

Climate Change and the design of buildings and public realm in Gt Dunmow

Changes in policy and in practical approaches in development are needed urgently if the trends in global warming are to be stabilised or reversed. Tackling global warming is a global task because of the interconnectedness of the environment and of economics. Nevertheless national and local action is vital. The planning and design of buildings everywhere will increasingly have to address the issue of climate change.

Two processes are involved – adaptation and mitigation. The key challenge in facing up to climate change is the reduction in carbon use. Carbon is used in the construction of building and in the materials used, in the running of buildings and in the transport of goods and people between locations. Key steps that can be taken to both mitigate and adapt to climate change include:

- Minimising the need to travel
- Reducing travel by fossil fuel powered means
- Maximising the use of the most efficient means of travel
- Reducing the consumption of energy supplied by fossil fuels
- Optimising the uses of renewable energy sources
- Orienting buildings to optimise the use of passive solar gain
- Arranging and planning neighbourhoods to optimise the use of efficient and renewable energy sources
- Increasing the energy efficiency of buildings and processes
- Designing buildings so that their shape optimises energy use
- Insulating buildings
- Using low energy embedded materials in building construction
- Allowing for the harvesting of rainwater
- Using high efficiency water systems
- Installing sustainable drainage systems
- Using planting to shade potentially hot areas

The planning system can make use of the options and techniques both in new development and in 'retro fitting' them into existing developments where feasible.

The TDS wishes to try to anticipate such steps. The District Council has already published its draft guidance on energy efficiency. It is hoped that this policy is developed and expanded to include all of the above in the near future.

Recommendations – Global Warming

Examples of planning policies and interventions derived from the above that could be pursued in Gt Dunmow include:

- Increasing the amount of tree planting in open areas, car parks and streets
- Insisting on sustainable drainage in all new development which means installing pervious surfaces and other means of controlling water run off.
- Encouraging walking and cycling
- Improving all aspects of bus service in and from the town
- Discouraging car use
- Improving local services to avoid the need to leave town
- Insisting on high energy efficiency in all new buildings
- Pursuing insulation and energy efficient devices in all existing buildings especially those of the vulnerable elderly and those on low income
- Ensuring water can be harvested and re used in new buildings
- Supporting the use of renewable energy sources where they can be shown to be efficient and at the very least carbon neutral, including passive panels, photo voltaics or similar technologies, and wind turbines
- Insisting that the siting, design and orientation of buildings optimises the use of solar energy
- Insisting that buildings and spaces in new development are adequately protected from excessive solar gain and over heating
- Providing and protecting allotments and garden land for local food production

The TDS therefore recommends that the above criteria are applied to all new developments and that objective evidence based and accurate assessments are submitted with all significant developments to demonstrate that the above techniques have been applied or justify why not.