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31 January 2017

Dear Sir

Consultation on Each Home Counts: Review of Consumer Advice, Protection, Standards and Enforcement for Energy Efficiency and Renewable Energy

The Institute of Historic Building Conservation is the professional body of the United Kingdom representing conservation specialists and historic environment practitioners in the public and private sectors. The Institute exists to establish the highest standards of conservation practice, to support the effective protection and enhancement of the historic environment, and to promote heritage-led regeneration and access to the historic environment for all.

The IHBC would like to be constructively engaged in the development and implementation of the final report and its recommendations so that traditional buildings are firmly part of the solution. We are willing to offer expert representatives to be involved.

We are very pleased to have the chance to comment on the consultation document. The Institute's comments are as follows:

Executive summary

Each Home Counts fails to consider traditional buildings, especially those with solid walls, which is a serious omission as these represent almost a quarter of the UK's building stock.

This is evidenced by the very large number of existing research reports – including those funded by DECC and developed by BRE – that are not referenced in any way. Some of these point specifically to future actions on solid wall insulation. It is surprising that these reports were not considered as *Each Home Counts* was led by the BRE Chief Executive.

The failure of *Each Home Counts* to consider traditional buildings is further highlighted by the lack of engagement with heritage experts when developing the

report's findings and recommendations (e.g. IHBC and DECC's Older Properties Working Group), and no clear engagement with those beyond the review's contacts in industry, consumer protection and government. The Retrofit Standards Task Group has been established under the auspices of BSI but doesn't include a heritage expert.

By concentrating on how the energy conservation industry should perform, the report fails to take into account the proved differences in how buildings perform depending on the lifestyles of their occupants. The report makes no recommendation on educating occupants about their impact on energy efficiency but the Sustainable Traditional Buildings Alliance's (STBA) Responsible Retrofit Guidance Wheel shows that human behaviour can significantly affect energy efficiency. Failure to consider occupants' lifestyles may distort the claims of anticipated efficiency of alterations and result in unsuitable solutions.

There is also no consideration of existing standards (e.g. *BS 7913:2013 Guide to the conservation of historic buildings* and the National Occupational Standards for Older, Traditional, and Vulnerable Buildings), Building Regulations (specifically the special consideration of buildings of traditional construction and breathable fabric in Part L1B) and issues raised by IHBC in previous consultations (e.g. PAS 2030).

Future actions – such as the development of the Consumer Charter, Code of Practice and Standards, Standards Framework, the Information Hub and the Implementation Board – should engage with heritage experts and fully reflect the related documents to ensure traditional buildings are completely considered.

Future actions for skills and training should encompass the CITB Energy Efficiency & Retrofit of Pre-1919 Traditional Buildings Level 3 Award (which includes building pathology) and those given the Quality Mark must have proven knowledge in traditional construction. The proposed Framework doesn't mention the need for training in traditional building construction, which was raised by IHBC in its response to the CITB ConstructionSkills draft skills strategy 2012-17. The potential for new jobs created from a focus on the repair, maintenance and retrofit of traditional buildings has been overlooked.

Future actions for insulation and fabric should follow BS 7913 and concentrate on making existing building fabrics more energy efficient before any retrofit, as damp building fabric could be up to 30% less energy efficient than dry building fabric.

Some future processes – such as the Framework, the CIGA and BBA work on pre-install property assessments, and the Retrofit Standards Task Group – need clarifying to ensure that they are complete, robust and independent. As-yet unpublished documents, such as the Moisture risks paper, are vitally important and should be urgently completed and circulated to allow scrutiny by heritage experts. The project plan for the standards mapping exercise by the Retrofit Standards Task Group should be published as the April 2017 delivery date appears to be very challenging.

Appropriate repair of traditional buildings is a prerequisite of effective energy-saving, as highlighted in BS 7913. *Each Home Counts* doesn't even mention the need for repairs. Traditional buildings are already inherently sustainable due to their embodied energy and their repair avoids contributing to carbon emissions that would arise from replacing them with modern homes using large amounts of concrete and cement. The BRE has calculated that an average Victorian house contained the embodied energy equivalent to about 15,000 litres of petrol. This would equate to 3,300 gallons,

which at 40mpg would travel 132,000 miles or the equivalent of 16 times around the equator.

To appropriately consider the impact on traditional buildings, which this report currently doesn't do, a specific review on retrofit of traditional buildings is required. The only route to success is a complete re-think on traditional buildings, informed by a thorough review (as recommended by BRE). Mapping to the 2050 Climate Change targets will help us understand the problems and ensure suitable training and skills exist. Only then will it be possible to develop capacity at a scale to have the correct solutions in place for traditional buildings.

More detailed comments that support and expand on some of our points, made by the IHBC Policy Vice Chair, can be found at <http://www.ihbc.org.uk/resources/EACH-HOME-COUNTS-30.1.17-issues-paper-by-J-Preston-FINAL.docx>. We are aware that many other heritage sector bodies will be raising similar concerns.

Each Home Counts aims to address "Consumer Advice, Protection, Standards and Enforcement for Energy Efficiency and Renewable Energy". However, traditional buildings, especially those with solid walls, represent a significant proportion of the UK building stock. Without fully considering these buildings, engaging with heritage experts and considering existing research, *Each Home Counts* risks creating an ill-informed strategy, with consequent expensive and inappropriate works to buildings, and therefore fail to fully deliver its objectives.

Detailed comments

General

1. The report process involved industry parties and regulators but doesn't question existing practices that have failed.
2. The *English Housing Survey: Housing Stock Report, 2014-15* highlighted important issues in the private rented sector, yet this sector and its regulations aren't mentioned in the report (an important omission given the statutory requirements on landlords for all new lettings from April 2018).
3. The report states its creation was 'industry led', but 'industry' doesn't fully understand older buildings and treats them as modern buildings, such as the many failed repairs of breathable buildings with cement render.
4. The report makes no clear recommendation on educating occupants about their impact on energy efficiency and how to get the best performance out of their home by working with the way it was designed. The Sustainable Traditional Buildings Alliance's (STBA) Responsible Retrofit Guidance Wheel shows that human behaviour, and a lack of understanding of installed measures, can significantly affect energy efficiency. Physical alterations to buildings should always come after changes to how they are heated and used. Failure to consider the impact of occupants' lifestyles may distort the claims of anticipated efficiency of alterations and lead to the promotion of unsuitable solutions.

Traditional solid wall buildings

5. The report doesn't reference issues regarding solid wall buildings or key statistics from the English Housing Survey (e.g. 23.5% of all homes have solid walls). It also doesn't consider the findings of various initiatives, especially DECC-funded research into this area. The report was led by BRE's Chief

Executive who should have ensured these reports were considered. The initiatives include:

1. The STBA's *Responsible Retrofit of Traditional Buildings* or its Responsible Retrofit Guidance Wheel
2. BRE's 2014 *Solid wall heat losses and the potential for energy saving: literature review* (published six months before *Each Home Counts* was commissioned), which was a two-year research project into solid walls that responded to issues raised by the STBA's *Responsible Retrofit of Traditional Buildings*
3. BRE's *Solid wall heat losses and the potential for energy saving Consequences for consideration to maximise SWI benefits: A route-map for change* (which stated a "one size fits all" approach isn't the answer to solid wall insulation)
4. BRE's *Sustainable refurbishment of non-traditional housing and pre-1920's solid wall housing*
5. BRE's *Reducing thermal bridging at junctions when designing and installing solid wall insulation*
6. BRE's *In-situ measurements of wall U-values in English Housing*
7. BRE's *Report on failure rates and remediation costs for External and Cavity Wall Insulation*
8. BRE's *Designing out unintended consequences when applying solid wall insulation*
9. BRE's *Post Installation Performance of Cavity Wall and External Wall Insulation* (which stated a "thorough and extensive review" of existing installations should assess the cause of problems, before any large-scale roll-out of insulation to solid wall buildings. This didn't happen).
6. The report doesn't mention the special consideration in Building Regulations Part L1B for buildings of traditional construction and breathable fabric. IHBC has repeatedly raised this issue, e.g. in its PAS 2030 and CITB Construction Skills Strategy consultation responses, and questions at the All-Party Parliamentary Green Deal Group.
7. Appropriate repair of traditional buildings is a prerequisite of effective energy-saving, as highlighted in BS 7913; unfortunately, *Each Home Counts* doesn't even mention the need for repairs. Traditional buildings are already inherently sustainable due to their embodied energy and their repair avoids contributing to carbon emissions and further using finite resources that would arise from replacing them with modern homes using large amounts of concrete and cement. The potential for new jobs created from a focus on the repair, maintenance and retrofit of traditional buildings has also been overlooked.

Section 1. Vision

8. This mentions "...access to the latest standards and best practice guidance" but BS 7913 isn't discussed.

Section 3. Review Approach

9. There was no public Call for Evidence nor any real engagement with those beyond the review's contacts in industry, consumer protection and government.
10. There appears to have been no attempt to engage with DECC's Older Properties Working Group (now disbanded) or an indication that the review considered the National Occupational Standards for Older, Traditional, and Vulnerable Buildings.

Section 4. Summary of Recommendations

11. The proposed Framework doesn't mention the need for training in traditional building construction for specifying and installing measures, or repairs to enable these to be effective. IHBC raised these issues in its 2011 response to the CITB ConstructionSkills draft skills strategy 2012-17.
12. The Consumer Charter, Codes of Practice and Standards, must ensure that building-specific advice, techniques, materials and skills are applied to traditional buildings. Proposed measures and installations should take account of BS 7913 and the special consideration in Part L1B.
13. Para 4.14 – Figure 2 outlines how certification builds confidence in the Framework, but needs clarification about actions to be taken if the process fails.

Section 5. Full List of Recommendations

14. Recommendation 2 – To increase confidence in case management, there should be regular reporting of statistics around raised/investigated/resolved cases.
15. Recommendations 6 and 7 – The Information Hub must be operated impartially and include information relating to traditional building construction.
16. Recommendations 8 and 10 – The overarching standards framework must recognise BS 7913 the special consideration in Part L1B. Guidance on applicable standards, and their potential interactions, must be freely available.
17. Recommendation 9 – The critical work of the Retrofit Standards Task Group will direct all training. The Group has been established under the auspices of BSI but it doesn't include a 'heritage' expert. The Group needs an approach based on BS 7913, otherwise a new BSI publication won't comply with an existing standard.
18. Recommendations 9 and 10 – These suggest actions to improve standards, however clarification is needed about their independent implementation.
19. Recommendation 11 – The 'core knowledge' must include that of traditional building construction and reference the National Occupational Standards for Older, Traditional, and Vulnerable Buildings.
20. Recommendations 11-13 – These don't mention building pathology (covered in BS 7913). Training should include the CITB Energy Efficiency & Retrofit of Pre-1919 Traditional Buildings Level 3 Award (which includes building pathology).
21. Recommendation 14 – Those gaining the Quality Mark must have proven knowledge in traditional construction to ensure only appropriate measures are specified and installed.

22. Recommendation 17 – Proposed work should make existing building fabrics more energy efficient before any retrofit and follow BS 7913, which states damp building fabric could be up to 30% less energy efficient than dry building fabric.

Section 7. Progress So Far

23. Revision of PAS 2030 & 2031 – These don't include traditional solid wall buildings and related issues.
24. Implementation Board in place and informal industry groups being established – Group membership hasn't been published and there's been no consideration of the serious issues raised by the above BRE and DECC-funded research.
25. Creation of a redress fund for Preston – This is the report's only, and *non-specific*, mention of the major issues with solid wall insulation schemes. There's no mention of the problem extent, rectification costs or evaluation of the financial and carbon costs of inappropriate works. For example, English Heritage's *EXTERNAL WALL INSULATION IN TRADITIONAL BUILDINGS: Case studies of three large-scale projects in the North of England* or BRE's *Post Installation Performance of Cavity Wall and External Wall Insulation* aren't mentioned.
26. Solid wall insulation industry guidance – Again, there's no reference to issues with solid wall buildings.
27. CIGA and BBA work on pre-install property assessments – The scheme shouldn't be cited as an exemplar until it has been published and impartially scrutinised. To increase confidence in CIGA case management, there should be regular reporting of statistics around raised/investigated/resolved cases
28. Moisture risks paper – This document prepared by STBA for DECC is vitally important and publication is urgently awaited.

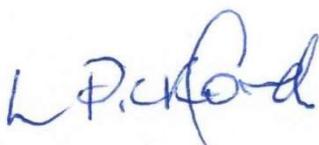
Section 10. Quality and Standards

29. Paragraph 10.8 indicates that the Retrofit Standards Task Group will be impartially chaired and supported; we support this approach.
30. Paragraph 10.14 indicates that "the research project to map existing standards is being scoped out by the Retrofit Standards Task Group for delivery by April 2017". However, this date appears challenging and we suggest that a clear delivery plan is published.

Section 13. Insulation and Fabric

31. Paragraph 13.13 doesn't recognise that traditional solid walled buildings are dependent on vapour permeability, which has a direct influence on how a building might be retrofitted with insulation.

Yours sincerely



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