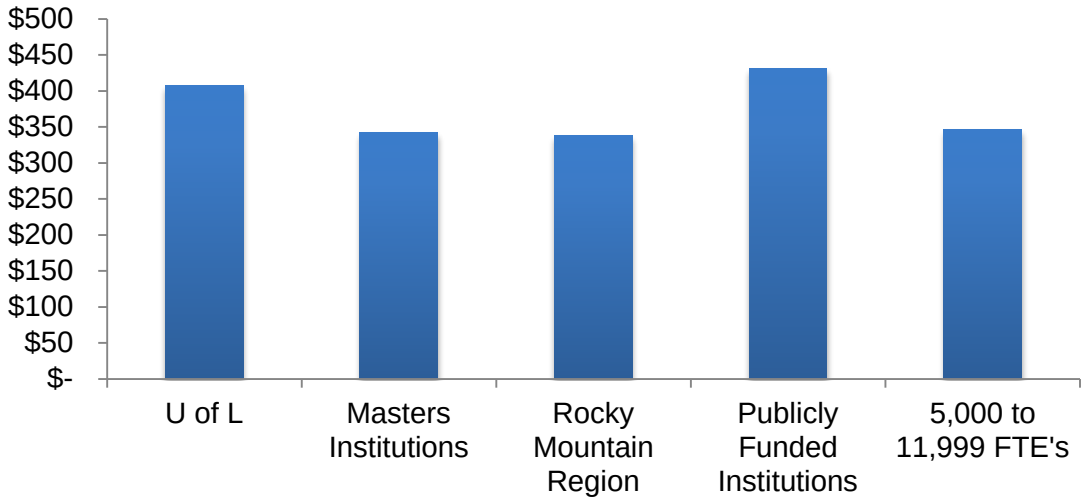


FIGURE 14: CUSTODIAL COSTS PER STUDENT

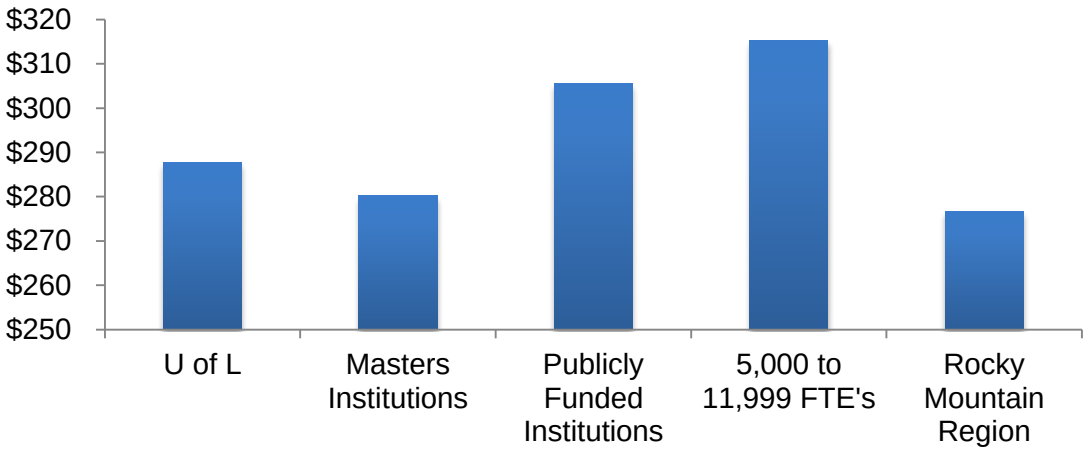
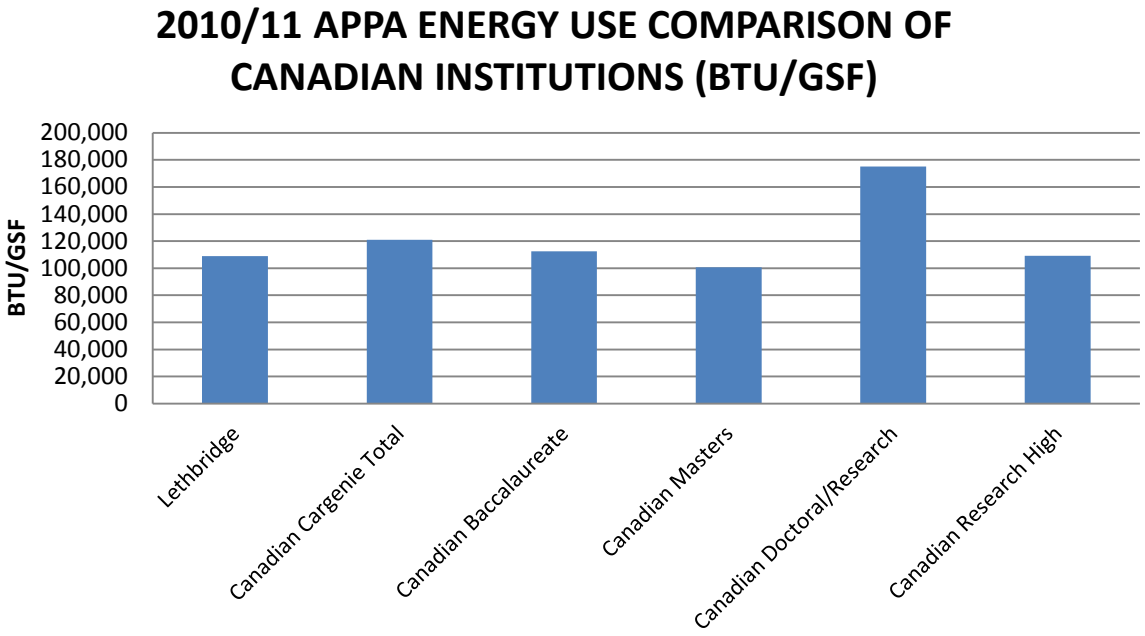


FIGURE 15: ENERGY CONSUMPTION (BTU'S/GSF)



2.2.8 External Influences and Challenges

As the University continually updates its capital plan the following influences and challenges continue to be important for the University to address:

- The economic environment has influenced student enrolments and recruitment of qualified staff.

  As the University continues to develop as a comprehensive academic and research institution, the number of graduate students has increased, with projections for further increases. Graduate students require increased space in relation to labs and classrooms, which also puts additional strain on the institution in accommodating these needs.

- Despite the slowing down of the economy, renovation costs are still significant, especially in renovations to the older facilities on campus. The University is experiencing the lack of trades in the marketplace, especially in Lethbridge and Southern Alberta.

- The Provincial Government's goals of accessibility, affordability and quality education and sustainability contained in *Campus Alberta* and *Access to the Future* along with the *Government of Alberta* and *Advanced Education and Technology business plans* will continue to influence the University's capital planning process.

- As a comprehensive institution, the University will continue to grow its research mandate and research capacity, as well as grow its graduate programs in areas of strength.

3.0 THE PLAN

The University of Lethbridge annually reviews its capital plan and selects priority capital projects that best meets the goals and needs of the University while corresponding strongly to Government business plans and priorities.

3.1 PRIORITY CAPITAL PROJECTS

When prioritizing capital projects, the University of Lethbridge follows the BLIMS category system (Alberta Infrastructure Building and Land Information Management System) by placing capital projects into "Preservation", "Expansion" or "New". The following chart shows the University's priority capital projects for the years 2012-2016.

TABLE 4: PRIORITY CAPITAL PROJECTS

			Estimated Project Cost (Jan 2012 dollars)
	New Facility Projects		
1	Science Complex		
	- Science Facility	229,500,000	
	- Central Plant Facility & Distribution Systems	30,600,000	$ 260,100,000
2	First Nations Gathering Centre		7,732,000
3	Art Learning Centre		
	- Visual Art Study Centre	16,320,000	
	- Art Gallery	30,600,000	46,920,000
4	Office/Classroom Complex		76,500,000
	Total New Facility Projects		**$ 391,252,000**
	Expansion Projects		
1	Student Residences - upgrade University Hall		7,500,000
2	Student Residences - upgrade Piikani House		5,000,000
3	Alberta Water & Environmental Sciences Building - Phase 2		24,480,000
	Total Expansion Projects		**$ 36,980,000**
	Preservation Projects		
1	Dr. Foster James Penny Building Upgrades (downtown facility)		2,300,000
2	Tunnel & South Plaza Replacement		3,264,000
	Total Preservation Projects		**$ 5,564,000**
	TOTAL PRIORITY CAPITAL PROJECTS		**$ 433,796,000**
	Projects in Progress		
1	Science Complex - Planning Phase		$ 2,780,731
2	Physical Education Building Upgrades		5,600,000
3	2012-13 Deferred Maintenance Projects		7,849,100
4	Student Residences - Aperture Park		32,000,000
	Total Projects in Progress		**$ 48,229,831**

Top Three Projects:

(1) Science Complex (including the Central Plant Facility)
(2) First Nations Gathering Centre
(3) Art Learning Centre

Note - Estimated Project Costs are in current dollars (Jan 2012) and will be adjusted depending on construction start dates.

3.1.1 Capital Project Details

Science Complex

The highest capital priority of the University of Lethbridge are new science facilities in order to deliver up to date science programs and accommodate the University's strong commitment to research.

To continue to excel in research and to adapt to the comprehensive institution with more emphasis on graduate student education, the U of L requires new facilities that will provide more dedicated space for these programs and functions. Some research facilities that are in the planning stages include laboratory and research spaces for Biochemistry, Chemistry, Physics, Geography and Kinesiology. These facilities would increase the capacity for training by providing space for principal investigators, new graduate and undergraduate students, and technical support personnel.

Much discussion on research facilities has centered on whether to renovate or build. It has been found to be very costly to convert an existing facility into something other than the purpose for which it was created for, especially when converting space for research labs. Renovating space in University Hall, converting office and classroom space to accommodate research space needs, is much more costly than new construction for research space. Due to the constraints of University Hall, it also may be impossible to convert the space into research labs as the facility has inherent constraints due to, for examples, the mechanical/electrical issues of the building, the vibrating of the building for sensitive research equipment and the floor loading restrictions. There is also the concern of whether it is appropriate to have significant research activities in the same building that accommodates offices, classrooms and student residences.

Cons of current science space in University Hall include:

- There are significant safety concerns with science labs that originate in the University Hall building-design.
- The facilities in University Hall are no longer suitable to attract the best and brightest faculty and students, and would require extensive renovations to accommodate the comprehensive university mandate.
- The current facilities do not allow our students to experience the requirements of a modern lab and thus put our students at a disadvantage when they progress to graduate studies, other institutions and the external work environment.

Pros of a new Science Complex include:

- Laboratories for teaching and research can be built that meet the most modern standards of safety and design.
- Build a facility where the management of supplies, including hazardous materials, is centralized and integrated into the building architecture.
- Build a facility with centralized instrumentation laboratories allowing for full sharing of “six- and seven-figure” instruments by many researchers and students.
- Re-unite scattered natural sciences Departments, which are currently in various buildings all over campus.
- Return Levels 1-4 of University Hall to its original intended use: student residences.

ESTIMATED PROJECT COST	$ 229,500,000
Proposed Funding Sources	
Provincial Government	$ 229,500,000

The estimated project cost of $229.5 M is for the construction of a new, comprehensive science complex. The University is currently in the planning phase of the project, utilizing the $2.7 million planning grant from AET.

Note: This total comprehensive Science Complex must be built in conjunction with a second Central Plant Facility.

Central Plant Facility

Any additional new future facilities will require the addition of another central plant facility to accommodate their infrastructure needs.

ESTIMATED PROJECT COST	$ 30,600,000
Proposed Funding Sources	
Provincial Government	$ 30,600,000

Note: This Facility is a requirement of a new comprehensive Science Complex.

First Nations Gathering Centre

One of the Strategic Priorities identified in the University's 2009-13 Strategic Plan is to enhance the experience of First Nations, Métis and Inuit (FNMI) students. One specific action to accomplish this goal is to develop a FNMI social and cultural gathering space. This space will provide students with a space that is welcoming and will support their academic and social needs. The University is committed to increasing the attraction and retention of FNMI students.

ESTIMATED PROJECT COST	$7,732,000
Proposed Funding Sources	
Provincial Government	$3,866,000
Federal Government	$3,866,000
	$7,732,000

Art Learning Centre

The U of L art collection is recognized as one of the finest in Canada, with over 14,000 works of art. In building the collection, the U of L committed to making the collection accessible for teaching and research. A larger, more accessible exhibition space, including space for conservation and exhibition preparation, will make the collection available to a wider public through exhibitions and public programs, and will provide the U of L's Museum Studies students with experience necessary for careers in the cultural sector. The expansion of the gallery would also allow more access to students, from the U of L and from other institutions, in this field of study and research.

ESTIMATED PROJECT COST		
Visual Art Study Centre	$	16,320,000
Art Gallery	$	30,600,000
	$	46,920,000
Proposed Funding Sources		
Provincial Government	$	17,920,000
Research Agencies	$	10,000,000
Fundraising	$	19,000,000
	$	46,920,000

Office/Classroom Complex

It is expected that over the next 10 years the U of L will require the addition of another office/classroom complex in order to accommodate our growing status as a comprehensive academic and research institution and to meet the facility demands of the student population and associated faculty offices and research space.

ESTIMATED PROJECT COST	$ 76,500,000
Proposed Funding Sources	
Provincial Government	$ 76,500,000

Student Residences – upgrade University Hall and Piikani House

The U of L only has available student residence beds for approximately 8% of its current Lethbridge campus student population. It is a well-known fact that students who live in on-campus residences perform better academically, integrate better into campus life programs and generally have a more positive post-secondary learning experience. The University had set a goal many years ago that it would provide up to 20% of its on-campus student population with residence accommodations.

The University is proposing renovations to University Hall and to the Piikani Apartment Building that will allow for more student residences to be built in accordance with the University Strategic Plan. The cost of renovations to put more beds in the existing buildings is far less expensive than to build new construction as there will not be any building envelope costs associated with the project.

	University Hall	Piikani House
ESTIMATED PROJECT COST	$ 7,500,000	$5,000,000
Proposed Funding Sources		
Financing Supported by Housing Rents	$7,500,000	$5,000,000

Alberta Water and Environmental Science Building (AWESB) – Phase 2

Phase I of the AWESB was officially opened on November 13, 2008. Phase I initially accommodates more than 20 researchers and up to 150 supporting technicians, graduate students and doctoral candidates from the Departments of Biological Science, Geography and Physics and Astronomy. The building also contains numerous individual and shared laboratory spaces, and an aquatic research facility. This facility is situated in Exploration Place, near the Canadian Centre for Behavioral Neuroscience.

Phase 1 of the AWESB facilitates the base program for water-based research. Phase 2 (3200 gsm) is for future growth of the base program and to accommodate externally funded programs.

ESTIMATED PROJECT COST	$24,480,000
Proposed Funding Sources	
Provincial Government	$12,240,000
Federal Government	$12,240,000
	$24,480,000

Dr. Foster James Penny Building Upgrades

The University was donated a building in downtown Lethbridge in October 2007. The building is in good physical condition although there are some renovations that will be required in order to bring the building up to current building codes and to facilitate University use of the space. Space programming for the building will incorporate some of the needs for the Faculty of Fine Arts, University Advancement, the School of Graduate Studies, and offices and meeting rooms, thus creating a downtown presence that helps build connections with the Lethbridge community.

ESTIMATED PROJECT COST	$2,300,000
Proposed Funding Sources	
Provincial Government	$ 2,300,000

Tunnel and South Plaza Replacement

The tunnel connecting the 1st Choice Savings Centre and the University Library was constructed in 1971 and the south plaza above the tunnel was constructed in 1990. Both need major repairs or replacement due to their poor condition.

ESTIMATED PROJECT COST	$ 3,264,000
Proposed Funding Sources	
Provincial Government	$ 3,264,000

Learning Commons and Collegia Program

North American academic libraries have changed from places focused on print collections to places focused on people. The concept of a Learning Commons came from seminal research done by an anthropologist and a librarian in 2004. Since that time best practices for creating a Learning Commons have been established.

A Learning Commons is a combination of philosophy, principles, partnerships, design elements and services. The design principles behind a Learning Commons are: learning rather than instruction; engagement and interaction; service; technology integration; experimentation and innovation, and user involvement. The Commons are based on a philosophy of “one stop shopping” creating partnerships with other student service partners and positioning the services within the library. Students want a “universal service point", a "physical Google.”

Partners with the library include combinations of: IT, tutors, faculties, student services, food services and security. Common, across the “commons” are group work rooms for collaboration; a variety of study spaces; a wide range of seating styles; different levels of lighting; smart rooms; multimedia development spaces; lending of laptops, e-readers and digital equipment, and areas that are open 24/7.

The first Canadian Learning Commons developed at the University of Guelph. The U of G website states, “The Learning Commons is based on a partnership model designed to support and enhance undergraduate and graduate student learning, writing, research, numeracy, and technology at the University of Guelph…in recognition of the Library as the central gathering place for students to study, engage in writing and research, and learn in collaborative settings.”

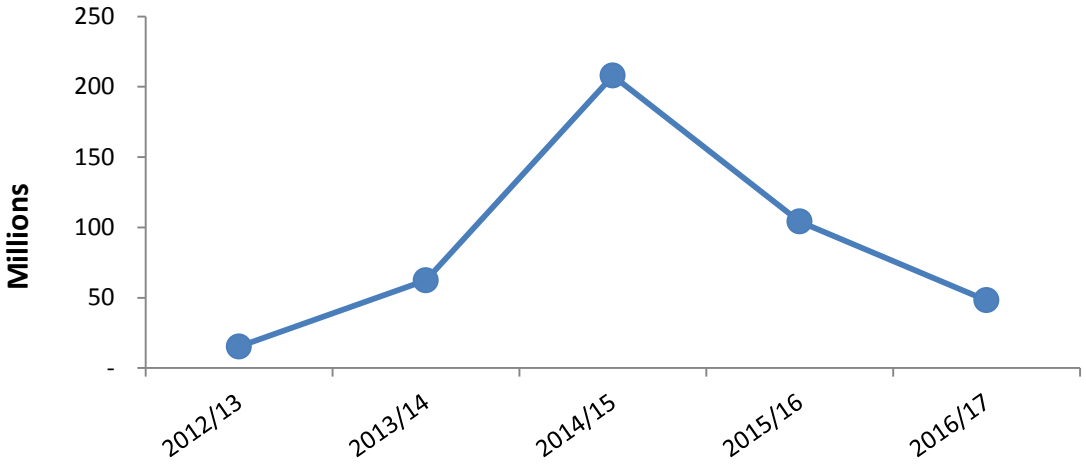
The University of Lethbridge is exploring ways to enhance learning services through the implementation of a dispersed inter-disciplinary learning commons model on campus to build on existing library and existing 24-hour resources facility. A learning commons is a priority strategy to provide a centre of learning as a welcoming, service-oriented, tech-rich environment that is open for extended hours on a regular basis for learners to access resources and services that support their learning needs.

Collegia Program: The University of Lethbridge is primarily a commuter campus with only 9% of the full-time student population living in Campus Housing at the Lethbridge home campus. There is a need for a central space to be designed to encourage personal and professional networking and facilitate an initial transition to University with learners meeting others in their cohort and an enriching environment where student assistants are welcoming, resourceful, and contribute to a sense of belonging. Acknowledging the importance of community in student retention and success, collegia establish intentional learning communities on campus and emphasize providing a home away from home during the day for the commuter learner. As with other university collegia models, each collegium will be designed for cohorts within particular years of study.

3.2 CAPITAL BUDGET AND FORECAST

Over the next 5 years the University proposes to significantly expand its facilities. This campus expansion consists primarily of the proposed Science Complex, all supported by a new Central Plant Facility. Figure 17 shows the capital forecast over this time. See Appendix A for more details.

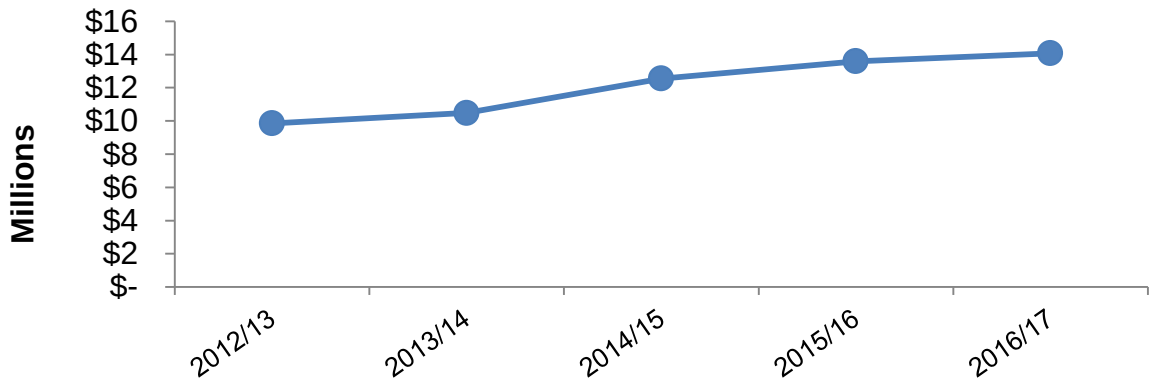
FIGURE 16: FIVE-YEAR CAPITAL FORECAST



As the University continues to expand its capital infrastructure, deferred maintenance remains a concern **The University is grateful to Alberta Infrastructure and Transportation for the one-time deferred maintenance grants received in 2007-08 of $25.915 Million, which has significantly contributed to reducing the deferred maintenance at the University.**

With the new capital infrastructure planned over the next four years, the annual deferred maintenance costs are expected to be approximately $10 Million over the annual current funded levels. See Appendix A for details.

FIGURE 17: DEFERRED MAINTENANCE FORECAST



On a regular basis the University reviews and updates its capital priorities to best correspond to the Government's strategic goals. This is done through the regular BLIMS submission, this Capital Plan and other important documents. Informing and working with the Government on emerging trends and needs will continue to be a priority for the University of Lethbridge.

APPENDIX A – 5 Year Capital Forecast

(January 2012 dollars) ($000)

	Estimated Project Cost	2012/13	2013/14	2014/15	2015/16	2016/17	Total	Start Date	Completion Date
New Facility Projects									
Science Complex	229,500	1,000	1,300	150,000	50,000	27,200	229,500	Sept 30-2011	Aug 15-2016
Central Plant Facility	30,600	400	12,600	12,000	5,600	-	30,600	Sept 30-2011	Aug 15-2016
First Nations Gathering Centre	7,732	500	3,700	3,532	-	-	7,732	Sept 30-2012	Aug 15-2014
Art Learning Centre	46,920	1,000	22,000	23,920	-	-	46,920	Sept 30-2012	Aug 15-2014
Office/Classroom Complex	76,500	-	-	7,000	48,500	21,000	76,500	Sept 30-2015	Aug 15-2020
	391,252	**2,900**	**39,600**	**196,452**	**104,100**	**48,200**	**391,252**		
Expansion Projects									
Student Residences - upgrade University Hall	7,500	1,000	6,500	-	-	-	7,500	Sept 30-2012	Aug 15-2013
Student Residences - upgrade Piikani House	5,000	750	4,250	-	-	-	5,000	Sept 30-2013	Aug 15-2014
Alberta Water & Environmental Sciences Building - Phase 2	24,480	1,000	12,000	11,480		-	24,480	May 1-2013	Aug 15-2015
	36,980	**2,750**	**22,750**	**11,480**	**-**	**-**	**36,980**		
Preservation Projects									
Dr. Foster James Penny Building Upgrades (downtown facility)	2,300	2,300	-	-	-	-	2,300	April 1-2012	Aug 15-2012
Tunnel & South Plaza Replacement	3,264	3,264	-	-	-	-	3,264	April 1-2013	Aug 15-2013
	5,564	**5,564**	**-**	**-**	**-**	**-**	**5,564**		
							-		
TOTAL CAPITAL PROJECTS	**433,796**	**11,214**	**62,350**	**207,932**	**104,100**	**48,200**	**433,796**		
PROPOSED CAPITAL PROJECTS FUNDING									
Provincial Capital Funding Request		8,464	32,667	170,519	104,100	48,200	363,950		
Other Funding Sources		2,750	29,683	37,413	-	-	69,846		
		11,214	62,350	207,932	104,100	48,200	433,796		
DEFERRED MAINTENANCE									
Buildings Capital Asset Replacement Value ($000)	969,982	981,196	1,043,546	1,251,478	1,355,578	1,403,778			
Annual Deferred Maintenance Requirement (1% of building capital asset value)		**9,812**	**10,435**	**12,515**	**13,556**	**14,038**	**60,356**		
ANNUAL PROVINCIAL CAPITAL REQUIREMENT REQUEST									
New Capital Funding Request		8,464	32,667	170,519	104,100	48,200	363,950		
Annual Deferred Maintenance Request		9,812	10,435	12,515	13,556	14,038	60,356		
TOTAL		**18,276**	**43,102**	**183,034**	**117,656**	**62,238**	**424,306**		

Appendix B – Capital Maintenance Budget 2012-13

Source of Funds	
Infrastructure Maintenance Program (IMP) Grant	$ 3,242,500
Advanced Education & Technology	12,300,000
University Reserves - Housing	206,600
Total Funding	**$ 15,749,100**
Proposed Capital Expenditures	
Aperture Park	206,600
Campus Wide (Interior)	100,000
Central Plant	90,000
Canadian Centre for Behavioural Neuroscience	26,000
1st Choice Savings Centre for Sport & Wellness	59,500
Gushul Studio	19,000
Parkway Service Complex	25,000
Physical Education Building	5,638,000
Science Complex	2,300,000
Site Systems	1,060,000
Students' Union Building	328,000
Turcotte Hall	215,000
University Centre for the Arts	1,787,000
University Hall	3,723,000
University Library	172,000
Total Proposed Capital Expenditures	**$ 15,749,100**

Appendix C – Capital Budget
($000)

	2012-13 Approved Budget	2013-14 Proposed Budget	2014-15 Proposed Budget	2015-16 Proposed Budget
SOURCES OF FUNDS				
Major Capital Projects:				
Provincial Government	15,402	34,148	170,519	104,100
Fund Raising/External Sources	-	-	19,000	-
Federal Government	500	7,933	7,673	-
Research Agencies	500	11,000	10,740	-
University Contributions	17,750	26,750	-	-
	34,152	79,831	207,932	104,100
Infrastructure Maintenance Program (IMP) Grant	3,600	3,600	3,600	3,600
Indirect Research Costs Grant	100	100	100	100
University contributions	3,767	1,915	1,758	1,746
University Capital Reserves	207	1,606	459	531
TOTAL FUNDING	$ 41,826	$ 87,052	$ 213,849	$ 110,077
CAPITAL EXPENDITURES				
Major Capital Projects:				
* Science Complex	1,000	1,300	150,000	50,000
* Central Plant Facility	400	12,600	12,000	5,600
* Dr. Foster James Penny Building (Downtown)	2,300	-	-	-
* Physical Education Building upgrades	5,638	-	-	-
* Tunnel & South Plaza Replacement	3,264	-	-	-
* Student Residences	1,750	10,750	-	-
* Alberta Water & Environmental Sciences Bldg - Phase 2	1,000	12,000	11,480	-
* First Nations Gathering Centre	500	3,700	3,532	-
* Art Learning Centre	1,000	22,000	23,920	-
* Office/Classroom Complex	-	-	7,000	48,500
Science Complex - Planning Phase	1,300	1,481	-	-
Student Residences - Aperture Park	16,000	16,000	-	-
	34,152	79,831	207,932	104,100
Capital Maintenance & Facility Upgrade (includes deferred maintenance)	3,807	3,600	3,600	3,600
Equipment				
Arts and Science	400	400	400	400
Education	100	100	100	100
Management	70	70	70	70
Fine Arts	200	200	200	200
Health Sciences	25	25	25	25
Administrative Support Units	160	160	160	160
Sports and Recreation/Athletics	150	150	150	150
Motor Vehicles	35	35	35	35
Information Technology	520	520	520	520
Library	20	20	20	20
Facilities	100	100	100	100
	1,780	1,780	1,780	1,780
Ancillaries				
Parking	1,000	1,350	285	400
Bookstore	135	125	-	-
Printing	139	20	25	33
Housing	684	256	174	131
Catering and Food Services	114	70	53	33
Conference Services	-	-	-	-
Ancillary Services Director	15	20	-	-
	2,087	1,841	537	597
TOTAL CAPITAL EXPENDITURES	$ 41,826	$ 87,052	$ 213,849	$ 110,077

*Note – The Board of Governors has not formally approved these major capital projects. They have been submitted to Alberta Advanced Education and Technology as the University's capital priorities.

BIBLIOGRAPHY

University Key Documents

University of Lethbridge, Core Campus Expansion Plan, November 2001
University of Lethbridge, Annual Report to Alberta Advanced Education 2009-10
University of Lethbridge, Strategic Plan 2009-2013

External Key Documents

Government of Alberta Strategic Business Plan 2007-2010
APPA, Facilities Performance Indicators Report 2009-2010
Alberta Infrastructure BLIMS Submission 2011
Alberta's 20-Year Strategic Capital Plan, January 29, 2008
Alberta Advanced Education and Technology Business Plan 2009-2012
Alberta Advanced Education and Technology, Roles and Mandates Policy Framework for Alberta's Publicly Funded Advanced Education System, Nov 2007

ACKNOWLEDGEMENTS

This document was prepared by the Office of the Vice-President (Finance and Administration).

The University wishes to acknowledge the contribution of the following individuals to the creation of this document:

Nancy Walker	Vice-President (Finance & Administration)
Chris Eagan	Executive Director, Facilities
Carrie Takeyasu	Executive Director, Financial Services
Leslie Gatner	Financial Analyst (Capital), Financial Services
John Claassen	Director, Campus Planning & Architecture, Facilities
TJ Hanson	Associate Executive Director, Facilities
Nicole Hillary	Executive Analyst, Office of the Vice-President (Finance & Administration)
Shauna Haag	Administrative Assistant, Facilities