TWC Consulting [Property Services] Ltd
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Sustainable TWC CONSULTING Property Consultants

"Successful Construction Projects & Optimised Value"

TWC Consulting has been helping developers, main contractors and lots of others with an interest in property to deliver successful construction projects for many, many years, and we've put together this compelling free guide on how to optimise value using our unique Strategic Balance® approach.

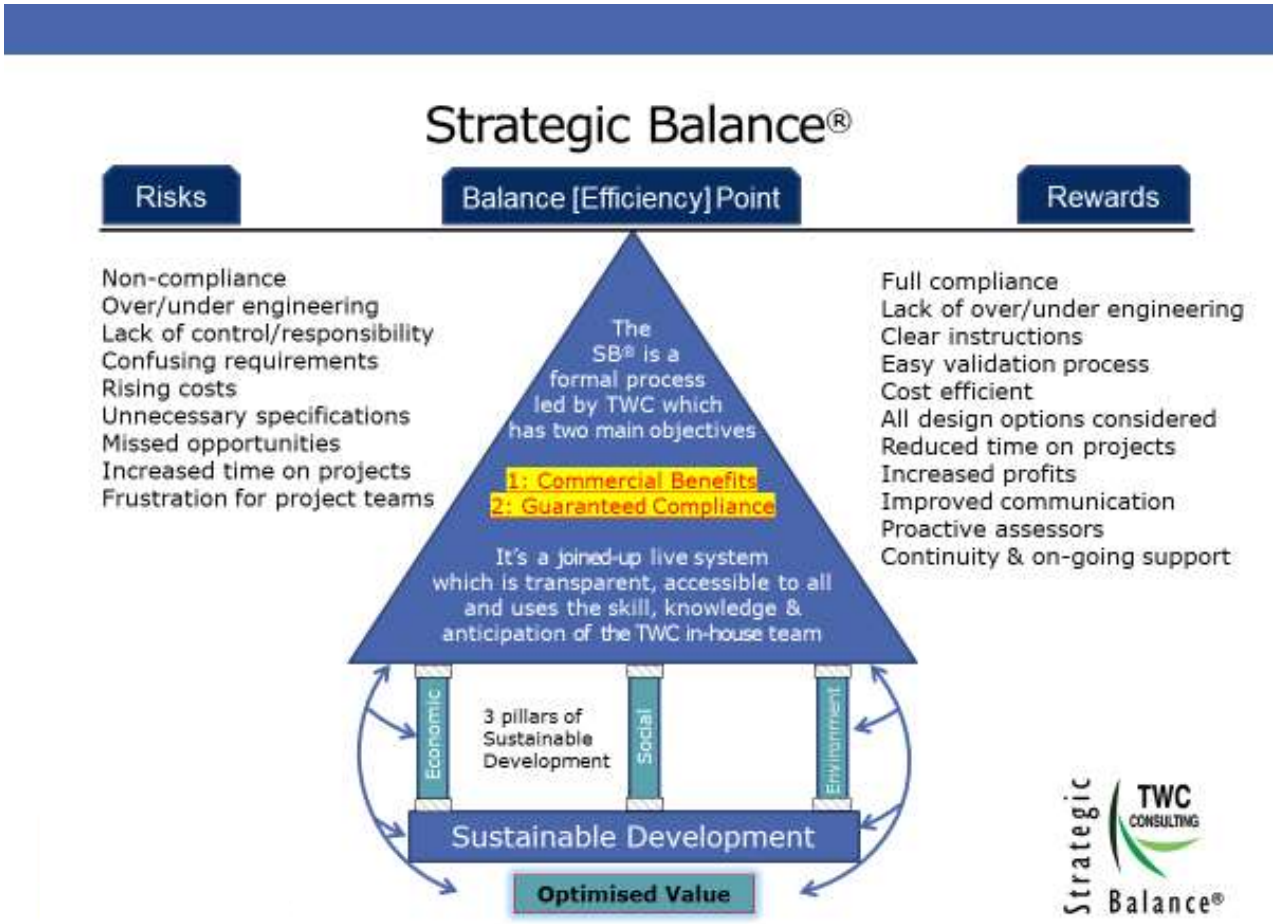
This guide outlines the importance of gaining a strategic balance, how Building Regulations have a direct impact on costs with Part L compliance, SBEM, thermal models, dynamic simulation, the role of 3rd party consultants and fees, the role of sustainability champions and how to book a free consultation at a location of your own choice.

We hope you find the guide of interest and beneficial in the pursuit of your construction projects. If you require assistance or guidance on your projects we are always willing to help.

TWC Consulting are qualified and licenced by the Royal Institution of Chartered Surveyors, the Chartered Institute of Building Services Engineers, BREEAM, BRE, Elmhurst Energy & Construction Line, ISO14001, ISO9001 & CHAS.

TWC Consulting delivers construction projects through a process known as Strategic Balance®. This process is a unique to TWC Consulting and is used on all our projects to guarantee optimised value.

The Strategic Balance® is a formal two stage process that ensures commercial gain and regulatory compliance are delivered at the highest levels of efficiency. The process starts with a focus on the project aims and thereafter what impacts Planning, regulatory compliance, BREEAM, Building Regulations and other project requirements will have on costs



Before the strategic balance process is implement our appointed consultants will ensure the project brief is fully understood, in order to deliver a continuous quality service. Using dedicated teams and Prince II methodology TWC become fully integrated members of the project team holding important responsibilities such as monitoring and reporting on project progress, quality management, risk analysis, cost control, health & safety issues, insurance cover(s), handover plans, lesson-learned workshops and other important functions from inception right through to Practical Completion.

To get the full benefit of strategic balance requires skill, knowledge and a full understating of how construction projects are delivered. This includes taking full advantage of the many benefits that can arise from simply complying with Building Regulations, Planning conditions, BREEAM and various project aims and objectives.

Optimised value can only be achieved when a strategic balance is achieved between the construction strategy, the various mechanical and electrical specifications and any specific development requirements and targets, such as BREEAM, low carbon systems and reduction, funding issues, etc.

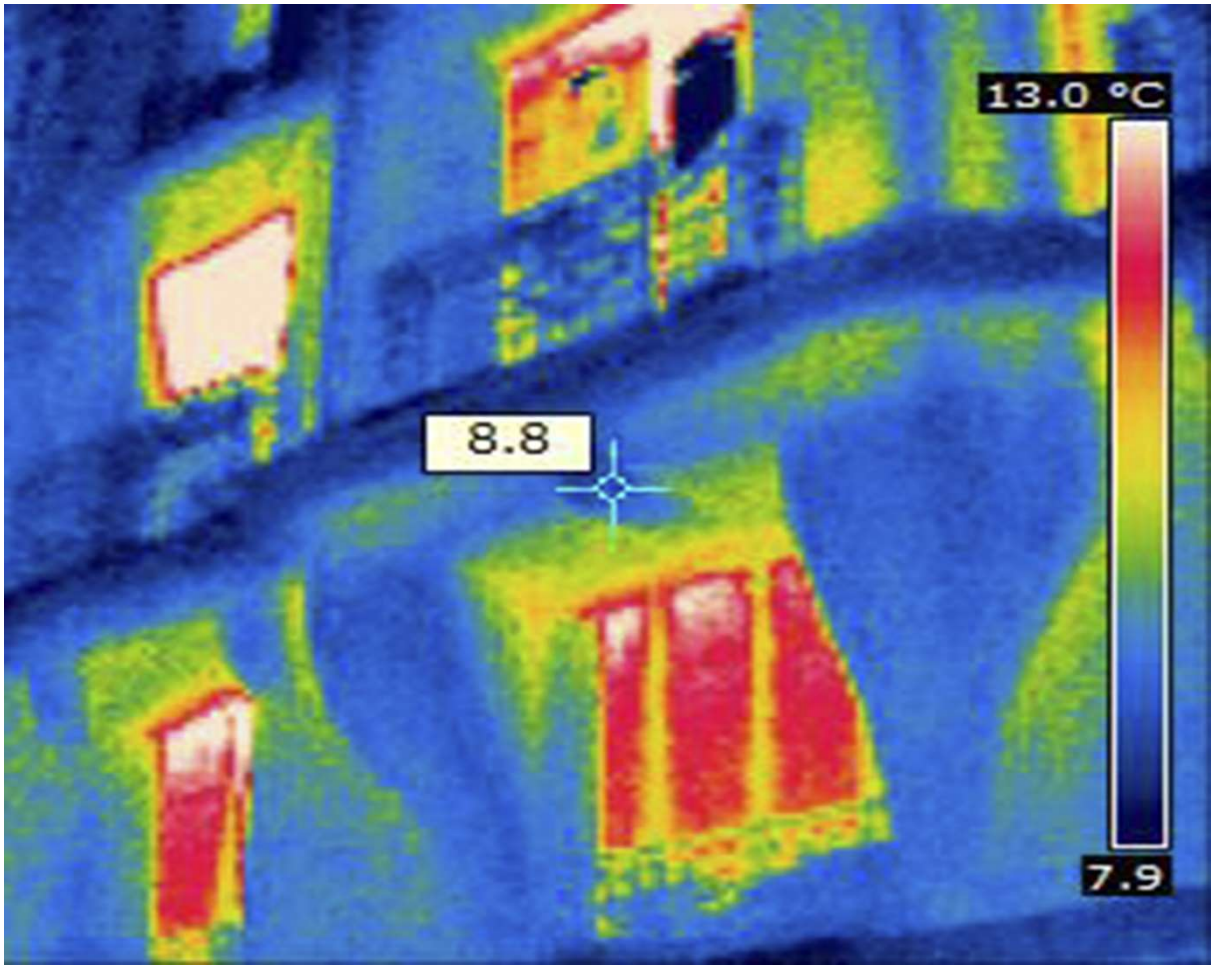
The mechanical, and electrical specifications often provide the greatest opportunities for strategic value. This is due to the crossovers that arise between legislative requirements, and project targets. Significant benefits can get overlooked and the opportunities get lost in the detail, leading to increasing costs and a loss of important design options that could have been considered.

Getting the strategic balance right is not as difficult as it may seem. Where creative design is included alongside sustainable construction materials there is often no need to include costly additions such as renewable energy systems, low carbon technologies, combined heat and power units, etc. This is not to say these systems should not be included – it is to say they shouldn't be included if they are not required i.e. **the main effort is always focused on getting the strategic balance right**.

SBEM & Thermal Models [dynamic simulation] "the secret ingredients nobody told you about"

SBEM & thermal models [dynamic simulation] are the secret ingredients nobody told you about. Both these calculations provide opportunities for maximising returns, and gaining what TWC Consulting terms ***"the strategic balance"***. This is because the data gained from completing the calculations provides design teams with invaluable information upon which it can act. Knowing how construction specifications impact Building Regulations, Planning conditions, carbon reduction targets, BREEAM credits, etc. enables the team to identify design options that can increase efficiencies and/or reduce costs.

Thermal models [dynamic simulation] are the gold standard within the industry. These type of calculations not only provide compliance with the legislative requirements – they also provide fantastic opportunities to test the energy efficiency of a building well before it is ever constructed [an option that is often overlooked to the detriment of developments].



The main advantages and dis-advantages of SBEM & thermal models are listed as follows;

Advantages of SBEM

SBEM stands for “Simplified Building Energy Model” and is a mandatory requirement under Part L of the Building Regulations. The main advantage of this using this method of compliance is that it’s a much cheaper option than alternatives such as thermal models/dynamic simulation. The reason for the reduced costs is due to the limited amount of design information it offers up to project teams.

Disadvantages of SBEM

The main disadvantages of using the SBEM is that is that it provides only limited design information. Therefore, the calculation is used mainly to demonstrate compliance with Part L of the Building Regulations.

Advantages of thermal models [dynamic simulation]

The main advantage of using a thermal models is that they provide much more data and design information that enables design engineers to make important decisions before a building reaches the advanced stages of design.

Valuable information such as the thermal performance of individual rooms, air temperatures at hourly intervals, how a room[s] reacts to Solar radiation at various times of the day/month/year, the impact of heat gains arising from people, electrical equipment and lighting occupying a room on a daily basis, plant sizing for heating and cooling, ventilation requirements, shading systems and how they can reduce energy consumption [including shading from nearby buildings], the importance of heavyweight construction materials v lightweight materials, benefits of insulation, lighting design, air-conditioning, renewable energies and much more are all available to the design team for detailed analysis.

Disadvantage of thermal model [dynamic simulation]

The main disadvantage of a thermal model is the additional costs incurred to complete the simulation, however what is often overlooked is the model can be used to demonstrate compliance with Part L of the Building Regulations [in lieu of SBEM]. Therefore, the real uplift in costs is the amount of the simulation less the cost of the SBEM. When considered against the amount of design information generated this will always a good investment.

Third Party Consultants "some you need, some you don't and some can cost you a fortune"

All construction projects require some level input from 3rd party consultants. These specialists can save a great deal of time, effort and financial costs for an assessment, it is therefore vital their role is understood to ensure maximum value is gained from their involvement.

When selecting 3rd party consultant's consideration should be given to their fees which are often based against the value they bring in terms of design information. This is a difficult process to manage as fees can sometimes rise significantly.

It is important to scope out the appointment of 3rd party consultants at the earliest stage of the development to ensure there are no discrepancies between what they are appointed to do, and the level of information needed within their final reports.

There are occasions when 3rd party consultants are appointed to project teams only to find out their reports do not meet with issues such as BREEAM, and they cannot be used to validate the targeted credits i.e. their qualifications and/or membership of organisations are non-BREEAM-compliant.

In addition, several 3rd party consultants can be time-barred which can lead to problems with compliance during the final stages of a construction project.

The Sustainability Champion "bringing another layer of added value to the design team table"

The on-going growth of sustainability, and in particular the introduction of BREEAM 2014 has led to the role of the Sustainability Champion. This is an individual who is responsible for setting goals, targets and objectives on all aspects of sustainability during the progress of a construction project.

It is the role of the Sustainability Champion to facilitate the setting of BREEAM performance targets during the design, construction and occupation stages. Therefore, the earlier they are appointed the greater their value.

The Sustainability Champion is an individual who is an active member of the BREEAM Accredited Professional [AP] Membership Scheme and/or an individual trained and qualified by British Research Environment [BRE] as a specialist in sustainability, design, construction and assessment. These individuals provide project teams with important BREEAM advice that can safeguard against ambiguity and difficulties during the handover and final report stages.

The appointment of a Sustainability Champion is crucial when assessing projects registered against the BREEAM NC 2014. This is because they need to complete regular site visits in order to highlight shortcomings in compliance, and more importantly what actions need to be taken to in order address any issues identified.

The Sustainability Champion has the authority to monitor site activities, to ensure the risks of non-compliance are minimised and to report directly to the client on all BREEAM matters. They attend key progress meetings, and are a must for all projects reaching for higher levels of sustainability.

Free Consultation Workshop

TWC Consulting is committed to the growth and development of sustainable building design and has created a free consultation workshop for all existing and new clients, to dispel some of the myths of delivering construction projects. The workshop provides an opportunity to discuss any related topic from which advice and guidance will be offered completely free of charge.

The workshop is flexible in that it can be designed to cover specific topics and/or designed to cover critical issues such as – how best to scope out the developments aims and targets, how active consultants are a much better option than passive ones, the importance of gaining a ***strategic balance*** between construction designs and specifications and the benefit of using BREEAM.

If you want to book a free consultation please contact our administration team at info@twcconsulting.com. From this point on a member of the team will be in touch to confirm a date, time and location of your choice for the workshop to be held.