

# BOARDWALKS



Greenspace Designs boardwalks can be found in woodland, parkland, nature reserves and SSSI's nationwide. The modular design of our sustainably sourced timber boardwalks, with straight and curved sections, enable us to create a sinuous route across the landscape leading visitors to points of interest. Platforms, bridges, and viewing points can be incorporated into the design and images and text can be carved into the handrails or to the non-slip surface on the boardwalk. Our boardwalks, built to avoid impact on the surrounding habitat and to allow the free flow of flood water, have been approved by the Environment Agency.

**G**reenspace Designs have 15 years experience in the construction of boardwalks in a variety of widths in many different habitats. Our most common product is a 1.2m wide boardwalk with suitable passing places. The design can incorporate straight and curved sections as well as platforms and handrails where required.

## Environmental Sensitivity

For many years we have been working for Local Authorities, Sites of Special Scientific Interest (SSSI's), Wildlife Trusts and local and national nature reserves. The reason we are chosen is that we have a light-machinery installation method. We use no concrete or steel piles and, apart from steel fixings, use all natural or recycled materials which are in-keeping with their environment.

After we have finished a contract in a nature reserve, you would not know that we had been there because there is minimal impact on the land surrounding the installation. Low ground pressure vehicles and trailers are used for transporting tools and timber to the site, with special hand trolleys to transport timber piles, beams and 3m boardwalk modules.

## Materials Used

We can use English hardwood but most commonly use European Larch for the construction of boardwalks, sourced from sustainable forests in southern England. The timber is treated which provides a durable structure compliant with EN 599 expectations, as long as maintenance guidelines are followed.

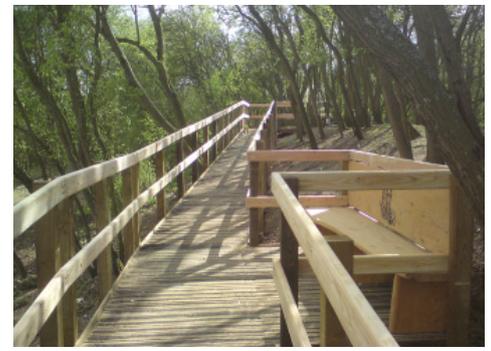
Timber beams are bolted using galvanised steel coach screws and concealed steel plates

are fitted beneath the boardwalk where reinforcement is necessary for bridges and platforms.

We provide a non-slip surface in a black 'zebra pattern' made using recycled car tyre crumb fixed to the timber with an industrial adhesive. As an optional extra we can apply text or images to the non-slip surface.



*Our rubber crumb non-slip surface can be used to create text and images in boardwalk surfaces*



*Left: A semi-circular viewing platform designed to meet Environment Agency requirements; Centre: An example of a Carved Handrail; Right: 1 in 12 ramp with seated passing places to take visitors of all abilities up a 4m high bank*

## Boardwalk Design

Our boardwalks are individually designed to “flow” across the landscape and, as European larch has a natural brown colour once treated, it will blend into its surroundings. The modular design of our boardwalks with 3m straight and curved sections enables us to create a sinuous route through the habitat leading visitors to points of interest or special vistas. Our standard boardwalks have a one or two inch high toe board or kick rail to provide a wheel stop for prams and wheelchairs.

Platforms, bridges, viewing points, hides and dipping platforms can be incorporated into the design as well as rustic benches, either carved or plain, and handrails if required.

## Interpretation

We can add wildlife, historic or educational images and text carved into benches or handrails.

## Construction Methods

Boardwalk construction involves a succession of pairs of timber piles spaced 1.5 metres apart, giving a large space beneath the boardwalk for the free flow of flood waters. For this reason our designs have been approved by the Environment Agency for boardwalks on flood plains.

**Land Drains:** We bridge any existing land drains and where an extended timber span is required we will strengthen our timber bearers with galvanised steel plates hidden in the substructure of our boardwalk so retaining the strength required.

We ensure that the boardwalk runs level across a site, the ground height might vary, but the deck itself will be level, giving a smooth, easy passage for wheelchairs, prams and the less able. Any undulations in the ground or changes in level will be taken up with a variable height of substructure, the whole time, ensuring that the boardwalk is a sensible distance above ground level.

Our unique design minimises water penetration into timbers (the cause of rot in many boardwalks). Our design does not rely on the shear strength of bolts or timber slots (a mistake in the traditional BTCV designed boardwalks seen in many country parks and reserves).

## General Preparation & Grading

We are experienced at joining boardwalks to existing paths by hand digging the timbers at the start of each section of boardwalk, thus creating a smooth transition from footpath to boardwalk so that pushchairs, wheelchairs and Trampers do not have to negotiate a step or gap.

## Delivery

Delivery of timber materials would be by lorry with its own forklift. Greenspace Designs provide a secure compound for tools and materials at an agreed location close to the boardwalk site.

## Guarantee

We will provide inspection and maintenance guidelines once the boardwalk has been completed. Provided these guidelines are followed we would be happy to agree a guarantee for our boardwalk.

## 2015 Price Guide

Prices will vary according to the selected designs and terrain but as a rough guide the design, manufacture, delivery and installation will cost:

|                                |                                       |
|--------------------------------|---------------------------------------|
| Project set up cost =          | £600 + VAT                            |
| Straight 1.2m wide boardwalk = | £185 per metre installed + VAT        |
| Platforms =                    | £250 per square metre installed + VAT |
| Planned rounded handrails =    | £35 per metre installed + VAT         |



*An example of the sinuous curves on a Greenspace Designs Boardwalk*