

Dec. 16, 2010

TOWN OF COCHRANE

NATURESCAPING STANDARDS / SPECIFICATIONS

TOWN OF COCHRANE NATURESCAPING SPECIFICATIONS

1. COMMERCIAL / INDUSTRIAL

Refer to Table 11.26.1 Landscape Requirements for the Town of Cochrane Land Use Bylaw 100% of naturescaping component required.

Refer to the City of Calgary Landscape Construction Standards for Section II – Trees/Shrubs/Groundcovers and Section III – Subgrade/Topsoil/Sodding/Seeding

- Description/quality assurance
- Product delivery, storage and handling
- Installation
- Inspections/Acceptance

Plant Material – Shrubs / Groundcovers and Trees

The following plants must be used to complete the naturescaping percentage or ratio required as per Table 11.26.1.

See attached list.

Grassing – Seeding or Sodding

The following is approved by the Town of Cochrane Parks

Seed mix:

20% Jasper Creeping Red Fescue

20% Spartan Hard Fescue

20% Fairway Crested Wheatgrass

10% Mercury Kentucky Bluegrass

10% Touchdown Kentucky Bluegrass

15% Cutter Perennial Ryegrass

5% Blue Grama Grass

Seed mixtures are applied at a rate of not less than 1.5kg/100m².

Sodding

Fine Fescue Blend sod or an approved equal.

2. Multi – unit Residential

Refer to Table 11.26.1 Landscape Requirements for the Town of Cochrane Land Use Bylaw 50% of naturescaping component required.

Refer to the City of Calgary Landscape Construction Standards for Section II – Trees/Shrubs/Groundcovers and Section III – Subgrade/Topsoil/Sodding/Seeding

- Description/quality assurance
- Product delivery, storage and handling
- Installation
- Inspections/Acceptance

Plant Material – Shrubs / Groundcovers and Trees

The following plants must be used to complete the naturescaping percentage or ratio required as per Table 11.26.1.

See attached list.

Grassing – Seeding or Sodding

The following is approved by the Town of Cochrane Parks

Seed mix:

30% Jasper Creeping Red Fescue

30% Spartan Hard Fescue

10% Mercury Kentucky Bluegrass

10% Touchdown Kentucky Bluegrass

15% Cutter Perennial Ryegrass

5% Blue Grama Grass

Seed mixtures are applied at a rate of not less than 1.5kg/100m².

Sodding

Fine Fescue Blend or an approved equal.

3. Parks – ER / MR

Refer to Table 11.26.1 Landscape Requirements for the Town of Cochrane Land Use Bylaw 100% of naturescaping component required.

Refer to the City of Calgary Landscape Construction Standards for
Section II – Trees/Shrubs/Groundcovers and
Section III – Subgrade/Topsoil/Sodding/Seeding

- Description/quality assurance
- Product delivery, storage and handling
- Installation
- Inspections/Acceptance

Plant Material – Shrubs / Groundcovers and Trees

The following plants must be used to complete the naturescaping percentage or ratio required as per Table 11.26.1.

See attached list.

Grassing – Seeding or Sodding

The following is approved by the Town of Cochrane Parks

Seed mix:

- i) A native grass seed for reclamation of Environmental Reserves and Natural Areas where maintenance and irrigation are not available. A proposed grass seed mix that makes every attempt to use seed that is native to the Cochrane region must be submitted. The mix should be based on primarily fescues and wheat grasses and will be approved on a site to site bases.

Application rates to be 100kg/ha to 300kg/ha depending on the mix submitted.

4. Parks – Playgrounds and Athletic Fields

Refer to Table 11.26.1 Landscape Requirements for the Town of Cochrane Land

Use Bylaw 100% of naturoscaping component required.

Refer to the City of Calgary Landscape Construction Standards for
Section II – Trees/Shrubs/Groundcovers and
Section III – Subgrade/Topsoil/Sodding/Seeding

- Description/quality assurance
- Product delivery, storage and handling
- Installation
- Inspections/Acceptance

Plant Material – Shrubs / Groundcovers and Trees

The following plants must be used to complete the naturoscaping percentage or ratio required as per Table 11.26.1.

See attached list.

Grassing – Seeding or Sodding

The following is approved by the Town of Cochrane Parks for playgrounds.

Seed mix:

20% Jasper Creeping Red Fescue

20% Spartan Hard Fescue

20% Fairway Crested Wheatgrass

10% Mercury Kentucky Bluegrass

10% Touchdown Kentucky Bluegrass

15% Cutter Perennial Ryegrass

5% Blue Grama Grass

Seed mixtures are applied at a rate of not less than 1.5kg/100m².

Sodding

Fine Fescue Blend or an approved equal.

Grassing – Seeding or Sodding

The following is approved by the Town of Cochrane Parks for Athletic Fields.

Seed mix:

75% 3 varieties Kentucky Bluegrass

15% Creeping Red Fescue

15% Perennial Rye

Seed mixtures are applied at a rate of not less than 3.0kg/100m².

Sodding

Bluegrass sod or an approved equal.

Topsoiling

Areas containing a subgrade that is pitrun must have a minimum compacted loam depth of 300mm.

Artificial Turf

The high traffic areas around the playground can be installed with artificial turf. The artificial turf will have a minimum 120 ounce weight for playgrounds and athletic fields will be specified from site to site. A site plan will be submitted to planning for review. The area is part of total landscaped area.

5. MEDIANS and BOULEVARDS

Refer to Table 11.26.1 Landscape Requirements for the Town of Cochrane Land

Use Bylaw 100% of naturescaping component required.

Refer to the City of Calgary Landscape Construction Standards for
Section II – Trees/Shrubs/Groundcovers and
Section III – Subgrade/Topsoil/Sodding/Seeding

- Description/quality assurance
- Product delivery, storage and handling
- Installation
- Inspections/Acceptance

Plant Material – Shrubs / Groundcovers and Trees

The following plants must be used to complete the naturescaping percentage or ratio required as per Table 11.26.1.

See attached list.

Grassing – Seeding or Sodding

The following is approved by the Town of Cochrane Parks for Boulevards. **Note that no seeding or sodding of Medians is allowed unless approved by The Town of Cochrane.**

Seed mix:

20% Jasper Creeping Red Fescue

20% Spartan Hard Fescue

20% Fairway Crested Wheatgrass

10% Mercury Kentucky Bluegrass

10% Touchdown Kentucky Bluegrass

15% Cutter Perennial Ryegrass

5% Blue Grama Grass

Seed mixtures are applied at a rate of not less than 1.5kg/100m².

Sodding

Fine Fescue Blend or an approved equal.

Topsoiling

Areas containing a subgrade that is pitrun must have a minimum compacted loam depth of 300mm.

Artificial Turf

Areas where maintenance access is difficult and high road salts are a problem the Median can be installed with artificial turf. A site plan will be submitted to the Town of Cochrane for approval.

Final Draft

Native Trees

RIVER ALDER *Alnus tenuifolia*
BALSAM POPLAR *Populus balsamifera*
TREMBLING ASPEN *Populus tremuloides*
WHITE SPRUCE *Picea glauca*
SUBALPINE FIR – *Abies lasiocarpa*
DOUGLAS FIR – *Pseudotsuga menziesii* var. *glauca*

Suggested Trees

RUSSIAN OLIVE *Elaeagnus angustifolia*
RIVER BIRCH *Betula fontinalis* (along river properties)
SNOWBIRD HAWTHORNE *Crataegus x mordenensis*
GREEN ASH *Fraxinus pensylvanica* var. *subintegerrima*
BLACK ASH *Fraxinus nigra*
AMERICAN MOUNTAIN ASH *Sorbus americana*
SIBERIAN LARCH *Larix sibirica*
SHUBERT CHOKECHERRY *Prunus virginiana* 'Shubert'
COLORADO SPRUCE – GREEN/BLUE *Picea pungens*
CRAB APPLE *Malus* (Submit selection to Parks for approval)
PINES *Pinus* (Submit selection to Parks for approval)
USSURIAN PEAR *Pyrus ussuriensis*
BUR OAK *Quercus macrocarpa*
BRANDON ELM *Ulmus americana* 'Brandon'
COLUMNAR ASPEN *Populus tremula* 'Erecta'
TOWER POPLAR *Populus x canescens* 'Tower'
RIVER BIRCH *Betula nigra*

Native Shrubs/Groundcovers

POTENTILLA *Potentilla fruticosa*
COMMON WILD ROSE *Rosa woodsii*
PRICKLY ROSE *Rosa acicularis*

CREeping JUNIPER *Juniperus horizontalis*
COMMON JUNIPER *Juniperus communis*

BUCK BRUSH *Symphoricarpos occidentalis*
SNOWBERRY *Symphoricarpos albus*
LABRADOR TEA *Rhododendron tomentosum*
SASKATOON BERRY *Amelanchier alnifolia*
GOOSEBERRY *Ribes hirtellum*
RED TWIG DOGWOOD *Cornus sericea*
SILVER BUFFALO BERRY *Shepherdia argenta*
RED ELDER *Sambucus racemosa*

VILLOSE WILLOW *Salix commutata*
BEBB WILLOW *Salix bebbiana*
WOLF WILLOW *Salix wolfii*
YELLOW TWIG WILLOW *Salix lutea*
SANDBAR WILLOW *Salix interior*

YARROW *Achillea millefolium*
KINNIKINNICK *Arctostaphylos uva-ursi*
PRAIRIE CROCUS *Anemone patens*

Suggested Shrubs/Groundcovers

AMUR MAPLE *Acer ginnala*
LILAC *Syringa* (Submit selection to Parks for approval)
SPIREA *Spiraea*
SUTHERLAND CARAGANA *Caragana arborescens* 'Sutherland'
COMMON SEA -BUCKTHORN *Hippophae rhamnoides*
COMMON NINEBARK *Physocarpus opulifolius*
GOLDER ELDER *Sambucus nigra* 'Aurea'

Table 11.26.1 -- LANDSCAPING REQUIREMENTS

DISTRICT	LANDSCAPING REQUIRED (*)	AREAS TO BE LANDSCAPED	MINIMUM TREE RATIO (**)
Residential (R-2X, R-3, R-M)	Minimum of 25% of the gross site area.	See "All Districts".	One (1) tree per 35 m ² of landscaped area, including Town boulevards. However, trees and shrubs shall be planted in the landscaped area within private property.
Local Commercial (C)	Minimum of 15% of the gross site area.	See "All Districts".	One (1) tree per 35 m ² of landscaped area, including Town boulevards. However, trees and shrubs shall be planted in the landscaped area within private property.
Central Business (CB)	Minimum of 10% of the gross site area.	See "All Districts".	One (1) tree per 30 m ² of landscaped area, including Town boulevards. However, trees and shrubs shall be planted in the landscaped area within private property.
Shopping Centres (C-SC)	Minimum of 10% of the gross site area.	a) An average width of 3 m adjacent to any collector roadway or non-commercial land use over the full length of the perimeter of the site; b) See "All Districts".	One (1) tree per 30 m ² of landscaped area, including Town boulevards. However, trees and shrubs shall be planted in the landscaped area within private property.
Highway Commercial, Recreation Commercial, Heritage Mixed Use, Commercial Residential Mixed (C-HWY, C-REC, C-HMU, C-R)	Minimum of 15% of the gross site area.	See "All Districts".	One (1) tree per 30 m ² of landscaped area, including Town boulevards. However, trees and shrubs shall be planted in the landscaped area within private property.
Service Commercial, General Industrial (C-S, M-1)	Minimum of 10% of the gross site area.	a) On lots adjacent to River Avenue or Griffin Road, the boulevard and a 5 m strip adjacent to and for the full length of the boulevard; b) On lots adjacent to roads other than River Avenue or Griffin Road, the boulevard and an average of 3 m strip adjacent to and for the full length of the boulevard; c) See "All Districts".	One (1) tree per 35 m ² of landscaped area, including Town boulevards. However, trees and shrubs shall be planted in the landscaped area within private property.
Business Park (M-BP)	Minimum of 20% of the gross site area.	a) On lots adjacent to arterial and collector roads, the boulevard and a 5 m strip adjacent to and for the full length of the boulevard; b) On lots adjacent to roads other than arterial and collector roads, the boulevard shall be landscaped in accordance with the plan approved by the Development Authority; c) See "All Districts".	One (1) tree per 35 m ² of landscaped area, including Town boulevards. However, trees and shrubs shall be planted in the landscaped area within private property.
All Other Districts Urban Reserve, Public Service, Gravel Extraction (UR, UR-R, PS, GE)	a) At the discretion of the Development Authority; b) See "All Districts".		

Table 11.26.1 -- LANDSCAPING REQUIREMENTS

DISTRICT	LANDSCAPING REQUIRED (*)	AREAS TO BE LANDSCAPED	MINIMUM TREE RATIO (**)
All Districts	<ul style="list-style-type: none"> a) All landscaping shall be concentrated at the street-side of the development sites; b) The Development Authority shall have the discretion to waive, vary, or relax the landscaping requirements when circumstances warrant the waiver, variance, or relaxation; c) In the case of non-residential lots adjacent to residential lands, in addition to the street-side landscaping, landscaping to provide a visual buffer between the residential and non-residential uses shall be required; d) All areas of a site not covered by buildings, storage areas, parking areas, and pedestrian and vehicular circulation shall be landscaped; e) All Town boulevards adjoining the site shall be landscaped and maintained by the developer and successors; f) Plants that do not survive through the growing season from time of planting shall be replaced within the year following their planting; g) The quality and extent of the landscaping established on the site shall be the minimum standard to be maintained on the site for the life of the development; h) All landscaped areas shall be constructed on a minimum of 200 mm of topsoil; i) All plant material shall be of a species capable of healthy growth in the Town of Cochrane and shall conform to the standards of the Canadian Nursery Trades Association for nursery stock; j) All landscaped areas shall have a naturoscaping component, as follows: <ul style="list-style-type: none"> i) 100% on all non-residential developments; ii) 50% on all multi-unit residential developments; iii) 25% on all other residential developments; k) In surface parking areas containing more than forty (40) parking spaces, landscaped nodes to separate the parking spaces into clusters of forty (40) shall be required. The landscaped nodes will provide visual screening to minimize mass; l) Shrubs and bushes in clusters with trees shall be planted at a minimum ratio of one (1) cluster per 25 m² of the required landscaped area; m) Flowering trees and shrubs which are compatible with a pedestrian environment are encouraged to give an element of colour to the landscaped areas; n) Any healthy mature trees that must be removed to allow for development shall be replaced at a ratio of two (2) replacement trees for one (1) mature tree to maintain the visual quality of the streetscape; o) The mix of trees shall be a minimum of one-third (1/3) coniferous to two-third (2/3) deciduous to a maximum of one-half (1/2) mix; p) The minimum tree sizes shall be as follows: <ul style="list-style-type: none"> i) 50 mm calliper for smaller deciduous trees; ii) 35 mm calliper for ornamental flowering trees; iii) 75 mm calliper for larger deciduous trees; iv) 2 m for coniferous trees, and 3m for larger coniferous trees; v) At time of planting a minimum of one-half (1/2) of the trees shall be larger trees. 		