



D. G. Biddle & Associates Limited

consulting engineers and planners

96 KING ST. E., OSHAWA, ONTARIO L1H 1B6 PHONE (905) 576-8500 FAX (905) 576-9730
e-mail: info@dgbiddle.com

ENVIRONMENTAL SUSTAINABILITY PLAN

FOR

PROPOSED LAND SEVERANCE

4973 OLD BROCK ROAD, CLAREMONT,

CITY OF PICKERING

REGIONAL MUNICIPALITY OF DURHAM

OUR FILE: 121041

DATE: AUGUST 2021

Y:\Job Files\121000\121041 4973 Old Brock Rd, Claremont\121041 Reports\121041 Sustainability Report



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August 31, 2021

1023343 Ontario Inc.
26 McCaw Court
Port Perry ON, L9L 0B3

Attention: Ms. Doreen Kemp

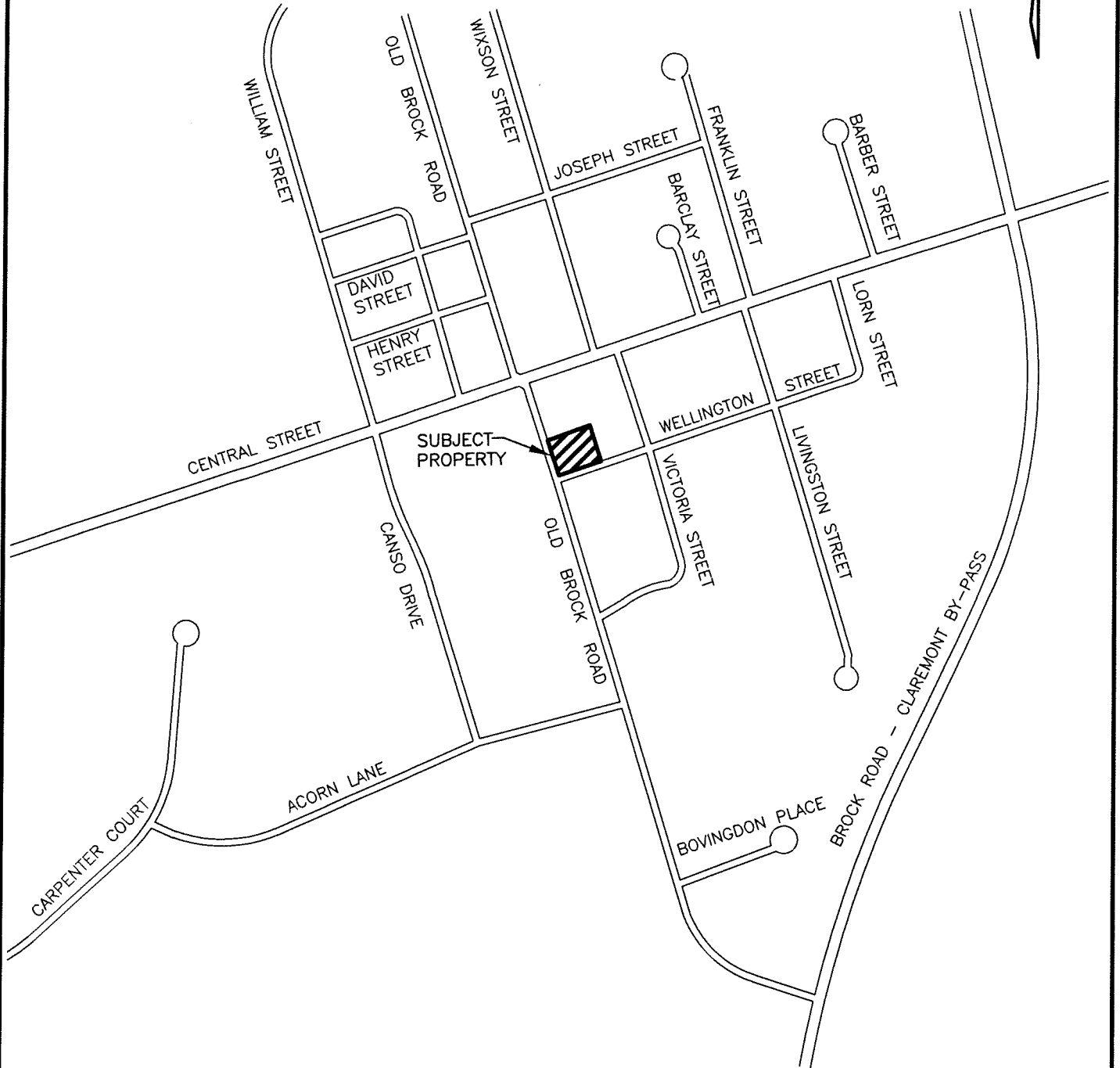
**Re: Environmental Sustainability Plan
Proposed Land Severance Application
4973 Old Brock Road, Claremont
City of Pickering, Region of Durham
Our File: 121041**

1.0 INTRODUCTION

In accordance with the City of Pickering Official Plan and pre-consultation meeting discussion, the proponent is required to prepare an Environmental Sustainability Report. This plan will identify specific measures on how the sites development will mitigate storm water run-off, improve water quality, and conserve energy.

The proposed development will include the construction of a single dwelling residential unit, driveway, and septic tank, as shown on the Preliminary Grading / Servicing Plan. The subject site is locally known as 4973 Old Brock Road in Claremont, City of Pickering, Regional Municipality of Durham. The proposed development is bounded on the east and north by existing residential lands, on the south by Wellington Street, and on the west by Old Brock Road. Severed lot will have an approximate area of 0.14ha.

TOWN OF CLAREMONT



4973 OLD BROCK ROAD, CLAREMONT

SITE LOCATION PLAN



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96 KING STREET EAST • OSHAWA, ON • L1H 1B6
 PHONE (905)576-8500 • FAX (905)576-9730
 info@dgbiddle.com

SCALE N.T.S.
 DRAWN B.C.
 DESIGN B.C.
 CHECKED P.D.C.
 DATE AUG 2021

PROJECT
 121041

DWG
 FIG 1

This Sustainability Report will also address:

- 1) Energy Conservation measures for the proposed building
- 2) Water Conservation for the proposed building
- 3) Use of environmentally friendly materials
- 4) Use of energy efficient infrastructure

This Sustainability plan will demonstrate how the development of the site will achieve the key principles of energy conservation and environmental sustainability.

2.0 ENVIRONMENTAL SUSTAINABILITY PRINCIPLES

Reported below are the various key principles that will be implemented to improve air quality, energy efficiency, water quality and efficiency, minimize waste and protect the natural environment.

2.1 Energy Efficiency

- 1) Insulation values will be provided for all components of the building shell as per the Ontario Building Code (OBC), providing an efficient building shell.
- 2) The design of the building will meet the OBC requirements for Energy Efficiency including the SB10 requirements which were implemented January 1, 2017.
- 3) All windows and doors will be selected and installed to achieve the maximum energy efficiency required to meet the OBC. Window glazing will form less than 30% of overall wall area resulting in lower building heat loss.
- 4) Lighting will be designed to meet the OBC requirements for Energy Efficiency. Interior fixtures will be LED (Light Emitting Diode) to reduce the home's electricity needs.
- 5) Exterior site lighting is proposed to use energy efficient LED fixtures complete with cut-offs to prevent illumination of adjacent spaces.
- 6) Heating, ventilation, and air conditioning system for the home will be designed and selected with efficient motor, distribution, and heat recovery systems. All ductwork will be sealed, and joints taped.

- 7) Where applicable appliances will be Energy Star rated.
- 8) The use of window shading will help project interior spaces and reduce heat gain, minimize cooling requirements.

2.2 Air Quality

- 1) During the construction period, the removal of natural vegetation causes the transport of sediment from the site. To control dust emissions a Sediment and Erosion and Control Plan will be developed to describe dust control measures during construction. The construction vehicle access shall be maintained to minimize sediment from being tracked onto the public road. Any sediment carried out to the road shall be cleaned as per the notes on the future Erosion Control Plan.
- 2) Local construction trades and material suppliers will be employed to reduce distance and travel time to the construction site.
- 3) Heating, ventilation, and air conditioning systems will be designed and selected with efficient motor, distribution, and heat recovery systems. Heating system ductwork will be designed to minimize the use of bends and corners to reduce the amount of accumulated dust.
- 4) The building will be airtight to prevent the infiltration of outdoor dust, pollen, and vehicle emissions. This will also maintain insulation values and reduce the possibility of mold growth.
- 5) The selection of building materials will first consider those with fewer volatile organic compound (VOC) emissions, environmental hazards, and health risks as preferred. This includes low emitting carpeting, use of low VOC paints, stain, and adhesives, minimize use of synthetic moldings and trim and use of ceramics in entry areas.

2.3 Water Quality And Water Quantity

- 1) During the construction period, the removal of natural vegetation causes the transport of sediment during rainfall events. To minimize the sediment laden storm water leaving the site during construction, an Erosion and Sediment Control Plan will be developed. Sediment controls such as silt fence, catch basin filtration, and construction vehicle access mat will be implemented to minimize silty material from leaving the construction site. All sediment control measures are to be inspected regularly and replaced if required. They shall remain in place until the site fine grading and sodding is completed.
- 2) Topsoil depths will be proposed to be a minimum of 300mm within the intensively planted landscape areas to assist in absorbing more stormwater and reducing run-off. These systems will enhance stormwater infiltration into the groundwater regime.
- 3) To minimize domestic water consumptions, low flush toilets and faucets will be used for the plumbing fixtures.

2.4 Solid Waste

- 1) Waste will be reduced by using materials more efficiently and through efficient purchasing and handling of products. This includes eliminating redundant materials with precise quantity take-offs, improve storage procedures to reduce weather damage and reduce suppliers packaging left on-site.
- 2) Any surplus material will be stored in a common location where the likelihood of other trades using them will increase.
- 3) All waste material such as steel studs, wood, drywall, etc. that can be recycled, will be. Separate bins will be placed in a common location where waste can be easily separated for recycling.
- 4) The use of prefabricated building components such as structural steel and precast insulated wall panels will significantly reduce the creation of waste on the construction site.

2.5 Post Development Solid Waste

Solid waste will be sorted into three streams including non-recyclables, post-consumer recyclables and paper recyclables. Non-recyclables will be handled as general waste. Post-consumer recyclables, including aluminum cans and plastic bottles, will be collected by the Region of Durham, and sent to an appropriate municipal recycling facility. Paper recycling will be collected by the Region of Durham and sent to an appropriate municipal recycling facility.

2.6 Natural Environment

1) Implementation of Low Impact Development techniques have been implemented into the site design to enhance ground water recharge and reduce stormwater run-off.

Should you have any questions or concerns, please do not hesitate to contact our office.

Yours truly,

D.G. BIDDLE & ASSOCIATES LIMITED



Peter Cane, P.Eng.

Municipal Project Engineer, Associate

PDC/BC/bc

Encl.

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