

Climate Strategy Submission

LOC 2020-0041 Midfield Heights – Sustainability Initiatives – Climate & Resilience

RE&DS is investing in the redevelopment of a brownfield site located in an established community and will leverage existing city infrastructure within the Winston Heights-Mountview, Renfrew and 16th Avenue Urban Corridor areas in the following ways:

Environmental Sustainability:

- a) Brownfield improvement and smart growth – create broader community benefits through the repurpose of an existing brownfield site, and creation of new connections, open space, commercial amenities, market and non-market housing and the upgrade of current infrastructure
- b) Multi-modal transportation opportunities – pedestrian priority street design and comprehensive network of pathways to encourage walking and cycling
- c) Leveraging transit oriented development (TOD) – higher intensity mixed-use commercial and residential site adjacent to Max Orange BRT
- d) Sustainable landscaping – active streets with double and single row trees, increasing the Urban Tree Canopy
- e) Carbon sink – approximately 25% of the plan is greenspace, combination of MR and ER
- f) Reclaiming the escarpment – 15% of the plan is dedicated Environmental Reserve and will be reclaimed and restored to the natural state
- g) Improve storm water quality – off-site storm pond will capture storm water from the site and surrounding neighbourhood prior to filtering into Nose Creek to help improve water quality
- h) RE&DS LEED and Built Green Certification Incentives for builders
- i) Low Carbon Technology Options determined to be the best options for the plan are emphasized and strongly encouraged in Design Guidelines for the Plan:
 - o Solar
 - o Ground source heat pumps
 - o Micro CHP
 - o Building energy efficiency
 - o Mass timber construction

All proposed buildings are to exceed the National Energy Code requirements by 20%. The Design Guidelines are composed of sustainable, architectural and landscape architectural sections that provide a variety of options for future purchasers to choose from when proposing a design. This will encourage variety and innovation. The Design Guidelines will be registered on titled parcel.

Social Sustainability:

- j) Public Realm – enhanced public realm with ‘woonerf’ style pedestrian priority streets and multi-modal barrier free connectivity
- k) Inclusive community – range of housing types, including market and non-market for a broad socio-economic group, rental and ownership

- l) Mixed-use facilities – mixed-use retail and services in proximity to Max Orange transit station and existing established residential area
- m) Open space amenities – gathering spaces and interconnected pathway network will create larger community benefits, connections to nature and encourage healthy lifestyles

Fiscal Sustainability:

- n) Asset creation – an estimated \$300 million investment in the economy
- o) Job creation – approximately 3140 jobs created during the construction phase and 147 jobs permanently
- p) City benefits – approximately \$2 million in taxes generated annually and \$3 million in off-site levies

Low Carbon Energy Study:

The Low Carbon Energy study completed for the plan highlighted the following low-carbon technologies that were recommended for consideration for the Midfield Heights plan:

1. Building Energy Efficiency
2. Solar Photovoltaic
3. Ground Source Heat Pumps
4. Micro CHP

These four technologies showed positive metrics in a number of areas and could provide value in reducing greenhouse gas emissions at a low or reasonable cost.

Implementation:

RE&DS has created a Design Guidelines document to maintain the vision and govern the architectural, landscape and sustainability options for Midfield Heights. Within this document there are a menu of options available for consideration in the vertical design and construction of the site. The Design Guidelines are flexible to allow for innovation in the planning and design of each site, and for future innovation and growth with sustainable technologies. The results of the Low Carbon Energy Study are incorporated into that menu of options.

RE&DS will work with future land purchasers that will be responsible for the vertical component of each site. RE&DS also offers an incentive program for the LEED and Built Green certification processes. RE&DS will continue to consult with CAI (Corporate Analytics and Innovation) and future purchasers to establish the metrics that will be required to provide an objective measure for the future development of the vertical elements of the site.