



Ampersand (Minto Group Inc.)



Ampersand is a project selected under the Equilibrium™ Communities Initiative, a \$4.2M collaborative sustainable community demonstration initiative of Natural Resources Canada (NRCAN) and Canada Mortgage and Housing Corporation (CMHC) under the Government of Canada's ecoACTION initiatives.

Research Objectives

Natural Resources Canada

- NRCAN's CanmetENERGY works with communities to reduce their energy consumption by understanding the synergies between building design, urban form, transportation and land use, and assisting with the development of integrated community energy system concepts.

Canada Mortgage and Housing Corporation

- Improved environmental performance of residential, mixed use neighbourhoods;
- Integration of housing and community infrastructure such as energy, transportation, water and waste water, natural environment;
- Built examples, technical analysis and supporting information that is of use to developers and municipalities.

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The EQUilibrium™ Communities Initiative provides financial assistance for technical activities and showcasing the performance of selected neighbourhood development projects which, through their planning, design, implementation and operation, will provide measurable improvements over current approaches in the areas of energy and water consumption, environmental protection, land use planning, sustainable transportation and other features. Capital construction costs are not funded through the initiative.

Located within Minto's Chapman Mills Town Centre community in South Nepean, Ottawa, Ampersand is planned to be a mixed-use neighborhood with over 1,000 homes, from stacked townhouses to mid-rise apartments. The homes are to be integrated with over 25,000 m² of commercial/retail space, civic uses and public open space.

The site is within walking distance to a range of daily destinations including existing bus rapid transit and Ottawa's proposed Light Rail Transit. The project is expected to have a high level of pedestrian connectivity with access to high-quality community parks. Community and home scale food-growing as well as tree canopy coverage targeted for 30 per cent of the site are planned for the project's research.

Minto is investigating the feasibility of net-zero-energy consumption within the development, building on knowledge gained from Inspiration the Minto Eco home, their demonstration house constructed under CMHC's EQUilibrium™ Sustainable Housing Demonstration Initiative. A focus on energy conservation features includes improved building envelopes, mechanical systems

and appliances. Minto will explore the viability of supplying heat by a community-level district energy plant powered by alternate fuel sources such as biomass. Other renewable energy sources such as photovoltaics and wind will also be researched.

To reduce stormwater run-off, permeable pavements and green roofs will be studied throughout the project. Rainwater capture and treatment will be investigated for non-potable water applications, such as irrigation. Greywater re-use opportunities will also be explored.

To help achieve affordable homeownership, green financing options, such as a 'green loan' program, will be analyzed to bridge the gap between up front costs for energy efficiency improvements and future benefits from lower operating costs.

The initiative-funded work focuses on options analysis and design for performance improvements, in areas that include: renewable energy; green financing options; site plan design modifications to optimize mixed-use and transit/pedestrian connectivity; strategies for stormwater run-off and water use reduction and sustainable landscape best practices. Initiative

support is also provided for consultation/alignment with the community and approval authorities. Toward the end of the timeframe, support is also available for showcasing the project's Initiative-related features.



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For more information about the EQUilibrium™ Communities Initiative, and winning projects, visit: www.ecoaction.gc.ca/equilibrium-eng.cfm