DEVELOPING SUPPLY CHAINS FOR SUSTAINABLE BUILDINGS

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Background

• Formerly project manager for the East Lancashire Housing Market Renewal Initiative, involving UK£100 million investment in the housing sector, linking with education and health initiatives in the North West of England
• Currently developing a construction sector network in Yorkshire and Humberside linking supply chain development activities across the sector
Focus

- The provision of sustainable buildings
- The key drivers for change and innovation
- Design and procurement processes
- Ensuring best practice and sustainable solutions
- Education, health and housing sectors
- Procurement methods and performance management
- Supply chain development
- Process integration
- Cooperative working
Introduction

• The concept of sustainable communities
• Economic, environmental and societal impact
• Maximum benefit for the use of public funding or “best value”
• Best practice principles
• Economic climate
• The Supply Chain
Sustainable Design

• Building Research Establishment Environmental Assessment Method or BREEAM
• 12 different design guides ranging from domestic buildings, including the Code for Sustainable Homes or CSH, which is currently the benchmark and performance indicator for domestic construction, through to bespoke design and governmental buildings
• Leadership in Environmental and Energy Design
• Both systems have similar structures and are influencing global practices
• How are these standards are meet in terms of practice, procurement, supply chain capability and value for money remains a key question
Supply Chain Development

• Poor track record internationally
• Large quantities of waste and problems in management evident
• The timing of problem identification was often too late to resolve
• Latham and Egan reports sought to inspire change in the industry
• Supply chain management is often immature
• Barriers either at the site level, at project leadership and strategic levels
• Training and education
• Client to engage in the supply chain
• The terms leadership and responsibility
• Key UK drivers: education / health and housing sectors
Triple bottom Line

• The Egan study of Regeneration skills
• Project leaders to understand the wider implications of planning actions as they relate to:
  – environment
  – transportation
  – governance
  – community
  – plan
  – purchase and control
  – communication across a wide range of stakeholders.
Egan Skills Set

- Inclusive visioning
- Project management
- Leadership
- Breakthrough thinking/brokerage
- Team/partnership working within and between teams
- Making it happen given constraints

- Process management/change management
- Financial management and appraisal
- Analysis, decision making, evaluation, learning from mistakes
- Communication
- Conflict resolution
- Customer awareness & feedback
Reducing Carbon

• Government leadership, 60% reduction by 2050
• Zero carbon schools and new homes by 2016
• Incremental change in the Building Regulations
• Impact upon design and implementation
Supply Chain Development

• Housing Forum
• Internal Change
• Partnership with stakeholders
• Communication and collaboration
• Implementation
• Performance Indicators
• Performance Management
• Review and feedback
1. Getting Started - The Pre-conditions for Successful Partnering

- Making the Business Case
- Integrating the Client Organisation - Internal Partnering
- Overcoming Resistance to Change
- Choosing a Procurement Strategy
- Ensuring Probity, Audit Trails and Accountability
- Dealing with Regulatory Controls

2. Working as a Successful Partnering Team

- Taking the Lead as Client
- Appointing a Partnering Champion
- Selecting the Partnering Team
- Integrating the Supply Chain
- Involving Residents and Tenants
- Selecting the Contract Strategy
- Building the Team: Defining common aims and objectives
- Assessing and Managing Risk
- Focusing on Sustainability and Whole Life Value
- Measuring, Managing and Reviewing Performance
- Delivering Wider Community Benefits
- Developing Industry Learning and Skills

3. Doing it even better - Continuous Improvement
Building Schools for the Future

- The generation of new educational premises and technologies
- All capital rebuilding projects in place by 2016
- Delivery through strategic partnerships between the public and private sectors.
- The need to protect the public interest by including wider criteria in the tender and selection process
- Transfer to strategic arrangements that are outcome related
- A step change in approach and implementation
- Continuous development process
- Maximising opportunities for regional manufacture and sourcing
- Quality buildings and meeting the BREEAM excellent standard
- Reinvestment into local or regional communities
Selection

• The benchmarking and performance management
• Continuous improvement by measurement and benchmarking.
• How operation of performance management achieved benefit
• How data would be collected, how value for money would be achieved and adoption of the national benchmarking methodology
• This was linked to a best practice approach wherein the performance of partnerships against others would be encouraged by sharing and other collaborative means.
North West of England

- £700 million regional development
- The first phase of this work involved the construction of three schools over a two year building programme
- The quality of project management and supply chain process formed part of the procurement assessment criteria
- Quality of service provision to the client
- The winning partner highlighted the creation of local jobs and skills and aimed to develop local supply chain partners
- Formative development processes
- The placement of low carbon or sustainable design
- In 2007, the secretary of state made a direct challenge and called for all new schools to be zero carbon by 2016
Kingsmead School

- Innovations have included the adoption of solar pv and rainwater collection with displays made easily observable for pupils and other school users.
- A learning tool for pupils to understand more about the environment.
- Ventilation, day lighting and solar pv.
Health Service LIFT

- Only 40% of primary care services were located in purpose built structures
- Regeneration of patient services and the local communities
- 49 projects have been approved.
- 44 schemes have reached financial close on their first developments.
- In the North West of England, one of the second phase projects serving 635,000 patients has been cited as a best practice example.
- The initial phase involved the formation of a project team
- This partner would work with the local services to deliver and maintain the physical building stock serving the area for the next 25 years
- Short list of three were asked to design three proposed schemes
- Supply chain partner committing to local employment and training as part of the delivery of the programme
Achieving Low Carbon Design

- BRE Innovation Park
- Recent addition includes a three storey health care building
- A medical facility that promotes improved patient treatment areas
- The building includes insulated floors, ceilings, recyclable walls, low energy lighting and a ventilation system working from a renewable energy source
- The project is also mapped against renewed targets to reduce national carbon emissions by 2020 by 34%
Housing Market Regeneration

- The quality of life
- A market that has distinct impact upon the regional economies
- Supply and quality
- Societal decay
- Improvements to new and existing homes
- Local and regional supply chain development
- Using the level of activity to make step changes in local economy
- Selection on the basis of economic solutions, sustainability and locality
- Performance management – development of bespoke KPI data
- The investment in skills and company business practice
RSL – Registered Social Landlords

• Group purchase in large regional areas
  – Enabling financial savings to be reinvested in landmark schemes
  – Employment
  – Sub-contracting to social enterprises
  – Developing investment in new products
  – CEO buy in
  – Cascade culture and actions

• A large partnership of North West RSLs has recently looked at how best to develop the supply chain to support low carbon technology
  – Seminar
  – Senior leadership
  – Developing commodity lists
  – Implementation on site
  – Key issues arising from the consultation related to knowledge development, stakeholder understanding and strategic leadership to carry the project ahead.
Innovation Platform
Conclusions

• An ongoing challenge for stakeholders
• Client involvement and leadership is critical for success
• A clear strategic goal
• The sense of purpose and continued evaluation is critical
• The importance of openness and shared vision and to ensure value for money for both parties to the project
• Processes based upon best practice have been used in the development of workable systems in often very complex investment activities
• The need and opportunity to address wider social concerns
Conclusions

• The importance of the “triple bottom line” to project performance addressing environmental, social and economic needs
• The recent change in the economic stability of the industry has underlined the need to address all three aspects with equal importance
• Ensuring strategic leadership and focus at the outset
• The development of procurement pathways, particularly for major projects is invariably guided by a transparent process
• The project objectives should be defined and set at the initial stages and for these to be used as a benchmark for the ongoing management of performance by the adoption of benchmark indicators
• Such activities should not be seen as simple numerical based tasks
• They are opportunities that can address skills gaps, reflective practice or indeed offer opportunities to encourage product innovation or business improvement