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Building *Eco* logically

www.buildinginkent.co.uk



Why do we have Site Waste Management Plans?

Under the “Site Waste Management Plans Regulations 2008” every building project worth over £300,000 is obliged to have a Site Waste Management Plan.



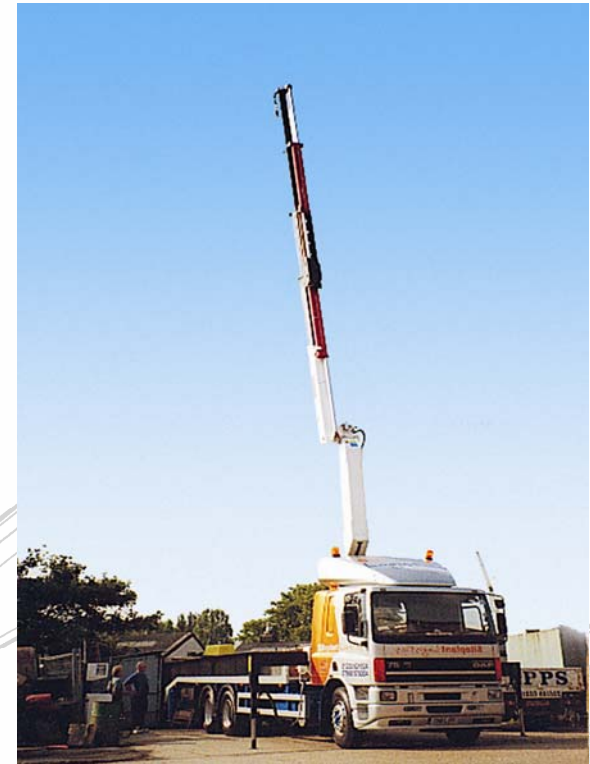
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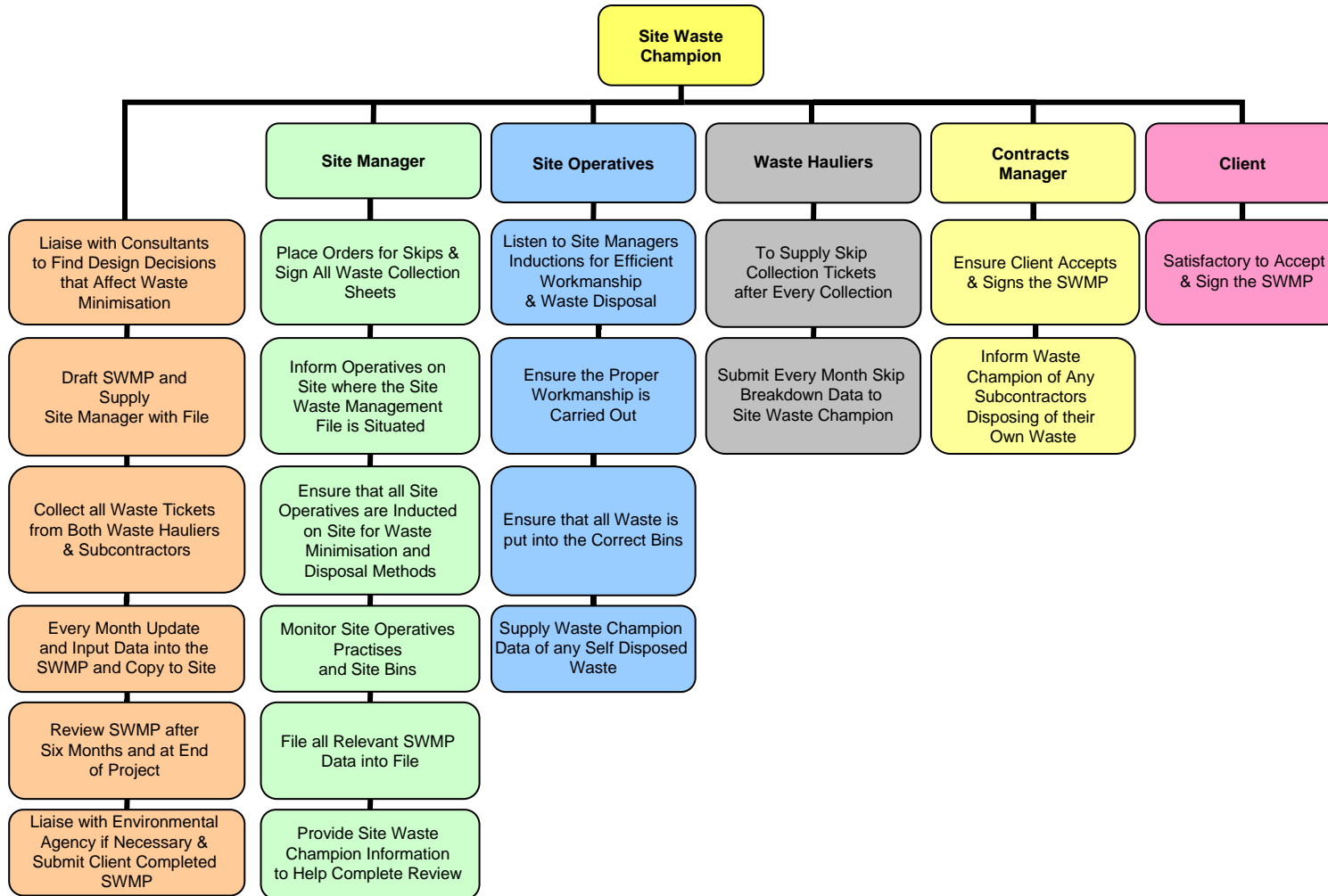
Why do we have Site Waste Management Plans?

Site Waste Management Plans (SWMP's) provide a systematic way of managing waste on construction sites and encourages the reduction of waste throughout the construction process.



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Our Approach to SWMP



Systems we use for analysing our waste Data

For three years running we have been using “Smartwaste” which is a free online Site Waste Management programme developed by the BRE.



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Systems we use for analysing our waste Data

We were introduced to BRE Smartwaste by Remade Southeast and they have assisted in making the process of preparing, implementing and reviewing SWMP's easier.

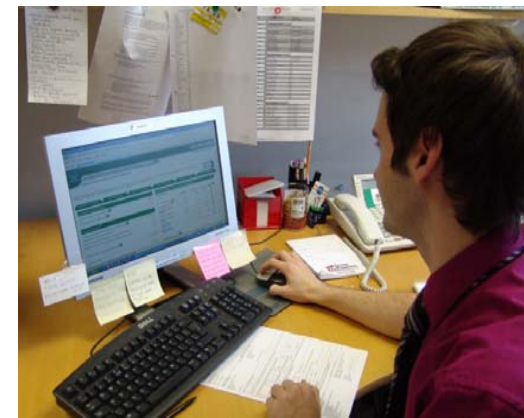
This has resulted in us achieving a **68%** landfill diversion.



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The benefits of using Smartwaste within our Company

- Free to use
- Legally Complies with Environmental Agency requirements
- Assists Waste Saving Practices
- Simple and Quick to use
- Internet Based and Downloadable Templates
- Waste Measuring and Analysis tool
- Guidelines for Waste Estimation and Setting Targets
- All Data Stored can be Viewed at both Project and Company level
- A Trustworthy Company as it has been Developed by the BRE



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Ecological Construction

Innovative services and ecological design solutions have been used in various Epps Construction projects including the use of.

- Laminated timber frames with timber from sustainable sources
- Geothermal ground source heat pumps
- Solar thermal water heating
- Air source heat pumps
- Photovoltaic electricity generation
- Ventilation heat recovery systems
- Grey water harvesting
- Rainwater harvesting
- High efficiency glazing systems



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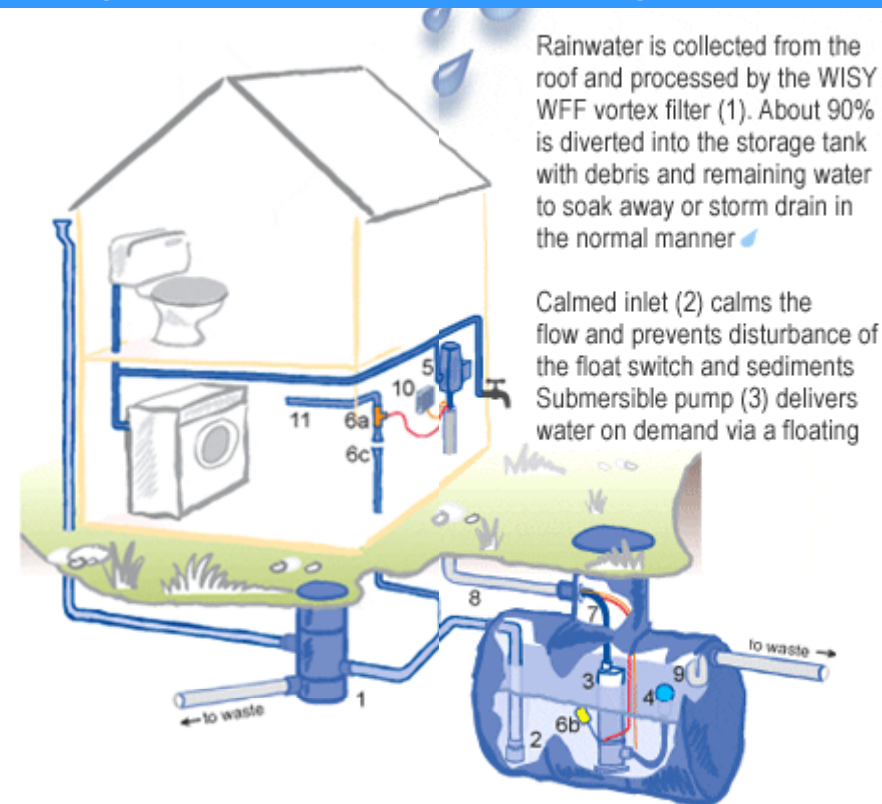
Rainwater Harvesting

From a simple system of just introducing water butts on downpipes to full underground storage and pumped supply for washing machines use and the flushing of toilets.

Epps Construction can provide the experience and expertise.

We have installed systems for private clients such as our project at Green Farm and numerous Housing Association projects throughout the South East.

Typical domestic system



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Ground Source Heat Pumps

Case study

Petham Village Hall

Heating - Ground source heat recovery system via three 100mm diameter and 70m deep bore holes providing heat for under-floor heating to the ground floor and panel radiators to the mezzanine.



Solar Thermal

Gorley House Dover

Case Study



The ecological refurbishment of Gorley House a courtyard terrace of listed Alms Houses and Flats in Dover.

The Solar Thermal systems comprised Air Source heat pump outdoor units, Hydrobox indoor units, Altherma fan coil units and solar roof panels.

The fixing kits included unvented hot water cylinders solar controller, pumping station and expansion vessels.



Heat Recovery

Case study

The Partridge

The Partridge Housing project included both Air Source Heat pump systems providing hot water and All House heat recovery ventilation systems to recycle heat from stale air into fresh air ventilation. Systems were installed to all the 28 flats built on the site.



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Photo Voltaic Systems

Case Study, Champion Close As a design and build project with a requirement to achieve Code 4 Sustainable Homes standard, we included Photo Voltaic systems within the our design.

We also included air source heat pumps for water heating and ventilation heat recovery systems on this project.



PROJECT
HOUSING AT
CHAMPION CLOSE
CHATHAM
KENT

DATE
MAY 2010



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Too good to be true Incentives to generate PV power

The government has introduced financial incentives to get more homeowners and businesses to generate power from renewable energy. This is in an effort to meet the country's obligations to cut carbon emissions.

The feed in tariff for PV was launched on 1st April 2010 as part of the Clean Energy Cash Back Scheme. The scheme provides a guaranteed income per kWh generated for 25 years – even if they use the energy they generate and its index linked to inflation.



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Feed in Tariff Examples

Size of installation	Tariff level for installations with the incentive period (p/kWh)		
	Year 1 01/04/10	Year 2 01/04/11	Year 3 01/04/12
4 kWp (new build)	36.1p	36.1p	33.0p
4 kWp (retrofit)	41.3p	41.3p	37.8p
4 – 10 kWp	36.1p	36.1p	33.0p
Standalone system	29.3p	29.3p	26.8p
10 – 100 kW	31.4p	31.4p	28.7p
100kW – 5MW	29.3p	29.3p	26.8p



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