

**Date:** Tuesday 4<sup>th</sup> October 2016

**Time:** 11.30-12.30

**Location:** 1.18 Patersons Land, University of Edinburgh



# EAUC Sustainable Construction TSN MINUTES

## Attendees

Andrew Arnott	The University of Edinburgh
Graham Esplin	Edinburgh Napier University
David Fairhurst	Edinburgh Napier University
Steven Goodall	The University of Edinburgh
Guy Hickman	University of Stirling
Fraser Lovie	University of Aberdeen
Stewart Miller	University of Glasgow
Nick Ribbons	Zero Waste Scotland
David Stutchfield	University of St Andrews
Bob Watson	University of Aberdeen

## Apologies

Michael Drever	University of St Andrews
Chris Larkins	Heriot-Watt University
Jamie Pearson	Edinburgh Napier University
John Thorne	Glasgow School of Art
Ray Walkinshaw	Ayrshire College
Roddy Yarr	University of Strathclyde

## Minutes

### 1) Welcome and Introductions

*Rebecca Petford, EAUC*

Everyone was welcomed to the meeting, and apologies noted. Ray Walkinshaw, the Convenor for the group, is unable to attend so RP will chair in his absence.

Everyone was invited to introduce themselves to the room and share any particular projects they have going on or have completed using sustainable construction techniques.

- Stuart Miller – University of Glasgow – looking at design guides and specifications for Western Infirmary development
- Bob Watson – University of Aberdeen – BREEAM projects ongoing
- Fraser Lovie – University of Aberdeen – Passivhaus project now completed for a year and still awaiting final BREEAM rating

- David Stutchfield – University of St Andrews – new builds all aiming for BREEAM excellent, looking for sustainability guides, space planning, BMS, lighting (could collaborate to develop a guide?), University want a good sustainability story to tell
- David Fairhurst – Edinburgh Napier University – 3 buildings near the Gyle been bought and need to refurbish and reorganise these and existing buildings
- Steven Goodall – University of Edinburgh – refreshing sustainable construction guide as it doesn't take into account new building regulations
- Graham Esplin – Edinburgh Napier University – Concerns with BREEAM and waste associated with construction
- Nick Ribbons – works on ZWS Construction Programme designed to support SMEs to prevent waste from arising or look to reuse, and keen to link with FHE sector
- Guy Hickman – University of Stirling – struggled with BREEAM due to expense and trouble of efforts to meet BREEAM standards when some actions are irrelevant
- Andrew Arnott – University of Edinburgh – focusing on lab sustainability and developing guidelines on construction and refurbishment for sustainability to present to internal decision-makers (may be able to share thinking at a later date)

## 2) Current Priorities or Concerns in Sustainable Construction Discussion

### **BREEAM Standards**

- BREEAM was one of the first assessment methods and others used that as a starting point – great in early days but now other legislation and planning has caught up, so you introduce things just for the credit – cost for a credit isn't what it's really about!
- Little things add up in costs and effort to get the standard.
- Rating doesn't work well for refurbishments especially if you have certain things in place already or are doing anyway as part of the design process – lots of work to get the rating.
- Passivhaus standard was far faster to achieve than BREEAM at the University of Aberdeen due to the bureaucracy within BREEAM.
- University of Stirling now focus on good energy performance – EPC A rating for new build.
- BREEAM is too widespread so you don't focus enough on the core areas of impact.
- BREEAM good for energy, thermal energy tests, air quality tests etc.
- Good to use BREEAM to make sure design team reach the standards – they understand it.
- Strengthens the case for having nice things which might otherwise be cut at design stage.
- BRE GreenPrint now being used at the University of St Andrews. This is campus-wide and involves community engagement, with buildings also having to go for BREEAM excellent.
- Not the same at design as in use – should consider what parts of the criteria are useful and matter to you.
- Having a BREEAM Authorised Person trained in the institution gives you a point!
- Great for communicating your commitment to sustainability as people understand it.
- Looking forward to hearing about RICS SKA HE as a potential alternative for refurbishments.

### **Building Information Modelling**

- One aim of BIM is to reduce waste – working with contractors to reduce time and waste in design and construction by using 3D modelling to visualize before getting on site and managing for the longer term
- REVIT 3D modelling package used by some. Upfront more effort, but in the future you have your model and information on the light fittings etc. so is easier to maintain

- University of Stirling don't design in-house so use a REVIT model, but don't engage with the model on the ongoing basis. Need a core team who understand it to properly utilise it to support sustainability.
- Smaller suppliers could lose out when using such models as there is a cost to get your materials listed, but not using the REVIT models means losing out on potential benefits.
- Scottish Government policy to use BIM level 2 (collaborative sharing) by 2017 for public funded projects. Therefore it is unavoidable and just a matter of time – seems useful.
- BIM links to building passports where there is a full history of the building
- Birmingham University use barcodes on all their technologies – scan the barcode and get the manual – slightly different process.
- Producing models of current buildings using laser scanning – scanning itself doesn't produce model, you then need someone to produce the model and add the detail – done at University of Aberdeen and cost about £50,000 for Kings College and takes resource.
- Construction Scotland conference talked about scanning with drones – future idea perhaps!

#### **Building Design and Wellbeing**

- Andrew Arnott interested in any work linking design, health and wellbeing or biophilic design (mimicking nature through materials, daylight, natural patterns and shapes, plants, water) etc.? None known.
- A building at University of Stirling was designed using principles of feng shui.

#### **Site Waste Management Plans**

- Not required – they were seen to be a barrier so removed from requirements
- However they can be useful for large projects – ZWS have a lightweight version coming out
- Required by BREEAM for a point, but often embedded at procurement stage as a contractual responsibility – smaller contractors struggle to produce the required waste data
- Variation in how much direction institutions give to contractors about waste management contractors they could use

#### **WRAP**

- Anyone still use WRAP information? Not really.
- ZWS trying to adopt a lot of their legacy tools – Measure, Net Waste particularly – some resources have gone to designing out waste guide and CIRIA
- Not sure of future of WRAP resources more generally

#### **Change to Section 6 in Building Regulations**

- Since Oct 2015 requirement for on-site renewable is challenging to achieve
- Biomass district heating at St Andrews doesn't count, so the University put in gas CHPs which won't be run to meet the requirements. University of Edinburgh were told that CHPs couldn't be gas-run – to be investigated!

### **3) Focus for Future Events Discussion**

- Would like to visit St Andrews Biomass Site – ready end of January and has a Visitors' Centre with gantry walkway, with David Stutchfield happy to host a visit. Could also look at some plantrooms while there.
- SKA – several universities reviewing the potential of this and looking forward to the presentation

#### **4) EAUC-S Support Discussion**

- Engage with BREEAM about concerns – there are only a small percentage of issues and the standards are useful overall
- Support in developing guidelines collaboratively. Find SFC guidelines and ask them if their document stands or if there is flexibility to develop new guidelines. Most institutions have enshrined this guidance in their own sustainable buildings policy.

#### **5) Thanks and Close**

*Rebecca Petford, EAUC*

Everyone was thanked for their contributions, and invited to enjoy lunch before the RICS SKA HE training session in the afternoon.

Minutes prepared by: Rebecca Petford  
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