Design Report Guide

for subdivision landscape assets

February 2023

Christchurch City Council

Contents

Introduction

This guidance document has been prepared by the Christchurch City Council to assist landscape architects in preparing a design report. The guidance relates only to subdivision landscape design and should be read in conjunction with the current versions of the Infrastructure Design Standard (IDS), Waterways, Wetlands and Drainage Guide (WWDG), and any relevant consent conditions.

The requirement for a design report is stated in Section 10.3.2 of the IDS:

> **IDS 10.3.2 Design Report**
>
> The Design Report must include a design statement that:
> - shows an understanding of the inherent characteristics and values of the site (e.g. social, cultural, environmental/ecological, economic, historic, recreational), including the existing landform and vegetation;
> - outlines the design philosophy and intent;
> - confirms compliance with the IDS;
> - confirms compliance with the guidelines for safe environmental design outlined in CPTED[1] and Chapter 15 of the WWDG Part B[2];
> - confirms compliance with the principles of providing a barrier free environment outlined in the Parks and Waterways Access Policy[3].
>
> The Design Report must include:
> - the safety audit;
> - details of the subsoil, water table, any earthworks and potential effects on compatibility with the planting design and establishment, including remedial measures where applicable.

A design report must be provided at the same time as draft landscape plan/s.

- A design report assists Council to interpret your plans and understand *why* you have chosen a certain design, species or material.
- A design report should demonstrate *how:*
  - your design responds to and enhances the environment; and
  - meets the requirements outlined in the IDS, CSS and WWDG.

This guide provides a draft structure for a design report, and a checklist. The relevant sections of the IDS, and relevant other guidance, are referenced throughout.

Please include the completed checklist when submitting your design report. This will help the landscape architect to ensure all relevant items have been considered, and assist Council in knowing what items have been considered and are relevant to the site.

[1] Christchurch City Council Design Guide Crime Prevention Through Environmental Design
Crime Prevention Through Safer Environmental Design (ccc.govt.nz)

[2] Christchurch City Council Waterways, Wetlands and Drainage Guide, Ko Te Anga Whakaora mō Ngā Arawai Rēpo (WWDG) (2003)
Waterways, Wetlands and Drainage Guide : Christchurch City Council (ccc.govt.nz)

[3] Christchurch City Council Parks and Waterways Access Policy (2002)
Parks and Waterways Access Policy : Christchurch City Council (ccc.govt.nz)

Example Design Report Layout

The following is an example of the format and content of a design report.

- You may choose to structure your report differently (for example, the elements in Part 3 may be more efficiently merged together under different sub-headings).
- You should not be limited by this example. Each project is unique and the design report will reflect this. Any notable features not mentioned in this example should be included in the design report. The landscape architect is encouraged to produce a design report in a style suitable to their company.

Part 1: Introduction

1. Location, site character, ecosystem.
2. Outline what is included in the report.
3. Confirmation of compliance with CPTED (including safety audit), IDS, CSS, relevant policies and conditions of consent.
4. Confirmation that the planting design is integrated with the earthworks design to ensure that the engineering works, earthworks and planting works are all compatible.
5. An assessment of maintenance implications (immediate and long term).

Part 2: Site Conditions

1. Existing soil profile and drainage; highest known groundwater level.
2. Existing features (e.g. waterways), trees and vegetation[4].
3. Values associated with the site: ecological, landscape, social, recreational, cultural and/ or historic.
4. Degree of slopes where applicable.
5. Details of the anticipated flows in any waterways or swales, including during heavy rainfall events.

Part 3: Design Description and Assessment

Design Description

1. Proposed civil work, excavation depths and fill materials.

[4] The removal of any existing trees within existing streets, parks or public open space, and the removal of Significant Trees, are regulated by the District Plan and may require resource consent. Delegated authority approval is also required for any tree removals on Council land. The removal of any tree from existing streets, parks or public open space is subject to the provisions of the Tree Policy.

Where existing trees are to be retained on land that is not yet vested, and works will occur within the dripline/protection zone of those trees, the IDS 10.4.2 must be adhered to. For works within the vicinity of trees located on Council land, resource consent may be required, and the Tree Policy and CSS require a Council approved Tree Protection Management Plan (prepared by a Technician Arborist) to be in place prior to the proposed works, as well as arborist supervision during works.

2. Final depth to groundwater for tree pits, and finished slopes.
3. Location of proposed infrastructure, easements and overland flow paths.
4. Design philosophy and intent.
5. Short overview of your design (can reference plans).
6. Describe how site conditions have been considered in your design.

Safety and Accessibility

1. Assessment of compliance with the guidelines for safe environmental design outlined in *CPTED* and Chapter 15 of the *WWDG Part B.*
2. Assessment of compliance with the *Parks and Waterways Access Policy*.
3. Maintenance access for any lawn/turf areas and waterways/land drainage assets.

Species Selection

1. Confirmation of appropriateness of trees/plants for planting sites - including consideration for size at maturity and potential damage to infrastructure, boundary encroachment, and excessive shading.
2. Confirmation of trees being selected to grow healthily for an expected life of 50 years without unduly compromising services, safety or amenities, or causing unacceptable shading.
3. Functional and aesthetic considerations that have guided your choices (refer IDS 10.9.1).
4. For riparian planting adjacent to waterways and land drainage assets, species selection considers shading, habitat, the maintenance of water flows, and the stability of slopes.

Planting Methodology

1. Methodology and relevant diagrams of tree pit construction. Identify where arborist input is required for tree pit construction.
2. Density, setbacks and plant associations.
3. Mulch type, grade and depth.

Type of Asset	Relevant sections of IDS	Relevant other guidance
Trees	10.9.6, 10.9.10, 10.9.11	Tree Policy CSS: Part 7, 6 Planting of Specimen Trees
Shrubs and groundcover plants	10.9.7, 10.9.9	CSS: Part 7, 7 Planting of Shrubs, Groundcover and Wetland Plants
Revegetation and restoration *along stream and riverbanks, and into and around swales, basins and wetlands*	10.9.8	WWDG Streamside Planting Guide Biodiversity Strategy CSS: Part 7, 7 Planting of Shrubs, Groundcover and Wetland Plants
Turf/lawn	10.9.16, 10.9.17	CSS: Part 7, 12 Turf Supply and Laying

Paths and Tracks

1. Surface material, edge treatment and junctions with adjoining surfaces.
2. Gradient, risers and handrails.
3. Width appropriate for expected use.

Type of Asset	Relevant sections of IDS	Relevant other guidance
Paths and tracks	10.8.1, 10.8.2	Parks and Waterways Access Policy
Steps and handrails	10.8.4	NZS 4121: 2001 *Design for Access and Mobility*
Boardwalks and ramps	10.8.3	NZS 1657: 1992 *Fixed platforms, walkways, stairways and ladders. Design, construction and installation* NZS 4121: 2001 *Design for Access and Mobility*

Structures

Engineered Structures

Engineered structures are those requiring specific engineering design by a Chartered Professional Engineer, and either a Building Consent or Building Consent Exemption. A Producer Statement for Design (PS1), issued by the design engineer, will be required as part of the application for a Building Consent or Exemption.

Engineered structures include (but are not limited to):

- retaining walls: retaining more than 1.5m of ground, or less than 1.5m but supporting load/surcharge or sloping ground;
- free standing walls/fences;
- pedestrian bridges, boardwalks, viewing platforms and/or balustrades, adjacent to or over waterbodies or slopes (anything from which a person could fall);
- pergolas;
- large entrance signs.

1. Identify which structures require a Building Consent or Exemption.
2. Provide structural drawings and specifications, and for those structures that require a Building Consent or Exemption, a structural engineer's Producer Statement for Design (PS1).

Other Structures

Other structures include (but are not limited to):

- park/street furniture, such as benches or tables for seating;
- bollards;
- light poles;
- rubbish bins, drinking fountains;
- interpretation or directional signage.

1. Park furniture – dimensions, mounting and materials; manufacturer's specifications; type/style appropriate for setting.
2. Lighting – type/style appropriate for setting.
3. Bollards – placement allows for maintenance.

Play Equipment

1. Equipment and manufacturer's specifications[5].
2. Fall zones; Surface materials and edge treatments.
3. Drainage.
4. Accessibility.

Type of Asset	Relevant sections of IDS	Relevant other guidance
Playgrounds and play structures	10.6.2	NZS 5828: 2015 *Playground equipment and surfacing* BarrierFree Good Play Space Guide: "I can play too"
Seats and picnic tables	10.6.7	NZS 4121: 2001 *Design for Access and Mobility*
Drinking fountains	10.6.8	
Boundary fencing	10.6.9	Chapter 13.9 of WWDG Part B
Boardwalks and ramps	10.8.3	NZS 1657: 1992 *Fixed platforms, walkways, stairways and ladders. Design, construction and installation* NZS 4121: 2001 *Design for Access and Mobility*

Part 4: Hold Points and Maintenance

1. Checks of soils, tree pit construction, garden beds, landscape planting areas and lawn/turf areas prior to planting; and checks of trees and plants at procurement and planting to ensure compliance with the CSS Part 7, sections 4.3, 4.4, 6.9, 7.10 and 13.8.
2. Tree protection in accordance with the IDS 10.4.2 and CSS Part 1, 22.0 for existing trees and vegetation to be retained on land not yet vested, and the District Plan, Tree Policy, CSS Part 1, 22.0, and Council's Delegations for trees on Council land.
3. Type and frequency of maintenance activities expected to be undertaken during the Establishment Period. Information may include procedures relating to weather events (for example, watering to be undertaken when there has been *X* dry and hot days).

Part 5: Appendix

Include any relevant supporting documents and drawings.

[5] Where the equipment is not standard (ie, not manufactured by a known supplier that has already undertaken the required testing and certifications), compliance with NZS 5828: 2015 *Playground equipment and surfacing* should be checked and confirmed by a suitably qualified person.

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Design Report Checklist

Item	Addressed in Design Report	Not Applicable
Location	☐	
Existing site character	☐	
Local environmental conditions	☐	
Soil profile and drainage	☐	
Design intent	☐	
CPTED compliance	☐	
IDS compliance	☐	
CSS compliance	☐	
Proposed civil works, excavation depths and fill materials	☐	
Compatibility of engineering, earthworks and planting design	☐	
Degree of slopes	☐	☐
Anticipated flows in waterways and swales	☐	☐
Structures that require a Building Consent or Exemption - structural drawings and PS1/s	☐	☐
Appropriate planting and species selections	☐	
Appropriate design to accommodate the choice of planting	☐	
Tree pit construction & planting methodology and diagrams	☐	
Checks of trees and plants at procurement and planting	☐	
Maintenance implications (immediate and long term)	☐	
Relevant supporting documents and drawings	☐	