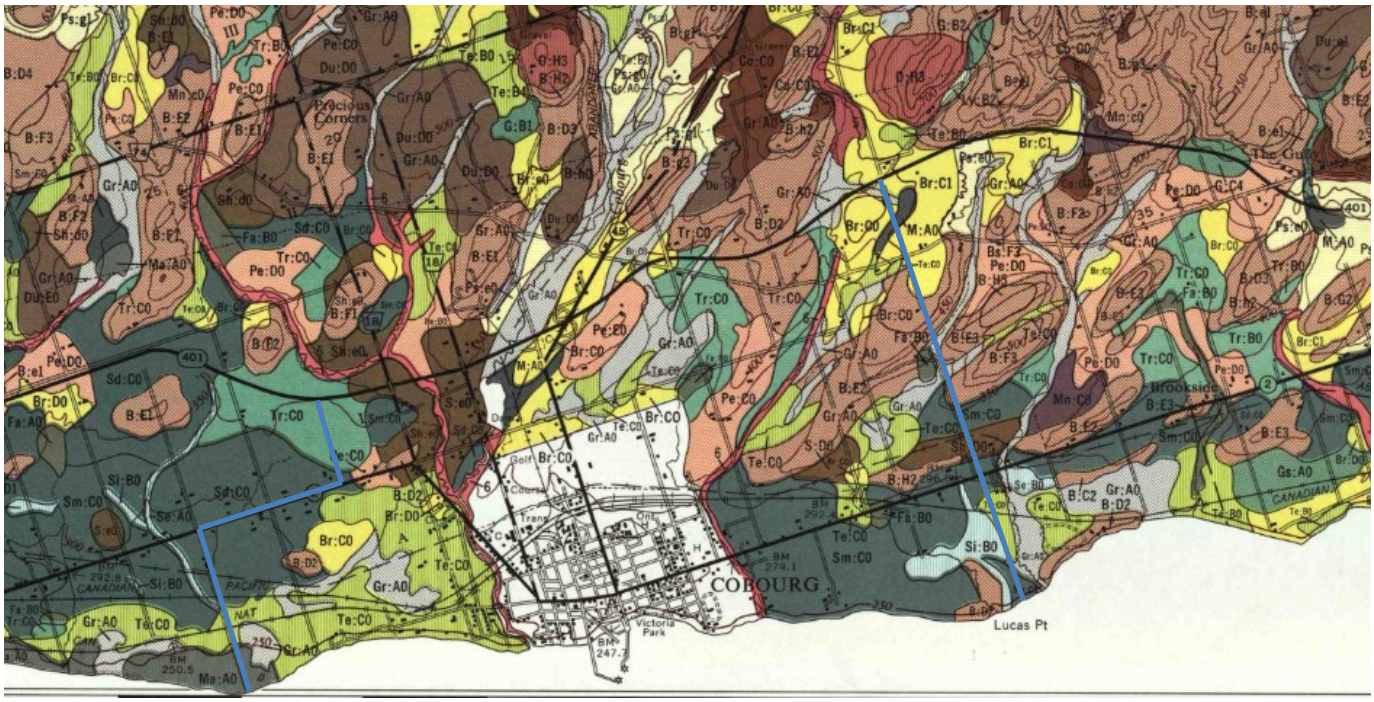
Appendix A: Cobourg Soils Information

- Excerpt of the Soils Map and Soil Characteristics within Cobourg; Source: Northumberland County Soil Survey

Appendix A: Cobourg Soils Information

source: Northumberland County Soil Survey; Ontario Report No. 42 (1974)



Soil Symbol	Soil Series Name	Texture	*Material Type	Slope	Stoniness	Drainage / Moisture Content	Moisture-holding Capacity	Nutrients
Br	Brighton	medium sandy loam	Outwash	Very gently sloping – 2-5%	Stone-free	Good	low	low fertility
Te	Tecumseth	sandy loam	Outwash			Imperfect (moist)		
Gr	Granby	sandy loam	Outwash	Smooth basin 0.0-0.5%		Poor (wet)		
Pe	Percy	fine sandy loam	Lacustrine	Very gently sloping – 2-5%		Good	good	good
Tr	Trent	fine sandy loam	Lacustrine			Imperfect		
S	Schomberg	silty clay loam	Lacustrine			Good	good to very good	good
Sh	Schomberg	silt loam + clay	Lacustrine			Good		
Sm	Smithfield	silty clay loam	Lacustrine			Imperfect (moist)		
Si	Simcoe	silty clay loam	Lacustrine	Level, 0.5-2%		Poor (wet)		
B	Bondhead	loam	Till	Gently-moderately sloping, 6-15%	moderately stony	Good	good	good
M	Muck	organic	Organic deposition	Smooth basin 0.0-0.5%	Stone-free	Very Poor (saturated)	very good	good

Soil series of the same shading in the above table are associated with each other, meaning they are derived from the same method of deposition upon retreat of the glacier and are similar in soil materials. The main differences amongst the soil series in each group are moisture content/drainage (mainly dependent upon position on the landscape, i.e. upper slope, mid-slope, lower slope to -depression) and slight differences in texture (proportion of sand, silt and clay).

*Lacustrine – fine materials, relatively similar in size, deposited in still water (lake);
Outwash – fine to coarse materials, generally sorted, deposited by moving water (stream)
Till – unsorted materials dumped as the glacier melted (retreated).

Appendix B: Cobourg Tree Species Profile

- Count of Number of Individuals/Proportion of All Identified Trees for each of the 111 Species within Cobourg's Tree Inventory

Appendix B: Cobourg Tree Species Profile

Species	***Common Name***	***Number***	***%***
ABIES BALSAMEA	Balsam Fir	1	0.02%
ABIES FRASERI	Fraser Fir	1	0.02%
ACER	Maple	8	0.14%
ACER CAMPESTRE	Hedge Maple	7	0.13%
ACER GINNALA	Amur Maple	62	1.11%
ACER GRISEUM	Paperbark Maple	6	0.11%
ACER NEGUNDO	Manitoba Maple	26	0.46%
ACER NIGRUM	Black Maple	11	0.20%
ACER PALMATUM	Japanese Maple	2	0.04%
ACER PLATANOIDES	Norway Maple	856	15.30%
ACER RUBRUM	Red Maple	90	1.61%
ACER SACCHARINUM	Silver Maple	146	2.61%
ACER SACCHARUM	Sugar Maple	608	10.87%
ACER SPICATUM	Mountain Maple	1	0.02%
ACER FREEMANII	Autumn Blaze Maple	388	6.94%
AESCULUS CARNES	Ruby Red Horse Chesnut	3	0.05%
AESCULUS HIPPOCASTANUM	Horse Chestnut	28	0.50%
AMELANCHIER CANADENSIS	Serviceberry	11	0.20%
BETULA	Birch	3	0.05%
BETULA JACQUEMONTII	Himalayan Birch	6	0.11%
BETULA NIGRA	River Birch	5	0.09%
BETULA PAPYRIFERA	Paper Birch	72	1.29%
CARAGANA ARBORESCENS	Weeping Caragana	2	0.04%
CARPINUS BETULUS	European Hornbeam	5	0.09%
CARPINUS CAROLINIANA	Hornbeam	5	0.09%
CARYA CORDIFORMIS	Bitternut Hickory	3	0.05%
CARYA OVATA	Shagbark Hickory	5	0.09%
CATALPA SPECIOSA	Northern Catalpa	9	0.16%
CELTIS OCCIDENTALIS	Common Hackberry	94	1.68%
CERCIDIPHYLLUM JAPONICUM	Katsura Tree	8	0.14%
CHAMAECYPARIS NOOTKATENSIS	Weeping Nootka False Spruce	1	0.02%
CORNUS RACEMOSA	Gray Dogwood	7	0.13%
CORYLUS COLURNA	Turkish Hazel	4	0.07%
CRATAEGUS	White Hawthorn	2	0.04%
CRATAEGUS LAEVIGATA	Hawthorn	4	0.07%
CRATAEGUS CRUS-GALLI	Thornless Corkspur Hawthorn	2	0.04%
CRATAEGUS PREDICELLATA SARG.	Scarlet Hawthorn	1	0.02%
EUONYMUS SPP.	Euonymus shrub	1	0.02%

Species	***Common Name***	***Number***	***%***
FAGUS GRANDIFOLIA	American Beech	33	0.59%
FAGUS SYLVATICA	European Beech	51	0.91%
FRAXINUS	Ash	17	0.30%
FRAXINUS AMERICANA	White Ash	113	2.02%
FRAXINUS NIGRA	Black Ash	32	0.57%
FRAXINUS PENNSYLVANICA	Green Ash	186	3.33%
GINKGO BILOBA	Gingko	50	0.89%
GLEDITSIA TRIACANTHOS	Honey Locust	401	7.17%
GYMNOCLADUS DIOICA	Kentucky Coffee Tree	22	0.39%
JUGLANS CINEREA	Butternut	6	0.11%
JUGLANS NIGRA	Black Walnut	44	0.79%
LARIX DECIDUA	European Larch	4	0.07%
LARIX LARICINA	American Larch	22	0.39%
LIGUSTRUM SPP.		1	0.02%
LIRIODENDRON TULIPIFERA	Tulip Tree	4	0.07%
LONICERA SPP.	Honeysuckle	1	0.02%
MAGNOLIA SOULANGIANA	Magnolia	10	0.18%
MALUS SPP.	Crabapple	287	5.13%
MALUS BACCATA	Siberian Crabapple	8	0.14%
MORUS ALBA	Common Weeping Mulberry	3	0.05%
PICEA	Spruce	3	0.05%
PICEA ABIES	Norway Spruce	66	1.18%
PICEA GLAUCA	White Spruce	127	2.27%
PICEA OMORIKA	Siberian Spruce	6	0.11%
PICEA PUNGENS	Colorado Blue Spruce	117	2.09%
PINUS	Pine	18	0.32%
PINUS BANKSIANA	Jack Pine	7	0.13%
PINUS NIGRA	Austrian Pine	30	0.54%
PINUS RESINOSA	Red Pine	24	0.43%
PINUS STROBUS	White Pine	63	1.13%
PINUS SYLVESTRIS	Scott's Pine	3	0.05%
PLATANUS ACERIFOLIA	London Plane Tree	28	0.50%
PLATANUS OCCIDENTALIS	American Sycamore	23	0.41%
POPULUS BALSAMIFERA	Balsam Poplar	9	0.16%
POPULUS DELTOIDES	Eastern Cottonwood	14	0.25%
POPULUS GRANDIDENTATA	Largetooth Aspen	9	0.16%
POPULUS TREMULOIDES	Trembling Aspen	6	0.11%
PRUNUS PENNSYLVANICA	Pin Cherry	9	0.16%
PRUNUS SERRULATA KWANZAN	Kwanzan Japanese Cherry	1	0.02%
PRUNUS TRILOBA VAR. MULTIPLEX	Flowering Almond	1	0.02%
PRUNUS VIRGINIANA	Chokecherry	9	0.16%
PRUNUS X CISTENA	Purple Leaf Sandcherry	2	0.04%

Species	***Common Name***	***Number***	***%***
PYRUS CALLERYANA	Ornamental Pear - Bradford+	51	0.91%
PYRUS CVS	Ornamental Pear	36	0.64%
QUERCUS	Oak	4	0.07%
QUERCUS ALBA	White Oak	12	0.21%
QUERCUS COCCINEA	Scarlet Oak	3	0.05%
QUERCUS MACROCARPA	Bur Oak	66	1.18%
QUERCUS PALUSTRIS	Pin Oak	47	0.84%
QUERCUS ROBUR	English Oak	37	0.66%
QUERCUS RUBRA	Red Oak	177	3.16%
RHAMMUS CATHARTICA	European Buckthorn	2	0.04%
ROBINIA PSEUDOACACIA	Black Locust	30	0.54%
SALIX ALBA	Golden Weeping Willow	14	0.25%
SALIX NIGRA	Black Willow	28	0.50%
SORBUS AMERCANA	Mountain Ash	11	0.20%
SORBUS AUCUPARIA	Mountain Ash	27	0.48%
SORBUS SPP.	Oakleaf Mountain Ash	17	0.30%
SPIRAEA PRUNIFOLIA	Bridalwreath Spirea	2	0.04%
SYRINGA RETICULATA	Ivory Silk Tree Lilac	99	1.77%
SYRINGA VULGARIS	Common Lilac	22	0.39%
TAXUS SPP.	Yew	1	0.02%
TAXUS X MEDIA	Hick's Yew	4	0.07%
THUJA OCCIDENTALIS	White Cedar	165	2.95%
TILIA AMERICANA	Linden / Basswood	199	3.56%
TILIA CORDATA	Linden	125	2.23%
ULMUS AMERICANA	American Elm	24	0.43%
ULMUS GLABRA	Camperdown Elm	1	0.02%
ULMUS PARVIFOLIA	Chinese Elm	3	0.05%
ULMUS PUMILA	Siberian Elm	4	0.07%
ULMUS SPP.	Elm	4	0.07%
VIBURNUM TRILOBUM	Highbush Cranberry	1	0.02%
ZELKOVA SERRATE	Zelkova	13	0.23%
Subtotal - all named trees		5593	87.09%
Blank field - tree botanical name not recorded		829	12.91%
Total number of trees captured in the inventory		6422	
*% for individual tree species is expressed as proportion of total named tree species (5593 trees)			

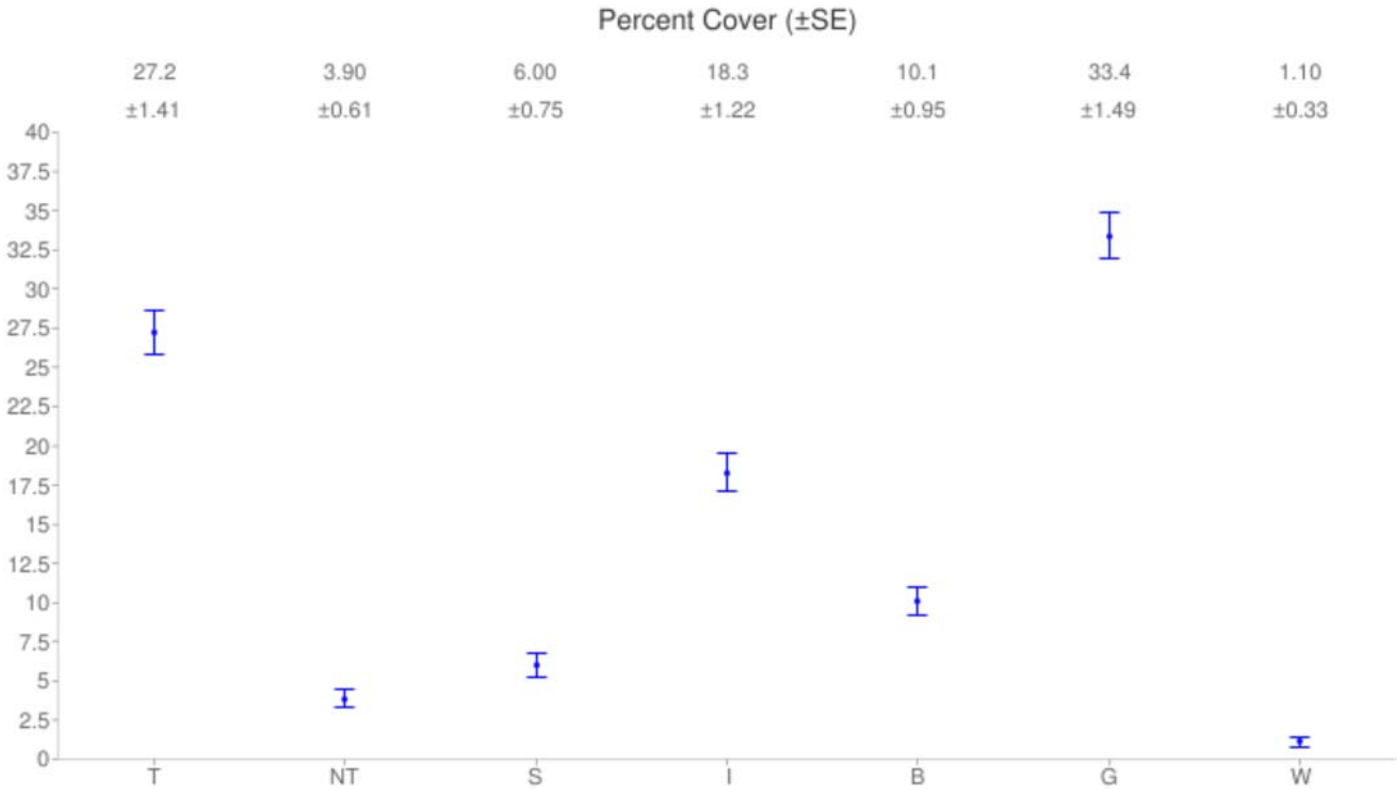
Appendix C: Tree Cover Assessment and Benefits Report (i-Tree)

- Estimate of Cobourg's Tree Cover (%) and Community Benefits Calculated Through the i-Tree Program

i-Tree Canopy v6.1

Cover Assessment and Tree Benefits Report

Estimated using random sampling statistics on 1/03/18



Cover Class	Description	Abbr.	Points	% Cover
Tree	Tree, non-shrub	T	272	27.2 ±1.41
Non-Tree*	All other surfaces	NT	39	3.90 ±0.61
shrub		S	60	6.00 ±0.75
impervious		I	183	18.3 ±1.22
building		B	101	10.1 ±0.95
grass**		G	334	33.4 ±1.49
water		W	11	1.10 ±0.33

Total 1,000 points

*Non-tree areas consist of gravel parking lots, roadsides and areas under development

** grassed areas (33.4% of total) include 3.9% grassed natural areas, 10.2% agricultural fields & 19.3% urban grassed areas

Tree Benefit Estimates

Abbr.	Benefit Description	Value (USD)	±SE	Amount	±SE
CO	Carbon Monoxide removed annually	57.34 USD	±2.97	1,352.62 lb	±69.98
NO2	Nitrogen Dioxide removed annually	98.71 USD	±5.11	3.69 T	±0.19
O3	Ozone removed annually	5,140.86 USD	±265.96	36.73 T	±1.90
PM2.5	Particulate Matter less than 2.5 microns removed annually	10,627.11 USD	±549.79	1.78 T	±0.09
SO2	Sulfur Dioxide removed annually	17.25 USD	±0.89	2.32 T	±0.12
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	3,732.14 USD	±193.08	12.30 T	±0.64
CO2seq	Carbon Dioxide sequestered annually in trees	263,658.38 USD	±13,640.27	7,478.53 T	±386.90
CO2stor	Carbon Dioxide stored in trees (Note: this benefit is not an annual rate)	6,647,649.14 USD	±343,913.58	188,557.03 T	±9,754.93

i-Tree Canopy Annual Tree Benefit Estimates based on these values in lbs/acre/yr and USD/T/yr: CO 0.902 @ 85.08 USD | NO2 4.917 @ 26.86 USD | O3 48.968 @ 140.47 USD | PM2.5 2.379 @ 5,975.67 USD | SO2 3.098 @ 7.45 USD | PM10 16.403 @ 304.43 USD | CO2seq 9,970.817 @ 35.38 USD | CO2stor is a total biomass amount of 251,395.359 @ 35.38 USD*
Note: Currency is in USD
Note: Standard errors of removal amounts and benefits were calculated based on standard errors of sampled and classified points.

About i-Tree Canopy

The concept and prototype of this program were developed by David J. Nowak, Jeffery T. Walton and Eric J. Greenfield (USDA Forest Service). The current version of this program was developed and adapted to i-Tree by David Ellingsworth, Mike Binkley, and Scott Maco (The Davey Tree Expert Company).

Limitations of i-Tree Canopy

The accuracy of the analysis depends upon the ability of the user to correctly classify each point into its correct class. As the number of points increase, the precision of the estimate will increase as the standard error of the estimate will decrease. If too few points are classified, the standard error will be too high to have any real certainty of the estimate.

A Cooperative Initiative Between:

www.itreetools.org

Appendix D: Town Official Plan Sections Relevant to Trees

- Excerpts from the 2017 Official Plan

Appendix D: Town of Cobourg Official Plan (2017) Sections and Policies Relevant to Trees

From Town Official Plan (2017)

Strategic Directions and Policies that support urban forest management and/or which in turn are enhanced by the presence of a healthy urban forest:

- From the 2006 Growth Plan for the Greater Golden Horseshoe[1], the Town's population growth allocation to 2031 is *3,975* additional people and 1,260 additional jobs. The Town already has a land supply designated for development which exceeds the proposed allocations, consequently no additional land is required to be designated in Cobourg for population or employment uses.
- Basis for the Plan
    - Section 1.5 iv) The Town has a significant existing system of natural areas and parkland which should form the basis of a comprehensive greenlands system.
    - Section 1.5 v) tree lined streets are "integral to the image of Cobourg and should be maintained and enhanced"
- COBOURG IS A REGIONAL CENTRE FOR NORTHUMBERLAND COUNTY AND ITS POSITION AS A STRONG, LIVEABLE AND HEALTHY COMMUNITY PROVIDING A FULL RANGE OF OPPORTUNITIES TO LIVE, WORK, PLAY AND SHOP WITHIN THE TOWN WILL BE REINFORCED THROUGH:
    - i) the enhancement and preservation of its historical, natural and rural heritage, including a linked greenlands system, and its vibrant and active downtown heart, waterfront and main streets;
    - ii) an emphasis on sustainable, accessible and compact development, particularly transit supportive, mixed use built form along its main streets, which will enable Cobourg to enhance its function as a vibrant, environmentally aware urban centre;
    - iii) new residential development which will primarily occur through a mix of intensification and greenfield development with a variety of housing types and densities. Any intensification will be designed in keeping with existing stable residential neighbourhoods where it is located within or adjacent to such areas;
- Principles from Sections 2.3:

2.3 Distinctive Community Image: Any change in the Town of Cobourg should maintain and enhance its distinctive image as a small-town urban centre with strong historical, natural environmental and rural heritage traditions.

2.4 Protect the Natural Environment Heritage: Any change in the Town of Cobourg should be undertaken in a manner which will protect and enhance the integrity of the natural environmental features in the area.

2.5 Healthy and Economically Viable Community: Decisions made with respect to the future of the Town of Cobourg will reflect the need to maintain a healthy and economically viable community.

[1] The draft 2016 Growth Plan does not currently list an allocation of future population for the Town. It is expected that an updated population allocation may be developed in future, as the updated Growth Plan is implemented.

2.6 Financial Feasiblity: Any change in the Town of Cobourg should be financially feasible both

with respect to capital and operating costs**.**

- Section 2.7 Design Principles of:
    - Protect Historical, Natural and Cultural Heritage
    - Encourage Compact, Mixed Use Development
    - Promote Sustainable Development
    - Provide a Vital Setting for Employment Uses
    - Create and Celebrate Public Spaces
    - Promote Healthy Lifestyles and Physical, Mental and Spiritual Well-being
- Section 3.4.3.1 Land Use Policies for Stable Residential Areas: Applications for new development shall generally maintain elements of the immediate surrounding residential area:
    - ii) respects nature of the streetscape
    - xii) protection of trees and other natural features identified as significant by the Town in consultation with the MNRF and/or the Conservation Authority
    - xv)development incorporates measures that enhance sustainability
    - xvi) is in accordance with the Town's Urban and Landscape Design Guidelines
- Section 3.4.3.2 Land Use Policies for New Residential Areas: Development shall meet criteria of:
    - iv) development incorporates linkages to the Town's greenland system
- Special Provisions (Section 3.4.4) – i) a continuous parkland area shall be provided adjacent to Lake Ontario with acquisition of this parkland through development processes
- Section 4. Greenlands System and Sustainability Strategy
    - Greenlands /open space system is intended to enhance biodiversity and ecological health and function, while providing educational and recreational opportunities. The key components of the greenlands system are:

        i) Natural Heritage System comprised of Environmental Constraint Areas and Connecting Links;

        ii) Parkland;

iii) Tree Conservation and Planting; and,

iv) Leisure Facilities.

    - Connecting Links (section 4.4) consist of watercourse natural corridors which link most of the community's natural features; there are weak natural linkages in an east-west direction (except for the Lake Ontario shoreline); east-west linkages should be strengthened.
    - Section 4.4.2 directs building on the existing natural and human linkages to develop, over time, as is financially feasible to do so, a continuous link-node system*, including*

filling gaps in the existing system, having regard tothe policies of Section 4.4.2ii) through:

i. the strengthening of the existing north-south corridors and the creation of east-west linkages where feasible and appropriate, with possible locations which may be considered shown conceptually on Schedule "B" *and which may include tree lined streets*; and,

ii) the integrated planning of pedestrian and bicycle paths *and bike lanes* which focus on major destinations such as parks, the central core and community facilities. (See Schedule "B") *including the potential establishment of trail heads in appropriate locations followinga review by the Town.*

- Section 4.5 Tree Conservation and Planting, Section 4.5.1 Tree Conservation
  - Preserve significant trees and other natural vegetation which occur in and adjacent to the Environmental Constraint Area;
  - It is the objective of the Town to maintain and enhance existing woodlots, and trees wherever possible and to encourage the planting of new woodlots and individual trees.
  - This objective will be implemented through management of Town lands and as part of the Town's annual tree planting and maintenance program by working with other public agencies and through implementation of the Tree Preservaton By-Law
  - The Town shall encourage the planting of new trees, and the maintenance of existing trees on both public and private lands with a focus on ensuring trees are a major component of all street design (in accordance with Urban and Landscape Design Guidelines)
  - The Town may also consider the potential of developing an Urban Forest Program. However, regardless, the Town may also remove diseased trees or implement a program to prevent the spread of infectious diseases or invasive exotic species.
- Section 4.5.2 Development Applications:
  - Persons who have an approved development application, may remove trees in accordance with the agreement and provisions of the Tree Preservation By-Law
  - For areas where new development is proposed, requirement for a landscaping and street furniture plan and an Arborist report for Town approval; Tree Preservation Guidelines (of the By-law) will be used to evaluate these plans and reports; report to include: nature and condition of tree resources potentially affected by development; recommendations for tree retention and removal based upon tree quality, species tolerance, proposed development impacts and opportunities for mitigation and a program for re-planting and vegetation enhancements (to compensate for impacts upon tree stands); address impact of development on abutting Environmental Constraint Areas; and address potential development impact upon significant trees on abutting lands
  - Section 4.7.2 Parkland Dedication: where drainage of a subdivision/development is through an open watercourse, the lands necessary for drainage will <u>not</u> be part of the parkland dedication. Adequate land along the watercourse shall be provided for maintenance and tree planting.

- Section 4.8.3 directs preparation of an Integrated Community Sustainability Plan – Town Planning staff expect to prepare this Plan within approximately the next five years
- Section 6.2.2 Road Planning v) directs New roads shall be designed to allow for the creation of tree-lined streets and to integrate "traffic calming" measures as appropriate, particularly in residential areas. In addition, where traffic problems are identified in existing areas through studies carried out by the municipality, the Town shall consider the introduction of "traffic calming" measures to assist in the resolution of such concerns.
- Section 8 Development Preconsultation and Submission requires plans to include all existing significant trees (and natural heritage features), describe proposed landscaping and any modifications to existing significant trees and landscaping; Arborist report to include identification of any tree or vegetation species at risk and proposed mitigation
- Section 9.2.6 Height and Density Bonus Provisions includes permission for increase in height and density of medium or high density residential or mixed use development if specified objectives are met, including iii) to encourage the protection of natural features such as woodlot and environmental linkages;
- Section 9.6 Site Plan Control may include requirement of sustainable design elements such as trees, shrubs, hedges,
- Section 10.6 defines significant trees as "Trees of 0.3 m (.98 ft.) caliper in size at breast height or trees which are of a significant species as determined by a qualified professional"
- Section 12.14 provides for a Special Environmental Conservation Area along Midtonw Creek (on Schedule H); all major vegetation, particularly trees, in the woodlot adjacent to Midtown Creek shall be preserved and enhanced.
    - The Town shall require, as a condition of development, the preservation and enhancement of existing vegetation in the Special Environmental Conservation Area using all available mechanisms including the subdivision approval process, the site plan approval process of the Planning Act, 1990 and the provisions of the Trees Act.
- Design Principle for New Amherst Community - Section 13.3.4 Parks and Open Spaces: Parks shall be designed to incorporate existing trees and hedgerows. New landscaping shall consist of native, hardy species. Section 13.3.7 Development Shall Complement Existing Natural Features: Where feasible, existing trees and hedgerows will be maintained. If new vegetation is planted, native, low maintenance, hardy species shall be used.
- To the extent possible, existing woodlands within institutional areas (section 13.9.3) and Recreational-Open Space areas (sections 13.10.3) shall be preserved and enhanced
- Section 13.11.3 Environmental Constraint Special for New Amherst Community: Where feasible, existing vegetation and natural features shall be preserved and enhanced with special consideration to mature healthy trees.

Appendix E: Town Urban Design and Landscape Guidelines Relevant to Trees

- Excerpts from the 2015 Guidelines Document

Appendix E: Town of Cobourg *Urban Design & Landscape Guidelines* Relevant to Trees

Public Realm (Section 3.1)

The public realm guidelines refer to development within streets, parks and open spaces, and consider sustainability, the Greenlands System, parking, stormwater management and streets and streetscapes. The Town will promote the principles of sustainability in the public realm, including well landscaped streets and public spaces. As new sustainable technologies and products emerge, they should be considered for future use in the Town of Cobourg. The broad tree canopy shades buildings and reduces summer energy costs. Trees and other vegetation also improve stormwater treatment by filtering out pollutants before they enter the storm drain system. Design guidelines to apply across the Town in the public realm include:

a. Where possible, public realm design should aim to reduce impervious hard surfaces.
b. Materials selected for use in the public realm should be durable to avoid premature replacement.
c. Materials selected for the public realm should be recycled to reduce the energy needed to extract and manufacture new materials.
d. Materials should be locally sourced to prevent the expenditure of fossil fuels used for freight transportation. Canadian products are generally suited to withstand our climate.
e. The potential for alternate energy sources should be explored on public lands (e.g. District Energy, geothermal, etc.).

Natural Environment (Section 3.2.1; part of the Town's Greenlands System)

The natural environment is a significant part of the Town of Cobourg's unique sense of place and therefore, a primary purpose of the Urban Design Guidelines is to protect, preserve and, where appropriate, enhance the natural environment.

The most significant natural features in the Town of Cobourg include Cobourg Creek, Midtown Creek, Brook Creek and Lake Ontario. Where these significant natural environment features exist, they should be maintained and/or enhanced.

A well preserved natural environment contributes to the enhancement of air and water resources and provides for limited, passive recreational needs. Natural environment features should be visible and accessible by the public to ensure they are safe, well used and promote healthy living.

Natural Environment Design Guidelines consist of:

a. Key ecological features and functions in the Town of Cobourg should be protected.
b. A significant amount of the perimeter (greater than 50 percent is encouraged) of natural features should be bounded by a combination of roads or open space to maximize public access and significant views of the natural feature.
c. Sensitive environmental features should be adequately buffered and linked to other features to ensure that ecological systems are not negatively affected by urban development.
d. Natural drainage networks should be maintained to support stormwater management infrastructure such as stormwater management ponds .
e. Public open space (i.e. streets and paths) should encourage interconnection with adjacent natural areas.

f. Opportunities to develop higher density buildings adjacent to natural features should be explored to capitalize on views and connections to recreational trails. Such developments, must demonstrate compatibility with adjacent sensitive land uses (i.e. low-rise residential and park spaces) with respect to sunlight access, views and privacy.

Cobourg Harbour (Section 3.2.2): Streets leading to the waterfront should be designed to express their pedestrian priority, but should ensure sightlines to the waterfront are protected.

Open Space (Section 3.2.3)

The Greenlands System includes, in addition to the natural environment, public parks, stormwater management facilities and other open space areas such as school yards and cemeteries.

- Open spaces should be designed to connect to and enhance the Natural Environment component of the Greenlands System.

- **Local Parks** (Section 3.2.3.1) Include parks sufficient in area for sports fields and active recreation, such as James J. Tracey Park. Local Parks can also include passive recreational spaces with informal green space, children's playgrounds, gardens and walkways.

  - Community Gardens may be located within Local Parks as a valuable recreation activity that can contribute to community development, environmental awareness, positive social interaction and community education.

- **Village Squares** (Section 3.2.3.2) provide passive open space areas which are accessible within a five minute walk of most homes and serve as focal points within neighbourhoods. They should be integrated within the centre of new residential development or redeveloped residential areas, and should be connected with the other components of the Greenlands System to create an active recreational trail system.

  - Village Squares should include: a significant tree canopy for shade and drainage benefits and community gardens.

- **Cemeteries** (Section 3.2.3.3): Includes existing cemeteries (St. Peter's Cemetery at Elgin & Ontario Streets, St. Michael's Cemetery on west side of Burnham Street and Union Cemetery on Elgin Street east of Division Street), as well any future cemeteries.

  - The use of cemeteries for public cultural and educational opportunities including arboretums, public art and education should be encouraged.

- **Stormwater Management Facilities:**

  - To promote SWM facilities as an important and desirable component of the Greenlands System, street and block patterns should enhance views and access through street frontage wherever possible.

  - Planting within SWM facilities should be compatible with the adjacent natural areas.

  - Edges of stormwater ponds abutting the Greenlands System should remain naturalized.

Streets and Streetscapes (Section 3.4)

These provide space for planting of trees along the range of street types that occur within the Town. Street cross section diagrams are provided for placement of trees along:

- mixed use 4-lane arterial road with shared bike lanes,
- mixed use 2 lane road with parking, bike lanes and enhanced streetscapes
- 4-lane mixed use arterial road with central median, parking and bike lanes
- 4-lane arterial road adjacent to the Greenlands System with multi use trails
- 4-lane mixed use and 4-lane residential Collector Roads
- 2 lane local road with single parking lane and sidewalks (adjacent to the property line and adjacent to the curb)
- Note that Albert Street is termed a "Special Street" for which unique design standards are recommended for development

Green, tree-lined streets (section 3.4.1.5) are a feature of Cobourg and new streets should be designed to reflect this character. It is important that tree planting allows for mature and healthy growth for a variety of species.

Trees provide shade and comfort to pedestrians and enhance the visual and environmental qualities of the street. Trees should be incorporated into all street design. Tree species that are native to the Town of Cobourg should be used to promote long-term survival and to prevent disease.

The following list represents a recommended, but not complete, selection of possible species.

Main Streets & Special Areas:
Armstrong Maple (Acer freemanii 'Armstrong')
Maidenhair Tree (Ginkgo biloba)
Shademaster Honey Locust (Gleditsia triacanthos var.inermis 'Shademaster')
Little Leaf Linden (Tilia cordata)
Green Vase Zelkova (Zelkova serrata 'Green Vase')

Special Areas, Parks and Plaza:
Ornamental:
Serviceberry (Amelanchier Canadensis)
Ornamental Pear (Pyrus calleryana 'Redspire')
Amur maple (Acer ginnala)

Shade:
Red Maple (Acer rubrum)
Basswood (Tila americana)
Red Oak (Quercus rubra)
Sugar Maple (Acer saccharum)
Silver Maple (Acer saccharinum)

Design Guidelines include:

a. Street trees and landscaping should be locally adapted species. Plants that grow naturally in the Town of Cobourg are adapted to the local climate and soil conditions and can survive with minimum upkeep, use of fertilizer, pesticide or irrigation.
b. Where possible, soil infrastructure should be improved on boulevards where trees will be planted. This will ensure the long term health of the tree and benefits to the community.
c. Street trees should generally be located within the boulevard and should be offset a minimum of 1.5 metres from the curb to accommodate snow storage, large vehicle movements and minimize

salt damage. However, where this is not possible, street trees should be located between the sidewalk and the public right-of-way.

d. Trees should be spaced consistently at 6.0 to 9.0 metre intervals based on mature size. Appropriate clearances from utility boxes, street lights and sight triangles should be considered.
e. Careful consideration should be given to the type and location of trees to ensure that higher branching trees are positioned to ensure there is no interference with large vehicles such as trucks. Sight lines should also be considered in the location of trees planted at intersections.
f. Existing street trees should be preserved wherever possible, as mature street trees create a greater sense of enclosure along roads. If existing street trees die, they shall be replanted with trees that will grow to be comparable in size.
g. The planting of infill trees where the rhythm of existing trees is interrupted along existing streets, and in heritage areas, should be implemented. These trees should be of a similar or compatible species, and in heritage areas, should match the traditional species and placement.
h. Local street pavement widths (from curb to curb) should be minimized to reduce impervious surfaces and stormwater runoff and to maximize boulevard areas (from curb edge to building face) for future planting.
i. Bioswales are a viable approach for maximizing water infi ltration and cleansing runoff and should be incorporated into the design of roads and parking lots. Where visible, formalized bioswales are recommended along Arterial and Collector Roads while naturalized bioswales may be considered on Local Roads.
j. Utilities should be located on one side of the road to help create more favorable growing conditions for trees.
k. Engineered soils and new planting techniques are encouraged when planting in hard surface areas (i.e. parking areas) to maximize soil availability.

Street trees are generally recommended to be planted back from the sidewalk (i.e. away from the roadway) to prevent damage from salts and confined soil area and to promote mature growth. However, street trees may be planted within a landscaped boulevard (minimum 2.5 metres wide) beside the curb edge.

Streetscape design should take into account the geometry of streets and their sightlines. Transit shelters, signs, trees and other visual obstructions should be located to ensure they do not obstruct driver visibility and create unsafe conditions at intersections.

Gateways (Section 3.4.1.9) - Town Gateway Precincts have been identified at:

- Burnham Street/Elgin Street West/William Street
- Highway 401/Burnham Street
- Cobourg Marina
- Railway Station
- King Street East/Town Line
- West Gateway on Elgin Street West
- East Gateway on Danforth Road

Private Realm (Section 4) design is to include LEED design, green roofs, capture and use of precipitation on site augmented by methods to further reduce water consumption (use of mulch, compost, native plants), landscaping that preserves existing significant trees and vegetation, use of plant materials native to the Town and integration of grassy or vegetated swales for drainage of parking areas, front yards to be landscaped with trees, shrubs and native plantings, planting strips between street lines and parking lots, use of landscaped parking islands with shade trees at the end of parking rows and pedestrian connections

- Vegetated or “green” roofs should be utilized to minimize water runoff and improve building insulation.

- Green roofs also expand the potential usable outdoor space of the site.

- Porous surfaces or landscaped areas should be used to capture roof drainage and minimize water runoff.

- Roof drainage should fl ow, in part or fully, into landscaped areas on site where lot size and soil conditions are adequate to absorb such runoff.

- Several downspouts should be provided to better distribute storm water run-off into various areas of the adjacent landscape. Rain barrels or cisterns can be designed into new buildings to accommodate grey water irrigation

- Existing significant trees, tree stands, and vegetation should be protected and incorporated into site design and landscaping.

- Landscaped areas should be maximized to increase the total amount of water run-off absorbed through infi ltration. Where there is minimal available area, landscaped green roofs should be employed.

- Landscape designs should incorporate a wide range of strategies to minimize water consumption (i.e. native species, use of mulches and compost, alternatives to grass and rainwater collection systems).

- Plant materials native to the Town of Cobourg should be used wherever possible and mono-cultures should be avoided.

Appendix F: Community Engagement Strategy for Development of the Urban Forest Management Plan

Community Engagement Strategy (DRAFT)

Approach to Public and Stakeholder Engagement

as part of

Development of an Urban Forest Management Plan for the Town of Cobourg

April 2017

Submitted To:

Rory Quigley, Arborist
Town of Cobourg

KILGOUR & ASSOCIATES LTD.
2285C St. Laurent Boulevard, Unit 16
Ottawa, Ontario,
K1G 4Z6
Canada
T:613.260.5555
F: 877.260.4420
www.kilgourassociates.com

Project Number CBRG 590

TABLE OF CONTENTS

List of Tables

1.0 INTRODUCTION

This Community Engagement Strategy is an integral part of the 2017 Town project, led by the Parks and Recreation Department, to develop an urban forest management plan to guide care of public trees over the next 20 years. The project terms of reference identified that community and stakeholder engagement will provide important input and feedback to the plan development process, an approach that aligns with the Town's commitment to public engagement that "is based on the understanding that citizens should have, and want to have, input in the decisions that affect their lives". To provide detailed guidance on effective community engagement, the Town of Cobourg developed a Public Engagement Policy, Community Engagement Guideline and accompanying Community Engagement Toolkit that were all approved by Town Council in November 2016. The strategy presented in this document follows the guidance of these Town documents.

1.1 Community Engagement Approach and Principles

The communications strategy and workplan described in this document aim to fulfill the communications best practices and principles described in the Town's policy, guideline and toolkit. This includes bringing meaning to people's participation, fostering a two-way dialogue between citizens and their local government and regular citizen engagement through a well-structured process of exchange that offers opportunities for public opinion to be considered in the Plan to be brought forward for Council approval. Receipt and consideration of diverse community and stakeholder perspectives and potential solutions in the urban forest management planning process is expected to result in a more robust and well-considered plan for Council to review.

Applying the direction provided in the Community Engagement Toolkit, this strategy has been tailored to the interested groups, community interest and long-term management needs of the Town's urban forest management plan.

Best practices and principles applied to the proposed community and stakeholder engagement strategy for the Urban Forest Management Plan include the following direction from the Community Engagement Toolkit:

Meaningful engagement

Clarity of Purpose: Citizens must understand the role they play in the engagement process.

Reflective of Diversity: Demographic factors such as gender, ethnicity, age, ability, socioeconomic status, and place of residence can affect interests and values. A public engagement process should represent the community's demographic diversity and make tangible efforts to allow for that diversity to be reflected.

Based on Credible Information: Participants must have balanced and accurate information about the major elements on any issue or initiative so they can refine their perspectives, voice their points of view, and better understand the points of view of other stakeholders.

Organized & Facilitated: Engagement processes should be facilitated by someone whose role it is to encourage participation that is respectful and equitable to ensure that discussions stay focused and sufficient time is given to the most important issues.

Communication of Results: Any results must be shared with the citizens.

Guiding Principles

1. **Accountability**: Town Council and municipal staff are accountable for ensuring meaningful public engagement.
2. **Inclusiveness**: Public dialogue and decision making processes are intended to reach out to, and encourage participation by citizens of the community.
3. **Transparency**: Public decision-making processes are accessible, honest and understandable.
4. **Early involvement**: Helps identify issues and look at opportunities and challenges during concept development, design and implementation of municipal policies, projects and initiatives.
5. **Timely communications:** Ensure there is enough time within the engagement process to provide information to the community and allow for appropriate time for citizen feedback.
6. **Clear and accessible information**: Ensures the use of plain language in a wide variety of formats and channels of communication.
7. **Suitable process**: Design and implementation of public engagement processes and techniques that reflect the magnitude and complexity of the initiative. Processes adapt to changing needs and issues as they move forward.

1.2 Background on Stakeholder and Community Input to the UFMP

In response to the Town's project terms of reference, the KAL proposal outlined the following for the Urban Forest Management Plan's Communications Strategy:

> Working with Town staff, the Town's Parks and Communications departments, the KAL team will prepare a communications strategy at the start of the project. Initial approaches for communications methods, messaging, audiences and content will be discussed at project initiation. A draft communications strategy for discussion will be submitted by KAL to the Town by the end of December. The strategy will then be refined and finalized in January to guide plan content discussions with Town staff, community stakeholders and the general public. Potential methods to engage the public in Plan development include the Town's website, newspaper ads, public meetings, public events and web mapping applications.
>
> **Internal / external stakeholder input and engagement:** Work with Town staff, the KAL team Consultant will design and implement a comprehensive program of public engagement to obtain citizen input at the preliminary plan strategic direction and draft plan stages. All public and stakeholder feedback will be documented, analyzed and integrated into the plan directions, as relevant. As defined in the RFP, expected stakeholders include:

- Mayor and Members of Council
- Senior and key staff from a variety of municipal Divisions including Public Works, Planning and Development and Recreation and
- Public and private utilities including Lakefront Utilities, Cogeco, Bell, Union Gas
- Community Groups: Willow Beach Naturalists, Master Gardeners, Ecology Garden
- Other stakeholders: Ganaraska Region Conservation Authority (GRCA), County of Northumberland
- Town of Cobourg Advisory Committees

The KAL team will also organize, advertise, lead, document, and summarize two Open House Public Consultation meetings, at the same stages of plan development as for stakeholders.

The summary version of the plan will be used for public and stakeholder engagement. Part of the engagement objectives will be to accomplish increased awareness amongst citizens of the work, resources and level of effort required to maintain a healthy urban forest.

For initial stakeholder meetings, it is anticipated that some separate meetings will be required. To the extent possible, the KAL team will work with the Town staff to establish an advisory committee of stakeholder representatives and convene one main meeting for each of the two proposed plan stages.

This approach is reflected, with modifications where appropriate, in the Community Engagement Plan that is described in Section 2.

1.3 Community and Stakeholder Engagement Objectives

Project Engagement Objectives include the following:

1. Provision of timely, relevant and accurate information on plan process and findings to Town stakeholders and residents;
2. Encourage active plan development participation and strong contributions by stakeholders;
3. Obtain meaningful stakeholder and community input and feedback on the plan content and recommendations;
4. Demonstrate that offered plan input and feedback has been received, heard and integrated as appropriate;
5. Support timely and efficient completion of an understood and supported plan for the Town's management of its urban forest;
6. Maintain and enhance existing urban forest management stakeholder relationships for ongoing collaboration that will help the Town accomplish the Plan's long-term (20-year) vision and goals, once established and approved by Council;
7. Accomplish increased awareness amongst citizens of the work, resources and level of effort required to maintain a healthy urban forest.

2.0 METHODOLOGY FOR PREPARATION OF THE COMMUNITY ENGAGEMENT STRATEGY

This section describes how the UFMP project team has applied the toolkit steps to prepare a community engagement strategy for development of the Town's Urban Forest Management Plan.

2.1 Step One: Assess Level of Community Impact

The Toolkit's **Four Classes of Community Impact** were considered for evaluation of the level of impact the directions of the Urban Forest Management Plan would have on the citizens of the Town of Cobourg. As noted in section 1.2, there are a number of stakeholder groups that have an interest in how the Town's trees are managed. At a community level, the potential for impact and interest is community-wide, resulting in a Level 1 out of 4 whereby **Level 1 consists of High impact on whole community,** as described by:

- "High impact across community including significant changes to the natural environment, government structure, or the general health and safety of all residents
- High degree of interest across community
- Strong possibility of conflicting perspectives on the issue".

2.2 Step Two: Identify Appropriate Type of Community Engagement

Based on the potential high level of community impact, the project team applied the **Community Engagement Guideline** to select the types of engagement appropriate to the planning process. Given that the presence of trees within the community, their health and management is an issue of relevance for all residents, it is determined that all three types of public engagement are appropriate for development of the urban forest management plan:

1. One-Way Communication (with ability for public response), providing members of the public with information on the project so that they are adequately informed about urban forest management background in advance of requesting input and feedback.
2. Two-Way Communication allows for seeking of the opinions, concerns and suggestions of the community to better understand through a broader range of perspectives on how current practices and procedures work and to help strengthen the articulation of future strategic directions and management actions. As noted in the Toolkit, two-way communication provides an opportunity to invite new ideas, to gain a broader view of an issue and encourages thorough planning, early input by stakeholders and careful consideration of all available options.
3. Participation in Decision-Making is applicable in this project in regard to the stakeholders that are involved in Town tree management. For public trees,there are overlapping mandates in regard to utilities and road safety operation and maintenance. Although the Urban Forest Management Plan will mainly guide management of public trees, community participation in maintaining and enhancing the health of trees on private property also contributes to the overall health and extent of the Town's urban forest. As a result, it is appropriate to consider current/future involvement of citizens in the decision-making of urban forest management.

2.3 Step Three: Choose Techniques to Engage the Public

The project team next consulted the Toolkit's **Community Engagement Matrix to** select the appropriate tools and techniques to be used to engage stakeholders and the public, based on the high level of community impact determined through step 2. The following list of likely tools to be applied for the urban forest management planning process also considered the Town's 7 Guiding Principles of Public Engagement, AODA standards for accessibility, Public Notice Policy, Communications Policy, Procedural By-Law and the Advisory Committee/Local Board Policy:

1. **One-way Communications Methods:** main goal is to inform but also provide opportunity for feedback:

- use **NEWSPAPER ADVERTISEMENTS** to provide information, promote event and project;
- **INFORMATION ON TOWN'S WEBSITE** to reach out & provide information;
- **PRESS RELEASES/PUBLIC NOTICE -** Use to inform media of an issue, project or event, town positions/statements, progress on projects or in response to events that have occurred that require a Town response.
- **FACT SHEETS/FAQs** Provide information about a particular issue or project, usually one page on Town website or print out.

2**. One-Way / Two-Way Communication Methods** are applied to both inform and engage public and stakeholders and the public in an initiative:

- **EMAIL –** Call out for e-mail addresses (via newspapers, social media, sign-up online and at public meetings) of those interested to participate in the Plan development. Use e-mail to contact stakeholders and request input.
- **TWITTER** Social media messaging tool where brief messages can be shared with followers. Can be used to inform of issues (such as service disruptions), upcoming meetings . may offer a platform for discussion/feedback to people with disabilities who find it difficult or cannot attend meetings.
- **FACEBOOK** Social media platform where meetings, events, photos, programs, services can be shared with followers.
- **TOWN HALL/PUBLIC MEETINGS** An organized large group meeting usually used to make a presentation and give the public an opportunity to ask questions and give comments. Public meetings are open to the public at large. Participants hear relevant information and have an open opportunity to ask questions and make comment. People learn by hearing others' questions and comments

Two-Way Communications Methods are used to engage public and stakeholder members and obtain their input on the project.

- **SURVEYS ONLINE, TELEPHONE, MAIL, IN-PERSON, HAND-OUT** Use to obtain data on issues, needs assessments, satisfaction levels, opinions and concerns for a particular group or the entire community.
- **FOCUS GROUPS** are small selected group that are formed to test ideas, messages and gauge public opinion. Good opportunity to test key messages before implementing program.

- **CHARRETTES/WORK SHOP** consist of a group working session or work shop. Often used with planning issues, the charrette is an intense problem-solving session where a facilitator leads a group to alternative solutions.

Two-Way Communications / Participation in Decision-Making to obtain direct public input and advice into the decision making process

- **TASK FORCE** is a small group of stakeholders or experts formed to develop a product within a limited time, such as a set of recommendations, policy or proposal. The product is passed through to official decision makers.
- **CITIZEN ADVISORY COMMITTEES** A group of stakeholders or representatives of stakeholder groups that provide input on a project or initiative. Group can also be ongoing. Define the terms of engagement (i.e. committee terms of reference) up front.

For the Urban Forest Management Plan development, the team plans to use surveys and workshop/focus groups with stakeholders, possibly also with the community, for obtaining input into the plan directions and proposed approach to managing the Town's urban forest. As the project proceeds, consideration will be given to the potential for establishment of a task force/advisory committee of interested experts to advise on activities and engage community members in ongoing urban forest management.

2.4 Step Four: Develop Community Engagement Plan

In consideration of the urban forest management plan process, content and objectives, the following Table 1 represents the proposed workplan for the UFMP Community Engagement Plan, to be finalized with Town input by the end of February/early March 2017.

2.5 Step Five: Obtain Council Coordinator Input

Upon review of the above proposed community engagement workplan by the Parks Manager and UFMP Project Manager, the Communications Officer will be consulted for plan refinement before the engagement process begins.

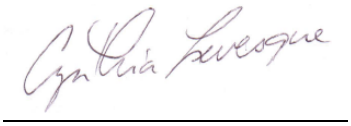
2.6 Step Six: Implement Community Engagement Plan

Upon review and approval by Town project managers and the communications officer, the plan will be implemented as part of the urban forest management plan project. The methods employed will be evaluated for their effectiveness in informing the planning process and in meeting the consultation objectives identified in section 1.3. This information will be summarized in the plan appendices that summarize the stakeholder and community engagement component of the Plan development process.

3.0 CLOSURE

This community engagement strategy was prepared by the undersigned for the Town of Cobourg as part of the project for development of a twenty-year urban forest management plan for the Town of Cobourg.

KILGOUR & ASSOCIATES LTD.



Cynthia Levesque, B.Sc.

Table 1: Community Engagement Workplan for the Town of Cobourg Urban Forest Management Plan

Task ID*	Task Name	Responsibility		Timing	Deliverable
		Lead	***Support***		
Plan Development Phase					
5.2	**Town Staff Meeting** (presentation and workshop format) to Confirm Data, Develop Strategic Directions	Cynthia & Rory	Larry	April 19th or 25th, 2017	Input to the Plan on Challenges to Address, Procedures that are working well, future state (vision) of the Town's urban forest and goals/objectives/actions to reach the vision
5.2.1	Compile **List of Invitees** to discuss how Town urban forest management practices now work, desired vision and directions (goals) for the future	Cynthia & Rory		By ~ March 14th	1 or 2 meetings of Town staff, of about 1.5 hours. Consider Group 1 of Parks, Planning & Engineering and Group 2 of Environment, Roads & Sewers Dept.
5.2.2	Set **Meeting Agenda and Format** to guide discussion	Cynthia & Rory		March 21st	Overview presentation to guide discussion, meeting agenda and questions/exercises
5.2.3	Send **Invitation** to Invitees for Input to UFMP Meeting Reminder sent	Cynthia & Rory		March 24th April 13th/ 20th	E-mail invitation with RSVP
5.2.4	Prepare **meeting notes** with identified material to integrate into the UFMP	Cynthia	Rory & Larry	April 26th / May 2nd	Meeting Notes and material for plan content and future management directions
5.2.5	**Follow-up e-mail** to participants as thank you and with brief summary of meeting results	Cynthia & Rory		April 27th / May 3rd	Acknowledge contribution of participating Town staff; offer opportunity for further input in writing, if desired
5.3	**Stakeholder Meetings and Discussions** to Refine Strategic Directions	Cynthia & Rory	Larry	April 19th or 25th, 2017	Input to the Plan from Perspective of Stakeholders regarding Challenges to Address, Procedures that are working well, future state (vision) of the Town's urban forest and goals/objectives/actions to reach the vision
5.3.1	Compile **List of Invitees** to discuss how Town urban forest management practices now work, desired vision and directions (goals) for the future	Cynthia & Rory		By ~ March 14th	1 to 3 separate meetings of Town forest Stakeholders, of about 1.5 hours. Consider Group 1 = Utilities (Lakefront Utilities, Cogeco, Bell, Union Gas; Group 2 = Community Groups (Willow Beach Naturalists, Master Gardeners, Ecology Garden, others?); and Group 3 = Management Partners of Ganaraska Region Conservation Authority & County of Northumberland

Task ID*	Task Name	Responsibility		Timing	Deliverable
		Lead	*Support*		
5.3.2	Set **Meeting Agenda and Format** to guide discussions, tailored to each group as needed	Cynthia & Rory		March 21st	Overview presentation to guide discussion, meeting agenda and questions/exercises
5.3.3	Send **Invitation** to Invitees for Input to UFMP Meeting Reminder sent	Cynthia & Rory		March 24th April 13th/ 20th	E-mail invitation with RSVP
5.3.4	Prepare **meeting notes** with identified material to integrate into the UFMP	Cynthia	Rory & Larry	April 26th / May 2nd	Meeting Notes and material for plan content and future management directions
5.3.5	**Follow-up e-mail** to participants as thank you and with brief summary of meeting results	Cynthia & Rory		April 27th / May 3rd	Acknowledge contribution of participating Stakeholders; offer opportunity for further input in writing, if desired
5.3.6	**Develop one-two page Plan summary and questionnaire for Consideration/Input by Town Advisory Committees** of Parks & Recreation, Heritage, Planning & Sustainability; note upcoming public consultation session Follow-up reminder and thank you messages sent	Cynthia & Rory		~March 24th April 10th /17th Apr. 25th/May 2nd	Obtain input for consideration in the Plan content and strategic directions
5.4	**Introduce Plan to Town Council and invite comment** through survey or public meeting	Kara / Council Coordinator	Cynthia & Rory	April 3rd or 24th, 2017	Summary background material and survey provided by the UFMP team for use by the Council Coordinator to update Town Council
5.5	**Public Meeting (and other public outreach) to Introduce Plan & Obtain Input on Plan Directions**	Cynthia, Rory & Kara	Larry & other Town staff(?)	April 20th or 26th, 2017	Combination Town Hall / Public Meeting & Workshop to obtain public input regarding Challenges to Address, Procedures that are working well, future state (vision) of the Town's urban forest and goals/objectives/actions to reach the vision
5.5.1	Develop **newspaper ad and press release** as notice of the UFMP process, request for public input and notice of upcoming public meeting. Consider use of Twitter and Facebook for project & event notification.	Kara	Cynthia & Rory	By ~March 23rd	Background for ad, press release and public meeting description provided by Cynthia & Rory for finalization by Kara
5.5.2	**Develop and post content for UFMP web page** on	Cynthia &	Kara	By ~March 30th	Background for Town's urban forest, desired plan

Task ID*	Task Name	Responsibility		Timing	Deliverable
		Lead	*Support*		
	the Town website – describe UFMP purpose, process, input requested	Rory			material posted on website
5.5.3	**Develop and post survey on Town website** to obtain public input on the current and future urban forest within the Town	Cynthia & Rory	Kara	By ~March 30th	On-line and paper survey to gather public input on current and future urban forest for the Town
5.5.4	**Develop public meeting format and supporting materials** to guide discussion and possible working sessions for gathering of experience and input	Cynthia & Rory	Kara	By ~April 4th	Meeting agenda, format, presentation, poster boards (if required) questions for participants
5.5.5	**Host public meeting**, capture attendance through registration list and capture public feedback through meeting discussion and work sessions (if applied)	Cynthia & Rory	Kara, Larry, others (?)	April 20th or 26th, 2017	Public comments and experiences to consider for building of the Plan content
5.5.6	**Create summary of public consultation results** for inclusion in Plan appendices and to post on Town website as acknowledgement of public participation	Cynthia & Rory	Kara, Larry,	April 27th / May 3rd	Public Feedback Summary in Plan and on website
Review of Draft Plan					
5.6	**Town Staff Meeting (same grouping as in first session) to Refine Plan Content**			October 26, 2017	Feedback to refine draft UFMP
5.6.1	Set **Meeting Agenda and Format** to guide discussion	Cynthia & Rory		September 26th	Overview presentation to guide discussion, meeting agenda and questions/exercises
5.6.2	Send **Invitation** to Invitees for Draft UFMP Review Meeting Reminder sent	Cynthia & Rory		Early October October 18th	E-mail invitation with RSVP
5.6.3	Prepare **meeting notes** with identified material to refine the UFMP	Cynthia	Rory & Larry	Early November	Meeting Notes and material for refined plan content and management directions
5.6.4	**Follow-up e-mail** to participants as thank you and with brief summary of meeting results	Cynthia & Rory		November	Acknowledge contribution of participating Town staff; offer opportunity for further input in writing, if desired
5.7	**Stakeholder Meetings** (same grouping as in first session) **to Review & Refine Plan Content**			October 25-26, 2017	Input from perspective of varied Stakeholders to refine Plan content, future management directions

Task ID*	Task Name	Responsibility		Timing	Deliverable
		Lead	*Support*		
5.7.1	Set **Meeting Agenda and Format** to guide discussions, tailored to each group as needed	Cynthia & Rory		September 26th	Overview presentation to guide discussion, meeting agenda and questions/exercises
5.7.2	Send **Invitation** to Invitees for Input to UFMP Meeting Reminder sent	Cynthia & Rory		Early October October 18th	E-mail invitation with RSVP
5.7.3	Prepare **meeting notes** with identified material to integrate into the UFMP	Cynthia	Rory & Larry	Early November	Meeting Notes and material for plan content and future management directions
5.7.4	**Follow-up e-mail** to participants as thank you and with brief summary of meeting results	Cynthia & Rory		November	Acknowledge contribution of participating Stakeholders; offer opportunity for further input in writing, if desired
5.7.5	**Develop one-two page Plan summary, link to draft Plan and questionnaire for Consideration/ Input by Town Advisory Committees** of Parks & Recreation, Heritage, Planning & Sustainability; note upcoming public consultation session Follow-up reminder and thank you messages sent	Cynthia & Rory		Mid-September October 18th/Nov.	Obtain input for consideration in the final Plan content
5.8	Public Meeting to Present Draft Plan & Obtain Feedback on Plan Directions & Content	Cynthia & Rory		October 26, 2017	Obtain feedback on draft plan and input for consideration in the final Plan content
5.8.1	Develop **newspaper ad and press release** as notice of the UFMP process, request for public input and notice of upcoming public meeting. Consider use of Twitter and Facebook for project & event notification.	Ashley	Cynthia & Rory	By ~September 26th	Background for ad, press release and public meeting description provided by Cynthia & Rory for finalization by Kara
5.8.2	**Develop and post content for UFMP web page** on the Town website – summary/draft of UFMP, input requested	Cynthia & Rory	Ashley	By early October	Background for Town's urban forest, draft plan material posted on website
5.8.3	**Develop and post survey on Town website** to obtain public input on proposed urban forest management directions and intiatives	Cynthia & Rory	Ashley	By early October	On-line and paper survey to gather public input proposed directions and initiatives of relevance to the community
5.8.4	**Develop public meeting format and supporting materials** to guide discussion and possible working	Cynthia & Rory	Ashley	By early October	Meeting agenda, format, presentation, poster boards, questions for participants

Task ID*	Task Name	Responsibility		Timing	Deliverable
		Lead	*Support*		
	sessions for gathering of experience and input				
5.8.5	**Host public meeting**, capture attendance through registration list and capture public feedback through meeting discussion and work sessions (if applied)	Cynthia & Rory	Ashley, Larry, others (?)	October 26, 2017	Public comments and experiences to consider for refining of the Plan content
5.8.6	**Create summary of public consultation results** for inclusion in Plan appendices and to post on Town website as acknowledgement of public participation	Cynthia & Rory	Ashley, Larry,	December	Public Feedback Summary in Plan and on website
5.9	Present Draft Plan to Town Council with Summary of Public Feedback	Ashley / Council Coordinator	Cynthia & Rory	Ealy 2018	Summary background material and survey provided by the UFMP team for use by the Council Coordinator to update Town Council
5.9.1	Any Feedback from Council integrated into the final UFMP	Cynthia & Rory	Ashley	Early 2018	Part of Final Urban Forest Management Plan for the Town
Project Closure					
5.10	Post regular updates and final Plan document on Town website for community and stakeholder access	Cynthia & Rory	Ashley	Ongoing (see above) Final plan ~ February 2018	Project Updates, Draft and Final Urban Forest Management Plan posted on website

*Task ID Numbers are derived from Urban Forest Management Plan Workplan in the Kilgour and Associates proposal (November 2016)

Depending upon the management directions within the long-term plan developed for the Town's urban forest management, the project team may consider establishment of a stakeholder task force/technical committee or citizen advisory committee dedicated to urban forest management plan refinement and implementation. The need and efficacy of these committees will be determined during the plan development phase.

Appendix G: Summary of Stakeholder and Community Feedback

- *April 2017 Stakeholder and Community Feedback Applied to Develop the Draft Strategic Directions for Town of Cobourg's Urban Forest Management Plan*

- *April 2017 Community Survey*

- *October 2017 Stakeholder and Community Feedback on Draft Plan Directions and Workplan*

- *October 2017 Community Survey*

Appendix G: Summary of Stakeholder and Community Feedback

Stakeholder and Community Feedback Applied to Develop the Draft Strategic Directions for Town of Cobourg's Urban Forest Management Plan September 29, 2017

On April 25th and 26th of 2017, the project team for development of an urban forest management plan for the Town of Cobourg met with community members and stakeholders with an interest in how Cobourg's urban forest is managed. Discussions on what is working well, areas for improvement, the desired state of the future urban forest and how to achieve it occurred through meetings with Town staff in public works, parks, planning and by-laws, the Town CAO, Mayor, Council and Advisory Committee members and with utility companies, the County, Ganaraska Region Conservation Authority, community groups and residents. Paper and online surveys were also available for residents to provide input upon how best to manage the Town's urban forest.

The following presents a summary of the input offered on the future state or vision for Cobourg's urban forest and suggested goals and initiatives to consider for ongoing urban forest management.

1. Input to the Vision and Overall Management Approach

Urban Forest Characteristics

- The view across the Town would be a sea of trees, have the look of a forest, lush and fresh
- More areas of a cathedral effect, such as along Walton Street
- Large, healthy trees that comprise 40% cover for the Town
- From Victoria Hall, it would be great to see an extensive canopy across the Town. When viewed from the air, this tree canopy should be consistent and continuous; you would see a lot of green.
- An enhanced tree canopy is desired. Perhaps the Town could compete with London as the city of trees. Accomplish this enhanced canopy through more resources dedicated to tree management and enhance site development guidelines
- Tree-lined streets
- More trees, more native trees, less buckthorn; connected to the natural heritage system of the County, and beyond
- A healthy, sustainable, thriving urban forest
- More trees on public & private lands
- Valued
- Praised by visitors
- Limited conflicts with other infrastructure
- Food-bearing trees and shrubs on Town lands and connector spaces to enhance Town food security
- The future urban forest should be healthy, biodiverse and resilient so as to be able to well adapt to the challenges of the future, able to adapt to withstand the effects of climate change
- Establish a far-reaching canopy cover target for the Town with a specific timeframe for its achievement. Consider 30-35% (or more) by 2037-2047.
- Cobourg will be a welcoming natural environment, a place where people wish to live, where families feel connected, which provides a 'go-to' destination for visitors and is a place to experience nature. The Town entrance/gateways will be enhanced by placement of more trees. Natural landscapes and streams will be enhanced and healthy.
- In the future, I will be able to walk downtown along streets shaded by trees for the entire distance. The walk will be peaceful, not hectic.
- Victoria Park will be a passive use park with lots of grass and trees, home to smaller rather than large events so as to protect park resources for future generations.

- There will be more trees everywhere – along streets (when driving), along paths and trails (when walking, cycling), in neighbourhoods, by the Boardwalk - providing ecological corridors for wildlife (east-west, north-south) and connections for humans to destinations across Town. Establishment of more trees will be accomplished in the short term and this establishment and the required maintenance of these trees will be supported by adequate funding.
- A Town full of large, healthy trees that are climbed by children with a book for reading. Trees will be a place to escape technology.
- Town residents will have a strong environmental ethic and understanding due to education started now.
- Kerr Street will have a naturalized streetscape.
- More urban forest along the Lake Ontario shoreline
- Trees are essential for the Town and its streets to look attractive
- Contributes to the Town's economic, social and environmental vitality
- Contributes shade, helps homes and businesses save energy

Time Period

- Look forward 50, 100, 150 years because of long life of trees;
- With this year as Canada's 150th birthday, look forward to 150 years from now
- A much longer-term vision, of ~100 years for trees, is a good approach. This longer term view fits with sustainability.

Connections

- The Town was once a **forested landscape**. It would be a benefit to all if the number and canopy coverage of trees increased from the current state
- Setting a vision for the Town's urban forest could benefit from a view of Cobourg's history. A natural forest, such as what existed before settlement, is one for which there is a strong preference. Large, majestic trees would be desirable. For example, College Street was described as being full of large maples when one of the Councillors was young. Also, Henry Street was previously known to be "thick with trees". To see such landscapes again would be desirable.
- Link to Cobourg's past history of numerous apple orchards
- Integrate County vision of **People-Partnerships-Possibilities**
- The urban forest is an **ecosystem**, connected to natural areas and providing important wildlife habitat

Forest Goals / Management Approach

- Have all dead limbs removed from trees promptly in the future
- Focus upon planting more trees on private rather than public lands
- The downtown area was noted as the greatest challenge. Some boulevards are easy to work with for tree planting. With a sidewalk on one side only, it is possible to place trees on the other side. It would be good to see more planting /a planting program in the Big Box Store and parking lot areas. It was noted that the stormwater collected from parking lots could be used to water trees
- When a landowner is proposing to remove trees, they must pay compensation for the determined tree value and the funds would be directed to the Town for tree planting; amount to be paid is based on tree value (remaining tree life and its contributions per year)
- Increase compensation ratio for removed trees in the by-law from 2:1 to 6:1
- The County CAO and 7 Municipal CAOs work together on a shared services initiative. Collaboration on urban forest management could be an added topic for this group. They are already working together well to manage emerald ash borer.
- Establish a baseline and regularly monitor progress at a neighbourhood and Town level
- Accomplish as much progress as possible in the short term so that in 50 years, the main urban forest work of the Town would be a maintenance program
- Manage the urban forest as habitat, to attract wildlife, support bats and migratory birds
- Residents and businesses know and understand their urban forest and are actively involved in its care;

- Cost effectively & proactively managed

From the Surveys:

Of the 48 surveys completed, the majority of residents wish to see an urban forest in 2038 that provides a source of community pride, takes good advantage of trees' ability to add to quality of life (through benefits of stormwater use, improvement of air quality, shade, storing of carbon), consists of more tree-lined paths that connect to natural areas, is able to stay healthy in responding to challenges and is valued as an essential community asset. Specific comments provided on aspects of the current urban forest that the Community enjoys most include:

- The beauty, trees are beautiful, aesthetics, greenery is aesthetically pleasing, the beauty and variety of trees; tree silhouettes are visually beautiful in winter, visual appeal, attractiveness
- Sustainability of us and the environment
- Tree tunnels
- The green space for recreation – cycling; relaxing; walking to enjoy the trees, shrubs and gardens; listening to birds; being one with nature
- Wildlife; homes/shelters/sanctuary for wildlife; habitat
- Ecological services – oxygen, erosion control, cooling in summer, improved air quality, carbon sink, maintenance of soil, increased property value
- Benefits to the local environment
- Shade, enjoy walking on the "shady side of the street"
- Health benefits of cleaning the air
- Trees soften the concrete structures of our town; trees hide things that are not nice to see
- Without trees, public places look like ugly strip malls without character nor warmth; without trees the Town would be barren and sterile
- Streets lined with trees
- Areas of vibrant tree canopy
- Perspective that humans are fitting into the natural world, rather than the other way around
- Colour, spring blossoms, fall colours
- Peace and quiet, trees dampen the town and highway/road noise; trees make the Town feel more rural and peaceful
- Big trees and canopied public spaces make it a pleasure to be outside in places like streets and parks
- Urban forest helps Cobourg feel like a healthy community
- Environmental value
- Psychological calming effect that trees have on resident; benefit to residents' mental state; calming effect of vegetation and greenery
- That there are trees on the streets
- The tree-enshrouded King Street
- Adds to my quality of life; I just love trees
- The sound of leaves rustling
- Let us be known for the best urban

Vision features suggested by stakeholders and the community:

- Take advantage of the community benefits provided by trees
- More canopy cover
- Continuous and connected tree cover
- Tree-lined streets and ecological linkages
- Healthy and resilient (to climate change, pests, disease

- Coburg is a beautiful tourist Town, let us be known for best urban forested town with connected tree canopy
- More larger sized trees
- Greater mix of tree species
- Valued as an essential community asset
- Community shares responsibility for care of the urban forest
- Trees at the entrance to the turn off from Highway 401
- Trees that flower in spring and are attractive all year round
- The whole community works together in stewardship/care of the Town's urban forest

2. **Input to the Urban Forest Goals and Workplan**

Tree Planting

- Establish a **tree nursery**, transplant beds on public lands
- Suggestions for **improvement /enhancement of the view and numbers of trees and shrubs along boulevards**; consider success of Charles Wilson Parkway plantings
- Would like to see identified **"hubs" for planting** and consideration of a **levy to allow for replacement plantings**, as part of the development process. Potential hubs include school yards, community mail boxes, other public lands that do not have conflicting future land uses.
- Continue to expand and strengthen **tree species diversity**; native tree species will likely predominate but also use appropriate non-native species that thrive in Cobourg, that thrive in more hostile locations (such as along streets) and apply "assisted migration", i.e. introduce Carolinian forest trees (i.e. blue beech, Kentucky coffee tree, hickories) that will be able to establish here well as the climate changes – the climate could be quite different in the next 50 to 100 years.
- Provision of a **planting procedure** will be helpful.
- Recommend a strategy for **infill** areas.
- Some areas of Town do not have enough trees
- **Increase in the number of trees on private lands** could be a good way to enhance the Town's tree canopy; it is expected that ~60% of the existing urban forest is likely on private property.
- Provide plan **directions for tree planting and replacement**:
  1. encouraging tree planting on private property (for streets where trees are removed or where there is not room for tree planting on Town property - streets can look very bare);
  2. Replacement of removed trees;
  3. Planting of more trees (i.e. Victoria Park);
  4. Placement of the right tree in the right place/guidance on what trees to place where;
  5. Provide detailed guidance for homeowners
  6. Tree replacement/planting plan for Victoria Park
- Anything to recommend **for rural roads** (large setbacks required, difficult to establish trees(?)
- Other considerations for a Town tree planting plan include:
  - Provide tree species specific policies, as appropriate – Scots pine, Norway maple
  - Request for Town to continue planting of nut and berry trees as part of annual planting plan.
  - Consider planting of trees along the waterfront, begin replacement of cottonwoods.
  - Establish programs and incentives to encourage private landowners to plant more trees
  - Promote and provide incentives for establishment of tree oases in parking lots
  - Plant trees in: neighbourhoods that have lost trees (due to disease, age, beavers), Victoria Park.
  - Plant more shrubs around the hospital.
- Provide direction for adequate space for trees, particularly in consideration of intensification / smart growth practices.
- Consider establishment of an easement for trees in the front yards/land of private property where trees could be established and cared for by the Town, provided there are adequate resources to do so.

Tree Protection and Care

- Provide recommendations for updating of the Town's **Tree Preservation By-Law**
- **Risk management**: Recommend a comprehensive risk management program such as charts specific to the Town to assist staff with: 1. schedule of tree visits and 2. assessment of long term tree health.
- **Insects and Diseases** – Emerald Ash Borer, Beech Disease – address promptly as issues arrive
- **Heritage trees:** Clarify the important Heritage trees on Town lands and consider what can or should be done to protect these trees. Also consider what can be done to assist landowners with Heritage trees on their land. Provide direction on identification and preservation of heritage trees that complements the Heritage Master Plan – i.e. trees, streetscapes, cultural landscapes on public and private lands. Apply tools in the Heritage master Plan for identification of heritage trees and cultural landscapes; these could be on public and private lands. On private lands, trees may be identified as a "character defining elements" and this provision could be used for designation of heritage trees. Review the Heritage Master Plan and the ***Heritage Act*** to identify the legislative supports available for heritage tree designation and protection. Build on the Heritage Master Plan directions to build community capacity (through fact sheets, social media and workshops) to assist the Town in urban forest and natural areas' stewardship
- Consider appropriateness of a **private trees by-law**, pros and cons for establishment within the **context for the Town;**
- Provide strategies for planting, protection of trees in **heavy traffic areas** such as Victoria Park, streets
- Public education is key; the education program should include keeping and not raking up the **leaves,** an emphasis on the **soils** and their needs to well support tree health, plus an overall approach to tree care
- Have rules for development that are watershed based; require compensation for removed trees
- **Address conflict of utilities with trees**; recommend underground placement of utilities, where possible; replace excessively pruned trees; place smaller growing trees under existing utility lines. Maintenance of trees is very important for reduction of conflict with utilities.
- Provide direction for **tree establishment and care on private property** – include a plan section
- Identify the variety of **actions needed now to work towards an increased and healthier urban forest**. If there is not additional focus practiced now, the future urban forest will not be the one (healthy, diverse, increased canopy) that the Town and community would wish to see
- Review the **practices of other municipalities** how they fund tree management, i.e. City of London
- Consider where trees may need to be planted for stabilization around ponds, i.e. Sinclair & Peace Parks
- Consider if special direction is needed for **retention of larger, mature trees** (with increase in severe storm events)
- Use the **development review process to establish more trees**, particularly around commercial buildings.
- Address conflict between impact of large events and the trees and landscape within **Victoria Park**

Management Approach

- **Define the urban forest** – be clear on how encompassing it will be
- **Respective Roles and Responsibilities** – ensure they are clear, avoid gaps and overlap
- Establish directions and guiding concepts and procedures for overall urban forest management, recommended pruning cycles, clear direction on tree planting and pruning;
- **Consider Climate Change Effects** in the urban forest management approach – climate change effects include changes in microclimates, local site conditions, timing of biological activity, potential change in conditions to favour invasive species and severe weather events
- **Provide a strategy to manage Urban Intensification** because of its potential for tree removal and/or limited areas available for trees
- Build upon existing directions and draft **urban forest management procedures and guidance** developed by the Town, such as: Design Guidelines for new developments, Preferred Species List, Tree Preservation Guidelines, Emerald Ash Borer management plan, Tree Preservation By-Law
- Identify any updates or additions recommended for the **development review process**
- Confirm tree inventory fields to use for tree data, complete the Town inventory of publicly owned trees

- Implement more **proactive** urban forest management
- Ensure **adequate resourcing (funds and staff)** is available to accomplish all urban forest management that is needed to achieve the desired future Town urban forest; include an accounting of additional maintenance required in parks and along boulevards in general. Consider naturalized management approach for some parks and/or replacement of annuals and perennials in some areas with flowering shrubs and trees. Also, recommend which tasks are appropriate to be completed internally by Town staff and which tasks are best contracted out
- Explore full range of **options to fund urban forest management**, such as: seek funding from businesses; establish a committee to obtain funding, establish a "green funerals/bequest" program; use cost-effective sources/Town nursery for trees that are planted; a carbon offset program available to businesses and residents whereby donations could be made to the Town for tree planting in lieu of carbon emissions from home use, car and air travel, recreation; engage volunteers for an urban forest stewardship program;
- **Recommend an appropriate budget**, and budget split (in-house vs. contracted resources) for urban forestry; define actions attainable in the existing budget, indicate additional budget needed for full set of recommended actions; Recommend funding solutions and ensure Town is taking advantage of all available funding sources (private, public), recommended approaches to maximize. Provide an estimate (average) of the annual and lifecycle maintenance costs, on a per tree basis
- Recommend best placement of urban forestry in municipal organization – Parks, Public Works, Planning?
- **Establish a tree canopy target** (%)
- There is support for 5 year tree operational plans and for a formal risk management program
- Should a by-law be desired for **private trees protection**, the resources must be provided to ensure its enforcement
- Recommend direction on appropriate utilities location, from the perspective of trees – integrate directions into Town **engineering standards**
- Recommend **tree care standards** and urban design standards for accommodation of trees
- Maintain current approach whereby the Town Arborist approves all tree removals and planting plans
- **Establish the right tree in the right place** – power lines (smaller trees), shallower rooted trees in some areas, match trees appropriate to the soil and air space available along sidewalks, trails, maintain safe driver sight lines – provide guidelines for this in the plan (to reduce interference and conflict between trees, road and sidewalk users)
- **Preserve and enhance natural areas** (to attract wildlife)
- **Take an ecosystem and permaculture approach** to management of the Town's urban forest, treating the forest as a diverse network of plants, shrubs and trees that provide habitat and a supportive environment for pollinators, wildlife and birds. Create a web of life with the Town in the forest. The forest should be resilient to climate change and should maximize provision of ecological goods and services.
- **Consider including private trees in the Town's inventory**, once the public tree inventory is up-to-date.

Community Engagement

- Implement **a public education program** to raise awareness and understanding of the community value of trees and how to care for them. Information to consider for inclusion:
    - Information in the **public education program** regarding when trees must be removed, describe how the Town is managing trees, describe that the comprehensive urban forest program; provide direction to residents on the importance of ONECALL locates before planting of trees on private property
    - Consider a checklist and guidelines of how existing trees should be retained and protected and new trees established, as part of public education process
    - Have **up-to-date information on the Town's urban forest** available to residents, **on the Town website**
    - Include benefits of natural areas and Town trees

  - Advice to homeowners on care and pruning of trees on their property. Note that there are many private trees in poor health, present a risk.
  - Identification (tags) of tree species for existing trees in parks and along streets.
  - Include a spatial map of Town trees – their location and associated data - on the Town website. Have the Town website be an overall urban forest resource for all aspects of tree care, tree management activities, guidance to private landowners on tree care, planting, recommended species list and pest/invasive species updates (such as current emerald ash borer management status)
  - Direction to residents on activities they are allowed to do in regard to tree care, planting, natural areas stewardship; basic tree care; impact of weed trimmers on trees; the importance and value of tree pruning, when and under what conditions, how to conduct and/or arrange, the resulting benefits (such as no loss of limbs from a pruned tree during recent ice storm); the importance of watering trees and suggestions for how to do so, such as redirecting storm water runoff from paved areas to trees; suggestions for improving tree health and the ability of trees to better adapt to effects of climate change;
  - Create a Celebration of Trees! initiative for sharing of significant tree stories;
- Engage the **community to help with urban forest care**
- Consider a volunteer program to gain assistance for the Town in urban forest management. Relevant training should be provided to volunteers, to match the duties requested. The County is developing a **volunteer database** that could be helpful to the Town for completing some aspects of Town tree care
- Continue the **subsidy for trees provided to residents** whereby they pay a portion of the tree cost
- **Peace Park**: Peace Park has 6-7 trees with bronze plaques as memorials. This program could be enhanced as a tree policy in the Plan whereby technology is used to describe establishment of a real tribute in real time, as trees with plaques or benches that can be added to enhance the park landscape.
- **Community-Supported Projects**: It was requested that the plan identify projects that the community can support. The Kerr Street Parkway was provided as an example.
- **Consider allocating some public land for planting of trees in fields or under glass** (greenhouse). Work with schools to teach students how to plant and care for trees would be a sustainable approach, comparable to the success of introducing recycling through schools in the 90's. The young generations would be taught the value of trees, and this would grow and be passed on to subsequent generations
- Find a way to provide **advice** to companies, residents **on the best trees to plant** on their properties
- Issue a **Business Challenge** to encourage Town businesses to plant trees on their properties. Incentives could also be considered, maybe a property tax reduction? It worked well 100 years ago when Canada paid farmers to plant trees, and later encouraged to plant sugar maples
- Provide direction for **increasing the number of trees on private property** and consider incentive program to encourage private landowners to plant trees, particularly in areas where the space available on public lands is inadequate. Private sector companies could be approached to donate money and land to help with increasing Town tree cover. Dedicated resources, maybe summer students, should be in place to help with fund raising for tree planting and management
- Encourage **homeowners to care for trees on Town land** in front of their homes.
- Initiate a **school naturalization project**
- Create an **incentive program for use of rainwater to water trees and plants**
- **Celebrate the urban forest management plan as part of the 150 year celebrations**
- Potential to establish a **second Arboretum on public lands**

Connection of Urban Forest Management to Other Initiatives

- Connect urban forestry to a broader green roofs, walls infrastructure Town policy; can be part of **ecological connectivity**, with natural areas and creeks forming the backbone. Provide direction on connecting the urban forest across Town, linked to public trails and natural heritage systems, providing

corridors (particularly more east-west corridors) for wildlife, parklands and active transportation. View the urban forest as an ecosystem, a community of trees and shrubs and that the Town is in the forest
- Ensure **UFMP directions are aligned** with other Town Plans and policies
- Consider **ecological goods and services of the urban forest**
- The upcoming **Tannery site** master plan can be a demonstration project to accomplish public education on sustainable practices, including those relevant to trees and the urban forest. The Tannery Master Plan can be a way to demonstrate establishment of the desired urban forest
- **Town, GRCA and County could work together on ecological restoration**
- Maintain **healthy stream riparian areas**, protection of stream quality and headwater areas for the local and visiting tourists interested in fishing
- **Provide ecological guidance and management directions for natural areas** (i.e. Nickerson's Woods), streamsides, Lake Ontario shoreline habitat and overall wildlife habitat
- Integrate consideration of the Iroquois lakeshore and its importance
- **Asset Management**: Directions on urban forest management could fit within the Town's Asset Management Strategy. The Asset Management Strategy is a 10 year plan; conditions change quickly so that looking forward 10-15 years is appropriate, with a 5-year plan review cycle.
- Integrate **sustainability directions** into the UFMP to build upon the low impact design and green infrastructure approach being promoted through the development review process and Council decision-making
- Provide direction on updating of the **Tree Protection By-Law**; build in public education to ease in changes that may be controversial
- Coordinate UFMP directions with those being developed for the Waterfront Plan

From the Surveys:

Residents note that the greatest challenges to managing the urban forest is replacement of trees, a need for more planting and management of unforeseen circumstances such as storms, pests and diseases. Most residents describe the urban forest condition as fair. The most popular recommendations for improvement include more replacement planting and more tree planting. Residents expressed interest in participating in many tree care initiatives, with the most common activities of planting trees in public places, watering Town trees in front of their homes and planting trees and shrubs on their own property.

Other specific actions recommended by the Community through the survey responses included:
- More tree planting; consider planting more trees in open areas of the waterfront
- Consider connectivity, habitat for birds and animals
- Stick to native species, no more Norway maples
- Training for staff and management involved in caring for trees
- Remove beavers that are destroying trees (i.e. woods between Prince of Wales and Wilkins Gate, New Amherst, south of Kerr Street to the railroad tracks
- More coordination between Town departments and agencies
- Public education on old trees – how much longer lived they can be than humans
- Healthy big trees are very valuable and should not be lightly considered for routine replacement
- Connect urban forest to natural areas, consider part of overall system
- Consider value of trees in creating safe streets – traffic calming, as nice places for people to be (more eyes on the street)
- Design streets to support growing trees to their optimum maturity – this would help reduce urban forest maintenance costs in the long term
- Routine watering is essential – have seen many new trees along boulevards die; use a watering truck or subsidize residents who wish to water boulevard trees; maybe a volunteer group could water municipal trees in boulevards

- Choose carefully the tree species for planting, considering those with the best chance to be healthy for the long-term, large, beneficial to the local ecosystem
- Keep doing what you are doing
- Properly care for aging trees and plan for the future by planting young trees to replace those that have been removed
- Care for greenspaces, such as removing dog strangling vine along creek, replace trees, do not allow encroachment by businesses without obtaining neighbourhood input
- Better plan green space to prevent landscapes such as the Division Street entrance to Town which has become ugly due to business expansion
- Reinstate the program of about 25 years ago through which the Town gave and planted trees on private property
- Make people aware of the value of trees
- Ensure residents know the respective responsibilities of the Town and GRCA
- Consider making simple boulevard tree maintenance, such as watering and pruning of younger trees, the responsibility of the householder
- Share with residents the process for requesting trees for planting on boulevards and in green spaces
- Listen to residents when they phone to voice concerns, and return their calls
- Consider planting of shorter growing trees along street sides with utility lines
- Plant more fruit and nut trees in suitable areas, offering people the opportunity to supplement their food source
- Use social media to gather community ideas on helping to keep our parks beautiful
- Get hiker and cycling groups involved in the plan
- Glad to see the priority placed on trees with work on the urban forestry plan. Keep this plan in the forefront and educate and involve residents.

Town of Cobourg Urban Forest Management Plan

Community Survey

The Town of Cobourg is developing an Urban Forest Management Plan in order to create a healthy and sustainable urban forest that contributes to the economic, environmental and social vitality of the Town. Please respond to the following questions to help us create a plan that reflects residents' views.

Q1 *How **important** to you are the trees and shrubs that make up the Town's urban forest?*

☐ Very Important ☐ Somewhat Important ☐ Not important ☐ No Opinion

Q2 *What do you **value or enjoy the most** about the urban forest in Cobourg?*

Q3 *Imagine your community twenty years from now, **in the year 2038**. Which of the following descriptions **best describes your vision** for what the Town's urban forest should look like? Please choose up to 5.*

- ☐ Looks about the same, relatively unchanged
- ☐ Provides a source of community pride
- ☐ Takes good advantage of trees' ability to add to our quality of life by providing benefits of using stormwater, improving air quality, reducing energy use (shade), storing carbon
- ☐ More individual trees than treed areas
- ☐ More treed areas than individual trees
- ☐ Less tree cover than now
- ☐ More tree canopy cover
- ☐ Continuous and connected tree cover
- ☐ More tree-lined paths that provide a continuous link to natural areas
- ☐ More larger-sized trees with greater tree canopy
- ☐ Is able to stay healthy when faced with challenges such as climate change, pests, and disease
- ☐ Is economically viable, i.e. the cost of management is less than the value of provided benefits
- ☐ Residents, businesses and the Town share responsibility for care of the urban forest
- ☐ Has a greater mix of tree types / species than at present
- ☐ Valued as an essential community asset

☐ No opinion

Other (Please specify)

Q4 *What do you think is the **biggest challenge** to overcome to fulfill your vision for Town's urban forest?*

☐ Not enough places to grow trees
☐ Insufficient funding for maintenance and management
☐ Loss of too many larger trees
☐ Poor forest health
☐ Low community value placed on trees
☐ Lack of water
☐ Factors difficult to predict, like wind and ice storms, pests and disease
☐ Not enough planting of trees
☐ Need for more tree replacement (when trees diseased, old, die)
☐ Invasive species
☐ No opinion

Q5 *Please complete the following sentence. The condition of the Urban Forest within the Town is:*

☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ No Opinion

Q6 *How could the Town's urban forest be improved?*

☐ More frequent pruning
☐ More replacement planting of sick/old specimens
☐ More effort to retain larger trees
☐ A greater mix of tree types / species
☐ More tree planting in more areas (i.e. parks, boulevards, new communities)
☐ Remove more trees that appear unhealthy, are dying
☐ No opinion

Other (Please specify)

Q 7 *Which of the following community lead activities that support the urban forest would be of interest to you?*

- ☐ Planting trees in parks and other public places
- ☐ Planting trees and shrubs on your property
- ☐ Educating community members / neighbours on the care of trees
- ☐ Adopting treed areas to manage in cooperation with Town staff
- ☐ Watering municipal street trees in front of your home
- ☐ Providing advice to/working with the Town through tree committees or working groups

Q 8 *Do you have any other comments or suggestions on managing Cobourg's urban forest?*

Q 9 *Postal Code*: ☐

***THANK YOU* for taking the time to complete this survey and expressing your views and opinions to us. Please leave us your contact information if you wish us to keep you updated on building of the Plan**

In accordance with Canada's Anti-Spam Legislations (CASL), if you wish to be removed from future communications, please respond to the email sender directly with 'Unsubscribe' as the subject line of the email to be removed and discontinue email communications.

Name: (optional) _____

E-mail Address (optional): _____

Please hand in your completed survey before you leave or mail to:

Rory Quigley, Arborist
Town of Cobourg
Victoria Hall, 55 King Street West, Cobourg ON K9A 2M2
Fax: 905-372-1908
E-Mail: trees@cobourg.ca

Municipal Freedom of Information and Protection of Privacy

Information will be collected in accordance with the *Municipal Freedom of Information and Protection of Privacy Act, R.S.O 1990, c. M56,* as amended. With the exception of personal information, all comments will become part of the public record.

On October 24th and 25th of 2017, the project team for development of an urban forest management plan for the Town of Cobourg met with community members and stakeholders with an interest in how Cobourg's urban forest is managed. The discussions focused upon the proposed set of directions for Town urban forest management – vision, goals and objectives – and a workplan of tasks for the Town to complete. A total of eight meetings, attended by 52 people, were held with Town staff in public works, parks, planning and by-laws, the Town CAO, Mayor, Council and Advisory Committee members and with utility companies, the County, Ganaraska Region Conservation Authority, community groups and residents. Paper and online surveys were also available for residents to provide input upon how best to manage the Town's urban forest.

The following presents a summary of the input offered on the draft plan approach proposed for managing Cobourg's urban forest over the next 20 years.

Vision & Principles

- Much support expressed for the Vision
- Consider if the reference to "wildlife" should occur before "people"
- What is meant by "food security"? Trees that produce nuts and fruits could be planted in areas such as existing community gardens in parks, for care and harvesting by committed community groups
- Although it is difficult to visualize, like the idea of looking forward 150 years. This is appropriate because many trees last a long time.
- There could be conflicts between trees and views of the waterfront. Consider integration of the waterfront in the vision and of views in the location of trees when planting. It would be helpful to know how other municipalities manage this potential for conflict
- Like that shrubs are included in the urban forest cover, that the urban forest is more than just trees
- Consider integration of the vision wording for Northumberland County, to align and capture the concept of connectivity, Natural Heritage function and demonstrate the flow from the Provincial Policy Statement (PPS), County and Cobourg Official Plans; Consider wording adapted from the Northumberland County vision, such as: "Integrated with and that supports our region's ecosystems, wildlife corridors and natural heritage" as a third bullet supporting the vision.

  Consider the specific, relevant wording used in:

  1. Provincial Policy Statement
  The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.

  2. Northumberland Official Plan
  Maintain, improve and where possible, restore the health, diversity, size and connectivity of natural heritage features, hydrologically sensitive features and related ecological functions;

  3. Cobourg Official Plan (2010)
  enhance biodiversity, ecological function, and the natural heritage system, including the provision of wildlife habitat and linkages.

- Consider that for the vision description of a forest that reflects one that existed pre and early settlement could be misinterpreted – photos and aerial photos of early settlement times sometimes show some very

ugly, muddy landscapes without vegetation; be sure to be clear, specific in the wording of the images intended to be conveyed
- Much support for the direction of expanded forest canopy cover
- Consider addition of need to manage for invasive species, pests and diseases in the principles; municipalities, CAs have implied responsibilities under the *Invasive Species Act*, however, overall not yet clear who is responsible for what
- Suggest *management of the urban forest in a landscape context* as a principle
- Note that section 270 of Bill 68 – Modernizing Ontario's Municipal Legislation Act - directs municipalities to develop policy that sets out how tree canopy and natural vegetation in the municipality will be protected and enhanced – this direction supports preparation of the urban forest management plan
- Agree that cost-effectiveness is an important principle; this is a strength of the Town
- Integrate consideration of potential evolving conflict of "access to sunlight" in approach to canopy cover increase (Oakville "solar right" situation); this concern can be integrated as part of the principle of the "right tree in the right place"
- Combine principles for proactive and active management
- Suggest definition of urban forest be placed up front, before introduction of the vision, etc.; Consider inclusion of a definitions section in the Plan
- Change principle to minimal conflict with "infrastructure" (rather than "utilities")
- Be specific and careful in wording throughout so as to accomplish common understanding; for example, "tree cathedrals" may not have the same meaning for all people
- Note that Council passed the Amendments for Bill 68 Modernizing the Ontario Legislative Act. In 2018; one of these amendments states that all municipalities shall develop a Tree Canopy and Vegetation Plan. This task could fall into the Regulatory Section with the date 2018.
- When referring to community groups, such as schools, consider adding Cobourg Public Library, local Scout/Girl Guides organizations and Commercial institutions such as TD Bank which supports Tree Planting.

Goals & Objectives

- Appreciated having the April feedback summary as support to the draft plan directions and workplan; can see how people's feedback was heard, considered and integrated; draft plan is well done
- Include younger people in the plan, vision, principles, goals, objectives, workplan
- General opinion that the 5 goals and supporting objectives are comprehensive and well-articulated

Goal #1: The urban forest will be lush, diverse, healthy and resilient

- Like the idea of increasing tree cover – could a way of accomplishing this include requiring more trees in parking lots? The **urban landscape design guidelines** could state that trees be integrated into the design, provide guidance for how to do so. A caution was noted that sight lines need to be maintained (for safety).Consider other guidance to better support trees, such as where and how to place trees, needed soil volumes, compensation for removed trees, potential use of soils cells, address heat island effects, management of impervious surfaces, etc., that could be integrated into the landscape design guidelines.
- **Native species** are dominant, but does the noted introduction of **Carolinian species** conflict with native species? It was noted that often Town soils, such as within boulevards, are non-native. Use of non-native species that can thrive in these more hostile locations is appropriate. Similarly, Carolinian species grow very well in Cobourg's climate and it is expected that these species are expected to continue to thrive with climate change. In addition, establishing more species adds to the urban forest diversity and contributes to the canopy cover.
- Community concern expressed that trees might be planted all along the **waterfront**
- Consider **enhanced natural areas protection** to support increase of the urban forest canopy cover

Goal #2: The urban forest will contribute to community sustainability

General support for inclusion of **Food Security**:

- opportunity to plant nut trees in new parks under development such as Kovey Park, in Tracey Park that now has community gardens (supported by the community), and in Daintry Park which could have community gardens, nut trees and a second arboretum
- also tie of food security and history through apples; Cobourg was historically part of the "apple belt", several large homes with lots of apple trees; Cobourg had many apple orchards
- Consider integration of Food Bank's "Grow a Row" program
- Lot of downtown restaurants feature local food, could be engaged

Goal #3: The Town of Cobourg community understands the urban forest's importance and will be actively involved in its care

- **Like the approach of "encourage"** (rather than "shall"); understand the balancing act of pushing for desired approach and potential negative impact upon development
- It is a **good idea to involve young people** now in urban forest management because they will be the ones enjoying and caring for the urban forest for quite some time in the future, for the life of the UFMP and beyond
- How is **tourism** addressed in the vision, goals? Tourism is addressed through objectives that identify Cobourg as a "go-to destination", heritage trees and accomplishment and promotion of a healthy and lush forest
- Suggest removal of the description between the dashes in Goal 3 to keep the language strong and the structure similar to the other Goals. Use "residents and businesses" in goal 3 and in objective (a)
- Note the large amounts of relevant **information for education** available regarding watershed management, trees, on websites for Credit Valley Conservation and Halton Region; this information can be helpful to the Town

Goal #4: The Town's approach to management of trees on public lands will meet urban forest and community needs

- Like the approach for **public lands**
- Will the plan have **policies**? The proposed objectives represent the policies by which the Town's urban forest will be managed.
- For Goals 2 and 4 (community sustainability and Town approach to management) there are **many opportunities for establishment of trees in playgrounds**, around splash pads; this establishment of trees will help with expansion of the forest canopy cover.
- Like the idea of working with the County and Conservation Authority on **restoration of natural areas**
- Add Waterfront Plan to list of **linked initiatives**, + Urban Landscape Design Guidelines, Sustainability Practices for Clyde Street (D. Suzuki Blue Dot Campaign to which Council has committed)
- What is meant by "meeting tree needs" in Goal #4? Is this only about individuals, or is it about meeting needs of the urban forest as an ecosystem? As a system is recommended, look at how forest cover across the Town can contribute to connectivity. Suggest being specific in the workplan in regard to how will work to achieve **regional connectivity** in relation to **trails and the natural heritage system**. Also articulate how management of the urban forest will support the goals and objectives of the natural heritage and trails systems – at the Town, County, Ganaraska River watershed and Greater Golden Horseshoe levels. The County and GRCA will be pleased to work with the Town on establishing and strengthening connectivity.
- Describe a **tree replacement strategy** which addresses no net loss of canopy cover when trees are removed on any types of land, in a variety of situations, across the Town.
- 4 **heritage conservation district plans have directions for cultural and tree landscapes**; tree views are especially important for the College District; Ontario's Heritage Act and Town's Heritage Master Plan provide opportunities for identification and protection of cultural landscapes
- The Town is planning on a **sustainability master plan**, a key part of which will be trees and addressing climate change

- Good example of **restored area** is the former Cobourg Golf Course, also former ice factory now a stormwater management facility (Midtown Creek Floodplain Facility) that is being rehabilitated – bat habitat established, trees planted
- **Community support for seeking of available funds, grants, donations** to resource urban forest management

Goal #5: The Town will support residents and businesses in the stewardship of trees on private property

- The Town could ask for **inspection report on trees maintained and planted in new developments**, as part of approval conditions – this is done to ensure satisfaction of conditions through development process; there is always a requirement to follow-up to receive the reports
- Expect that moving from a **ratio of 2:1 to 6:1 compensation for removed trees** will need to be phased in over time, to allow time for those impacted to become accustomed to and accept the change. Ensure it is clear that the 6:1 tree compensation requirement applies to the development review process
- **Like the idea of involving the community in tree management** – all members of the community have a part in maintaining and increasing Cobourg's urban forest
- Discussion regarding a **transitional approach** where it is appropriate to start with guidelines, use education to support the guidelines, with the possibility of moving to a by-law/controlled situation over time to accomplish values that are of importance to the community; **for private tree control**, Mississauga, Oakville, London, were noted as leaders in Ontario. Over time, a by-law to control tree removal on private lands may be needed – this will be a political decision. Another approach is increasing property taxes for properties with more impervious surface percentage (Oakville approach).

Workplan

- See that this is a positive way to progress – the **management plan** will be written down, Council will approve it, and then decisions on the work that needs to be done will be straightforward, because the approach (management plan) is now an official Council document, and the work can then be proactive rather than reactive; this is working for Asset Management, Heritage; **will provide the ability to base decisions upon directions in an approved plan provides rationale and policies to support decisions and day-to-day work**; can be more efficient and effective
- With the plan in place, **decision-making can be much quicker**. For instance, the Town has been fortunate to have a lot of volunteers for tree-planting. Having a tree planting plan will enable the Town to keep volunteers engaged.
- **Lots of great initiatives** identified; Plan appears well thought out
- List of workplan items are **comprehensive**; these 9 project areas could form headings for the website
- **Be specific in priorities and costing**. Please provide detail to 2020, and for the full life of the plan, to 2038, for the priorities and budget needs, as possible; i.e. **short, medium, long term, five year periods**

Tree Planting

- Tree planting **approach makes sense**
- **Engaging more private landowners for planting on their own lands will help the Town increase its canopy cover**. Some options could be considered whereby the Town, or the developer of a new neighbourhood, could arrange for offer of trees to residents at a wholesale rate. Establish a set price for trees (whips) or planting of larger trees
- **Engaging volunteers to help with a Town tree nursery will also be positive**. It was noted that there are local seed sources, such as the beech trees in Donegan Park, connected to the Town's history.
- As community members, **utility companies could plant trees on their office sites**, lands – this is of interest to Union Gas, for example.
- **Consider a tree planting / nursery program involving children**, such as the Green Legacy program in Wellington County – a tree nursery is run through public school children whereby grades 1 and 2 plant seeds, other grades care for trees at different stages and grades 7 and 8 work in the tree nursery; once the trees are large enough for planting in the community, they are given to residents for free

- **Focus on planting on urban County roads**, rather than rural ones; Town can work with the County on the overall planting approach along County roads, once new person is in place
- **Connect Town tree planting to County ash tree replacement program**
- **Potential concern that a Town tree nursery and subsidization of trees would be unfair competition** with local businesses; the objective to increase tree canopy means more trees overall will be needed than now
- The **tree planting plan** will note information such as where planting will occur, numbers of trees per year, costs for planting and maintenance. There will also be a replacement strategy for removed trees, including noting of what happens to the removed trees
- A situation that needs to be addressed is **planting of hedges and trees** on Town property occurs **too close to the sidewalk**, resulting in the need for significant trimming or eventual removal of planted materials. Provide guidance in the **education** content and in guidelines, as appropriate, for needed setbacks, plant on own property, avoid encroachment. Education should also explain how trees grow, how large they will become, to help avoid the need to remove trees later.
- Note that **Town can partner with County and GRCA in tree planting**

Forest Maintenance / Management Program

- **Victoria Park**: the cottonwoods will need to be replaced soon (trees removed, new ones planted). It was noted that the willows that used to be on the waterfront are missed. Direction for management of large events, types of controls recommended for protection of trees, is requested within the UFMP.
- Commitment of **utility companies** is sought in considering the impact upon nearby trees when work is done, avoid tree roots whenever possible and to advise the Town in advance of works anticipated to impact upon trees. Communications will continue to be maintained according to the current good working relationships that are in place. There is willingness by all to work out issues together. This is likely based on the fact that everyone likes trees.
- Identify **trees as infrastructure** and manage them as such; also think about trees when planning other infrastructure
- Ensure specification of the importance of **formative pruning** as an example of proactive management
- Does the Town have a **tree inventory**? Yes, there is an inventory that is almost complete; much of the data inventory has been accomplished recently. Some records need updating. Approximately 60% of the inventory is up-to-date.
- Suggest “tree care” be replaced with term tree management; specify which types of tasks are appropriate for community members – watering, mulching, planting, monitoring, but not pruning.

Risk Management

- Glad to see a formal risk management program
- Are there **standards**, criteria **to guide when to trim branches hanging over a sidewalk**? Yes, hanging branches are trimmed promptly, when observed by Town staff or when community complaints are received; similarly for road signs which require a 8’ clearance and sidewalks have a 7-8’ clearance requirement overhead; Plan directions will articulate policy of correct actions now being done plus recommendations for additional actions that need to be taken

Community Stewardship

Public Education is seen by many as key to urban forest management success. Considerations for Public Education program include:

- Should a **by-law** ever be introduced to regulate removal of trees on all private property, public education would be a key part of the program; without a by-law, education can help encourage landowners to **consider the impact on neighbours, the local environment and the overall community of removing trees from private property**
- Education should also include description of the **benefits of trees** to management of stormwater , providing a cost saving for the Town. This “service” becomes more important with the increase in storm severity (i.e. more common “100 year storms”).

  - Describe all the benefits that trees provide to the community to offset the perceived disadvantages of leaves in eavestroughs and on lawns,
  - Describe why urban forest management is important for the community, why the work is being done, outline the **benefits to taxpayers**
  - Provide direction on **what people can do in their own back yards** to contribute to tree, forest and ecosystem health
  - Education can be a way to encourage people to be proactive in caring for their own trees, such as through information on the **importance of pruning, disease & pest prevention and treatment**
  - Consider approach of City of London that posts **videos** of City staff treatment of trees for diseases, pests
  - Recommend consistent and constant **event programming** to make sure that the urban forest remains in the awareness of the community
  - Observation that the more one learns about trees, the more passionate one becomes about trees!
- **Cobourg Horticultural Society** can assist in training people on planting and care of trees
- Include **schools, high schools** in tree management, educate through programs and presentations on the importance of urban forests, different types of trees, how to plant and maintain them
- Having **all Town trees identified on the web** will be much appreciated!
- Like the idea of having **private trees in an inventory** – Citizen arborist application can help collect this data which would be less fields, a simpler database than the information needed for management of trees on public lands. Collecting data on private trees could be tied to public education, explaining that the Town is working to increase tree cover, would you like to register your tree on the website, all this would help to raise public awareness of the value and nature of trees within the community.
- Include in education that **activities in your yard contributes to the health of the Town forest and ecosystem**.
- Consider integration of "**social landscape**", i.e. a lot of people outside of the Town boundaries benefit from Cobourg's amenities

Resourcing

- Good approach identified for the **Town to take advantage of available and new grant and funding sources**. The current grant objective of the Federation of Canadian Municipalities to study /address urban heat island effects is an example of current funding opportunities. Heat island effect is of community interest, is a topic tied to sustainability and studying and addressing it could help with proposed plan objectives, such as increased canopy cover.
- Consider engaging **high school students** for tree nursery, planting; they have **volunteer** hours to contribute
- **Revenue generating approaches will be helpful to implementation** of the recommended management program. A Town carbon credit program, for example, is a good idea. Adequate resources and an ability to fund the overall urban forest management program are important.
- Note that **there are opportunities for funding**; note the recent success of the GRCA (Ganaraska Region Conservation Authority) for raising of funds – golf tournament, donation by Lakefront Utilities, bequest of trees for living tribute; the funeral home tie to memorial trees is a good idea
- **Arborist needs more support to accomplish the work**; consider lead for some urban forest management (policy) within Planning, an approach applied in other municipalities. Overall, the work will be a team effort. Be sure to specify respective roles and responsibilities across Town departments – Parks, Planning (development review and heritage), By-Laws. Other responsibilities could be added to the stewardship position, such as sustainability, perhaps others. The position may be able to support other Town programs and departments. The community stewardship position has the potential to address many aspects of urban forest management. Provide a detailed description of this position's roles and responsibilities.
- **GIS** is key to management of the urban forest. Describe the level of GIS support that will be required.

- In an ideal world, a person could be dedicated to each of the 9 programs. This is, however, not possible. Be sure to **describe respective roles and responsibilities** for relevant Town staff that will work on urban forest management. Consider contracted positions at first to do the work, demonstrate accomplishment, then strengthen the business case and secure funding for appropriate staff level

Regulatory Initiatives

- Articulate what is wanted on new development lands within the **urban landscape design guidelines**, such as trees (deciduous) on the south and west sides of buildings; could ask developers for a sustainable urban forest vision be built into new developments. Starting to push for sustainable practices which will lead from "volunteer" to "normal practice"
- **Early contact in the development review process** is helping with retention and planting of trees; could push for stronger rules, higher expectations from developers
- A **clear, reasonable compensation schedule or assessment approach for valuing of trees proposed for removal** will be helpful to result in an efficient and effective process (in the past, much effort has been spent to establish a tree value that was subsequently challenged, not always with satisfactory results); provide clear criteria
- Provided detailed description of how trees are wanted, should be placed, in **new developments**
- A question was raised regarding the **increase of compensation for removed trees from 2:1 to 6:1** – this is for the development application process; a pet peeve was expressed for situations when too many trees are planted in an area (too close together) and some must be removed (a waste). Guidance should be provided for proper tree planting density and it was noted that trees will be planted where they are appropriate for establishment. It was suggested that the value of trees returned to the program should be emphasized in Town education materials and plan progress reporting.

Heritage Tree Program

- Like the inclusion of identifying and conserving Heritage trees
- Description of the heritage tree program will be helpful
- Like the idea of identifying heritage trees on private lands

Governance and Integration with Other Programs

- Ensure articulation of **linkages** of urban forest management approach **to other Town policies and initiatives** – for example, waterfront plan, tourism, gateways
- Town Public Works and **utility companies** meet regularly. The Town Arborist could attend when projects and initiatives are discussed that will impact upon Town trees. A memorandum of understanding may be in place to guide how the Town works with companies.
- **Advisory Committees** can be great allies in pushing for stronger rules, progress in forest management and forest canopy expansion
- Potential fit of urban forest management in mandates of Advisory Committees for Planning & Sustainability, Environment and Transportation; also ensure that all committees are considering trees when advising on their mandates
- **Add concept of connectivity and natural heritage system management** to item #9;
- For other initiatives, state that **the Town will work with neighbouring municipalities, GRCA, the County**

Workplan Delivery

- See that delivery of this workplan will require **integration across Town departments and partnership with others**; this is something that works well in the Town for a number of programs (i.e. heritage)
- **Ensure that wording of actions is clear on how and what will be done**, not reflect "objective" wording
- **Prioritization of tasks, tracking of and reporting on progress are important**; ensure that there is a specific task dedicated to monitoring and reporting (now in task #4, consider moving upfront)
- **Ongoing publication of progress in urban forest management** will be appreciated by Council and the community; various media can be used to communicate progress and promote the work being done

- Structure timing of workplan tasks with a logical approach; consider completion of significant, visible items first to **demonstrate early success and progress**
- Early accomplishment of **planting along the gateways** (Elgin, Division) would have a large visual impact, as could planting / restoration of **community focal points/hubs** such as super mailboxes, schools, playgrounds
- Expand the memorial tree program to encourage people to **plant a tree to commemorate arrival of a baby**
- **Sustainable Cobourg** advisory and community groups now focus on energy; perhaps they could be encouraged to expand their focus to trees (through the energy saving connection, perhaps); consider the mandates of all committees and their potential for involvement with trees
- **Ensure plan is strong and clear on Town expectations and priorities for forest management**
- Recommendation that finalization of the urban forest management plan not be rushed – it is important to get this long-term plan right

Survey Feedback

Twenty-two responses to the survey were received by December 7th.The following provides a summary of the survey responses and suggestions offered for Town urban forest management.

All respondents agree with the proposed vision of "Cobourg will be a community in the forest", with 75% noting strong agreement with the vision statement. Unanimous agreement was expressed for the five proposed urban forest management goals. Of the actions identified in the draft plan for management of trees on public lands, almost all respondents identify all actions as important, with 95% noting that a Tree Planting Plan is very important 90%, followed by over 90% respondents noting that a tree maintenance program, proactive care of trees, a Town Heritage program and linking of urban forest management are very important. Areas identified for benefit from increased canopy cover include the Town Gateways (73% of respondents), .the waterfront and commercial/business areas (55%). Strong support (80-90%) was expressed for the proposed management activities of Town provision of detailed guidance to residents on tree planting and care, special incentives to target planting on private property in areas of low cover and continued subsidy of trees for planting by residents.

Specific urban forest management suggestions offered by survey respondents include:

Enhancement of the Vision

- Have come across some reading about landscape urbanism (would be nice to try to reverse-engineer some of that) and the green urbanism sweeping part of Europe. Another concept is to "daylight" streams and creeks that may have been driven underground using concrete and culverts. Regreening those banks could add to the diversity we are encouraging and be used as the natural course of connecting corridors. Finally, there is the concept of "zoopolis" to invite animals back into the urban space. I'm sure you're aware of all these concepts. To my mind they all encourage turning our concepts upside down and inside out to give the natural world primacy and to take a humbler place within it.
- Diversity and Colour! Trees that blossom!
- Lots of trees, flowers, wild flowers, berries, we take so much from nature it is time to give back. Show our children the earth is #1
- More trees in parks and cemeteries...

Tree Planting and Forest Characteristics

- As many native species as possible, with some emphasis on long lasting, although slower growing species such as oak or maple
- Suggestions for increase of forest cover:

  - Priority to establish more trees downtown, Town Gateways and Commercial/Business Areas (especially Highway 2 and Division Street corridors; in downtown area where there will not be impact upon business or foot traffic)
  - Dying ash trees on King St need replacing.
  - Increase forest cover in downtown and Ontario and King Street area - Dying ash trees. Research to ensure that replacements are not potentially sick, don't shed messy fruit, etc. Ginkgo trees (male only) are resilient and beautiful.
  - Target Town Gateways, Commercial/Business areas and neighbourhood of Sutherland and Ontario Streets; The Town needs to be proactive and actively searching for tree planting opportunities before they pass by. I look to the newly widened section of Division St. by the 401 and Densmore. Aecon built an ugly wide asphalt median with no vegetation that clearly is wide enough for boulevard trees on the northern section. Missed opportunity and an ugly entrance into town
  - Approach for Ontario and Sutherland Street neighbourhood - Just more trees in general. Encourage people with no trees to plant one. Start the process of removing some of the clearly infected ash trees so something else can get planted in their place.
  - Waterfront and Lucas Point Park neighbourhood
  - Waterfront, nature parks, large boulevards
  - Waterfront, Town Entrances/Gateways
  - Downtown, waterfront, along all watercourses & open areas where development is unlikely to occur
  - Encourage native species; use non-native species only where native will not thrive (near library); ensure a clear mandate
  - Waterfront, Town Gateways and James Tracey Park – especially fruit and nut trees adjacent to the community garden (placed so as not to block sun to the gardens)
  - More diversity wished in neighbourhood of University & Spring Streets
  - Downtown, waterfront, gateways, commercial /business area of Elgin Street North and Institutional area of Division Street North
  - Downtown, waterfront, all the parks
- Tree planting plan is important for visibility
- Planting of fruit and nut trees can contribute to food security
- More boulevards can be planted when roads are re-done
- Increase diversity by planting groups like, say, Tamaracks for fall colour; plant conifers as well as deciduous; establish wildlife corridors with appropriate shrubs as well as trees
- Plant widely around large, super-annuated trees, for example in Victoria Park
- For Burwash and Burnham area - Educate property owners on the importance of maintaining trees on their property and alternatives to removing mature trees (I've seen too many cut down in past few years)
- Plant more trees Along William Street, Division Street, Elgin Street, D'Arcy Street. In all industrial parks, shopping plazas/malls, green spaces/parks, schools
- Tree planting provides an Opportunity for residents to get involved and take ownership of trees in their neighbourhood
- Any and all should be considered. Enhancement is enhancement. It is practical, and it is aesthetically and emotionally satisfying.
- For my neighbourhood (D'Arcy & University) I am satisfied, though lack of backyard pruning and dead branches on neighbouring lots is a concern.
- Parks and public lands. Frankly, all areas should have more trees. They provide shade, wind protection, and oxygen and add beauty.
- Neighbourhood planning is a good way to engage local citizens on matters important to where they live. Citizen engagement makes places safer, too. Smaller projects are good as learning projects. Good ideas transferable to another neighbourhood. Neighbourhoods have identities.

- On a town scale, the transportation system is the most visible place to set a good vision for urban trees. In parks, trees as part of park operations can optimize use of staff time and budgets while also achieving park planning for people use and ecosystem health.
- Plant street trees on Ewing Street.
- Need stronger green standards for parking areas (including owned public lots!), especially where there are large expanses of pavement.
- Also gateways along County Road 2 from PH.
- Northam Industrial Park has 'streets' needs to be a better example of 'gateway'. East end industrial park streets , also.
- a lot of trees in the east end are private and in back yards - some street trees throughout would be a good addition. Some of the private trees may not have been well taken care of and as concern grows over their health, they'll just be taken down and suddenly there may be big holes in our canopy.
- Town entrances are in DIRE need of trees! Both entrances from the 401 are stark, you might as well be getting off in the GTA. The east end entrance off of 2 is ok, there are some fairly wooded properties. But heading in and out of town on the west side, again, fairly stark. In these areas, even though it would largely be street trees, I'd love to see the trees placed not in straight rows, but at random or even in clumps as far as that is possible to create a more cozy, woodsy feel as you enter. Institutional areas - same. There are lots of trees in our industrial areas, but never hurts to have more
- In Springbrook/Coverdale/Hamilton - More Trees! More public trees that is - like I said a lot of the trees in the east end are in back yards, so people can do as they please with them. Town maintained street trees would be great in the east end..
- Trees are important for many reasons, even environmental aside can make people very happy
- School yards need more trees for shade for studies many reasons. Down town and water front...great spot to create the trees may even be able to have paths through the "forest"
- Dale rd and burnham st. More rural so we have lots of trees and I think everywhere should
- Buildings should be structured in such as way as to allow the growing of trees, shrubs, gardens, etc. on their roofs. This would increase the greening of our Town as well as combat the negative impact of vehicular usage.
- They are needed tree canopies and wind breaks. The mall area is especially lacking. If you haven't noticed that since the trees were removed along the west side along Rogers Road, especially, the parking lot is not the most comfortable place at any time of year. As there is lots of room up there every three lines of parking spaces could be replaced with trees and shrubs which would provide wind breaks and shade. For my neighbourhood, more trees should be planted on private property, with the owners' permission, away from the street and so as to not impinge on power, cable and other wires. This would increase shade for the various buildings including apartment buildings. This would benefit in more ways than one.
- In King Street East, east of Victoria Park - I'd like to see more coniferous trees, pine, spruce, fir and other native trees.
- It takes time when planting small trees to become a forest. Trees are under threat from environment and climate change. If the town doesn't plant them, who will? Trees play such a vital role in producing oxygen.
- Cemeteries, St. Michael's just a lot of vacant land that will never be used. Perfect for trees & an urban forest!
- Changes we would like to see, like our neighbourhood of Burnham and Bolton is Just more trees...everywhere!
- Trees enhance life. They cool, they clean, they are essential.
- Without a plan, there may not be continuity across town, or some areas may be overlooked.
- Commercial, thinking specifically the highway 2 and division st corridors. I included the downtown, but only where it does not impact business, or foot traffic.
- Dying ash trees on King St need replacing.
- The town needs to be proactive and actively searching for tree planting opportunities before they pass by. I look to the newly widened section of Division St. by the 401 and Densmore. Aecon built an ugly wide

asphalt median with no vegetation that clearly is wide enough for boulevard trees on the northern section. Missed opportunity and an ugly entrance into town.
- For Sutherland and Ontario – would like to see Just more trees in general. Encourage people with no trees to plant one. Start the process of removing some of the clearly infected ash trees so something else can get planted in their place.

Tree Maintenance
- Support for proper care and pruning to protect trees, property, effectively manage pests and disease
- Definitely necessary
- More prompt response to trimming of overhanging shrubbery that impedes foot traffic, like the lilac on Fourth Street at 206
- Don't plant trees under hydro lines then prune heavily (King and Darcy Streets area)
- Regular maintenance is required
- Hope that trees recently planted in the boulevard on Queen Street will survive
- In College Street area, stop mutilating trees and cutting out the middles for telephone & power lines; replace young trees that die rather than plant and forget
- Data is important in research, understanding trends and to address budgets. Care is vital to tree health and protection of long term asset.
- Not sure regular pruning is necessary for a healthy mature tree in good shape. However, training of younger trees is important especially when near other infrastructure and to minimize need for large cuts when mature.
- Need to understand if a tree becomes a liability in its location. For new planting, ensure operational capacity to care for trees until established.
- There is some thought now, however, that removing trees to avoid an infestation may not be the preferred management technique.
- Pruning and care by the Town on a regular basis is ideal because it leads to less instances of people taking things into their own hands (potentially damaging trees by over pruning. I like to see the bigger build-up of wood chips are the base as well to discourage people from mowing to close or planting flowers at the base of a tree.
- Also, data updates are excellent - the more data that's readily available, the more analysis that can be done on our urban forest.
- Intelligent and common sense pruning is imperative to the health of all the trees.
- Tree maintenance is important because they can become diseased and a danger. Pest invasions can be caught earlier. Removing invasive species should be part of regular maintenance.
- Important because of Liability...
- Proper care of trees throughout their lives can extend their lives and prevent problems before they start.
- Without proper care and pruning, the trees have potential to cause damage in a wind, or ice event. Proper care can also be preventative in recognizing early signs of pests or disease.
- Although species should be selected to be resilient, without proactive care, pests and disease can impact a large area if not contained early. Being proactive helps to address that.
- The need for a tree maintenance program is self-evident. Again, this survey is self evident. Why would we not agree with this plan, unless we do not want to spend the money. We know the value that trees have.

Community Stewardship
- If indeed there is a subsidy for planting trees I did not know about it. The public needs to be informed. Maybe a pamphlet sent out telling people about the subsidy, benefits of trees, as well as a list of potential trees they could plant on their property. Make it exciting.
- Obtain public buy-in for stewardship

- Suggest individual counselling for property owners who may be uncertain if more plantings are desirable; i.e. address whether there are any restrictions in removing traditional lawns in favour of urban woods
- Make it socially unacceptable to cut down a tree
- Suggest more events – I went on a heritage tree bike ride this summer and really enjoyed it
- Provide Education on the real benefits of trees
- Bequests, commemorations, etc. options that should be available.
- Urban trees are important infrastructure system and should be supported (base program) mainly through tax levy. Especially so now that the Municipal Act includes urban tree/forestry component. The suggested funding approach should be additional (e.g. grants, sponsorship etc.), not for basics.
- Great Idea!
- Training of property owners and managers by specially educated and licensed arborists on the proper care and maintenance of their trees would be important.
- Information can help residents with maintenance and care of trees on private property.

Funding & Resourcing Strategy

- Although the work is important, the proper funding allows the program to continue without impacting the taxpayers and residents more than necessary.
- The more efficient the program is the better. Why not make use of available partner resources
- Go after businesses, like the children's play set at the Y. Use discrete plaques, not like the huge in your face signs at the Y. Also memorial trees.
- Pursue grants from Forests Ontario
- Town should pay part, commercial/charitable beneficiaries of the forest should contribute
- Obtain support of Province, County. Partner with Ecology Garden to plan in parks and along shoreline.
- Recommended funding sources are the tax base and provincial funding
- Include a fee in development charges
- Complete a Cost/Benefit analysis to justify further funding if needed in addition to current Town urban forestry program budget
- Make best use of Parks staff; Recruit volunteers where possible
- Please don't hire more staff – we are only a town of 19,000
- General taxes recommended as a funding source; of course, all should contribute
- Use funds from Northam & Holdco revenues for early plan stages until achieve level of regular operations.
- Suggest more staff
- Stop wasting money on signage and divert it towards this project. In this day and age of GPS's and the internet a sign is a waste of resources.
- Without funding none of the above is possible.
- Although the work is important, the proper funding allows the program to continue without impacting the taxpayers and residents more than necessary.

Regulatory Initiatives

- New developments should consider protection & preservation of existing trees during the design stages
- Development needs to be more responsive to natural systems including trees if sustainability is a goal.
- Without legal recourse none of the above is possible.
- New developments can negatively impact existing trees if not monitored, and can aid in advancing the urban forest if properly guided.

Heritage Program

- The monster cucumber tree behind the yellow derelict mansion (name escapes me) across from boys'' reformatory needs to be protected. I think that this is happening.
- Rejoice in what we have

- Economically (e.g. tourism) and culturally (e.g. genetic resource, place-making) important.
- Super important for our environment (physical and social) and for our canopy that we endeavor to protect older, bigger trees and strive to keep them healthy.
- We are at the edge of the Carolinian Forest. The Town can help preserve these rare species and expand their range and numbers.
- Conservation of trees is important and so is recognizing that some trees need to be replaced rather than saved.

Link UFMP with Other Initiatives and Partners

- Synergy always makes sense from the monetary through HR facets
- Not sure who town partners would be ... conservation authority? Definitely need to improve early dialogue with town owned utility companies and the county when new utility poles to be installed and streets designed/redesigned!
- High Priority
- Asset Management and Parks planning for sure - diversity in street trees is great, the same vision should hold for park land
- Knowledge sharing and perhaps cost sharing would be the reason for working with partners.
- Without cooperation nothing is accomplished.
- The more efficient the program is the better. Why not make use of available partner resources. , leads to better continuity and efficiency.

UFMP Overall

- Without a plan, there may not be continuity across town, or some areas may be overlooked.
- Important to have a plan because trees are so important, have value
- Collaborate with neighbouring jurisdictions in managing urban forests
- Define potential natural heritage areas within the municipal boundary, possibly a protected area along the West Beach
- Encourage natural heritage linkages throughout the watercourses to the lakefront; non-intrusive and publicly accessible. Be a Leader!
- Like everything we do in politics, a general consensus must be achieved to embark on new initiatives. The benefits of an urban forest may be obvious to the converted but the case must still be developed. Aim HIGH!!!
- Hopefully the community will understand the urban forest's importance and be actively involved in its care; Go ahead, even if it does not
- Volunteers, funding from other got levels and economic organizations.
- Require or work with developers of private and commercial properties to add trees or replace any lost during their projects.
- Ultimately, provide or partner for a tree nursery to grow and sell locally sourced trees, native types especially.
- Organize or sponsor a gleaning program for community sign-up, harvesting of fruit, nuts, etc. Relatedly, cooking classes.
- Sponsor free workshop in caring for trees. Create a celebrity tree walk or bicycle tour.
- Recognize trees in landscapes/gardens when seeking nominations for gardening awards eg. Communities in Bloom, town awards, etc.
- Seek appropriate planting specifications for development e.g. streetscapes, parks. Include improved green standards for parking areas, streets, parks, storm water management, ponds, etc. Optimize tree growing spaces by creating street pockets (trees, furniture) & places with extra community use space.
- Ensure active transportation routes are well canopied by trees.

- I think the town needs to focus on public property like streets and parks and municipal properties. And, use planning process for private lands. For example, ensuring development meets or exceeds requirements.
- Not sure how to best involve tree planting and care on private property. If a tree subsidy is pursued, establish a pilot project which also measures success/failure.
- Volunteers from high schools, sparks, beavers etc.
- -open houses on tree maintenance, identification, by-laws
- -make trees available at subsidized prices

Town of Cobourg Urban Forest Management Plan

Community Survey

In April, input was received from the community and stakeholders on possible directions and actions for managing Cobourg's urban forest over the next 20 years. Through assessment of this input, the Town's current management approach and industry best practices, a draft set of directions and a workplan have been developed. Please respond to the following questions to help us refine the management plan to ensure the final approach is one that best meets the needs of your community.

Q1 *The **proposed vision** for Cobourg's urban forest is that **"Cobourg will be a community in the Forest".** Do you agree with this description for the Town's urban forest to become in 20 to 50 years?*

☐ Strongly Agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly Disagree

Q2 *Are there any other descriptions that you would like us to consider for what the future urban forest should look like?*

Q3 Do you agree with the proposed goals for managing Cobourg's urban forest?

☐ 1. The urban forest will be lush, diverse, healthy and resilient	☐ Agree	☐ Disagree	☐ Neutral
☐ 2. The urban forest will contribute to community sustainability	☐ Agree	☐ Disagree	☐ Neutral
☐ 3. The Town of Cobourg community will understand the urban forest's importance and will be actively involved in its care	☐ Agree	☐ Disagree	☐ Neutral
☐ 4. The Town's approach to management of trees on public lands will meet urban forest and community needs	☐ Agree	☐ Disagree	☐ Neutral
☐ 5. The Town will support residents and businesses in the stewardship of trees on private property	☐ Agree	☐ Disagree	☐ Neutral

Q4 *Are there other directions that the Town should consider in managing the urban forest?*

Q5 *The draft plan identifies the following actions for the Town to take in managing trees on public lands. Please review the proposed actions and rate how important you think each action is and why.*

	Very	Somewhat	Not	Why Important or Not

Management Action	Important	Important	Important	Important?
Establish a Tree Planting Plan to increase forest cover for the Town and on a Neighbourhood Basis	☐	☐	☐	
Enhance the Tree Maintenance Program to include regular pruning, tree data update, tree care	☐	☐	☐	
Proactively manage tree risks such as diseases, pests, invasive species, dying limbs & trees, drought	☐	☐	☐	
Establish a Community Stewardship Program that informs & involves residents and businesses in tree care	☐	☐	☐	
Implement a funding approach (grants, sponsorships, bequests, volunteers, compensation for removal of trees) that enables the Town to well manage trees	☐	☐	☐	
Update the Tree Protection By-Law to obtain increased funds for tree planting and removal associated with new development; monitor and report on progress	☐	☐	☐	
Establish a Town Heritage Tree Program to recognize and conserve important trees	☐	☐	☐	
Work closely with Town partners so as to access available resources for efficient urban forest management	☐	☐	☐	
Link urban forest management to other Town initiatives, i.e. Asset Management, Town Heritage, Parks Planning, etc.	☐	☐	☐	

Q6 *One of the main objectives recommended in the draft plan is to increase Cobourg's forest canopy cover so that there are more trees across the Town than there are at present. What areas do you think are a priority for establishing more trees?*

☐ Downtown

☐ Waterfront

☐ Town Entrances from Highway 401 (Town Gateways)

☐ Commercial / Business Areas; please specify:_____

☐ Institutional Areas; please specify:_____

☐ Your Neighbourhood; please specify: _____

☐ Other Area(s); please specify:_____

☐ None

Q7 *What changes, if any, would you like to see with regard to trees in your neighbourhood?*

Please tell us your neighbourhood or the nearest major intersection to where you live:

_____

Q 8 *For trees located on private property such as residences and businesses, the draft plan identifies the following initiatives that the Town will do to support and encourage planting and care of private trees? Please tell us which actions you think are most important for the Town to do. Please select as many as you think should be done.*

- ☐ Continue Town subsidy of trees available for planting by residents
- ☐ Issue business challenge for planting trees on commercial/industrial/institutional properties
- ☐ Provide special incentives to target areas (neighbourhoods, commercial areas, parking lots) of private property with low tree cover
- ☐ Pursue grants & subsidies of other organizations to support tree planting by residents & businesses
- ☐ Provide detailed guidance on tree planting and care on the Town website

Do you have any other suggestions for the Town to consider that would help landowners care for and plant trees on their own property?

_____

_____

Q 9 *To accomplish the proposed draft urban forest management plan, additional Town resources will be required. Please indicate the methods that you think the Town should pursue to complete the work?*

Q 10 *Do you have any additional suggestions for approaches or actions that you think we should consider adding to or removing from the draft urban forest management plan?*

Q 11 *Postal Code*: ☐

***THANK YOU* for taking the time to complete this survey and expressing your views and opinions to us. Please leave us your contact information if you wish us to keep you updated on building and delivery of the Plan**

Name: (optional) _____

E-mail Address (optional): _____

Please hand in your completed survey before you leave or mail to:

Rory Quigley, Arborist
Town of Cobourg
Victoria Hall, 55 King Street West, Cobourg ON K9A 2M2
Fax: 905-372-1908
E-Mail: Rory.Quigley@cobourg.ca

Appendix H: Draft Tree Planting and Maintenance Plan

Unit #	Neighbourhood	Parks/Green Space	Planting Opportunities	Maintenance Considerations
All Units	Town-wide		1. Identify additional specific planting opportunities by unit (potential forest cover gaps) on public lands and private lands through field reconnaissance, as part of normal duties, and through aerial photograph interpretation. 2. Develop appropriate programs to encourage and support planting on private lands for identified opportunity areas in #1.	Identify individual tree maintenance requirements for each unit through assessment of tree health and risk, using information in the updated tree inventory.
1	Bounded by Hwy. 401, western Town boundary, Elgin St. W and Burnham Streets; includes DePalma Drive & Strathy Road; Northumberland Hills Hospital; Mainly business land uses in this area known as Cobourg West Business Park.	Town Gateways	1. Following the OP & Secondary Plan I, develop/ enhance aesthetics of Gateways by planting trees: - along Hwy. 401 – Burnham Street Gateway - at intersection of Burnham and Elgin West Streets 2. Work with the Northumberland Hills Hospital to increase shrub planting; potential for small trees 3. Encourage a substantial landscape buffer for parking areas along Elgin Street West (OP Section 3.8.4.2.2 i)a) 4. Establish complementary landscape elements at the SW corner of Elgin Street West on public lands and encourage the same on private property, adjacent to Jubilee Gateway Park (OP section 3.8.4.2.2.i)c) 5. Plant trees along streets to fill gaps, as needed	1. All new plantings to be watered at least once per week for first month then once per week for the next two months in dry conditions. 2. Encourage and develop a watering plan for delivery by residents for street trees.
2	Bounded by Hwy. 401, Burnham St, Elgin Street W Cobourg Creek Natural Area/Minnie Pennel Arboretum; includes White Street; mix of business and residential areas	Connection from Field Court to Rayner Road and Tillson Avenue to the Cobourg Creek Natural Area; White Street Corridor	1. Following the OP & Secondary Plan I, develop/ enhance aesthetics of Gateways by planting trees: - along Hwy. 401 – Burnham Street Gateway - at intersection of Burnham and Elgin West Streets 2. Through tree planting, enhance community connections to Rayner Road and Cobourg Creek natural area/Minnie Pennel Arboretum 3. Planting along White Street Corridor (?) 4. Encourage planting of trees by residents and businesses on private property 5. Encourage/enhance naturalized planting along stream Cobourg Creek corridors.	1. All new plantings to be watered at least once per week for first month then once per week for the next two months in dry conditions. 2. Encourage and develop a watering plan for delivery by residents for street trees.
3	Includes White, Frei & Booth Streets; largely residential with business areas along Hwy. 401, White & Ontario Streets; Borders consist of Hwy. 401, Ontario and Elgin Street West Streets, Cobourg Creek natural area	Residential area bordering on Cobourg Creek natural area and the Arboretum;	1. Plant trees in public lands along streets to fill gaps, as needed 2. Encourage planting of trees by residents on private property, and by businesses along White and Ontario Streets	1. Encourage and develop a watering plan for delivery by residents for street trees.

Unit #	Neighbourhood	Parks/Green Space	Planting Opportunities	Maintenance Considerations
4	Division Street and Baltimore/Densmore Roads; Upper reaches of Cobourg Creek	Neighbourhood connector green area to Patterson Street	1. Enhance gateway area from Hwy. 401 2. Planting along Baltimore, Division Street and Densmore Road on public lands 3. Work with business owners to increase tree cover on private property 4. Consider enhanced naturalized planting along Cobourg Creek	1. All new plantings to be watered at least once per week for first month then once per week for the next two months in dry conditions. 1. Encourage and develop a watering plan for street trees with neighbors along Creek
5	Parkview Hills Drive, Ashland Drive, Alder Road, Densmore Road; upper reaches of Midtown Creek Includes Elgin-Densmore Secondary Plan area; Mainly residential + secondary school north of park	Chris Garrett Park Park at Ashland Drive and Ivey Crescent? Environmental Conservation Area along Midtown Creek (Nickerson's Woods)	1. Consider enhanced naturalized planting along Midtown Creek and along trails in Nickerson's Woods 2. Planting along streets on public lands to fill gaps 3. Encourage planting of trees on private property by residents and residential property management companies 3. Explore the potential for a partnership with the school to naturalize the school grounds and/or to care for the Nickerson's Woods	1. All new plantings to be watered at least once per week for first month then once per week for the next two months in dry conditions. 2. Support and develop a watering plan for annual maintenance program for School program.
6	Bounded by Hwy. 401, Elgin & D'Arcy Streets and Nickerson's Woods (Environmental Conservation Area); includes Nickerson & Danforth Drives and is northern part of (future) Cobourg East Community secondary planning area; Most of area to be developed. There are some businesses along Danforth Road (north)	Upper reaches of Midtown and Brook Creeks	1. Maintain and establish an increased number of new trees as part of the development review process 2. Plant trees on public lands along streets, as they are established 3. Consider enhanced naturalized planting along Midtown and Brook Creek headwater areas 4. Planting along streets on public lands to fill gaps 5. Work with existing business owners to increase tree cover on private property 6. Encourage existing residents to plant trees on their property	1. Ensure that a watering program is included in all planting programs.
7	South of Elgin Street West to the tracks, between Wilkins Gate to the Town boundary; Consists of the New Amherst Community (Secondary Plan)	Caddy Drive green spaces, east of Wilkins Gate and north of Charles Wilson Parkway	1.Encourage existing residents and businesses to plant trees on their property 2. Maintain and establish an increased number of new trees as part of the development review process 3. Plant trees on public lands along streets, as they are established	1. Ensure that a watering program is included in all planting programs.
8	South of Elgin Street West, between Creighton Place/Wilkins Gate and Rogers Road, to the tracks	East of London Street and North of Charles Wilson Parkway	1. Planting along streets on public lands to fill gaps 2. Encourage planting of trees on private property by residents and by institutions 3. Encourage transformation of retail parking areas to include tree oases	1. Ensure that a watering program is included in all planting programs.
9	South of Elgin Street West, between Rogers Road and William Street	Jubilee Park	1. Planting along streets on public lands to fill gaps 2. Encourage transformation of retail parking areas to include tree oases	1. Ensure that a watering program is included in all planting programs.

Unit #	Neighbourhood	Parks/Green Space	Planting Opportunities	Maintenance Considerations
10	Ewing, Carlisle, Kerr Streets south to the tracks	Kerr Street corridor, Daintry Crescent park, Westwood Park, Rogers Road Corridor	1. Consider establishment of community gardens and nut trees in collaboration with the community in Daintry Park; 2. Consider establishment of second Town Arboretum in Daintry Park 3. Continue enhancement of Kerr Street Corridor by planting of trees 4. Planting along streets on public lands to fill gaps 5. Encourage planting of trees on private property by residents 6. Planting of trees in Westwood Park to provide shade, activity definition and screening of park activities from adjacent land uses (From Parks Master Plan)	1. Ensure that a watering program is included in all planting programs. 2. All new plantings to be watered at least once per week for first month then once per week for the next two months in dry conditions.
11	William & Burnham Streets, Westwood Drive – Burwash / Carlisle Streets	Kerr Street corridor Cobourg Creek	1. Continue enhancement of Kerr Street Corridor by planting of trees 2. Planting along streets on public lands to fill gaps 3. Encourage planting of trees on private property by residents and by institutions 4. Consider naturalized planting along Cobourg Creek	1. Ensure that a watering program is included in all planting programs and that there is local support and support from neighbors re: planting of trees and shrubs.
12	South of Kerr Street to the tracks, between Sinclair Street and Westwood Drive, Burnham Street in the middle	Burnham Manor Park, Sinclair Park, Connector from Burnham Manor Court to Burnham Manor Park	1. Focus upon planting within Sinclair Park, a nature park, to restore and enhance environmental functions (from Parks Master Plan) 2. Planting along streets on public lands to fill gaps 3. Encourage planting of trees on private property by residents and by businesses 4. Consider naturalized planting along Cobourg Creek and along environmental area adjacent to Kerr Street	1. Ensure that a watering program is included in all planting programs and that there is local support and support from neighbors re planting of trees and shrubs.
13	Southeast of Elgin and William Streets; Cobourg Creek	Cobourg Creek Natural Area, White Street corridor, Minnie Pennel Arboretum, James Cockburn Park, Dog Park, East Kerr Street corridor	1. In collaboration with the Ganaraska Region Conservation Authority, focus upon planting within James Cockburn Conservation Area, a nature park, to restore and enhance environmental functions (from Parks Master Plan) and also consider naturalized planting along Cobourg Creek natural area 2. Continue enhancement of the White and Kerr Street Corridors by planting of trees 3. Planting along streets on public lands to fill gaps 4. Encourage planting of trees on private property by businesses	1. Pruning and monitoring of trees in the arboretum to ensure they have enough growing space and remain healthy. 2. Ensure that a watering program is included in all planting programs and that there is local support and support from neighbors re planting of trees and shrubs.
14	Chipping Park Blvd., Ballantine Street, Kerr Street	Kerr Street corridor, Morley Cane Park and adjacent Midtown Creek natural area	1. Encourage planting of trees by residents and businesses on private property; some properties are without trees 2.Planting along streets on public lands to fill gaps 3 Continue the process of removing infected ash trees and replacing them with new trees 4. Continue enhancement of Kerr Street Corridor by planting of	1. Ensure that a watering program is included in all planting programs and that there is local support and support from neighbors re planting of trees and shrubs.

Unit #	Neighbourhood	Parks/Green Space	Planting Opportunities	Maintenance Considerations
			trees 5. Planting of trees in Morley Cane Park to provide shade, activity definition and screening of park activities from adjacent land uses (from Parks Master Plan) 6. Consider enhanced naturalized planting along Midtown Creek	
15	South of Elgin Street, between Division & D'Arcy Streets, to the tracks; Business Park,	Midtown Creek	1. Continue enhancement of Kerr Street Corridor by planting of trees 2. Planting along streets on public lands to fill gaps 3. Encourage planting of trees on private property by businesses 4. Consider naturalized planting along Midtown Creek	1. Ensure that a watering program is included in all planting programs and that there is local support and support from neighbors re planting of trees and shrubs.
16	Unit extends east of D'Arcy Street to the edge of the developed area, South of Elgin Street to the tracks some businesses established along D'Arcy & Elgin Streets, Stanton Road	Lion's Park, Legion Fields Floodplain along Brook and Massey Creeks and tributaries preserved as Open Space Future local parks and parkettes	1. Maintain and establish an increased number of new trees as part of the development review process 2. Plant trees on public lands along streets, as they are established 3.Plant trees on public lands along streets 4. Consider potential establishment of tree nursery near the Cobourg Community Centre 5. Consider enhanced naturalized planting along Brook and Massey Creeks and their tributaries 6. Planting of trees in Lion's Park and Legion Fields to provide shade, activity definition and screening of park activities from adjacent land uses (From Parks Master Plan)	1. Ensure that a watering program is included in all planting programs and that there is local support and support from neighbors re planting of trees and shrubs. 2. Encourage and support a regular maintenance program for Lions park and new developments including a watering program and support as required.
17	Along Pebble Beach Drive, south from the tracks to Lake Ontario and east to Cobourg Creek	Lake access at end of Tracey Road, Cobourg Creek green space, Monk's Cove Park, Gutteridge Park, greenspace along west side of Cobourg Creek	1. Consider naturalized planting along the western waterfront area (from Parks Master Plan), where appropriate, and along Cobourg Creek 2. Plant trees to enhance connectivity and mitigate erosion in Tracey Parkette and Monk's Cove Park (from Parks Master Plan) 3. Establishment of trees along the waterfront will follow directions articulated in the Waterfront Plan, now under development 4. Planting along streets on public lands to fill gaps 5. Encourage planting of trees on private property by residents	1. Ensure that a watering program is included in all planting programs and that there is local support and support from neighbors re planting of trees and shrubs.
18	South of tracks, along William Street, including King Street West & Forth Street, west of Ontario Street and south to Lake Ontario	Peace Park. Lake access. King and William Street green space	1. Plant trees, where feasible, on public lands along streets in downtown area, placing trees so as to maintain identified heritage district views 2. Encourage planting of trees by residents and businesses on private property; 3. Plant trees, as appropriate while maintaining views, to enhance connectivity and mitigate erosion along lake access areas (from Parks Master Plan) 4. Focus upon planting within Peace Park, a nature park, to restore and enhance environmental functions (from Parks Master Plan)	1. Ensure that the maintenance program is supported by residents and businesses and that they are actively involved with a watering program.

Unit #	Neighbourhood	Parks/Green Space	Planting Opportunities	Maintenance Considerations
			5. Establishment of trees along the waterfront will follow directions articulated in the Waterfront Plan, now under development	
19	South of the tracks to King Street West, between Ontario and Spring Streets		1. Plant trees, where feasible, on public lands along streets in downtown area, placing trees so as to maintain identified heritage district views 2. Encourage planting of trees by residents and businesses on private property;	1. Ensure that the maintenance program is supported by residents and businesses and that they are actively involved with a watering program.
20	Ontario, Bagot, Sydenham & Durham Streets	Lots of lake access green spaces	1. Plant trees, as appropriate while maintaining views, to enhance connectivity and mitigate erosion along lake access areas (from Parks Master Plan) 2. Establishment of trees along the waterfront will follow directions articulated in the Waterfront Plan, now under development 3. Plant trees, where feasible, on public lands along streets in downtown area, placing trees so as to maintain identified heritage district views 4. Encourage planting of trees on private property by residents and businesses	1. Ensure that the maintenance program is supported by residents and businesses and that they are actively involved with a watering program.
21	South of King Street West between Hibernia and Division Streets, to the Lake	Cobourg Harbour, Rotary Park, The Esplanade; Midtown Creek to the Lake	1. Plant trees, as appropriate while maintaining views, to enhance connectivity and mitigate erosion along Midtown Creek 2. Any establishment of trees along the waterfront will follow directions articulated in the Waterfront Plan, now under development 3. Plant trees, where feasible, on public lands along streets in downtown area, placing trees so as to maintain identified heritage district views 4. Encourage planting of trees on private property by residents and businesses	1. Ensure that the maintenance program is supported by residents and businesses and that they are actively involved with a watering program.
22	South of University Avenue, between Spring and Division Streets, to King St.	Midtown Creek	1. Consider enhanced naturalized planting along Cobourg Creek 2. Consider increased tree diversity when planting in the University & Spring Streets area 3. Plant trees, where feasible, on public lands along streets in downtown area, placing trees so as to maintain identified heritage district views 4. Encourage planting of trees on private property by residents and businesses	1. Ensure that the maintenance program is supported by residents and businesses and that they are actively involved with a watering program and are supportive of all new trees and shrubs.
23	Bounded by the tracks, University, Spring and Division Streets	Midtown Creek	1. Consider enhanced naturalized planting along Cobourg Creek 2. Consider increased tree diversity when planting in the University & Spring Streets area 3. Encourage planting of trees on private property by residents and	1. Ensure that the maintenance program is supported by residents and businesses and that they are actively involved with a watering

Unit #	Neighbourhood	Parks/Green Space	Planting Opportunities	Maintenance Considerations
			businesses 4. Plant trees along streets on public lands to fill gaps	program and are supportive of all new trees and shrubs.
24	From the tracks south to University Avenue, between Division and D'Arcy Streets	James J. Tracey Park, Spencer Street East corridor, connectors between University/Spencer/Munroe Streets	1. Consider establishment of nut trees in collaboration with the community, adjacent to the community gardens (trees placed so as not to block sun to the gardens) in James J. Tracey Park 2. Encourage planting of trees on private property by residents and businesses 3. Plant trees along streets on public lands to fill gaps	1. Develop a long term maintenance program ensuring new nut trees are supported.
25	East of Division Street to D'Arcy Street, Between University & King Streets		1. Plant trees, where feasible, on public lands along streets in downtown area, placing trees so as to maintain identified heritage district views 2. Encourage planting of trees on private property by residents and businesses	
26	From Lake Ontario to King Street East, between Division Street &~Abbott Blvd.	Donegan Park, Victoria Park, lake access	1. Collect seeds from pre-settlement beech trees in Donegan Park for establishment of trees in the Town tree nursery, to be planted across Town as a connection to Cobourg's history 2. Plant trees in anticipation of the need for replacement of cottonwood trees in Victoria Park; consider establishment of cottonwoods, or willows that had previously thrived here 3. Plant trees, as appropriate while maintaining views, to enhance connectivity and mitigate erosion along lake access area and in Victoria and Donegan Parks (from Parks Master Plan) 4. Establishment of trees along the waterfront will follow directions articulated in the Waterfront Plan, now under development 5. Encourage planting of trees on private property by residents and businesses 6. Plant trees along streets on public lands to fill gaps	1. Consider protection of trees in Victoria Park that consists of barriers to traffic around the tree roots, such as aesthetic "fencing" consisting of a wooden fence, planting of hardy shrubs and plants and/or placement of mulch
27	South of the tracks to King Street, between D'Arcy Street and Brook Creek/Cottesmore Avenue	Connector between D'Arcy Street to Rankin Boulevard	1. Encourage planting of trees on private property by residents and businesses 2. Plant trees along streets on public lands to fill gaps and along the neighbourhood connector to Rankin Blvd.	Ensure that the maintenance program is supported by residents and businesses and that they are actively involved with a watering program and are supportive of all new trees and shrubs.
28	North of King Street East to the tracks, between Brook Road and Cottesmore Avenue/Brook Creek	Optimist Park, Brook Creek	1. Consider enhanced naturalized planting along Cobourg Creek 2. Planting of trees in Optimist Park to provide shade, activity definition and screening of park activities from adjacent land uses (From Parks Master Plan)	1. Ensure that the maintenance program is supported by residents and businesses and that they are actively involved with a watering program and are supportive of all new trees and shrubs.
29	South of King Street East to	Coronation Park and	1. Encourage planting of trees on private property by residents and	1. Ensure that the maintenance

Unit #	Neighbourhood	Parks/Green Space	Planting Opportunities	Maintenance Considerations
	Lake Ontario, including Abbott Blvd, Coronation & Foote Crescents, Brook Road South	connector to Coronation Crescent, lake access at end of Brook Road South, green space east of Orchard Ave.; Brook Creek	businesses 2. Plant trees along streets on public lands to fill gaps and along the neighbourhood connectors to Donegan and Coronation Parks 3. Consider enhanced naturalized planting along Brook Creek 4. Plant trees, as appropriate while maintaining views, to enhance connectivity and mitigate erosion along lake access area	program is supported by residents and businesses and that they are actively involved with a watering program and are supportive of all new trees and shrubs.
30	South of King Street East to the Lake, between Brook Road and ~Fitzhugh Lane	Coverdale Park, lake access at the end of Coverdale Road	1. Plant trees, as appropriate while maintaining views, to enhance connectivity and mitigate erosion along lake access area and to provide shade and screen activities within Coverdale Park (from Parks Master Plan) 2. Establishment of trees along the waterfront will follow directions articulated in the Waterfront Plan, now under development	1. Ensure that the maintenance program is supported by residents and businesses and that they are actively involved with a watering program and are supportive of all new trees and shrubs.
31	East of Fitzhugh Lane/Carroll Crescent to Town Boundary, south of King Street East to the Lake	Fitzhugh Park, Lucas Point Park, Massey Creek	1. Plant trees along streets on public lands to fill in gaps 2. Encourage planting of trees by residents and businesses on private property 3. Consider enhanced naturalized planting along Massey Creek, and in Lucas Point Park to prevent erosion and to enhance and restore environmental functions 4. Establishment of trees along the waterfront will follow directions articulated in the Waterfront Plan, now under development	1. Ensure that the maintenance program is supported by residents and businesses and that they are actively involved with a watering program and are supportive of all new trees and shrubs. 2. Ensure that neighbours do watch and advise Town staff of any issues re: new trees & shrubs and erosion.
32	East of Brook Road to the Town boundary, between the tracks and King Street East		1. Plant trees along streets on public lands to fill in gaps 2. Encourage planting of trees by residents and businesses on private property 3. Consider enhanced naturalized planting along Massey Creek and Brook Creek tributary 4. Maintain and establish an increased number of new trees as part of the development review process 5. Plant trees on public lands along streets, as development occurs	1. Ensure that the maintenance program is supported by residents and businesses and that they are actively involved with a watering program and are supportive of all new trees and shrubs.
33	East of Unit 16, consisting of the southern part of (future) Cobourg East Community secondary planning area, extending to Town boundary/Stanton Road; Much of the unit will be developed in future;	Future local parks and parkettes Floodplain along tributaries of Brook and Massey preserved as Open Space	1. Maintain and establish an increased number of new trees as part of the development review process 2. Plant trees on public lands along streets, as they are established 3. Consider enhanced naturalized planting along tributaries of Brook and Massey Creeks	1. Ensure that a watering program is included in all planting programs and that there is local support and support from neighbors re planting of trees and shrubs.

Appendix I: Guidance for Tree Planting and Maintenance

- *General guidance for planting and maintenance of trees within Cobourg*
- *Cobourg's Tree Planting & Maintenance Design Guidelines for use by developers*
- *Diagram of Recommended Approach for Tree Planting – Soft Surfaces*

Appendix I: Guidance for Tree Planting and Maintenance

This Appendix provided general guidance for planting and maintenance of trees within Cobourg, followed by tree planting design guidelines for use by developers and an accompanying recommended diagram for planting of a tree. This section also presents a community guide to tree planting, produced by Tree Canada.

Timing of Planting

- Spring planting (after the ground has thawed and before the tree buds break) is the best time to plant.
- Planting can occur throughout the frost free season (fall season) but extra care has to be taken both in site preparation and in the care of the tree to be planted.
- Certain species can only be planted during the spring season, oaks and any bare root stock, can best be planted during the spring season.

Planting Hole preparation

- Excavation of the hole can be done with a shovel, backhoe, or tree spade. The sides of the tree hole have to be able to except new roots. The planters should be prepared to "scratch up" the sides of the hole to ensure that root penetration is possible in loam or clay based soils.
- Research has shown that a wider planting hole improves establishment. The general rule shall be that the planting hole shall be three times the width of the soil ball or twice the diameter of the root mass for bare root stock.
- All planting holes should be well drained. The objective is to ensure that the holes remain moist but do not remain wet with standing water.

Soil Preparation

- Soil analysis is recommended for each specific soil type present within the Town. The majority of soils located within Cobourg are rated as high capability for agriculture in the Northumberland County Soil Survey. As a result, much of the Town lands, when undisturbed, will provide good nutrient and water levels for tree growth. Given that urban lands tend to have disturbed soil profiles and high potential for compacted soils along streets, soil testing of a sample of different soil types will provide useful information for tree establishment and maintenance. Recommended soil tests include pH, Organic matter, Nutrient levels, % of sand and silt, Cation Exchange Capacity (CEC), bulk density, and sodium absorption ratio (SAR).
- Additions to the soil and soil mixing, shall be based on the soil test results with caution taken on the finer sands, to avoid excessive mixing that would destroy the soil structure.

Planting

- The height a tree is planted within a hole is critical to planting success and to the long term health of the tree. Plant so that the root collar is 50 mm or 2 inches about the finished grade.
- Bare root plants should have their roots spread out in a natural position with no root pruning.
- All root wrappings shall be removed from the root ball and the planting hole, before the tree is planted.
- Backfilling shall be done with care and tamped gently, not with mechanical assistance.
- Backfilled soil should permit the collection or holding of water around the planting hole to direct the water to the roots.

Mulching

- Mulch shall consist of wood chips or shredded bark. It should be placed around the tree to a depth of 15 cm or 6 inches but kept away from direct contact with the trunk of the new tree.

Trees for Boulevards and sidewalks

- We like to have trees along our main streets and sidewalk areas. These sites require special care and effort to ensure that the trees have a chance to survive. The problems tend to be; compacted soil; a sufficient volume of soil and sufficient growing area to provide for a large tree that could survive at least 50 years; and a method of supporting the sidewalk area that does not compact the soil but does permit future utility access along the sidewalk or boulevard.
- For wider sidewalk or boulevard areas, raised open planting beds are an option. They have to an open bottom for the tree roots to access soil volumes below and to the sides to raised bed. Trees species should be chosen to be of medium mature size and tolerant of the tough road side conditions i.e. honey locust or linden.
- Soil Trenches can be a viable solution to sidewalk and boulevard plantings. The objective of the trenches is to provide enough soil volume to support a tree while allowing water and air to penetrate the area. The trench should be filled with good quality soil based upon the soil test and covered with a slab of concrete that is supported on two sides to allow for an air space. Or the trench could utilize soil cells. Soil cells are hard plastic, flat units, that permit roots to gain access to the soil below. The finished surface over the soil cells can be concrete, unit pavers, or asphalt.

Watering

- Sufficient watering is the single most important factor in the establishment of a tree and in its' continue growth of the years. In the initial four months following the planting of a tree, the soil about a tree should be kept moist.
- Watering should be decreased by late August to allow the tree winterize.

Fertilizing

Fertilization is only beneficial if nutrients are lacking. Only fertilize based upon the recommendations of the soil tests. Do not fertilize in fall as it may cause a late flush that could result in a lack of hardening off before winter.

- DESIGN GUIDELINES FOR THE CORPORATION OF THE TOWN OF COBOURG

Reviewed By: **Rory Quigley**
Presented: **October 2016**

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References:

Street Tree Preservation and Planting Design Guidelines – Regional Municipality of York (Feb 2013)

Design Guidelines and Standard Drawings – Municipality of Clarington (2010)

Markham Trees for Tomorrow Urban Forestry Manual (2009/2016)

City of London – Design Specifications and Requirements Manual (September 2012)

- SECTION I – TREE PLANTING

- I 1.00 GENERAL REQUIREMENTS

The Developer shall follow these tree-planting requirements and adhere to the current Tree Preservation By-law. The concept of green infrastructure recognizes that street trees provide many important and measurable benefits which are vital to the overall health of our landscapes and communities. Successfully establishing green infrastructure requires investment in best practices for planting and ongoing maintenance.

I 1.01 POLICY

Tree Planting Levy (at Development Agreement Stage) - Tree planting is required in accordance with The Corporation of the Town of Cobourg By-Law Number 020-2006, Schedule 'A' Tree Planting Levy. A standard of one 'street tree' provided for every forty (40) feet (12.2 metres) of linear frontage along a municipal highway is required as a condition of a subdivision agreement, site plan agreement or severance approval.

- The levy is equivalent to the municipal cost for the supply, installation, and provision of maintenance for a period of one year of such 'street trees'.
- The levy is calculated by multiplying the total number of required trees times the base charge per tree. The amount will be subject to annual review.
- The supply, installation, maintenance and necessary replacement of trees will be supervised by the Parks Department using the levied funds to either contract the work or undertake the work by Parks staff.
- The levy shall be collected from the applicant incidental to the processing of the site plan/development agreement or subdivision agreement and the registration of the plan of subdivision.

I 1.02 DRAWINGS AND SPECIFICATIONS

The developer shall submit a Planting Plan showing proposed planting locations with all site amenities known and shown on the plan. **The services of a member of the Ontario Association of Landscape Architects in good standing with seal must be retained.**

All trees shall be planted on Town property. Tree planting locations will be determined on a site specific basis. As a goal, no less than one 'street tree' shall be provided for every forty (40) feet (12.2 metres) of linear frontage along a municipal highway is required.

Since large stature trees contribute more benefits to the environment and community than small ones, the largest tree that is suitable for the location is to be planted, considering eventual size at maturity.

Plantable space may include the boulevard in front of or rear of the sidewalk (where present). The preferred location is in the boulevard between sidewalk and curb. Tree locations may be staggered and/or grouped where appropriate to make the best use of available planting and growing space. Small form or 'ornamental' trees should be spaced more closely than full form trees.

Planting Plans and Specifications shall be prepared by the Developer's Landscape Architect and submitted by the Developer to the Town of Cobourg for approval. The Planting Plan shall show the proposed treatment of all tree planting areas within the development, and shall be produced in conjunction with utility coordination plans. Trees shall be labeled clearly with plant keys and a plant list shall be included complete with key, botanical and common name, quantity, size and condition.

As an alternative to the production of drawings, the Developer may submit a letter of intent regarding street tree planting. This letter shall clearly state the species of trees and estimated quantity to be planted on each street, and shall indicate the percentage of each species to be used in each phase of the development. The letter shall also assure the Town that all utility coordination plans have been reviewed to ensure minimal conflict between tree locations and utility services.

I 1.03 STREET TREES & RELATED PLANTING

Street trees shall be planted on both sides of the rights-of-way within the development. Every effort shall be made to accommodate one tree per dwelling, provided there is sufficient space and clearance. Trees should generally adhere to the layout and clearances in these guidelines. Park, school, commercial, industrial, institutional and multi-family, flankage and reverse-lot residential frontages shall be planted at typical spacing in accordance with the guidelines.

Where deemed necessary by the Town of Cobourg, the Developer will be required to plant a screening of suitable trees adjacent to the rear and flankage property boundaries of lands abutting collector and arterial roads. The screen planting shall be installed within the affected property beyond the street line of the right-of-way. The design of screen plantings shall be depicted on the Planting Plan for review and approval by the Town. The conditions of maintenance and acceptance of street trees shall also apply to any screen plantings within the development.

Final quantities and locations shall be determined by the Town at the time of stake-out. All precautions must be taken with respect to the location and care of underground utilities. All utilities, light standards, driveway and other infrastructure must be shown on the Planting Plan.

- I 2.00 LAYOUT

Factors such as environmental conditions, likelihood of future root system disturbance, clearance for vehicular and pedestrian traffic, overhead utilities, and the character and ultimate size of the tree species shall be considered in determining the appropriate location of the tree.

I 2.01 SITE CONTEXT

Site context is of paramount importance in the planting of trees, since adjacent land uses such as commercial, industrial, institutional and residential present different needs. Transition between uses is imperative so the streetscape is unified and integrated. The following are guidelines to suitable tree location and planting:

- Visibility and sight line requirements at intersections need to be maintained.
- Public safety and security needs to be ensured by planting appropriate species that keep their form to maintain clear visibility.

- Co-ordinate the location of street trees with the site landscaping for a unified streetscape.
- Plant street trees closer together (6-8m) approaching major intersections or high visibility locations such as gateways or nodes.
- Introduce coniferous plant material where visual screening is appropriate such as along railway corridors and parking lots.
- Choose plant material with ecological compatibility, appropriate for site conditions (e.g. salt and drought tolerant).
- Maintain a pedestrian connection to the street and enhance this by planting trees flanking this connection.

I 2.02 SPACING BETWEEN TREES

The desired spacing of trees is based on the size and form of the tree species at maturity. Spacing shall not be less than 8m, nor greater than 15m, with the standard spacing being a typical of 12.2m (40 feet) where applicable. Refer to the Acceptable Tree Species List Appendix.

- *Full form species*:
  - Spaced at 12.2m (40 feet) on centre
  - Spacing varied from 8 – 15m on centre

- *Small form species*:

  - Spaced at 8m on centre
  - Spacing varied from 5 to 10m on centre

I 2.03 INFRASTRUCTURE OFFSETS

Street trees shall be planted in the appropriate location as depicted in the standard road cross-sections for the Town of Cobourg.

- Offset From Curb – Preference is given for the offset from curb to follow the minimum distances for fixed objects as defined by the Roadside Safety Manual.
The minimum offset is **1.5m** in order to allow for snow storage. A tree species' salt tolerance is also a concern when considering offset from curb.

- Offset from Intersections and Entrances – Sight distance triangles are maintained free of trunks and branches. Branches may droop over seasons and time and interfere with sight lines. To maintain minimum sight line distances, the following offsets shall be followed:

  - Trees should not be planted within **18m** of any traffic control sign or intersection.
  - Trees should not be planted within **9m** (YR) of a non-signed intersection (Clarington 15m)
  - Trees should not be planted within **3m** of a commercial driveway or entrance and in conformance with sight triangles
  - Trees should not be planted within **1.5m** of a residential driveway and in conformance with sight triangles
  - Other landscaping elements may be considered within the sight distance triangles. Designers should

- Offset from Sidewalk and Property Boundaries – Street trees should be planted to minimize conflicts with sidewalk construction and maintenance. To allow for sidewalk construction and maintenance, the following offsets shall be followed:

  - Trees should be planted a minimum of **1m** from edge of sidewalk, **1.5m** is preferred.

- Trees should be planted a minimum of **1m** from property boundary lines.
- Where no sidewalk exists trees should be planted at a **3.5m** offset from the property line to allow for future construction of sidewalks 0.6m from the property line.

- Offset from Ditches and Drainage

Trees should not be located within **1m** of the ditch line in order to allow for maintenance of the ditch. Trees should not be planted where water may collect and temporarily pool.

- Offset from Existing Trees

Trees should be a minimum of **6m** from any other tree, taking into account the species mature size.

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I 2.04 UTILITY OFFSETS

- Hydro (Energized) Lines
  - Where overhead hydro wires are present, small form tree species should be selected based on the wire height and mature species height.
  - Full form trees should have a minimum **2.5m** offset from overhead wires. Select upright or vase shape trees.
  - Where there are no overhead wires present, full form trees should be used to maximize leaf area.

Telephone and Non-Energized Lines

- Full form trees may be planted directly under overhead utilities which are non-energized, such as telephone wires.

Light Standards and Utility Poles

- Trees should not be planted within **5m** of a utility pole or light standard.

Watermains and Sewers

- The offset from centre of pipe shall be 1m or as much as possible. However, where no other suitable locations exist trees may be located directly over pipe(s).

Other Utilities

- Minimum required offsets from other utilities should be observed. Where none is specified a minimum of 1m offset should be assumed.

Transformers

- Trees should be planted a minimum of 1.2m from sides and 2m from door.

Hydrants

- Trees should be planted a minimum of 3m offset.

I 2.05 ROOT DEVELOPMENT – SOIL QUALITY AND VOLUME

Designs must provide for the healthy development of tree root systems capable of supporting tree growth and health. Soil volume is an essential factor for tree growth along with good drainage, adequate water and nutrients in the soil. The soil volume for rooting must be large enough to support the expected tree size, stature and life span. During the design process, consideration must be given to providing adequate soil volume and quality for root development. Innovative techniques may be required to provide this space in constrained environments (e.g. soil cells, root paths, etc.)

- Based on tree size to soil volume relationships studies, a minimum soil volume of $30m^3$ is required for healthy growth to an ultimate trunk diameter of 40cm.
- A minimum soil volume of $15m^3$ is recommended for smaller trees or share root areas where closer spacing can be achieved.
- The growing medium or soil shall follow the Town of Cobourg Tree Planting Specifications.

I 3.00 TREE SELECTION

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- I 3.01 SPECIES

- The selection of trees to be planted shall be made from those species which are of suitable hardiness for the Cobourg area and which are commonly acceptable for use in municipal tree planting programs in Southern Ontario. Street trees should be native or ornamental varieties which display adequate environmental tolerance and disease resistance as well as appropriate ultimate size for the streetscape context. Street tree species need to withstand tough conditions and be tolerant of drought, salt and wind. When selecting a species, the designer should consider the current and future site conditions and select a species appropriate for the site. The plan should reflect the character of planting in adjacent areas.

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- Use of native species over non-native species is desirable. Native means naturally occurring (indigenous) in Ontario. Invasive species shall be avoided. Invasive species include: Manitoba Maple (*Acer negundo*), Norway Maple (*Acer platanoides*), Scots Pine (*Pinus sylvestris*).

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- Trees with large or messy fruit may be planted only in limited situations. Trees with large thorns are not permitted. Species such as poplar and willow are not acceptable for street tree planting. Coniferous needle-bearing trees will not be shown in the boulevard where they will cause sight line obstructions but may be planted rear of the sidewalk where space allows. Ash (Fraxinus) species may not be shown or planted on any Town boulevard until further notice.

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- To ensure that only species suitable for planting in this environment are used, the Town has prepared an acceptable species list with species selection guidelines. The Town of Cobourg's Acceptable Species List can be found in Appendix. Other species may be considered for approval if it can be shown the proposed species are appropriate to the proposed planting locations and to permit trial plantings of new (to the Town) species or cultivars. The percentage species mix to be used for a development shall be submitted for approval by the Town.

- I 3.02 DIVERSITY

- The Town supports the creation of a diverse urban forest while providing for an aesthetically pleasing and sustainable streetscape. Species diversity guidelines do not require each species to be evenly distributed throughout. Strong design using groupings and clusters at intersections and mid-block locations should be implemented. Diversity will be created at the urban forest level allowing the creation of aesthetically pleasing streetscapes at the street block level. The creation of monocultures (i.e. dependence on one species) is not supported as part of this balanced approach to species diversity. This design approach recognizes the importance of a proactive integrated pest management approach to tree planting. Designers should attempt to incorporate the following species diversity guidelines:
- Maximum of 30% of plantings to be from the same genus of tree (i.e. maple)
- Maximum of 10% of plantings to be from the same species of tree (i.e. silver maple)

- I 3.03 STOCK

High quality nursery stock is a pre-requisite to tree survival. Only high quality nursery grown trees which conform to the most recent version of the Canadian Nursery Landscape Association's *Canadian Standards for Nursery Stock* are acceptable. Trees shall be grown and supplied by nurseries within the same (or hardier) hardiness zone, and where possible, grown in similar soil conditions as the project site. The Developer's Landscape Architect is responsible for assuring the quality of all plant material meeting the Contract specifications. Not applicable if planted by Town contract.

The followings standards are required:

- Balled and burlapped trees shall be dug with solid root balls of standard size, securely wrapped with non-synthetic, untreated, biodegradable burlap, and tightly bound with non-synthetic, biodegradable rope or twine.
- Deciduous trees shall be a minimum of 50mm caliper measured 15cm above the root collar, with a straight trunk free of any decay or wounds.
    - Small form trees typically achieve a mature height of not more than 6m
    - Medium form trees typically achieve a mature height greater than 6m and less than 16m
    - Large form trees typically achieve a mature height greater than 16m
- Deciduous trees shall have a balanced canopy with a minimum branching height of 1.8m from the root ball.
- Coniferous trees shall be a minimum of 1.5m height with one main trunk and no multiple competing stems. Branching shall be uniform and characteristics of growth habit for the species.
- Root balls must be solid with little or no movement at the trunk, free of girdling roots, with a visible root flare on the surface of the soil ball.

- I 4.00 EXECUTION OF WORK

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- I 4.01 PLANTING (POST ASSUMPTION)

Once the planting plan is approved at the time of assumption, the Town of Cobourg will implement street tree planting before end of warranty of the subdivision through Town tender processes and administration. The Town will implement the approved tree planting plan, as accurately as possible, with the tree species specified. Once the planting plan is prepared, substitutions will be done only as necessary and should not be a common occurrence. Should substitutions be required due to unforeseen circumstances, the Town reserves the right to substitute with a suitable species without further consultation or approvals through the Developer. Substitute species will endeavor to match the size and shape of the originally specified species. Diversity guidelines shall still apply.

- The Town of Cobourg will commit to planting trees within one year of assumption. Any subdivision assumed prior to October 1 of the current year will be incorporated into the Tender process for planting the following year. If assumptions are processed after that date, they could be planted the following year, depending upon availability of plant material specific to the planting plan, and depending upon when the Tender documents are distributed. If assumption of the subdivision is unduly delayed, with at least 50% of homes already occupied, the Town of Cobourg may work with the developer to arrange for planting of trees prior to assumption by the Town, recognizing the benefit to the neighbourhood and environment of planting trees as early as possible. Work is not to be initiated until boulevard grading and sodding is completed. Planting work is to be carried out during periods suitable with respect to climatic conditions and accepted horticultural practices for the species being installed, and to the approval of the Town of Cobourg.

- I 4.02 FEE

There are several components which comprise the Tree Planting Levy amount charged for street tree planting. The fee must cover all costs associated with implementing the program, including the cost to supply and install the tree, a one replacement warranty policy and associated administration costs (planting, organizing and implementing of tree planting as well as inspection and compliance checks).

Once the trees are planted, the Town will forward an invoice to the developer reflecting the actual cost of planting trees in that subdivision with an additional 10% administration fee (plus all applicable taxes).

- I 4.03 INSTALLATION

Street trees are to be planted in strict accordance to the details and specifications of the Town of Cobourg. A copy of the Tree Planting Specifications is available upon request. All tree pits shall be prepared in accordance with the Town of Cobourg's Tree Planting detail.

I 4.04 MAINTENANCE AND WATERING

All planting shall include a full maintenance program to ensure success. A maintenance plan shall include a watering plan prior to installation of plant material. The maintenance plan should include identified watering cycles, mulching, weed removal and stake removal. Maintenance of newly planted trees during the warranty period is the responsibility of the Contractor who installs the trees. Watering shall reflect soil conditions, plant requirements and microclimate, and supplement natural rainfall. New plantings require more frequent watering and should be monitored for signs of drought and overwatering. During establishment it is recommended that new plants are watered at least every seven (7) to ten (10) days between May and August 30, and at least every fourteen (14) to twenty-one (21) days between September 1 and November 15.

I 4.05 INSPECTION and ACCEPTANCE

The Town of Cobourg reserves the right to investigate, inspect and reject any substandard material, plants or procedures at any time during, or subsequent to, the planting process.

Immediately following planting, each plant shall be inspected for damage. Damaged plant material shall be replaced or treated in accordance with proper horticultural standards, as directed.

The Developer shall implement an ongoing maintenance program for all plant material and shall monitor their progress at 3 and 12 months during the growing periods. Any plants showing signs of distress shall be treated or replaced immediately, as directed.

All plant material shall be guaranteed as to their health and vigour for one year. An inspection of plant material and the replacement of any dead, dying or substandard plant material is to be carried out within two weeks prior to the anticipated date of assumption.

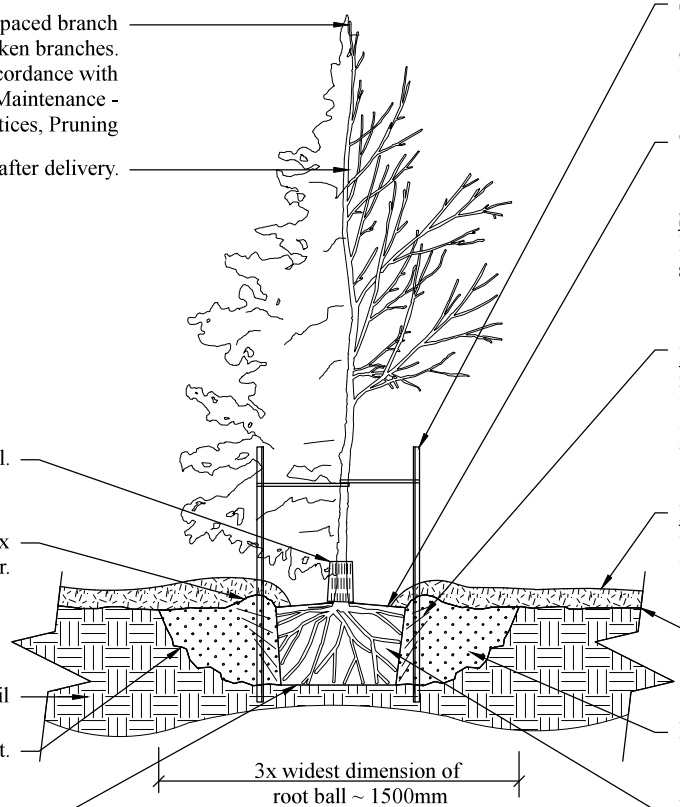
I 4.06 END OF WARRANTY

Trees shall be planted under a 2 year warranty from time of planting, as prescribed in the tender documents. A tree warranty inspection shall be conducted prior to the expiry of the 2-year warranty period. Trees that fail inspection shall be removed and replaced as soon as weather conditions permit within specified planting periods and within the current or following planting season (spring or fall) at a minimum. The guarantee for all replacement plants shall be for the greater of the remainder of the guarantee period or an additional period of one year from the date of acceptance of replacement.

Fee – Payment for tree planting as invoiced by the Town of Cobourg is a requirement at the time of end of warranty of the subdivision. If payment is not received, end of subdivision warranty will not be granted.

Security – Once payment for street tree planting has been received (as invoiced), the developer will be released from all obligations in this regard and the Town will be authorized to release all securities held for such.

Public Relations – should homeowners inquire about tree planting operations, the developer will explain that trees will be planted post-assumption. Further inquiries may be directed to the Town of Cobourg.



SECTION VIEW

Soil
All proposed planting areas shall be tested for drainage, soil quality and pH that is capable of supporting healthy tree root development. Poor soil shall be amended or replaced as required to meet growth requirements.

Water thoroughly to maintain vigorous, healthy growth from time of delivery/installation to end of warranty period. Approx. 90 litres every 7-10 days to supplement seasonal water conditions.

SOURCE: Modified from Urban Tree Foundation - International Society of Arboriculture (2014)

TOWN OF COBOURG URBAN FORESTRY	Project: DESIGN GUIDELINES	Drawn By: G.B.	Scale: N.T.S.
	Title: TREE PLANTING - SOFT SURFACES	Checked By: R.Q. Rev/Date: R1/DEC 2016	Drawing #: TI-1

Appendix J: Tree Maintenance Standards

- Tree Protection Design Guideline

- also refer to ANSI A-300 Plant Maintenance - Standard Practices: Pruning

Crown drip line or other limit of Tree Protection Zone (TPZ).
See tree preservation plan for fence alignment.

Sign Template

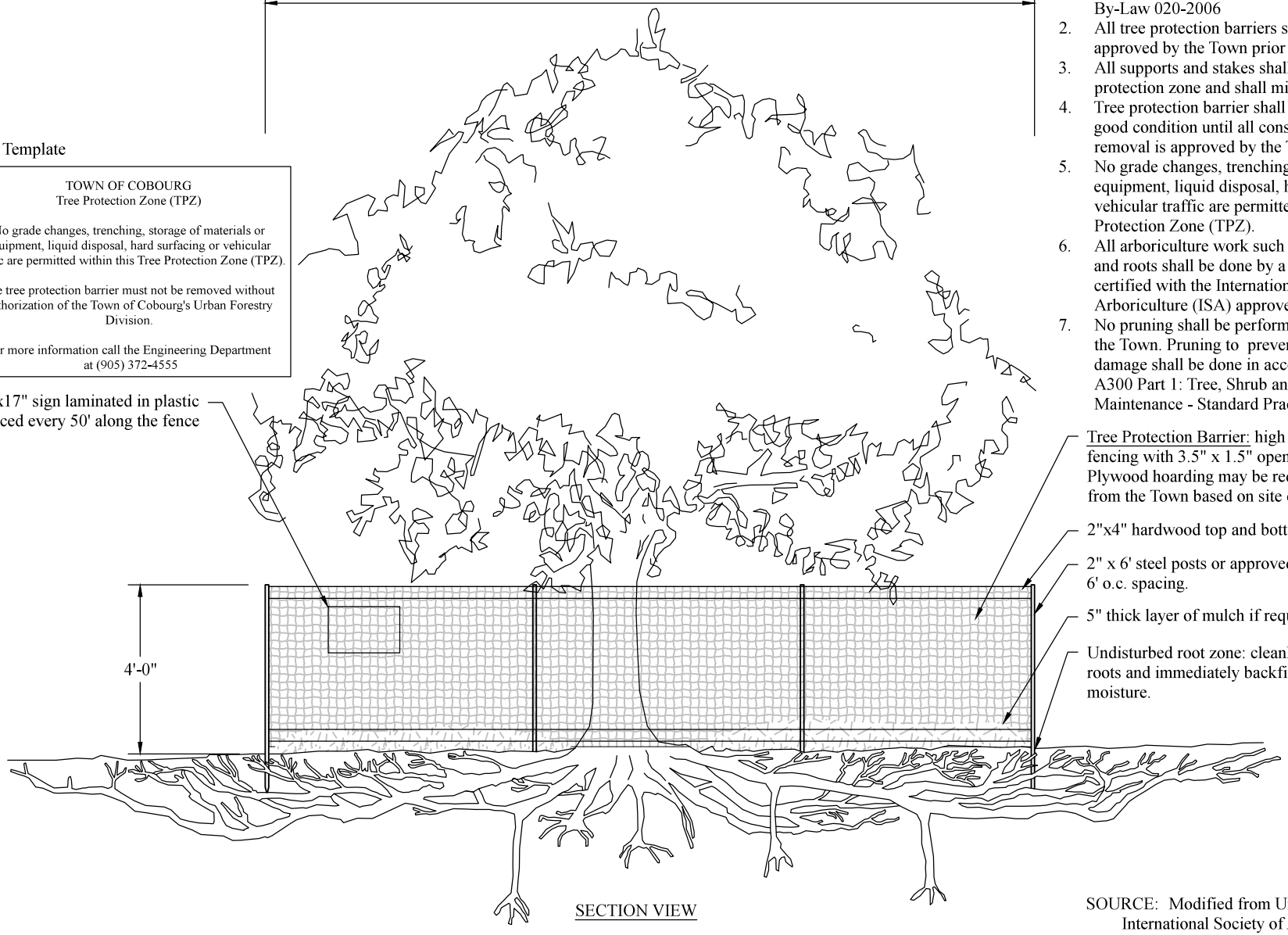
TOWN OF COBOURG
Tree Protection Zone (TPZ)

No grade changes, trenching, storage of materials or equipment, liquid disposal, hard surfacing or vehicular traffic are permitted within this Tree Protection Zone (TPZ).

The tree protection barrier must not be removed without authorization of the Town of Cobourg's Urban Forestry Division.

For more information call the Engineering Department at (905) 372-4555

11"x17" sign laminated in plastic spaced every 50' along the fence



SECTION VIEW

Notes

1. Refer to Town of Cobourg Tree Preservation By-Law 020-2006
2. All tree protection barriers shall be in place and approved by the Town prior to construction access.
3. All supports and stakes shall be outside of the tree protection zone and shall minimize root damage.
4. Tree protection barrier shall remain in place and in good condition until all construction is complete and removal is approved by the Town.
5. No grade changes, trenching, storage of materials or equipment, liquid disposal, hard surfacing or vehicular traffic are permitted within this Tree Protection Zone (TPZ).
6. All arboriculture work such as pruning of branches and roots shall be done by a qualified tree worker certified with the International Society of Arboriculture (ISA) approved by the Town.
7. No pruning shall be performed unless approved by the Town. Pruning to prevent or repair construction damage shall be done in accordance with ANSI A300 Part 1: Tree, Shrub and Other Wood Plant Maintenance - Standard Practices, Pruning.

Tree Protection Barrier: high density polyethylene fencing with 3.5" x 1.5" openings; colour - orange. Plywood hoarding may be required upon direction from the Town based on site conditions.

2"x4" hardwood top and bottom rail

2" x 6' steel posts or approved equal. installed at 6' o.c. spacing.

5" thick layer of mulch if required.

Undisturbed root zone: cleanly cut any exposed roots and immediately backfill and maintain moisture.

SOURCE: Modified from Urban Tree Foundation - International Society of Arboriculture (2014)

TOWN OF COBOURG
URBAN FORESTRY

Project: DESIGN GUIDELINES		Drawn By: G.B.	Scale: N.T.S.
Title: TREE PROTECTION		Checked By: R.Q.	Drawing #: TI-2
		Rev/Date: R1/DEC 2016	