

"NEW" WATERFORD, ONTARIO

Historically Scaled, Small Town Urban Infill



Preface

Below is an article about urban design and its impact on continued social and economic success. I explore these issues on my website www.b4place.com.

My hypothesis is that people in North America want the option to live in communities with close proximity, cycling and pedestrian infrastructure, instead of the increasingly unaffordable auto-oriented sprawl that's currently the only option available. (Granted, in 2020 this shouldn't be a controversial notion, what with all of the recent American urban renaissance happening in some of its more fortunate places.)

So I developed a "minimum viable media prototype" to test this market presumption, in the form of a visually driven narrative about a hypothetical traffic-congestion relieving, Dutch-style town called "Cyclocroft", located in Colorado,

I then seeded the idea in an active online personal finance education community. The response was positive and validated my hypothesis that historically-scaled, compact places in a North American context are desired by the younger demographic, but the market is still not responding to this preference.

The supporting language that I used was accessible and not academic or fantasy-driven, which made it easy for people to imagine themselves in these places.

Because of the online response, the idea received a bit of international press, and the local Denver ABC and NBC affiliates even produced news segments about it.

This attention led to some local politicians in Canada asking us to participate in a mock town hall for a newly-built, walkable and bike-able infill redevelopment for Watertford, Ontario.

In the end, 98% of the meeting participants said they wanted to learn more about this style of development, as they had never seen anything like it and were excited by its international precedent and achievability.

Many thanks to Chris Potvin for suggesting and organizing the mock town hall; and Mary-Lou Tanner, Rick Weaver, and Justin Jones for their expert testimony and for participating on the panel.

Below is a distillation of the 2-hour town hall, which includes the basic presentation and 15 questions from the audience.

Thank you,
Tara Ross, B4place.com



"New" Waterford, Ontario



Introduction

What would a newly-built, compact, walkable and bikeable place look like in Southern Ontario?

This was the topic of the mock Town Hall at Camp Mustache Toronto (CMTO) 2019, a long weekend in September where Toronto-area fans of Mr. Money Mustache and the Financial Independence Retire Early (FIRE) lifestyle convened to share tips and learn from each other.

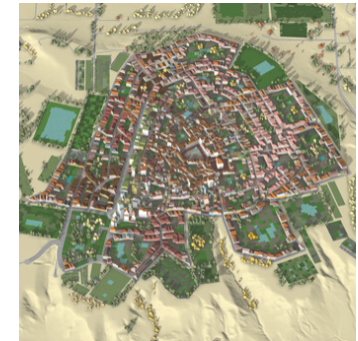
Chris Potvin is the organizer of Camp Mustache Toronto, whose day job is Active Transportation Supervisor of the town of Whitby, Ontario.

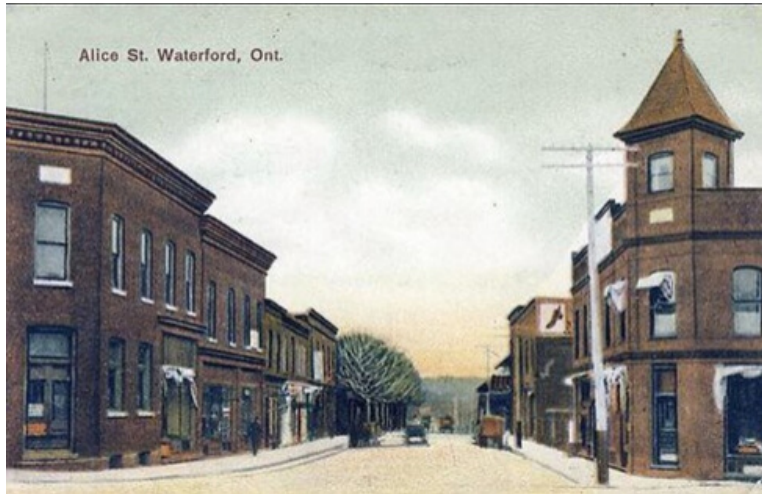
Chris approached us at B4place asking if he could use our Cyclocroft hypothetical town plan as the topic of a mock town hall during the camp. The image to the right shows Rendering of Cyclocroft, CO, a hypothetical cycling/pedestrian town of 50,000 people covering just one square mile (259 hectares).(something here about the attention it had received)

The town hall would include a council of local leaders and politicians, along with an audience of proxy residents and investors from the community.

The idea was to discuss how a classically planned, compact cycling and pedestrianized infill development would impact the local community and economy.

While this sounded great to use the existing Cyclocroft, Colorado plan, we thought it would be even more helpful to create a new "Property Experiment" especially for Waterford, Ontario, the town where the camp was being held. (something here about, so we did that...)





Currently, Waterford is a small farming town built up around a rail stop in the lightly-inhabited land between Hamilton and London, Ontario.

Waterford has a national reputation for its well-preserved river, main street, large antique market, and its location on the burgeoning Trans-Canada Trail. But even after all the growth of the 20th century, it still only has 3,200 residents.

The subject of the public forum would be an old-world, compact addition to the town, bumping the population up to 33,000 people by infilling some of the lightly used space on the west side of town, focused around the old railroad tracks, now known as the Trans-Canada Trail.

The town boundaries of the original "old" Waterford would only grow slightly on the west and south sides, because most of the development would weave into the edge of the existing town footprint. Therefore, the vast majority of the existing areas of town would not be disturbed.



60 People and the Paradox of Proximity

Chris led the afternoon session and acted as the representative for the proposed New Waterford development. He kicked it all off by introducing the “town council” made up of:

- **Mary-Lou Tanner** - Principal Planner, Burlington
- **Rick Weaver** - Councillor, City of Brantford
- **Justin Jones** - Share the Road Cycling Coalition

Then Chris announced to the 60-person public gallery that an application had come forward for a new development in Waterford. He opened the discussion with the premise that a place built for walking, cycling, and micro transit represents a preference for a growing number of unserved Canadians. (The image to the left shows Waterford's current xxx in purple, with an overview showing New Waterford's compact forms in yellow and public squares in red/orange.)

Next, he asked the audience to imagine that they had lived in Waterford for the past decade, and to consider whether they would like to see a classic, compact infill built in their town.

The "applicant" is suggesting there is a paradox to proximity--when built properly, closeness and compactness make neighborly bonds stronger and social dynamics more respectful. Close proximity actually triggers our best instincts.

To cite two examples, the Netherlands and Japan both build compactly, and they both have high levels of community engagement and stability.

Next, Chris presented the plan. Here are some highlights (put this on the next page?):



Zero Lot-Line Lifestyles

The buildings of New Waterford will be tight to the narrow streets, attached, and mostly 3-6 stories tall (with a few buildings approaching 8-10 stories). It will be designed to a familiar old-world scale.



Mixed-Use

There will be a mix of retail, residential, and institutional uses. You live close to where you work so you don't need a car to get there.

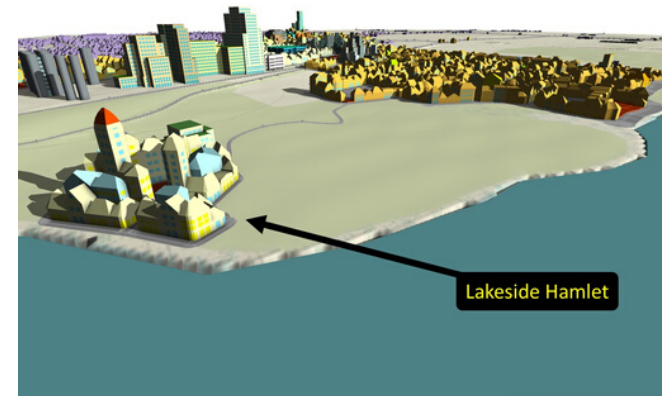
And the 3,200 existing residents of Old Waterford will also be able to enjoy such proximity, only being a short walk or ride away.



Leisure Destination

The plan includes a “lakeside hamlet”, which is a nearby resort-ish community that people can go to on a whim.

There's a beach and promenade close to home without having to travel by plane or automobile.



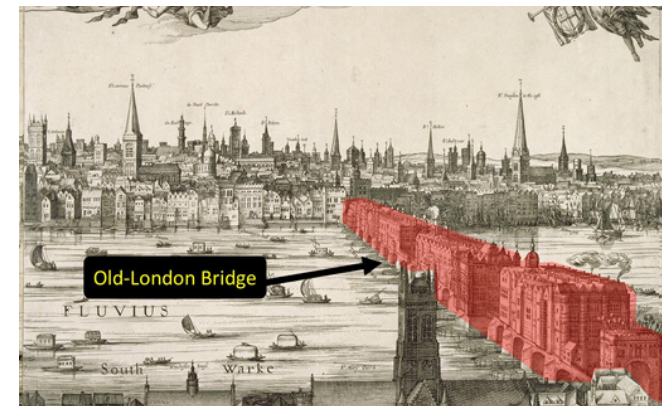
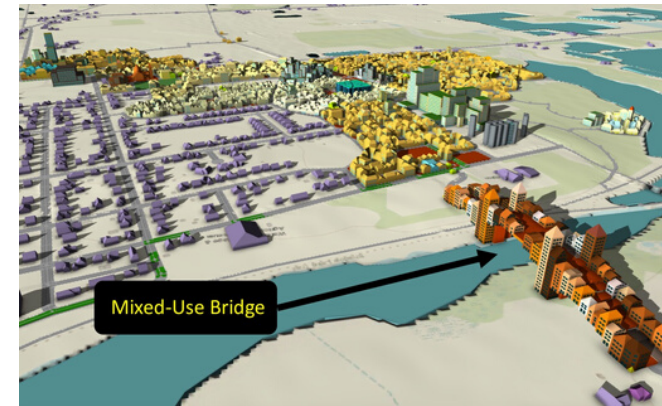
Mixed-Use Bridge.

A bridge doesn't have to be lost space in an urban plan.

Between the 13th and 19th centuries, the London Bridge was a self-contained community of its own with factories, homes, and offices lining it.

And let's not forget the Ponte Vecchio in Florence, Italy, which happens to be one of the most photographed buildings in the world.

So we know that people will live and work on a bridge, and it can become a little hamlet in its own right with its own unique story.



Active Transportation Main Street

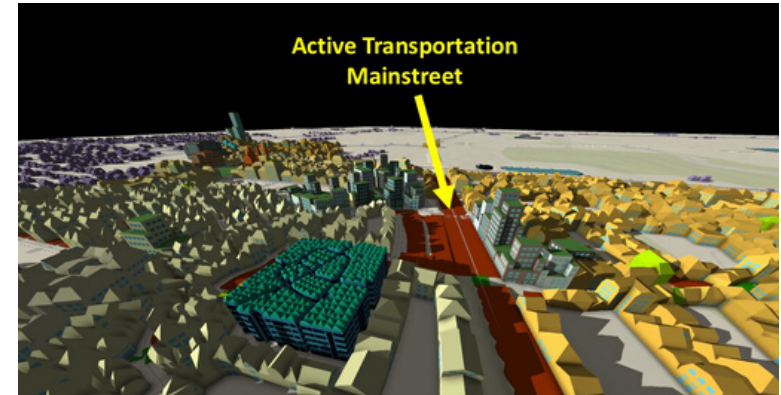
The New Waterford plan includes an “active transportation main street”. It’s built on a small section of the Trans-Canada Trail, which links the lakes and small communities in the area to a larger continent-spanning, car-free adventure byway.

And now, with 30,000 mostly car-free people living at the heart of the Trans-Canada Trail, the small communities in-between Hamilton to the east and London to the west will get a new injection of visitors arriving by bike.

Also, the concentrated development along this new style of main-street will make New Waterford a singular destination unto itself, unrivaled across the continent. Everyone loves the convivial excitement of a classic high street.

Walkability

And of course, New Waterford will prioritize walkability, which is just as important as cycling infrastructure. People come to places that are walkable.





Public Space

All of the pedestrianized, narrow streets function as one large public space network, along with many small public squares and a few larger ones.

Similar to the Devonian Gardens in Calgary, there will also be a glassed-in public rooftop garden above the Arcaded Bazaar.



Ice-free Winter Streets

One of the technologies we feature is district geothermal heating—which will condition all interior spaces through a reliable low-maintenance heat source. And by routing the thermal waste stream through the pavement we scavenge the last bits of heat to keep the streets safe and passable year-round.

Streets and lanes built with pavers like Bricks and Cobblestone are best because their natural traction and modular nature prevent the freeze/thaw damage that occurs in monolithic pavements.

Bricks and cobblestones are also preferred for their ease of removal and re-use for maintenance or improvements. An extra benefit of modular pavement is their stormwater permeability.



Engineering Solutions for Compact Cities

Another key enabling technology is underground garbage collection. Many Ontarians have experienced this technology already because the national park service uses the MOLOK system.

Similar systems are also used in compact places in Europe. The garbage goes into a container in the ground. These receptacles are located close-by and opened by special RFID cards. Periodically a truck with a small crane comes by to empty.

New Waterford will also use retractable bollard systems that allow the vehicles to get into pedestrianized streets during off-hours or when needed in emergencies.



90 Minutes of Q&A

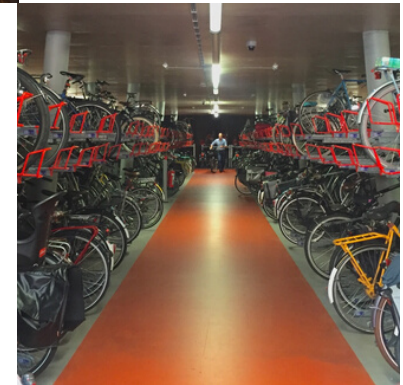
After the presentation, Chris opened up the floor for questions from the audience, which were answered by him and the council.

1) Will there be provisions for street-level bike storage?

A citizen was concerned that having to lug bikes up and down the stairs of the residences would be an issue.

However, it's not a problem, because buildings will have communal bike storage areas of varying sizes at the ground or basement level accessed by shallow ramps. Also, there will be areas on the streets that people will use for temporary bike parking.

The combination of these parking options serves day-to-day life well for the vast majority of the residents. However, there will also be adequate shared bikes available around for those who don't want to own a bike.



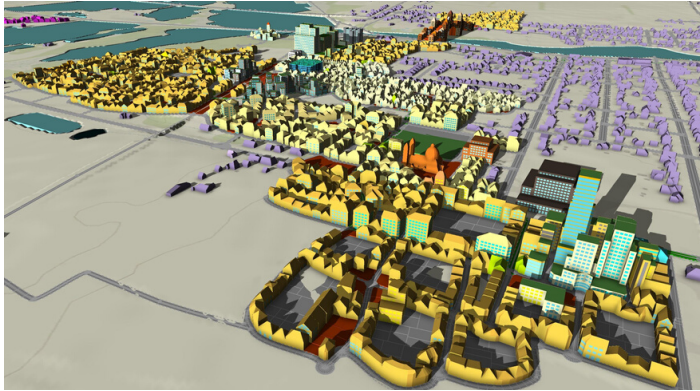
2) With all of the connected multi-story buildings, what about natural light during the cold Canadian winters?

Getting natural light into these sorts of historic-scaled buildings isn't a problem in the Northern locations where they're modeled from. This is because of the biased solar orientation of the streets in New Waterford, along with the buildings' relationship to the court-yarded back gardens—all of which allow for plenty of natural light.

The buildings can also strategically have lighter colored exteriors to reflect the light around. Skylights and light wells are also common, along with balconies, terraces, and accessible rooftops for personal daily access to sunlight.

New Waterford is built for those who don't mind risking the loss of a bit natural light because they gain so much benefit from living so close—the first of which is respectful neighborliness and the feeling of having an extended family.



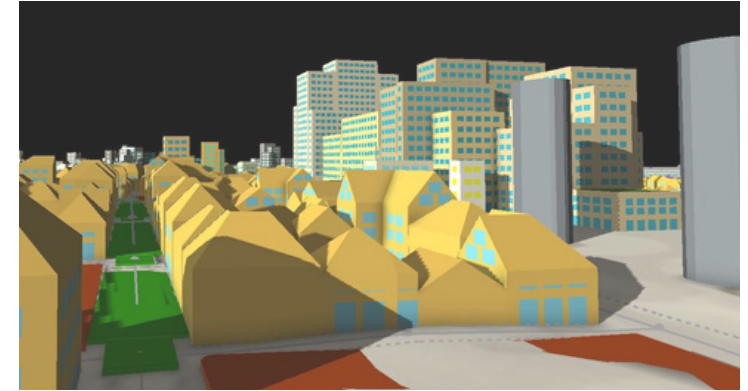


3) Will residents be paying more in property taxes to live in a development like this compared to Waterford?

No matter how you slice it, sprawl is expensive. The costs to maintain the infrastructure that connects widely-spread single-family homes to municipal utilities are enormous. Not to mention maintaining the wide roads connecting the widely spread residences, and the resulting crippling “public safety” budgets. This situation is bankrupting municipalities all over North America, while also requiring very high property taxes.

However, by developing like in New Waterford, you reduce the infrastructure needed to service each unit, which means the tax on a per-person basis would be lower because the build-out and ongoing costs are less.

On the other hand, the costs, and therefore taxes, for the Lakeside Hamlet would be slightly higher, due to its distance from the core, for example.



4) How will you get people to buy into something like this, with all the new technology and concepts?

First, it's important to emphasize that even though the design of New Waterford might seem really new and different, it's actually an urban development pattern that's been around since the 1700's or earlier.

Moreover, all of the “brand-new” innovations we've included in the plan are existing technologies already being used elsewhere.

For example, the Molok waste collection systems have already been used in Ontario parks for years. What is new is bringing it together in this way in North America.

We think the demand is ever-growing for neighborly compact living like this, yet the new supply in North America is non-existent. It's only within the past decade that there's even been a widespread discussion of how unaffordable and undesirable the current way of sprawling really is. New Waterford represents a fresh opportunity to use a tried-and-true approach to provide a different option, another choice.



5) Isn't social disorder worse with so many people so close together? Won't all the kids end up throwing the bikes into the river?

Evidence shows that if people live close together, know their neighbors, and have a sense of community, social disorder and crime become nearly unheard of.

A compact town like New Waterford naturally encourages incidental social interaction in day-to-day life, which makes people feel accountable and have pride in their environments.

Also, kids and teenagers will have more freedom to meet their friends and pursue their hobbies, because they can so easily get everywhere on foot and bike. Moreover, people of all ages who are less isolated are more happy and engaged, and therefore less prone to destructive behavior.



6) How are company headquarters and commercial facilities handled?

Along the Active Transportation Main Street are a number of larger buildings that will have space for light-manufacturing and larger organizations. There will also be smaller business spaces scattered across the mixed-use development. A resilient and adaptable commercial environment thrives when there is a diversity of spaces available.



7) Will all of the buildings have elevators?

The building code in Ontario requires buildings four stories and above to have an elevator, so New Waterford would comply with this regulation. Otherwise, some of the buildings with fewer stories will also have elevators.



8) How will people be able to age in place in such a compact place that doesn't have cars?

In New Waterford, seniors have many options for getting around. They will only have to walk a few blocks to the grocery store or doctor's office. They will also be able to use the cycling infrastructure, which is also optimized for mobility scooters and electric wheelchairs.

And if they need more help than that, there's always the wheelchair-accessible automated shuttle.

Also, we would argue that this arrangement is a vastly preferable scenario for aging-in-place compared to the current norm of either abject isolation or dependency on automobiles for every trip out of the house.

That said, evidence shows that living in a place designed for people to be active in their day-to-day lives keeps them engaged, healthy, and capable for far longer as they age.

9) What about people who want to garden?

Even in such a compact place, we've got gardening covered in several ways.

First, the shared squares in each of the terrace-house cluster courtyards all have a potentially garden-able space.

Second, we've designed rooftop terraces and garden spaces on top of some of the buildings, while still others will have balconies and window boxes where residents can tend to.

Third, around the perimeter of New Waterford there will be leasable community garden plots like are popular all across Northern. They'll be of various sizes—some even big enough for small conservatories and weekend garden cabins. This gardening option has the added benefit of being incredibly social because it's easy and fun for gardeners to work together on projects in this setting. This is one of the reasons that it's so popular—because personal backyard gardening can become a chore that is lonely and unsustainable for many people.

Then, as a bonus, on the top floor of one of the major buildings will be a glass-roofed indoor public garden, similar to the Devonian Gardens in Calgary. It will be open year-round and offer a perfectly consistent sub-tropical climate and green space for everyone to enjoy.

As an aside, since New Waterford will be so compact, the quiet respite of the countryside will always be at most a few hundred steps away.

And ultimately, many people who choose to live in New Waterford are happy to enjoy public parks and plazas rather than requiring a large private yard or garden of their own.



10) Underground passages have become expected to deal with the cold Canadian winters. How is this place able to stay safe and easy to navigate without them?

There are three main elements that make the Canadian winters so dangerous for people getting out and about icy walkways, blustering winds, and high-speed, wide roads for cars. The walkways and streets in New Waterford will be geothermally heated to mitigate ice buildup. The multi-story, attached buildings will create shelter from the wind. And the narrow, car-free streets inherently won't have the danger posed by high-speed motor vehicle traffic.

A lot of the fear about winter safety is completely tied to the car-dependent, spread out places that people are currently living in. However, in New Waterford, where your daily needs are only a couple of hundred ice-free steps away, wintertime living is as easy and safe as it gets.





11) With all of the buildings in a shared space, will there be smoke-free policies?

The overarching provincial regulations of the Smoke-Free Ontario Act will be in place, which prohibits the smoking or vaping of tobacco or cannabis in enclosed public spaces and workplaces, and common areas of apartments and condos.

Otherwise, municipalities can have additional regulations about where and how smoking and vaping are prohibited. And within condominiums, the condo board sets the policies on whether or not smoking is allowed inside the units, and what sorts of mitigation efforts need to be maintained.



12) How do you rationalize durable materials and quality design when the current low-quality building standards are already so expensive?

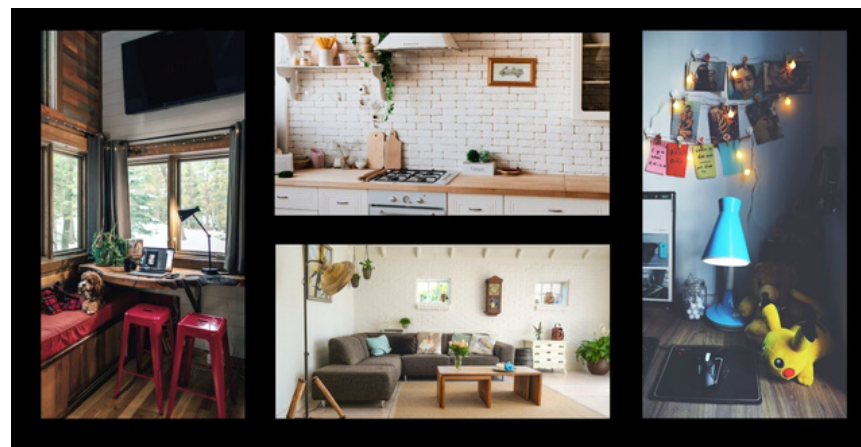
We fundamentally get to decide the quality of the community we want. If we want long-lasting buildings with lower energy costs built to a higher standard, we will have to prioritize for that.

We've spent the last century making low-quality disposable places—but if we want to take seriously our responsibility to provide for our children's future, we have to break this cycle.

Sticking with standard 20th-century building practices, which prioritized disposability in the name of affordability above all else, means continuing to cripple the rest of the economy.

13) What are the average size and features of the dwellings compared with car-oriented development?

Northern-European style attached buildings are able to contain a wide variety of unit sizes, from big to small. The average in New Waterford dwelling will be between 40m² for the smaller units and 200m² on the larger. With built-in furniture and pocket doors, for example, New Waterford homes will feel much more spacious than their size would suggest.



14) How will this new development integrate with the existing community?

The local shuttle to circulate between New Waterford and Old Waterford—to integrate the two communities and bring them together.

And we're confident that after New Waterford is built, people living near it will discover the benefits of living so close to a compact place. These include being able to walk to nearby shops and services and have get-togethers with friends on a whim.





15) What about emergency, commercial, or delivery vehicle access?

Old cities in Europe have fleets of compact emergency, garbage collection, and delivery vehicles that fit into their narrow streets. New Waterford will tap into this existing international supply chain to satisfy its narrow-street vehicle needs.

For a recent Canadian example, The City of Hamilton integrated some smaller fire trucks into their fleet. And with more towns getting walkable districts, the ubiquity of compact, industrial vehicles will spread.

Final Comment

At the end of the Q&A session, Chris put the final question back to the audience—after seeing the plans and hearing all of the deliberations, would they rather continue building outwards from Old Waterford, or would they like to consider the "New" Waterford style of compact development being proposed?

The show of hands had 59 out of 60 who said they would prefer to learn more about "New" Waterford.

Before the session closed, an audience member made a moving final comment:

"Thank you. I love this...It might be easy to say 'oh, it's not perfect'. Well, this is providing a choice, right? There are no substantively different choices in our entire province of places to live, and this is the first time I've seen anything like this. I just applaud the fact that there is someone thinking about this. To me, this is great. Lets go ahead and do it!"

