
GUIDELINE 9: Recommended Plant Materials

A variety of plant materials is encouraged and design professionals must balance the desire to use masses of a single plant material with the need to create suitable diversity in the created environment.

Winter Park's alpine environment permits a limited range of plant materials to survive. Therefore, a plant's water demands, invasiveness, maintenance requirements and tolerance for the alpine environment must be evaluated for landscape design. Given these considerations, a palette of potential plant material is given below. Plants listed are not appropriate for all design locations and others not listed may be appropriate if a qualified design professional can justify their use.

<u>Common Name</u>	<u>Scientific Name</u>
<u>Evergreen Trees</u>	
Pine, Bristlecone	Pinus aristata
Pine, Limber	Pinus flexilis
Pine, Lodgepole	Pinus contorta latifolia
Spruce, Colorado	Picea pungens
Spruce, Engelmann	Picea engelmannii
<u>Deciduous Trees</u>	
Aspen, Quaking	Populus tremuloides
Choke Cherry	Prunus virginiana melanocarpa
Cottonwood, Narrowleaf	Populus angustifolia
Crabapple (Dolgo or Hopa)	Malus sp.
<u>Evergreen Shrubs</u>	
Juniper (Broadmoor, Buffalo or Common)	Juniperus sp.
Pine, Mugo	Pinus mugo
<u>Deciduous Shrubs</u>	
Alder, Native Thinleaf	Alnus tenuifolia
Birch, Rocky Mountain	Betula Fontinalis
Buckthorn, Common	Rhamnus cathartica
Cotoneaster, Peking	Cotoneaster acutifolia
Currant, Alpine	Ribes alpinum
Dogwood, Redtwig	Cornus sericea
Lilac, Common	Syringa vulgaris
Maple, Amur	Acer ginnala
Ninebark, Dwarf	Physocarpus opulifolius nanus
Peashrub, Siberian	Caragana arborescens
Potentilla (Bush Cinquefoil)	Potentilla sp.
Rose, Wild	Rosa sp.
Snowberry, Mountain	Symphoricarpos oreophilus
Twinberry	Lonicera involucrata
Willow, Shrub	Salix sp.

Ground Covers

Kinnikinnick
Mahonia, Creeping
Penstemon
Pussytoes
Sedum
Strawberry, Wild

Arctostaphylos uva-ursi
Mahonia repens
Penstemon sp.
Antennaria sp.
Sedum sp.
Fragaria sp.

Native Grasses and Wild Flowers

- Use a blend of approximately 80% tall fescue, 10% bluegrass and, if desired, 10% other grasses. The exact blend and selected varieties will depend on intended use of the lawn area. Consult with a qualified professional to determine the composition mix and appropriate soil preparation requirements.
- No grasses or wild flowers in a mix shall exceed twenty-four inches (24") in height.
- Native grass and wildflower areas are not maintenance-free. Provide occasional watering, erosion control and other maintenance as needed to retain an attractive appearance.
- Mow these areas each fall, after natural seeding has occurred, to a height of six to eight inches (6" to 8").

GUIDELINE 10: Minimum Plant Material Sizes

Plant material size is influenced by aesthetic concerns, survival potential, availability and cost considerations. In light of these criteria, minimum and average plant sizes shall be applicable to meet the quantities stipulated in the following section and Land Use Transition Zones, page 6. Additional plant materials beyond minimum requirements may vary from these standards.

All plant material shall conform to American Association of Nurseries and Colorado standards.

Evergreen Trees

- Minimum height = 4'
- Average height = 6'
- No more than 1/3 of the trees shall be less than the average height.

Deciduous Trees

- Single stem trees minimum caliper = 1" with an overall average caliper = 2"
- Multi-stem trees minimum height = 8' with an overall average height = 10'
- No more than 1/4 of the trees used shall be less than the average caliper or height.
- For calculation purposes, the following equivalency table shall be used:

Table 4. Caliper and height equivalency

<u>Caliper</u>	=	<u>Height</u>
1.0"		8' - 8.9'
1.5"		9' - 9.9'
2.0"		10' - 11.9'
2.5"		12' - 13.9'
3.0"+		14' - 15.9'

Evergreen and Deciduous Shrubs

- Minimum size = five gallon (5 gal.) for eighty percent (80%) of shrubs used. Shrubs as small as one gallon (1 gal.) may be used for the remainder.

GUIDELINE 11: Minimum Plant Material Quantities

The minimum number of trees and shrubs required in Land Use Transition Zones (LTZs) shall be governed by the requirements stated under Guideline 2, page 6. Landscaped areas outside the LTZ shall be visually seamless between the transition and adhere to the following. (Note: The Planning and Zoning Commission may approve plans that shift plant material from one area of calculation to another if such a shift improves a transition.)

- A. For areas outside LTZs but within seventy-five feet (75') of buildings, recreation structures, parking lots, driveways and roads:
- A minimum of one tree and five shrubs shall be planted for each fifteen hundred square feet (1,500 sq. ft.) of land disturbed for construction but not covered by buildings, recreation structures, parking, driveways and roads.
 - At least twenty percent (20%) of both the trees and shrubs shall be evergreen.
 - All fractions shall be rounded up to the next whole number.
- B. For all areas outside LTZs and more than seventy-five feet (75') from buildings, recreation structures, parking lots, driveways and roads:
- A minimum of one tree and five shrubs shall be planted for each three thousand square feet (3,000 sq. ft.) of land disturbed for construction but not covered by buildings, recreation structures, parking, driveways and roads.
 - At least twenty percent (20%) of both the trees and shrubs shall be evergreen.
 - All fractions shall be rounded up to the next whole number.

GUIDELINE 12: Landscape Construction and Maintenance

The following minimum site construction and maintenance requirements shall be followed. In addition, other standard high-quality professional construction and maintenance practices shall be followed at all times.

Site Protection

- Protect all existing trees, shrubs, ground covers and grasses outside the required construction zone. Use snow fencing or other highly visible materials to designate protected zones.
- For trees over four inches in caliper, the protected zone shall extend to the drip line of the selected tree.
- Any areas designated for protection that are disturbed at any time during the construction process shall be repaired to replicate the original condition. Replacement requirements for large trees damaged or killed shall be determined on a case by case basis.

Soil Preparation

- In some locations, existing soils may be rocky, highly porous, infertile or unsuitable due to construction activities. Prior to installing new plant materials in such locations, unsuitable soils shall be removed and remaining soils shall be amended with organic material to provide a viable growing medium.

Tree Staking

- All new trees shall be staked or guyed with two or three points of connection, properly fastened and safely marked, for two to three years or until the roots are firmly established.

Site Maintenance

- All landscape development shall be adequately maintained to retain its aesthetic, operational and safety functions. Refer to Section 4-1-2 in the Town Code for additional information.
- Plant material shall be watered, fertilized and/or mowed in a timely manner. Insects and diseases shall be treated in accordance with professional recommendations.
- Dead plant material shall be removed and replaced with an approved plant of comparable size within 30 days from the time Town officials notify the owner of such situation. Damaged branches shall be properly pruned at the correct time of year.
- Damaged pavement, walls, slopes or drainage facilities shall be repaired within sixty (60) days from the time Town officials notify the owner of such problems. However, in emergency situations, Town officials may require immediate temporary repairs to keep pavements, walls, slopes or drainage systems functional.