



North Ayrshire Council
Comhairle Siorrachd Àir a Tuath

AFTON COURT, STEVENSTON NEW BUILD HOUSING

Appendix G - NAC Sustainability Statement

This specification booklet is to be read in conjunction with the Employers Requirements and the NAC drawing package where dimensions, quantities and types will be scheduled.

All manufacturer references to be considered unless approved equal available.

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NORTH AYRSHIRE COUNCIL
Property Management & Investment

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1 SECTION 6 (ENERGY) AND SECTION 7 (SUSTAINABILITY) REQUIREMENTS

1.1 GENERAL

- SAP Calculations for all properties to be provided.
- Required Air tightness tests to the plots to be passed with the Building Control Officer.
- A copy of the EPC will be affixed in a prominent place in each house.
- A Statement of Sustainability will be affixed in a prominent place in each house

1.2 BRONZE ACTIVE

Bronze Active Level Accreditation to be achieved with the following silver level aspects:

- **Bronze Active Level** - Each house will meet all functional standards set out in Sections 1 to 6 in the Scottish Building Standards Technical Handbook (2011 and subsequent amendments) and show full compliance with the "Bronze Active Level".
- **Aspect Silver Level 1** - Carbon dioxide emissions
- **Aspect Silver Level 2** - Energy for space heating

2 BUILDING FABRIC

2.1 THE 'FABRIC FIRST' APPROACH

To maximise the performance of the materials and components that form the building's structure, North Ayrshire Council are taking a 'Fabric First' approach to all our new build housing projects. The Fabric First approach involves considering the following before any electric/mechanical elements are provided:

- **Enhanced U-Values** (compared to maximum U-values stipulated within Section 6 (Energy) of the 2020 Scottish Building Standards)
- **Thermal Bridging Detailing** (prevents/reduces heat loss)
- **Air Tightness** (maximised whilst ensuring thermal comfort is retained)
- **Building Orientation** (to optimise solar gain)

2.1.1 Enhanced U-Values

The below table states the required maximum fabric U-Values.

Maximum Fabric U-Values	
Element	U-Value
Ground Floor	0.12W/m ² K
Walls	0.13W/m ² K
Roof (cold roof)	0.09W/m ² K
Opening (Door & Window)	1.2W/ m ² K

2.1.2 Thermal Bridging Detailing

In order to limit thermal bridging and air infiltration, the construction details you prepare for this project should at least hold the same level of limitation to the accredited details contained within the Scottish Government's ['Accredited Construction Details \(Scotland\) 2010'](#) publication.

2.1.3 Air Tightness

North Ayrshire Council are looking to have a maximum air tightness value of 5 m³/h.m² @ 50 Pa.

2.1.4 Building Orientation

Given the small scale of the site, requirement for street frontage, car park to the rear, and access to existing buildings, the building locations are set. Additionally, the plan was prepared alongside consultation with North Ayrshire Council Planning Department.

3 ELECTRICAL/MECHANICAL ELEMENTS

3.1 HEATING AND HOT WATER SYSTEM

3.1.1 Air Source Heat Pump (ASHP)

The primary heating system within each property is to be an Air Source Heat Pump.

Heat will be distributed via a piped radiator system which should maintain room temperatures of 23 degrees Centigrade to Living Room and Bedroom of each house, and 19 degrees Centigrade elsewhere, with an external temperature of minus 1 degree Centigrade.

Controls should include a timer / programmer, programmable room thermostat to each house, and thermostatic control valves to each radiator.

All water and heating pipes to be fully insulated where hidden.

ASHP also to supply the domestic hot water via storage cylinder set at an acceptable, safe temperature.

ALL CENTRAL HEATING WORKS TO BE CONTRACTOR DESIGNED.

ALL SIZES AND LOCATIONS WITHIN THE DRAWING PACKAGE ARE ALL INDICATIVE.

3.2 LOW ENERGY LIGHTING

Low Energy fittings to 100% of property. Minimum Efficiency 45 Lumens per Circuit Wall

4 RENEWABLES

4.1 PHOTOVOLTAICS

A minimum 3 panel system to be provided to each properties roof.

The solar photovoltaic systems must be installed to standards as laid out by the Microgeneration Certification Scheme (MCS) with all solar photovoltaic system components being MCS approved. Installers will be required to have evidence of approved training and preferably be scheme members of renewable energy code of conduct.

4.2 WASTE WATER HEAT RECOVERY

Horizontal Waste Water Heat Recovery solution to be provided within shower rooms.