



Ashford Construction Project case study - GSE Group Ltd

Conserving natural resources in our
backyards - a sustainable housing
project in Ashford

Client: English Rural Housing Association
Designer/Builder: GSE Group Ltd, Ashford, Kent

Project highlights:

- 840 tonnes diverted from landfill
- £28,000 landfill tax savings
- Ecohomes 'Very Good' rating achieved
- SWMP template to be used across the company

GSE Group Ltd participated in the Ashford Construction Project in 2009. The project, funded by Ashford's Future and delivered by Remade South East, provides advice and expertise on Site Waste Management Plans and other aspects of sustainable construction to support delivery of sustainable growth in Ashford.

Company background

The GSE Group Ltd provides a portfolio of skills and services to the building, civil engineering and construction sectors in the South East of England.

Project description

GSE Group Ltd was commissioned by the English Rural Housing Association to design and construct a small residential development of 6 homes in Tenterden, Ashford. The project started in January 2009 and was completed in July 2009.

The involvement of GSE Group Ltd in the Ashford Construction Project resulted in the diversion of 840 tonnes away from landfill and the equivalent of £28,000 cost saving from landfill tax. Remade assisted GSE by using the Building Research Establishment's (BRE) SmartWASTE suite of construction data collection and monitoring tools.

These tools were used to develop and implement a Site Waste Management Plan which detailed the types and quantities of waste being generated and identified areas where materials can be reused or segregated for recycling.

Remade's support allowed GSE to comply with environmental legislation as all construction sites with a build value over £300,000 must have a Site Waste Management Plan in place. Using the experience from the project the GSE Group Ltd is working with Remade to develop an in-house Site Waste Management Plan template to be used across the company.

Unique sustainability attributes

Sustainability was factored into the project at a very early stage. Ecohomes accreditation was part of the planning permission and funding requirements from the English Rural Housing Association. The project achieved an Ecohomes score of over 60 points which met the required target of achieving a 'very good' rating.



Unique sustainability attributes continued

The Ecohomes score was achieved by undertaking the following measures:

- **Site Waste Management Plan:** Producing a Site Waste Management Plan added to the Ecohomes rating and allowed GSE Group Ltd to forecast waste materials generated from different phases of the project.
- **Reuse and recycling:** During the groundwork phase sub-soils were reused on site where possible with the remaining reused off site in a local restoration project. During construction, waste, brick, concrete and wood were segregated for recycling. The reuse of subsoil and recycling diverted 840 tonnes of waste away from landfill.
- **Design:** The timber frame structures for each building were pre-manufactured off-site reducing the amount of wastage produced on site and reducing assembly time.
- **Sustainable energy use:** Ground Source Heat Pumps were installed in each property to provide warm water for heating systems.
- **Sustainable materials:** An insulation material made from recycled newspaper was used to insulate the roof areas of buildings and GSE Group Ltd used their own recycled glass aggregate product as fill.



Benefits

- **Cost savings:** Setting up initiatives to reuse sub-soil on and off-site, and the segregation of brick, concrete and wood for recycling allowed GSE to divert around 840 tonnes of waste from landfill equating to an estimated £28,000 cost saving from landfill tax fees.
- **New business:** Based on the achievements of the scheme discussions are taking place between GSE and the English Rural Housing Association about future sustainable schemes.
- **Environmental:** 80% Forestry Stewardship Council sustainably sourced timber was used for door and window products and the technologies used in the project reduced carbon emissions during the build phase and will continue to do so through the occupation phases of the scheme.
- **Control:** The site used check-metres on water and power which enabled the monitoring of usage. Dust and noise were also monitored. These measures have helped adhere to planning conditions associated with the development

Lessons learned during implementation

GSE Group Ltd learned that pre-planning and liaison with Ecohomes at a very early stage is essential and helps to keep the project on track and schedule.

Implementing a Site Waste Management Plan helped the GSE Group Ltd to divert a maximum amount of material away from landfill by identifying the types and quantities of waste prior to site work commencing. The cost savings achieved have highlighted the importance of the plan and contributed to the developing of an in house Site Waste Management Plan template.

Further Information:

Andrew Kent - Project Manager

Remade South East

Tel: 01732 876619

Email: a.kent@remade-southeast.co.uk

Web: www.remade-southeast.co.uk/ashford

Web: www.remade-southeast.co.uk/ashford