

The construction law specialists

The legalities of being sustainable

by Barry Hembling

Introduction

It would not be overstating matters to say that sustainability is without doubt the current hot topic in construction. If it wasn't, it is unlikely that so many of us would be here today. Sustainable development has a diversity of meanings depending on who you speak to. Whilst sustainability is perhaps best known in an environmental and climate change context, it is not just about the green agenda.

The purpose of this talk is to consider the Legalities of Being Sustainable. This is a wide topic but some of the areas that I intend to address include:

- 2008 Climate Change Act
- Energy Performance of Buildings Directive
- Contract Law
- Standard Forms of Green Contract

What is sustainability?

In order to fully understand sustainability and to put it into its context, it is necessary to consider the hard and soft law on the subject. By hard law I mean legislation and regulations. By soft law I am referring to policy statements and best practice guidance.

It has been almost 18 years now since the Rio de Janeiro United Nations Conference on the Environment and Development ("UNCED") where more than 178 governments adopted "Agenda 21", a list of actions to make development socially, economically and environmentally sustainable.

The UK Government published its first strategy for sustainable development in 1999, and the Sustainable Procurement Group was set up in November 2001 to consider how Government procurement could better support the goals of sustainable development. The EU similarly adopted a sustainable development strategy in 2001. It is clear therefore that sustainable development is not a new concept!

Sustainability has become a broad term that is not only concerned with climate change but also with tackling a number of other issues, including:

- job and wealth creation in regeneration areas,
- creating opportunities for small and medium enterprises,
- fair trade and the inclusion of developing countries,
- adult basic skills,
- disability, race and gender equality,
- innovation and
- the promotion of ongoing and contestable supplier markets

The intention behind using procurement in this way is that contracting authorities will increasingly award contracts to those economic operators which meet sustainable criteria. This both allows the public sector to meet its targets to reduce waste, carbon emissions and water consumption and increase energy efficiency, and drives a wider transformation of the economy, encouraging the development of a sustainable market for goods and services with less damaging or more positive environmental and social impact.

Nonetheless, it is perhaps in the environmental context that the term sustainability is best known. The built environment is said to account for around 47% of $\rm CO_2$ emissions in the UK, with a significant proportion of this relating purely to the running and operating of existing buildings and their facilities. The UK climate projections based on Met Office science, illustrate the extent of the changes the UK might face in the absence of global action to cut emissions – warmer and wetter winters, hotter and drier summers, increased risk of coastal erosion and more severe weather.

Accordingly, the government aims to cut UK emissions by 34% by 2020 and at least 80% by 2050 through investment in energy efficiency and clean energy technologies such as renewables, nuclear and carbon capture and storage. While Government has an important role to play in stimulating companies to act through incentives, rewards and the threat of penalties in order to meet those targets, it is ultimately businesses that will deliver a supply of goods and services that are less damaging and more resource efficient. In this respect, we are fortunate that the UK has world-class climate change research institutions and consultancy services in climate carbon measurement and management.

While China and India may make us feel our endeavours make little or no change to the macro picture, even there things are changing albeit slowly. The smog in Beijing during the Olympics has highlighted the problems created by urbanisation and ongoing economic development and which will need to be addressed.

Climate change can continue to divide opinion. A number of recent opinion polls, including one carried out by the BBC, have suggested that climate change scepticism is on the rise. This shift in public opinion has no doubt been influenced by the recent hacked e-mails scandal at the University of East Anglia and the recently publicised mistakes made by the Intergovernmental Panel on Climate Change in one of its key reports.

However, notwithstanding recent controversies regarding climate change, it is highly likely that the sustainability agenda is here to stay. This is because it is still widely accepted that buildings generate a large proportion of human carbon emissions and they have therefore been targeted for reduction. Accordingly, all new homes are to be zero carbon from 2016 and the Government has a policy framework to inform on and create incentives to improve energy efficiency in existing buildings. The Government also expects global warming to bring changes in rainfall patterns, higher sea levels and coastal erosion. More extreme weather events are also anticipated and so buildings will have to take account of these changes.

Sustainability issues were addressed in the Government's Strategy for Sustainable Construction. That strategy sought to bring together a number of regulations and initiatives from different areas of Government to form a more coherent picture for businesses to understand. In doing so, it sets out standards for the future sustainability agenda and commitments for the future. That Strategy does not just seek to deal with climate change issues. A number of other areas have also been targeted.

Water consumption has also been targeted for reduction. This will most likely be achieved through anticipated changes to the Building Regulations and a cut in use in the manufacturing and construction phase by 20% of 2008 usage by 2012.

We also expect that all projects over £1 million will need biodiversity surveys by 2012.

Construction frequently generates a lot of waste, and the industry was singled out by the Waste Strategy for England 2007. Targets are to be set for cutting down landfill disposal in particular, such of demolition waste.

In addition to the disposal of materials, the Government wants the industry to consider its use of new materials and their sourcing, bearing in mind their environmental and social impact.

In procurement, the Government aims to lead and encourage good practice, through integrated working and in particular the 2012 Construction Commitments.

Design is also a major feature of the sustainability agenda. This means considering the environment as a whole and taking into account fitness for purpose, efficient use of resources, appearance and adaptability. Good design is said to be synonymous with sustainable construction.

On innovation, a number of schemes are highlighted, such as the Strategic Research Agenda of the National Platform for the Built Environment and the eco-towns initiative.

Then there is training and employment, such as a net increase in the number of qualified people recruited and trained in the construction industry of 230,000 over the 2006 figure by 2010. Safety targets are also mentioned here, such as a 10% reduction in the incident rate of fatal and major injury accidents year on year from 2000 levels by 2010.

The UK Government, the Scottish Executive, Welsh Assembly Government, and the Northern Ireland Administration have now agreed upon a set of principles that provide a basis for sustainable development policy in the UK. For a policy to be sustainable, it must respect all five principles:

- (i) Living within environmental limits
- (ii) Ensuring a strong just society
- (iii) Achieving a sustainable economy
- (iv) Using sound science responsibly
- (v) Promoting good governance

In terms of focusing its efforts, the UK has identified four priority areas for immediate action, shared across the UK. These are:

- (i) Sustainable Consumption and Production the Government says that to live within our resources, we need to achieve more with less. This requires us to change the way we design, produce, use, and dispose of the products and services we own and consume.
- (ii) Climate Change and Energy the Government says we need to secure a profound change in the way we generate and use energy (we now have more wind turbines than any other country in Europe), and in other activities that release greenhouse gases, to reduce greenhouse gas emissions in the UK and worldwide, whilst at the same time preparing for the climate change that cannot be avoided.
- (iii) Natural Resource Protection and Environmental Enhancement the Government says that understanding the limits of the natural resources that sustain life and our economy is essential, as key industrial sectors are directly and indirectly reliant on functioning ecosystems.
- (iv) Sustainable Communities the Government says its aim is to look after the places in which people live and work, for example by developing green, open spaces and building energy-efficient homes.

Sustainability therefore means not using up resources in our construction projects faster than the planet can replenish or re-stock them and joining up economic, social and environmental goals. No doubt the current credit crunch does not aid this process as businesses struggle to find means to earn revenue without other distractions.

While Government has an important role to play in stimulating companies to act through incentives, rewards and the threat of penalties, it is ultimately businesses that will deliver a supply of goods and services that are less damaging and more resource efficient.

Best practice developers have included sustainability provisions in their contracts for years. Any developer or occupier can already include sustainability in the specification, but unless there is some sanction in the form of amended building regulations or a real cost incentive in terms of whole life cycle costings for buildings, these provisions if introduced, are likely to remain an aspiration and of dubious enforceability in any case.

In the construction and allied professions given our global dominance (yes even in this crunch), we are uniquely equipped to contribute to improving our credentials as players in more sustainable development as a real selling point.

Climate Change Act 2008

To support the Government's sustainable development policy there have been a number of EU Directives and statutes passed over the years, mainly with environmental roots. There has been a mass of guidance and policies but little primary legislation until now.

Now we have the Climate Change Act 2008 which became law on 26 November 2008. This Act provides a framework for further regulatory action and establishes overarching emission targets for the Government to meet.

The Act leads the way in bringing in requirements on business to meet increasingly challenging targets for reducing carbon emissions. The UK Low Carbon Transition Plan plots how the UK will meet the 34% cut in emissions on 1990 levels by 2020. We have apparently already reduced emissions by 21% – equivalent to cutting emissions entirely from four cities the size of London.

The central points of the Climate Change Act are:

- Legally binding targets: Greenhouse gas emission reductions through action in the UK and abroad of at least 80% by 2050, and reductions in $\rm CO_2$ emissions of at least 26% by 2020, against a 1990 baseline. The 2020 target will be reviewed to reflect the move to all greenhouse gases and the increase in the 2050 target to 80%. It is highly likely that legislation will follow in our industry to make this happen.
- A carbon budgeting system which caps emissions over five-year periods, with three budgets set at a time, to set out our trajectory to 2050. The first three carbon budgets will run for 2008-12, 2013-17 and 2018-22. The Government must report to Parliament its policies and proposals to meet the budgets as soon as practical after that.
- The creation of the Committee on Climate Change, a new independent, expert body to advise Government on the level of carbon budgets and where cost-effective savings could be made. The Committee will submit annual reports to Parliament on the UK's progress towards targets and budgets to which the Government must respond, thereby ensuring transparency and accountability on an annual basis.
- International aviation and shipping emissions the Government will include international aviation and shipping emissions in the Act or explain why not to Parliament by 31 December 2012. Projected emissions from international aviation and shipping must be taken into account in making decisions on carbon budgets.
- Use of international credits Government is required to "have regard to the need

for UK domestic action on climate change" when considering how to meet the UK's targets and carbon budgets.

- The independent Committee on Climate Change has a duty to advise on the appropriate balance between action at domestic, European and international level, for each carbon budget.
- Further measures to reduce emissions include powers to introduce domestic emissions trading schemes more quickly and easily through secondary legislation; measures on biofuels; powers to introduce pilot financial incentive schemes in England for household waste; powers to require a minimum charge for single-use carrier bags (excluding Scotland).
- On adaptation the Government must report at least every five years on the risks
 to the UK of climate change, and publish a programme setting out how these
 impacts will be addressed. The Act also introduces powers for Government
 to require public bodies and statutory undertakers to carry out their own risk
 assessment and make plans to address those risks.
- A Sub-Committee of the Committee on Climate Change, in order to provide advice to and scrutiny of the Government's work.
- Another requirement is for the Government to issue guidance on the way companies should report their greenhouse gas emissions, and to review the contribution reporting could make to emissions reductions by 1 December 2010.
- Requirement also that the Government must, by 6 April 2012, use powers under the Companies Act to mandate reporting, or explain to Parliament why it has not done so.
- There will also be new requirement for annual publication of a report on the efficiency and sustainability of the Government estate.

The Climate Change Act is significant because up until the introduction of the Act we have had much guidance and best practice but little hard prescriptive legislation. I submit that this is likely to be an emerging trend in the future. If truth be told, sustainability until now has only had lip service paid to it in many projects. Contracts are usually silent on what it means with any specificity, and what is to apply or occur if it is not met.

Usually there are no sanctions if un-sustainable construction practice is perpetrated, but what we are now seeing is BREEAM (Building Research Establishment's Environmental Assessment Method) and LEED (Leadership in Energy and Environmental Design's 'green building' rating systems) standards imposed by contracts as recognised environmental ratings in performance requirements.

In all this, we see some trends emerging. There is an increasing trend towards a market requirement for sustainable development and the credit crunch will not obviate this especially among the major commercial procurer/developers. Green developments can be more marketable and developers and some clients are now using sustainability as a positive differentiator.

This was a point highlighted by the RICS in an Information Paper on Sustainability and Commercial Property Valuation in September last year. That paper encouraged valuers to analyse comparable rental evidence in light of sustainability criteria. The report acknowledged that the market was moving towards a requirement for greater recognition of sustainability issues. The evidence suggests that those buildings that fall behind market expectations are at risk of obsolescence.

In our experience, Fit-out contractors are also forging ahead in advocating and doing sustainable development in their conversions and fit-out projects.

Energy performance of Buildings Directive

The real guts for change here in the UK has come with the Energy Performance of Buildings Directive (EPBD). This Directive requires information about the energy efficiency of buildings to be provided when they are sold, rented out, or constructed. This requirement has been implemented in England and Wales by the Energy Performance of Buildings (Certificates and Inspectors) (England and Wales) Regulations 2007.

- 1 The Energy Performance Certificate These are required for all building sectors with their introduction to rented homes and the extension of EPCs to include all commercial buildings when bought, sold, or rented.
- The Display Energy Certificate These are required for public buildings and those occupied by public authorities which have a total useful area greater than 1000m². These certificates show the actual energy usage of a building, the Operational Rating, and help the public (if they are sad enough to enquire) to see the energy efficiency of a building. This is based on the energy consumption of the building as recorded by gas, electricity and other meters used by a building over a 12-month period.
- In addition, since January 2009 new regulations also require that all air-conditioning systems above 250 kW are inspected. Those over 12kW must be inspected by 4 January 2011. This work must be carried out by an accredited inspector. This is because M&E is extremely power hungry and if set up incorrectly will cost a fortune to run in large buildings.

The application now of Energy Performance Certificates (EPCs) to all buildings brings the issue to the fore. Accordingly, green issues are likely to become an increasing feature of leases in respect of covenanted rights and obligations, which affect repair, replacement, and renewal.

Energy labelling of buildings has been considered a critical factor in the energy performance of buildings since the late 1990's. However, it's one thing having a label, another thing running the building efficiently. I know that many costs consultants and building services engineers have remarked on how poor use of control settings / building management systems etc. can wreck the statistics on the EPC ticket.

Therefore, people need to be educated too and designers need to have users more clearly in mind when planning their buildings.

Contract Law

Contractually, the stage at which sustainability aims need to be addressed is at the start when planning the build – the project feasibility stage. Simply applying the tag "sustainable development" to projects is meaningless unless it is given an explicit meaning, and one that's bespoke to the specific project and to the particular environment in which that project is located.

Only once these objectives have been ascertained can they be properly reflected in the employer's requirements/specification and carried through into the drafting of the construction contract.

There are a number of contract-invoked mechanisms for clients to choose from to ensure sustainable best practice. The best and long term ensure that specification and design criteria take account of the long-term sustainability of the project – not just in terms of the design life of materials but also in terms of the costs of operation and maintenance over the lifetime of the asset.

It is not always easy adequately to define a sustainability objective in contractual terms. It is also very important that the entire construction team buys into the process. One way this can be achieved through stricter drafting of absolute requirements referring to supporting documentation for implementation. In our experience its far better to set out, by revised Conditions and Specifications, what is to be achieved, such as the requirement for more sustainable products or end solutions.

The social housing sector is already familiar with provisions in building contracts where contractors must comply with the Code for Sustainable Homes.

Here are some non-exhaustive examples of how a contract can be amended to deal with sustainability issues:

- (i) Prohibited or deleterious materials clauses. These are frequently put in contracts and provide an inventory of materials not to be used, or codes and standards to be complied with on pain of some contract penalty. This type of clause can however be adapted to include a positive absolute obligation to use sustainable materials, for example softwood from sustainable forests or materials recommended in the BRE Green Guide to Specification which provides guidance on the relative environmental impacts of over 250 elemental specifications.
- (ii) Extension of time issues: A contractor could be given a right to an extension of time for any procurement difficulty in obtaining specified materials or products for the sustainable objectives of a project. A pain/gain share mechanism could be used as on some BAA T5 contracts, with the contractor and design team sharing a monetary benefit if, for example, the development is procured within very specific deliverables (e.g. reuse of demolition arisings, using Forest Stewardship Council certified timber or other recycling/waste management targets on things like aggregates and sand).
- (iii) Change of law clauses: commonly the risk of any cost impact of a change in legislation sits with the employer in the standard forms but in the real world is often shunted to the contractor and sustainable/green/regulatory changes can be imposed too. In a long-term development project like a PFI hospital, these additional costs can be high. Addressing who is best placed to manage this risk at the outset is important, as over say the next three years changes in the law in the sustainability field will inevitably be introduced and will likely be costly to meet, so it is an issue to address at the drafting stage.
- (iv) Site Waste: The Management and treatment of site waste may also be expressly addressed in the contract. Since 6 April 2008, any construction project worth more than £300,000 in value that is unable to provide evidence of a Site Waste Management Plan (SWMP) can be fined. Smaller jobs and larger ones can also include a contractual stipulation to comply with industry guidance on sustainable building and construction waste, and consider more effective use of a SWMP. Particular attention could be given to arrangements for identifying and managing any hazardous wastes produced.
- (v) Then there are <u>conditions precedent</u>, which can be added to a contract to as a precondition to the certification of practical completion.

This could be achieved by reference to one of the objective benchmarks such as imposing the top Energy Star BREEAM standard, i.e. the newest Building Research Establishment Environmental Assessment Method

(BREEAM) standard, or Merton Rule Pus as a condition of the certification of practical completion of a project or milestone.

- (vi) <u>LADs</u> One could also borrow from the world of process engineering performance-levying LADs if outside stated parameters of efficiency.
- (vii) Reasonable endeavours clause: Then there are those provisions requiring contractors to "use all reasonable endeavours" to maximise cost recovery by reusing, recycling, selling, or otherwise commercially exploiting any arisings, waste or reusable process parts which are also becoming more common.
- (viii) <u>KPIs</u> For long-term framework agreements where the client is procuring a series of projects over a set phase an employer might also consider using specific environmental Key Performance Indicators (KPIs) to measure overall environmental performance. The main advantage of using KPIs as a measure of performance is that they can be moulded to suit the client's specific requirements, can be adaptable during the term and therefore sensitive to market trends, and can also be framed to reward good performance rather than simply discipline bad performance.

Green Standard Forms of Contract

JCT Contracts

With regard to what the standard forms are doing on sustainability, the Joint Contracts Tribunal was the first to address this issue in its Framework Agreement. Sustainability requirements have been included in all its suite of contracts since its last set of contract amendments in May 2009 (Revision 2).

JCT's Building a sustainable future together paper published in May 2009 was interesting because its consultation on introducing sustainability provisions into their contracts revealed that 86% of respondents believed that contract clauses must be legally enforceable, with clear remedies for default, otherwise they are likely to be ignored.

The decision by JCT to tackle sustainability, the first contract authoring body to do so, followed wide consultation with the industry. The development phase involved extensive liaison with the different elements that make up the JCT council, which include RIBA, RICS, BPF, LGA, NSCC, CC and SBCC.

Ithink JCT has got the balance right in not seeking to impose unyielding criteria upon parties, or strict objectives. Instead they introduce a framework under which the contract can encompass sustainability. The guidance document stresses that the client's commitment and the early involvement of the supply chain are essential to achieve sustainability, both in the design and the construction processes. It is not prescriptive.

Thus, the contractor is encouraged to suggest economically viable amendments to the employer's requirements which, if instructed as a variation, may result in improvement in environmental performance in the carrying out of the works or of the completed works. The JCT says the contractor shall provide to the employer all the information that he reasonably requests regarding the environmental impact of the supply and use of materials and goods which the contractor selects.

These clauses are supported by provisions dealing with performance indicators and value engineering as these, if not essential, are beneficial.

The JCT is attempting to provide a contractual framework that will be a constant reminder of the need to address sustainability. The JCT amendments recognise that contract

conditions play a part but also that documentation will deal with sustainability in other ways, such as within notes and schedules to specifications and drawings.

It also acknowledges that each project is unique and each client may wish to set different requirements. As I have already mentioned, most of the cost of a project is determined in the initial stages of design; JCT has understood this fundamental with sustainability. Decisions on sustainability arise both in the design and in the construction processes but the former will invariably have the greater impact.

Consequently, the procurement route will determine the sustainability provisions contained within the respective contracts.

As noted above, most contracts already include provisions to comply with statute and statutory requirements. Further, the JCT is not starting from scratch when it considers how to incorporate sustainability provisions within its contracts.

The JCT Framework Agreement 2007 was therefore the first of a number of sustainability provisions.

Clause 16 of the JCT Framework Agreement 2007 provides the following:

"The Provider will assist the Employer and the other Project Participants in exploring ways in which the environmental performance and sustainability of the Tasks might be improved and environmental impact reduced. For instance, the selection of products and materials and/or the adoption of construction/engineering techniques and processes which result in or involve:

- reductions in waste not only reductions in the proportion and/or volume
 of materials wasted in the construction process but also the volume of
 extracted materials, demolition waste etc. which have to be removed from
 site during the construction process;
- reductions in energy consumption not only the energy consumption of the completed works/facility but also energy used during the construction process;
- reduction in mains water consumption again, not only the water consumption of the completed product/facility, but also water consumed during the construction process;
- reductions in CO₂ emissions a goal in itself as well as a measure of success in achieving other environmental objectives such as reductions in energy consumption, reductions in use of materials from non-renewable sources, reductions in vehicle movements; and improvements in whole life performance;
- reductions in materials from non-renewable sources an essential requirement of sustainable construction;
- reductions in commercial vehicle movements to and from the site of the Task:
- maintenance or optimism of biodiversity for instance, if it is necessary to chop down an area of mixed woodland to construct part of the works the Parties should endeavour to replace such area with a similar mix of species, not just an area of homogeneous conifers;
- maintenance or optimism of ecologically valuable habitat a comparison of the area of ecologically valuable habitat within the total project site area at

completion of the Task as compared with that at the start; and

• improvements in whole-life performance – looking beyond the immediate construction process to the long-term use, operation, maintenance and replacement of the project and/or project components."

The question is, then, how do you ensure compliance with these important provisions? The answer is monitoring with a firm hand. Provision for the monitoring of all parties to the Framework Agreement is provided for in clause 21 and in particular clause 21.4 which states:

"The Employer and Provider will jointly review the Employer's report with a view to:

- .1 Identifying aspects of the Provider's performance which may have been overlooked;
- .2 Identifying aspects of the Employer's performance, or that of other Project Participants, which may have had an adverse effect upon the Provider's performance...
- .4 Identifying any particular aspects or elements of the Provider's and/or the Employer's and/or other Project Participant's performance which could be improved upon; and
- .5 Assessing whether the existing Performance Indicators have proved to be, and are likely to remain until the next assessment, fair, reasonable and appropriate indicators of the Provider's contribution to progress in achieving the Framework Objectives."

By setting sustainability as a Performance Indicator the parties to a Framework Agreement can monitor each other's performance and identify when standards are not being met.

The problem with such provisions is that they have no teeth. They are merely aspirational rather than stipulative and it has to then be questioned whether there is any point in agreeing to something being non-binding, which is the case with these provisions. Which is why, given the feedback on the JCT consultation, that we may see in the future more prescriptive provisions whether is a statutory and/or a contractual sense.

Accordingly we may see provision for stipulation like Merton Rule plus 5% in all non-residential projects outside city/town centres?

Alternatively, compliance (with benchmarks, maybe Part L plus 15%) could be set as part of the condition for the issuing of the certificate of practical completion/taking over predicated on well-defined criteria or standards provided it was capable of precise meaning and not open to endless argument as to whether it had been achieved.

The JCT consultation shows sustainability provision generally should be included primarily within the specification and design criteria of a project and therefore included in the:

- Preliminaries
- Preambles
- Specification, which may include a measured works section, or
- Schedule specifically prepared for the project

Other forms of Green Contracts

A: FIDIC

The JCT is not the only suite to deal with sustainability issues. For example, the FIDIC Red

Book makes a direct reference to the protection of the environment in clause 4.18 which states:

"The Contractor shall take all reasonable steps to protect the environment (both on and off the site) and to limit damage and nuisance to people resulting from pollution, noise and other results of his operations.

The Contractor shall ensure that emissions, surface discharges and effluent from the Contractor's activities shall not exceed the values indicated in the Specification, and shall not exceed the values prescribed by the Applicable Laws."

Also from FIDIC there is a further, more oblique reference to sustainability in clause 13.2 which provides that the Contractor can:

"at any time [submit a written proposal] which (in the Contractor's opinion) will if adopted, (i) accelerate completion, (ii) reduce the cost to the employer of executing, maintaining or operating the Works, (iii) improve the efficiency or value to the employer of the completed Works, or (iv) otherwise be of benefit to the Employer."

The only difficulty with this condition is that the Contractor cannot recover the cost of preparing any proposal. This means that except where the Contractor is confident that his proposal will be adopted, there is no real incentive to propose efficiencies. Furthermore, there are difficulties with evaluation of value engineering provisions. FIDIC resorts to the standard valuation procedure but some of such clauses attempt to evaluate the "benefit" in restitutionary terms to the Employer and allow the Contractor a percentage share. This is because alterations to design that improve value or efficiency may in fact diminish the capital cost of the project and consequently may result in a decrease in the overall construction cost – again, little enticement to the Contractor to unilaterally propose such changes. Finally, proposing the use of a more costly but sustainable alternative may not be met with a positive response from a client determined to maximise their profit.

B: Engineering Contracts

The Engineering Council UK has now published new sustainability guidelines for engineers. The regulatory body for the UK engineering profession claims that "Guidance on Sustainability for the Engineering Profession" provides coherent direction for engineers and is a public declaration of the profession's commitment to sustainability.

The guidelines call on engineers to:

- Contribute to building a sustainable society, present and future
- Apply professional and responsible judgement and take a leadership role
- Do more than just comply with legislation and codes
- Use resources efficiently and effectively
- Seek multiple views to solve sustainability challenges
- Manage risk to minimise adverse impact to people or the environment

The guidelines replace the body's previous code of practice "Engineers and the Environment" published in 1993

C: Consultants' Appointments

Above I have set out the limited requirements placed on Contractors, but what of the other limb of the construction team, Consultants.

Almost all Consultant Appointments require that the Consultant enter into a Collateral Warranty which provides for the Consultant to provide its services using the reasonable skill and care of a Consultant in the same field.

This general duty is made more specific and usually addresses the use of deleterious materials, and often is in the following prohibitive form not to specify materials:

- (i) Which are deleterious or capable of becoming deleterious;
- (ii) hazardous to health and safety by reference to the Ove Arup 1997 Report: 'Good Practice in the Selection of Construction Materials';
- (iii) not in accordance with British or European Standards.

This is a very negative definition and perhaps there is room for a more positive provision in Consultant Appointments - say a requirement that the Consultant specify for use materials from the BRE Green Guide to Specification or similar document. However, that is not without controversy it seems amongst the architectural profession.

Conclusion: The shape of things to come

Whilst in the past, only lip service was paid to the notion of "sustainable development", increasingly the ideal of actively embracing sustainable development is now gaining ground through persuasion, policy, regulation, legislation and contract.

There is considerable agreement that environmental sustainability is making and will make a very real impact on how clients and the corporate world procure buildings and view the construction process, and how business is audited.

The period ahead, I believe, is going to be less about fixed goals (although the Climate Change Act here will be a huge catalyst to change) than about innovation and entrepreneurial solutions to what we build or refurbish.

We will also, inevitably, begin to see more prescription in our contracts to see this happen.

There is an increasing concern that even the best-intentioned and professionally run corporate-responsibility initiatives cannot deliver sustainable development on the scale needed without the long arm of the law.

Even if global warming is a myth – doing things this in a sustainable way will be worth all the effort in the long term.