

Technical Extra

June 2013 | Issue 10

In this issue:

NHBC STANDARDS

What's going wrong with basements?	page 3
Foundation Depth Calculator app	page 6
Technical guidance	page 7

REGULATION AND COMPLIANCE

Latest changes to Building Regulations in England	page 8
Normal background concentrations (NBC) of contaminants in English soils	page 10
What does the Construction Products Regulation (CPR) mean for builders and specifiers, and what do they need to do about it?	page 12

GUIDANCE AND GOOD PRACTICE

Juliette balconies - design, fabrication and installation considerations	page 14
The British Woodworking Federation Stair Scheme	page 17
Waste water heat recovery (WWHR)	page 18
Code of practice for the safe installation of precast concrete flooring and associated components	page 19
NHBC Foundation	page 20

INFORMATION AND SUPPORT

Information and support	page 22
Technical news	page 24
People power	page 25

Foreword



In the previous edition of *Technical Extra*, I referred to the launch of *Standards Plus*, the latest version of which became freely available to all registered builder and professional subscribers to the *NHBC Standards* in April. An update on *Standards Plus* and details of NHBC's first 'app' is provided in this edition.

A relatively small number of basements have resulted in disproportionately high claims expenditure. **What's going wrong with basements?** looks at the issues and how problems can be avoided.

Other updates in this edition include details of the Construction Products Regulations, the introduction of the British Woodworking Federation Stair scheme and news on the latest research publications from NHBC Foundation.

Previous copies of *Technical Extra* are available on the NHBC website www.nhbc.co.uk/TechnicalExtra. When a new edition of *Technical Extra* is available, details are featured in *Clicks & Mortar*, the monthly e-newsletter from NHBC. To see the latest edition and/or receive *Clicks & Mortar*, and get notification of when the latest *Technical Extra* is available, please visit www.nhbc.co.uk/NewsandComment/Registerfore-news/Currentissue

I trust you'll find this useful in helping to raise standards and reduce defects and cost.

Mark Jones

Group Head of House-Building Standards

NHBC STANDARDS

What's going wrong with basements?



Who should read this: Technical and construction directors and managers, architects, designers and site managers.

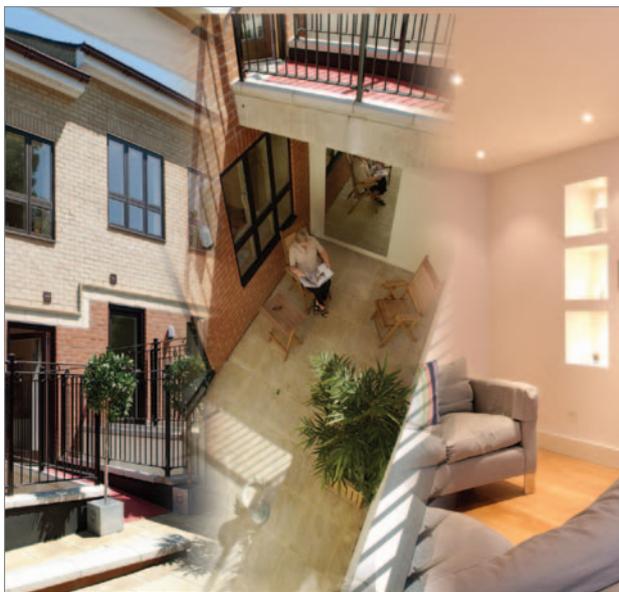
INTRODUCTION

In recent times, basements have once again become relevant and attractive additions to houses. With current extreme weather patterns, a recent push to sustainable urban drainage and potential growth in basement construction, there is a significant ongoing risk which needs to be effectively managed.

REQUIREMENTS

Basement claims are a growing area of concern. In 2012, NHBC experienced significant costs on 14 claims, together costing in the region of £3 million. Generational claims analysis has confirmed that the last seven years of build generations have cost in the region of £8 million to date, and affected approximately 600 homes. Basements built in 2007-08 (currently 5-6 years into the 10-year cover) have already experienced claim volumes of up to 8% of registrations (of homes with basements).

UK registration figures highlight that 72% of basement constructions are within the London boroughs, and 93% within England.



Over the coming months, NHBC will be looking into revising *NHBC Standards Chapter 5.1* 'Substructure and ground bearing floors', (which also provides guidance on basements), and working closely with the industry to help improve basement design and construction.

Further to the 'Basement and waterproofing' article (*Technical Extra* Issue 02), we have carried out detailed generational claims analysis and, in two basement surveys of 'live' sites in April 2010 (816 base group) and February 2013 (903 base group), the findings have highlighted some interesting trends.

Of sites surveyed, 26% in 2010 and 28% in 2012 had either high or unknown water tables, yet propose a Type A (Tanked) or Type B (Water Resisting Concrete) that may not be suitable for use in such situations. There was a significant proportion of sites (16%), which did not have the ground investigation report available to show the building inspector at the time of the survey.

Completing a desk study and ground investigation report is fundamental to achieving a suitable basement solution. The water table is critical to the structural design of a basement, assessment of buoyancy risks and the selection of the waterproofing system. Waterproofing measures should be designed on the basis of ground water to the full height of the retained ground, or on advice from a geotechnical specialist regarding geology and hydrogeology.

Tanking defects account for 66% of volume and 62% of cost of basement claims, and relate mainly to the detailing of joints at ground level, finish floor level and/or service penetrations.

For technical advice and support, call 01908 747384 or visit www.nhbc.co.uk



REQUIREMENTS (CONTINUED)

The interface with the above-ground construction is as important as the waterproofing to the main basement.

In order to maintain the continuity of the barrier, penetrations (e.g. openings for services, pipes and cables) through walls or floors that are to be waterproofed should be avoided wherever possible. Where it is essential to provide such openings, special treatment around the penetration should be provided and reference should be made to the manufacturer's instructions and specialist advice. Similarly, where fixings through the barrier are necessary, the manufacturer's instructions should be followed.



Waterstops (hydrophilic strips) should be used to provide enhanced resistance to water transmission at joints in the concrete structure, e.g. at construction or daywork joints, services or other penetrations. The positioning of the waterstop(s) (external and/or internal) should be appropriate for the method of construction and the level of risk. Particular attention should be given to the use of waterstops at movement joints.

Key points to check for when considering tanking:

- Check that the waterproofing of the basement is continuous right to the outside of the building.
- Check for a cavity tray to prevent bridging and that this is sealed to the basement waterproofing.
- Check that the basement waterproofing can withstand large loads from the walls above - e.g. void-forming drainage mats.

Podium slabs account for 12% of volume and 17% of cost of basement-related claims, making it the second-largest category. Recent large losses have involved properties adjacent to the deck surface suffering from rising damp and failed tanking where the membrane was cut to allow for drainage.

Podium decks generally have a greater exposure to the environment, often with decorative features, including paving and planters. The below-basement performance is critical to the surface water drainage and waterproofing system to prevent water ingress. Designers/builders should take into consideration the drainage maintenance risks and potential risk of perched water, and cater for this within the waterproofing design. Furthermore, where a property is adjacent to a deck, it is vital to ensure that the waterproofing system is continuously linking to DPCs or cavity trays.



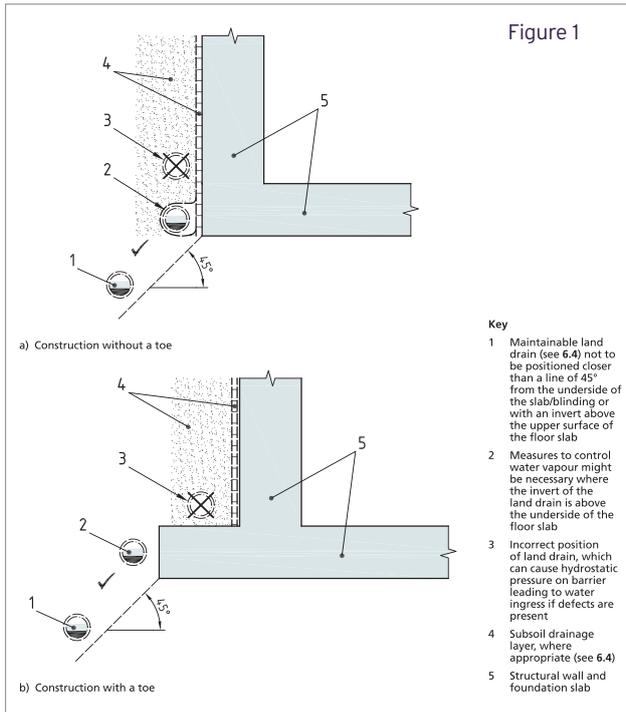
Basement surface and sub-water drainage appear common issues within the design checking process. Surface water drainage external of the basement should limit catchment area and surrounding rain water flows to reduce penetration to vulnerable areas.

Sub-surface drainage at floor level should be installed wherever possible; this will lower the ground water table and, in return, significantly reduce the risk to the waterproofing system. Where land drains are intended,



REQUIREMENTS (CONTINUED)

they should be constructed with a permeable stone backfill compacted in layers with a permeable perimeter membrane. The drain should be positioned below slab level, external of the 45° zone of loading (as per Figure 1 below), discharging to an outlet below the level of the lowest slab, such as a storm water drain protected by a pumped surcharge device or a pumped sump.



In 76% of basement claims (2008 generation onwards), the Site notification and initial notice (SNIN) form had not been completed correctly when declaring basement construction.

Requiring builders to declare basement construction on the SNIN form is part of NHBC's risk management process. One of NHBC's team of project managers will be involved in any development incorporating a basement, to assess the proposals and help in achieving satisfactory construction. To avoid the risk of delay, sites with basements or semi-basements (for example, on sloping sites where only part of the lower storey forms a basement) should be clearly identified on the SNIN when the application for Buildmark warranty is made; see Section 10 on page 3 of the SNIN.

Section 10. Foundation type and ground treatment. Please indicate the foundation type(s) and any ground treatment on this site by ticking the relevant boxes

Strip/trench fill	<input type="checkbox"/>	Grouting	<input type="checkbox"/>	Raft	<input type="checkbox"/>
Dynamic compaction	<input type="checkbox"/>	Piled	<input type="checkbox"/>	Basement(s)	<input type="checkbox"/>
Engineered fill	<input type="checkbox"/>	Retaining walls	<input type="checkbox"/>	Vibro	<input type="checkbox"/>
Other, please describe below: <input type="checkbox"/>					

Section 10 of NHBC SNIN form

For a copy of the SNIN form, or further information on completing and submitting it, including details of how to submit a SNIN through the Extranet, visit: www.nhbc.co.uk/Builders/Builderregistration/AlreadyNHBCregistered/Registeranewsiteforwarranty

For enquires on basements, please call 0844 633 1000 and ask for 'Special Risk' for general technical enquires or 'Engineering' to discuss structural issues. You can also email technical@nhbc.co.uk.

YOU NEED TO...

- Ensure proposals to use basements or semi-basements are identified on the NHBC SNIN when making an application.
- Ensure proposals comply with the requirements of BS 8102:2009 'Code of practice for protection of below ground structures against water from the ground'.
- Complete a desk study and ground investigation report, clearly indicating ground water table risks or design for the worst-case scenario.
- Ensure waterproofing junctions are adequately detailed, especially at ground level, penetrations and daywork joints, with due consideration for the practicality of construction and continuity.
- Ensure podium decks have a suitable drainage system with allowance for maintenance, especially when using decorative planters or within the vicinity of trees.
- Ensure adjacent surface water catchment areas and surrounding ground water flows are limited. If proposing a land drain system, please ensure the drain is positioned below slab level with a suitable discharge outlet.

NHBC STANDARDS

Foundation Depth Calculator app



Who should read this: Technical and construction directors and managers, engineers and site managers.

INTRODUCTION

Multimedia mobiles and tablets have reached a point where they can genuinely take over from the humble desktop, unleashing a raft of opportunities for the design and construction of new homes.

NHBC is embracing the opportunities offered by this technology with the creation of an app based on the Foundation Depth Calculator, the first of potentially a host of targeted, standard-raising, mobile applications.

STANDARDS CHAPTER

Chapter 4.2 'Building near trees'

REQUIREMENTS

Foundation-related claims have cost in the region of £36 million over the last four years. Although generational claims analysis indicate the total number of year 3-10 foundation claims to be reducing year on year, the annual claims bill (circa. £9 million) has remained constant. It is, therefore, intended that the foundation depth calculator app will assist in further reducing the cost and number of foundation-related claims and, in return, raise standards and improve homeowner satisfaction.



The foundation depth calculator app provides a true field-based pocket tool to aid in assessing required *NHBC Standards Chapter 4.2* foundation depths on a mobile, tablet or desktop computer.

The app continues NHBC's development of supportive tools to assist in calculating foundation depths; which many readers will know started with the original slide rule.

Fully aligned with *NHBC Standards Chapter 4.2* 'Building near trees' guidance, this new app allows for changes in ground level, tree identification (via third-party apps), input of an unlimited amount of existing and/or proposed trees, and auto-climate zone depth-reduction function via GPS.

Having entered the required inputs, the app calculates the Chapter 4.2 foundation depth from original or proposed ground level and the governing tree type. It also advises on suitable heave precautions, if needed, and which tree(s) require them to be provided.

The app minimises the risk of human error in using the hard-copy guidance contained in Chapter 4.2.

Further information

Please visit www.nhbc.co.uk/apps

YOU NEED TO...

- For the latest information on the launch of NHBC's foundation depth calculator app, visit www.nhbc.co.uk/apps.

For technical advice and support, call 01908 747384 or visit www.nhbc.co.uk



Who should read this: Technical and construction directors and managers, architects and designers, and site managers.

INTRODUCTION

The Technical guidance series addresses some of NHBC's frequently asked technical questions. The guidance notes amplify some of the detail contained in the *NHBC Standards* and are referenced using the same format as the *NHBC Standards*.

STANDARDS CHAPTER

Details of new Technical guidance documents, and changes to existing guidance, are listed below.

REQUIREMENTS

The list below highlights the March 2013 changes to NHBC's Technical guidance series. Copies are available at: www.nhbc.co.uk and can also be accessed directly from *Standards Plus*, the online version of *NHBC Standards*, with links to supplementary information and freely available to NHBC registered builders and professional subscribers. See www.nhbc.co.uk/StandardsPlus for more details and a demonstration video.



Reference	Title	Reference	Title
5.3/04	'Y' junctions in drains under buildings (amended)	6.7/14	Door ironmongery - students' accommodation (new)
5.2/04	Ventilators in compartment walls beneath suspended ground floors (new)	6.7/15	Door limitation devices (new)
6.1/08	Cavity walls - stopping cavities at the junction with separating walls (withdrawn)	8.1/09	TRVs and room thermostats (withdrawn)
6.1/12	Restraint straps to gable walls of garages (amended)	8.1/22	Electrical fittings near cookers and sinks (new)
6.1/26	Face fixed restraint straps to gable walls in dwellings (new)	8.1/23	Consumer units - blanking pieces (new)
6.5/02	Perforated padstones (new)	8.1/24	Tracer tapes to plastic water pipes (new)
6.6/01	Handrail to staircases - tapered treads/winders (amended)	9.2/06	Guarding to retaining structures (amended)
6.6/06	Nosings to stairs in common areas (new)	9.2/09	Guarding to retaining structures in communal areas (new)
		9.2/10	Handrails to steps in paths (new)

YOU NEED TO...

- Review the Technical guidance series for additional technical information supporting the *NHBC Standards*.
- NHBC recommends using *Standards Plus* for the very latest supplementary information, linked to the relevant Chapter in the Standards. For more information visit www.nhbc.co.uk/StandardsPlus.

REGULATION AND COMPLIANCE

Latest changes to Building Regulations in England



Who should read this: Technical and construction directors and managers, architects, designers and site managers.

INTRODUCTION

From July, the final tranche of changes to the Building Regulations, published last December, are introduced in England. These changes follow the introduction of the new Approved Documents K (Protection from falling, collision and impact), P (Electrical Safety) and the withdrawal of Approved Document N in April 2013.

CHANGES TO REGULATIONS

Building Regulations in England.

REQUIREMENTS

New Approved Document Regulation 7 (2013)

This comes into force on 1 July 2013 for all works submitted to a building control body after that date. The document has been updated to reflect the full implementation of European Regulations covering construction products, referred to as the Construction Products

Regulation (CPR). This regulation requires that products that are covered by a harmonised European product standard or conform to a European Technical Assessment should have CE marking. CE marking of products under the CPR is the responsibility of the manufacturer/supplier of the products concerned.

Further information on CPR is provided later in this edition of *Technical Extra*.

All other references to 'materials and workmanship' in Approved Documents are also updated on 1 July 2013 to reflect the new Approved Document Regulation 7.



Regulations 23, 25A and 29A, and associated amendments to Approved Documents L1A, L2A, L1B and L2B

In order to comply with European legislation and, specifically, the Energy Performance of Buildings Directive (Recast), a number of new and amended regulations have been introduced concerning energy efficiency of buildings, together with further guidance in Approved Documents L1A, L2A, L1B and L2B to support these regulatory changes.

Regulation 23 (Requirements for the renovation or replacement of thermal elements)

Regulation 23 of the Building Regulations has been amended to move the guidance concerning the renovation of thermal elements, which were previously set out in Approved Documents L1B and L2B, and make them a statutory provision.

Regulation 23 now requires that, where a thermal element is subject to renovation, the whole of the element should be improved to the standards set out in Approved Documents L1B and L2B, providing it would be technically, functionally and economically feasible to comply. This is provided that the area to be



REQUIREMENTS (CONTINUED)

renovated or replaced is greater than 50% of the surface area of the individual thermal element, or constitutes a "major renovation" where more than 25% of the surface area of the building undergoes renovation.

In practical terms, the provisions for the renovation of thermal elements remain essentially the same as under the former guidance in Approved Documents L1B and L2B, the main difference being the provisions are now backed up by statutory regulation.

Regulation 25A (Consideration of high-efficiency alternative systems for new buildings)

This regulation introduces a new requirement that, before the construction of a new building starts, the builder/developer shall carry out an analysis to take into account the technical, environmental and economic feasibility of using high-efficiency alternative systems (such as the following), if available:

- decentralised energy supply systems based on energy from renewable sources
- cogeneration
- district heating or cooling, particularly where it is based entirely or partially on energy from renewable sources
- heat pumps.

Before construction work starts, the developer must give the building control body (BCB) a notice that states the analysis referred to above has:

- been undertaken
- been documented
- been made available for verification purposes.

BCBs are empowered to require the production of the documentation in order to verify that this regulation is complied with.

To help customers with their obligations under this new regulation, NHBC Building Control will send out pro-forma documentation on all projects which can be completed and returned to confirm that the analysis has been undertaken, documented and is available if required.

Whilst it is a requirement for the analysis to be undertaken, this does not mean such systems have to be installed if the target emission rates for the new buildings can be met in some other way.

Amended Regulation 29 (Energy performance certificates (EPC)) and new Regulation 29A (EPC recommendation reports)

Regulation 29 has been amended to require an EPC recommendation report to be produced only where there is reasonable potential for energy performance improvements. Previously, there was no limitation and a recommendation report had to be produced in all cases.

When do these changes apply?

The new Approved Document Regulation 7 comes into force on **1 July 2013**, and will apply to all work submitted after that date.

Regulations 23 and 25A come into effect on **9 July 2013**, and will apply to all work submitted after that date. Regulation 23 and 25A will not apply where work has been submitted on or before 8 July 2013, providing work starts before 9 July 2014.

Amended Regulation 29 (EPCs) and new Regulation 29A (EPC recommendation reports) comes into force on 9 July 2013 for all buildings.

YOU NEED TO...

- Ensure you are aware of all changes and implementation dates.
- To discuss the effect of these changes on schemes registered with NHBC, please contact your Building Control surveyor.

REGULATION AND COMPLIANCE

Normal background concentrations (NBC) of contaminants in English soils



Who should read this: Technical and construction directors and managers, architects, designers, consultants, specialist remediation companies, contaminated land professionals and land buyers.

INTRODUCTION

On 6 April 2012, revised statutory guidance for Part 2A of the Environmental Protection Act 1990 came into force in England and Wales. The revised statutory guidance clarified that 'normal' background levels of contaminants in soils should not generally be considered as sufficient cause to determine land as 'contaminated' under Part 2A. The publication 'Normal background concentrations (NBCs) of contaminants in English soils' has now been prepared by the British Geological Society on behalf of Defra in support of this revision to the statutory guidance.

REQUIREMENTS

The revised Statutory Guidance for Part 2A and the British Geological Society (BGS) publication is primarily to assist regulators in making determinations on whether land is 'contaminated land' under Part 2A of the Environmental Protection Act 1990, but it has the potential to impact on the approach to assessing and remediating site(s) affected by contamination for the purposes of demonstrating compliance with *NHBC Standards Chapter 4.1 'Land quality - managing ground conditions'*.

The BGS was commissioned by Defra to provide guidance on what are 'normal' levels of contaminants in English soils in support of the revision of the Part 2A Contaminated Land Statutory Guidance. The BGS assessed data relating to six metals (arsenic, cadmium, copper, mercury, lead and nickel) and benzo(a)pyrene, utilising data primarily from the datasets 'The Geochemical Baseline Survey of the Environment' and the 'English National Soil Inventory'.

This data was assessed, focusing on spatial variability and population distributions, and these outputs were attributed to different areas, defined as domains, for each contaminant based on factors observed to contribute to variable and higher concentrations. For example, considering anthropogenic (origin associated with human activity - traffic, coal burning and industry) sources in an urban domain, geological conditions in a mineralisation domain, and a principal domain for all other areas. The domain map (see Figure 1) for lead is provided as an example of the data exploration assessment.

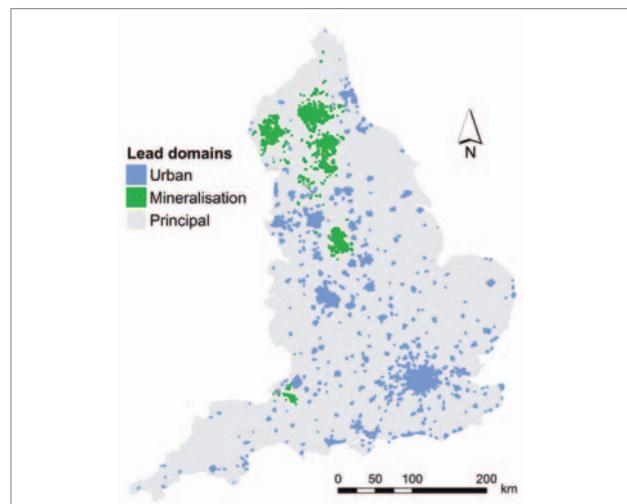


Figure 1 - Lead domain map from BGS/DEFRA commissioned report CR/12/ 035 'Normal background concentrations (NBCs) of contaminants in English soils'.

An NBC for each contaminant domain has been derived by applying statistical methodology developed by the BGS and taking the upper confidence limit of the 95th percentile value.

To date, NBCs have been published for arsenic, cadmium, copper, mercury, lead, nickel and benzo(a) pyrene, and are presented in table 1 on page 11. Each contaminant is supported with a technical guidance sheet (TGS), which includes the project's outputs and presents the NBC calculated for each domain.

Normal background concentrations (NBC) of contaminants in English soils



REQUIREMENTS (CONTINUED)

Arsenic	Principal domain	Mineralisation	Ironstone		
NBC	32	290	220		
N	41,509	187	437		
BaP	Principal domain (Great Britain)	Urban			
NBC	0.5	3.6			
N	371	32			
Cadmium	Principal domain	Min Grp 1	Min Grp 2	Urban	South
NBC	1	17	2.9	2.1	2.5
N	4,418	224	95	9,308	265
Copper	Principal domain	Mineralisation	Urban		
NBC	62	340	190		
N	34,504	153	7,475		
Mercury	Principal domain	Urban			
NBC	0.5	1.9			
N	1,126	512			
Nickel	Principal domain	Ironstone (NI)	Peak District	Basic	Ultrabasic
NBC	42	230	120	*	*
N	41,768	117	221	23	4
Lead	Principal domain	Mineralisation	Urban		
NBC	180	2,400	820		
N	34,257	347	7,529		

Table 1 - Summary table of NBCs of contaminants in English soils published to date. All concentrations are mg/kg. N = number of samples used in the NBC calculation. *= less than 30 samples, therefore no NBC calculated.

NBCs can be used along with other criteria (e.g. site investigation data and risk assessment) to help local authorities assess whether land is 'contaminated land' as defined by Part 2A, but are not meant to be used as screening criteria. Local authorities should not be determining sites where contaminants concentrations are at or below NBCs. If the levels are above the NBCs, further assessment is required - additional site investigation or risk assessment.

The NBCs are not intended to be a tool to be utilised when undertaking work via the planning regime for new developments. The NBCs are, though, useful information which can be considered as part of the

overall risk assessment process for new developments as a line of evidence, but should not be used in isolation or as remediation clean-up target levels. Note that contaminant concentrations below the NBCs may still require remediation under the planning process.

A copy of the revised statutory guidance for Part 2A can be downloaded from: www.gov.uk/government/publications/contaminated-land-statutory-guidance

Further details of the BGS NBC project and its outputs (NBC full report and technical guidance sheets) can be found at: www.bgs.ac.uk/gbase/NBCDefraProject.html

YOU NEED TO...

- Be aware of the changes to the Contaminated Land Statutory Guidance and the supporting guidance that regulators will use when determining whether land is 'contaminated land' under Part 2A of the Environmental Protection Act 1990.
- Be aware that the NBCs derived by BGS are only applicable to Part 2A and not the planning regime.
- Ensure that suitable consultants are appointed for site investigations, risk assessments, remediation and validation, to ensure that the land for new developments is appropriately assessed and/or remediated against appropriate standards.
- Be aware that NBCs will soon be published for the same contaminants for Welsh soils.

REGULATION AND COMPLIANCE

What does the Construction Products Regulation (CPR) mean for builders and specifiers, and what do they need to do about it?



Who should read this: Technical and construction directors and managers, site managers, architects, designers, specifiers and purchasers.

INTRODUCTION

On 1 July 2013, the CPR comes fully into effect and replaces the Construction Products Directive with regard to the CE marking of construction products. But what does this mean for builders and specifiers, and what do they need to do about it?

REQUIREMENTS

For the first time in the UK, there will be an obligation on manufacturers to draw up a **declaration of performance (DoP)** for construction products that are either covered by a **harmonised European standard (hEN)** or for which a **European Technical Assessment (ETA)** has been issued. Such products have to be CE marked. The regulation also imposes requirements on importers, distributors and others in the supply chain to see that these products bear the CE-marking and are accompanied by their DoP.

There are no similar requirements imposed on builders and specifiers, but they will be exposed to more technical data, some of which will be useful when correctly used. Conversely, some of the data has the potential to cause confusion and should not be used without a proper understanding of it. Otherwise, there should be no significant or rapid changes for builders and specifiers arising from the Regulation.

Information in the DoP and CE-marking

The DoP and CE marking will include information about the manufacturer, the relevant hEN or ETA, the intended use of the product and technical information about the 'essential characteristics' of the product. The essential characteristics are a discrete list specified in the hEN or ETA, and relate only to characteristics that are needed in order to satisfy national regulations for buildings and civil engineering works in one or more EU Member States. The hEN is defined by an informative Annex, usually Annex ZA, of the European standard.

Regulators have to presume the information in the DoP is accurate and reliable, unless there are objective indications to the contrary. Manufacturers can often declare 'no performance determined' (NDP), which will indicate that the manufacturer considers it is not relevant for the intended use or for satisfying national regulations in the place of use.

Information concerning the essential characteristics of CE-marked products cannot be given in any way that conflicts with the CE-marking information. Nor can information that is not specified in the harmonised part of a European standard be given in the CE marking or DoP.

Not all construction products can bear the CE-marking

Construction products cannot bear the CE marking if they are not covered by a hEN or an ETA. Contracts and clients may require the use of products bearing the CE-marking, but this cannot be a blanket requirement for all construction products.

Fitness for purpose

CE marking concerns the marketing of construction products. It does not mean that products are fit for purpose, but the information accompanying the products can be used to show whether a product's performance meets the requirements of the design specification. This requires design specifications to be written in similar terms to those used in the hEN or ETA.

What does the Construction Products Regulation (CPR) mean for builders and specifiers, and what do they need to do about it?



REQUIREMENTS (CONTINUED)

Historically, a simple reference to a BS or to a category of product within a BS was sufficient to identify a suitable product. Within the past two decades, many product standards have been redrafted as European standards, and the way technical data is expressed sometimes differs significantly from the way it is given in older job specifications, design codes and regulations. It is essential to check carefully that the class, level or value of each relevant essential characteristics of a product matches those required by the job specification. This is especially true where an alternative to a particular brand, type or class of product specified for the job is being used.

Satisfying Building Regulations and NHBC Standards

The UK Building Regulations do not require the use of CE-marked products although, in practice, their use will often provide an easy way to show that requirements are being met. The situation is similar for satisfying *NHBC Standards*.

Characteristics not covered by hENs or ETAs

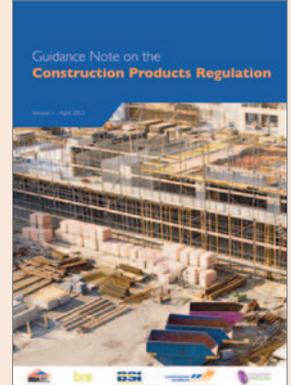
European product standards can cover product characteristics that fall outside the scope of the harmonised part, because they are not subject to regulation in any Member State.

Notified bodies

For some products, the CE-marking procedures require the involvement of a third party to undertake certain tasks as specified in the hEN. These include activities such as type testing of products, inspection of factory production control and surveillance of factory production control. The level of involvement is subject to legal decisions and cannot be varied in job specifications. Suitable third-party bodies, including technical assessment bodies (TABs) for the ETA route to CE-marking, are notified by their Member States.

Sources of further information

- The text of the **Construction Products Regulation (EU) No 305/2011 (CPR)** www.eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:088:0005:0043:EN:PDF
- **Guidance note on the Construction Products Regulation, Version 2**, prepared by the Construction Products Association (CPA), the British Board of Agrément (BBA), British Standards Institution (BSI) and FBE Management Limited in consultation with the Trading Standards Institute (TSI). www.constructionproducts.org.uk/?eID=dam_frontend_push&docID=1443&filename=CPR_Version_2_draft_13.pdf
- A link on this EU Commission page to publications in the Official Journal gives the current **list of harmonised European standards** and their dates of applicability and coexistence, www.ec.europa.eu/enterprise/policies/european-standards/harmonised-standards/construction-products/index_en.htm
- EOTA website for a database of valid **European Technical Approvals** issued under the Construction Products Directive www.eota.be Note that these can remain valid for up to five years from the date of issue. From 1 July 2013, European Technical Assessments will be issued and will gradually replace the old form of ETA.
- NANDO database for the CPR gives details of **Notified Bodies** www.ec.europa.eu/enterprise/newapproach/nando/index.cfm?fuseaction=directive.notifiedbody&dir_id=33



YOU NEED TO...

- Be aware of the changes introduced by the Construction Products Regulation, with further information available through the links.

GUIDANCE AND GOOD PRACTICE

Juliette balconies – design, fabrication and installation considerations



Who should read this: Technical and construction directors, managers, architects, designers, site managers, fabricators and installers.

INTRODUCTION

Juliette balconies are now a common feature on many low and medium-rise developments, and are used on a wide range of building types and structural forms. This article discusses concerns related to the fixing of Juliette balconies to the building structure and the considerations necessary to ensure adequate design, stability and robustness. If not adequately fixed, Juliette balconies can present a potentially significant risk to the health and safety of homeowners.

STANDARDS CHAPTERS

Chapter 7.1	'Flat roofs and balconies'
With particular regard to clauses:	
7.1-D3 & 7.1-D4	Structural design
7.1-D10	Guarding to balconies, including Juliette balconies
7.1-D12 & 7.1-D13	Provision of information
7.1-M1	Materials
7.1-S1 & 7.1-S10	Sitework for guarding to balconies

GUIDANCE

Background

Due to the potential health and safety implications, NHBC is becoming increasingly concerned at the level of consideration being given to the design of Juliette balconies, their fixings to the supporting structure and the capacity of the supporting structure to adequately resist the applied forces. Recent issues include:

- Lack of structural design calculations to justify the balcony guarding, the fixings/anchorage and the supporting structure to which the balcony guarding is connected.
- Designs to obsolete or superseded British Standards.
- Failure to comply with the manufacturer's requirements for proprietary Juliette balconies.
- The use or substitution of fixings that do not meet the design calculations.
- The use of fixings with no test data to substantiate their safe working loads (e.g. tension/pull-out loads and shear strength) in the type of building structure to which they are being fixed (e.g. blockwork, brickwork, concrete, etc.).
- Solid infill panels of glass/plastic not satisfying the requirements of BS 6180 and/or being tested for resistance to impact loadings to BS 6206.
- Reliance on single fixings, no load factor being applied to loads in potentially critical situations.

- No consideration of the position of the fixings to the supporting structure (e.g. edge distances, varying substrate types, bed joints in masonry, etc.).

The design of Juliette balconies needs to ensure that all component parts of the structure have been adequately designed by an appropriate person to support the applied loads safely, including: handrails, infill panels or balusters, fixings and the supporting structure.

Design standards

Juliette balconies should comply with relevant standards and codes of practice, including BS 6180:2011 *Code of practice for barriers in and about buildings*.

In addition to catering for appropriate potential load cases, the building/balcony designer must have due regard for the design and detailing of attachments, anchorage of the barrier to the substrate and the material into which the anchorage is made. In order to ensure the safe transfer of the design loads, via the fixings, to the supporting structure, the type of fixings specified are to be suitable for the supporting structural element and appropriately located to reflect the design assumptions.

It is extremely important to ensure that the designer takes due account of material or substrate into which the fixings are to be placed (e.g. the brickwork, blockwork, concrete or timber frame that forms the building structure).

For technical advice and support, call 01908 747384 or visit www.nhbc.co.uk



GUIDANCE (CONTINUED)

The type of fixing, and situation it is to be used in, needs careful consideration. The horizontal load cases will result in tension forces being applied to the fixings being used, and the 'pull-out' value will be of critical importance.

Different manufacturers' fixings will have different safe pull-out loads for different substrates, minimum edge distances, fixing centres, etc., and values should be obtained for the design situation proposed. Fixings should be used strictly in accordance with the manufacturers' requirements.

For example, if the intention is to fix the balcony to masonry construction, the fixing type is to be suitable for the masonry unit used and consideration is to be given to the positioning of the fixings relative to mortar joints. In general, fixings should be located approximately centrally in a masonry unit (brick, block, etc.).

Care should always be taken to ensure that the positioning of the fixings into a suitable substrate does not compromise the height of the balcony, which should be a minimum of 1,100mm above finished floor level to satisfy the recommendation in Approved Document K (Protection from falling, collision and impact).

Fixings into non-masonry facades are also of concern, as the fixing locations will be less evident at the time of balcony installation. Hence, the integrity and robustness of the fixing into the backing wall may not be fully understood.

Recommendations on fixing and other issues are provided in the Code of Practice and, in particular, Clause 6.5 includes the following:

The strength of fixings, attachments and anchorage securing the barrier to a substrate should be adequate to sustain a loading greater than that to which the barrier will be subjected.

All joints should be designed to provide the full strength of the members being joined. To that end, where any uncertainty exists with regard to the strength of any component in the fixing, the design loading factors should be increased.

Fixing design should take particular account of the material into which the fixing is placed, the spacing between fixings, the edge distance and, where the substrate is concrete, the position of reinforcement.

Reliance on the pull-out capacity of a single fixing should be avoided.

(NOTE 1 – The recommendation of an additional load factor is intended to ensure that, under an extreme load condition, barriers give an indication of failure by deflection distortion and not by total collapse, as would be brought about by a failure of the fixing, attachment or anchorage system.)

Where the design strength of a proposed system of fixing to an existing substrate cannot be determined with reasonable accuracy by theoretical consideration, load testing should be used to validate the design.

(NOTE 2 – An additional factor on barrier load design might also be appropriate.)

Additionally, solid infill panels of glass or plastic used in Juliette balconies should comply with the requirements of BS 6180:2011 and be tested for impact loadings in accordance with BS 6206 and BS EN 12600.

Design and construction considerations

In masonry construction, it is preferable for fixing arrangements to comprise:

- Plates or brackets at the top and bottom of the balcony to each side of the opening, each with two or three fixings (see Plate 1).
- Vertical multi-point fixings located down either side of the opening (see Plate 2).
- Fixings located approximately centrally in whole, solid units, suitably distant from the reveal.

However, it is preferable to avoid:

- Reliance solely on single fixings, where these are critical to the safe anchorage of the balcony.
- The use of closely grouped fixings, if this results in all the fixings at any individual bracket being located in a single masonry unit or in joints around a masonry unit (see Plate 1).
- Fixings made into a masonry unit, but close to any edge of the unit (see Plate 2).
- Fixings made into mortar joints (see Plate 2).

If these situations cannot be avoided, consideration should be given to strengthening measures for the substrate and/or a load factor applied to the design loads to increase confidence in the anchorage.



Plate 1 – Discrete Juliette balcony fixing cleats (three fixings per cleat). But, beware of grouping fixings so closely that they are all likely to be located in a single masonry unit or the surrounding mortar joints.

GUIDANCE AND GOOD PRACTICE

Juliette balconies – design, fabrication and installation considerations



GUIDANCE (CONTINUED)



Plate 2 - Vertical multi-point fixing. But, beware of positioning the fixings so that they are not located close to the edge of a masonry unit or in the mortar joints.

Fabrication and installation considerations

To achieve a coordinated approach to the design, manufacture and installation process, full details of the superstructure construction should be made available to the designer. It is important that the designer clearly communicates their intentions to the Juliette balcony manufacturer and the installer.

The balcony manufacturer should ensure they have clarity from the designer on fixing types and locations. The installer should make sure they have clarity from the designer on aligning the balcony fabrication with the supporting elements of construction.

Coordination between the designer, manufacturer and installer is essential so that the design assumptions are reflected in the finished works.

Therefore, good communication at all stages and at all levels is vital to ensure the appropriate fixings are used and that they properly align with the structural elements as assumed by the designer. Installation instructions should be provided and adhered to during installation.

YOU NEED TO...

- Ensure that an appropriate design has been prepared for the Juliette balcony in accordance with current design standards and guidance. Where the design responsibilities are split between different consultants and contractors, make sure that there is communication and coordination.
- Use the fixings specified in the design. If different sized fixings or alternative products are used, check with the designer(s) that these are acceptable.
- Make sure that load/pull-out test data is available to substantiate that the fixings will generate the safe loads required by the design in the material.
- Have pull-out tests undertaken on site if no safe load values are available from the manufacturer for the fixings into the proposed substrate/building structure.
- Make sure installers comply with the designer's requirements and the manufacturer's recommendations for the installation of fixings.
- Ensure that the designer has checked that the building structure can safely support the loads from the balcony.

For technical advice and support, call 01908 747384 or visit www.nhbc.co.uk



Who should read this: Technical and construction directors and managers, architects and designers, and site managers.

INTRODUCTION

On the face of it, many house builders would probably say that stairs are not their number one priority. However, digging a little deeper, many will admit that stairs can give them problems, both during construction (the staircase won't fit the aperture!) and post construction, where the stairs may squeak or become unstable, resulting in a complaint from the homeowner. NHBC's claims data confirms that, in recent years, over two-thirds of all valid claims relating to stairs in years 3 to 10 relate to insecure strings, risers, newel posts and, in particular, treads.

The British Woodworking Federation (BWF) has recognised these problems and launched the Stair Scheme. Members of the scheme are manufacturers and suppliers who have been accredited and certificated by the BWF.

GUIDANCE

Because the installation of the stairs is just as important as the manufacture, the BWF has produced a 'top 10 tips' guide to successful staircase installation. The guide starts at the first discussions a builder needs to have with the staircase manufacturer, and continues through site delivery, handling, storage, installation and, finally, protection to prevent damage so that the homeowner gets a pristine product.

Health and safety is also important, particularly so during installation into the aperture in the floor.

A summary of the 'top 10 tips' are shown in the box, and the full fact card can be downloaded from the BWF website at www.bwf.org.uk/assets/stair-installation-guide-web-ready-final.pdf

A link is also provided in the supplementary resource section of *Standards Plus* - Chapter 6.6 - Staircases; www.nhbc.co.uk/StandardsPlus

The fact card provides details of how to identify a staircase manufactured under the scheme, including discreet badges.

Using stairs manufactured under the BWF Stair Scheme and following the guidance given in the fact card should ensure that the stairs will be correctly installed and be free of problems for many years to come.

Preparation	
1	Stop before you start
2	Minor change, major impact
3	Don't trash it in transit
4	Did everything arrive?
5	Fit it now or store it carefully
Installation	
6	Get the first step right (literally)
7	It might not be just a tweak
8	Level it, fix it, snag it
Protection	
9	Safety on site from DAY ONE
10	Take care and protect the stair

YOU NEED TO...

- Consider the benefits of using the BWF Stair Scheme.
- Check the BWF website for more information, including the full fact sheet and details of members of the scheme.

For technical advice and support, call 01908 747384 or visit www.nhbc.co.uk

GUIDANCE AND GOOD PRACTICE

Waste water heat recovery (WWHR)



Who should read this: Technical and construction directors and managers, architects and SAP/energy assessors.

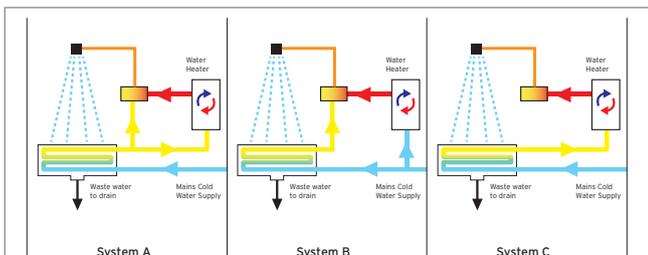
INTRODUCTION

We typically shower in water at approx. 40°C, and the water has lost very little heat by the time it goes down the plughole at approx. 36°C. So, every time we take a shower, water with a considerable amount of energy is quite literally going down the drain.

Waste water heat recovery (WWHR) is a technology that allows the energy stored in this waste shower water to be returned to the hot water system, and therefore reduces CO₂ emissions and fuel costs.

GUIDANCE

WWHR is a simple, passive, yet effective, technology using heat exchangers to recover up to 68% of the energy going into the plumbing system (depending on flow rate of shower and type of WWHR device). With no mechanical or moving parts, no end-user interaction and little or no maintenance required, the systems use a heat exchanger to transfer the energy from the outgoing waste water to the incoming cold mains water. This preheats the mains water, which is then distributed in three potential methods (see diagram below).



System A - Preheated water supplied to shower mixer (cold inlet) and domestic water heater
System B - Preheated water supplied to shower mixer (cold inlet) on the shower only
System C - Preheated water supplied to domestic water heater only

The majority of systems being installed in the new-build market are vertical pipe systems, as these offer the best ratio between cost and efficiency. However, they are only really suitable for first-floor showers (or higher) in houses. Horizontal systems are available for wet rooms or designed into shower trays for situations where the vertical system cannot be installed (e.g. ground-floor showers or in apartments).

Technical requirements

The main requirements for these installations are:

- The domestic water heater (unvented cylinder, combination boiler, hydraulic interface units, etc.) is fed from the cold mains.
- A thermostatic mixing valve is used to control the temperature of the shower.
- WWHR systems with a double-walled exchanger offer a sufficient barrier between the waste water and cold mains for water regulations. A single-walled exchanger requires a trap below the system to produce an air break.
- Needs Water Regulations Advisory Scheme (WRAS) approval/certification.
- Must be installed within the warm envelope.
- For SAP purposes only, cannot be installed in conjunction with an instantaneous electric shower, as it will increase the performance of the shower rather than save energy.
- More than one shower can be connected to a device, but consideration needs to be given to length of waste run and pressure drop in the cold mains supply.
- If installing more than one in a home, only one system can be attached, as System A and all other systems need to be System B.

Further information on WWHR is included in NHBC Foundation report NF43 - Energy efficient fixed appliances and building control systems, available from www.nhbcfoundation.co.uk

YOU NEED TO...

This article is for general interest. There are no actionable requirements.

For technical advice and support, call 01908 747384 or visit www.nhbc.co.uk

Code of Practice for the safe installation of precast concrete flooring and associated components



Who should read this: Technical and construction directors and managers, architects and designers, and site managers.

INTRODUCTION

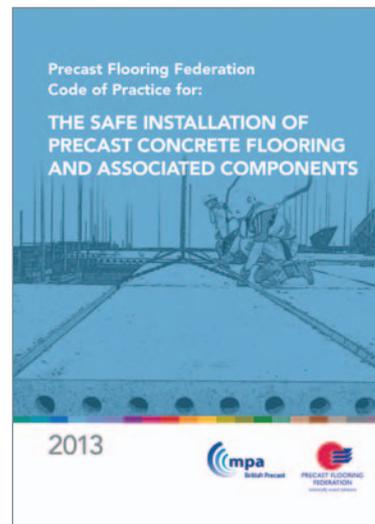
The latest edition of the highly respected and well-established *Code of Practice for the safe installation of precast concrete flooring and associated components*, produced by the Precast Flooring Federation, was launched in May.

GUIDANCE

The revisions follow partly in the wake of a national month-long drive in 2012 by the HSE to improve standards on construction sites in an initiative aimed at reducing death, injury and ill health. The inspectors' primary focus was on high-risk activity, such as working at height, and also 'good order', such as ensuring sites are clean and tidy with clear access routes.

Their aim in increasing safety awareness is that, in spite of the significant reductions in the number and rate of injury to workers in the UK over the past 20 years, construction still remains a high-risk industry and continues to see more deaths than any other industrial sector. Although it represents only about 5% of the employees in Britain, construction activities account for 27% of fatalities and 9% of reported major injuries. In 2011-12, there were 49 fatal injuries to construction workers - a rate of 2.3 deaths per 100,000 workers. This compares with an average of 59 deaths in the past five years and a decrease from the 50 deaths (and rate of 2.3) recorded in 2010-11. Falling from height remains one of the most common causes of fatalities and major injuries, with more than five incidents recorded every day.

During the initiative, the HSE inspectors concentrated on making sure that: jobs that involved working at height had been identified and properly planned to ensure that appropriate precautions were in place; equipment was correctly installed, assembled, inspected, maintained and used properly; sites were well organised, to avoid trips and falls; walkways and stairs were free from obstructions; and work areas were clear of unnecessary materials and waste.



Since its launch over a decade ago, the PFF's Code of Practice has become acknowledged a best-practice document for the industry, covering planning, organising, managing and carrying out work safely. It provides useful and often vital information for architects, structural engineers, main contractors and

subcontractors, as well as for managers, supervisors, foreman and operatives of the precast flooring specialists. The new and revised edition of the 106-page Code, which has been several years in preparation assisted by members of the HSE, is available as a free download from the PFF website, along with a number of loose-leaf ring-binder copies for members, training organisations and the HSE.

For further information on NHBC's Health & Safety Service, call 0844 633 1000 and ask for 'Health and safety'.

YOU NEED TO...

This article is for general interest. There are no actionable requirements.

For technical advice and support, call 01908 747384 or visit www.nhbc.co.uk

GUIDANCE AND GOOD PRACTICE

NHBC Foundation



Who should read this: Everyone

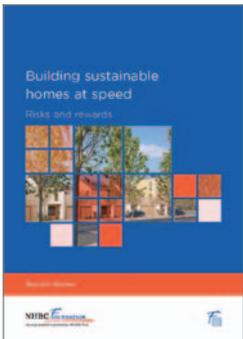
INTRODUCTION

Supporting the industry with high-quality research and practical guidance, all NHBC Foundation reports are available to download free of charge at www.nhbcfoundation.org.

Here are summaries of the latest publications.

GUIDANCE

Building sustainable homes at speed - risks and rewards (NF48)



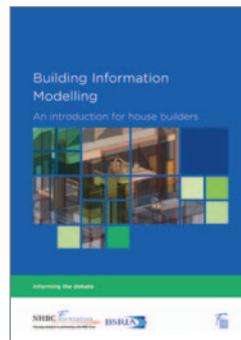
It is perhaps an irony that the title of this report refers to building homes at speed when our current annual housing output is at one of the lowest levels in recorded history. However, the growing need for more homes to be built, along with new construction techniques, have presented the house-building industry with difficult judgements about whether these

innovative approaches can fulfil their objectives and produce durable, healthy, low-maintenance housing.

This new research review gives a series of case studies of selected sustainable housing developments which had the potential to achieve significant gains in construction speed by using innovative approaches. It summarises the risks that house builders, registered providers, manufacturers and design teams should be aware of when considering how to build sustainable homes quickly, highlights the risks that are of most concern and suggests how the most significant risks can be avoided or mitigated.

To view and download the report, please visit www.nhbcfoundation.org/buildinghomesatspeed

Building Information Modelling (NF49)



Building Information Modelling (BIM) is a process for managing the information produced during a construction project, from the earliest feasibility stages right through design, construction, operation and, finally, demolition.

It is a term which seems to be everywhere in construction nowadays, and is being hailed as a tool for improved productivity and quality. However, it is important to understand what is involved in BIM, and how its use may affect the roles and tasks performed in design offices and on construction sites.

Many involved in the sector are not aware of it, and most of those who have engaged with it so far don't see how it can benefit them in their daily work. This report explains what BIM is, assesses the house-building industry's current engagement of BIM, and looks at ways in which it might make the most of the opportunities BIM presents.

To view and download the report, please visit www.nhbcfoundation.org/bim



GUIDANCE (CONTINUED)

Designing homes for the 21st century - lessons for low energy design (NF50)



May 2013 saw the publication of NHBC Foundation's 50th research report, one that ties in perfectly with its aims to lead debate and thinking across the industry, titled *Designing homes for the 21st century - lessons for low energy design*.

Without proposing what a 21st-century home might actually look like, this guide looks at how to improve processes and decisions to achieve cost-effective, robust and functional low-energy design.

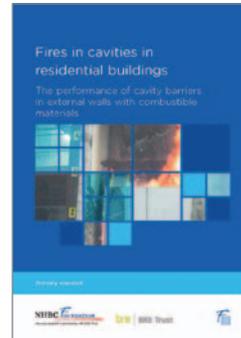
The aim of the guide is to promote a better understanding of the 'whole' without getting drawn into the detail of specific technological solutions or regulations, proposing a model for planning new homes that splits into four stages: evaluation, best practice, integration and optimisation. It advocates a 'fabric first' approach, making sure that insulation, airtightness and ventilation are designed to give the best practical performance before low-carbon technologies are applied.

To coincide with the launch of this 50th research publication, NHBC Foundation has put together a short informative podcast, available from the NHBC Foundation website:

www.nhbcfoundation.org/NF50podcast

To view and download the report, please visit www.nhbcfoundation.org/21stCenturyhomes

Fires in cavities in residential buildings (NF51)



In recent times, there has been significant interest, scrutiny and debate from stakeholders about the risk of fires in timber-framed buildings, with one particular area of concern being the unseen spread of fire within wall cavities and roof voids.

As a follow-up to the 2011 publication *Fire performance*

of new residential buildings, this report focuses specifically on fire spread within external walls where the cavity between the external façade and the structural frame is incorporated either as a lining material or as a form of insulation (or both).

In support of the project, a programme of 21 fire experiments on walls containing various options for sheathing and cavity barriers was undertaken.

Guidance is provided for contractors, building control authorities and other building professionals on best practice relating to the installation of cavity barriers and inspection techniques, both during and post construction.

To view and download the report, please visit www.nhbcfoundation.org/firesincavities

YOU NEED TO...

This article is for general interest. There are no actionable requirements, although readers are advised to note the findings of the reports.

If you have any doubts as to whether NHBC requires additional information, discuss with your normal NHBC contact and/or Standards and Technical on 01908 747384.



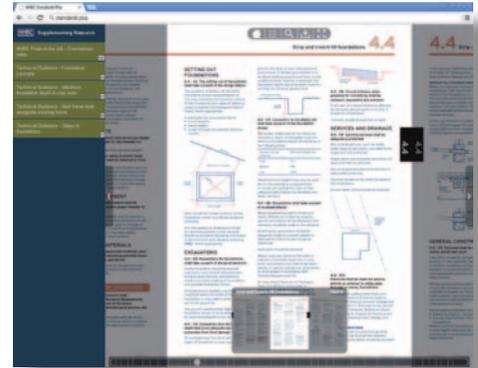
NHBC STANDARDS PLUS

NHBC Standards Plus is the fully interactive online version of the *NHBC Standards* that includes a range of supplementary technical information all in one place.

It's available **FREE** to registered builders, developers and subscribers to *NHBC Standards*.

Benefits of *NHBC Standards Plus*:

- Free, fast online access available 24/7 - suitable for site, office and home-based working.
- All in one place - a single, fully interactive digital publication with extensive technical guidance and support.
- Colour coding to improve navigation.
- Built in 'word search' function.
- Extra technical content, such as videos and Technical guidance Notes, filtered by Standards Chapter.
- An option to print, save or forward sections of information.
- Storage of bulky documents reduced.



Early feedback on how *Standards Plus* is being used is encouraging. To date, pages most often viewed relate to *NHBC Standards Chapters 7.1* 'Flat roofs and balconies', 7.2 'Pitched roofs' and 9.2 'External works'.

For further information, including a demonstration video showing how it works, please visit www.nhbc.co.uk/StandardsPlus.

LAND QUALITY ENDORSEMENT

Land Quality Endorsement (LQE) from NHBC assesses brownfield and contaminated sites when they are being redeveloped for housing against the requirements of *NHBC Standards*, for the purposes of determining suitability for Buildmark cover.

In the past, there has been no formal process for non-NHBC registered companies to submit proposals for contamination investigation and remediation to NHBC for assessment. The LQE Service now provides this facility. LQE has been shown to:

- reduce uncertainty in land negotiations; major risks will be identified, risk assessed and quantified
- minimise the potential for delays in the sale of new homes on remediated land
- provide confidence that the foundation solutions suit the remediation techniques used on site
- reassure prospective purchasers that the site is acceptable for NHBC Warranty
- provide guidance on meeting NHBC's Technical Standards.

LQE is suitable for sites that are remediated prior to sale for residential development. NHBC liaises and works with the promoter of the project and the appointed consultants to ensure that, following remediation, the site will be considered suitable for the provision of NHBC Buildmark cover. NHBC is already working on some of the largest remediation schemes in the UK and could help you too.

For more information on LQE, please contact **0844 633 1000** and ask for 'LQE' or email lqe@nhbc.co.uk.



CUSTOMER SATISFACTION SURVEYS

Back in 2004, and in response to the Barker Review, NHBC teamed up with the Home Builders Federation to design and implement the National New Homes Customer Satisfaction Survey. Targeted improvements by the industry, as a result of this satisfaction data, have resulted in year-on-year improvements, and the number of house builders scoring a 5-star rating has risen from one in the first year of the survey to an impressive 13 out of the 16 builders last year.

Response rates achieved are way above those seen in most other market research activity, which shows the level of importance homeowners place on the purchase of their new home.

Major new improvements to the online reporting tools mean that the reports are now easier than ever to use and house builders can interrogate and drill down into the satisfaction results to understand more about their customers' experience.

Many builders are also choosing to add customised questions to the survey to find out even more about their performance, and this is a really cost effective way of undertaking bespoke customer satisfaction surveys.

To find out more about how the customer satisfaction survey can benefit your business and to start using the new reports, contact **Toby Phillips** on **07841 784213**.



NEW AND IMPROVED AIR LEAKAGE TESTING SERVICE FROM NHBC

NHBC has joined forces with BSRIA, an organisation with over 50 years' experience supporting and advising the construction industry on energy and water efficiency, and best practice in construction and the effective operation of buildings.

Benefits of the new partnership include:

- efficiency of service - on-site provisional air leakage reports with full certification usually supplied within 24 hours
- real-time transfer of test results from site directly to the admin team
- reduction in testing time, resulting in minimised site disruption
- shorter lead times for test bookings
- more cost-effective compliance solution
- access to Part L2 testing for communal areas and non-residential properties
- Part F ventilation testing available at the same time as your air leakage test.



For further information, visit www.nhbc.co.uk/productsandservices/consultancyandtesting or call **0844 633 1000** and ask for 'energy'.

OVER 95% OF NEW BUILDMARK ACCEPTANCES COMPLETED ONLINE

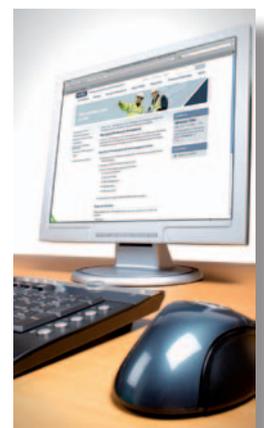
Making your life easier at builder year end

Since the launch of Manage Buildmark Acceptance (MBA) in November 2012, of the policies which have been registered and accepted, 95% have been completed online.

The MBA system allows you to manage the acceptance of Buildmark process easily. There are no paper acceptance packs to store or send anymore, and you can access policy numbers and activation codes whenever they are required.

Feedback has told us that the new online system means that managing Buildmark acceptance has never been so easy. For some builders, the year end is just around the corner, and using MBA will enable you to access all the Policy Numbers and Activation Codes for your plots quickly and easily - saving you time, money and effort.

Watch the video to find out how easy it now is to manage Buildmark acceptances online, by visiting www.nhbc.co.uk/acceptance or call us on **0844 633 1000** and ask for 'Acceptance'.



TECHNICAL NEWS

Defra guidance note explains the impact on Reservoirs Act 1975 arising from the Flood and Water Management Act 2010

Defra have published a guidance note on changes to the Reservoirs Act 1975, arising as a result of the Flood and Water Management Act 2010. In a phased approach to implementation of the changes, raised reservoirs with a capacity between 10,000 and 25,000 cubic metres will be brought within the scope of the Reservoirs Act 1975. The implementation date(s) in England and Wales for this phase has yet to be announced.

However, the arrangements for reservoir safety in the future will be based on risk, rather than the size of the reservoir. So, requirements for inspections, monitoring and supervision will only apply to reservoirs designated 'high-risk' by the enforcement authority in whose area the reservoir is situated.

You can read the Defra note guidance by clicking on the link below:

www.archive.defra.gov.uk/environment/flooding/documents/policy/fwmb/fwma-reservoirfactsheet.pdf

Building for tomorrow (Bft)

May saw the last of the 2013 Bft seminars. Once again, the seminars appear to have been well received, with over 600 delegates attending the nine venues around the country. Thanks to those exhibiting and delegates alike, your feedback will help shape next year's agenda, details of which will become available at www.nhbc.co.uk later in the year.

NHBC Inspection

Recently, and as part of the wider campaign to raise standards in pitched roofs, a new proforma has been introduced. '*Pitched roof coverings*' highlights key issues, completion of which by site managers in conjunction with their local NHBC inspectors will help to ensure important areas are considered early, before they become an issue during construction or once homes are occupied.

Your NHBC inspector will be discussing these on both new and ongoing sites.

See Chapter 7.2 of *NHBC Standards Plus* for the latest supplementary information and training available relating to pitched roofs, or visit www.nhbc.co.uk/StandardsPlus.



Latest NHBC Technical guidance related to electrical fittings near cookers and sinks

Whilst Technical guidance generally provide additional interpretation supplementing the *NHBC Standards*, deviation from which is likely to result in reportable items being noted in site record books, issues found on site in relation to electrical fittings near cookers and sinks will generally be recorded as observations subject to some rational fact and degree (for example, directly over a sink) until the guidance is fully incorporated into the Standards.

NHBC Standards on mechanical ventilation and heat recovery (MVHR)

As advised in *Technical Extra* Issue 09, the 2014 version of *NHBC's Standards* will incorporate a new Chapter on MVHR. Development of the new Standard is well advanced and will be completed shortly, with publication due later this year; ahead of its introduction in 2014.



“If something’s
not right, I’ll
zoom in on it.”

Tony

NHBC Inspection Manager
and photographer

There’s a reason why the majority of
the UK’s new homes have an NHBC warranty.
It’s because inspection managers like Tony
insist that his team do a thorough job before
issuing one of our market-leading warranties.

In the long run, this attention to detail ensures
that you and your customers are fully covered.
Now that’s well worth focusing on.

To find out more about the services
we offer, visit www.nhbc.co.uk or call

0844 633 1000



THE TRUSTED PARTNER OF
THE HOMEBUILDING INDUSTRY

Useful contacts for technical information and advice

NHBC technical advice and support

Tel: 01908 747384

Email: technical@nhbc.co.uk

Web: www.nhbc.co.uk/builders/technicaladviceandsupport

Technical Extra

Previous editions of *Technical Extra* are available on our website at www.nhbc.co.uk/Builders/ProductsandServices/TechnicalExtra.

NHBC Standards

Buy online at: www.nhbc.co.uk/nhbcshop/technicalstandards or access the new digital format online via the NHBC Extranet at: www.nhbc.co.uk/builders/NHBCExtranet.

Building Regulations

For guidance on issues relating to Building Regulations, please visit NHBC's TechZone at www.nhbc.co.uk/techzone.

Building Control

For Building Control queries, please call 0844 633 1000 and ask for 'Building Control', or email buildingcontroladmin@nhbc.co.uk.

Engineering queries

For Engineering queries, please call 0844 633 1000 and ask for 'Engineering'.

NHBC Foundation research

The NHBC Foundation facilitates research and shares relevant guidance and good practice with the house-building industry.

www.nhbcfoundation.org

Training

For information about training, please go to www.nhbc.co.uk/training, call 0844 633 1000 and ask for 'Training', or email training@nhbc.co.uk.

Zero Carbon Hub

The UK Government has set out an ambitious plan for all new homes to be zero carbon from 2016. The Zero Carbon Hub helps you understand the challenges, issues and opportunities involved in developing, building and marketing your low and zero carbon homes.

www.zerocarbonhub.org

NHBC Clicks & Mortar e-newsletter

NHBC regularly distributes information on a range of industry topics, including new products and services, the building industry market, house-building news and house-building statistics. To receive this industry information, please register at:

www.nhbc.co.uk/newsandcomment/registerfore-news.

NHBC Housing Developments e-newsletter

Housing Developments is a new, free resource, developed specifically for the affordable housing sector and designed to report on current industry developments and issues, with expert insights into affordable and social housing.

To receive this e-newsletter, please register at:

www.nhbc.co.uk/housingassociations/affordablehousingnewsletter.

General enquiries

For all other enquiries, including ordering products and services, please call 0844 633 1000, and ask for 'Sales'.

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