

Community Service Department
Updated March 2015
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 \$70.81 per square inch unit of trunk cross sections at 4 feet above the ground (dbh) or \$10.83 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)

<i>Picea pungens</i> 'Koster'	Kosters Blue Spruce
<i>Picea</i> spp. (Specialties)	All grafted types of Spruce
<i>Pinus</i> spp. (Specialties)	All grafted types of Pines
<i>Quercus</i> spp.	Oak species

Class 2 – 100%

<i>Abies</i> spp.	All Firs
<i>Aesculus glabra</i>	Ohio buckeye
<i>Aesculus hippocastanum</i>	Chestnut/Horse Chestnut
<i>Elaeagnus angustifolia</i>	Russian olive
<i>Betula pendula gracilis</i>	Weeping birch
<i>Fraxinus</i> selections	Patmore/Summit/Fallgold/Manchurian
<i>Larix sibirica</i>	Siberian Larch
<i>Larix</i> spp.	Larch Species
<i>Picea</i> spp.	All types of Spruce
<i>Pinus</i> spp.	All types of Pines
<i>Populus tremula</i> 'Erecta'	Swedish Columnar Aspen
<i>Pseudotsuga menziesii</i>	Douglas fir
<i>Syringa reticulata</i>	Japanese lilac tree
<i>Tilia americana</i>	American basswood
<i>Tilia cordata</i>	Little Linden Leaf, Lime (Hybrids)
<i>Ulmus americana</i> 'Brandon'	American elm "Brandon"
<i>Ulmus americana</i>	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 \$70.81 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 at breast height) is 4 in. (10.16 cm) equals 12.57 sq. inches (81.107 cm²) of area.
- (c) Determine condition of tree. A Community Service Department, Neighbourhoods and 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, a 4" diameter the area of cross section is 12.57 in²
- The basic unit value or \$70.81 per inch²
- The Class % is Class 2 or 100%. Therefore:
- $12.57 \text{ inch}^2 \times \$70.81 = \$889.82$. Therefore, the Basic Value of Tree = \$890
- This figure is then multiplied by the Condition % (Say 80%) $\$889.82 \times 80\%$ condition is \$711.86 (round to nearest dollar)
- Therefore, the value of this example Spruce with dbh of 4" in is \$712

OR

- In this example, 10 cm diameter, the area of the
- $78.54 \text{ cm}^2 \times \$10.83 \times 100\% = \$850.59$. Therefore, the Basic Value of a Tree = \$851
- This figure is then multiplied by the Condition % (Say 80%) $\$850.59 \times 80\%$ condition is \$680.47 (round to nearest dollar).
- Therefore, the value of this example Spruce with dbh of 10 cm is \$680.

(d) Examples of determining tree value are outlined in the table below

*Species % Varieties	Diameter of trunk	Cross Section	Class and %	Basic Value in \$'s (approx.)	Condition %	Rounded Value (\$'s)
OAK	4"	12.57 in ²	1-110%	979	80%	\$ 783
SPRUCE	8"	50.27 in ²	2-100%	3559	70%	\$ 2,492
ELM	10 cm	78.54 cm ²	2-100%	851	80%	\$ 680
Green ASH	20 cm	314.16 cm ²	3-80%	2722	50%	\$ 1,361