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# Land Improvements Data Dictionary Definitions

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## General Instructions

This document is intended to assist in the accurate collection of land improvement asset data for entry into the Council databases. Accuracy and consistency are priorities in the data collection.

When looking at an asset, use the definitions in the data dictionary to determine the appropriate asset type. Please note that in many cases the asset type is dependent on what the asset does, not what the asset looks like. Consistency is important to ensure all similar assets are classified as the same type. For example, on steeper sections of some tracks there are single terraced steps that help prevent erosion. These form part of the track and are not captured as a separate asset.

The Council As-built Templates (CATs) give a list of attributes that must be collected for an asset of that type. Corresponding Survey As-built Guidelines (SAGs) provide further information, along with photographic examples, on these assets. Some attributes are limited to options from a list and others are free text.

Accuracy is important, especially where an attribute is a measurement. If the measurement can be made with a measuring tape, please give a measurement in meters to the nearest 0.01m. For longer measurements, a wheel can be used for measurements to the nearest 0.10m. When using a wheel to take a measurement, please take care to keep the wheel in contact with the ground. Lifting the wheel either when measuring or at the end of a measurement allows the wheel to spin freely giving an incorrect value.

Areas and perimeters do not need to be measured. The coordinates will be used to calculate areas and populate the relevant fields.

Unfortunately, there are exceptions in almost every asset type. Use common sense when looking at assets and most of the time it will be obvious. If unsure, please call the contacts provided at the Council. It is more important to have correct data than it is for the contact people to be undisturbed.

## Artwork and Artwork Components

Some assets can be considered a structure, piece of furniture, and artwork due to decoration, creativity in their design and construction, or of heritage importance. In the past, this has led to confusion over when an asset is a piece of artwork and when it is another asset type.

Assets will only be captured as artwork if they do not fit into another asset type. Those assets that are decorative, commemorative, ornamental, or otherwise aesthetically pleasing but are also a structure or piece of furniture are said to be assets that have an artwork component. When an asset is a piece of artwork, or has an artwork component, the artwork field should be populated with a “Yes”. Only the following asset types may have an artwork component Bollard (K04), Gate (K09), Light (K10), Light Pole (K11), Seat (K15), Bridge (N03), Fence (N06), Safety Barrier (N08) and Shelter (N09)

This methodology should remove confusion between when an asset is classified as artwork and when it is another asset type while still allowing both the assets and the artwork component to be captured.

If an asset does have an artwork component, the long description field should be populated with the details of the artwork component. An example could be a bollard with an artwork component. The long description could say - wrought iron figurine on top.

## Description and Long Description Fields

The ‘Long Description’ field can hold 70 characters and should be used to give extra information about the asset that is not recorded elsewhere. In Spencer Park there are three identical gazebos close to each other. The long description field could be used to say which one the asset data refers to, e.g. Easternmost of three. For named assets, the long description should give the asset name.

If an asset has an artwork component, the long description should be used to describe the artwork or its importance.

For Artworks, use the long text field for entering additional information such as name of artist and any information on the plaque associated with the artwork.

If the asset has no additional or special qualities, leave the long description blank.

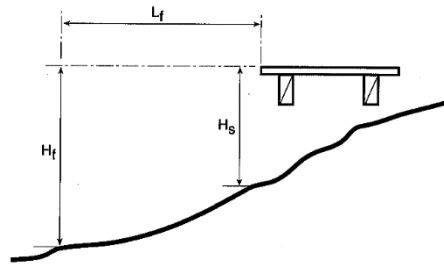
## Fall Height

Fall height is a measure of how far someone could fall from an elevated structure in normal use. Normal use means only parts of a structure that have public access are included for fall height measurement. Fall height measurements are used to evaluate hazards and determine the need for safety barriers and soft fall surfaces.

Fall height is measured as the longest vertical distance from a platform a person normally has access to, to the place their body would end up if they fell. As people fall outwards away from a platform as well as down, the fall height is the distance to the ground at the point someone’s head would contact the ground.

To measure fall height:

- 1) Measure the distance to the ground at the edge of the platform, this is measurement  $H_s$ . If the fall is into water measure (estimate) to the river/pond bed.
- 2) If measurement  $H_s$  is:
  - a) Less than 1.5m, then  $L_f$  is 1.5m.
  - b) Between 1.5 and 2.0m, then  $L_f$  is equal to  $H_s$ .
  - c) Greater than 2.0m, then  $L_f$  is 2.0m.
- 3) Measure the height from the platform level to the ground level at a distance  $L_f$  out from the edge of the platform as shown in the figure below. This measurement is  $H_f$ .



- 4) Once  $H_f$  has been measured look where the person falling would land.
  - a) If the landing area is deep moss, soft vegetation, swamp or shallow still water deep enough to cushion a fall; then Fall Height =  $H_f - 0.5\text{m}$ .
  - b) If the landing area is gravel, sand, grass or deep still water with a reasonable exit; then Fall Height =  $H_f$ .
  - c) If the landing area is jagged stones, concrete pavement, sharp vegetation or deep still water with a difficult exit; then Fall Height =  $H_f + 0.5\text{m}$ .
  - d) If the landing area is hot or boiling water or mud, swiftly flowing water without a means of exit, or onto a slope greater than  $35^\circ$  from the horizontal; then Fall Height =  $H_f + 3.0\text{m}$ .

Use common sense when evaluating fall heights. If somewhere looks too hazardous to enter to take measurements, estimate values from a safe location.

## Fences

Changes have been made to how fences are to be captured and classified. In the past boundary fences between a park and private properties have been captured as individual fences for the individual properties. Boundary fences are now to be recorded as single fences and only broken by areas of no fence.

The new methodology will mean a fence will be of mixed type, height, fence material and post material. These fields should be completed to show the characteristics of the majority of the fence.

# Finishes and Materials

The two sections below define some of the finishes and materials used for land improvement assets.

## *Surface Finish*

### **3M Digital Film/Laminated**

The surface is covered with a thin transparent plastic film.

### **Baked Enamel**

Hard, clear coating on the surface of the object. The coating consists of powdered glass applied to the object which is then heated to 800°C. As high heat is needed to apply the coating, usually only metals or ceramics are enamelled.

### **Galvanised**

The surface is covered in a layer of zinc to prevent corrosion. Usually only steel is galvanised.

### **None**

There is no surface coating.

### **Painted**

A thin layer of bound pigment on the surface. Most surface types can be painted.

### **Powder Coated**

Hard, coloured coating on the surface of the object. The powder may be a thermoplastic or a thermoset polymer. It is usually used to create a hard finish that is tougher than conventional paint. Usually only metals or ceramics are powder coated.

### **Stained**

Staining is not a surface finish. Stains are dyes mixed with a solvent that soak into porous materials leaving the dye after the solvent evaporates. Additives reduce microbiological, insect and animal attacks giving some protection to the surface. As stains rely on being absorbed into the surface, they are only used on porous materials.

### **Vinyl**

A thick, coloured plastic layer is adhered to the surface of the object.

## *Construction Material*

### **ACM Signboard**

Aluminium Composite Material (ACM) Signboard consists of a plastic sheet sandwiched between two thin aluminium sheets. The total thickness of ACM is usually 4mm, but different thicknesses exist. Signage is a common use of ACM.

### **Aluminium**

A lightweight silvery white metal. Aluminium is naturally corrosion resistant.

## **Artificial Turf – Short Pile**

Short Pile is a surface of synthetic fibres made to look like natural grass with green plastic fibres 5-10mm long.

## **Artificial Turf – Sand Based**

Sand Based is a surface of synthetic fibres made to look like natural grass with green plastic fibres 50-75mm long. Fine sand is used to separate and support the fibres. Looking down on a sand based artificial turf there will be an appearance of short fibres protruding from sand.

## **Artificial Turf – Water Based**

Water Based is a surface of synthetic fibres made to look like natural grass with green plastic fibres 5-50mm long. A layer of water is used to separate and support the fibres so water based artificial turf surfaces will have water cannons located around the pitch.

## **Asphaltic Concrete**

A dark grey/black paving surface consisting of an aggregate (gravel) bound in bitumen. Asphaltic Concrete has aggregate particles completely covered with bitumen giving a smooth, hard surface. With age, asphaltic concrete becomes light grey in colour.

## **Bare Earth**

Natural ground with no surface covering.

## **Bark**

A loose surface of tree bark that could consist of multiple layers of bark varying in size for the purpose of cushioning fall on activity surfaces.

## **Bark Nuggets 20-80mm NZS5828:2015**

A loose surface formed of certified pine bark nuggets 20-80mm in size. Playground under surfaces use special grades of bark specified for the purpose of cushioning a fall on activity surfaces.

## **Bonded Aggregate**

Gravel bound in an epoxy resin. The gravel used can be a range of shapes or colours. Resins can be clear or coloured.

## **Brass**

A metal with a bright, gold-like appearance. With age brass acquires a brown/black or green patina.

## **Bronze**

Bronze is a metal with a dull brownish gold appearance. Bronze gains dark brown or green patinas with age. Metallic statues are commonly made from bronze.

## **Brick**

Bricks are ceramic masonry building blocks. Traditionally bricks are orange/red/brown rectangles with a square cross section, but other colours and shapes are possible. Cement mortar is used to hold bricks together.

## **Cable**

A cable is a rope made from twisted steel wire strands.

## **Ceramic**

Ceramics are inorganic, non-metallic structures. Typically ceramics are made of clay and moulded into shape then heated to solidify. Ceramics have a wide range of uses from functional (earthenware pipes) to decorative (porcelain vases).

## **Chain**

A chain is a flexible length of material consisting of interlocking metallic rings or links.

## **Chip Seal**

Chip seal consists of a thick layer of tar applied to a surface with loose chip (gravel made from crushed stone) pressed into the tar. Unlike asphaltic concrete chip seal does not completely cover the particles with tar. Compared to other paving methods, chip seal paving often has a rougher surface, is made from larger particles and is not held together as strongly.

## **Clearlite Plastic**

Corrugated roofing material made from clear plastic.

## **Cobble**

Interlocking blocks of stone, brick or dry-mix concrete laid to form a paved surface. Joints between the blocks are filled with sand, no mortar is required. The dry mix concrete in concrete cobbles leaves a pitted looking finish.

## **Colour Steel**

Colour steel is a corrugated, metallic roofing material. Colour steel is differentiated from corrugated iron through a cured, painted finish on the exterior.

## **Concrete**

A composite construction material, composed of cement and other cementitious materials, e.g. fly ash and slag cement, aggregate, water and chemical admixtures.

## **Concrete Block**

Concrete bricks 390mm wide, 190mm high and 190mm thick.

## **Concrete Pavers**

Regular, flat slabs of wet mix concrete used as a paving surface. Concrete pavers are generally larger than cobbles and have a different surface finish. The wet mix concrete gives concrete pavers a very flat smooth finish.

## **Concrete Tiles**

Concrete tiles look like short lengths of half-round channel that are used as a roofing material. Typically concrete tiles are orange or dark brown in colour.

## **Corflute**

Plastic sheets used for signage. For sale signs in front of houses are typically made of Corflute.

## **Corrugated Iron**

Corrugated iron is a corrugated metallic roofing material. Corrugated iron is galvanized or zinc plated for corrosion protection. With time the coatings wear off so old corrugated iron can be rusty.

## **Decramastic Tiles**

Decramastic tiles are a synthetic roofing material moulded to look like concrete tiles. Typically orange or dark brown in colour, decramastic tiles are decorated with a layer of small particle aggregate affixed to their exposed surfaces.

## **Fibreglass**

Strands of glass fibre can be roughly woven into a mat or tightly woven into a cloth. Fibreglass or glass reinforced plastic (GRP) uses the cloth or mat impregnated with an epoxy resin to give a strong versatile building material.

## **Gabion Basket**

Large bricks made of wire mesh baskets filled with rocks. Gabion baskets can be used as structural members or for erosion protection.

## **Glass**

Clear, fragile material used for window panes.

## **Gobi Blocks**

Interlocking concrete grid/mesh slabs for permeable paving. When installed, gobi blocks look like many small concrete squares (about 50mm square) with grass growing between them.

## **Granite**

A hard rock ranging from pink to grey in colour. Granite can be cut and polished to look like marble.

## **Grass**

Green, usually herbaceous plants with narrow leaves. Grasses can be a carpet over an area or discrete growths such as tussocks.

## **Gravel**

Gravel is composed of unconsolidated (loose) rock fragments. Rock fragments in gravel must be at least 70% angular crushed rock with a balance of smooth river stones. Some gravel is designed to have a specific range of fragment sizes up to a maximum. Use this classification only if the gravel does not fit into one of the gravel specification on the list.

## **Gravel – Grit/Crusher Dust-Sand**

This category is badly named and is only for crusher dust. Gravel, grit or sand should not be recorded here. Crusher dust consists of small fragments of broken rock ranging from 7mm diameter down to microscopic. In general, one third of crusher dust grains are less than 0.5mm diameter. The extremely small particles bind crusher dust together when compacted to form a concrete-like surface.

## **Gravel – M/4: AP20**

Gravel is composed of unconsolidated (loose) rock fragments. Rock fragments in gravel must be at least 70% angular crushed rock with a balance of smooth river stones. AP20 has a range of particle sizes up to a 20mm maximum.

## **Gravel – M/4: AP40**

Gravel is composed of unconsolidated (loose) rock fragments. Rock fragments in gravel must be at least 70% angular crushed rock with a balance of smooth river stones. AP40 has a range of particle sizes up to a 40mm maximum.

## **Gravel – Sand**

Sand is composed of small loose grains of broken or worn rock with particles in the size range of 0.5-2mm diameter. Sands can be various colours and may include fragments of shells depending on their source.

## **Gravel – Stabilised: AP20**

Gravel is composed of stabilised rock fragments. Rock fragments in gravel must be at least 70% angular crushed rock with a balance of smooth river stones. AP20 has a range of particle sizes up to a 20mm maximum. Stabilising agents could include bitumen, concrete, lime, etc.

## **Gravel – Stabilised: AP40**

Gravel is composed of stabilised rock fragments. Rock fragments in gravel must be at least 70% angular crushed rock with a balance of smooth river stones. AP40 has a range of particle sizes up to a 40mm maximum. Stabilising agents could include bitumen, concrete, lime, etc.

## **Hardie Plank**

Cellulose cement weatherboard exterior wall covering that can be installed vertically or horizontally. Each board overlaps its' neighbour slightly resulting in a stepped finish. Hardie plank is 7mm thick so each step will be 7mm.

## **High Tensile Wire**

A wire made from a high tensile metal. Due to its high tensile strength, this type of wire is more likely to be used in structural applications as a stay or support. In parks, high tensile wire is likely to be used only in safety barriers, handrails and swing bridges.

## **Iron**

Iron is a dark grey to black metal. Sculptures, monuments and other artworks are the only assets likely to be made from iron.

## **Lineal Weatherboard**

Cellulose cement weatherboard exterior wall covering that can be installed vertically or horizontally. Each board overlaps its' neighbour slightly resulting in a stepped finish. Linea Weatherboard is 16mm thick so each step will be 16mm.

## **Matta Tiles**

Interlocking rubber tiles, often perforated, are used as a playground safety devices under the surface or as a stabiliser over bark and woodchip loose surfaces. Grass can grow up through the holes in perforated tiles.

## **Mesh**

A net or latticework made of connected strands of a flexible or ductile material. Meshes form semi-permeable barriers in that large objects cannot pass through the mesh but smaller objects can. Wire mesh is used in safety barriers and fences.

## **Plaster Board**

Plaster board is a fragile, flat sheet made by sandwiching a layer of plaster of paris between two sheets of light cardboard. Linings in house interiors are usually made from plaster board. Gib-board is a brand name for plaster board.

## **Plastic**

A range of synthetic or semi-synthetic products typically made from polymers derived from oil. Plastics can be rigid or elastic depending on the polymer type. Plastic uses include water and sewer pipes, rubbish bins, artwork, tanks, seats, sports equipment and play equipment.



## **Ply Wood**

Sheets made up of a number of thin wooden veneer layers glued together. Veneer layers are about 1-2mm thick and there can be anything from three to twelve veneer layers in a plywood sheet.

## **Polycarbonate**

Polycarbonate is a rigid, clear plastic able to be manufactured in almost any shape. Polycarbonate is used in signage, glazing and light fixtures.

## **Rock**

Rock refers to any solid natural aggregate of minerals. Rocks occur naturally. Rock construction refers to structures made from rocks that are not shaped or cut to size.

## **Rope**

Ropes are collections of fibres combined into a single cable. Ropes can consist of natural or synthetic fibres and can have a twisted, braided or combination construction.

## **Rough Cast**

Rough cast is a cement based plaster coating applied to exterior walls. Colours can be added to the plaster or different aggregates, including ground glass or small shells, added for texture.

## **Safety Matting**

A shock absorbing material used for playground safety under surfaces. Safety matting surfaces have a fibrous appearance and can be a range of colours. As the surface is wet poured, like concrete, to fill an area, a poured rubber surface usually is captured as a single asset.

## **Shade Cloth**

A canvas, PVC, or other fabric designed to prevent or diminish the passage of solar radiation. Shade cloth is supported on a frame or by anchor points.

## **Shingle**

Shingle is composed of unconsolidated (loose) rock fragments. Rock fragments in gravel are mainly smooth river stones with a minimum of crushed rock.

## **Stainless Steel**

An alloy of iron, carbon and chromium that does not rust under normal conditions. Stainless steel is a metal with a shiny silver-gray surface. The surface of stainless steel can gain a dull gray finish with weathering.

## **Stamped Concrete**

Stamped concrete is a paving surface consisting of a concrete slab with a geometric pattern impressed into the surface to give the appearance of paving stones. A range of patterns are possible and the concrete may have colourings included to look even more like pavers.

## **Steel**

Steel is a strong grey or bluish grey metal. Steel corrodes to red-brown rust when exposed to the atmosphere so will generally have a protective coating when in use. Due to its low cost and easy use, steel is the most commonly used structural metal.

## **Stone**

Stone construction uses rocks cut to specific shapes or sizes to create structures.

## Tiles

Tiles are manufactured pieces of hard wearing material that are applied to a surface for a durable, decorative surface. The majority of tiles consist of a fired ceramic with a hard glaze but tiles of glass, cork, metal or stone exist. Tiles are manufactured in regular shapes.

## Tyres

A black, ring shaped item originally fitted to a car wheel for traction. Worn tyres can be used to construct retaining walls or as pieces of play equipment.

## Unlined

The structure has no lining.

## Wire

A single, usually cylindrical strand or rod of a metal. Uses of wire include fences, woven to make meshes, electrical conductors or artwork.

## Wood

A natural material formed from the trunks of trees. Tree trunks are cut into specific sizes and shapes to form timber.

## Woodchip NZS5828:2015

A loose surface formed of certified recycled, chipped wood. Playground under surfaces use special grades of woodchip specified for the purpose of cushioning a fall on activity surfaces.

## Wrought Iron

Wrought iron is a dark grey to black metal. Wrought iron generally has pitted or otherwise textured surfaces. Sculptures, monuments and other artworks are the only assets likely to be made from wrought iron.

## Standard Weatherboard

Wooden weatherboard exterior wall covering that can be installed vertically or horizontally. Each board overlaps its' neighbour slightly resulting in a stepped finish.

# Photos

The photos are the only way some staff see Council assets. From an asset photo, a staff member should be able to examine details of the asset and determine the location of the asset.

Photos need to be clear. Ideally all photos would be taken with the sun behind or side-on to the photographer, in clear conditions and with the asset in a lighted area. Take care around shadows, if the photo is taken from a light area and the asset is in shadow it will not show up well, even the photographers shadow can be an issue here. We accept that the weather will not always co-operate, but in less than ideal conditions small things such as cleaning water drops off the camera lens make a big difference.

Before photographing an asset, staff should consider what will make the photo beneficial. We would like to see not only the whole of the asset but other clues as to its location and what other assets interact with it. Council staff using the photos may have no knowledge of the specific area and are relying on the photo for as much information as possible. If detail and context cannot be included in the same photo, then a detail photo and a

context photo should be taken.

Size is very difficult to estimate from photos without an object of known size to compare with. We propose a measurement tool be included in all photos to give some scale.

Simple assets (bollards etc) are easily described with a single point of view; however, with larger and/or more critical structures (bridges, viewing platforms, etc) the single point of view is inadequate. With the larger and more complex assets we are interested in seeing the structural elements under the structure as well as the topsides. Basically, the more significant or important a structure is, the more photos from different viewpoints are needed. For these complex assets we would like more than one photo.

## Rocks

Rocks/Stones are only recorded in some circumstances.

Rocks in garden beds as part of the landscaping should not be recorded.

Rocks with plaques attached should not be recorded separately. The plaque should be recorded with rock recorded in the 'Attached To' field.

Any rocks that have been placed so as to block or direct traffic should be captured as bollards.

Rocks in playgrounds should be captured and classified if they have been installed with a purpose. Large rocks installed for climbing and possibly with added handholds should be captured as climbing walls. Rocks installed as stepping stones, staircases or ladders should be captured as obstacles.

If a stand-alone rock clearly meets the 'Artwork Category', or has a plaque attached/reference. It should be captured as artwork with the media description recorded as stone.

## Showers, Water Features and Drinking Fountains

There is some confusion over these three asset types. The fountain asset type is for drinking fountains only. Ornamental fountains are classified as water features.

At beach accesses there is often a free-standing shower used to wash sand and salt water off people after they have been to the beach. These assets should be captured under the shower asset type.

Ornamental fountains should be captured as water features. A water feature may be only part of the asset. Bodies of water below or alongside a water feature should be captured separately as pools. Where nozzles are supported on a sculpture (for example the Peacock Fountain in the Botanic Gardens), the sculpture should also be captured as a water feature with an artwork component.

# Ownership and Owners

Ownership indicates if an asset is Council owned or not while owner is who owns the asset.

Entries for Ownership must be chosen from the following three options:

- CCC
- Joint
- Private

In general any asset in a park will be CCC owned and any asset on private property will be privately owned. Fences along boundaries will be jointly owned.

Ownership of other items on boundaries depends on who receives the benefit of the item. Common occurrences of this are gates and retaining walls. Gates in boundary fences between parks and private residences have no benefit to the park owner (Council) but allow residents of the private land access; therefore gates in boundary fences will be privately owned. Retaining walls on the boundary typically allow a cut or fill to give flat land on one side of the wall. As the retaining wall allows flat land on one side of the wall and no change on the other the wall owner will be the owner of the section with flat land.

The 'Owner' field will be auto populated based on CCC data.