

Researchers develop new tool to promote better environmental compliance of construction

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Construction in Montreal is under a microscope. Now more than ever, municipal builders need to comply with long-term urban planning goals. The difficulties surrounding massive projects like the Turcot interchange lead Montrealers to wonder if construction in this city is headed in the right direction. New research from Concordia University gives us hope that this could soon be the case if sufficient effort is made.

A team of graduate students from Concordia's Department of Geography, Planning and Environment have developed a watchdog tool that rates the level of compliance between [urban planning](#) goals and the environmental impact assessments of development projects. In a study forthcoming in the [Environmental Impact Assessment Review](#), the researchers use this tool to evaluate early proposals for the redevelopment of the Turcot highway interchange. They found that the proposal adopted in 2009 was inadequate for long-term sustainability.

Lead author Undiné-Celeste Thompson, explains that, "government agencies often produce statements about their plans, policies, and programs to protect the environment and promote sustainable development. So we began by examining such statements to create a list of environmental goals that were relevant to the Turcot redevelopment."

They then compared the proposal for the Turcot offered by the Quebec Ministry of Transport (MTQ) with two alternative proposals. "We

assigned each proposal a score for each goal, so that we could measure which proposal best met the government's stated objectives, and measure whether a particular proposal would support long-term sustainability goals."

The researchers gave failing marks to the MTQ's 2009 proposal for the redevelopment of the Turcot, saying it was a poor fit with the long-term goals set out by various governments. For example, the City of Montreal's 2004 Master Plan declared that new projects should aim to "reduce amount of car traffic to improve [air quality](#)" and "promote [public transit](#) to improve air quality." But the MTQ's 2009 plan would have allowed more cars to pass through the interchange each day, and would not have provided any dedicated bus lanes or other accommodations for public transit. In other words, it would actually have contradicted existing government policies by making air quality worse. This is particularly unfortunate as this included goals from documents issued by the MTQ – thus their own project contradicting their own publicly declared goals.

Two alternative proposals, put together by local architect Pierre Brisset and Concordia professor Pierre Gauthier, for the Turcot included special lanes for high occupancy vehicles as well as additional metro, train and bus routes. Though these proposals were brought forward, decision-makers adopted the MTQ's construction plan. This distressing course of action was somewhat alleviated with the plan's revision in 2012. But the study's authors believe their method of analysis can help prevent the adoption of inadequate proposals in the first place, and that their method should also be applied to the revised Turcot plan to identify further room for improvement.

Ultimately, the new analysis method could be used for a wide range of projects. "This is a powerful tool for comparative analysis, because it is straightforward enough that both experts and members of the general

public can use it," says Thompson. "It will be particularly useful to non-governmental entities that wish to lobby against a particular project or propose alternative solutions." Perhaps - in light of this new way to analyze the quality of construction proposals and their alternatives - future construction in Montreal will begin to set new sustainability standards.

More information: Thompson, U.-C., Marsan, J.-F., Fournier-Peyresblanques, B., Forgues, C., Ogaa, A., Jaeger, J.A.G. (2013, in press): Using Compliance Analysis for PPP to Bridge the Gap between SEA and EIA: Lessons from the Turcot Interchange Reconstruction in Montréal, Québec. – *Environmental Impact Assessment Review*.
[dx.doi.org/10.1016/j.eiar.2012.10.001](https://doi.org/10.1016/j.eiar.2012.10.001)

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