Research Aims:

The research question for this project dealt with taking an existing commercial main street in Montreal – Chemin Upper Lachine – and developing design concepts that would make the space fit for active transportation. The primary question that the design concepts were trying to answer was: How can we ensure that walking and cycling are a part of neighbourhood residents’ everyday routines, while simultaneously reducing dependence on the automobile as a primary source of transportation?

The primary challenge of the research exercise – common to many existing built environments – was working within the fixed boundaries of the public space between buildings, to re-appropriate space in a manner that promotes active transportation objectives. In addition to this challenge, the research needed to acknowledge the realities of limited financial resources, the potential for conflict with business owners over the re-prioritization of space, and ensuring that design concepts could “fail-safely”, (i.e. with little or no long term impacts) if they did not meet design objectives.

Research work concentrated on both what could happen, and how to make it happen. In other words, the product of the research was intended to deal with the design of both physical solutions (e.g., modifications to side-walks, streets and buildings) as well as implementation strategies for modifying a street for active transportation (e.g., logistical planning, coordination of stakeholders, evaluation of actions, etc.).

Key results to date:

Using a sample block, the research successfully identified and integrated tactics to improve the street for active transportation. Interventions proposed included:
- Phased integration of dedicated bicycle lanes;
- The expansion of pedestrian space (i.e., more sidewalk area); and
- The provision of sitting opportunities and improved building or lot “edge” conditions (e.g., addition of windows to facades) to improve the quality of the street environment for pedestrians.

Illustrations of proposed street cross section, facade and lot improvements, and public seating: