

High Performance Development Standard Metrics Plan of Subdivision

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.

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 a Pre-consultation meeting 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 By-law 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

Plan of Subdivision Tier 1

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1.1. Community Energy Plan

Rationale and Objective		When it is required	
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.	Application	Plan of Subdivisions	
	Exemptions	As outlined in the CEP Terms of Reference	
	Phasing	Projects that have completed a Pre-consultation Meeting prior to adoption of the standard may not be required to complete a CEP	
Requirement			
Complete a Community Energy Plan as per the terms of reference document			
Documentation	Community Energy Plan Report		
Review Process	Community Energy Plan Report to be submitted at time of submission		

1.2. Tree Planting

Rationale and Objective		When it is required	
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.	Application	Plan of Subdivision	
	Exemptions	None	
	Phasing	First requirement to come in effect with the release of tree planting guidelines.	
Requirement			
Volume of high-quality soil sufficient to support canopy cover on the site, as recommended in the City's Tree Planting Guidelines.			
30 m ³ high quality soil required 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.			

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

1.3. Plant Species

Rationale and Objective	When it is required	
Build on landscaping guidelines, contribute to local ecosystems and reduce impact of invasive species.	Application	Plan of Subdivision
	Exemptions	None
	Phasing	Phase 1- initial requirement
Requirement		
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.		
Documentation	Landscape plans to include the list of plant species with identification of native, local, drought tolerant species.	
Review Process	File lead to share landscape plans with Forestry for review of planting list.	
Other Jurisdictions	The existing target in the City of Ottawa is for no invasive species. Toronto Green Standard has the same requirement under Tier 1.	
References	Landscape Plan Terms of Reference- <i>currently under development</i>	

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

Rationale and Objective
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.
Requirement
<ul style="list-style-type: none"> 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. <p>OR</p> <ul style="list-style-type: none"> b. Commit to achieving individual energy performance levels as per below: <p>Use exterior measures, buildings shall be designed to meet or exceed one of the following (interior measures may be factored into the proposed design):</p> <ul style="list-style-type: none"> 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 ² /yr)	TEDI (KWh/m ² /yr)	GHGI (kg CO ₂ ^e /m ² /yr)
	108	38	13

OR

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

OR

1.2. Commit 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 is to be provided by applicant for City to review

Documentation	Community Energy Plan Report
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2.2. Extreme Wind and Snow Loading

Rationale and Objective
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.
Requirement
<p>Enhance wind and snow loading provisions for Part 9 wood frame buildings. Through the following strategies.</p> <ul style="list-style-type: none"> • Hip roofs framed with engineered trusses are preferred. • Hurricane [tie] or framing anchor on all rafter to wall connections shall be required. • Laminate shingles rated for high wind speeds, install an ice-and-water shield over sheathing, or tape seams between roof sheathing panels are required. • 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. • Wall sheathing required to overlap common rim joist and sill plate. • Garage doors required to be rated to 217 km/h.

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

Rationale and Objective	
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.	
Requirement	
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"> • Garbage • Paper recycling • Glass, Metal, Plastic recycling • Food and Organic Waste 	
Documentation	Waste Management approach outlined in HPDS checklist

2.4. Construction Waste Management

Rationale and Objective	
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 the 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.	
Requirement	
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.	
Documentation	Construction Waste Management Plan
References	A Guide to Waste Audits and Waste Reduction Work Plans For Construction & Demolition Projects

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