1
SUSTAINABLE HOME INCENTIVE PROGRAM

The Planning and Economic Development Committee recommends the adoption of the recommendations contained in the following report dated February 3, 2009, from the Commissioner of Planning and Development Services and the Commissioner of Environmental Services.

1. RECOMMENDATIONS

It is recommended that:

1. York Region Council endorse, in principle, a new program (as outlined in *Attachment 1*) to promote more sustainable grade related (up to 3 storey) residential development through servicing allocation incentives of 10 or 20%.

2 York Region Council amend the eligibility criteria of the "Sustainable Development Through LEED® Highrise Program" to include multi-unit residential developments with a minimum building height of four storeys replacing the existing five storey minimum.

3. This report be circulated to the Building and Development Branch, Ministry of Municipal Affairs and Housing with a recommendation to incorporate the advanced construction requirements outlined in this report into the Ontario Building Code.

4. Community Planning staff, in consultation with the local municipalities and representatives of the building industry, proceed with finalizing the program and implementation guide and report back to Council as necessary.

5. Further incentive opportunities beyond 10 or 20 % be explored, in partnership between Regional and local staff through municipally-initiated and comprehensive water conservation programs that could include such elements as innovative storm water management practices, inflow and infiltration reduction, peak water demand management, enhanced retrofitting programs and enhanced leak reduction programs. Regional staff to report back to Regional Council as necessary.

6. This report be circulated by the Regional Clerk to all local municipal Planning Directors/Commissioners for consultation.

2. PURPOSE

The purpose of this report is to establish a policy that advances sustainable development practices in relation to grade related residential developments through the provision of a servicing allocation incentive. The primary goals of this new policy are twofold:

- To encourage the construction of more energy efficient and sustainable grade related residential developments throughout York Region.
- To further reduce water consumption across the Region beyond what is achieved through existing programs.

3. BACKGROUND

Builds on the sustainability principles established through the Sustainable Development through LEED® policy

In June 2007, Regional Council endorsed the Sustainable Development through LEED® program. The program provides additional servicing allocation as incentive to encourage more sustainable high density development within Regional Centres and Corridors. As a next step, it was envisioned that a similar program (the Sustainable Home Incentive Program) would be implemented to encourage more sustainable ground related development.

Together, these two programs are meant to have the cumulative benefit of creating a full range of sustainable housing in all residential building categories within the Region. The Sustainable Home Incentive Program has been designed to address grade related development which, for the purposes of this program has been defined to include single detached residential, semi-detached residential development, townhomes and low-rise multi-unit residential development with a maximum height of three-storeys. To ensure a full range of sustainable housing, a modification to eligibility criteria of the "Sustainable Development Through LEED® Highrise Program" is required. The eligibility criteria needs to be amended to include multi-unit residential developments with a minimum building height of four storey's rather that the existing five storey minimum.

Sustainable Development

In 2007, Regional Council endorsed the York Region Sustainability Strategy, "Toward a Sustainable Region". The purpose of this strategy is to provide a long-term framework informing municipal decisions based on the triple bottom line of a sustainable natural environment, economic vitality and social equity. Specifically, the Sustainable Home Incentive Program provides a number of benefits including:

- Using key resources like energy, water, materials and land much more efficiently.
- Improved indoor environments resulting in enhanced comfort and health.

- For the home owner, reduced operating costs over the life-cycle of the building and enhanced resale values and profits.
- For the builder, creating product differentiation and increased sales.

In order to realize these benefits, the Sustainable Home Incentive Program looks for improvements in the following areas of home performance, including:

- Water Conservation Measures
- Energy Conservation
- Resource Management
- Indoor Air Quality
- Renewable Energy
- Homeowner Education

All of these benefits and improved home performance promote healthy communities and are keeping with the Regional policy framework for building sustainable communities. See *Attachment 1*, for additional information on the positive financial benefits, to the industry and eventual homeowner, and consumer trends related to sustainable development.

In developing the Sustainable Home Incentive Program (SHIP), Regional staff reviewed several green building programs that incorporated third party certification. It was determined that the GreenHouse™ Certified Construction Program offered by the EnerQuality Corporation and the LEED® for Homes Program to be offered by the Canada Green Building Council were the most appropriate to utilize in the development of a Regional incentive program. Both programs offer the benefit of third party certification on each residential unit constructed. Third party certification is an important tool to ensure the implementation and success of the Sustainable Home Incentive Program. Refer to *Attachment 2* for a description of these green building programs.

Municipal and Industry Consultation on a Sustainable Home Incentive Program has occurred

A municipal consultation session was held by the Region on November 28, 2008 which included building and planning staff from the local municipalities. The participants were provided a draft program framework and approval process and asked to comment on the Sustainable Home Incentive Program. In general, municipal staff who attended the consultation session were very supportive of the proposed program framework. There was discussion around the mechanisms for implementing the program including the need for third party verification, the need for developers to demonstrate the ability to achieve water savings in the field and program flexibility. In recent follow-up with municipal staff, it has been confirmed that there is support at the local level for this new program.

There has also been ongoing consultation with representatives from the building industry. Regional staff have been engaged as participants in ongoing consultation with

the East Gwillimbury Water Conservation Group. This working group includes representatives from the Town of East Gwillimbury, Regional staff, water efficiency experts and representatives of the building industry. The focus of the Water Conservation Group is to examine and determine the effectiveness of water efficiency measures that could be implemented into the planned new communities in East Gwillimbury. The East Gwillimbury Water Conservation Group has reviewed and provided comments on the proposed water efficiency measure of this program.

Most recently, Regional staff presented the proposed program to representatives from BILD. The representatives from the building industry were comfortable with the energy conservation measures proposed through this program. The majority of builders have already incorporated Energy Star requirements into their building practices in recognition that these requirements will be incorporated into the Ontario Building Code in 2012.

Further consultation with local municipal partners and representatives of the building industry will be required to develop the program implementation guide.

4. ANALYSIS AND OPTIONS

In order to make a "servicing allocation" incentive available, the Region needs to ensure that significant water conservation is achieved through the construction of new homes beyond what is achieved through the existing Ontario Building Code requirements. In grade-related housing, this requires cooperation between York Region, the local municipality, the developer/builder and the homeowner. The following discussion outlines the program framework including the mechanisms for ensuring significant water conservation measures are achieved.

4.1 ELIGIBILITY CRITERIA FOR PARTICIPATION IN THE SUSTAINABLE HOME INCENTIVE PROGRAM

The Key to achieving significant levels of water conservation is partnership with our local municipalities

Water conservation is a critical component of sustainable development and a critical foundation to the success of this program. Incentives encouraging enhanced home performance in combination with a variety of municipal water conservation programs will provide significant water savings. It is important to continue and enhance partnerships with the local municipalities as a cornerstone of the Sustainable Home Incentive Program. To be eligible for participation in this program, all municipalities will be required to participate in the following programs:

- The local municipality continue participation in Regional water efficiency plans and policies that implement and support the Region's Water for Tomorrow program.

- Local municipalities develop I-I reduction strategies as a basis for funding partnerships with York Region.
- Regional design and construction standards and best practices be developed and implemented for municipal and private water and wastewater connections.
- The local municipality agrees to partner with York Region to participate in water system leakage reduction programs, as they are developed and implemented.
- The Local Municipality amends their water-use by-law to support municipal and Regional summer water conservation plans to reflect best practices principles to be established by York Region (i.e. lawn watering permitted one day per week).

4.2 ELEMENTS FOR ACHIEVING MORE SUSTAINABLE HOUSING

Based on stakeholder engagement, the Region's Sustainable Home Incentive Program should be designed to be as flexible as possible while being mindful of ensuring the integrity of the program. Flexibility was incorporated into this program by providing the development community options on the type of certified construction program they utilize to participate in the Sustainable Home Incentive Program. Participants can choose the certified construction program that is most readily incorporated with their existing business practices.

Third party certification required through the Greenhouse™ or LEED® for Homes Certification

In order to provide a servicing allocation incentive the Region must ensure that the proposed housing achieves a higher level of performance than required by the current Ontario Building Code. Developers of grade related residential developments will be required to confirm that all proposed dwellings are eligible for certification under the GreenHouse™ Certified Construction or LEED® for Homes programs.

Level One of the Sustainable Home Incentive Program: 10% Incentive

In order to receive the 10% servicing allocation incentive, water savings must be achieved by implementing the following water conservation measures into new home construction, including:

- Low Flow (4.8 LPF) single flush toilets installed through out the home;
- Low flow showerheads, faucets and aerators installed through out the home;
- Water efficient clothes washers;
- Water efficient dishwashers;
- Hot water re-circulating systems;
- Water efficient whole home furnace humidifiers;
- Home Owner education; and
- Installation of smart meters

Limiting or restricting outdoor water use can have a significant impact towards reducing the peak water demands that occur during the summer months. As such, applications under either third party certification program will be required to implement the following outdoor water conservation measures:

- A minimum requirement of 6 inches of topsoil provided throughout the development which provides better root growth and reduces the need for irrigation.
- The provision of water-efficient, drought resistant sod provided throughout the development.
- Irrigation systems connected to municipal water supply systems will not be permitted.

The Sustainable Home Incentive Program relies on the requirements of the third party rating systems to ensure that all aspects of sustainable construction are addressed. A complete program description provided in *Attachment 3*, provides more information on the additional performance criteria that will be addressed through the SHIP program.

Level Two of the Sustainable Home Incentive Program: 20% Incentive

There are many examples of homebuilders within York Region who are dedicated to building the next generation of environmentally responsible homes. All these projects have incorporated technologies, materials and/or practices that achieve a higher level of resource efficiency and sustainability and should be rewarded. Examples of this leadership have been described in *Attachment 4.*

Leaders in building environmentally and responsible homes in York Region should have the option to be rewarded with a 20% allocation incentive

Developments that reach a higher level of conservation through more progressive and innovative approaches to home building should be rewarded and an increased allocation incentive of 20% is proposed. In addition to the criteria outlined in Level 1, to qualify for the higher incentive, the proposed home must include additional water conservation measures including the following:

- rainwater harvesting and storage systems for indoor and outdoor water use; or
- greywater reuse; and
- install permeable driveway surfaces (other than sod).

A complete program description provided in *Attachment 3* provides more information on the additional performance criteria that will be addressed through the SHIP program.

4.3 HOW WERE THE PROGRAM INCENTIVE LEVELS DETERMINED?

Regional staff from the Environmental Services and Planning Departments collaborated to determine the potential water savings that could be achieved through implementation of SHIP.

The first step in determining the incentive levels to be provided was to examine the current requirements of the Ontario Building Code and the manufacturer's specification on commercially available appliances and products. This information was used to determine the technical elements of a "typical" new home constructed in York Region. The next step of the analysis including determining the amount of water a "typical" home would consume. Regional staff used water conservation and efficiency studies to determine the average water consumption of a 'typical home'. This information was determined from a variety of sources including manufacturer specifications, York Region Water Efficiency Master Plan, the Regional Water and Wastewater Master Plan, and research conducted by the American Water Works Association and the U.S. Environmental Protection Agency. This water consumption rate for a 'typical' home was then expressed in litres per capita per day based on the Regional-average person per unit (PPU) for grade related housing.

A similar analysis was conducted to determine the water consumption rates of a Level 1 and Level 2 SHIP home. The analysis included a calculation to determine the amount of water savings achieved through the enhanced technical requirements of the Level 1 or 2 home when compared to the 'typical' new home. Through this analysis, Regional staff have determined estimated water savings for each Level of the proposed program (see *Table 1*). These water savings translate into incentive levels to be used in support of this program, as follows and detailed in *Table 1*.

- Level 1 = 50 litres/capita/day water savings = 10% servicing allocation incentive
- Level 2 = 80 litres/capita/day water savings = 20% servicing allocation incentive

Table 1
Summary of Water Savings Analysis

Certification	**Mandatory Water Saving Features**	**Estimated Water Savings Litres/capita/day**
***Incentive** Level 1 – 10%* Energy Star GreenHouse or LEED Certified or Equivalent Certification Program	High Efficiency Toilet (HET) Bathroom taps max flow 5.6 lpm Shower head max flow 7.6 lpm Dishwasher - Energy Star Clothes Washer - Energy Star Hot water recirculation system Water efficient whole home humidifier 6 inches of top soil drought tolerant sod	50 lcd

Certification	Mandatory Water Saving Features	Estimated Water Savings Litres/capita/day
Incentive Level 2 – 20% LEED Silver or Equivalent Certification Program	HET max flush 4.1 litres Bathroom taps max flow 5.6 lpm Showerhead max flow 6.6 lpm Dishwasher - Energy Star Clothes Washer – Energy Star with MEF>=2.0 and WF<5.5 Hot water recirculation system Water efficient whole home humidifier 6 inches of top soil 90% drought tolerant species and 80+ sod Irrigation system using non potable water source Rainwater Harvesting 75 % Roof Area Grey water collection from 3 sources	80 lcd

* Regional total water consumption per capita rate = 365 lcd.
** PPU used for this program in 3.38 (represents the weighted Regional average for grade-related housing)

Regional staff circulated the water savings analysis that was conducted to water efficiency experts to ensure validity. Other jurisdictions have also conducted similar water savings analysis. For instance, the Environmental Protection Agency in the United States through their WaterSense program is creating a third party certification program for the construction of water-efficient homes. Informational material supporting this program indicate that homes constructed through this program will be designed and built to be about 20% more efficient.

4.4 HOW DO WE ENSURE SUCCESSFUL IMPLEMENTATION OF THIS PROGRAM?

Successful implementation of the Sustainable Home Incentive program includes ensuring the projected water savings are achieved on the ground. Regional staff have incorporated the following measures to ensure program success, as follows:

Water Consumption and Savings used to calculate Incentive Levels

York Region has a responsibility to ensure that the Regional water and wastewater systems operate in a safe and efficient manner. The servicing allocation incentives proposed are based on consumption rates for the proposed features and fixtures of this program. These rates were incorporated into the analysis to ensure that the water and wastewater system operations can be maintained and can be safe guarded from excessive demand, unexpected overflow and surcharging.

Ensuring Incentive Levels Calculated in a manner consistent with Servicing Assignment to Local Municipalities

The combined water consumption rate used in the water savings analysis incorporated both residential and employment land uses. In this way, Regional staff were able to ensure that the proposed incentive levels were determined in a manner consistent with the methodology used in calculating Regional servicing capacity and assignment to the local municipalities. Regional staff also recognized the importance of not "double counting" water efficiencies achieved through existing conservation efforts like the Water for Tomorrow program.

Potential for Greater Uptake in this Program due to Current High Demand for Grade-Related Housing

There is the potential for a greater uptake in this program than what has been currently realized in the Sustainable Development Through LEED® Program due to the current higher demand for grade-related housing. Research on water efficiency indicates that water savings associated with grade related housing are typically lower than water savings achieved with higher density developments. In general, low density residential water use is more greatly influenced by outdoor water use and personal habits. As such, Regional staff incorporated program requirements that speak directly to reducing outdoor water demand, for the provision of water metres and home owner education. It is anticipated that these measures will have a positive impact on personal water-use habits.

Mandatory Water Efficiency Measures are required to Ensure Program Success

York Region has clearly indicated those water efficiency measures that are required to achieve the two incentive levels that are contemplated in this program. These mandatory water efficiency measures are necessary to ensure that sufficient water savings are achieved to mitigate any risk associated with the provision of allocation incentives.

The Need for a Third Party Rating System

The success of the Sustainable Home Incentive Program relies on ensuring that the water efficiency measures are effectively translated from design into construction. The use of a third party rating systems provides York Region and program participants with an existing process and trained professional raters to facilitate implementation of this program. Alternative third party rating systems may be considered provided they meet the same water conservation and sustainability principles outlined under the SHIP program.

Field Proofing of Ability to Achieve Third Party Certification

Developers who participate in the Sustainable Home Incentive Program will be required to demonstrate their ability to achieve third party certification on a first phase of development or through model home construction. Upon this successful field demonstration of performance, servicing allocation incentive would be extended to the program participant.

Ensure New Program Complements the existing Sustainable Development through LEED® program

Energy and water efficiency is important across the Region. The achievement of higher density compact development served by transit in centres and corridors is a Regional priority. The Sustainable Home Incentive Program has been designed to complement the existing High Density Sustainable Development through LEED® program. These two incentive programs have been developed to address all residential housing forms in a comprehensive manner, as demonstrated in *Tables 2 and 3*.

Table 2
Sustainable Development through LEED®
High Density Development

Incentive Level (%)	Sustainability Level
40	High Density Development Achieving LEED® Gold – higher water/sewer conservation
35	High Density Development Achieving LEED® Silver – higher water/sewer conservation
20	High Density Development Achieving LEED® Silver – moderate water/sewer conservation

Table 3
Sustainable Home Incentive Program
Grade Related Development

Incentive Level (%)	Sustainability Level
20	Low Density Development Achieving LEED® for Homes – Silver or above
10	Low Density Development Achieving Greenhouse Certification/LEED for Homes Certified

4.5 NEXT STEPS

Further Consultation with local municipalities and development industry required

Regional staff will further consult with the local municipalities, development community and other stakeholders with the objective of detailing the program framework and developing implementation guidelines that are readily integrated into the plan of subdivision and site plan approval processes (refer to *Attachment 5*).

Develop Partnerships to Implement Monitoring of Consumption

Regional staff should explore opportunities to partner with local municipalities and program participants to implement water consumption monitoring programs. The resulting information could be used to assess the water consumption rates realized in a more water-efficient home. This would be extremely valuable in evaluating the effectiveness of the program.

Explore Additional Incentive Opportunities

Through initial consultation, the need for additional incentive opportunities for municipalities who address water conservation in a holistic manner was raised. Municipally-initiated and comprehensive water conservation programs including such elements as innovative storm water management practices, inflow and infiltration reduction, peak water demand management, enhanced retrofitting programs and enhanced leak reduction programs may achieve significant water savings. Currently, Regional staff are engaged in discussions with some of our local municipal partners to establish principles for developing municipal based conservation programs and will report back to Council upon completion. Further incentive opportunities will be explored, in partnership between Regional and local staff, for municipal wide conservation and retrofitting efforts that achieve significant water savings over and above those achieved through existing programs.

Relationship to Vision 2026

The Sustainable Housing Incentive Program meets a variety of goal areas and objectives of Vision 2026. Specifically, this program directly addressed the objectives of promoting conservation, ensuring clean water and air, creating livable, sustainable and safe communities as well as taking a strategic approach to growth management and balancing growth with the environment.

5. FINANCIAL IMPLICATIONS

There is a general consensus among building professionals regarding the economic, environmental and social benefits of green construction methods. The proposed policy applies to private developments; York Region will realize cost savings associated with treating less water and wastewater per capita. While not quantified in this report, this proposed policy might also have a positive financial impact on the delivery of Regional services in the future.

6. LOCAL MUNICIPAL IMPACT

The proposed policy supports the completion of planned communities by providing local municipalities the opportunity to advance additional residential development based on a more efficient use of resources and infrastructure. It will also result in positive financial impact on the delivery of local services through enhanced conservation and efficiencies. Regional staff have consulted on an incentive program and will continue consultation with our local municipal partners to develop an implementation guide for the Sustainable Home Incentive Program. At the same time, Regional staff will also consult with our local municipal partners to determine the feasibility on implementing municipal-wide water conservation programs.

7. CONCLUSION

This policy builds upon the success of the "Sustainable Building Through LEED® Program". It provides the opportunity to promote sustainable construction practices in grade-related residential development. The success of this program will depend on partnership between the Region, local municipalities and the development industry. The benefits of this program will extend beyond water conservation resulting, for the residents of York Region, in homes that have reduced carbon footprints, emits less greenhouse gases, reduces energy and water consumption and provides a healthy indoor living environment more resilient to climate change.

For more information on this report, please contact Teresa Cline, Planner, Community Planning at (905) 830-4444, Ext. 1533, or Heather Konefat, Director of Community Planning at Ext. 1502.

The Senior Management Group has reviewed this report.

(The five attachments referred to in this clause are attached to this report.)

Benefits and Business Considerations

Environmental benefits

- Enhancement and protection of biodiversity and ecosystems
- Improves air and water quality
- Reduction in the amount of construction waste entering the waste stream
- Conservation and restoration of natural resources

Economic benefits

- Lower energy, waste disposal and water costs
- Reduction in operating and maintenance costs
- Creation and expansion of markets for green product and services
- Improved health and lower health care costs
- Increased property values and increased sales

Social benefits

- Enhanced occupant comfort and health
- Heighten aesthetic qualities
- Minimized strain on local infrastructure
- Improvement to overall quality of life

Construction Cost Premiums

In general, an experienced green builder can deliver a green building for a cost premium of 0 to 3% over conventional construction costs. Most of this increased cost is due to increased architectural and engineering design time necessary to integrate green building practices into projects. Experience has shown that the largest cost-saving strategy is the early integration of sustainable goals and design practices.

Consumer Trends

In, 2008 Enerquality Corporation conducted an Energy Efficiency /Green Building Study. The results of this survey indicated the following:

- On average, buyers are willing to pay an additional $9,877 for energy efficient homes;
- 61% of buyers indicated that a certification label was important in proving the energy efficiency of the home;
- Third Party certification results in reduced customer service calls and complaints.

Real estate industry experts currently estimate that energy efficiency building sell at a 5 to 15 % premium when compared to conventionally built homes (architecturallhouseplans.com)

What is the GreenHouse™ Certified Construction Program?

The GreenHouse™ Certified Construction Program, offered by EnerQuality Corporation, is a third party rated program designed to promote energy conservation and green building practices to mainstream homebuilders. The GreenHouse™ Certified Construction Program is offered by EnerQuality Corporation, provides a third party rating system based on the following areas of performance:

- Resource Management,
- Indoor Air Quality,
- Water Conservation, and
- Energy Conservation

The Town of East Gwillimbury and the City of Vaughan have adopted policy directing all new residential development be constructed to Energy Star® qualifications. The GreenHouse™ Certified Construction program was launched in 2008, builds upon the success of the Energy Star® for New Homes program, and includes water conservation measures.

What is the LEED® for Homes Program?

LEED for Homes is a third party rated program designed to promote sustainable building practices in homebuilding. The Canada Green Building Council (CaGBC) is actively developing a version of the LEED® for Homes program adapted to the Canadian market for release in spring 2009. The Canadian LEED for Homes will provide a third party rating system based on the following areas of performance, including:

- Innovation and Design Process,
- Location and Linkages
- Sustainable Sites
- Water Efficiency
- Energy & Atmosphere
- Materials and Resources
- Indoor Air Quality, and
- Awareness and Education

Sustainable Home Incentive Program

Setting the Stage:

In 2007, York Region introduced the program "Sustainable Development Through LEED". The goal of this program is to provide additional servicing allocation as an incentive to encourage more sustainable high density development within Regional Centres & Corridors.

As a next step, it was envisioned that a similar program be implemented to encourage more sustainable ground related development. The two programs together are intended to cover the full range of housing forms in the Region.

In developing the Sustainable Home Incentive Program (SHIP), Regional staff reviewed several green building programs. It was determined that the GreenHouse™ Certification Program established through EnerQuality Corporation and the LEED® for Homes Program to be offered by the Canada Green Building Council in Spring 2009 were to most appropriate.

The Regional program is intended to be flexible to accommodate improvements in technology and new programs that promote enhanced sustainability measures. The intent is to provide the development community some choice and flexibility in meeting the requirements of the SHIP.

Program Description:

Developers of grade related residential developments meeting specific criteria and including sustainability requirements could to qualify for a reduction in the amount of water and wastewater servicing allocation required.

In addition, developers of grade related residential developments who meet an advanced set of criteria could qualify for an additional allocation reduction.

This is a pilot program that is intended to be reviewed after 4 years but maybe reviewed sooner, revised and/or cancelled should York Region Council determine it is appropriate.

Eligibility Criteria:

This Program is available to residential development proposals within York Region meeting all of the following eligibility criteria:

i. The local municipality has formally advised York Region that they wish to participate in the program;

ii. The local municipality has initiated and/or adopted water efficiency plans that complement and support the Region's Water for Tomorrow program;

iii. The local municipality continues participation in inflow and infiltration (I-I) reduction programs. (ie. local municipalities develop I-I reduction strategies in order to form funding partnerships with York Region);

iv. The local municipality agrees to partner with York Region to participate in leakage reduction programs, as they are developed and implemented;

v. The local municipality amends their water-use by-laws to support summer water conservation plans that reflect best practices principles to be established by York Region (ie. lawn watering permitted one day per week);

vi. The proposed residential development is permitted under all applicable official plan policies without the need for a major local official plan amendment; and

vii. Confirmation that all homes within the proposed development will be eligible for certification under the GreenHouse™ Certification Program or the LEED® for Homes.

Should the proposed development meet the above eligibility criteria, applicants are required to commit through a registered agreement to construct a development that meets **all** the following Program requirements.

Program Requirements

Eligible developments that meet **all** of the following program requirements would qualify for a 10**%** reduction in servicing allocation.

A. Technical Specifications:

Third Party Certification

i. Third party certification through GreenHouse™ or LEED® for Homes programs for all units within the proposed development.

Water Conservation Measures

ii. The following mandatory water saving measures:

a) 4.85 LPF single flush toilets shall be installed in 100 % percent of bathrooms or water closets;

b) Low flow lavatory faucets (max flow of 5.87 litres per minute);
c) Low flow shower faucets (max flow of 7.6 litres per minute);
d) Water efficient Dishwasher (≥ 20.0 litres per cycle);
e) Water efficient Clothes washer (Water Factor of <= 7.5);
f) Hot Water Recirculation System; and
g) Installation of whole-home water- and energy-saving humidifiers.

iii. A minimum requirement of 6 inches of topsoil provided throughout the development.

iv. Provision of water-efficient, drought resistant sod provided throughout the development.

v. Irrigation systems will not be permitted.

Energy Conservation Measures

vi. Homes to be constructed in accordance with Energy Star for New Homes Technical Specifications

Indoor Air Quality

vii. Install water-resistant hard-surface flooring in kitchens, bathrooms, entryways, laundry areas and utility rooms.
viii. Use of low VOC paints, varnishes, stains and sealers.
ix. Installation of heat recovery ventilation systems.
x. Installation of HVAC systems that reduces exposure to indoor air pollutants by ventilating with outdoor air.

Resource Management

xi. Material efficient framing (ie. wall stud spacing 24" on centre).
xii. Increased use of recycled and/or environmentally preferred products
xiii. Construction waste management plans.

Home Owner Education

xiv. Educational programs and informational brochures that explain the use and maintenance of the homes sustainability features will be provided to the Home Owner

B. Advanced Sustainability Requirements:

Developers of grade related residential developments meeting additional criteria and including advanced sustainability requirements could further qualify for a **20% servicing allocation incentive**.

Water Conservation Measures:

i. The following mandatory water saving measures:

a) 4.1 LPF single flush toilets shall be installed in 100 % percent of bathrooms or water closets;
b) Low flow lavatory faucets (max flow of 5.60 litres per minute);
c) Low flow shower faucets (max flow of 6.6 litres per minute);
d) Water efficient Dishwasher (≥ 20.0 litres per cycle);
e) Water efficient Clothes washer (Water Factor of <5.5);
f) Hot Water Recirculation System; and
g) Installation of whole-home water- and energy-saving humidifiers.
h) Design and provide landscape features that minimize the demand for water
and synthetic chemicals by utilizing native and drought resistant species;
i) Design and install rainwater harvesting and storage systems for irrigation and outdoor water use and indoor water use;
j) External tap (marked "not for drinking") connected to the rainwater harvesting system; and
k) Greywater Reuse
l) Install permeable driveways surfaces (other than sod).

Energy Conservation Measures

ii. Increased insulation levels throughout the building envelope;
iii. Triple pane window with low emissive coatings to help reflect heat and sunlight;
iv. Design and provide landscape features that minimize solar gain in the summer and maximize solar gain in the winter; and
v. Real time energy monitors for homeowner awareness and energy.

Indoor Air Quality

vi. Enhanced combustion-venting measures for fireplaces
vii. Enhanced outdoor air ventilation
viii. Garage pollution protection

Renewable Energy

ix. Orient homes or roofs for solar design (ensure 450 sq ft property oriented for solar applications); and
x. Installation of electrical systems needed to make home solar ready
xi. Solar assisted water and air preheating systems

Resource Management

xii. Advanced on site waste diversion and recycling programs during construction;
xiii. Greater incorporation of recycled content in building materials; and
xiv. Greater reliance on locally sourced materials.

Enhanced Home Owner Education

xv. Enhanced training for the Home Owner that could include additional training, group home owner training supported by a operation and maintenance manual and/or DVD.

C. The Small Print:

i. The applicant shall agree to comply with the most recent version of the GreenHouse Certified Construction Technical Specifications or LEED® for Homes Rating System which change from time to time as technology and products improve.

ii. The Owner acknowledges that should these technical specifications be less than the requirements of the Ontario Building Code, 2006, the requirement of the Code shall govern. The Owner also acknowledges that the requirements of this program may be more stringent than those of the Ontario Building Code.

iii. The builder should provide the required high efficiency products and appliances from York Region's approved "Fixture" list.

iv. The water efficient plumbing fixtures, fittings and appliances originally installed in the unit/dwelling shall only be replaced with equivalent or more water efficient fixtures, fittings and appliances.

v. While irrigation systems are not permitted, exemption may be considered where irrigation systems are not connected directly to a municipal water supply system.

Examples of Leadership in Building Environmentally and Responsible Homes in York Region

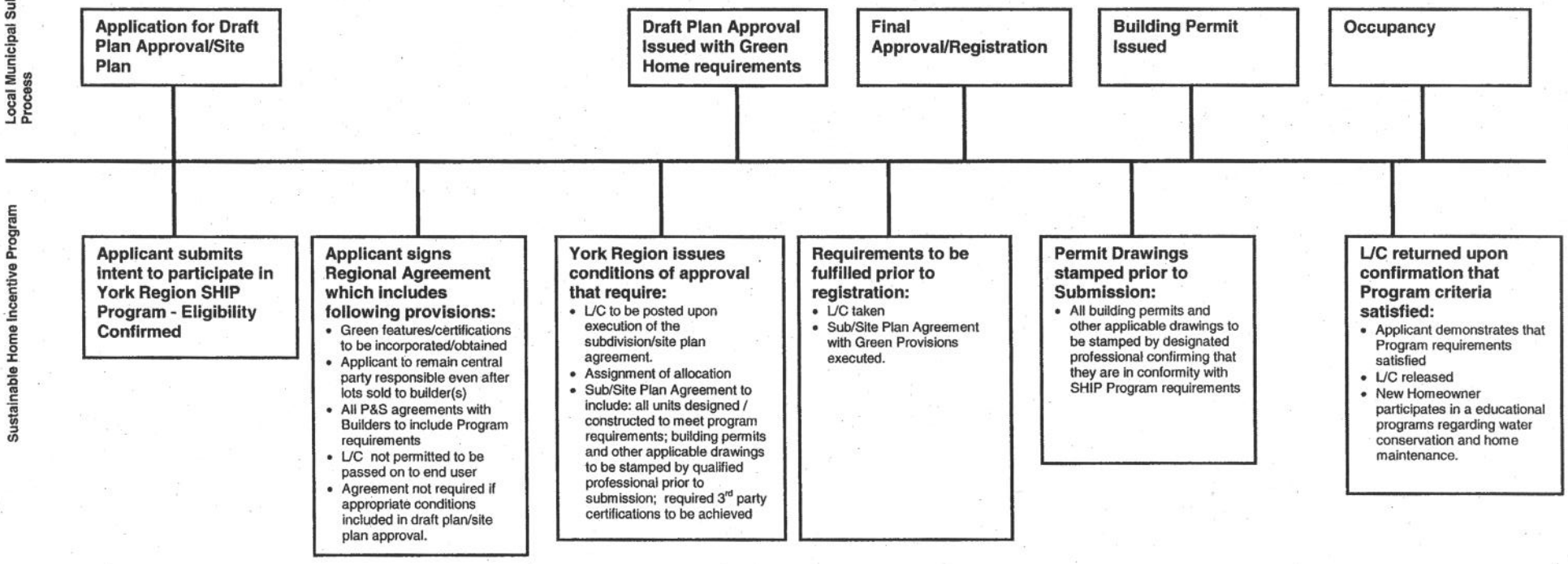
Rodeo Homes is currently building 34 EcoLogic Homes® in Newmarket. All homes within this development have been designed to meet the LEED Platinum Standard. In addition, Rodeo Homes is a participant in the Canada Green Building Council's LEED for Homes Case Study Program.

Equilibrium™ Housing is a national housing initiative led by Canada Mortgage and Housing Corporation (CMHC) to showcase a range of technologies, products and techniques to build healthy, energy-efficient, and affordable net-zero homes that produces as much energy as it consumes on a yearly basis. Minto Homes was selected as one of the 12 demonstration homes across Canada. Minto Homes has also built a LEED silver certified Home in the Harvest Hills Development located in East Gwillimbury.

The Archetype Sustainable House is located at the Kortright Centre in the City of Vaughan. The two semi-detached houses serve as models of the next generation of green homes by showcasing sustainable technologies, materials and practices, and promoting a holistic approach to home and community building. The Toronto and Region Conservation Authority and BILD members partnered to construct the homes using donated construction materials and labour to help make this project possible.

Sustainable Home Incentive Program

Application/Approval Process



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Council Attachment 5