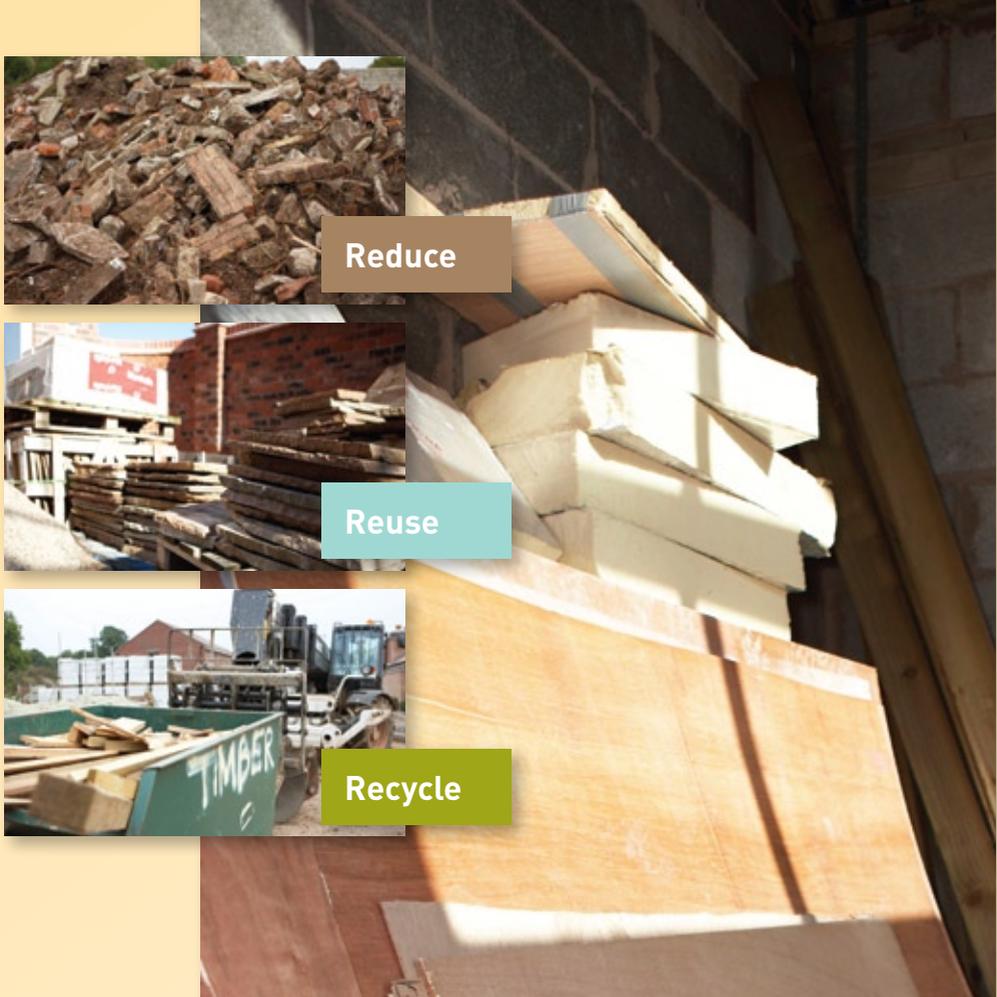


Reducing your construction waste

Making simple changes can save you money and reduce the environmental impacts of construction



Reduce

Reuse

Recycle

Reduce > Reuse > Recycle

The construction industry is the UK's largest user of natural resources, and produces huge amounts of waste.

Each year around:

400

MILLION TONNES
of material is used

100

MILLION TONNES
of waste is
produced – more
than one-third
of the UK's annual
waste

25

MILLION TONNES
of construction
waste is disposed
to landfill

Everyone in the construction industry can contribute to tackling this by reducing waste, using materials in a better way, and collecting waste for recycling. This leaflet provides guidance for small and medium sized construction companies (SMEs).

Even simple changes can save you money and reduce the environmental impacts of construction.

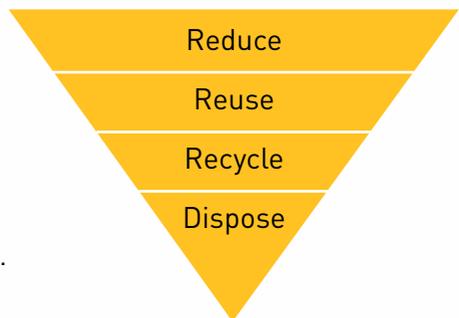
Waste hierarchy

Firstly, aim to **reduce** the amount of waste you create.

If waste is created, identify ways you can **reuse** the materials.

Finally, if materials cannot be reused then collect them to **recycle**.

Only dispose of waste as a last resort.



Benefits to you

Reducing, reusing and recycling your construction waste can bring many benefits.

You can:

- › **generate income** from collecting some materials;
- › **reduce your costs** from purchasing less material and maximising skip space;
- › **comply** with legislation;
- › **reduce accidents** by storing materials carefully to ensure a tidy site;
- › **reduce CO₂** emissions; and
- › help **conserve** natural resources.



Reduce

The best environmental and cost effective solution is to reduce the amount of waste you create.



Try to be involved early in a project to encourage designs that cause less waste to be created.

Use standard sizes and quantities of materials, and plan ahead to reduce off cuts.

Avoid over-ordering.

Arrange deliveries to match work stages, to avoid materials being stored on site longer than necessary.

Ensure storage areas are safe, secure and weatherproof.

Minimise rework from errors and poor workmanship.



Don't accept poor quality or damaged deliveries.

Don't remove protective packaging from materials before they are needed.

Suggestions

- › The site induction and toolbox talks are opportunities to raise awareness of good waste management.
- › Having one person responsible for ordering materials helps avoid surplus being purchased.
- › Buying sand and gravel in bulk bags rather than loose helps reduce wastage.
- › Computer software is available to estimate required quantities accurately.

HelmCom

HelmCom is a small developer based in Bristol which encourages its staff to use materials more efficiently and manage waste in a sustainable way, by sharing the savings the company makes.

On one house conversion project the five site staff received an average **bonus of £287 each**. This has benefited the company by contributing to high staff retention.



Reuse

Surplus or salvaged materials can be used again for the same or a new purpose.



Collect off cuts and use first instead of new materials.

Co-ordinate trades so left over materials from one can be used by another.

Fix temporary materials (e.g. timber hoarding) so they can be dismantled and reused many times.

If you can't reuse materials on the same project aim to use on others.

Return, sell or donate unused and salvaged materials.

Repair items (e.g. pallets) so they can be reused or returned to the supplier.



Don't reuse materials or items which are not fit for purpose.

Suggestions

- › Dismantling buildings rather than knocking them down increases the amount that can be salvaged undamaged.
- › Purpose-made reusable products for temporary applications (e.g. steel mesh fence panels) may have a higher initial cost, but be cheaper in the long term and reduce waste.

Risby Homes

Risby Homes estimate that they will make a **saving of £13,000 (62%)** on just one project by reducing and reusing waste, and sorting it for recycling.

Simple actions to change from landfill disposal of mixed construction waste from their £4 million, two-year development of 25 homes in Beverley, East Yorkshire, include:

- › having separate containers on site to enable timber, cardboard and rubble to be sorted for recycling;

- › collecting plastic packaging film in bags, and storing in an empty garage on site to keep it clean and dry until collected for recycling;
- › repairing pallets for reuse; and
- › placing insulation off cuts into roofspaces to provide extra energy efficiency.

As a result of these changes, Richard Bettison, the Site Manager, won a National House Building Council (NHBC) Pride in the Job Quality Award.

Recycle

Many materials can be recycled, some going back into making new construction products.



Ask your waste contractor how they can help you to recycle. Shop around to find out which service suits your site best, giving a high waste recovery rate, for the right cost.

Sort different waste materials on site. Locate containers (e.g. skips or wheelie bins) close to working areas and use clear signs to show which material goes in each.

Keep materials for recycling clean, dry and separate from other materials or waste.

Where space on site is limited ask your waste contractor if they can sort your waste at their facility for recycling.



Don't use a waste contractor if you cannot verify that their waste licences are relevant and in date (see 'Your obligations').

Don't burn or bury waste to dispose of it.

Suggestions

- › Focusing on recycling your main types of waste will be most cost effective. These types will change as your project progresses.
- › Your suppliers may be able to take back their packaging (e.g. pallets, cardboard, bulk bags) – just ask.

Cawrey

Cawrey has **significantly reduced the amount of aggregate they purchase** by buying a mini crusher-screener. This enables them to process old bricks, blocks and concrete into recycled aggregate for use under new roads and paths. This is just one change the company – which builds 12–15 houses each year around Ratby, Leicestershire – has made to the way it saves money, improves its overall environmental performance, and stays ahead of legislation.

WRAP's website gives guidance on producing recycled aggregates (see 'Further information').



Your legal obligations

To fully understand your legal obligations, contact your waste regulator or visit the NetRegs website (see 'Further information').

What is waste?

Waste is any substance or object(s) the holder discards or intends to discard. Any material which is perceived to have no further use is waste. Waste can be classed as inert (e.g. bricks, glass), hazardous (e.g. paint tins, mastic tubes) or non-hazardous (e.g. packaging, plasterboard). However it is not always obvious which class a waste may be. If in doubt check with your waste contractor.

Your duty of care

All businesses have a duty to ensure that waste they produce is handled safely and within the law. This is your 'duty of care'. You must check that any company removing waste from your site is a registered waste carrier, and that they take the waste to a registered waste management site. If you do not check and it is illegally disposed of, you could be held responsible. Use the Waste Directory

website (see 'Further information') to find a registered carrier or site.

Every load of waste that leaves your site must be accompanied by a Waste Transfer Note. This provides an accurate description of the waste to enable it to be treated safely. You must keep copies of all waste transfer notes for at least two years.

Site Waste Management Plans

A Site Waste Management Plan (SWMP) is a legal requirement in England for projects over £300,000. It requires you to forecast and record waste and how it is managed. Using the SWMP as a waste management tool can help you to:

- › increase profit margins;
- › reduce waste management costs;
- › demonstrate compliance with your legal obligations; and
- › decrease the amount of waste you dispose of to landfill.

Further information on SWMPs can be found on the WRAP, Envirowise and NetRegs websites (see 'Further information').

The true cost of waste

The true cost of waste is not just the cost of hiring a skip. It also includes:

- › the cost of the materials that end up as waste;
- › the labour cost to handle the waste on site; and
- › the cost of waste storage, transport, treatment and disposal.

The true cost of construction waste will continue to rise substantially each year due to:

- › Landfill Tax increasing each year (£48 per tonne in 2010/11);
- › higher disposal charges; and
- › purchase costs of materials and products increasing.

The true cost of waste is often around 10 times the skip hire cost.

Source: Envirowise

Further information

WRAP (Waste & Resources Action Programme) helps individuals, businesses and local authorities to reduce waste and recycle more, making better use of resources and helping to tackle climate change. Free guidance and tools (including a SWMP template) to help you reduce and manage your waste and materials are available through the website.

www.wrap.org.uk/construction

Helpline freephone 0808 100 2040

Envirowise offers UK businesses free, independent confidential advice and support on practical ways to increase profits, minimise waste and reduce environmental impact.

www.envirowise.gov.uk

Helpline 0800 585794

The National Federation of Builders provides business solutions to builders and contractors across England and Wales.

www.builders.org.uk

NISP links companies together, enabling savings by sharing resources.

www.nisp.org.uk

NetRegs provides free guidance on environmental legislation and regulations, and how to comply. It is a partnership between the UK environmental regulators: the Environment Agency in England and Wales, SEPA in Scotland and the Northern Ireland Environment Agency (NIEA).

www.netregs.gov.uk

Waste Directory lists waste contractors and sites that are correctly licensed to take your waste.

www.wastedirectory.org.uk

Waste Aware Construction gives details of the national skip colour coding scheme, and has a free tool for creating and printing skip signs to help with sorting waste materials.

www.wasteawareconstruction.com

SalvoMIE and Builder Scrap are materials information exchanges. Reclaimed and surplus materials are offered and wanted by builders and other trades for reuse.

www.salvomie.co.uk

www.builderscrap.com

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