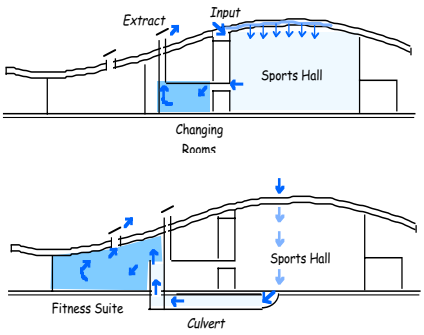

Sustainable Construction CPD

Module 9/15 - DRAFT
Site Issues & Construction Processes

CPD Programme by Gaia Research: Info from 0131 558 7227 and www.gaiagroup.org

Sustainable Building Design

Achieving sustainability requires us to live within the limits of the earth's capacity to provide the materials for our activities and to absorb the waste and pollution which our activities generate. The construction, fit out, operation and ultimate demolition of buildings is a huge factor in human impact on the environment both directly - through material and energy consumption and the consequent pollution & waste - and indirectly - through the pressures on often inefficient infrastructure.

There is already a significant amount of information available to all professions on how to design buildings which are attentive to the needs of sustainable construction. But most practice still falls radically short of applying even the most easily applicable principles in most projects. Opportunities which could bring real advantage are being missed every day. The result is that buildings and the industries which supply building designers with products, materials and services are less efficient, less economical and more polluting than they might otherwise be.

Top left photo: Drumchapel Sports Centre: Glasgow CC where air tightness is critical to performance. Above: interlinking of processes is essential if sustainability is not to be compromised.

This module aims to investigate aspects of construction processes and site practice which can contribute to meeting sustainability objectives. Much can happen between scheme design and handover to undermine the aspirations of a project. Often the sustainability aspirations are the most vulnerable with great pressure on cost targets and all aspects environmental quality.

There is generic guidance available and case study guidance on a limited range of aspects. This document seeks to extend this guidance to highlight a broad range of the pitfalls and how to overcome them and to direct the reader to the tools and guidance which will assist in delivering best practice.

The information here is not exhaustive, but it is intended to give the reader a grasp of the issues and a realistic perspective on the range of issues which will affect decision making.

Continuous Professional Development

This CPD module is the ninth of a series which will summarise the existing sources of best practice guidance on sustainable building design. These modules do not attempt to repeat what other documents contain, except to summarise the most important environmental issues.

Each module provides information on critical aspects of a particular topic and sources of further guidance by way of an annotated bibliography. Case studies highlight best practice solutions to improve understanding and encourage implementation. Each module is supplemented by seminars which provide opportunity to discuss design projects in interdisciplinary groups with peers and specialists.

It is hoped that over time the modules will act as a catalyst in the creation of distance learning opportunities which will allow participants to share information on live design projects with their own and other professions.

With the support of the professional institutions we hope to develop an accreditation scheme to encourage consistent application of sustainable design skills to building projects.

Objectives

By the end of this module the reader should be able to:

- Understand that issues concerned with sustainable design are relevant throughout the construction process;
- Appreciate that construction processes have wide ranging impact;
- Communicate to clients the importance of care during the tender, construction and handover, is vital to the long term performance of built developments;
- Make informed decisions to assist in managing a scheme design to handover;
- Appreciate that careful managment of the processes can contribute significantly to reduction in cost and in pollution and can contribute to improved health, welfare and productivity of building occupants and to an improved environment;
- Understand the requirements and constraints in the selection of different approaches, in relation to operation, maintenance and control strategies;
- Understand that appropriate management can significantly enhance a project performance, with long term benefits;
- Be better equipped to work with the other design professionals involved;
- Understand and be able to access the guidance, tools and techniques available for staying abreast of choices and issues in tender and site issues.

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