

## How To Use This Document

This document is split into three sections,

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The introduction gives principal information about the standard and how it is applied. The metrics lay out the requirements for plan of subdivision applications. Project applicants are encouraged to familiarize themselves with the Tier 2 measures in addition to Tier 1 measures and implement where possible but Tier 2 measures are not currently required for site plan application. Proponents will use the document to review the measures and documentation. Where applicable, links to supporting resources have been provided. This document is to be used in conjunction with the High Performance Development Standard Checklist which the project proponent will be required to fill out for new Plan of Subdivision Applications.

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### Introduction

**This standard applies to projects pursuing Plan of Subdivision approval within the City of Ottawa.**

All projects are encouraged to advance the sustainability objectives of the HPDS to the fullest extent possible. Development on sites that are designated under Part IV or Part V of the Ontario Heritage Act shall be exempt from applicable standards if it can be demonstrated that they will negatively impact the defined cultural heritage attributes of the property. Projects that have completed pre-consult prior to adoption of the standard will not be required to comply with the measures outlined herein.

Authority to implement this standard comes from Section 51 of the Planning Act which gives authority to require drawings or plans as it relates to sustainable design for exterior measures.

#### **What is a standard?**

A standard is a set of specific measures to which a proponent must demonstrate compliance. Where compliance cannot be achieved, justification must be provided. The intention is to implement the HPDS to the fullest extent; deviations may be permitted under extenuating circumstances. Proponents should submit a letter outlining the circumstances that may justify deviation. This makes the standard more prescriptive than municipal guidelines, but less

stringent and rigorous with respect to non conformity than regulations established through Zoning and other By-laws.

### **Other Jurisdictions**

Similar standards have been put in place in municipalities across Ontario including Toronto, Mississauga, Vaughan, Brampton, Whitby, and East Gwillimbury, with others undertaking similar reviews. Ottawa has developed its own standard to align with the priorities in the new Official Plan and Energy Evolution: Ottawa's Community Energy Transition Strategy. Many elements of this standard are aligned with the requirements in place in other municipalities; this is done where possible for consistency.

### **HPDS Document List**

#### *New*

- Metrics for each tier
- Checklist
- Energy model Terms of Reference
- Community Energy Plan Terms of Reference
- Legislative Table
- Deviation guidance
- Planning Primer Training

#### *To be modified*

- Planning Application Form
- Procedures Manual

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Plan of Subdivision Tier 1

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### 1.1. Community Energy Plan

<b>Rationale and Objective</b>		<b>When it is required</b>	
The purpose of a Community Energy Plan (CEP) is to support the transition to a low carbon future. A CEP is a key component in the design of a new community by using quantitative analysis to develop targeted strategies that reduce energy consumption and carbon emissions. The Community Energy Plan process is important because it ensures communities plan for the infrastructure necessary to move toward zero emissions and to enable solutions that are only available if planned on a community scale.	<b>Application</b>	Plan of Subdivisions	
	<b>Exemptions</b>	As outlined in the CEP Terms of Reference	
	<b>Phasing</b>	Projects that have completed a pre-consult prior to adoption of the standard may not be required to complete a CEP	
<b>Requirement</b>			
Complete a Community Energy Plan as per the terms of reference document			
<b>Documentation</b>	Community Energy Plan Report		
<b>Review Process</b>	Community Energy Plan Report to be submitted at time of submission		

### 1.2. Tree Planting

<b>Rationale and Objective</b>		<b>When it is required</b>	
To contribute to the City's urban tree canopy target by ensuring new trees are planted with sufficient soil volume to support the long term growth of the tree.	<b>Application</b>	Plan of Subdivision	
	<b>Exemptions</b>	None	
	<b>Phasing</b>	First requirement to come in effect with the release of tree planting guidelines.	
<b>Requirement</b>			
Volume of high-quality soil sufficient to support canopy cover on the site, as recommended in the City's Tree Planting Guidelines.			
30 m <sup>3</sup> high quality soil for street trees. Soil calculation can include continuous soil on private or public property. High quality soil excludes compacted soil, further details are provided in the Landscape Plan Terms of Reference.			
Trees to be maintained and warranted for a minimum of 2 years.			

<b>Documentation</b>	Landscape plans to mark soil volumes and warrantee period. HPDS checklist to include soil volume calculation summaries.
<b>Review Process</b>	Planner to review for inclusion. Support from forestry and planning team for complete review.
<b>Other Jurisdictions</b>	Markham, Toronto Vaughan, and Oakville have similar targets for tree soil volumes.
<b>References</b>	Landscape Plan Terms of Reference- <i>currently under development</i>

1.3. Plant Species

<b>Rationale and Objective</b>	<b>When it is required</b>	
Build on landscaping guidelines, contribute to local ecosystems and reduce impact of invasive species.	<b>Application</b>	Plan of Subdivision
	<b>Exemptions</b>	None
	<b>Phasing</b>	Phase 1- initial requirement
<b>Requirement</b>		
Landscape plan to include no invasive species and target a minimum 50% native plant species. Drought tolerant and pollinator friendly plant species preferred. Vegetated buffers to be 100% native vegetation.		
<b>Documentation</b>	Landscape plans to include the list of plant species with identification of native, local, drought tolerant species.	
<b>Review Process</b>	Planner to review planting list includes required information and meets requirement.	
<b>Other Jurisdictions</b>	No invasive species is an existing target in the City of Ottawa Toronto Green Standard has the same requirement under Tier 1.	
<b>References</b>	Landscape Plan Terms of Reference- <i>currently under development</i>	

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## Plan of Subdivision Tier 2

This section lays out the draft requirements for Tier 2 plan of subdivision applications. Tier 2 is the voluntary component of the High-Performance Development Standard.

An incentive program is proposed to be developed to encourage these metrics. The metrics may evolve based on the parameters of the incentive program once developed. It is intended that projects pursuing Tier 2 incentive would have an incentive agreement with an additional layer of approval beyond the standard plan of subdivision application. The details of this additional approval and review to be defined as part of the incentive program.

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### 2.1 Community Energy Plan

<b>Rationale and Objective</b>
The purpose of a Community Energy Plan (CEP) is to support the transition to a low carbon future. A CEP is a key component in the design of a new community by using quantitative analysis to develop targeted strategies that reduce energy consumption and carbon emissions. The Community Energy Plan process is important because it ensures communities are equipped with the infrastructure necessary to move toward zero emissions and to enable solutions that are only available if planned on a community scale.
<b>Requirement</b>
a. Complete a Community Energy Plan demonstrating energy emissions and resiliency targets on a community scale through measures such as; district heating systems, micro grids or other development agreements. Subdivisions may take several years to build out, the community energy plan must factor in the expected build out rate and advance buildings toward near zero emission buildings by 2030.
OR
b. Commit to achieving individual energy performance levels as per below:
Using exterior measures, buildings shall be designed to meet or exceed one of the following (interior measures may be factored into the proposed design):
i. Total Energy Use Intensity (TEUI), Thermal Energy Demand Intensity (TEDI) and GHG Emission Intensity (GHGI) targets by for Part 9 buildings per table below

	TEUI (KWh/m <sup>2</sup> /yr)	TEDI (KWh/m <sup>2</sup> /yr)	GHGI (kg CO <sub>2</sub> <sup>e</sup> /m <sup>2</sup> /yr)
	108	38	13

**OR**

1.1. 40% energy emission improvement above the Ontario Building Code (OBC), SB-12;

**OR**

1.2. Commitment to pursue approved certification program Tier 2: R-2000®, CHBA NZe, NZEr, or Passive House, or equivalent Certification programs are to be the current version as of date of submission following programs defined transition requirements if the submission falls within a version transition period. Equivalent programs to be approved by City documentation demonstrating equivalency with respect to carbon emission performance, integrity and verification to be provided for review

<b>Documentation</b>	Community Energy Plan Report
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2.2 Extreme Wind and Snow Loading

<b>Rationale and Objective</b>
Local climate projections suggest more extreme wind and other weather events are likely to occur more frequently in the coming years. Structural enhancements, particularly to low rise wood frame buildings, can help improve the resilience of our community to these events.
<b>Requirement</b>
Enhance wind and snow loading provisions for Part 9 wood frame buildings. Through the following strategies. <ul style="list-style-type: none"> <li>• Hip roofs framed with engineered trusses are preferred.</li> <li>• Hurricane [tie] or framing anchor shall be required on all rafter to wall connections.</li> <li>• Use laminate shingles rated for high wind speeds, install an ice-and-water shield over sheathing, or tape seams between roof sheathing panels. <ul style="list-style-type: none"> <li>• Roof sheathing (OSB or plywood) shall be nailed with 8d ring shank (0.131" × 2.5") or 10d (0.148" × 3") nails on 4" on center along the edges and 6" on center in the field. Dimensional lumber decking is not allowed.</li> </ul> </li> <li>• Wall sheathing to overlap common rim joist and sill plate.</li> <li>• Garage doors rated to 217 km/h.</li> </ul>

<b>Documentation</b>	Documentation is the HPDS checklist and sign off from structural engineer or architect following construction.
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2.3 Waste Storage

<b>Rationale and Objective</b>	
Providing occupants with the tools necessary to conveniently sort and store waste from all streams is an important means of minimizing waste going to landfill. Divertible waste in the landfill (specifically organic and paper products) produce methane gas, a GHG that is 25 times more potent than carbon dioxide. It is important to take proactive measures to encourage diverting this material from landfill. Methane associated with landfill gas has a global warming potential 25 times that of Carbon Dioxide.	
<b>Requirement</b>	
Provide dedicated space in-unit for residents to store containers for the following waste streams, either by using an under-the-counter solution, closet solution, or other acceptable solution:	
<ul style="list-style-type: none"> <li>• Garbage</li> <li>• Paper recycling</li> <li>• Glass, Metal, Plastic recycling</li> <li>• Food and Organic Waste</li> </ul>	
<b>Documentation</b>	Waste Management approach outlined in HPDS checklist

2.4 Construction Waste Management

<b>Rationale and Objective</b>	
Benchmarking of construction waste management is a challenge in the industry. While many builders seek to reduce wasted material in order to minimize cost, without an industry benchmark it is difficult to evaluate if strategies are improving on industry standard or just maintaining the status quo. By committing to share this information this will help to build a reference data base which the City may seek academic partnerships to report on in aggregate.	
<b>Requirement</b>	
Commit to reporting on construction waste tracking. Tracking includes measurement of total weights of waste, from recycled and non recycled streams relative to constructed area using the downloadable excel template. Include a summary of strategies used to minimize waste and report of significant events that may have contributed to abnormal volumes. Significant	

events could include fires or flooding leading to significant material damage, or partially complete spaces.

<b>Documentation</b>	Construction Waste Management Plan
<b>References</b>	<a href="#">A Guide to Waste Audits and Waste Reduction Work Plans For Construction &amp; Demolition Projects</a>

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