

R&D Update for BoF 30

1) BOF Sponsored

a) *Heriot-Watt University - FRP strengthening of metallic bridges*

Revised formal start date of 1 Nov 2009 agreed with DfT, duration 3 years

Steering group

BoF Reps - Brian Bell, Graham Bessant, Peter Brown, Ben Sadka, Brett Archibald, Edward Bunting

Guests – Paul Russell (BASF), Simon Frost (Walker Technical Services), Richard Lee (ESR Technology)

Two meetings held with Ian May at HWU to establish scope of work

Researcher recruited from academic staff at NED University of Engineering & Technology, Karachi

Visa problems have taken some time to resolve and he should have arrived on 14th Jan 2010

BB having an informal meeting at HWU on Friday 22nd Jan

b) *Aecom - Revision of BS6779 Pt 4 (Masonry parapets)*

Steering group

Brian Bell, Graham Bessant, Rod Howe, Brian Poole, Tudor Roberts, Andrew Oldland

Start April 2009, duration 12 months

Currently running around 3 months late due to modelling problems

Andrew Oldland to comment on financial/contractual implications

Project web site established

Meetings held in Sept 09 (AECOM, Birmingham) and Dec 09 (Sheffield Uni) – next meeting planned for 9th Feb 2010, but likely to change (Minutes will be passed to new technical secretary)

c) *Queen's University, Belfast - Non metallic reinforcement*

As far as I am aware there has not yet been any contact with QUB by the BoF champion

2) Network Rail activities

a) *Completed*

- CIRIA - Tunnel guide published Jan 2010, UXO published Aug 2009, WLIAM published Oct 2009
- Bath Uni Shear in prestressed beams – PhD examined, thesis awaited

b) *In hand - Directly funded*

- Newcastle Uni Treatment of shallow mine workings – delayed by illness of RA

c) In hand - EPSRC/TSB funded

- (Case award) Surrey University Corrosion of steelwork - progressing
- Leeds FRP strengthening of metallic structures – delayed by illness of RA
- UWE and Salford Uni Masonry arch fatigue – work in hand
- QUB/City development fibre optic rebar corrosion sensor – Grant awarded late 2009, start expected in April
- ACTS – Work progressing well
- Lightweight low energy concrete – work progressing but a bit behind schedule
- IMAJINE – Work on civil engineering case study not yet started

d) In hand – EU funded

- Brifag – ongoing
- SmartEN – Official start date Nov 2009 – kick off meeting in April 2010

e) In hand - Funded by others

- Bristol Uni fatigue resistance of asset profile bonded to psc beams (Highways Agency, ICE enabling fund) – testing should start in next week or two
- Cranfield Uni for HSE – Life extension of ageing offshore structures
- NPL Concrete SHM demonstrator - progressing

f) In hand – CIRIA projects

- Advice to developers on dealing with noise & vibration from transport infrastructure – Awaiting final amendments for approval
- Culvert Design and Operation Guide – Final draft expected late Jan/early Feb
- Dealing with Construction Risks – Workshop to be held 21st Jan

g) In development

- CIRIA - Construction in the vicinity of abandoned mineworkings
- Concrete society – revision of TR55
- TSB submission – 10 minute composite part

h) In hand/development by other NR colleagues

- CIRIA - Flood resilience of critical infrastructure
- Birmingham Uni - Future resilient transport networks
- Impact of climate change
- NPL - Alternative technologies for tunnel inspection
- Bath and Southampton Unis – Capacity of dry stone retaining walls
- Mott MacDonald/Gifford Stability of spandrel walls

3) Other items of interest

a) Conferences/workshops

- 8th Feb 2010 - NGCC workshop Developments in FRP bridge design (BB delivering keynote)
- 25/26 May 2010 - NPL workshop on SHM (BB and/or NL invited to present)
- July 2010 - UWE arch masterclass (BB, RH, GC in loop for planning)
- Date TBA - CIRIA/NGCC Improving supply chain communication relative to FRP use (BB invited to speak)

b) Miscellaneous activities

- KTN:MBE phase 2 – main focus appears to be on low energy housing
- CSWIP composites management committee 17th Feb 2010 (BB, NL (+ Ben Sadka) and J Moriarty invited) - Clashes with next UKBB meeting
- BB speaking at an IABSE WC2 workshop on strengthening metallic bridges in Stockholm in March 2010