

Webinar - Developing for net zero: Are mixed-use communities the future?

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Audience questions:

Olaide, how did you manage to make the economics of this site work with 1/3 parkland? Did you buy really cheap or get some subsidies?

Olaide: We built this into our model from Day One. We were committed to bringing in green space into the City and made sure that our plans prioritised this.

How do you overcome resident and landlord concerns about anti-social behaviour in these open spaces which difficult to design as defensible space?

Olaide: This comment comes up regularly, especially from public sector partners who have seen new public space created and left unmanaged.

We start with the design – we ensure that the design supports natural surveillance, visibility and improved access and lighting. We also actively curate and manage the space ensuring that issues or concerns are addressed immediately, and anti-social behaviour is dissuaded.

Most modern developments have viewed existing landscapes as blank canvases in which to build on and then fill in with non-natural landscape design (such as Milton Keynes), would it not be better approach to take the cues from the existing landscape, biodiversity as well as eco-systems, and tailor your construction and plans to reduce the disruptions whilst building and for those living?

Alex: We generally make a strong effort to enhance the original ecosystem in our projects. For example, [Zibi](#), located on the Ottawa River, re-naturalized the shoreline and restored fish habitat along the river. The Baker District, however, is currently a surface parking lot covered in asphalt, so there's not much there to work with. Notwithstanding that condition, new plantings in the public open spaces will include a significant number of native species.

How do we break the deadlock challenge of public land being valued only for highest sale price realisation? How do we get other values onto the agenda and ahead of the £ sale obligation?

Olaide: The economics of development are challenging. However, starting early with a commitment to 1/3 homes, 1/3 workspace and 1/3 parkland means that you can build this into your financial model early, you can work the other parts harder so that you maximise density.

Alex: Financial considerations are always a challenge, and a lower land price can certainly help offset costs associated with achieving impact, particularly in providing affordable housing. In the case of Baker District, we were told that we did not offer the highest price for the land, but the City recognised that the triple bottom line approach we were offering was a better value proposition in the long term.

Do you have any data on mixed use developments where people who live there also work there? I often wonder if this happens as we often like separation from work and social.

Olaide:

The pandemic has seen a drive to work/shop/socialise closer to home. We definitely have examples of people working and living within a mixed-use environment. One of these is East Village, in the London Olympic Park, where there are a large number of residents who also live within the wider Stratford area.

Alex: The pandemic has certainly blurred the lines of live/work for many of us so it's a timely question. We don't rely on people actually living and working within the boundaries of our developments, but rather seek to create walkable neighbourhoods with good transit connectivity so that people can get to their work – wherever it may be—in a low carbon mode of transportation. The mixed-use approach does help the retail component by providing residents close by to support the retail uses, but generally the retail also relies on the wider neighbourhood to be viable.

The pandemic has meant that more people have changed the way they view nature and led to an increased their appreciation of it. There is now a gap to increase the presence of nature where it would be very welcomed by the population at the moment, but to what degree if any has this been 'utilised'?

Alex: We've seen an increase appreciation of outdoor space as a direct outcome of people's recent experiences during the lockdowns. This applies to a stronger demand for private outdoor space (balconies, terraces) as well as public outdoor space and proximity to parks.

Hi Alex, I am a mechanical engineer in Toronto and quite familiar with Windmill's work in the region. What is your approach to driving sustainable initiatives (zero carbon, net zero for example) in municipalities that are not as forward-thinking as Guelph and Toronto?

Alex: Yes, different municipalities have wide ranges of commitment to this, but our ultimate "customer" is the public and there is clear preference by most of the "market" for health, well designed environments and lower energy bills. Municipalities may or may not offer incentives and encouragement, but that isn't the driving factor in where we develop our projects.

Has anyone assessed the carbon footprint of the 'typical' High Street and if, as we are seeing, the decline in High Street retail activity has been a beneficial thing and if its transformation and evolution into more mixed-use area has had positive reduction in a city's carbon footprint?

Alex: I lament the loss of local retail shops on our high streets. I suspect that online shopping through companies like Amazon, with its related packaging needs and high carbon delivery logistics is resulting in a much greater carbon footprint, not to mention loss of local employment.

Interesting point about 'aligned retail spaces'. Was there a brief for companies interested in the shops/commercial spaces? Are these requirements enshrined in lease terms?

Alex: We strive to curate our retail spaces to provide services aligned to the project but acknowledge that, in the end, it is difficult to control those uses and the actual operations of the stores over time.

Is there a way to focus more on green buildings as well as making them low emission during the building stage such as adding green roofs (similar to BedZED) and living walls to diminish the effects of the urban heat island or even painting buildings white to slightly increase the Albedo effect, as on a large scale these have the opportunity to change the urban landscape?

Alex: There are many strategies to employ to lower emissions in addition to the ones you mention: better building envelopes, strategic location of glazing, more compact development to avoid car use. Green roofs have multiple benefits, including adding insulation, storm water control, increasing habitat and providing green amenities to residents. A key factor is incorporating these strategies early in the concept design phase of a project and not waiting for the building stage, when it becomes much more costly to consider these things as “add-ons”.

Has the market demand profile really moved sufficiently to prefer sustainable buildings, or is it the case that there is green premium to be paid by tenants? Green premiums are everywhere and until this changes there will be an affordability gap.

Alex: I would say that the market reality is that almost everyone prefers more sustainable buildings, but most people aren't initially prepared to pay more for them. However, you can still 'make the math work'. Some features do entail a green premium, but others do not. Orienting buildings to optimise solar access, reducing parking requirements, designing proper window-to-wall ratios and reducing mechanical and electrical loads can actually reduce costs, not add to them.

Having said that, some features do increase costs such as additional insulation or better mechanical systems. These costs can be offset by creating financing instruments to achieve a payback through reduced operating costs, so a longer-term value proposition is achieved. (For example, our geothermal systems are financed over a 30-year contract which amortised and paid back through the energy savings achieved) Other benefits of a greener approach can include shorter approval times (if supported by the municipality) or a fast sales cycle, which can also offset the additional construction costs.