

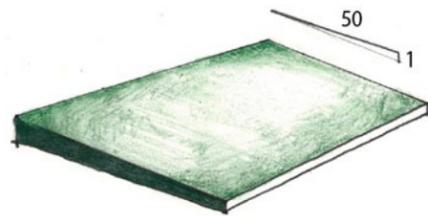
Terrain for Play

Landforms are a great way to add play value to a site. They are relatively inexpensive and are something that is achievable for anyone. We have identified a few design ideas for creating small scale landforms, though these ideas are able to be applied to sites of any scale. Landform is one means to help achieve a fundamental principle of landscape design identified as "Prospect and Refuge".

A tendency to prefer environments with unobstructed views (prospects) and areas of concealment and retreat (retreat).
from "Universal Principles of Design" W. Lidwell

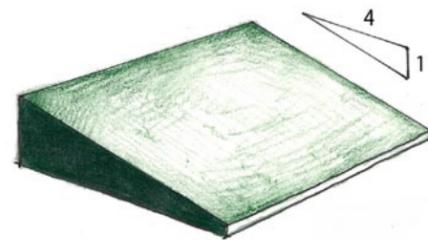
Below are some fundamental guidelines to follow in the creation of landforms. The primary considerations are drainage, maintenance, and slope stability.

Simple Landform Guidelines



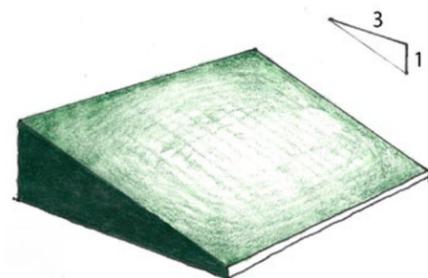
Minimum Slope

Typically all grass areas should have a slight slope to enable drainage. The minimum slope is 2% which is a 1 ft change in 50 ft. This is only noticeable if you look closely.



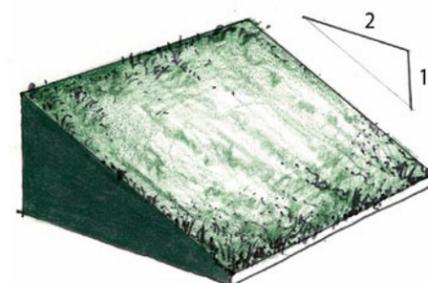
Maximum Slope - Mowed Grass

If a slope is intended to be maintained by a riding lawn mower typically the maximum slope for these areas is 25% or a 1 ft change over 4 ft. The result is a relatively steep slope, though maybe a little shallow for a toboggan hill.



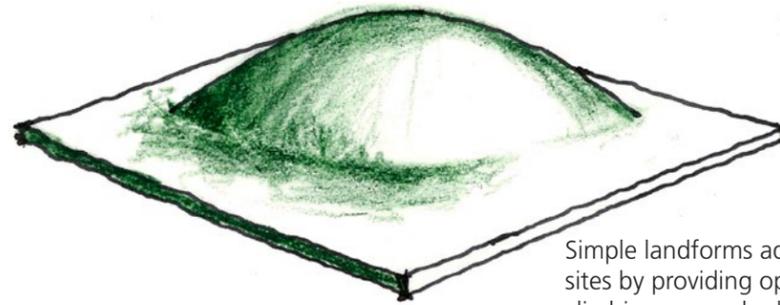
Maximum Slope - Unmown Grass

If a steeper slope is desired it will have to be mown by hand or left unmown. If the slope is covered in grass typically the steepest slope in this scenario is about 33% or a 1 ft change over 3 ft. This results in a steep slope that is good for tobogganing and is similar to the grade of a gentle flight of stairs.



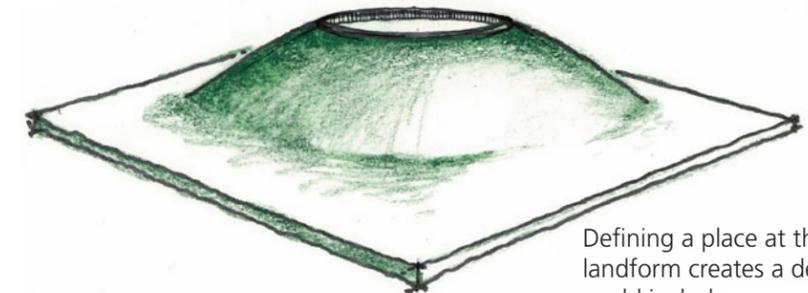
Maximum Slope - Planted

The steepest slope achievable without retaining is typically a 50% slope or a 1 ft change over 2 ft. The result is a very steep slope that is similar to the grade of a steep flight of stairs. These slopes should be reinforced with planting that has a good root system. These are the best slopes for tobogganing.



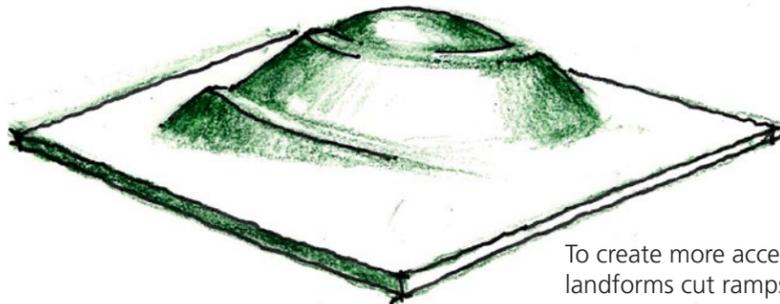
Simple landforms add interest to flat sites by providing opportunities for climbing up, and rolling down.

Simple Landform



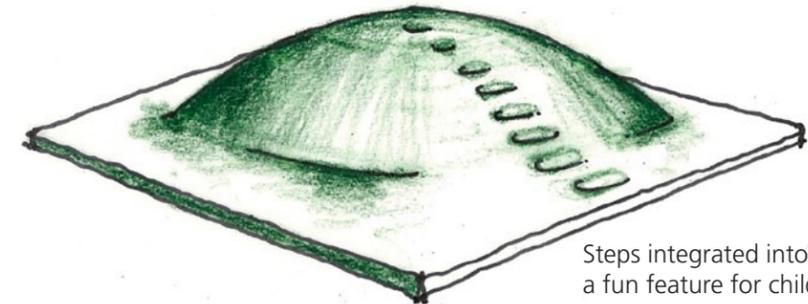
Defining a place at the top of the landform creates a destination. This could include a recessed seating area.

Defined Place at the top of the Landform



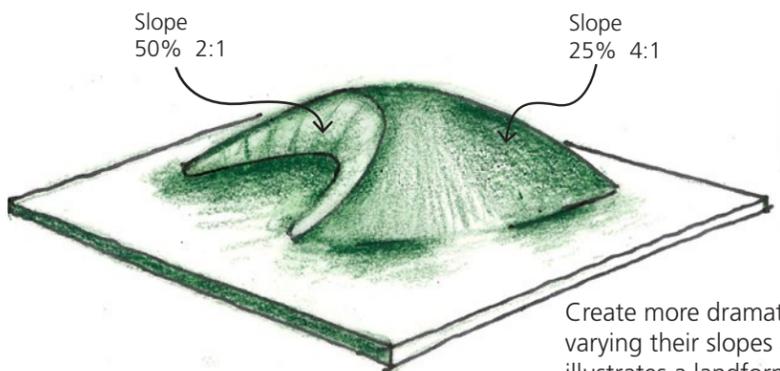
To create more accessible pathways in landforms cut ramps into the slope. The slope of paths should be 5-8%

Spiral Ramp Landform



Steps integrated into the landform are a fun feature for children. These could be stones, wood timbers or concrete.

Steps Set into Landform

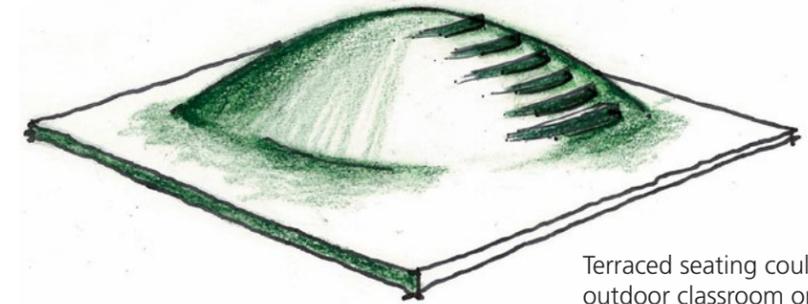


Slope 50% 2:1

Slope 25% 4:1

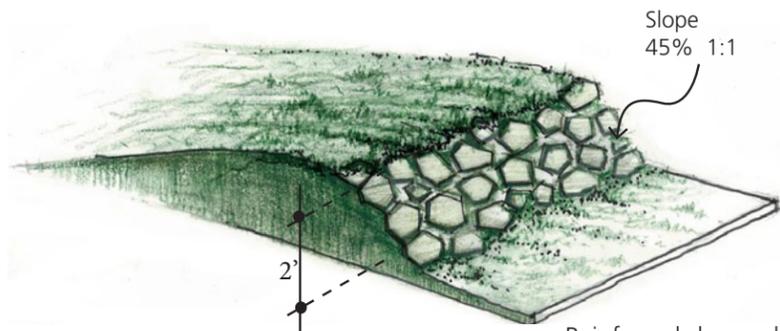
Create more dramatic landforms by varying their slopes and shapes. This illustrates a landform with a "bite" taken out.

Landform to Define Space



Terraced seating could be used as an outdoor classroom or performance area.

Terraced Seating built into Landform

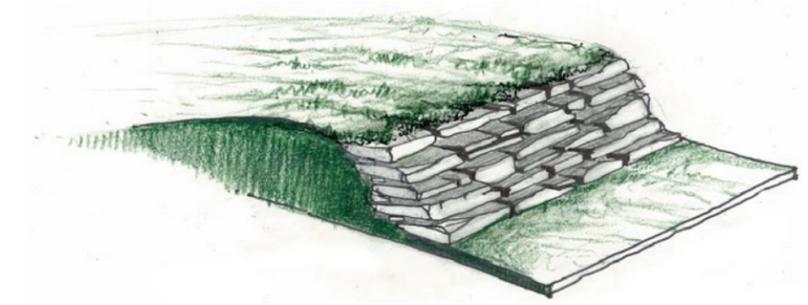


Slope 45% 1:1

2'

Reinforced slopes allow for the creation of steeper grades. Walls taller than 2' may require railings on top.

Retaining built into Landform



Walls can be made from a variety of materials including: stone, concrete, salvaged materials or wood.

Low Wall Built into Landform

Planting for Play

Plants can be used to provide a variety of experiences for children. Below is a list of some of the plant qualities that can be used to help enrich these experiences. The accompanying plants are ones that we have successfully used in some of our projects.

- 1 **Colourful** - Plants that are colourful for a longtime.
- 2 **Touch** - Plants that have unique textures.
- 3 **Smell** - Aromatic plants.
- 4 **Creating Spaces** - Structural plants that can be used to create tunnels, walls, fences and rooms.
- 5 **Props** - Plants with interesting seed heads, stalks or twigs that can be used for play.
- 6 **Move with the wind** - Plants that act as "flags" and visually wave in the wind.
- 7 **Seasonal Change** - Plants that have year round interest with distinct qualities in each season.
- 8 **Edible** - Plants that can be eaten and that have interesting tastes.

American Sweetgum
Liquidambar styraciflua



Brilliant red fall colour, seed pods resemble medieval weapons.

Annual Sunflower | *Helianthus annuus*



Tremendous growth in one summer, bright yellow, edible and can be planted tightly to form spaces.

Black Eyed Susan | *Rudbeckia fulgida var sultivantii 'Goldsturm'*



bright yellow flowers throughout the summer, have interesting character throughout the winter.

Blueberry | *Vaccinium 'Sunshine Blue'*



Edible fruit, and brilliant red fall colour.

Feather Reed Grass
Calamagrostis X acutiflora 'Karl Foerster'



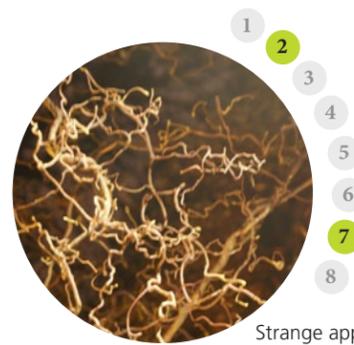
tall grass (over 6 feet) can be used to create living fences or outdoor rooms.

Bugbane | *Cimicifuga simplex*



Tall wiry plants. Durable stems can be used for play, strange shape.

Corkscrew Hazel | *Corylus aveliana 'Contorta'*



Strange appearance with contorted branches and leaves.

Knautia | *Knautia macedonia*



Profusely flowering throughout the summer.

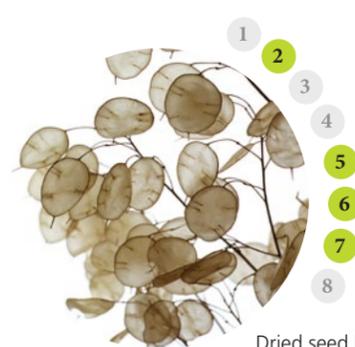
Lavender

Lavandula angustifolia 'Hidcote Blue'



Long lasting purple flowers in summer, very aromatic leaves.

Money Plant | *Lunaria annua*



Dried seed heads make great play props.

Maiden Grass | *Miscanthus sinensis 'Morning Light'*



Large grass with tall seed heads. Arching form can be used for tunnels.

Maple | *Acer spp.*



Maple keys make great play props. Red / yellow fall colour.

Mexican Feather Grass | *Nassella tenuissima*



Soft textured grass that billows in the wind.

Fountain Grass | *Pennisetum orientale*



Soft textured grass with wavy seed heads.

Russian Sage | *Perovskia atriplicifolia*



Durable plant with purple colour throughout summer. Strong stems.

Rosemary | *Rosemary officinalis*



Very aromatic with an interesting texture.

Lamb's Ears | *Stachys byzantina 'Primrose Heron'*



Extremely soft leaves.

Western Sword Fern | *Polystichum munitum*



Large palm like fronds.