Title	**Evaluate a site for amenity trees, select trees, and prepare a planting plan**		
Level	**5**	**Credits**	**6**

Purpose	People credited with this unit standard are able to: demonstrate knowledge of soil properties, pests and diseases likely to limit amenity tree selection, growth or survival, and measures to restore soil properties on a site; evaluate weather and climatic factors likely to limit amenity tree selection, growth or survival; evaluate factors other than climate that are likely to limit amenity tree selection, growth or survival; identify amenity tree species suited to different sites, and amenity tree species that could enhance a planting site; undertake a preliminary site analysis for a specific site; and select amenity tree species and prepare a planting plan for a specific site.

Classification	Horticulture > Arboriculture

Available grade	Achieved

Guidance Information

For the purposes of assessment evidence must be presented in accordance with workplace procedures.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of soil properties, pests and diseases likely to limit amenity tree selection, growth or survival, and measures to restore soil properties on a site.

Performance criteria

1.1 Describe soil properties in terms of those that could limit tree selection, growth, or survival.

Range includes but is not limited to – soil type, nutrient content, chemical properties, aeration, compaction, depth, drainage, pans, water holding capacity, water table, salinity, texture.

1.2 Determine the presence of soil borne pests and diseases that could reduce tree growth on a site.

1.3 Identify and describe the measures that can be taken to assess and restore soil properties on a site.

Range may include – soil sampling, use of imported media, soil conditioning, engineering solutions.

Outcome 2

Evaluate weather and climatic factors likely to limit amenity tree selection, growth or survival.

Performance criteria

2.1 Evaluate weather factors in terms of their potential to limit tree selection, growth or survival.

Range temperature range, rainfall, likely periods of moisture deficit in each season of the year, drought, frost, hail, snow.

2.2 Evaluate local present and future climatic influences in terms of their potential to limit tree selection, growth or survival.

Range aspect, proportion of shade the site receives, wind effects, exposure, flooding, salt spray, water table level.

Outcome 3

Evaluate factors other than climate that are likely to limit amenity tree selection, growth or survival.

Performance criteria

3.1 Evaluate factors other than climate in terms of their potential to limit space available for trees.

Range includes but is not limited to – access requirements, buildings and their light requirements, power lines and other overhead obstructions, view restrictions, shading of neighbouring sites, reflections from tall buildings.

3.2 Evaluate factors other than climate in terms of their potential to limit rootzone volume.

Range includes but is not limited to – drains, foundations, impermeable paving, root control pits, underground services, soil volume.

3.3 Describe potential air and water pollution factors in terms of their impact on reduction in plant growth rates.

Range evidence of at least three air and water factors is required.

3.4 Describe human influences on tree selection in terms of the requirements and responsibility of people using the site.

Range includes but is not limited to – site use, design intentions, effects on neighbouring sites, access, screening, shade, shelter, sunlight, vandalism, views.

Outcome 4

Identify amenity tree species suited to different sites, and amenity tree species that could enhance a planting site.

Range evidence of five types of sites is required – lime, clay, dry, loess, montane, peat, pumice, shallow and wet soils, small sites, saline winds, strong winds, mild winters, cold winters, vehicle emissions, pollution, light shade, heavy shade.

Performance criteria

4.1 Identify tree species suitable for specified sites in terms of site limitations and effects of site features on plant growth rates and health.

4.2 Identify tree species that could enhance a site.

Range may include but is not limited to – reduce heat islands, collect air pollution, habitat, improve water quality;
evidence of tree species for three site enhancements is required.

Outcome 5

Undertake a preliminary site analysis for a specific site.

Performance criteria

5.1 Analyse the site to identify limitations for trees in terms of soil, climatic and other factors.

Range includes but is not limited to – local meteorological data, local features, local knowledge, future climate.

5.2 Analyse the site to identify positive aspects for trees in terms of tree growth and survival.

5.3 Analyse the site to identify trees to be retained and/or removed.

5.4 Recommend a range of tree species suitable for the site in terms of the site analysis carried out.

Range evidence of at least three suitable species is required.

Outcome 6

Select amenity tree species and prepare a planting plan for a specific site.

Performance criteria

6.1 Select characteristics of trees to conform to the needs of the site's use and design intentions.

Range characteristics may include but are not limited to – seasonal appearance, habit, size, leaf and flower and fruit, growth rates, colour, evergreen/deciduous, shape, soil and climate tolerance.

6.2 Prepare a planting plan to enable planting to be completed in accordance with the plan and client requirements.

Planned review date	31 December 2026

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	11 December 2009	31 December 2023
Review	2	24 June 2021	N/A

Consent and Moderation Requirements (CMR) reference	0032

This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.

Comments on this unit standard

Please contact the Primary ITO standards@primaryito.ac.nz if you wish to suggest changes to the content of this unit standard.