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Feasibility and 10% Calculations

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Feasibility for Renewable Energy & Low Carbon Technology and 10% Calculations Assessment

Site Address: 7 High Street, Milton

Total Sqm 454.86 sqm

Site Carbon Emissions (Baseline TER x TFA Total) = 6891.13 kg CO₂e

Total Site Carbon Reduction Target = 689.11kg CO₂e

Proposed Site Carbon Savings = 764.17 kg CO₂e = (11.09% Reduction)

Proposed LZC Technology – 3x Mechanical Ventilation Heat Recovery Systems

	Floor Area	DER	TER	% Savings
Plot 1	151.62	12.91	14.67	12.02% (266.85 CO ₂ e)
Plot 2	151.62	13.16	14.83	11.25% (253.21 CO ₂ e)
Plot 3	151.62	14.34	15.95	10.09% (244.11 CO ₂ e)

Lowering Baseline Emissions by Enhanced Fabric Construction, High Efficiency Heating Systems and Improved Design to increase Solar and Heat Gains- This improves the Target Fabric Energy Efficiency (TFEE- as per SAP Calculations) The layout of the site in particular allows good natural solar heat gains from South East and West orientated windows and glazed doors.

Feasibility Study- we have modelled all potentially practically and economically viable solutions to low zero carbon technology- this includes Solar Thermal Hot Water, Waste Water Heat Recovery, Flue Gas Heat Recovery, Mechanical Ventilation Heat Recovery, Heat pumps, Biomass and Photo Voltaic Panels.

This is due to the proposed high efficiency heating, hot water systems and controls, good fabric U-values of construction, proposed dwelling design in terms of enhancing heat gains through passive solar gains and 100% Low Energy Lighting.

There are also significant reductions in running costs of these new dwellings which is a tribute to the design and fabric specification for these newly formed dwellings.

We have discounted the following technologies as part of our feasibility study due to practical constraints for the site and economic viability: Wind Generation, Biomass, District/Community Heating & Combined Heat and Power, Heat Pumps and Solar Thermal Hot Water.

Detailed building regulations calculations (SAP Assessments) have been provided showing baseline and proposed energy efficiency.

If you have any queries with the above then please do not hesitate to call or email me back.

Greenest Regards

Robin Thom
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MIDHEE, DipDEA, DipOCDEA, DipNDEA, DipGDA
BREEAM AP, Code for Sustainable Homes Assessor

Winner- LABC Regional Construction Professional of the Year 2019
Winner- West Midlands Energy Efficiency Consultant of the Year 2017, 2018
Highly Commended- West Midlands Energy Efficiency Champion of the Year 2017, 2018
Shortlisted- National Energy Consultant of the Year 2017

In the last twelve months, Green Heat Ltd has helped save over 276million kg CO2.
Working on over £706million worth of construction projects.