

Asset Management & Public Works Department

Updated March 2011

GUIDELINES FOR EVALUATION OF TREES

N.B. Applied only to Single-Stemmed trees

1. Basic Value Data

- (a) The basic unit value of all shade and other ornamental trees is \$66.491 per square inch unit of trunk cross sections at 4 feet above the ground (dbh) or \$10.306 per square centimetre at 1.2 m.
- (b) Different species of trees have different values. They are expressed as a percentage of the basic unit value (see 1 (a)).
- (c) This expressed percentage is called Class %. The different class percentages are listed here under.

2. Tree Species Ratings for the City of Edmonton

BOTANICAL NAME

COMMON NAME

Class 1 – 110% (Special Class)

Picea pungens kosteriana
Picea spp. (Specialties)
Pinus spp. (Specialties)
Quercus spp.

Kosters Blue Spruce
 All grafted types of Spruce
 All grafted types of Pines
 Oak species

Class 2 – 100%

Abies spp.
Aesculus glabra
Aesculus hippocastanum
Elaeagnus angustifolia
Betula pendula gracilis
Fraxinus selections
Larix sibirica
Larix spp.
Picea spp.
Pinus spp.
Populus tremula 'Erecta'
Pseudotsuga menziesii
Syringa reticulata
Tilia americana
Tilia cordata
Ulmus americana 'Brandon'
Ulmus americana

All Firs
 Ohio buckeye
 Chestnut/Horse Chestnut
 Russian olive
 Weeping birch
 Patmore/Summit/Fallgold/Manchurian
 Siberian Larch
 Larch Species
 All types of Spruce
 All types of Pines
 Swedish Columnar Aspen
 Douglas fir
 Japanese lilac tree
 American basswood
 Little Linden Leaf, Lime (Hybrids)
 American elm "Brandon"
 American elm

Class 3 – 80%

<i>Acer ginnala</i>	Amur maple
<i>Acer saccharinum</i>	Silver maple
<i>Betula</i> spp.	All other types of Birch
<i>Crataegus</i> spp.	Hawthorns
<i>Fraxinus</i> spp.	Common Green Ash & Black Ash
<i>Juniperus scopulorum</i>	Rocky Mountain Juniper & Cultivars
<i>Malus baccata</i>	Siberian flowering crab
<i>Malus</i> "Rosybloom Hybrids"	Rosybloom Crabs
<i>Malus</i> spp. Hybrids	Hybrid Apple/Crab
<i>Populus x canescens</i> 'Tower'	Tower Poplar
<i>Populus x jackii</i> 'Northwest'	Northwest poplar - cultivar
<i>Prunus padus commutata</i>	Mayday tree
<i>Prunus</i> spp.	Plums and Cherries
<i>Prunus</i> spp. Hybrids	Hybrid Cherries & plums
<i>Pyrus ussuriensis</i>	Ussurian Pear
<i>Sorbus</i> spp.	Mountain Ash Species

Class 4 – 60%

<i>Acer negundo</i> (upright var. or form)	Manitoba maple (specialty upright forms)
<i>Alnus</i> spp.	Alder
<i>Caragana arborescens</i>	Standard Pea tree
<i>Caragana arborescens</i> vars.	Standard Pea tree – forms
<i>Populus</i> Hybrids	Hybrid Poplars
<i>Salix acutifolia</i>	Sharp leaf willow
<i>Salix pentandra</i>	Laurel leaved willow
<i>Ulmus pumila</i>	Siberian/Manchurian elm

Class 5 – 40%

<i>Acer negundo</i>	Manitoba maple
<i>Populus</i> X 'Brooks #6'	Brooks #6 Poplar
<i>Populus</i> X 'Griffin'	Griffin Poplar (Non-fluff)
<i>Populus</i> spp.	Native poplars
<i>Salix</i> spp.	Native Willows

3. Method of Determining Value

- (a) Determine Class % to which species belongs, e.g. Spruce - Class 2 - 100% and has a diameter of 4" (this gives the spruce a basic value of \$66.49 per square inch).
- (b) Determine area of cross section at 4.0 feet (1.2 m) above ground in square inches. For example the dbh (diameter) of 4 in. (10.2 cm) equals 12.54 sq. inches (81.1 cm²) of area.
- (c) Determine condition of tree. An Asset Management and Public Works, Parks appraiser who will express condition on the following scale carries out this evaluation.

Condition:

<u>Tree's Condition:</u>	<u>Percent:</u>
1. Perfect tree or specimen quality	100%
2. Excellent tree	90%
3. Very Good tree	80%
4. Above Average tree	70%
5. Good or Average tree	60%
6. Below Average tree	50%
7. Fair tree	40%
8. Poor tree	30%
9. Very poor tree	20%

The Location of a tree is considered during the tree's Condition calculation. Location can influence the Condition calculation as a 10% premium or a 10% penalty.

Using the above data the value of trees may be calculated as:

- In this example, the area of cross section is 12.57 in. sq. or 81.1 cm².
- The basic unit value or \$66.49 per sq. inch or \$10.31 per cm².
- The Class % is Class 2 or 100%. Therefore:
- $12.57 \text{ inch}^2 \times \$66.49 \times 100\% = \$835.54$. Therefore, the Basic Value of Tree = \$836.

- OR -

- $81.1 \text{ cm}^2 \times 10.31 = \836.14 (The \$0.36 difference is created by rounding between the metric and Imperial measure systems). Therefore, the Basic Value of Tree = \$836.
- This figure is then multiplied by the Condition % (Say 80%) $\$835.33 \times 80\%$ condition is \$668.26 (use nearest dollar).
- Therefore, the value of this example Spruce is \$668.00

*Species % Varieties	Diameter of trunk	Sq. in Cross Section	Class and %	Basic Value in \$'s (approx.)	Condition %	Rounded Value (\$'s)
OAK	4"	12.57	1-110%	919	80%	\$ 735.
SPRUCE	4"	12.57	2-100%	836	80%	\$ 668
ELM	8"	50.27	2-100%	3,342	60%	\$2,005
Green ASH	6"	28.27	3-80%	1,504	40%	\$ 602

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