

What is WRAP's Designing out Waste Tool for Civil Engineering?

DoWT-CE overview, Version 1.0

The Designing out Waste Tool for Civil Engineering (DoWT-CE) is a freely accessible resource (available at <http://dowtce.wrap.org.uk>) that will help you to:

- identify opportunities to design out waste in civil engineering projects;
- record design solutions pursued to reduce material consumption or wastage;
- calculate the impact of these solutions, including savings in project costs, waste to landfill and embodied carbon;
- compare the performance of different projects / alternative scenarios; and
- provide an indicative waste forecast for your Site Waste Management Plan (SWMP).

The Tool can be used iteratively during outline design, as different options will become relevant as the design is developed. An indicative waste forecast requires only outline project data and can be completed very quickly. Subsequent analysis of design solutions and their impacts will require more input from the design team and other specialists, depending on project size. This time and effort can result in significant financial savings and environmental benefits.

Users:	<ul style="list-style-type: none"> ▪ Design team – civil engineer
When:	<ul style="list-style-type: none"> ▪ Option preparation and design development stages
Inputs:	<ul style="list-style-type: none"> ▪ Project elements and approximate dimensions ▪ Design team thinking on options to design out waste
Outputs:	<ul style="list-style-type: none"> ▪ Tabulated reports on the impact of design solutions on project costs, materials requirement, wastage and embodied carbon
Cost:	<ul style="list-style-type: none"> ▪ A short amount of time is needed to complete analysis (depending on project complexity) ▪ The Tool is free to use
Benefits:	<ul style="list-style-type: none"> ▪ Helps to identify opportunities to reduce the need for imported materials, minimise wastage and achieve cost savings ▪ Can be used for options appraisal by comparing different project scenarios ▪ Provides input for the project Site Waste Management Plan ▪ Users can include potential savings in tender specification so that tender prices can take account of design decisions ▪ Results can be used to demonstrate Corporate Responsibility

The Tool should be used in conjunction with WRAP's guidance: Designing out Waste: a Design Team Guide for Civil Engineering, see www.wrap.org.uk/designingoutwaste.