

**Energy Conservation and Sustainability Plan
Plan of Subdivision – Brookhill II Townhomes
Kaitlin Corporation**

Sustainability Element	Description	Plans, Drawings or Reports
Support electric vehicle use	<ul style="list-style-type: none"> • Provision in master electrical plan for appropriate electrical loads due to charging of electric cars. • Residential electrical panel for standard townhomes with provision for electric load due to charging of an electric car. 	
Efficient land use	<ul style="list-style-type: none"> • The plan adheres to the density criteria for this Site, while incorporating internal roadways for both rear lane and standard products, demonstrating compact urban built form. 	
Protection and enhancement of the natural environment	<ul style="list-style-type: none"> • The Site has been carefully designed to incorporate new vegetation throughout. • The existing living wall on the south elevation has been incorporated into the landscape design. Forest resources are not being used to build a long fence. Boulevard plantings also being retained. • Street trees will be planted within Municipal Boulevards, front of units, and flankages of corner units. • Amenity areas are proposed within the site that will accommodate various forms of trees, brushes and sod. • Current lands have a few scattered trees and are otherwise lacking any substantive vegetative features. • No hazard or environmentally protected lands within this site. 	
Reduced vehicle dependency and facilitation of active transportation	<ul style="list-style-type: none"> • The particular location of this development allows for easier pedestrian and bicycle access to nearby schools, shopping, and services, which are all located within close proximity to the subject site. This allows for easy walking distance to nearby stores and services for residents. • The site is fairly close to the proposed GO Bus terminal which allows for biking and walking from their home to the terminal. 	
Improved air quality	<ul style="list-style-type: none"> • Latex paints are used which are water soluble – creating less odour and decreasing cleanup and disposal. High quality paint brands are used to create more durable finishes with reduced frequency for recoating in the future • Caulking is also composed of water soluble compound making less odour and easier cleanup and dilution. 	

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Reduction of energy consumption	<ul style="list-style-type: none"> • Window glazing areas are carefully laid out to maximize glazing where it is most required and to minimize it elsewhere. Glazing is one of the least energy efficient components in the façade of the building, and by carefully controlling the amounts of glazing, energy savings are maximized. Front facades typically have additional glazing for curb appeal, and street character, while side elevations and rear elevations have less glazing. • LED lighting is under consideration for certain areas. • Hydro meters are of the ‘Smart’ variety that enables billing to better correspond to actual hydro consumption, allowing for energy conscious home owners to better manage their energy consumption. • Programmable thermostats are being installed, allowing home owners to run their furnace and air conditioning more efficiently, by lowering energy use during the night and at other times. 	
Improve Water Quality	<ul style="list-style-type: none"> • Storm water runoff is directed into existing SWM facility with water quality control measures 	
Reduction of Energy Consumption	<ul style="list-style-type: none"> • Window glazing areas are carefully laid out to maximize glazing where it is most required and to minimize it elsewhere. Glazing is one of the least energy efficient components in the façade of the building, and by carefully controlling the amount of glazing, energy savings are maximized. Front facades typically have additional glazing for curb appeal, and street character, while side elevations and rear elevations have less glazing. • For the townhouse community, with demising walls, residents will be saving considerable energy compared to detached housing forms. There is no significant energy loss occurring at these demising walls. • Townhouses are fully insulated. Floor area over the garages are insulated with foam insulation, making for airtight floors, and comfortable rooms above. • The Home are typically equipped with energy star appliances. • Compact Fluorescent lighting will be provided within the townhomes. LED lighting is under consideration for certain areas 	

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	<ul style="list-style-type: none"> • Hydro meter are of the ‘Smart’ variety which enables billing to better correspond to actual hydro consumption, allowing for energy conscious home owners to better manage their energy consumption. • Programmable thermostat are being installed. Allowing home owners to run their furnace and air condition more efficiently, by lowering energy use during the night and at other times. • Tankless water heaters are being considered for combination heating and hot water. Tankless water heaters are one of the most energy efficient ways to heat water. • Heat recovery ventilators (HRVs) are also being considers for the townhouses. The benefit of having a HRV is that it removes heat energy from indoor air as it is being exhausted through this piece of equipment, and this heat is used to temper the incoming colder fresh air. HRVs are an excellent way to bring in fresh air, thus allowing for better indoor air quality. 	
Reduction of urban heat island effect	<ul style="list-style-type: none"> • The planting of trees throughout the Site will provide a shade canopy so as to reduce the effects of heated sidewalks during the summer months. 	
Reduction of water consumption	<ul style="list-style-type: none"> • Water efficient plumbing fixtures are being used, to help conserve water wastage. This includes low flow faucets and shower heads. Toilets are rated at 4.8litres/flush and showerheads at 6.5 litres/minute. 	
Climate change mitigation and adaptation	<ul style="list-style-type: none"> • It’s difficult to quantify the potential effects to a Global issue such as climate change on a site as small as this one is. However in consideration of some of the features discussed in other sections such as energy efficiency, water consumption, minimizing use of cars, and improved air quality. These measures will have a positive effect on the overall mitigation of climate change. • Rough-in for electric vehicle charging at all townhomes, and for a percentage of condominium underground garage parking spots. 	