



New Crane's Court, Basildon, Essex SS14 1PW



## Case Study: SAP & CSH



<b>Client:</b>	Swan Housing Association
<b>Location:</b>	New Cranes Court, Basildon Essex
<b>Developer:</b>	Denne Construction
<b>Architect:</b>	The Tooley & Foster Partnership

### Brief:

One of the largest zero carbon projects in the Thames Gateway continues apace. The first homes are now built and the project is set for completion toward the end of this year. Crane's Court is the first housing development to have its heating and electricity provided by a Combined Heat and Power (CHP) unit fuelled by glycerol, a waste product of bio-diesel. This innovative approach avoids the installation of solar panels, which was an important issue with the planners. It is expected that the plant will deliver an annual excess of electricity which will be sold to the national grid.

Stroma Built Environment (formerly BBS Environmental) is conducting the SAP and CSH (Level 6) assessments on the entire scheme. The majority of the homes have been orientated to make best use of natural sunlight. Heating requirements in the 28 new houses and flats will be kept to an absolute minimum with average wall U values of 0.15 W/m<sup>2</sup>K or better to an exceedingly high air tightness standard. Mechanical ventilation with heat recovery reduces CO<sub>2</sub> loss further. With the site being evaluated as having ecological value owing to significant mature trees, achieving Level 6 of the Code for Sustainable Homes was particularly difficult.

The design therefore had to gain maximum points from non-ecology sections within the Code and therefore encompassed the whole range of ambitions of the code. 100% of the available credits being secured within the water, surface water run-off, waste and management categories.

The listed mediaeval church, St. Andrew with Holy Cross, creates an interesting focal point. Courtyards face the church, with pedestrian and cycle routes passing through the site and car access restricted. Storage areas for bicycles and recycling are also included. A range of additional features, designed to ensure carbon-neutral status, are integrated within the homes.