



5.0 Conclusion

- 5.1 Team
- 5.2 Methodology
- 5.3 An Opportune Moment
- 5.4 Strategic Issues and Proposals

5.1 Team

The Master Plan Report was the result of almost two years of effort by the professional team, working in close collaboration with members of the Bishop's University community, as well as with representatives of Champlain College and the town of Lennoxville. The professional team was directed by Peter Rose, and Paul Puciata of Peter Rose Architecte / ARCOP, along with principal Laura Solano and Neil Budzinski of Michael Van Valkenburgh Associates, Landscape Architects, and principal Matthias Schuler of Transsolar Climate Engineers, who assisted with strategies in regard to the all-important issues of energy strategies and sustainability. The process began with several days of meetings, interviews and workshops with more than 100 members of the Bishop's community, Champlain College and Lennoxville communities which resulted in a document, "Proceedings of the Centre Multisports et de Santé and Campus Development Forum" that outlined basic objectives and goals that guided the master planning work.

5.2 Methodology

The methodology of the team began with an extensive research into the 166 year history of the University, which led to a series of analyses of this history as well as a detailed analysis of the present condition of the Bishop's University campus. Via an ongoing series of workshops and studies, the professional team developed a broad range of proposals for the future of the Bishop's University Campus, the result of which is this Master Plan Report.

5.3 An Opportune Moment

One of the major goals of the Master Plan Report is to make the campus more walkable. Although pedestrians, cyclists, and vehicles all need to be accommodated on campus, it is the organization of pedestrian circulation that should be given precedence in the central spaces of campus. The strategic rearrangement of parking and vehicular traffic on campus will allow true pedestrian sovereignty to be feasible.

Bishop's University's coming into existence was due, in part, to the Industrial Revolution of the 18th and 19th centuries, which saw Sherbrooke develop as a prosperous manufacturing and business centre – harnessing enormous hydroelectric power from its rivers, and being connected to the rest of North America by the steam-powered railway system. In important ways, the Bishop's of today was also shaped by another revolution, in the 20th century, which was the emergence of the automobile as the primary means of transportation, necessitating the construction of vast numbers of highways and parking lots,

especially during the period from 1950 to 1975, when this “revolution” was in full flourish and when the vast majority of Bishop's' buildings – approximately 74% – were constructed.

The University is pursuing a master plan at an opportune moment in history – as the world is in the throes of yet another enormously powerful and consequential agent of change, the so-called “Digital Revolution.” What this means for Bishop's and for this planning enterprise at this moment, is that among other things, we have access to more and better data on everything, and especially to better tools to analyze data and give it meaningful shape, and far better tools to map, model, simulate and precisely evaluate strategies for the future, as well.

Simply put, planning tools have never been more powerful. Effectively deployed, they offer the possibility of better and more strategically effective master plans than ever before.



5.4 Strategic Issues and Proposals

5.4.1 Crucial First Steps: Perimeter Road, Peripheral Parking, Main Campus Path

In many ways, one of the most critical issues for Bishop's to address is the immediate and future role of the automobile on the campus, and more specifically to adjust the drastic imbalance in the car/pedestrian relationship that has developed over the past several decades. **The means of achieving this – and in our view, the absolutely essential first steps of the Master Plan – are the development of the Perimeter Road, the related basins of Peripheral Parking, and the new Main Campus Path.** Our analysis illustrates that these should be relatively easily accomplished as the space and rights of way for these interventions are mostly free and available. The strategy of putting the cars on the periphery and pedestrians in the middle of the campus anticipates a future less dependent on the car, but allows for the transition from high current use to a future with less automobile use to occur as slowly as needed.

Constructing the Perimeter Road and parking will not only dramatically reduce the net space required for the car, thus freeing up a substantial amount of land for other uses, but will also free up land in the most valuable and strategically useful part of the campus – that is, the very centre. As the Master Plan Report illustrates, this presents a host of extraordinary opportunities for dramatically improving the campus.

With the removal of main roads and parking from the central campus, an opportunity will arise to create a main



5.40
Bishop's University's campus showing existing roads and parking.



5.41
Bishop's University's campus showing Perimeter Road and peripheral parking (in blue), and main campus path (in red).

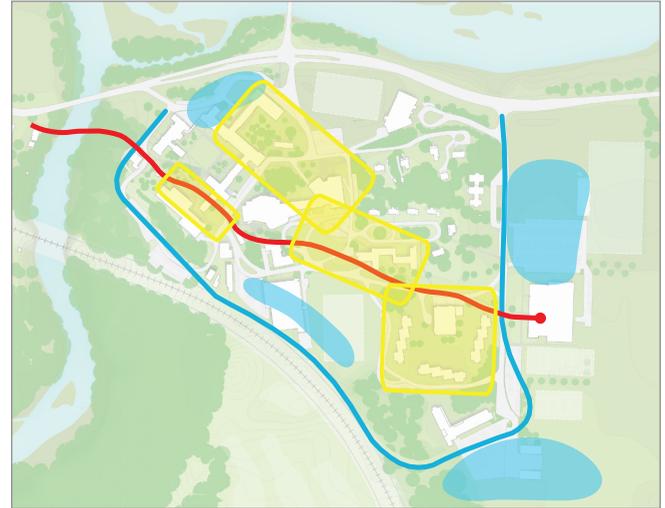


5.42
Bishop's University's campus showing proposed vehicular, service, and pedestrian circulation.

campus path, which, along with a network of secondary pedestrian and bike paths, will provide access to virtually every part of the campus. The impact of this network of paths will be immediate and immensely positive. The campus will be entirely walkable, and agreeably so. Even in winter, the paths, placed largely on south-facing slopes and absent cars (and the enormous quantities of salt they require), will be an efficient and very pleasant way to move about the campus. As part of a larger series of landscape strategies, the path will be an integral part of a network of new outdoor campus social spaces as well.

5.4.2 Strengthening the Inner Campus and the Campus Precincts

The existing campus is a loosely-ordered grouping of campus precincts: an athletic precinct, mostly to the west; an academic precinct to the north; a Housing Precinct to the south; and the library, cultural facilities, and various campus and dining facilities at the centre.

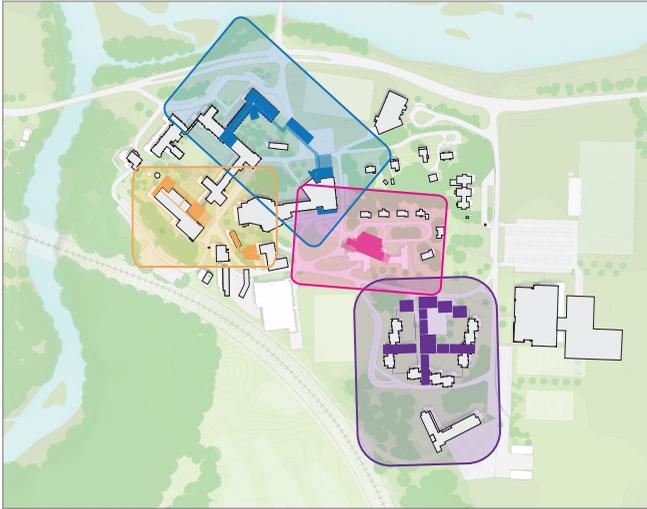


5.43
Bishop's University's campus with proposed Perimeter Road and peripheral parking, main campus path, and revitalized campus precincts (in yellow).

Once cars and parking have been moved to the periphery of the campus, the Master Plan proposes to clarify and strengthen these precincts by adding density to them and interconnecting them to a network of pedestrian paths and landscapes. The result will be a more convenient, walkable, and much more lively campus.

An athletic precinct largely exists at Bishop's, on the western edge of the campus. However, the moving of the rink, from its current location to the site adjacent to the rest of the athletic facilities, will effectively clarify and complete it, and makes it more efficient to operate and use for the benefit of all.

An academic precinct largely exists at Bishop's as well, in a series of densely packed, but somewhat internalized and chaotically planned, buildings. The Master Plan proposes to connect these buildings via a series of proposed new academic buildings (as needed in the future), connective bridges, and a continuous, accessible-to-all, new internal



5.44
Plan of proposed Master Plan of the Bishop's campus, showing new building footprints by program type.

path connecting the buildings. This “path,” which would require a series of adjustments to the ground floors of the existing buildings, would become part of what might be called the “Academic Loop,” departing from the main Campus Path at the Library and reconnecting to it near the new Student Centre (see Section 3.4). Day-lit, with views of landscape, openable in summer, closable in winter, the Academic Loop would do much to enhance the academic precinct and make of it a whole vastly greater than the sum of its parts.

The *Centre Campus*, a strategically-located and underutilized part of the entire campus, could be transformed from the suburban cul-de-sac that serves six faculty bungalows into a car free landscape and **Student Centre** with an iconic name such as “the Green.” This new “Green” would have enormous transformative power, especially given its location overlooking the rest of the campus and connection to the landscape in front of Centennial Theatre.



5.45
Plan of proposed Master Plan of Bishop's University.

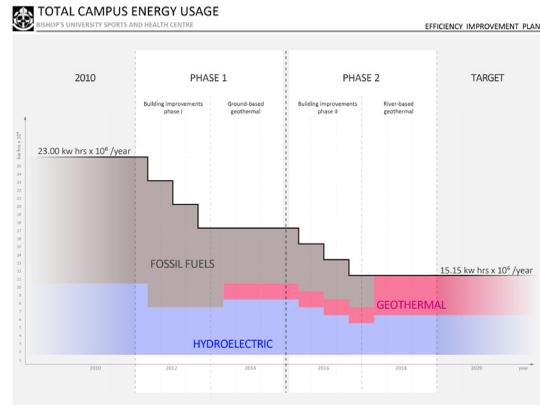
The issue of housing at North American universities has recently been the subject of a great deal of study. A strong, emerging consensus is that the more students living on campus, the better – and not only living on campus, but living near the centre of the campus, if possible, near libraries, athletic facilities, cultural facilities and campus centres – thus creating a lively mixed-use campus, with food, libraries, athletic, and cultural facilities available at all hours. The Master Plan offers a strategy for achieving this by substantially adding to and reconfiguring the existing Housing Precinct – as well as adding a series of landscapes and amenities, such as the new Library Commons and the new Student Centre along the main campus path.

Given that the majority of Bishop's students currently live off campus, the Master Plan Report is proposing a radical revision to student housing strategy.

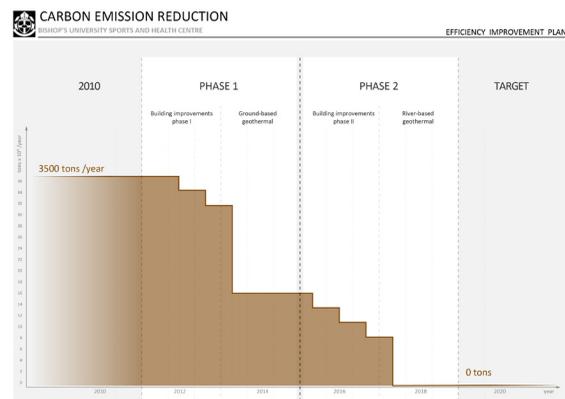
5.4.3 A Sustainable, Carbon-Zero Campus for the Future

We live in an energy focused world. Issues relating to energy scarcity, and of the consequences of climate change resulting from current energy practices, are in the news media daily. Bishop’s has already embarked on a number of energy saving strategies, including the construction of a major geothermal well system and increasing the thermal efficiency of its existing buildings, among others. However, as a result of the University’s fortuitous location at the intersection of two rivers, in Quebec, a province with readily available clean hydro power, **Bishop’s has the extraordinary opportunity to reduce its carbon footprint to zero.** It is one of the very few campuses in North America with a realistic chance of achieving this.

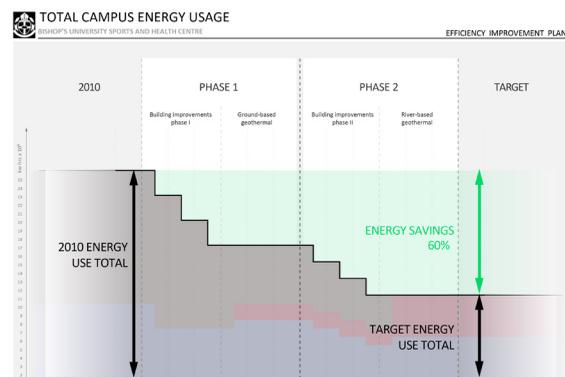
Section 3 in this Master Plan Report points to the vast, inexpensive resource of geothermal energy that resides in the adjacent rivers using river-based geothermal energy systems. Development of this resource – along with continued reduction of energy consumption, and the conversion of all remaining carbon-based energy production to clean hydropower generated by the Quebec river – is, in the view of the Master Planning team, a very realistic goal. Funding for projects like this is increasingly available. The public relations and goodwill benefits of being one of the only Carbon Zero campuses in the world would be immense. Energy costs to Bishop’s of running its campus would drop dramatically, thus increasing the amount of money from the Quebec government that could be directed to other purposes on an annual basis.



5.46 Bishop’s has access to a massive source of geothermal energy in the rivers.



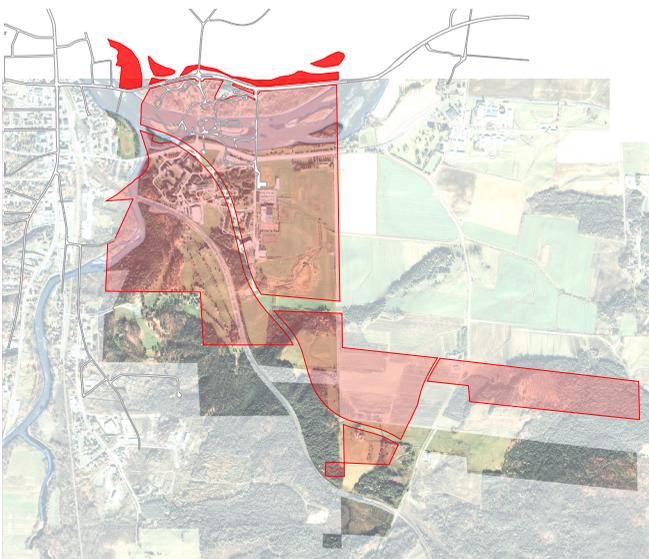
5.47 Reliance on fossil fuels is replaced by hydroelectric and geothermal energy.



5.48 A path to a carbon-zero campus.

5.4.4 Highway 410

As of the time of the writing of this Master Plan Report, the Ministère des Transports du Québec has suspended its plans to construct the Highway 410 project that would have sliced through Bishop's property, and virtually encircled the central campus. This is extremely good news, as the negative impact of the highway for the campus would have been on the edge of catastrophic in our view. However, on the off chance that different politicians in better economic times might find it desirable to bring the Highway 410 project back to life in the future, the master planning team would encourage Bishop's to keep close watch on the Ministry of Transport for the foreseeable future. The environmental arguments made against the 410 proposal in Section 3 of this Master Plan Report, will be ever stronger and more relevant in the future.



5.49
Bishop's University property which was cut off by the construction of Route 108.



5.50
The construction of the proposed Highway 410 will isolate 142 acres, or more than 40%, of the main campus.

The proposed Highway 410 would impose a high level of vehicular noise on campus, and its embankment would be visible from nearly every building on campus.

Should the Highway 410 proposal reappear on the political landscape, these arguments should be at the core of as vigorous an anti highway campaign as possible.

5.4.5 Landscape and the Environment

In the early 1800s, before there was a Bishop's University, the land that became the Bishop's campus, flanked by two beautiful rivers, was a powerful landscape of fields and trees that thrived in temperate summers, long, harsh winters, and everything in between. The landscape, prodded by the rivers, participated in regular cycles of flooding, which nourished plants and soils and transformed them into a fertile flood plane, which in turn mitigated the impact of the flooding of the rivers. All in all, the land on which Bishop's was erected was part of a delicately balanced ecosystem.

Highway, road, and parking lot construction over the last 70 years or so (40% of the campus is paved) has turned the campus from a soft, environmentally-gentle landscape into a flood-inducing, river- and watershed-polluting "hardscape." Much of this relatively negative transformation related to the primacy of the automobile on the Bishop's campus.

While it is neither possible, nor desirable, to return the campus to its early-19th century bucolic state, two important things to remember about the landscape are as follows: the glorious landscape was one of the central reasons for locating the Bishop's campus on this site in the first place; and until relatively recently, the landscape played

a crucial role in civilizing the environment, by mitigating the effects of flooding, moderating temperatures, and cleaning water, among many other functions.

With the tools at our disposal, almost all of the negative impacts of the built environment are completely reversible. New landscapes, using strategic shapes, plantings, and soils, can improve the performative aspects of the campus, both above and below the surface – to operate effectively in not only slowing down the forces of flooding but also in eliminating pollution. And it can be beautiful.

Universities typically work on the landscape continually, usually at a small scale, often in service of simple tasks such as drainage and the screening of the unsightly. Given its impact and effect, landscape is also relatively inexpensive. Well done, 50 years of small landscapes can amount to something substantial. Decades of carelessly considered landscapes are ripped up annually on campuses everywhere. One message this Master Plan Report wishes to convey is that the landscape is something to be considered carefully on an almost daily basis.

5.51

View of the Massawippi River at Bishop's University.



5.4.6 A Final Note on the Stewardship of the Master Plan Report

This report is the result of an enormous effort by a dedicated group of faculty and administrators at Bishop's University, working in close collaboration with a distinguished group of outside consultants. We feel that the Master Plan Report proposes an intelligent series of discrete interventions for the future of the University, and a structure in which these interventions will combine to make a whole campus that will be vastly greater than the sum of the parts.

For the Master Plan Report to effect meaningful change at Bishop's University over the long term, a number of commitments must be made.

First, the Master Plan Report must be a "living" document, an active plan that is diligently and consistently referred to by a permanent group at Bishop's, the Campus Planning Oversight Committee, charged with the plan's stewardship.

Second, when circumstances dictate (such as when a new program or project presents itself) the plan will need to be updated and developed in greater detail. For this purpose, Bishop's will need once again to hire outside consultants. In the end, the impact of the plan will be determined by the quality of the process by which it is referred to and deployed, and by the quality of the people, both at Bishop's and especially at outside consulting firms, who work in the process of its implementation.

It is the recommendation of this report that every effort be made to engage the best and wisest thinkers that can be found at Bishop's for the Campus Planning Oversight Committee and the most skilled outside consultants available, as well. The implementation of good master planning decisions over time will pay incalculable dividends for years.

5.52

Proposed landscape at the Student Centre.



6.0 SOURCES

- Abramson, Paul. "Large or Small, at Public or Private Schools, Residence Hall Costs Continue to Rise." *College Planning and Management Magazine: Living on Campus, College Housing Annual Report 2008*, May 2008: pp. 2-6. Print.
- Abramson, Paul. "Green & Growing." *College Planning and Management Magazine: Living on Campus*, May 2010: pp. 2-6. Print.
- Astooroff, Nikki and Molly Brewis, Kira Furman, Jutta Kolhi, Brook Land-Murphy, Kendra Marr-Lange. *Simon Fraser University Campus Sustainability Assessment: Water*. 2 Apr. 2008. Print.
- Baker, Joseph. "Critique: An Auspicious Debut." *The Canadian Architect*. August 1989, Vol. 24, No. 8, pp. 19-30. Print.
- Bishop's University. *Bishop's University Campus Directory, 2011-2012*. 2011. Print.
- Bishop's University. *Plan triennal de gestion et d'intervention des arbres en milieu urbain, 2010-2013*. 17 Nov. 2010. Print.
- Bishop's University Environment and Land Use Committee (ELU). *Minutes of Meeting 2004-2005 # 2*. 10 Sept. 2004. Print.
- Bishop's University Historical Timeline, 1843-2007*. Bishop's University, 2013. Web. 19 Jan. 2013.
- Bishop's University Sustainable Development and Land Use Committee. *Report on Sustainable Development at Bishop's University*. 23 Jan. 2009. Print.
- Brown, Tony and Danell Haines, eds. *Space Planning Guidelines for Campus Recreational Sport Facilities*. Champaign: Human Kinetics, 2009. Print.
- Callender, Mary, ed. *Campus Recreational Sports Facilities: Planning, Design, and Construction Guidelines*. Champaign: Human Kinetics, 2009. Print.
- Cann, D. B. and P. Lajoie. "Soil Survey of Stanstead, Richmond, Sherbrooke and Compton Counties in the Province of Quebec." *Dominion of Canada Department of Agriculture Publication 742, Technical Bulletin 45*. Nov. 1942.
- Chronology of Bishop's University Buildings*. Bishop's University, 2013. Web. 19 Jan. 2013.
- Cimaise Architects. *Nouvelle Résidence Étudiante: Université Bishop's Étude de Faisabilité*. Apr. 2009. Print.
- Cooper, Robertson & Partners. *Yale University: A Framework for Campus Planning*. 2000. Print.
- Culley, Peter and John Pascoe. *Sports Facilities and Technologies*. New York: Routledge, 2009. Print.
- Direction Urbanisme et aménagement du territoire and Teknika HBA Inc. *Ville de Sherbrooke: Programme particulier d'urbanisme, Arrondissement de Lennoxville, Secteur du centre de services du noyau urbain de Lennoxville*. 22 April 2008. Print.
- duToit Allsopp Hillier. *Carleton University: Campus Master Plan*. Jan. 2010. Print.
- Fifer, Abby, Bart Hall, and Jeffrey D. Turner. "Trends and Benchmarking Data for the Modern Union." *Association of College Unions International: The Bulletin*. May 2005: pp. 27-32. Print.
- Flynn, Richard B., ed. *Planning Facilities for Athletics, Physical Education, and Recreation*. Palm Beach: The Athletic Institute and American Alliance for Health, Physical Education, Recreation, and Dance, 1985. Print.
- Grant, Anna M. *A Portrait of Bishop's University, 1843-1993*. Lennoxville: Bishop's University, 1994. Print.
- Group IBI. *Université Bishop's Sherbrooke: Plan d'affaires centre multisports et de santé suivi et accompagnement*. 2010. Print.
- Henderson Architecte. *Bishop's University Master Plan 1990*. 1990. Print.
- Kliment, Stephen A. and David J. Neuman. *Building Type Basics for College and University Facilities*. Hoboken: John Wiley & Sons, 2003. Print.
- Michael Dennis & Associates. *Campus Master Plan 2008: Middlebury College*. May 2008. Print.
- Ministère de l'Éducation, Loisir et du Sport Québec. *Système d'information sur les locaux de Universités*. 11 July 2008. Print.
- Moore, Deb. "Sixth Annual Survey on College Housing." *College Planning and Management Magazine: Living on Campus, College Housing Annual Report 2008*, May 2008: pp. 2-6. Print.
- Moore, Deb. "...And the Survey Says." *College Planning and Management Magazine: Living on Campus*, May 2010: pp. 6-8. Print.

National Center for Education Statistics Working Group on Postsecondary Physical Facilities. *Postsecondary Education Facilities Inventory and Classification Manual*. July 1992. Print.

Nichol, Christopher. *Bishop's University, 1843-1970*. Montreal: McGill-Queen's University Press, 1994. Print.

The Office of Peter Rose. *Master Planning Study: Detroit Symphony Orchestra Hall*. September 1996. Print.

Peter Rose Architecte. *Bishop's University: Centre Multisport et de Sante, Preliminary Performance Guidelines and Strategies*. 7 July 2011. Print.

Porter Khouw Consulting, Foodservice Planning and Design. *Bishop's University Final Report*. 1 July 2011.

Province of Québec. *Protection Policy for Lakeshores, Riverbanks, Littoral Zones and Floodplains: Environment Quality Act (RSQ, c Q-2, s. 2.1)*. 1 Apr. 2012. Print.

Les Services exp Inc. *Bishop's University: Study of the Structural Impact of the Existing Sport and Health Centre*. 14 Oct. 2011. Print.

Shepley Bulfinch Richardson and Abbott. *Grinnell College: Comprehensive Campus Master Plan*. 31 Mar. 2000. Print.

Society for College and University Planning. *2007 Campus Facilities Inventory (CFI) Report*. 2008. Print.

