

**Halifax Regional Council Public Hearing on HRM By Design – Downtown Halifax
Plan: May 5, 2009**

**Reducing Carbon Emissions: The Number One Downtown Halifax Urban Design
Challenge for the 21st Century**

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I was working at my computer last Thursday afternoon, sitting beside a north-facing window, looking out at a clear blue sky when the phone rang and a neighbour warned me that I was sitting in the path of the fire. We are acting as obviously to the urgency of climate change as I was to the danger from the fire.

We are being warned to act quickly to address the most serious sources of CO₂ emissions. This is not just about light bulbs. If you are thinking that I am off topic, it's because HRM-by-Design has not made it clear that the challenge of reducing carbon emissions is the central urban design challenge for the 21st century. The built-environment produces a large part of our emissions.

In Nova Scotia, our per capita emissions are among the highest in Canada, and as you probably know, those of Canadians are among the highest in the world. HRM is producing the highest levels in Nova Scotia, with downtown Halifax undoubtedly bearing a heavy responsibility for this. If I can't give you the data it's because HRM-by-Design hasn't provided it. Neither has it provided a description of the basic ecological constraints and opportunities related to climate, geology, and topography that, along with energy and building technology, have throughout most of human history determined building design and urban form.

HRM-by-Design is an opportunity for Halifax to put in place a plan based on our own ecological realities, one that prepares us for the CO₂ emissions restrictions that will no doubt be coming at us.

Let me give you an example of the kind of opportunity that our own ecological reality provides.

HRM has the greatest potential for using passive solar for heating buildings in Canada. This potential is calculated using a combination of average ambient temperature and number of sunny days for the most important heating months. I'm not talking here about solar panels and generators. I'm talking about free energy from the sun for space heating. Work has been done by Solar Nova Scotia and the Faculty of Earth Sciences at Dalhousie demonstrating that **well designed, insulated and sited buildings, kept to 5 or 6 stories can, in our climate, be heated almost completely using passive solar.** We need to prevent the shadowing of buildings by other buildings to make possible the reduction in carbon emissions this can allow. This has implications for the building heights proposed by HRM by Design. In our climate, I should add, with good design buildings should not need air conditioning.

We also need to extend HRM's programs for reusing, recycling, and reducing waste to buildings, maximizing the reuse of our current building stock to reduce carbon emissions produced in the manufacture of building materials. This does not need to contradict maximizing solar gain. Older buildings are now being restored and renovated everywhere to improve their access to passive as well as active solar. Vancouver provides an example of how municipal planning can encourage this.

Given my background in economics and in urban and regional research, statistics and planning I have a number of concerns about the HRM by Design strategy and land use by-law. Designing the downtown for maximum reduction of CO2 emissions is the most important.

I would like to add, however that:

- There are ways to get the same densities as those proposed without high rises. Low and medium rise buildings produce better density than high rises. It is important to distinguish between good and bad density. It is interesting that most of the photographs in the Design Manual, particularly the streetscapes, are of areas of low rise and medium rise buildings.
- It is doubtful that proposed changes will produce accommodation affordable for young families and those with lower incomes. In fact, do you know how many existing units in new developments belong to people who live in them only part of the year or hold them as investments? With current economic conditions the latter can be expected to increase. This will not lead to the famous "vitality" the proposed changes are meant to create.
- We did not elect Councillors to give away their power or ours. The suggestion of public sessions with developers early in the life of a development proposal is without teeth and, as the debate over the Waterside project illustrated, a waste of time for citizens in face of obdurate developers.
- Although members of the business community feel they have been listened to in the HRM by Design meetings, most other members of the public do not. This may have been because the business community is well represented on the Urban Design Task Force. Those concerned about sustainability, affordable housing, and heritage are not.

Recommendations

In conclusion, I would like to recommend the following for your consideration:

1. Because of current economic conditions there is no immediate urgency to accept the Downtown Halifax Planning Strategy and related Land Use By-law.
2. The Sustainability Functional Plan **as proposed in the Regional Plan** (not as proposed in the Downtown Halifax Planning Strategy) should be completed and the HRM by Design documents revised. Work on this should go ahead as soon as possible, putting a high priority on reduction of CO2 emissions, particularly from the

built environment. It should draw upon local experts who are unbiased by participation in the Downtown Halifax Planning Strategy, and it should not be constrained by this strategy.

3. The Housing Affordability Functional Plan should also be completed and current documents adapted to it.
4. The Land Use By-law should be amended to make the Design Review Committee advisory to Council, in keeping with the role of similar committees in other Canadian cities. Members should be added with expertise in reuse of older buildings and HRM's ecology.
5. The right of appeal to Council should be extended to include citizens' organizations, and the appeal process should include public hearings giving Council access to the breadth and depth of expertise available to it from its citizenry.
6. Schedule S-2 on Wind Assessment should be amended to include Shadow Assessment in order to prevent new developments from reducing access to passive solar gain for existing and potential buildings in their vicinity.