



THE PRINCE'S REGENERATION TRUST

4th January 2012

Prince's Regeneration Trust (PRT) response

All Party Parliamentary Group for Excellence in the Built Environment *Inquiry into Sustainable Construction and the Green Deal – Call for Evidence*

The Prince's Regeneration Trust (PRT) is a registered charity which aims to ensure that historic buildings, at risk of demolition or decay, are preserved, regenerated, re-used and brought back into active community and commercial use.

As an established national charity, we have extensive experience of working with communities to regenerate a wide variety of historic buildings from across the UK. We are currently working on thirty five projects, varying from a medieval palace in Cornwall to Armagh Gaol in Northern Ireland and Middleport Pottery in Stoke-on-Trent. Sustainability is at the core of our ethos as a charity and is evident in the work that we do to safeguard the future of historic buildings. In addition to the direct impact of our projects on the environment, our education programme works to share learning and expertise within the sector. Of particular relevance to this enquiry is PRT's *Green Guide for Historic Buildings*, a comprehensive overview of approaches to maximise the energy efficiency of historic buildings, whatever their type or situation. We are currently reviewing this guide to bring it up to date with new technologies and the Green Deal; a revised version will be published in 2013.

In 2011 PRT was invited by the Department of Energy and Climate Change (DECC) to co-chair the Older Properties Working Group, which was created in recognition of the fact that when looking at older properties, there are a number of technical, and suitability issues which need to be considered to ensure the benefits of the Green Deal are maximised without impacting negatively on the fabric of these buildings. DECC and PRT co-ordinated a series of three workshops, with representatives from across the heritage sector including English Heritage and the Historic Houses Association. These workshops explored possible technical barriers and solutions associated with the retrofit of older properties, leading to the commissioning by DECC of the Sustainable Traditional Buildings Alliance to produce the report 'Responsible Retrofit of Traditional Buildings'¹, the conclusions of which were:

- Traditional buildings perform differently in some respects from modern buildings, both in their existing state and when subjected to retrofit measures.
- There is a lack of understanding of traditional building performance in the industry and in policy, and a lack of connection between good research, standards, certification processes, guidance and practice.
- There is a lack of connection between high-quality research intelligence and the guidance documents which inform retrofitting procedures.
- There is significant uncertainty with regard to the application of models and performance simulation software to this class of buildings.
- Some methods for assessing traditional buildings are inappropriate and give incorrect

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¹ <http://www.retrofitbuildings.com/images/pdfs/stba%20responsible%20retrofit.pdf>

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- results, and some are misapplied and thus give false confidence in some measures.
- Traditional buildings often perform better in terms of heat loss through fabric than as stated in standard models and assessment methods. This means that the likely paybacks from some retrofit measures, such as solid wall insulation, may be less than assumed.
 - Traditional buildings require different assessment and practice with regard to the control of moisture in buildings, which is vital for fabric and human health.
 - A systemic approach is necessary regarding the assessment and retrofit of traditional buildings if rebound effects and unintended consequences are to be avoided and opportunities for long-term improvements seized. This process should include the whole supply chain and end-users.
 - There are good opportunities for the development of safe, robust, energy-efficient and cost-effective retrofit measures for many areas of traditional buildings. However, these will have to be developed on a different basis and structure from some current Green Deal proposals.²

Following on from this report and the Older Properties Working Group workshops, PRT continues to engage with DECC to see through the creation of an additional 'module' for Green Deal assessors, designed to ensure that only those with adequate expertise are able to provide Green Deal advice to owners of older buildings. This policy has been backed up by a new set of regulations, Code of Practice and National Occupational Standards. Whilst the Green Deal assessment process has already opened, with the financial element open from the end of January 2013, there will be some delay before accredited green deal advisors are available to perform assessments on historic buildings.

I. Evidence of best practice of sustainable construction in the built environment - and how this could be repeated?

With regards to historic buildings, the best practice from an environmental sustainability perspective is simply to secure their future use to avoid excessive new build. Evidence shows that the re-use of existing buildings leads to significant carbon savings; it is nearly always preferable, in climate change terms, to re-use listed buildings than to demolish them. By using existing buildings instead of demolishing, repairing and maintaining instead of undertaking large structural overhauls, buildings can preserve their embodied energy and waste can be avoided.³ Demolition has significant negative environmental impact due to the need to transport and dispose of waste at land fill sites; the UK construction industry produces over 36 million tonnes of landfill waste every year, around 35% of total waste.⁴ Similarly new builds have an adverse effect on emissions through the transport of materials to site.

Best practice in retrofit for historic buildings centres on working with the fabric of the building to find an appropriate solution to improve efficiency, rather than installing the newest technologies as a default answer. For instance, energy efficiency in historic buildings might in some cases be better achieved through repairs rather than insulation; poorly fitting windows and doors lose significant amounts of heat, therefore it is better to invest in careful joinery conservation, both retaining the historic character of windows and doors and reducing air leakage. Green Deal money could be negated if the overall fabric is in poor shape and continues to be neglected, plus there is a risk that inappropriate installations cause problems elsewhere; in the case of insulation, poor installation may lead to condensation, which can be especially detrimental to historic buildings and the health of their occupants.

² <http://www.retrofitbuildings.com/images/pdfs/stba%20responsible%20retrofit.pdf>

³ http://www.ihbc.org.uk/recent_papers/docs/PRT_ValueAdded.pdf

⁴ <http://www.sustainablebuild.co.uk/ReducingManagingWaste.html>

2. Barriers to sustainable construction - what is holding the industry back and how could this be improved?

VAT

As mentioned before under question one, the continued use of historic buildings is beneficial for environmental sustainability. However, the current VAT arrangements act as a disincentive to invest in heritage, favouring new build over the re-use of historic buildings and acting as a barrier to individuals and groups carrying out repairs and alterations. Repairs and alterations of historic buildings directly contribute to the aims of the Green Deal by improving energy efficiency and allowing the continued use of historic buildings, which, as argued above, leads to significant carbon savings. VAT is therefore a substantial barrier to sustainable construction.

The 2007 report by the New Economics Foundation (NEF), *Value added: the economic, social and environmental benefits from creating incentives for the repair, maintenance, and use of historic buildings*, found that the VAT system had the unintended consequences of

- Discriminating against small volunteer-led charities like building preservation trusts, thus discouraging participation at the community level because of added complexity and wasted volunteer time and effort,
- Diluting the effectiveness of existing public investment in the historic environment by increasing the already-high cost of maintaining our most important buildings
- Encouraging the neglect of community assets, often leading to the loss of historically important local buildings.

The decision in the 2012 budget to withdraw VAT relief on approved alterations to listed buildings will further increase the magnitude of these impacts, in particular for smaller building preservation trusts, community groups and other owners who are not registered for VAT.

The consultation document published by HMRC, *VAT: Addressing borderline anomalies*, argues that the current rules need changing as 'Alteration work on other types of building is standard-rated so owners of listed buildings receive a tax advantage over owners of other types of building.'⁵ However, this advantage, far from being an anomaly, was fully justified as the owners of listed buildings, in the majority modest individuals, charities and community groups, received little or no assistance in looking after historic buildings, despite the preservation of historic buildings being of universal benefit. The existing 20% VAT rate on repairs and maintenance already placed a burden on these groups; the withdrawal of VAT relief on alterations will act as another barrier. Alterations must of course be appropriate to the existing building; however they are often necessary in order to secure a building's future. For example, alterations could include a farmer converting redundant farm building for business use, conversions from residential to a B&B or a community group carrying out adjustments to provide access and facilities for people with disabilities.

Re-instatement of the VAT exemption for the alteration of listed buildings, in addition to a zero or reduced rate for repairs, would help prevent the neglect of our historic buildings and make a substantial contribution towards the aims of the Green Deal by ensuring the continued use of historic buildings and improving energy efficiency.

Sector skills

As found in the Sustainable Traditional Buildings Alliance report, there is a lack of training, guidance and expertise within the industry with regards to the retrofit of historic buildings. Historic buildings (pre-1919) make up around a quarter of UK building stock, meaning that a substantial proportion of construction work is carried out on historic buildings, and yet there

⁵ HMRC (2012) *VAT: Addressing borderline anomalies*

continues to be a disproportionate emphasis on developing skills in new build. This puts our historic building stock at risk and poses a barrier to sustainable construction.

One way to improve sector skills is through changes in the conventions and standards relating to the retrofit of traditional buildings, as suggested in the recommendations from the STBA report 'Responsible Retrofit of Traditional Buildings'⁶. The STBA has been appointed by DECC to propose quick and easy solutions for three areas of immediate concern relating to standards used in the refurbishment of traditional buildings, moisture risk, heat loss in building elements and internal wall insulation. The STBA recommendations, due to be completed in spring 2013, will suggest safe, cost effective, realistic improvements to the corresponding existing standards and practice.

In addition, there is already good work going on within the heritage regeneration sector to raise awareness and provide opportunities for training and professional development, whether through taking on apprentices or putting on one-off courses, such as the PRT lime training day recently held at the Old Duchy Palace, Lostwithiel. The efforts of many individual organisations to provide such opportunities are complemented by the re-launch of the Heritage Lottery Fund's Skills for the Future programme, which will provide funding for work-based training in a wide range of skills that are needed to look after buildings, landscapes, habitats, species, and museum and archive collections.

Local planning authorities

Another barrier to sustainable construction is the resistance by local planning authorities to sustainable development. There is significant variation in the percentage of renewables required, from 0 to 20%+. This means that many developers buy land having undertaken a development appraisal assuming a certain level of costs, only to be hit with unaffordable and unexpected renewables demands. In addition there is also too much of an emphasis on the newest renewable technologies over the fundamental steps of intelligent materials usage and the mantra of 'reduce, reuse, recycle'. For example, CO2 reductions could be easily achieved by building with high insulation content rather than through heavy investment in cutting edge design and installation of renewables technologies

3. Progress on sustainable homes - too much too fast?

There is a risk that the rapid roll out of the Green Deal leads to insufficiently trained or incompetent assessors giving inadequate advice to homeowners, whether they own a historic building or not.

4. The Green Deal - is the policy the right one? What can be done to ensure take up?

Overall PRT welcomes the Green Deal as a mechanism to allow for improvements in energy efficiency to take place. However, as argued above, there remains great scope for central government to incentivise re-use of historic buildings, which would complement the Green Deal and have a significant impact on the environment.

⁶ <http://www.retrofitbuildings.com/images/pdfs/stba%20responsible%20retrofit.pdf>

To ensure take up we would recommend that DECC continues to work closely with other government departments and agencies, in addition to relevant charities, to educate homeowners and build on the work by individual providers to raise awareness and interest in the scheme.

We hope that you take these comments into consideration and would be happy to discuss them with you in more detail as your inquiry progresses.