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# While we can't say size always matters, in the case of buildings it really does.

On Tuesday, September 7, <u>Halifax and West Community Council</u> will be hosting a <u>virtual</u> <u>public hearing</u> to discuss proposed amendments to the Halifax Municipal Planning Strategy and Halifax Peninsula Land Use By-law. The amendments, requested by Zwicker Zareski Architecture & Planning on behalf of developer Peter Rouvalis (aka <u>8088962</u><u>Nova Scotia Ltd</u>), are intended to help pave the way for two proposed highrises fronting Robie St, College St, and Carlton St in Halifax. The towers (one 29-storey/90 metres plus penthouse and the other 28 storey/87 metres plus penthouse) would feature 577 residences and more than 500 parking spaces in a new six-level underground parking garage. The proposed development also includes plans for new storefronts on the street level.

**So what's the BIG deal?** Why should we care how high a new building stretches into the sky or how many cars can be parked in the garage?

There are many reasons, but let's focus on these seven.

### 1. The higher the building, the greater the carbon footprint

Only operational building emissions (energy consumed for heating, cooling, ventilation, and plug loads) are being accounted for in building emissions totals for Nova Scotia. Yet, "embodied carbon emissions account for up to 75 percent of a building's total emissions over its lifespan."<sup>1</sup>

Embodied carbon emissions refers to the CO2 that goes into extracting raw materials, manufacturing products, transporting building materials to the site, and constructing the building itself. They also factor in decommissioning a building (demolishing it, carting off the remains to the landfill, and recycling some of the parts). (See embodied carbon illustration)

	Manufacture				Operate/Use & Maintain			Decommission	
	Embodied	Embodied	Embodied	Embodied	Embodied	the second se	Embodied	Embodied	Embodied
	ഹ	ᠿ	ᠿ	᠕	ᠿ	Operating	ራን	ᡌ	ᠿ
Time	*				<b>1</b>	▦	Â		
	Extract raw materials	Transport to factory	Manufacture products	Transport to site	Construct the building	<mark>Use</mark> and maintain the building	Demolish the building	Haul away waste materials	Landfill (or recycle)

Source: Embodied Carbon in Construction<sup>2</sup>

footprint than low- to mid-rise buildings that provide a comparable number of residential and/or commercial units.

Since embodied carbon emissions in buildings are irreversible once a building is constructed, great care must be taken to examine a building's full potential

environmental impact before construction gets underway. This means doing a whole life-cycle carbon assessment for a development project, using international standardized databases that measure the global warming potential (GWP) of various building materials.

A whole life-cycle carbon assessment has not been submitted to Halifax Regional Council for the proposed Rouvalis highrises.



Source: UBC Embodied Carbon Pilot

### 2. We need to be thinking about a net-zero future now

The World Green Building Council defines a net-zero carbon building as "a highly energy efficient building that is fully powered from on-site and/or off-site renewable energy sources and offsets."<sup>3</sup>

While this may sound like a thing of the future, the technology is already well established and being used in buildings (and homes) in Canada. (See <u>video</u> on Canada's Green Building Council's Zero Carbon Building Standard)

What's more, the money saved on energy costs "more than offset the upfront capital costs" to achieve net-zero building standards.<sup>4</sup>

A net-zero plan for the proposed Rouvalis development has not been submitted to Halifax Regional Council.

### 3. "The greenest building is the one that's already built"<sup>5</sup>

The Royal Institute of British Architects recently came out strongly against the demolition of older buildings, saying the practice should be stopped in order to curb carbon emissions.<sup>6</sup> It wants older buildings renovated and retrofitted instead.

Even new energy-efficient buildings can take many decades of efficient operation to overcome the embodied carbon footprint of constructing the building itself.<sup>7</sup>

In Halifax, buildings are regularly written off much earlier than necessary to make way for something shiny and new—and a lot bigger. The proposed Rouvalis highrises would involve demolishing low-rise residential buildings and relocating several registered heritage properties.

Each and every day, residents of Halifax Regional Municipality are doing what they can to reuse and recycle for the sake of the planet. Why should real estate developers get a free pass on reusing and recycling older buildings? It's our municipality's carbon footprint, afterall.

### 4. Five hundred more cars in downtown Halifax simply doesn't make sense

Anyone who has been in downtown Halifax in the past few years knows that it's already congested with cars and buses. Why would we want to further add to the number of vehicles, particularly in a climate crisis? The fact that the Rouvalis highrises are designed to accommodate a six-level parking garage indicates that this project isn't part of a broader sustainable community design that would facilitate active transportation.

Nova Scotia's transportation sector currently accounts for 35 percent of all greenhouse gas emissions in the province.<sup>8</sup> We need to be taking steps to reduce our reliance on cars. Halifax can do this more easily than most rural municipalities in the province. But it will require vision and putting the wellbeing of people and the environment ahead of profits for real estate developers.

### 5. Yes, we need more housing, but it should be affordable housing

Halifax Regional Municipality is experiencing a severe shortage of housing. Students returning this fall for university are having to share hotel rooms because they can't find places to rent. The tent communities that have sprung up around Halifax are a testament to the lack of affordable housing.

If the proposed Rouvalis towers go ahead as planned, a number of low-rise residential buildings, currently occupied by tenants, will be torn down. The chances that these same tenants will be able to afford the rent in the new highrises are slim to none.

Taller buildings cost more to build, but they're also more profitable for developers, who can rent them as luxury units. This doesn't only impact the people who are evicted from older buildings to make way for new ones. As the director of Making Cities Livable International Council explains, "Tall buildings inflate the price of adjacent land, thus making the protection of historic buildings and affordable housing less achievable. In this way, they increase inequality."<sup>9</sup>

In essence, there goes the affordable neighborhood.

# 6. Just because a highrise provides greater housing density doesn't mean it's green

In fact, because highrises require a lot of steel and concrete, they're inherently less sustainable than mid-rise buildings built with wood ("Concrete is 10 times more GHG-intensive than wood").<sup>10</sup> Also, according to BC Hydro, highrises in that province "use almost twice as much energy per square metre as mid-rise structures."<sup>11</sup> The glass exterior of most highrises is highly efficient when it comes to keeping out excessive heat in the summer months and keeping warmth in during the winter.<sup>12</sup>

So while greater housing density can be part of a solution to reduce greenhouse gas emissions and preserve biodiversity, that does not mean highrises are automatically the answer.

The proposed Rouvalis towers would leave a huge embodied carbon footprint and worsen vehicle traffic in the downtown area.



### 7. It's the law, and you promised. It's as simple as ABC

**A)** Halifax Regional Council unanimously approved the HalifACT plan on June 23, 2020. On the municipality's website, it boasts, "HalifACT is one of the most ambitious climate action movements in Canada."<sup>13</sup>

What does <u>HalifACT</u> set out to accomplish?<sup>14</sup> A lot of good stuff, actually, which could help Halifax address the climate crisis — including reducing greenhouse gas emissions. You can't reduce these emissions by simply not counting them (that's cheating).

A letter to the <u>Halifax and West Community Council</u> signed by Halifax's Executive Director of Planning and Development recommends that Council approve the Rouvalis development, and states that "No environmental implications are identified."<sup>15</sup>

Seriously? If no environmental implications were identified, somebody didn't do a very good job.

**B)** According to the <u>Halifax Charter</u>, municipal planning strategy "must be reasonably consistent with every statement of provincial interest" as well as the "intent of every statement."<sup>16</sup>

Nova Scotia's new Sustainable Development Goals Act states the following:

This Act is based on the following principles: (a) the achievement of sustainable prosperity in the Province must include all of the following elements: (i) Netukulimk, (ii) sustainable development, (iii) a circular economy, and (iv) an inclusive economy;



### Here's how the SDGA defines those terms:

"**Netukulimk**" means, as defined by the Mi'kmaq, the use of the natural bounty provided by the Creator for the self-support and well-being of the individual and the community by achieving adequate standards of community nutrition and economic well-being without jeopardizing the integrity, diversity or productivity of the environment.

"[S]ustainable prosperity" means prosperity where economic growth, environmental stewardship and social responsibility are integrated and recognized as being interconnected.

"[C]ircular economy" means an economy in which resources and products are kept in use for as long as possible, with the maximum value being extracted while they are in use and from which, at the end of their service life, other materials and products of value are recovered or regenerated;

While an actionable plan for the SDGA is still being worked out (Climate Plan for Clean Growth<sup>17</sup>), the principles set out in the Act are now law.

The proposed Rouvalis development does not align with the four principles stated in the SDGA.

**C)** Canada is a signatory to the Paris Climate Agreement (2015), the Pan-Canadian Framework on Clean Growth and Climate Change (2016), and the United Nations Sustainable Development Goals adopted in 2015 by 193 countries.

While the details may vary a little, each of these agreements has one thing in common: a commitment to reduce greenhouse gas emissions.

It is not only the federal government that is bound by these agreements; the provinces are too.





## So the question is:

Will Halifax and West Community Council (and Halifax Regional Council) honour the HalifACT plan, Nova Scotia's SDGA, the Paris Climate Agreement, the Pan-Canadian Framework on Clean Growth and Climate Change, and the UN Sustainable Development Goals?

This is a simple YES or NO question.

Looking forward to your reply.

# Endnotes

- 1 <u>The Carbon Footprint of Construction: Briefing Note</u>, p. 1, Architects Climate Action Network, February, 2021
- 2 <u>New Buildings: Embodied Carbon</u>, Architecture 2030
- 3 The Net Zero Carbon Buildings Commitment, Advancing Net Zero, World Green Building Council
- 4 <u>The First Zero Carbon Building–Design Certification</u>, Canada Green Building Council- CaGBC, Youtube
- 5 <u>The Greenest Building Is One That Is Already Built</u>, The Journal of the National Trust for Historic Preservation 21, no. 4, Elefante, C., 2007
- 6 <u>RIBA Architects say building demolitions cause of carbon emissions</u>, BBC, July 8, 2021; to watch BBC's televised report <u>click here</u>
- 7 The Greenest Building: Quantifying the Environmental Value of Building Reuse
- 8 <u>Climate Change Plan for Clean Growth: Discussion Paper</u>, p. 4, NS Department of Environment and Climate Change, May 2021
- 9 Prof. Patrick Condon, University of British Columbia, <u>7 Reasons Why High-Rises Kill Livability</u>
- 10 Prof. Patrick Condon, University of British Columbia, <u>7 Reasons Why High-Rises Kill Livability</u>
- 11 Prof. Patrick Condon, University of British Columbia, <u>7 Reasons Why High-Rises Kill Livability</u>
- 12 Prof. Patrick Condon, University of British Columbia, <u>7 Reasons Why High-Rises Kill Livability</u>
- 13 HalifACT | Adapt | Climate | Emissions | Energy | Community
- 14 HalifACT: Acting on Climate Change Together, Halifax Regional Municipality, 2020
- 15 <u>https://www.halifax.ca/sites/default/files/documents/city-hall/boards-committees-commis</u> <u>sions/210623hac913.pdf</u> (see pages 2 and 10)
- 16 Halifax Regional Municipality Charter
- 17 <u>Climate Change Plan for Clean Growth: Discussion Paper</u>, p. 4, NS Department of Environment and Climate Change, May 2021