Pride in the Job Awards

# Best practice guide

## Section 5
## First fix operations

NHBC

# Best practice guide

**Our series of Best Practice Guides take you through what the Pride in the Job judges look for at each stage of construction and when considering the site manager's overall organisation and management skills.**

The Pride in the Job marking sheet used by our judges has 43 marking lines split across 10 sections. The judges will give a score for each line – where there is no work to mark, that line will be left blank and no mark given. A mark of four indicates compliance with NHBC Standards. A mark of five indicates extra attention to detail over and above compliance standards. A mark of six would indicate that much of what the judges have seen cannot be improved upon. A mark less than four would indicate varying issues relating to workmanship and non-compliance with NHBC's Standards – the greater the issue or number of the same issue, the lower the mark. The final score will be all the marks awarded expressed as a percentage.

These Guides set out what the judges are looking for with clear hints and tips on the sort of practice that will lead to higher marks.

Clearly it is impossible in these short guides to cover every single point of construction – we try here to cover the main issues that are taken into account when considering a mark for each score line.

When looking at the photographs, consider each one in the context of the score line heading – don't be distracted by something else that isn't as good – that will be marked accordingly elsewhere.

## Section 5

# First fix operations

Looking at a property at first fix stage is probably one of the best opportunities to see many aspects of the build before it all gets covered up – it's the skeleton of the home before boarding and painting takes place. This section covers those construction processes which would normally be available at this time. Bear in mind that many aspects of the quality of the home when it is finished are fixed at this stage – for example spacing of electric sockets and switches.

**Windows and door frames**

**Floor decking, stairs and soundproofing**

**Services – electrical**

**Services - plumbing**

**Services - ventilation**

**Non load-bearing and compartment walls**

**Plaster and dry lining**

**Fire stopping (first fix)**



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## Section 5

# Windows and door frames

**The judges will look at the correct installation of the frames including sufficient fixings to secure the perimeter, sides and the heads. The installation of external windows and doors should be complete to provide a watertight shell before other first fix operations commence. Attention should be given to obtaining a proper fit rather than placing an over-reliance on mastic and expanding foam, so we will be looking at the squareness of the reveals and tightness of fit of the windows and profiles.**

**NHBC requirements for fixings are maximum spacing of 600mm and within 150mm of the top and bottom (alternative locations and fixings are acceptable where they provide the same structural stability).**

**Pride** – Care in aligning, spacing and fixing of windows to complement subframes and vertical DPCs. Consistent and even sealing at the perimeters of the windows and doors. Further consideration of the application of protection as described in Section 9 (of work in progress) may be appropriate once installed. Attention should be given to obtaining a proper fit rather than placing an over reliance on mastic and expanding foam.


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## Section 5

# Floor decking, stairs and soundproofing

**The correct thickness of boarding for the joist spacing is to be used, and the decking should be fixed sufficiently to prevent future squeaks and creaks. Correctly specified decking glue should be present through the whole of the tongue and groove joint.**

**All free edges of the decking over the joists should be supported, and any holes through the floor should properly formed with a core drill. The perimeter edges of the decking should be cut square and sealed.**

**Stairs should be properly supported and comply with the Building Regulations regarding travel, particularly when serving more than one plot. The handrail arrangements and balustrade provision will also be judged.**

**Sound insulation of bathroom walls and soil and vent pipes needs to be done neatly. Water and waste transfer through SVPs and their associated branch pipes continue to be a significant issue on occupied homes.**

**Pride** – Alignment and solid fixing of stairs including a solid fixing into adjacent walls if appropriate, quality of balustrade work and finishing of the stairs in relationship to the floor. Good support to kite winders and the first riser. Protection of work in progress section may also be relevant here. Consistency of the cleanliness and width of gaps between decking and walls prior to subsequent dry lining or plastering. Judges will be looking for good management and installation of sound resistant construction. Tidy solutions to achieve double boarding to SVP boxings should receive extra marks.

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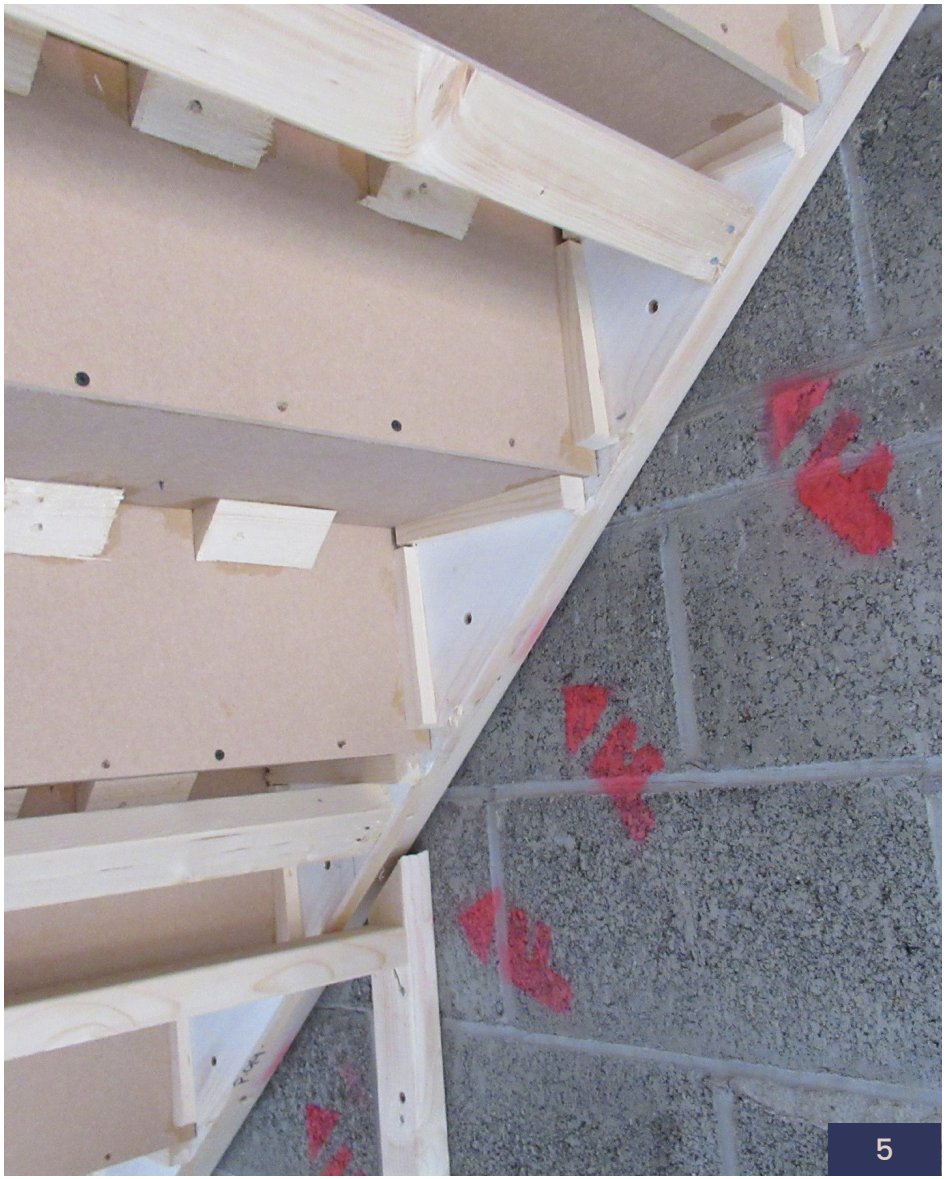
CaberDek
CaberFloor P5 with peelable protection
BBA Valid only when used with CaberFix adhesives/tapes. Refer to installation instructions.

4



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Section 5

# Services – electrical

**The forming of holes, chases and notches through the structural floor members by the electrical trades are to be marked under this heading. Also, the installation of the main services carcass, including the brackets, clips and other required supports, should be considered. Wiring is to be in appropriate safe zones.**

**Pride** – Considering the attention to detail and planning of wiring drops along with thoughtful and consistent setting out of sockets and switches, will help to enhance the overall internal appearance for the second fix. Care of installation into timber and metal frame studwork and at party-wall installations will be considered by the judges as will the consistency of clipping and support. Neatness of work is very important at this stage.


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## Section 5

# Services - plumbing

**The forming of holes, chases and notches through the structural floor members by the plumbing trades will be scrutinised. The installation of the main services carcass, including the brackets, clips and other required supports will also be considered. The protective wrapping and isolation of pipes from other pipes and materials, should be appropriately considered and carried out.**

**Pride** – Attention to detail and consistency of installation is important with particular thought given to separation of pipes, joists and masonry where they pass through to prevent noise due to differential or thermal movement in the finished home. Judges will look for temporary sealing of open-ended pipes to prevent debris and wet plaster from entering during the remainder of the build process. Temporary protection and securing of radiator loops which might be trodden on or otherwise damaged should be implemented. Again, overall neatness of work is important in demonstrating trades have a good understanding of what the site manager requires of them.

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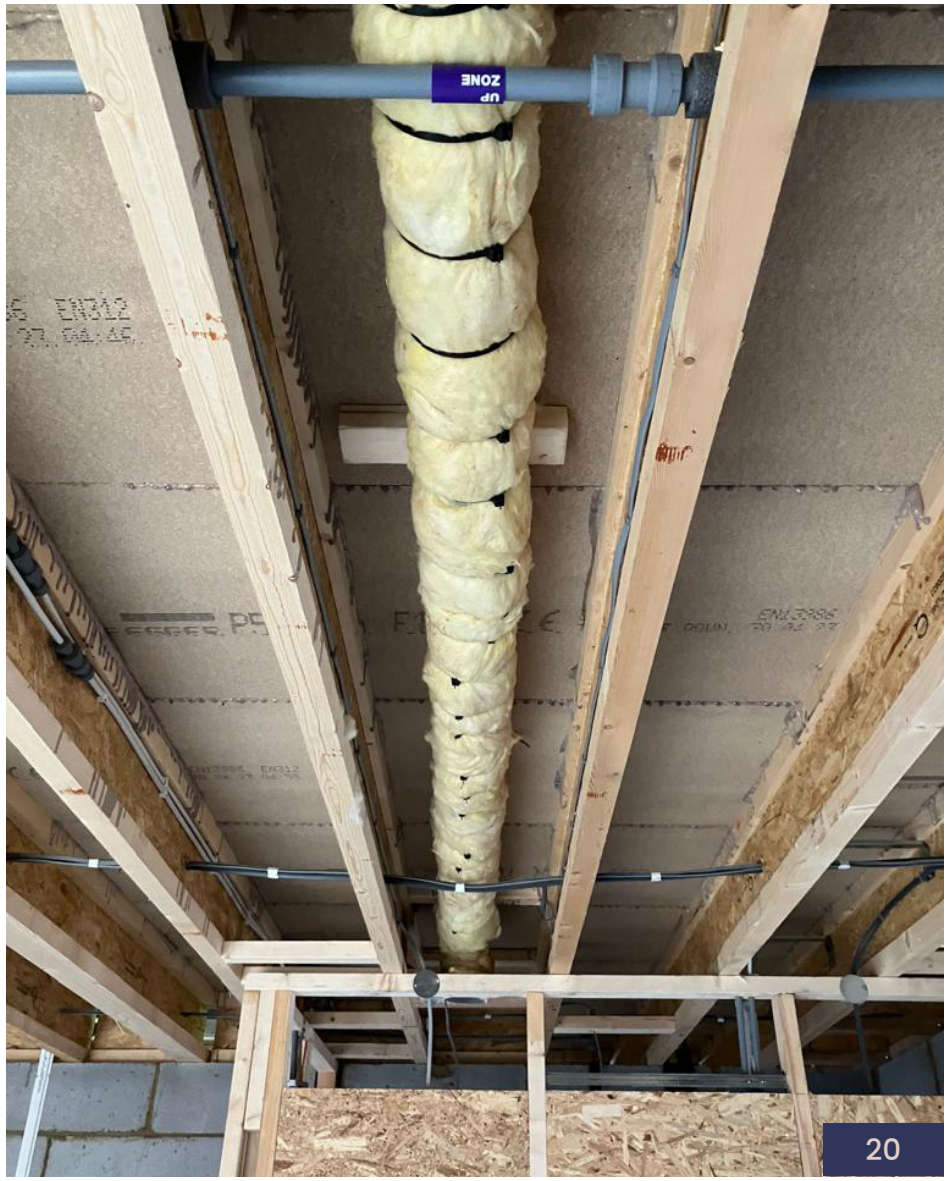
Section 5

# Services – ventilation

**The installation of brackets, hangers and other required supports to the ventilation ducting will be judged. If ducting passes through the cold roof space, appropriate insulation is to be fitted at time of installation. Inspection access openings need to be well planned and installed.**

**Where flexible duct is used, it should be restricted in length to ensure that the airflow resistance does not prevent the designed ventilation rate from being achieved. Where ductwork passes through an external wall, it should be positioned to slope slightly outwards to prevent water entering the building. Changes in direction of rigid ducting and the avoidance of sagging of flexible ducts are to be within acceptable limits. You should also consider that bends in ducting (either rigid or flexible) alter the displacement calculations of the extractor fan.**

**Pride** – Particular neatness and careful routing and support of ductwork to the outside environment may gain marks as will extra effort to use solid ducting. Careful coring of holes in external walls, with evidence of planning and precautions, to avoid penetration of cavity trays and spalling of brick faces would also gain marks.

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Section 5

# Non load-bearing and compartment walls

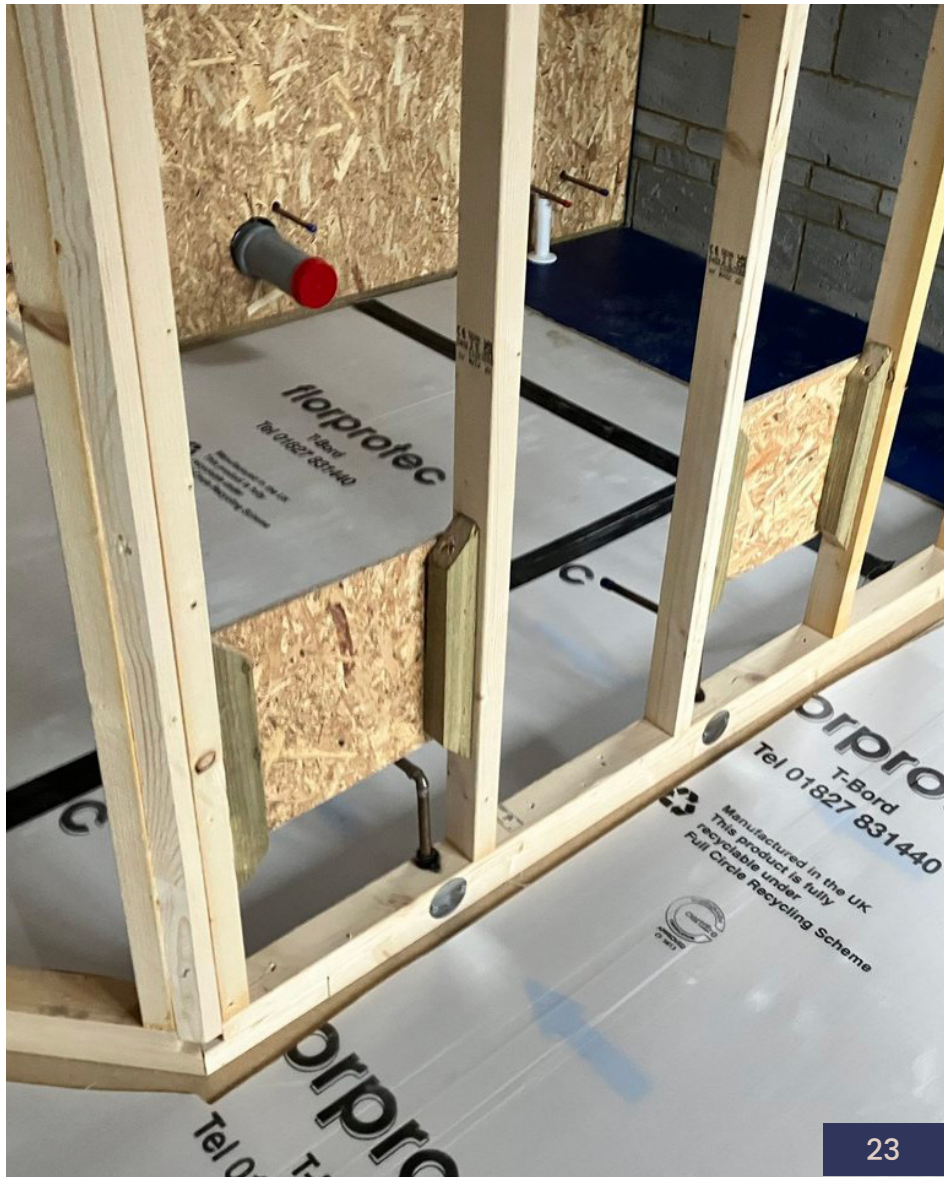
**The judges will assess blockwork, metal or timber construction of internal walls. The fixings and overall stability are the main criteria. The fixing of the soleplate to the decking will be scrutinised as will the formation of deflection heads between non load-bearing walls and soffits.**

**Provision of appropriate DPC material between timber or metal partitions and the ground floor is an important consideration. The protection of copper pipes within galvanised partition walls needs to be checked.**

**Extra timber noggins or dwangs should be installed adjacent to the side of the stairs to catch any plasterboard edges and provide a more robust fixing in a high traffic area.**

**The spacing of studs around tiled rooms (or rooms that may become tiled in the future) should be at 450mm centres to cater for the extra weight.**

**Pride** – Where timber or metal walls are constructed, additional marks may be gained where studs are accurately cut to the size of the opening. Extra attention to detail of the above is key to ensure performance standards are achieved. Other factors for masonry and frame mentioned earlier will also apply – coursing, setting out etc.


floorprotec
T-Bord
Tel 01827 831440
Manufactured in the UK
This product is fully
recyclable under
Full Circle Recycling Scheme
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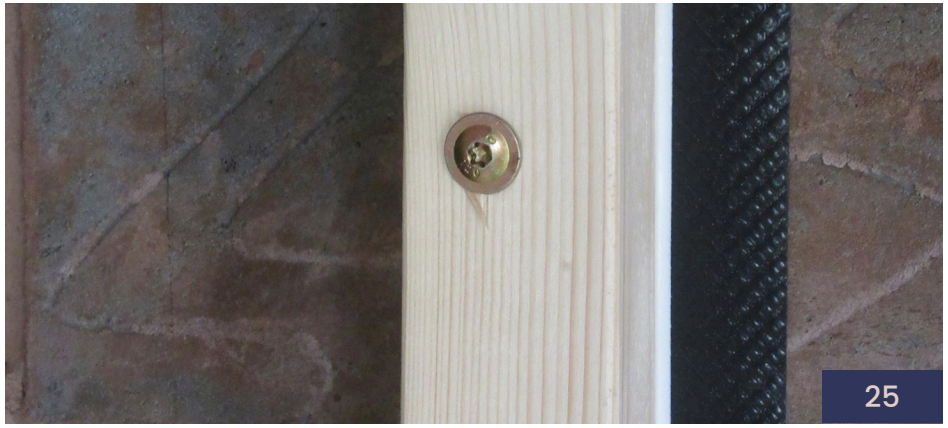
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## Section 5

# Plaster and dry lining

**One of the basics to consider is that dry lining/plaster boarding should not be started until the building is watertight. The judges' marking will review the correct number and spacing of screw fixings to the boards, the quality of cutting for openings around sockets, switches and other areas as well as the gap sealing of cut edges.**

**Over-screwing of boards should be avoided with the fixing finishing just below the surface of the board and not tear through the paper. You should check plumb and squareness to corners, margins, recesses and projections, including pipe boxing.**

**The flatness of walls and ceilings are important. The correct boards being used in their correct locations ie, around shower trays and other wet areas.**

**Pride** – Accuracy and consistency in fixing boards to studs and joists, staggering boards over doorways, care of cuts around sockets and where boards meet other elements, and solid dabbing of boards where applicable. Consistent care taken in the formation of square boxing and reveals to assist following trades. Consistency of screw fixings to dry lining – spacing and distance from edge of boards.

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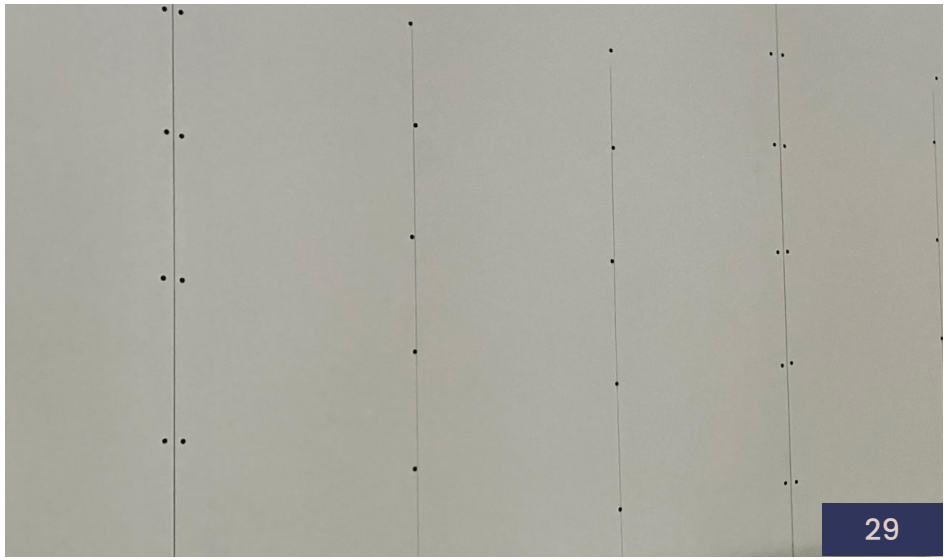

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## Section 5

# Fire stopping

**Fire separation between compartments, protected routes and protected shafts should meet the performance requirements necessary for the building. There is a greater focus right across the industry for fire stopping and fire barriers to be excellent in their installation.**

**Fire-resistant doors and frames should be fitted correctly to ensure adequate means of escape and to ensure that no excessive gaps are present between the frame lining at the door reveal.**

**The record keeping for building owners is of paramount importance – this is another opportunity for site mangers to demonstrate their leadership skills, technical abilities and talent to influence the quality on site.**

**Pride** – There should be no compromising over the installation of fire stopping. Be sure to complete your supervisory checks, getting fire stopping right is of utmost importance. The judges will give further consideration to any checking systems employed as well as the neatness of installation.

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No Services in this Zone
Electrical Services Zone
Sprinkler
Mains
Return
Flow

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34

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Pride in the Job Awards

# Good luck!

**We hope you have found this best practice guide useful in gaining a better understanding of what the judges are looking for at each stage of construction.**

**Remember, the six characteristics the judges are looking for in a site manager are:**

- consistency
- attention to detail
- technical expertise
- leadership
- interpretation
- health and safety.

**We wish you all the very best in the Pride in the Job competition as you strive for your very first win or to repeat or even improve on your performance in previous years.**



NHBC