



## **MUNICIPALITY OF PORT HOPE TREE PLANTING and PROTECTION POLICY**

### **1.0 PURPOSE**

The Municipality of Port Hope Tree Planting and Protection Policy (hereafter referred to as “the Policy”) is to guide in decisions of Municipal staff in the planting, protection, maintenance and removal of trees located on Municipal property in urban and rural areas and to support activities related to the implementation of the recommendations specified in the Municipal Forest Master Plan.

### **2.0 COUNCIL ENDORSEMENT**

The Municipality recognizes that trees form part of the infrastructure and that trees beautify the landscape, reduce the impact of extremes in weather, provide habitat for wildlife, add value to property, and contribute to a healthy environment. Council encourages municipal operations that are considerate of these values and benefits through the endorsement of the Policy and through the establishment through By-Law No. 68/2015 of a Tree Advisory Committee to provide advice on the planting, preservation, care and removal of trees within the Municipality of Port Hope. In December 2013, Council endorsed the Municipal Forest Master Plan by Resolution No. 142/2013. The Municipal Forest Master Plan is a comprehensive action plan which goals and recommendations will assist the Municipality in creating a renewed and dynamic community forest to provide a healthy environment for public.

The Municipality values the residents’ efforts towards caring for the Municipal trees in consultation with a Municipal staff in a manner which does not compromise the health of a tree or public safety.

### **3.0 GENERAL**

- 3.1 The Policy applies to a tree, the trunk of which is located entirely on Municipal property or to a tree where any portion of the trunk is located on Municipal property. “Tree” or “Trees” means any living species of woody perennial plant, including its root system, which has reached or can reach a height of at least 4.5 meters at physiological maturity.
- 3.2 The Policy shall be reviewed annually by the Tree Advisory Committee and recommended changes shall be submitted to Council for consideration.
- 3.3 Preservation and protection of trees shall be an important consideration in all Municipal operations.

- 3.4 Municipal departments, in partnership with the Tree Advisory Committee shall develop operating and best practice guidelines for the implementation of the Policy.
- 3.5 As a general courtesy, Municipal staff shall adopt the operational practice of advising landowners with respect to proposed tree work on adjacent Municipal property including tree planting and non-emergency tree removal. Where practicable, a minimum notice period of two (2) weeks shall be provided to receive public comment with regard to the proposed work.
- 3.6 The Municipality will provide options for public participation in tree planting on Municipal property. Financial contributions for memorial and other tree plantings shall be accepted contingent upon the proposal meeting and addressing all provisions of the Policy. All proposals/requests shall be submitted in writing to the Tree Advisory Committee for consideration and recommendations. On an annual basis a real cost to supply and plant an individual tree shall be established. This cost shall be a guide for accepting financial contributions for memorial and other tree planting.
- 3.7 The Tree Advisory Committee shall maintain a current inventory of trees on Municipal property to the degree that resources permit.
- 3.8 The Tree Advisory Committee shall create a list of proposed locations for the annual tree planting which will include a choice of appropriate species and a target date for planting. This list will be based on known tree losses reported by Municipal staff, citizen requests for a tree(s), and recommendations of the Tree Advisory Committee. The Tree Advisory Committee shall maintain a record of all trees lost due to storm damage, natural mortality, vandalism, and other and update the tree inventory as needed. Municipal Staff will review the proposed locations to determine suitability. In addition, Municipal Departments shall give reasonable consideration to the allocation of sufficient funds to replace these trees losses annually.
- 3.9 Property owners will not be permitted to plant trees on Municipal property. If the location is deemed suitable, the Municipality will assume the responsibility and add the location to the list of suitable planting sites for future consideration.
- 3.10 Tree replacement shall generally be on the basis of a tree planted for every tree removed as outlined in the Municipal Forest Master Plan.
- 3.11 Using a Tree Diary database, the Municipal staff shall maintain records of tree-related issues which will contain recommended courses of action, action taken, and current status of each issue.
- 3.12 All contractors involved with planting and/or tree removal shall be affiliated with an accredited organization e.g. Landscape Ontario, Society of Arboriculture.

#### **4.0 TREE PLANTING**

- 4.1 All new development projects shall, where reasonable and practicable, include a tree planting component that is acceptable to the Municipality and meets the intent of the Policy and goals of the Municipal Forest Master Plan. Any person who applies for the development plan approval may be required to submit a landscaping plan and proposed method for tree protection of those trees that the Municipality deems worthy of protection, acting reasonably and having regard for the applicant's objectives.
- 4.2 All road reconstruction and other construction projects shall, where reasonable and practicable, include a component for tree protection, and tree planting/tree replacement.
- 4.3 Trees for planting shall be selected from an established list of species which favor native plants where site conditions and locations permit as set out in the attached Schedule I. A list of shrubs which can be used for planting along with the trees (where location permits) is also provided in Schedule I.
- 4.4 Trees shall be planted to the standards and conditions set out in the attached Schedule II. The tree planting detailed diagrams are attached to the Policy to provide information on planting techniques acceptable to the Municipality.
- 4.5 The specific planting requirements/conditions shall be addressed through the procurement process.

#### **5.0 TREE PROTECTION FOR AUTHORIZED CONSTRUCTION PROJECTS**

- 5.1 No person shall injure or remove a Municipal tree or tree with any portion of the trunk located on Municipal property.
- 5.2 Any person who applies for a construction work permit or a development plan approval may be required to submit a landscaping plan and proposed method for trees protection, prior and during construction, of those trees that the Municipality deems worthy of protection, acting reasonably and having regard for the applicant's objectives.
- 5.3 Possible tree protection criteria to be taken into consideration are: greater than a certain tree trunk diameter measured at a breast height (DBH), rare species, prominence (size and age), historical/cultural significance, aesthetic appeal, and contribution to soil erosion, visual barrier, wildlife habitat, etc.
- 5.4 No person shall carry out work within the critical root zone of a tree on Municipal property unless the written approval, prior to commencing any work, has been obtained from the Director of Works and Engineering or designate (hereafter referred to as "Director").

The "critical root zone" is determined for each tree based on trunk size and is

defined by the area of land surrounding the tree trunk that complies with a minimum of 12 inches per inch of tree trunk radius measured at DBH (137 cm or 4.5 feet). This factor may be increased depending upon the tree species and its health, and soil and environmental conditions.

In the case of where the critical root zone does not extend to the drip line, the drip line shall prevail.

In some cases, the critical root zone maybe impractical therefore the actual extent of the critical root zone will be determined on case by case basis depending on tree species and location.

- 5.5 When making a request for approval pursuant to subsection 5.2, the following information shall be provided: the nature of the work to be carried out, the location of work, the name of the contractor that will be undertaking the work, the proposed method of carrying out the work, and any additional information as requested by the Director.
- 5.6 Approval of the Director is subject to the person/contractor who has requested approval agreeing in writing to the following conditions prior to the commencement of the work:
  - 5.6.1 In the event of injury to any tree as determined by the Director, to reimburse the Municipality for the cost of treatment for the tree or cause the tree to be repaired by a qualified arborist and bear the cost of repairs and labour, as directed by the Director;
  - 5.6.2 In the event that the tree is irreparably injured as determined by the Director, to reimburse for the cost of removal and replacement of the tree, as determined by the Director;
  - 5.6.3 Not to tunnel or bore under the critical root zone unless otherwise approved by the Director;
  - 5.6.4 To protect the tree by placing protective fencing around the tree at a distance not closer than the critical root zone or at a location as approved by the Director to ensure minimal damage to the tree;
  - 5.6.5 Not to use a vehicle or place or store any construction-related materials of any kind within the critical root zone of the tree;
  - 5.6.6 Not to install or extend an impermeable hard surface further into the critical root zone unless approved by the Director;
  - 5.6.7 Not to lower or raise the existing grade around the tree unless approved by the Director; and
  - 5.6.8 Such other conditions deemed appropriate by the Director to protect the tree.

5.6.9 For the purpose of subsections 5.6.2, a replacement tree shall have a minimum diameter of 7 cm measured at the 30cm above ground level and be of a species approved by the Policy.

5.6.10 The value of the tree to be replaced will be determined by the Director in accordance with the appropriate tree appraisal method that best suits the specific tree being replaced pursuant to the International Society of Arboriculture, as determined by the Director.

## **6.0 TREE REMOVAL**

### **6.1 General**

6.1.1 In all non-hazard instances, alternatives to tree removal shall be the first consideration.

6.1.2 All non-emergency and non-hazardous requests for tree removal shall, where reasonable and practicable, be submitted in writing to the Tree Advisory Committee for consideration and recommendation. Costs of removal of those trees shall come out of the annual tree maintenance operating budget.

6.1.3 The Tree Advisory Committee may request professional assessment on tree removal proposals. Costs of the assessment shall come out of annual tree maintenance operating budget.

6.1.4 The Tree Advisory Committee may request a staff report relevant to safety and other related issues surrounding a tree removal proposal.

6.1.5 All tree removal projects, including removal due to development, shall contain a tree replacement component which requires the planting of a tree in a suitable location on Municipal property, preferably within one (1) year of the tree removal.

### **6.2 Tree Removal by Municipal Staff**

6.2.1 The Director may approve the removal of a dead tree or a dangerous, diseased, dying, decayed or broken tree from Municipal property by Municipal staff or a contractor retained by the Municipality.

### **6.3 Tree Removal by Other Persons**

6.3.1 No person shall remove or destroy a tree on Municipal property unless the person has obtained approval from the Director.

6.3.2 Where a tree is injured as a result of a motor vehicle accident or other occurrence and must be replaced, as determined by the Director, the person who caused such injury shall reimburse the Municipality for the cost of removal and replacement of the tree, as determined by the Director.

- 6.3.3 The Director may approve the removal of a tree from Municipal property for the purpose of construction of public services including drainage works or by public utilities at the expense of the person requesting its removal, provided that the person requesting its removal obtains appropriate permit and agrees to bear a cost of the removal and replacement of the tree, as determined by the Director.
- 6.3.4 The Director may approve the removal of a tree from a highway which tree by its very existence denies an owner of a property abutting a highway proper access to such owner's property provided that the owner of the property abutting the highway has requested the removal of the tree and has provided evidence to the Director that no practical or economical option for proper access is possible, and has agreed to bear a cost of the removal and replacement of the tree, as determined by the Director.
- 6.3.5 For the purpose of subsections 6.3.2 – 6.3.4, a replacement tree shall have a minimum diameter of 7 cm measured at the 30cm above ground level and be of a species approved by the Policy.
- 6.3.6 The value of the tree to be replaced will be determined by the Director in accordance with the appropriate tree appraisal method that best suits the specific tree being replaced, pursuant to the International Society of Arboriculture, as determined by the Director.

## **7.0 TREE MAINTENANCE**

- 7.1 In all cases, saving a tree through proper pruning and maintenance shall be the first consideration vs. tree removal.
- 7.2 Tree maintenance shall be conducted in accordance with standards normally accepted in the nursery, landscape and arborist trades.
- 7.3 The resident who wishes to conduct such activities must consult with Municipal staff prior to commencement of any work.
- 7.4 Municipal Departments shall give reasonable consideration to the allocation of sufficient funds to adequately maintain existing trees and trees relative to new stock from new developments, reconstruction and other planting projects. For maintenance guidelines for newly planted and young trees, refer to Schedule III of the Policy.

Prepared by: Tree Advisory Committee  
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February 2014  
December 2015



## Schedule I – Trees and Shrubs Recommended for Planting

<b>Recommended Candidate Tree Species – Deciduous</b>									
Candidate Tree Species Denotes Native Species	Urban Streets	Boulevards Limited Space	Boulevards Unlimited Space	Under Utility Lines	Specimens for Parks and Public Space	Visual Barriers	Steep Slopes	Soil Tolerance Wet, Alkaline, Acid, Compacted, Drought (W,AL,AC, C,D)	Shade Tolerant
<b>Maple, Hedge</b> Acer campestre	●	●	●	●		●	●	AL,C,D	●
<b>Maple, Freeman</b> Acer x freemannii	●		●				●	W,AL,C	
<b>Maple, Amur</b> Acer ginnala	●	●		●			●	W,AL,C,D	●
<b>Maple, Striped</b> Acer pensylvanicum					●		●	W,C	●
<b>Maple, Red</b> Acer rubrum			●		●		●	W,AL,C	
<b>Maple, Paperbark</b> Acer griseum			●		●			W,AL,C	
<b>Maple, Petticoat Sycamore</b> Acer pseudoplatanus “Tunpetti”	●		●		●			AL,C	
<b>Maple, Sugar</b> Acer saccharum	●		●		●		●	AL,C,D	
<b>Maple, Silver</b> Acer saccharinum			●				●	W,AL,C	
<b>Alder, Red</b> Alder Rugosa	●			●		●	●	W,C	●
<b>Buckeye, Ohio</b> Aesculus glabra	●		●		●			W,C	



## Recommended Candidate Tree Species – Deciduous – page 2

Candidate Tree Species * Denotes Native Species	Urban Streets	Boulevards Limited Space	Boulevards Unlimited Space	Under Utility Lines	Specimens for Parks and Public Space	Visual Barriers	Steep Slopes	Soil Tolerance Wet, Alkaline, Acid, Compacted, Drought (W,AL,AC, C,D)	Shade Tolerant
<b>Serviceberry</b> * Amelanchier Canadensis	●	●	●	●			●	W,D	●
<b>Birch, Paper</b> * Betula papyrifera			●		●			W,C,D	●
<b>Birch, River</b> * Betula nigra	●		●		●			W,AC	●
<b>Ironwood, Blue Beech</b> * Carpinus caroliniana			●			●	●	W,C, D	●
<b>Hickory, Bitternut</b> * Carya cordiformis	●		●-rural		●			AL, C, D	
<b>Hickory, Shagbark</b> * Carya ovata			●-rural		●			W,C,D	●
<b>Catalpa, Western</b> * Catalpa speciosa	●		●		●			C,D,	
<b>Hackberry, Common</b> * Celtis occidentalis	●		●					W, C,D	
<b>Redbud, Eastern</b> * Cercis Canadensis			●		●			W	●





## Recommended Candidate Tree Species – Deciduous – page 3

Candidate Tree Species Denotes Native Species	Urban Streets	Boulevards Limited Space	Boulevards Unlimited Space	Under Utility Lines	Specimens for Parks and Public Space	Visual Barriers	Steep Slopes	Soil Tolerance Wet, Alkaline, Acid, Compacted, Drought (W,AL,AC, C,D)	Shade Tolerant
<b>Dogwood, Flowering</b> <i>Cornus florida</i>					●			AC-prefer	●
<b>Cornelian Cherry Dogwood</b> <i>Cornus mas</i>		●	●	●		●	●	W,C,D	
<b>Hawthorn</b> <i>Crataegus spp</i>	●	●	●	●				C,D	
<b>Spindle Tree</b> <i>Euonymus europeaus</i> or <i>alatus</i> (tree form)	●	●	●	●		●	●	C,D	●
<b>Beech, American</b> <i>Fagus grandifolia</i>					●				
<b>Beech, European</b> <i>Fagus sylvatica</i> var.	●	●-some var. only	●	●-some var. only	●				
<b>Maidenhair Tree</b> <i>Gingko biloba</i>	●	●	●		●			C,D	
<b>Honey Locust</b> <i>Gleditsia triancanthos</i>	●		●		●			C,D	
<b>Kentucky Coffee Tree</b> <i>Gymnocladus dioicus</i>			●		●			W,D,C	
<b>Butternut</b> <i>Juglans cinerea</i>			●-rural		●				
<b>Walnut, Black</b> <i>Juglans nigra</i>	●		●-rural		●				●



## Recommended Candidate Tree Species – Deciduous – page 4

Candidate Tree Species Denotes Native Species	Urban Streets	Boulevards Limited Space	Boulevards Unlimited Space	Under Utility Lines	Specimens for Parks and Public Space	Visual Barriers	Steep Slopes	Soil Tolerance Wet, Alkaline, Acid, Compacted, Drought (W,AL,AC, C,D)	Shade Tolerant
<b>Tulip Tree</b> Liriodendron tulipifera			●		●				
<b>Sweet Gum Tree</b> Liquidambar styraciflua			●		●		●	AC-prefer	
<b>Magnolia</b> Magnolia x soulangeana			●		●			AC-prefer	
<b>Crabapple, Flowering</b> Malus – dwarf var.	●	●	●	●			●		
<b>Black Gum, Tupelo</b> Nyssa sylvatica			●		●			AC-prefer	
<b>Sycamore</b> Platanus occidentalis			●		●			W	
<b>Oak, English Pyramidal*</b> Quercus robur 'Fastigiata'	●		●		●			*poisonous to livestock	
<b>Oak, Red*</b> Quercus rubra	●		●		●			AC-prefer *poisonous to livestock	
<b>Willow, Flame</b> Salix 'Flame'	●	●	●	●		●	●	W,D	



## Recommended Candidate Tree Species – Deciduous – page 5

Candidate Tree Species Denotes Native Species	Urban Streets	Boulevards Limited Space	Boulevards Unlimited Space	Under Utility Lines	Specimens for Parks and Public Space	Visual Barriers	Steep Slopes	Soil Tolerance Wet, Alkaline, Acid, Compacted, Drought (W,AL,AC, C,D)	Shade Tolerant
<b>Willow, Golden Weeping</b> Salix alba 'Tristis'	●		●		●			W	
<b>Willow, Dappled</b> Salix integra 'Hakuro-Nishiki' (tree form)	●	●	●	●			●	W,D	
<b>Mountain Ash</b> Sorbus aucuparia var.	●	●	●	●-variety dependent			●	C	
<b>Mountain Ash, Oakleaf</b> Sorbus x hybrida	●	●	●	●			●	C	
<b>Ivory Silk Tree</b> Syringa reticulata 'Ivory Silk'	●	●	●	●			●	C	
<b>Basswood</b> Tilia americana			●		●		●		
<b>Linden, Little Leaf</b> Tilia cordata	●		●		●		●		
<b>Linden, Mongolian</b> Tilia mongolica "Harvest Gold"	●		●		●			W,AL,AC,CD	
<b>Elm, Accolade</b> Ulmus japonica x wilsonia 'Morton'	●		●		●				



## Recommended Candidate Tree Species – Coniferous

Candidate Tree Species	Urban Streets	Boulevards Limited Space	Boulevards Unlimited Space	Under Utility Lines	Specimens for Parks and Public Space	Visual Barriers	Steep Slopes	Soil Tolerance Wet, Alkaline, Acid, Compacted, Drought (W,AL,AC, C,D)	Shade Tolerant
<b>Denotes Native Species</b>									
<b>Fir, Balsam</b> Abies balsamea					●	●	●	AC-prefer	
<b>Fir, White</b> Abies concolor	●		●		●	●	●		
<b>Fir, Rocky Mountain</b> Abies lasiocarpa 'Arizonica Compacta'				● -rural	●	●	●		●
<b>Falsecypress, Nootka</b> Chamaecyparis nootkatensis 'Glauca'			●		●	●			
<b>Falsecypress , Weeping Nootka</b> Chamaecyparis nootkatensis 'Pendula'			●	●	●		●		
<b>Falsecypress, Threadleaf</b> Chamaecyparis pisifera 'Filifera'	●		●		●	●	●	AC-prefer	
<b>Juniper, Asian</b> Juniperus chinensis 'Fairview' & 'Mountbatten' var.	●	●	●	●	●	●	●	C,D	



## Recommended Candidate Tree Species – Coniferous – page 2

Candidate Tree Species	Urban Streets	Boulevards Limited Space	Boulevards Unlimited Space	Under Utility Lines	Specimens for Parks and Public Space	Visual Barriers	Steep Slopes	Soil Tolerance Wet, Alkaline, Acid, Compacted, Drought (W,AL,AC, C,D)	Shade Tolerant
<b>Denotes Native Species</b>									
<b>Juniper, Rocky Mountain</b> Juniperus scopulorum 'Skyrocket' "Wichita Blue"	●	●	●	●	●	●	●	C,D	
<b>Eastern Red Cedar</b> Juniperus virginiana 'Blue Arrow'	●	●	●	●	●	●	●	C,D	
<b>Larch, European</b> Larix decidua	●		●		●				
<b>Larch, Tamarack</b> Larix laricina			●-rural		●			AC-prefer	
<b>Spruce, Norway</b> Picea abies	●		●		●	●	●	C,D	
<b>Spruce, White</b> Picea glauca	●		●		●	●	●	W,C, D	
<b>Spruce, Colorado</b> Picea pungens var.	●		●		●	●	●	C, D	
<b>Dawn Redwood</b> Metasequoia glyptostroboides	●		●		●			W,C,D	
<b>Pine, Swiss Stone</b> Pinus cembra	●		●		●	●	●	C,D	



## Recommended Candidate Tree Species – Coniferous – page 3

Candidate Tree Species	Urban Streets	Boulevards Limited Space	Boulevards Unlimited Space	Under Utility Lines	Specimens for Parks and Public Space	Visual Barriers	Steep Slopes	Soil Tolerance Wet, Alkaline, Acid, Compacted, Drought (W,AL,AC, C,D)	Shade Tolerant
<b>Denotes Native Species</b>									
<b>Pine, Red</b> Pinus resinosa			●-rural		●	●	●	C,D	
<b>Pine, White</b> Pinus strobus			●-rural		●		●	AC-prefer, C,D	
<b>Douglas Fir</b> Pseudotsuga menziesii			●-rural		●		●	C,D	
<b>Yew</b> Taxus x media 'Hicksii' & 'Hilli'	●	●	●	●	●	●	●	Plant parts poisonous humans & pets	●
<b>Cedar, White</b> Thuja occidentalis			●		●	●	●	C	
<b>Cedar, Spire</b> Thuja occidentalis var. 'Degroot's Spire' & 'Fastigiata'	●	●	●	●	●	●	●	C	
<b>Cedar, Black</b> Thuja occidentalis 'Nigra'	●	●	●	●	●	●	●	C	
<b>Hemlock, Canadian</b> Tsuga canadensis			●-rural		●			AC-prefer	●



## Recommended Candidate Dwarf Tree Species – Coniferous

Candidate Dwarf Tree Species	Height and Spread	Shape	Boulevards Limited Space	Under Utility Lines	Specimens for Parks and Public Space	Visual Barriers	Steep Slopes	Soil Tolerance Wet, Alkaline, Acid, Compacted, Drought (W,AL,AC, C,D)	Urban and/or Shade Tolerant
<b>Golden Threadleaf Falsecypress</b> Chamaecyparis pisifera 'Filifera Aurea'	H-15 ft (4.5 m) S- 10 ft (3 m)	Vertical	●	●	●	●	●	AC-prefer	●-Urban
<b>Tempelhof Falsecypress</b> Chamaecyparis obtusa 'Tempelhof'	H-12 ft (3.65 m) S-10 ft (3 m)	Vertical	●	●	●	●	●		●-Urban
<b>Blaauw Juniper</b> Juniperus chinensis 'Blaauw'	H-8 ft (2.4 m) S- 6 ft (1.8 m)	Vertical	●	●	●	●	●	D	●-Urban
<b>Spartan Juniper</b> Juniperus chinensis 'Spartan'	H-15 ft (4.5 m) S-7 ft (2.1 m)	Pyramidal	●	●	●	●	●	D	●-Urban
<b>Trautman Juniper</b> Juniperus chinensis 'Trautman'	H- 20 ft (6 m) S- 4 ft (1.2 m)	Vertical	●	●	●	●	●	D	●-Urban
<b>Spruce, Red Cone</b> Picea abies 'Acrocona'	H- 15 ft (4.5 m) S- 6 ft (1.8m)	Pyramidal	●	●	●	●	●		●-Urban



## Recommended Candidate Dwarf Tree Species – Coniferous – page 2

Candidate Dwarf Tree Species	Height and Spread	Shape	Boulevards Limited Space	Under Utility Lines	Specimens for Parks and Public Space	Visual Barriers	Steep Slopes	Soil Tolerance Wet, Alkaline, Acid, Compacted, Drought (W,AL,AC, C,D)	Urban and/or Shade Tolerant
<b>Spruce, Ohlendorf</b> <i>Picea abies</i> 'Ohlendorffii'	H-12 ft (3.65 m) S-7 ft (2.1 m)	Pyramidal	●	●	●	●	●		●-Urban
<b>Spruce, Dwarf Alberta</b> <i>Picea glauca</i> 'Conica'	H- 6 ft (2 m) S- 5ft (1.5 m)	Pyramidal	●	●	●	●	●		
<b>Fat Albert Blue Spruce</b> <i>Picea pungens</i> 'Fat Albert'	H-15 ft (4.5 m) S-10 ft (3 m)	Pyramidal	●	●	●	●	●		●-Urban
<b>Columnar White Pine</b> <i>Pinus strobus</i> 'Fastigiata'	H-25 ft (7.6 m) S- 8 ft (2.4 m)	Vertical	●-rural	●	●	●	●	AC-prefer	
<b>Yew, Columnar</b> <i>Taxus Cuspidata</i> 'Adam's Columnar'	H-15 ft (4.6 ft) S- 3.5 ft (1.06 m)	Vertical	●	●		●	●	Plant parts poisonous humans & pets	●-Shade
<b>Emerald Cedar</b> <i>Thuja occidentalis</i> 'Smaragd'	H-12 ft (3.65 m) S- 4 ft (1.2 m)	Conical	●	●		●	●		●-Urban





## Recommended Candidate Shrubs

Candidate Shrub Species Denotes Native Species	Outstanding Feature	Boulevards Limited Space	Boulevards Unlimited Space	Under Utility Lines	Specimens for Parks and Public Spaces	Visual Barriers & Slopes	Salt Tolerant	Poor Soils (P)Tolerant and/or Moist Conditions (M)Tolerant Drought (D)Tolerant	Shade Tolerant
<b>Fiveleaf Aralia</b> <i>Acanthopanax sieboldianus</i>	wide-spreading form	●	●	●	thorns	●	●	● -P ● -M ● -D	●
<b>Serviceberry</b> <i>Amelanchier</i> spp native and non-native	flowers fall colour	●	●	●	●	●	●	● -M	●
<b>Black Chokeberry</b>  <i>Aronia melanocarpa</i>	flowers fruit fall colour	●	●	●	●	●	●	● -M	
<b>Barberry</b> <i>Berberis thunbergii</i> cvs	leaf colour	●	●	●	thorns	●	●	● -P ● -D	
<b>Summersweet</b> <u><i>Clethra alnifolia</i></u>	fragrance flowers fall colour	●	●	●	●	●	●	● -M prefers acid soil	●
<b>Siberian Dogwood</b> <i>Cornus alba</i> cvs	leaf color	●	●	●	●	●		● -M ● -D	
<b>Gray Dogwood</b> <i>Cornus racemosa</i>	white berries stem and fall colour	●	●	●	●	●		● -P ● -M ● -D	●
<b>Osier Dogwood</b> <i>Cornus sericea</i>	stem colour	●	●	●	●	●		● -P ● -M ● -D	●



## Recommended Candidate Shrubs - page 2

Candidate Shrub Species Denotes Native Species	Outstanding Feature	Boulevards Limited Space	Boulevards Unlimited Space	Under Utility Lines	Specimens for Parks and Public Spaces	Visual Barriers & Slopes	Salt Tolerant	Poor Soils (P)Tolerant and/or Moist Conditions (M)Tolerant Drought (D)Tolerant	Shade Tolerant
<b>Smokebush</b> <i>Cotinus coggygria</i> spp and cvs	leaf colour seed heads	●	●	●	●	●	●	●-P ●-M ●-D	
<b>Wintercreeper &amp; Burning Bush</b> <i>Euonymus fortunei</i> & <i>alatus</i> cvs	leaf colour	●	●	●	●	●		●-P ●-D	●
<b>Witchhazel</b> <i>Hamamelis virginiana</i>	flowers fall colour	●	●	●	●	●		●-M prefers acid soil	●
<b>Rose of Sharon</b> <i>Hibiscus syriacus</i> cvs	flowers	●	●	●	●	●	●		●
<b>Hydrangea</b> <i>Hydrangea</i> spp & cvs	flowers form	●	●	●	●	●	●		●
<b>Juniper, Shrub</b> <i>Juniperus</i> spp and cvs	form colour	●	●	●	●	●		●-P ●-D	
<b>Spruce, Dwarf</b> <i>Picea abies</i> cvs	form colour	●	●	●	●	●		●-P ●-D	
<b>Pine, Shrub</b> <i>Pinus</i> spp & cvs	form	●	●	●	●	●		●-P ●-D	
<b>Shrubby Cinquefoil</b> <i>Potentilla fruticosa</i> cvs	flowers form	●	●	●	●	●	●	●-P ●-D	
<b>Sumac, Shrub</b> <i>Rhus aromatic</i> & <i>typhina</i> spp & cvs	form fall colour	●	●	●	●	●	●	●-P ●-D	



## Recommended Candidate Shrubs - page 3

Candidate Shrub Species Denotes Native Species	Outstanding Feature	Boulevards Limited Space	Boulevards Unlimited Space	Under Utility Lines	Specimens for Parks and Public Spaces	Visual Barriers & Slopes	Salt Tolerant	Poor Soils (P)Tolerant and/or Moist Conditions (M)Tolerant Drought (D)Tolerant	Shade Tolerant
<b>Rose, Shrub</b> Rosa rugosa cvs	flowers	●	●	●	●	●	●	●-P ●-D	
<b>Buffaloberry</b> Shepherdia argentea & canadensis	fruit leaf colour	●	●	●	●	●	●	●-P ●-D	
<b>Spirea</b> Spiraea spp & cvs	form flowers leaf colour	●	●	●	●	●	●	●-P	
<b>Lilac</b> Syringa spp & cvs	flowers	●	●	●	●	●	●	●-P ●-D	
<b>Snowberry</b> Symphoricarpos spp & cvs	berries form	●	●	●	berries slightly toxic to humans	●	●	●-P ●-M ●-D	●
<b>Yew, Dwarf</b> Taxus spp & cvs	form colour	●	●	●	berries toxic to humans	●	●	●-D	●
<b>Cedar, Dwarf</b> Thuja occidentalis cvs	form colour	●	●	●	●	●			
<b>Viburnum</b> Viburnum spp & cvs native & non-native	form flowers berries	●	●	●	●	●	●-some species		●-most species



## **Disclaimer**

The Recommended Candidate Tree Species charts (the “Candidates”) that are included in this Tree Planting and Protection Policy are intended as a guide to tree and shrub species that should be considered under various physical site conditions by Municipal staff (or by authorized contractors retained by the Municipality) on Municipal properties.

The Candidates are not intended to be a definitive list of species or a landscaping guide.

The Candidates are based upon research undertaken by members of the Tree Advisory Committee (“TAC”) and the collective knowledge of its members.

The Candidates will be reviewed periodically by TAC and revised accordingly, if necessary, based upon species availability, cost, previous successes and failures, susceptibility to diseases, etc.

When a particular Candidate (s) is (are) selected for planting, consideration will be given by TAC to the appearance of the species within the context of the environment in which the species are planted.

All Candidates in the charts are deemed to be hardy for growing within the Municipality of Port Hope and, to the greatest extent possible, salt and pollution-resistant.



## **SCHEDULE II**

### **Planting Standards and Conditions**

NOTE: These planting standards apply to tree planting as conducted either by the Municipal staff or by a contractor retained by the Municipality

All trees shall be No. 1 Grade nursery grown stock of a grade and quality conforming to the horticultural standards and grown under proper cultural practices as adopted by the Canadian Nursery Trades Association.

Planted trees shall have a minimum diameter of 45 to 50 mm at 15 cm above the ground. The size of the evergreens should be a minimum of 5 feet in height.

Unless otherwise approved planting shall be done in early spring (mid April to mid May).

A minimum of two (2) weeks before planting, approved planting locations will be staked by the Tree Advisory Committee. The utility locates for each location staked must be obtained prior to planting.

Delivery of 'door hanger' notification (supplied by Works and Engineering) to adjacent residents shall be done at the time of staking by the Tree Advisory Committee.

Trees shall be planted to a standard that is commonly considered acceptable in the landscape trade – refer to tree planting diagrams attached to the Policy. A consideration shall be given to square planting holes to maximize available root area after planting.

All tree plantings shall be done in accordance with the following:

#### **STANDARDS**

1. Tree shall bear same relation to grade as it bore to its condition in the nursery and must have ball root planted on undisturbed soil;
2. If possible, a tree should be planted in the same orientation as it was growing in the nursery;
3. Cut, loosen, and roll back approved ½ of twine, burlap and wire on root ball;
4. All twine and burlap on the root ball must be biodegradable;
5. Remove a trunk protective guards and wrapping on the day of planting and replace them with a tree protective guard after planting;
6. The protective guard should be 35 cm in height in the form of 20 cm diameter field drainage O-pipe inserted 5 cm below the ground level to prevent mechanical and rodent damage to the trunk;
7. Backfill in layers to prevent air pockets;



## SCHEDULE II (continued)

### Planting Standards and Conditions

8. Initial tree support staking shall consist of:
  - i) a minimum 4 cm x 4 cm stake; 2.0 m in length planted with 1.2 m above ground and 0.6 m below ground;
  - ii) all stakes shall be driven outside the ledge of the root ball;
  - iii) galvanized wire or cable (14 gauge) with plastic hose around the tree;
  - iv) tuck away loose ends of wire or cable into the wire wrap so that no sharp ends are exposed;
9. Fertilization with organic-sourced material, not chemical fertilizers such as urea compounds;
10. Mulching 1.0 m in diameter and 10 cm in thickness with pine and/or cedar mulch in the form of a water saucer; wood chips not to be used for mulching.

### **CONDITIONS (applicable to tree planting awarded through a tender process)**

1. Two year survival/replacement guarantee from date of planting;
2. Detailed specifications are provided in Part "B" and Attachments "D" and "E" of the tender document;
3. Standard Terms and Conditions are provided in Part "C" of the tender document;
4. The tree planting list is provided in the Attachment "F" – Itemized Bid Form of the tender document;
5. Annual maintenance – Refer to Schedule III for details.



## SCHEDULE III

### Maintenance Guidelines for Newly Planted and Young Trees

#### **TIMING:**

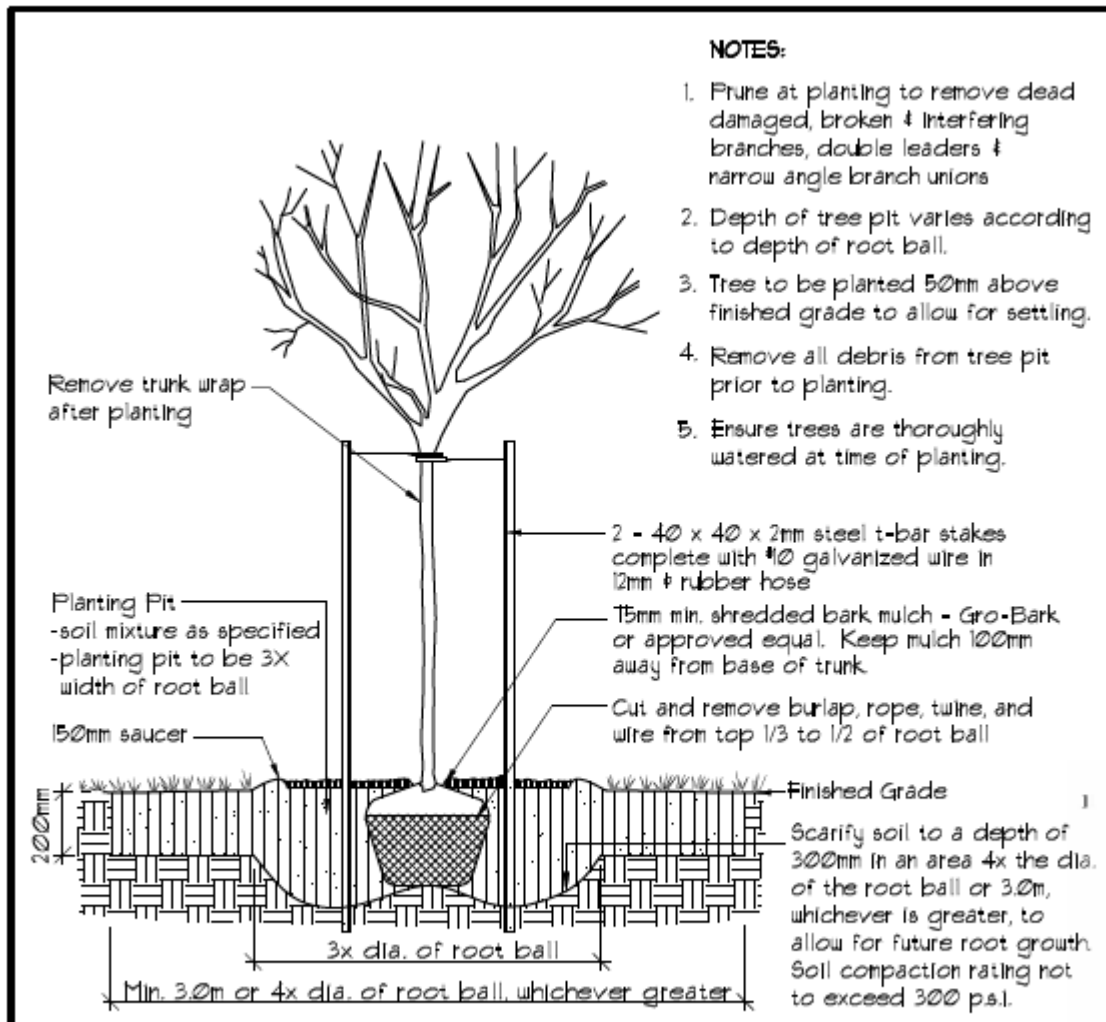
Specialized maintenance to be performed annually for two years after planting when included as part of awarded tender.

#### **SCOPE OF WORK:**

1. Removal of broken, damaged, dead or hazardous branches;
2. Elevation of branches (pruning of lower branches to a height of approximately 2 meters);
3. Proper framing of crown (including but not limited to the pruning of double leaders and crossover branches);
4. Removal of root and trunk suckers;
5. Removal of tree support stakes, wires and ties during the second year;
6. Removal of trunk protective guards and wrapping on the day of planting;
7. Leveling of water saucers and mulch where they still exist (except where maintained by adjacent landowners) and removed at the end of the second year (in the fall);
8. Removal of weeds and grass;
9. Maintain or replace mulch in a 1 meter circle, 10 cm thick in the form of a water saucer (except where maintained by adjacent landowner);
10. Collection and removal from the site of pruned material, sod or other debris.

#### **CONDITIONS:**

All pruning to be done to a standard normally accepted in the landscape and arboriculture trades or under the direct supervision of a qualified arborist



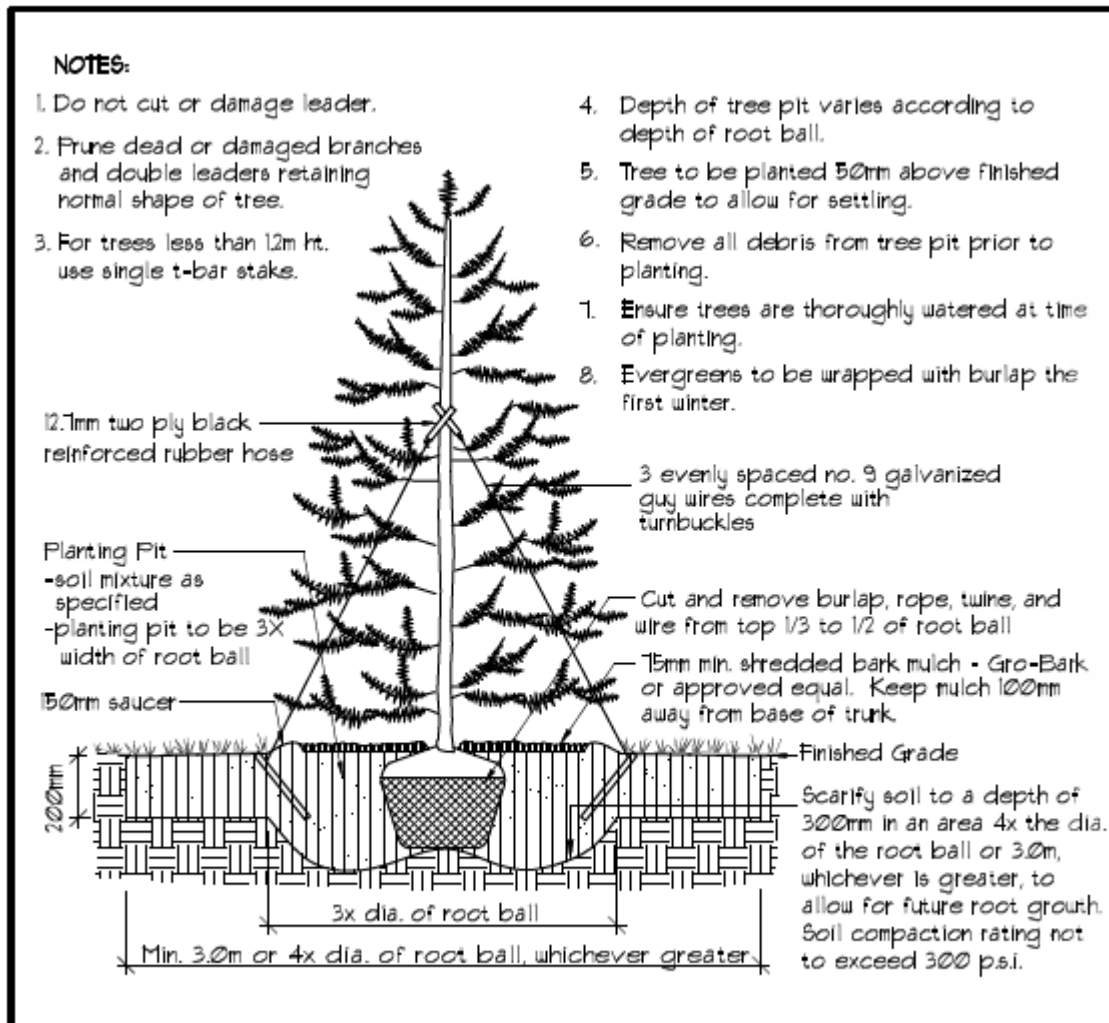
**NOTES:**

1. Prune at planting to remove dead damaged, broken & interfering branches, double leaders & narrow angle branch unions
2. Depth of tree pit varies according to depth of root ball.
3. Tree to be planted 50mm above finished grade to allow for settling.
4. Remove all debris from tree pit prior to planting.
5. Ensure trees are thoroughly watered at time of planting.

Deciduous Tree Planting

N.T.S.





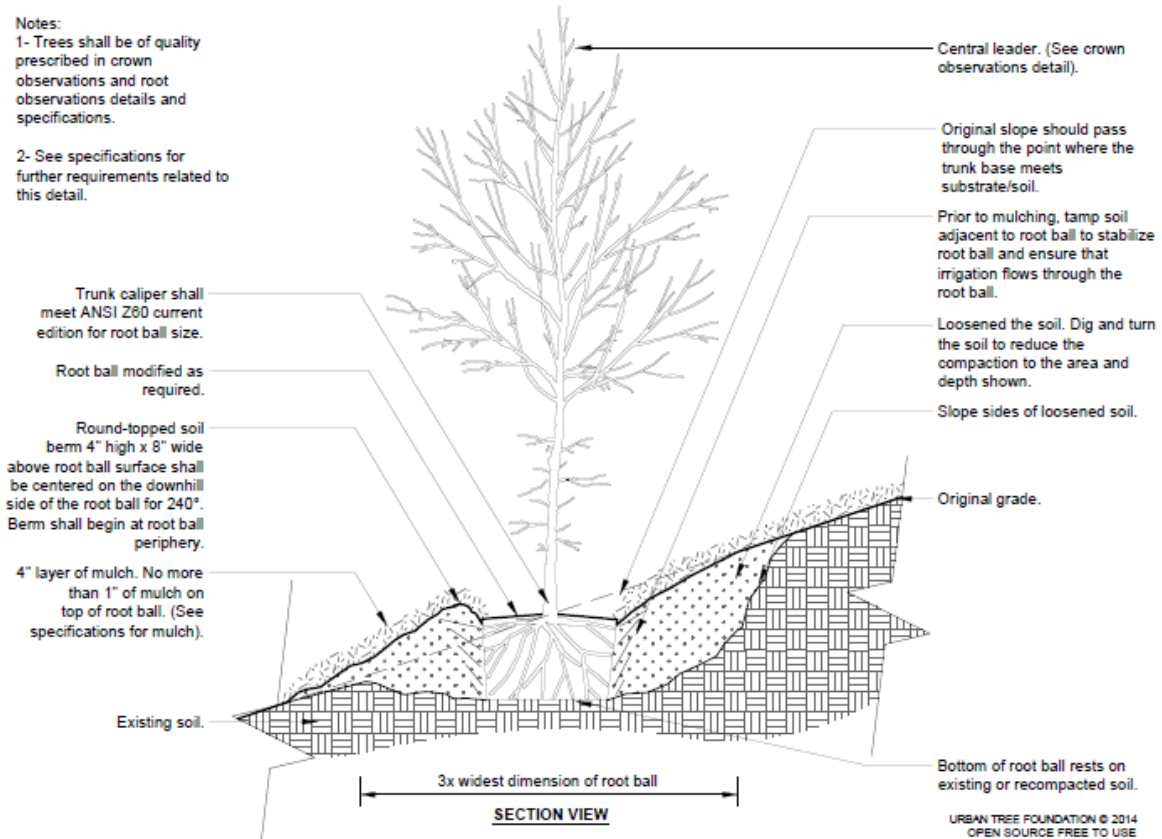
Coniferous Tree Planting

N.T.S.

Notes:

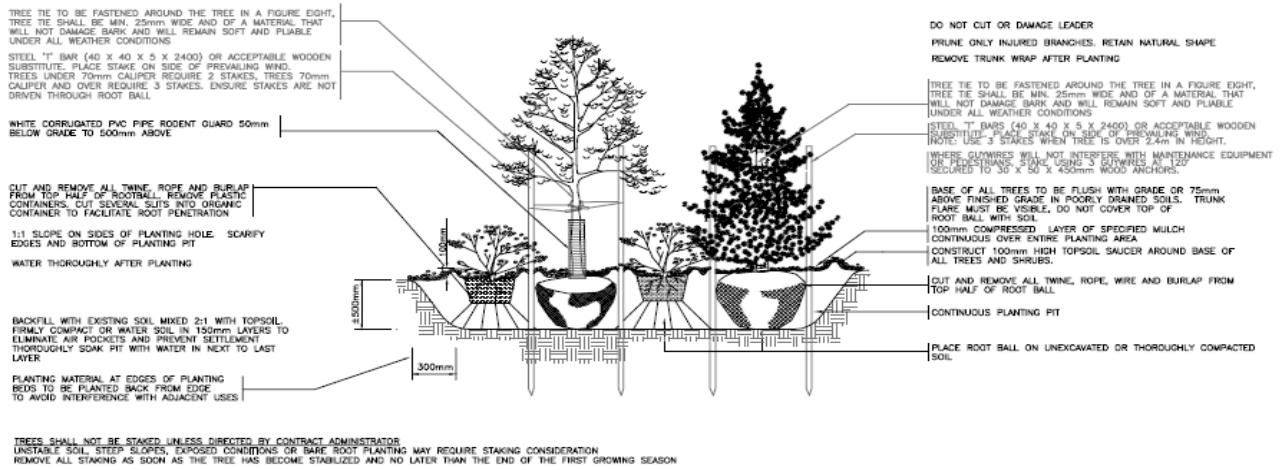
1- Trees shall be of quality prescribed in crown observations and root observations details and specifications.

2- See specifications for further requirements related to this detail.

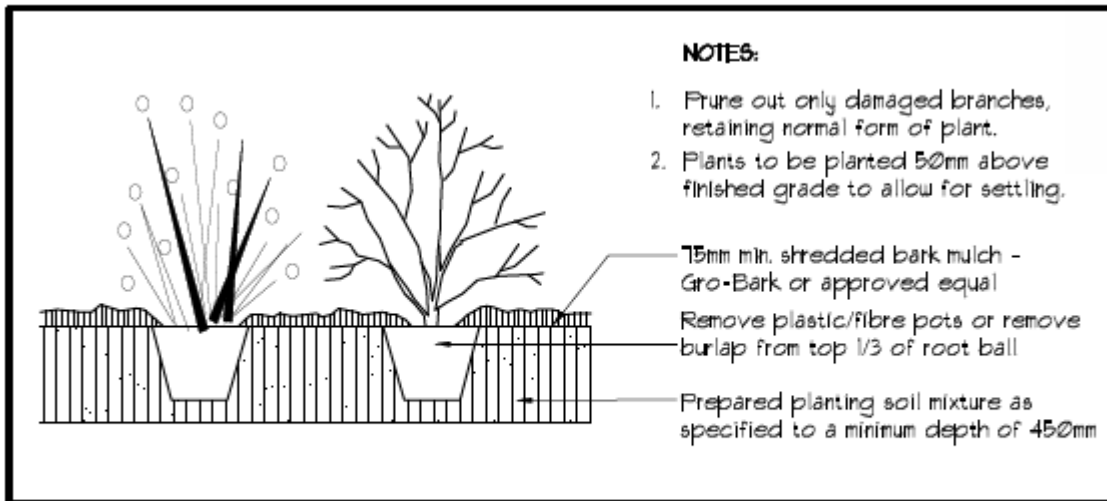


P-X

TREE ON SLOPE 5% (20:1) TO 50% (2:1) - UNMODIFIED SOIL



**CONTINUOUS PLANTING BED DETAIL**  
N.T.S.



Shrub and Perennial Planting

N.T.S.