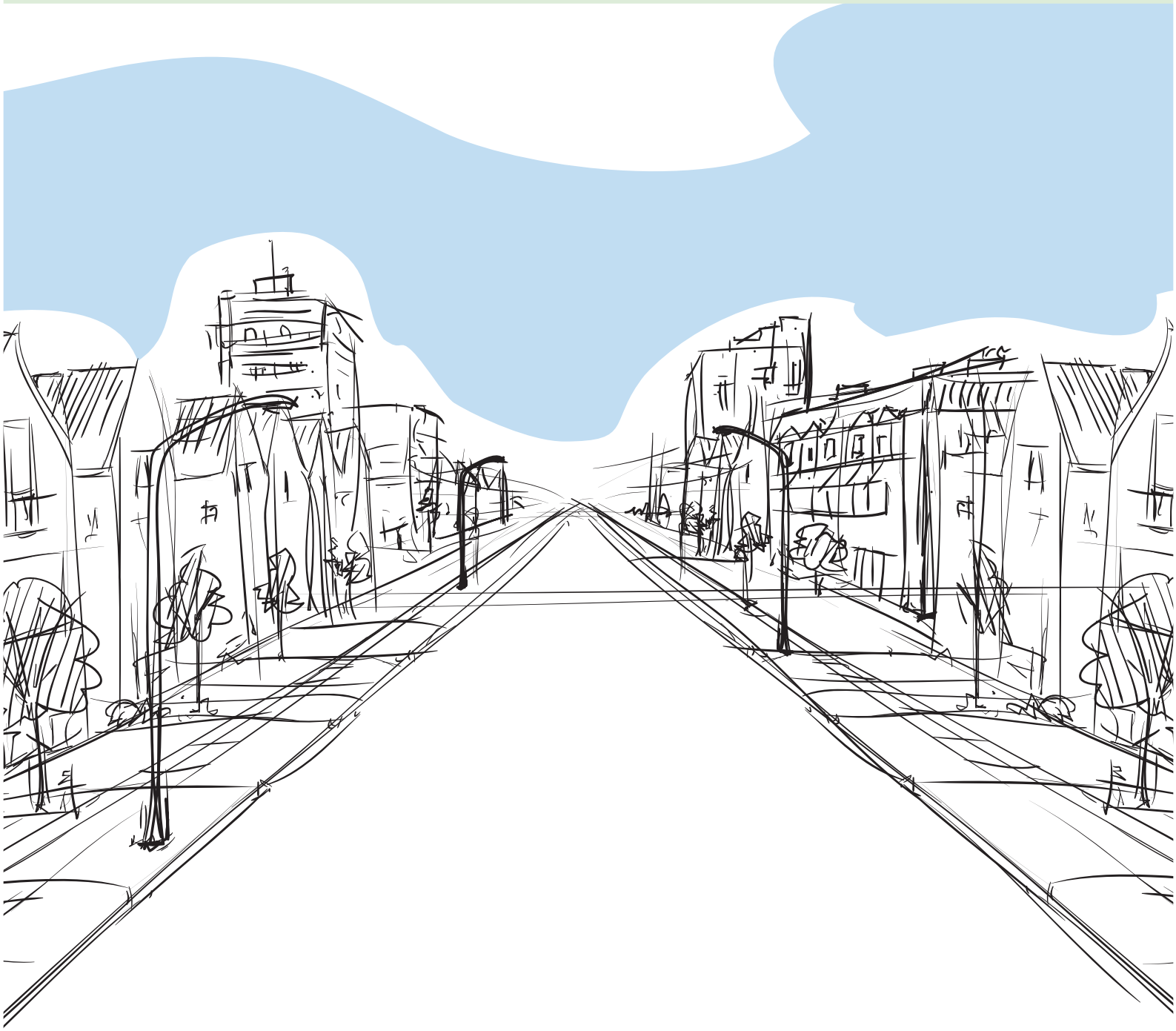
North Oakville
Sustainable Development Checklist & User Guide

Subdivision and Site Level Design
May 20, 2008



OAKVILLE

Introduction

North Oakville: A commitment to sustainable development

The North Oakville Secondary Plan, which establishes the Town's vision for North Oakville, commits the Town to the principle of sustainable development. The Bruntland Commission (1983) defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." The checklist is an important tool to assess sustainable features of planned developments and ensure ongoing commitment to sustainable development. It has been divided into four principles of sustainability, as defined in the North Oakville Secondary Plan:

1. Development form. This includes development designed to:

- Reduce consumption of energy, land and other nonrenewable resources;
- Minimize the waste of materials, water and other limited resources;
- Create livable, healthy and productive environments; and,
- Reduce greenhouse gases.

2. Air Quality/Energy Efficiency. This includes development designed to:

- Minimize the amount of vehicular travel and emissions;
- Reduce the urban heat island effect through strategies such as green roofs and light coloured hardscapes; and,
- Conserve energy through building design and layout.

3. Water Management. This includes development designed to:

- Conserve water;
- Promote native plantings and water efficient landscaping; and,
- Reduce the impact of development on receiving watercourses.

4. Natural Heritage System. This includes development designed to:

- Develop and highlight a sustainable Natural Heritage System; and,
- Protect, preserve and, where appropriate, enhance the Natural Heritage System.

The Sustainability Checklist: An evolving document

Strategies for integrating sustainable development goals into the planning and building processes are continuing to evolve. Through recent changes to the Ontario Planning Act, sustainability has been identified as a matter of Provincial interest. Like Oakville, other municipalities are beginning to integrate these principles into the planning process. In preparing the checklist, a number of these processes and documents have been used to provide a basis for the checklist (see Reference Documents and Further Reading below). As sustainable building technologies and evaluation tools continue to evolve, the checklist will require updating; the sustainable development checklist is a "living" document.

Reference Documents and Further Reading:

- Toronto Green Development Standard Checklist (2006)
- Draft City of Pickering Sustainable Neighbourhood Guidelines (2006)
- Leadership in Energy Efficiency and Environmental Design (LEED) for Neighbourhood Development Rating System Pilot Version (2007)
- LEED Canada New Construction Green Building Rating System (2007)

Alignment with Town of Oakville Strategic Plan Goals:

The Sustainability Checklist reflects the following Town Goals:

- To be innovative in everything we do
- To enhance our natural environment
- To enhance our social environment
- To enhance our economic environment
- To be the most livable Town in Canada

Purpose

The Sustainable Development Checklist will be used as a tool for assessing the sustainable features of development applications. Town Staff will be looking for all development applications to reflect the principles contained within this checklist. Based on North Oakville Secondary Plan policies, the checklist is meant to be a tool to encourage sustainable development practices; however, required components of the checklist reflect requirements of the Secondary Plan. The Town recognizes that the specific requirements may not be applicable to all applications. Therefore, the level of compliance will only be based on a percentage of applicable points achieved.

How the checklist is incorporated into the development process

The Sustainable Development Checklist is to be completed early in the development process (i.e. prior to the pre-consultation meeting). Please contact the Planning Services Department if you have any questions.

To complete:

1. Choose the appropriate checklist to complete:

   01 **Checklist 1:**
   For developments requiring subdivision applications.

   02 **Checklist 2:**
   For site-specific applications including site-specific rezonings and site plan applications (i.e., non-subdivision applications).

2. Submit the checklist prior to the pre-consultation meeting.

3. The submitted checklist will be discussed at the pre-consultation meeting. At this meeting, further documentation (e.g. planning justification report, Environmental Implementation Report etc.) may be required by staff. This will be indicated by staff checking-off the "Explanation Req'd" column.

4. Resubmit the checklist along with any requested supporting documentation as part of a complete planning application.

Calculating Checklist Points

To assist is assessing the level of sustainability of an application, each item has been assigned a point value. Items that are required are highlighted. In some cases not all points will be applicable. For example, if the development does not contain a heritage structure, this credit would not be counted as 'applicable'. However, while a developer may not choose to check-off LEED certification for an office development, this item is still applicable. The percentage of applicable points achieved corresponds to three levels:

 = Level 1

 = Level 2

 = Level 3

If approved, the "Innovative Credit" item found at the end of each checklist are meant to be "bonus" points which can be included in the percentage of applicable points achieved. The items and point level attained will be referenced in subsequent staff reports.

Level 1 indicates that the minimum level has been achieved by the applicant in conformance with the applicable North Oakville Secondary Plan.

Levels 2 indicates that the applicant has gone beyond what is required in terms of environmentally sustainable development.

Level 3 indicates that the development has achieved a superior level of environmentally sustainable design.

01 Subdivision Design

Applicant: Neatt Communities Date: 11/2024

Applicant Signature: mlU

Site Address: 3065 Neyagawa Blvd.

Planning File No.:

- Highlighted items are requirements
- Check-off the Sustainability features that are proposed for the development
- Town staff will check-off the "Explanation Req'd" column
- Items are explained on the following pages

	✔	No.	Items	Explanation Req'd	# of Points
Development Form	☒	1.	Subdivision design reflects the Master Plan designations for the property PENDING OPA	☐	5
	☒	2.	Subdivision design introduces a modified grid road system	☐	2
	☒	3.	Subdivision design reflects applicable Cycling Strategy	☐	1
	☒	4.	Phasing plan shows roads required for Transit to be built first	☐	3
	☒	5.	Development contains a mix of uses in conformance with the Master Plan	☐	3
	☒	6.	Block length maximum: 250m	☐	2
	☐	7.	Development to be LEED ND certified	☐	6
	☐	8.	Development includes adaptive reuse of heritage structures	☐	2
	☒	9.	Improve public space by providing community spaces for uses such as plazas, public art, and/or creating connections to adjacent natural features	☐	2
	☒	10.	Continuous sidewalks on both sides of all public roads (excludes roads through or adjacent to the Natural Heritage System)	☐	3
	☐	11.	For high-density development, minimize surface parking by providing: At least 40% of parking provided as structured, or underground parking; or,	☐	2
	☒		At least 50% of parking provided as structured or underground parking	☐	3
Air Quality/ Energy Efficiency	☒	12.	Greater densities are placed at Neighbourhood Centres or Urban Centres near transit facilities	☐	4
	☒	13.	High-efficiency street lighting	☐	1
	☒	14.	Developers distribute sustainability handout to all new owners	☐	1
	☐ N/A	15.	Ground-related dwelling(s) to be Energy Star Certified	☐	4
	☐	16.	Building(s) to be LEED Certified	☐	5
	☐	17.	Energy Star compliant appliances	☐	2
	☐	18.	Development supports or is connected to a district energy project	☐	6
Water Management	☒	19.	The following Water Quality targets are achieved: • at least 80% removal (Enhanced Treatment) of total suspended solids; and, • no increase in Total Phosphorus loading after development	☐	3
	☒	20.	Erosion control provided to the threshold of the most "erosion-sensitive" portion of the receiving watercourse.	☐	2
	☐	21.	Innovative Stormwater Management Design plan used that demonstrates less reliance on end-of-pipe facilities and more on conveyance and at-source strategies. This may include: a) Employs a treatment train approach with a minimum of three treatment units; or,	☐	5
	☐		b) Innovative pond design	☐	3
	☐	22.	Implement green infrastructure (i.e. bioswales) within some of the public right-of-ways subject to the Town approval.	☐	3
	☐	23.	One or more of the following green upgrade options will be available for home buyers/ land buyers: • A xerophytic/native plant and/or rain garden landscape package;	☐	1
	☐		• Rain barrels; and/or,	☐	2
	☐		• Cisterns	☐	3

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Natural Heritage

✔	No.	Items	Explanation Req'd	# of Points
☒	24.	Natural Heritage System shown in compliance with the North Oakville Subwatershed Study	☐	4
☐ N/A	25.	All lands within the Natural Heritage system to be in public ownership	☐	3
☐	26.	Public views and accessibility to the Natural Heritage System (NHS) is maintain by: a) Maintaining 50% of the NHS bounded by a combination of roads and open space; or,	☐	2
		b) Maintaining 75% of the NHS bounded by a combination of roads and open space	☐	4
☐	27.	Innovative subdivision or building design credit	☐	Up to 7
Total possible points: 84 (Applicable points will vary depending on the specific application)			**TOTAL**	**34**

= All Applicable items that are highlighted as "requirements"

= 60-74% of Applicable Points

= Greater than 75% of Applicable Points

Explanation of Items

1. Subdivision design reflects the Master Plan designations for the property
The North Oakville Master Plan is designed with sustainable development as an underlying principle: it proposes mixed-use development to reduce the number of automobile trips; it contains a modified street grid road pattern that encourages more efficient provision of transit; and it contains a Natural Heritage System that protects and links natural features. The Town encourages subdivision design to closely reflect the Town's Master Plan. Conformance to the master plan principles should be addressed in the Planning Justification Report.

2. Subdivision design introduces a modified grid road system
A modified grid road system, as shown on the Town's Master Plan, enhances the opportunities to provide transit. The grid also disperses and reduces the length of vehicular trips. Cul-de-sacs will generally be permitted only when warranted by site conditions. The Town expects all subdivision design plans to show a modified grid road system.

3. Subdivision design reflects applicable Cycling Strategy
Building cycling infrastructure will encourage more persons to use cycling as a transportation mode. Implementing the applicable Cycling Strategy will create a connected and cohesive cycling network. Road design, subdivision layout, and signage should reflect this plan.

4. Phasing plan shows roads required for Transit to be built first
The North Oakville Secondary Plan contains "transit first" policies. The phasing of large subdivisions shall proceed in a manner that will be supportive of the early provision of transit services and in compliance with the North Oakville Transit Plan and Transit Guidelines.

5. Development contains a mix of uses in conformance with the Master Plan
The provision of mixed-uses in conformance with the North Oakville Secondary Plan and Master Plan will assist in creating a more pedestrian-friendly environment by ensuring that most people are within a five minute walk of local shops and services.

6. Block length maximum: 250m
The length of street blocks contributes to the creation of a pedestrian-friendly environment. Blocks should be short and regular in length to make walking efficient and allow for variation in routes. Where it is impossible or undesirable to provide short blocks, wide public mid-block pathways could be provided as an alternative. The Town expects all subdivision design plans to show short and regular blocks. In Employment areas, the Town recognizes that due to the land use, block lengths may be slightly larger (i.e., in the order of 300m).

7. Development to be LEED ND certified
The LEED for Neighborhood Development Rating System integrates the principles of smart growth, urbanism, and green building. The program provides independent, third-party verification that a development's location and design meet accepted high standards for environmentally

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responsible, sustainable development. The Town will be encouraging LEED ND certification or equivalent for large subdivision applications.

More information can be found here: www.usgbc.org

8. Development includes adaptive reuse of heritage structures

The North Oakville Secondary Plan encourages the adaptive reuse of heritage structures. Adaptive reuse refers to integrating cultural heritage resources or their key components into a new development.

9. Improve public space by providing community spaces for uses such as plazas, public art, and/or creating connections to adjacent natural features

Pedestrian comfort is an important consideration in streetscape and subdivision design. The creation of community spaces assists in providing a more pedestrian-friendly environment. The Town will expect the provision of pedestrian amenities based on the size of a project and its location.

10. Continuous sidewalks on both sides of all public roads (excludes roads through or adjacent to the Natural Heritage System)

The provision of sidewalks on both sides of a street assists in creating a more pedestrian-friendly and urban environment. The North Oakville Secondary Plan requires the provision of sidewalks on both sides of most streets. The Town will be encouraging the provision of sidewalks on both sides of all streets.

11. For high-density development, minimize surface parking by providing underground or structured parking

In comparison with at-grade or surface parking, the provision of parking underground or in a parking structure generally permits the creation of a more compact, pedestrian-friendly and transit-supportive urban form. In general, the Town will encourage underground and structured parking over surface parking.

12. Greater densities are placed at Neighbourhood Centres near transit facilities

Under the North Oakville Secondary Plan, Neighbourhood Centres are meant to act as mixed-use nodes that contain transit-supportive densities. The Town expects this type of development within the Neighbourhood Centre designation.

13. High-efficiency street lighting

High-efficiency street and traffic lights (e.g. LED lights) last longer, consume significantly less energy and require less maintenance than conventional bulbs. Many municipalities, including Oakville, are in the process of converting to LED traffic lights as they save energy without sacrificing visibility. The Town expects all new subdivisions to incorporate energy efficient street lights while ensuring safety is not compromised.

14. Developers distribute sustainability handout to all new owners

The Town will prepare a Sustainability Handout to be distributed to each resident. It outlines important aspects of the North Oakville Secondary Plan such as the Natural Heritage System and transit-first policy. The provision of these handouts to new homeowners will be made a condition of draft plan approval.

15. Ground-related dwelling(s) to be Energy Star Certified

Energy Star qualified homes can include a variety of energy-efficient features, such as effective insulation, high performance windows, tight construction and ducts, efficient heating and cooling equipment and Energy Star qualified lighting and appliances. The Town will be expecting that this program will be incorporated in all ground-related dwellings (i.e. detached dwellings, semi-detached dwellings and townhomes). The Town may also consider equivalent programs.

More information can be found here: www.energystar.gov

16. Building(s) to be LEED Certified

The LEED® Canada Rating System recognizes leading edge buildings that combine healthy, high-quality and high-performance advantages with reduced environmental impacts. LEED is a voluntary, consensus-based, market-responsive set of criteria that evaluate project performance from a whole-building, whole-life perspective, providing a common understanding for what constitutes a green building in the Canadian context. Points are earned by meeting specific performance criteria, defined in Prerequisites and Credits, that outperform typical standard practice. Improved building performance is certified with ratings - Certified, Silver, Gold or Platinum - based on the total number of points earned by a project.

The Town will be expecting that this program will be incorporated in high-density, mixed-use development as well as large employment building projects. The Town may also consider equivalent programs.

More information can be found here: www.cagbc.org

17. Energy Star compliant appliances

Energy Star qualified appliances incorporate advanced technologies that use 10–50% less energy and water than standard models. Energy Star qualified appliances include, among others, clothes washers, dishwashers, refrigerators and freezers. Product listings are created

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for each type of appliance with detailed energy rating information. The Town will be expecting that where the developer is supplying the appliances, Energy Star appliances are provided for residential units.

More information can be found here: www.energystar.gov

18. Development supports or is connected to a district energy project

District energy, also known as district heating and cooling, is the technology for providing heating (and possibly other forms of energy) from a central plant to multiple users. District energy can save money for users, conserve resources and reduce air emissions. Where the potential for implementing district energy exists, the Town expects projects to incorporate this technology. Developers may also consider small-scale localized energy solutions, such as the installation of geothermal technology.

More information can be found here: www.cdea.ca

19. The following Water Quality targets are achieved:

- **at least 80% removal (Enhanced Treatment) of Total Suspended Solids; and,**
- **no increase in Total Phosphorus loading after development**

Total Suspended Solids are associated with many contaminants in urban runoff. Reducing the amount of total suspended solids ensures the protection of receiving watercourses. In addition, the limit on phosphorus protects the Lake Ontario shoreline and ensures that development does not contribute to the shoreline algae problem. "Enhanced Treatment", "Total Suspended Solids" and "Total Phosphorus" are defined terms of the Ministry of Environment's *Stormwater Management Planning Design Manual (March 2003).*

20. Erosion control provided to the threshold of the most "erosion-sensitive" portion of the receiving watercourse.

Receiving watercourses that may be affected by development in North Oakville have been evaluated for erosion susceptibility. Through the North Oakville Subwatershed Study, maximum run-off volumes for each watercourse have been established to prevent erosion. Compliance with these standards will reduce the impact of development on watercourses.

21. Innovative Stormwater Management Design plan that demonstrates less reliance on end-of-pipe facilities and more on conveyance and at-source strategies. This may include:

(a) Employing a treatment train approach with a minimum of three treatment units; and/or,

(b) Innovative pond design

A "treatment train" approach to stormwater design employs an integrated methodology that may allow for, among other things, more effective stormwater management and reduction in land required for end-of-pipe solutions (such as stormwater management ponds). Treatment units may include strategies such as bioswales, oil/grit separators, wetlands, rain gardens and other retention systems.

Innovative pond design uses techniques such as: multiple storage cells arranged in a series to improve water quality; treatment of local runoff using vegetative buffers; and enhanced vegetation within and around the pond. Innovative pond design techniques are to be to the satisfaction of the Town.

In general, the purpose of this credit is to encourage techniques that are able to demonstrate a reduction in sediment and phosphorus loading.

22. Implement green infrastructure (i.e. bioswales) within some of the public right-of-ways

In certain areas, there may be opportunities to create "Green Streets." These streets could contain bioswales which encourage more conveyance level stormwater management, provide opportunities for more vegetation within the public right-of-way and may reduce the size of stormwater management ponds. Use of these types of technologies will require the applicant to consult with the Town.

23. One or more of the following green upgrade options will be available for home buyers/land buyers:

- **A xerophytic/native plant and/or rain garden landscape package;**
- **Rain barrels; and/or**
- **Cisterns**

The use of native and/or drought-resistant (i.e., xerophytic) planting reduces the amount of watering needed and helps fight the establishment of invasive plant species. Also, a Town Pesticide By-law is in effect. This by-law affects landscape maintenance activities and therefore should be taken into account in the choice of plant materials.

In addition, rain barrels and cisterns assist in reducing stormwater flow and allow rainwater harvesting (i.e., rain water can be used to water plants).

More information on the Pesticide By-law can be found here: www.oakville.ca/Media_Files/by-laws/PesticideBylaw2007-036.pdf

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24. Natural Heritage System shown in compliance with the North Oakville Subwatershed study
The general boundary of the Natural Heritage System shall be maintained in accordance with the North Oakville Subwatershed Study. Minor modifications may be made in consultation with the Region of Halton and Conservation Halton.

25. All lands within the Natural Heritage System to be in public ownership
Public securement of lands within the Natural Heritage System (NHS) provides opportunities for enhanced management of land within the System. The Town will expect development on properties containing the NHS to dedicate these lands.

26. Public views and accessibility to the Natural Heritage System (NHS) is maintained by:

a) Maintaining 50% of the NHS bounded by a combination of roads and open space; or

b) Maintaining 75% of the NHS bounded by a combination of roads and open space

Backing lots and buildings onto the NHS (i.e., with the rear facing the NHS) is less desirable. This orientation typically results in more encroachments and disturbances. Alternatively, more of the NHS surrounded by parks, schools, and roads contributes to greater public safety, public views and managed public accessibility. In general, the Town encourages the NHS to be bounded by public property as much as possible.

27. Innovative subdivision or building design credit
The intent of this credit is to recognize additional or innovative performance in areas such as green building or subdivision design not specifically addressed by this checklist. These points are at the discretion of the Town. Applicants applying for these credits should include additional information as part of the Planning Justification Report.

Figure 1

Stormwater management in North Oakville will require the achievement of enhanced water quality targets.

02 Site Level Design

Applicant: Neatt Communities Date: 11/2024

Applicant Signature: mlU

Site Address: 3056 Neyagawa Blvd.

Planning File No.:

- Highlighted items are requirements
- Check-off the Sustainability features that are proposed for the development
- Town staff will check-off the "Explanation Req'd" column
- Items are explained on the following pages

	✔	No.	Items	Explanation Req'd	# of Points
Development Form	☒	1.	If surface parking lots are provided, they include sustainable features such as: permeable paving, pedestrian links, bioswales, appropriately sized landscape islands that support vegetation and/or other stormwater retention systems	☐	3
	☒	2.	Bicycle parking provided in conformance with Town Zoning Bylaw	☐	1
	☐	3.	For development containing residential units, each unit receives a one-year transit pass at no additional cost	☐	1
	☒	4.	If permitted by the Zoning Bylaw, the development contains a mix of uses	☐	3
	☐	5.	Development includes adaptive reuse of any heritage structures	☐	2
	☒	6.	Improve public space by providing community spaces such as plazas, public art, and/or creating connections to adjacent natural features	☐	3
	☒	7.	Wide mid-block pedestrian connections provided to any adjacent public feature(s) (i.e., parks, schools, the Natural Heritage System)	☐	1
	☐	8.	Encourage solar orientation through building placement	☐	1
	☐	9.	Minimize surface parking by providing: At least 40% of parking provided as structured, or underground parking; or,	☐	2
	☒		At least 50% of parking provided as structured or underground parking	☐	3
Air Quality/Energy Efficiency	☒	10.	Reduction in light pollution: Exterior lighting to be high-efficiency lighting that is full cut-off and/or contains a cut-off shield	☐	1
	☒	11.	For high density residential development, Site Plan shows recycling disposal that is as or more convenient than garbage disposal	☐	3
	☐	12.	Ground-related residential dwelling(s) to be Energy Star® Certified	☐	4
	☐	13.	Building(s) to be LEED® Certified	☐	5
	☐	14.	Building(s) to incorporate green or living roofs	☐	3
	☐	15.	Building(s) to include light coloured roofs	☐	2
	☐	16.	Development to be connected to a District Energy project	☐	3
	☐	17.	Development to incorporate alternative energy source(s)	☐	3
	☒	18.	Transportation Demand Management Plan to be submitted	☐	2
	☐	19.	Shading provided on east, west and south windows with overhangs, awnings and/or deciduous trees	☐	3
	☐	20.	Light coloured materials for at least 50% of all hardscape, including surface parking walkways and others	☐	2
	☐	21.	Where the developer is supplying appliances, they are Energy Star compliant	☐	2
Water Management	☒	22.	Water Quality Treatment to Level 1 (Enhanced) Control for Total Suspended Solids	☐	3
	☒	23.	Water Quality Target for Total Phosphorus to be met through a combination of at-source, conveyance and end-of-pipe stormwater management controls in support of the "treatment-train" approach to stormwater management	☐	3
	☒	24.	Maintain Water Balance by retention of the 5mm design storm event on site	☐	5
	☐	25.	Rainwater/grey water recycling system to be used	☐	2
	☐	26.	Erosion control provided by on-site detention of the 25mm design storm event for a minimum of 24 hours	☐	2
	☐	27.	Landscaping is designed to be low maintenance and drought resistance (e.g. xeriscaping, native species planted etc.)	☐	2
	☐	28.	Maintain existing on-site trees that are 30 cm or more DBH (diameter at breast height)	☐	3
	☐	29.	Optimize pervious cover: At least 35% of site is pervious	☐	2
	☐	30.	Innovative building design or site plan layout	☐	Up to 7
Total possible points: 73 (Applicable points will vary depending on the specific application)				**TOTAL**	**31**

02

= All Applicable items that are highlighted as "requirements"

= 60-74% of Applicable Points

= Greater than 75% of Applicable Points

Explanation of Items

1. If surface parking lots are provided, they include sustainable features such as: permeable paving, pedestrian links, bioswales, appropriately sized landscape islands that support vegetation, and/or other stormwater retention systems

Provided surface parking is to comply with applicable Urban Design Guidelines and policies within the North Oakville Secondary Plan (NOSP). In general, parking lot design and placement should reflect NOSP's emphasis on pedestrian comfort and safety. The design should also include features that address on-site stormwater management and the provision of shade trees with the appropriate volume of high quality soil (i.e. 15m3 per tree). This credit is only required for developments with surface parking lots greater than 10 spaces in size.

2. Bicycle parking provided in conformance with Town Zoning Bylaw

The Town's Zoning Bylaw for North Oakville contains minimum bicycle parking spaces that are required for most residential, retail and employment uses.

3. For development containing residential units, each unit receives a one-year transit pass at no additional cost

The North Oakville Secondary Plan contains "transit first" policies to permit the early and efficient operation of transit. The Town encourages transit-supportive development and measures to encourage transit ridership.

4. If permitted by the Zoning Bylaw, the development contains a mix of uses

The provision of mixed-uses (e.g. residential units above commercial development) in conformance with the approved zoning bylaw and Official Plan will encourage a more compact and pedestrian-friendly environment by ensuring that most people are within a five minute walk of local shops and services.

5. Development includes adaptive reuse of any heritage structures

The North Oakville Secondary Plan encourages the adaptive reuse of heritage structures. Adaptive reuse refers to integrating cultural heritage resources or their key components into a new development.

6. Improve public space by providing community spaces such as plazas, public art, and/or creating connections to adjacent natural features

Pedestrian comfort is an important consideration in the design of projects. The creation of community spaces assists in providing a more pedestrian-friendly environment. The Town will expect the provision of pedestrian amenities based on the size of a project and its location.

7. Wide mid-block pedestrian connections provided to any adjacent public feature(s) (i.e., parks, schools, the Natural Heritage System)

Public views, accessibility, safety and connection to public features contribute to the creation of a pedestrian-friendly environment. The Town expects all developments to create public connections between public features where appropriate.

8. Encourage solar orientation through building placement

Passive solar orientation will permit enhanced energy efficiencies by creating optimum conditions for the use of passive and active solar strategies.

9. Minimize surface parking by providing underground or structured parking.

In comparison with off-street surface parking, the provision of parking underground or in a parking structure generally permits the creation of a more compact, pedestrian-friendly and transit-supportive urban form. In general, the Town will encourage underground and structured parking over surface parking.

10. Reduction in light pollution: Exterior lighting to be high-efficiency lighting that is full cut-off and/or contains a cut-off shield

Reducing light pollution, among other things, reduces sky-glow and improves nighttime visibility by reducing glare. The Town expects all exterior lights to include cut-off shields, while providing for safety and security.

11. For high density residential development, Site Plan shows recycling disposal that is as or more convenient than garbage disposal

The North Oakville Secondary Plan as well as the Town of Oakville Environmental Strategic Plan encourage the minimization of waste and the promotion of recycling. The placement of these facilities should reflect this

principle. For example, three-shoot waste disposal drops should be shown in residential apartment buildings.

12. Ground-related dwelling(s) to be Energy Star Certified
Energy Star qualified homes can include a variety of energy-efficient features, such as effective insulation, high performance windows, tight construction and ducts, efficient heating and cooling equipment and Energy Star qualified lighting and appliances. The Town will be expecting that this program will be incorporated in all ground-related dwellings (i.e., detached dwellings, semi-detached dwellings and townhomes). The Town may also consider equivalent programs.
More information can be found here: www.energystar.gov

13. Building(s) to be LEED Certified
The LEED® Canada Rating System recognizes leading edge buildings that combine healthy, high-quality and high-performance advantages with reduced environmental impacts. LEED is a voluntary, consensus-based, market-responsive set of criteria that evaluate project performance from a whole-building, whole-life perspective, providing a common understanding for what constitutes a green building in the Canadian context. Points are earned by meeting specific performance criteria, defined in Prerequisites and Credits, that outperform typical standard practice. Improved building performance is certified with ratings - Certified, Silver, Gold or Platinum - based on the total number of points earned by a project.

The Town will be expecting that this program will be incorporated in high-density, mixed-use development as well as large employment building projects. The Town may also consider equivalent programs.
More information can be found here: www.cagbc.org

14. Building(s) to incorporate green or living roofs
Green roofs can be used to manage stormwater, reduce the urban heat island effect (which refers to the tendency for urban areas to become warmer than surrounding rural areas) and improve local air quality. Where an intensive roof is developed, the area can also be used as an amenity area. Extensive green roofs, which are inaccessible, are also strongly encouraged especially for non-residential development. The Town encourages high-density residential and office use buildings as well as large employment developments to incorporate green roofs. *More information can be found here: www.greenroofs.org*

15. Building(s) to include light coloured roofs
Light coloured roofs cut energy demand in the summer months by protecting the roof from absorbing solar heat energy. To receive this credit, the roofing material must have a Solar Reflectance Index equal to or greater than 78 and emissivity greater than 0.9 according to ASTM Standard 408.

16. Development to be connected to a District Energy project
District energy, also known as district heating and cooling, is the technology for providing heating (and possibly other forms of energy) from a central plant to multiple users. District energy can save money for users, conserve resources and reduce air emissions. Where the potential for implementing district energy exists, the Town expects projects to incorporate this technology.
More information can be found here: www.cdea.ca

17. Development to incorporate alternative energy source(s)
Use of alternative energy sources can reduce pollution and increase the efficiency of the power system. Sources that could be employed may include the use of solar and photo voltaic equipment, geothermal technologies, and/or wind power. Proposed alternative energy source(s) could be used in combination with energy from the grid.

18. Transportation Demand Management Strategies to be submitted
The North Oakville Secondary Plan encourages businesses and organizations to develop Transportation Demand Management Strategies (TDMS). TDMSs are plans that encourage more sustainable modes of transport and more efficient use of existing transportation facilities. Measures may include the bulk buying of transit passes, priority parking for autoshare programs, staggered work hours, priority parking for carpooling vehicles, etc. The Town especially encourages the creation of TDMSs for large employment and office building developments.
More info can be found here: www.tc.gc.ca

19. Shading provided on east, west and south windows with overhangs, awnings and/or deciduous trees
The Town encourages energy efficiency through measures that permit the use of passive and active solar strategies.

20. Light coloured materials for at least 50% of all hardscape, including surface parking walkways and others
Installing light coloured materials can reduce the urban heat island effect, which refers to the tendency for urban areas to become warmer than surrounding rural areas. For the purposes of this item, light coloured materials must have a reflectance of 0.3.

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21. Where the developer is supplying appliances, they are Energy Star compliant
Energy Star qualified appliances incorporate advanced technologies that use 10–50% less energy and water than standard models. Energy Star qualified appliances include, among others, clothes washers, dishwashers, refrigerators and freezers. Product listings are created for each type of appliance with detailed energy rating information. The Town will be expecting that where the developer is supplying the appliances, Energy Star appliances are provided for residential units.
More information can be found here: www.energystar.gov

22. Water Quality Treatment to Level 1 (Enhanced) Control for Total Suspended Solids
Total Suspended Solids are associated with many contaminants in urban runoff. Reducing the amount of total suspended solids ensures the protection of receiving watercourses. "Total Suspended Solids" and "Enhanced Treatment", are defined terms of the Ministry of Environment's Stormwater Management Planning Design Manual (March 2003).

23. Water Quality Target for Total Phosphorus to be met through a combination of at-source, conveyance and end-of-pipe stormwater management controls
The incorporation of a "treatment-train" approach is essential to addressing stormwater management targets for water quality such as total phosphorus. Source control measures should be implemented first, primarily consisting of measures to control phosphorus. Infiltration or retention measures should be implemented secondly, further reducing the total phosphorus and total suspended sediment load. End-of-pipe measures should be implemented last in the treatment train and work to remove a portion of remaining pollutants.

24. Maintain Water Balance by retention of the 5mm design storm event on site
Source quantity controls, such as rain barrels, backyard ponds, rain gardens, rooftop storage, downspout disconnection, pervious pavements, reduced lot grading, rooftop gardens are all measures to reduce the quantity of runoff leaving the site. Stormwater has an opportunity to percolate into the ground and contribute to infiltration or evapotranspire into the atmosphere.

25. Rainwater/grey water recycling system to be used
Strategies such as rainwater harvesting systems and/or treated grey water systems (from laundry/bathing) can be used to provide water for flushing toilets and/or irrigation.

26. Erosion control provided by on-site detention of the 25mm design storm event for a minimum of 24 hours
Reducing the amount of stormwater discharging from a site, protects the receiving watercourse from increased erosion.

27. Landscaping is designed to be low maintenance and drought resistance (e.g. xeriscaping, native species planted etc.)
The use of native and/or drought-resistant planting (e.g. xeriscaping) reduces the amount of watering needed and helps fight the establishment of invasive plant species. The Town expects the site plan to show these types of plantings. Also, a Town Pesticide By-law is in effect. This by-law affects landscape maintenance activities and therefore should be taken into account in the choice of plant materials.
More information on the Pesticide By-law can be found here: www.oakville.ca/Media_Files/by-laws/PesticideBylaw2007-036.pdf

28. Maintain existing on-site trees that are 30 cm or more DBH (diameter at breast height)
Preserving existing trees can contribute to reducing air pollution and promoting energy conservation. The Town encourages the preservation of existing trees on-site.

29. Optimize pervious cover: At least 35% of site is pervious (includes permeable paving and landscaping)
Increased perviousness promotes at-source stormwater management, reduces peak flows and lessens dependence on end-of-pipe facilities (e.g. stormwater management ponds). Pervious areas may include areas that are landscaped, contain permeable paving and/or include a green roof.

30. Innovative building design or site plan layout
The intent of this credit is to recognize additional or innovative performance in areas such as green building design or layout not specifically addressed by this checklist. These points are at the discretion of the Town. Applicants applying for these credits should include additional information as part of their application.