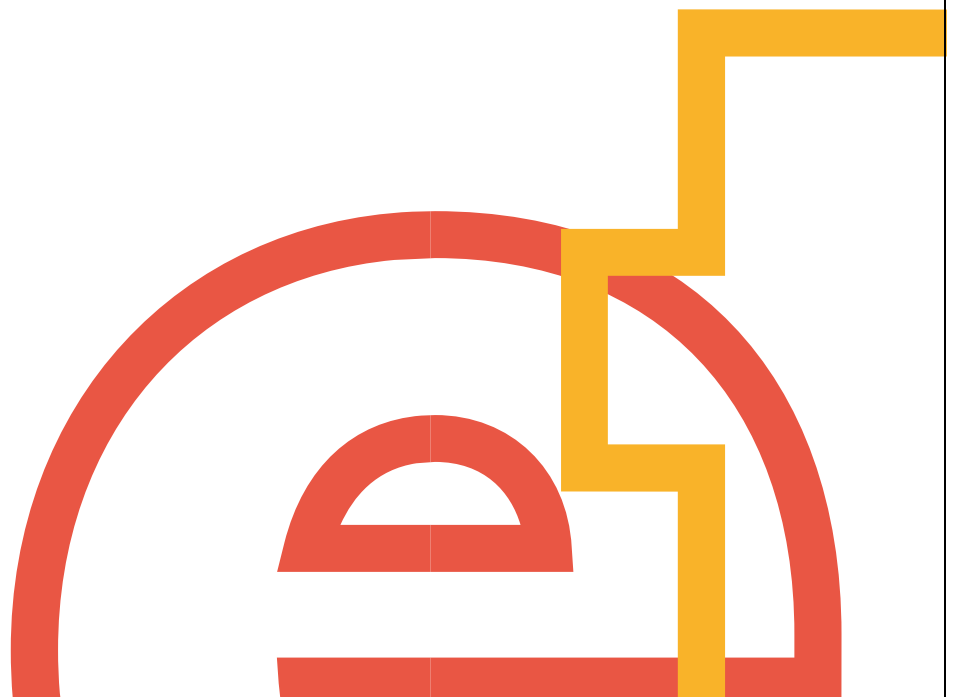


thirteen

Managing and building homes

AMBERLEY & HARROGATE STREET

ENERGY AND SUSTAINABILITY STATEMENT



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1.0 Introduction

Thirteen Group aims to deliver sustainable properties that consume little energy from renewable sources.

Thirteen Group's Affordable Homes Programme focuses on developing sites in sustainable locations to promote healthy lifestyle, utilities local amenities, use alternatives methods of travel than the car and encourage the use of public transport.

The Amberley and Harrogate Street site is located near a convenience store, pharmacy and bus stops. Mowbary Park is a 3 minute walk and the Promenade is a 15 minute walk from the development.

2.0 Property Features

Thirteen Group is committed to reducing lifetime carbon emissions of its homes and avoiding fuel poverty. The following is to be implemented for the Amberley and Harrogate development.

Modern Methods of Construction (MMC)

The houses will be a type of MMC known as Volumetric Construction. These units are built off site and delivered prefabricated. They feature steel frame units with increased insulation levels compared to traditional build. The properties will also feature double glazed windows.

The bungalows will also be a type of MMC and feature timber frame. These also have increased insulation levels compared to traditional build. The properties will also feature minimum double glazed windows.

Heat Pumps and Electric Heating

We are aiming to make all the properties Zero Carbon Ready by using Air Source Heat Pumps to the houses and heating by other electric means to the bungalows. Air Source Heat Pumps use electricity to create heat and avoids the need for gas. They use the outside air which is a renewable resource and therefore is more environmentally friendly than traditional gas boilers.

Photovoltaics

The majority of the properties will be fitted with solar photovoltaic panels which will generate electricity from the sunlight which will be used towards operating the Air Source Heat Pumps, lighting and appliances.

Electric Vehicle Charging

Five percent of the properties will be equipped with a dedicated electric vehicle charging point to encourage the uptake of electric cars which are better for the environment than petrol or diesel alternatives.

Smart Meters

The buildings will be fitted with smart meters to enable the residents to monitor their energy usage and understand how to reduce their consumption.

Health and Wellbeing

The properties of this development are designed to meet the Nationally Described Space Standards to ensure the properties have sufficient space and storage to meet the needs residents.

All properties have a private rear garden, open landscaped areas and some residents will be able to gain access to the enclosed shared gardens.

Water Management

The scheme has been designed to limit surface water discharge rates to prevent flooding in Sunderland by the use of SUDs basins and permeable paving. The Hierarchy of Discharge will be used wherever possible.

Waste Management

Each property has the space for three refuse bins to enable the segregation of domestic waste. When possible, these have been located in the rear gardens to ensure they are not visible from the main roads.

Biodiversity

The scheme will feature a Biodiversity Net Gain where we aim to leave the natural environment in a measurably better state than before.

3.0 Construction

During the construction of the properties, a Site Waste Management Plan will be put in place. This will set out the measures to ensure all waste produced or held on site is disposed of safely, efficiently and in accordance with the law.

Thirteen aims to minimise the amount of waste generated from all sites. As this project is using MMC, the properties are constructed in an efficient manner off site and the house are delivered to site pre-assembled and the bungalows in sections.