Many countryside paths have a natural surface – often trodden earth in Hampshire. In most cases this is fitting, works well and requires only a minimum of maintenance. Where paths cross clay or marshy areas, or are habitually muddy through heavy use, then it may be appropriate to surface them.

Solutions will be site-specific; it is strongly recommended that advice be sought from County Council officers at the design stage.

Responsibilities
The County Council is legally responsible for ensuring that the surface of rights of way is suitable for the public to use, including taking action if the surface is damaged by farm vehicles or utility works.

Is it necessary to surface the route?
Many countryside paths have a natural surface which is adequate for public use - this is the preferred surface wherever possible as it is in keeping with its environment and requires minimal maintenance.

Where a path is regularly muddy or waterlogged, the first consideration should be enabling the water to drain or evaporate. Often, a path surface will dry out if the vegetation is cleared to allow light in and/or grips or small ditches allow the water to flow off the path onto lower ground (see the drainage guide).

When considering any muddy areas, do push a stick or spade into the mud at various points to see what is underneath. It may be that leaf litter has built up and turned to mud; if this is the case, scraping off the mud with a machine can reveal a good underlying surface and is often sufficient.

However, surfacing may be required where drainage and scraping alone will not solve the problem.

Considerations for surfacing work
- Look at the immediate area – is the ground around the path waterlogged? If so, the path level will need to be raised above this. What is the soil type? If very wet or clay, a membrane may need to be used to stop the new surface sinking into it.

- Where is water coming from and where could it go to? Is it rainwater draining from neighbouring land? Could it be diverted onto lower ground off the path? Are there ditches or pipes already there which need clearing?

- Can contractors get to the path with machinery and vehicles? Can materials be delivered close to the path? Is landowner permission required to obtain access?

- Are there legal restrictions on path width (see the widths guide) or are permissions needed, eg if the path has a conservation designation such as SSSI or SPA/SAC consent will be needed and there may be restrictions on materials.

- Who will undertake maintenance when required? Regular vegetation cutting and clearance of ditches and drainage pipes once or twice a year will considerably lengthen the life of the surface.

- What is the expectation for the finished surface? If it is mainly used by local dog-walkers then a lower spec is appropriate than if it’s a path which people walk or cycle to get to work (expecting to use it in work clothes/shoes without getting muddy). Paths which are used by horse-riders or vehicles need to be more heavily constructed. If a path is heavily used, consider providing passing place every 150m or so.

Technical Guidance
For all except urban paths, a non-metalled surface (ie “gravel” path, not tarmac) is strongly preferred. This should be smooth, of adequate width, well compacted and firm underfoot but with a little ‘give’, well-drained and useable in all weathers.

Most path construction will follow this process:
- Check the path and surrounds for underground services (see cover sheet)
- Start by removing the mud down to a reasonably dry, flat base of the width of the finished path (known as a ‘path tray’), usually 60-100mm deep.
- Lay a geo-textile membrane if needed.
- For paths used by cyclists and/or horse-riders (eg bridleways), lay a sub-base of larger material (between 40mm-70mm diameter) and compact with a vibrating roller or wacker-plate.

This guidance is suitable for most situations in Hampshire; for further advice email countryside@hants.gov.uk or call 0845 603 5636
Acceptable materials in Hampshire include washed rail ballast (granite), recycled builders’ rubble, road planings and washed rejects (flint).

For all paths, lay a ‘wearing course’ of finer material (typically ‘type 1’ which means material of 40mm diameter to dust, or in urban areas or where wheelchair use is likely 20mm-dust), and compact with a vibrating roller or wacker-plate.

Acceptable materials in Hampshire include scalpings, hoggin and recycled rubber.

A camber or crossfall (slope of around 2% across the width) should be used to shed rainwater off the path; choose whichever will lead the water to lower ground.

A membrane (sometimes referred to as a geo-textile) is matting which is used in wet areas to stop the new surface materials sinking away into the wet ground. Terram, Biddum and Geogrid are commonly used in Hampshire.

Timber Edges

Paths generally do not need timber board edges, and look more fitting without them; they can also trap water on the path once the surface has settled, and can be a slip risk for cycle wheels and horse hooves.

However, timber edges may be desirable to retain materials if the ground drops away to one side or if the path level is well above that of the surrounding ground (eg in wet areas).

Typical Footpath Specification

The following is suitable for a path used only by walkers. This is a guide and officers’ advice should be sought at the design stage.

Path should be 1.5m width (if possible)

Dig out path tray to path width and 60mm deep, or to dry ground if deeper.

If needed, lay a geotextile membrane

Lay wearing course: 100-125mm depth of compacted material (usually scalpings or hoggin), extending over edges of path tray

Compact with vibrating roller or wacker-plate, leaving a camber or crossfall as appropriate to shed the water

Typical Bridleway Specification

The following is suitable for a path used by walkers, cyclists and/or horse-riders. This is a guide and officers’ advice should be sought at the design stage.

Path should be 2.5m width (if possible)

Dig out path tray to path width and 100mm deep, or to dry ground if deeper.

If needed, lay a geotextile membrane

Lay sub-base: 125mm-150mm depth of material when compacted, with a camber or crossfall as appropriate

Lay wearing course: 70-100mm depth of material when compacted, extending over edges of path tray and leaving a camber or cross-fall as appropriate.

For paths which are used by horse and carriages and/or motor vehicles, please seek advice from County Council Officers.

This guidance is suitable for most situations in Hampshire; for further advice email countryside@hants.gov.uk or call 0845 603 5636