

September 22, 2020
Kingsberg Development Corporation

Re: Proposed Residential Development at 3882 highway 7

This document is a general summary of the review of the Sustainability measures as per City of Markham Urban Design And Sustainable development Guidelines June.2104 pertaining to the proposed development at 3882 highway 7

Section 6.2 sustainable development

Key points;

-To promote sustainable design

-Maximization of environmental resource conservation, energy efficiency and the reduction of green house gas production, as well as improving air, soil and water quality.

6.2.2

-Improve pedestrian, cycling and transit access and reduce automobile use

-introduce new green infrastructure technologies... with an emphasis on air and water quality, water and energy efficiency and conservation, and efficient waste management practices

-rising costs of energy and negative effects of fossil fuel combustion on air quality and climate have created the need for a comprehensive approach to achieve energy sustainably in Markham.

-rising water demand requires sustainable approach to water conservation...

The proposed development will include;

- 1. Bicycle parking/storage spaces and a bicycle repair station**
- 2. Electric car charging stations**



6.2.2.2

- b) orientation and alignment of streets, sites, buildings create optimum conditions for the use of passive and active solar energy (building is oriented in north south and roof can house solar PV panels)
- c) green roofs, light colored paving materials to reduce local heat island effect
- e) community gardens for local food production
- f) stormwater runoff and increasing infiltration and potable/municipal water conservation. . . bioswales, rain gardens, rain harvesting
- g)waste management

The proposed development will include;

1. **Green roof and grey water reuse for irrigation**
2. **Bio Swale as well as drought tolerant planting provided**
3. **Tri-sorter with compactor to efficiently manage resident waste**

6.2.2.3

To encourage a culture of energy conservation and energy efficient practices

A) community energy plan to:

- i. minimize use of electricity, natural gas. . .
- ii. Energy efficient building orientation, design, construction
- iii. Identify opportunities for on site energy generation, district energy, renewable options (

b) expand opportunities of conventional and alternative energy with wind, solar, geoexchange

d)connect to existing district energy

The proposed development will include;

1. **Geothermal heating/cooling system OR connect to Markham District Energy**
2. **Increased R value insulation of exterior walls to above code minimum**
3. **Minimize glass amount to 50% (low window to wall ratio)**
4. **High efficiency windows (triple glazed)**
5. **High efficiency appliances**
6. **Enclosed balconies/solariums provide an additional insulating effect while allowing for year-round use of outdoor space**



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6.2.2.4

Water conservation through water reuse, new buildings to achieve 20% water conservation than OBC

The proposed development will include;

1. Low flow water fixtures
2. Grey water re-use for irrigation

6.2.2.6 – dark sky guidelines

Reduce light pollution, no up lighting of buildings

The proposed development will include;

1. Dark Sky compliant light fixtures

6.2.2.7 bird friendly guidelines

Provide bird mitigation measures for the first 12m of the building

The proposed development will include;

1. Bird friendly glass as well as more solid/opaque materials

The list of items above will continue to be developed as we go through the Site Plan Application process.

Regards,

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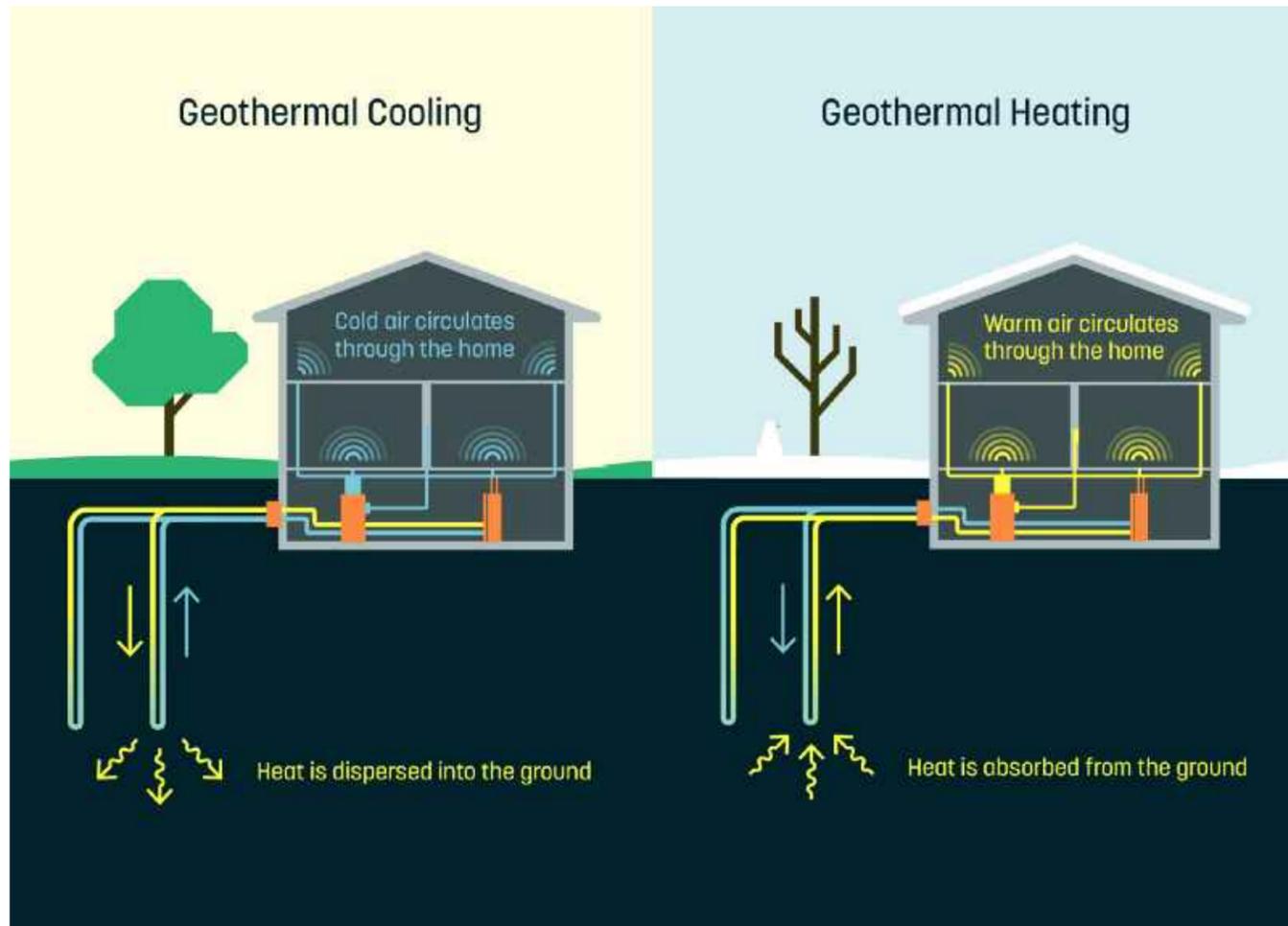
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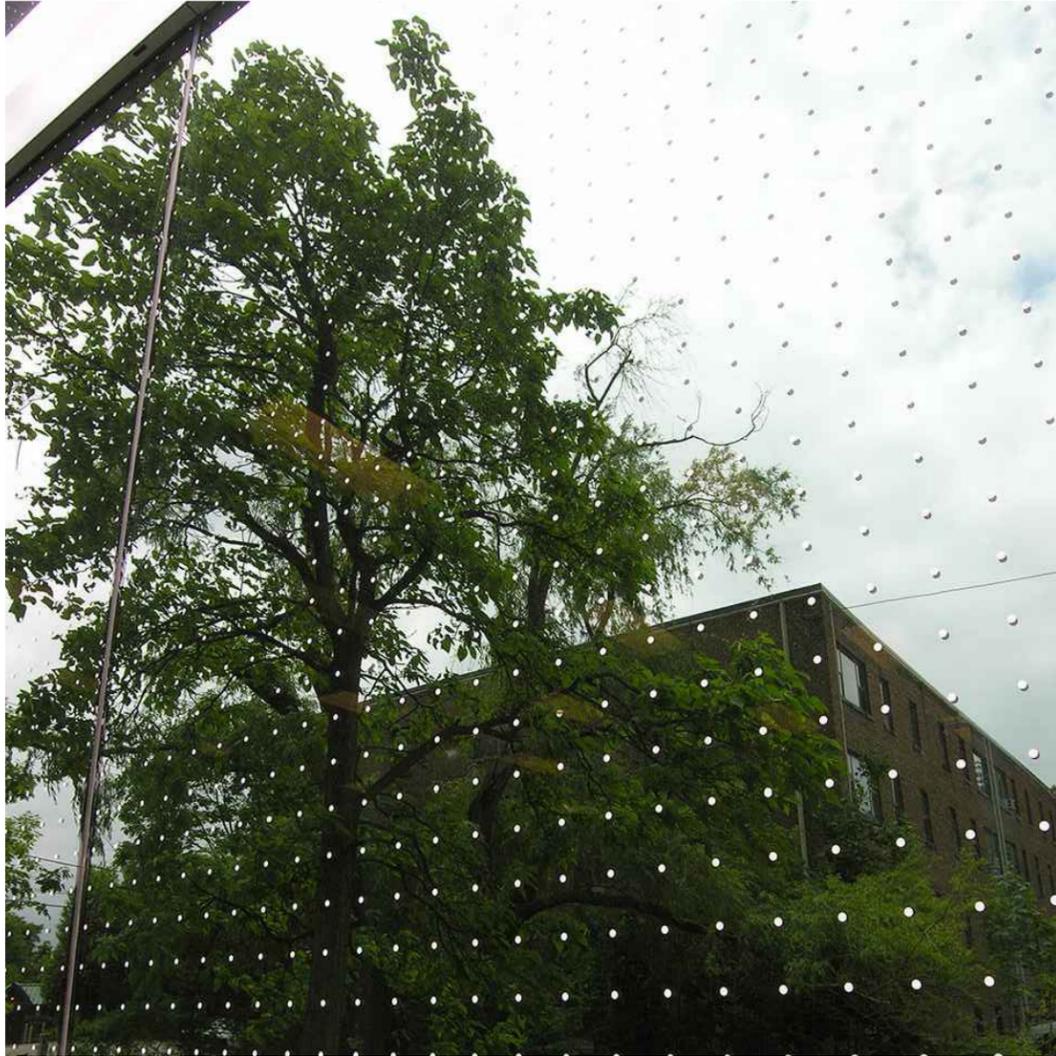
STORM WATER REUSE / IRRIGATION



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BIRD FRIENDLY GLAZING



MATERIALS / DURABILITY