



# Best practice guide

Section 1

## Foundations

# 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.

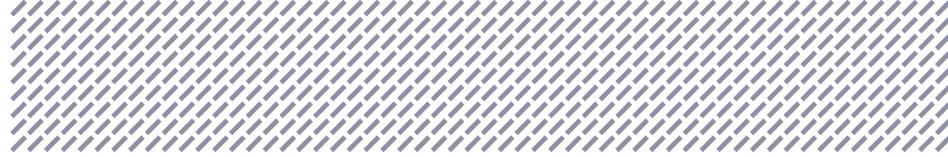
When looking at the photographs, consider each one in the context of the score line heading – don't be distracted by something else that isn't as good – that will be marked accordingly elsewhere.

## Section 1 Foundations

Ensuring the foundations to a new home are sturdy enough to transmit the loading safely to the ground is essential to the long term durability of the home. This section examines the two main aspects of this work:

**Ground preparation, excavations, piling and formwork**

**Reinforcement and concrete placement**



## Section 1

# Ground preparation, excavations, piling and formwork

**The judges will want to see evidence that the site manager understands the necessary preparation work and has set up the site for effective and efficient operation by the groundworks contractors, with attention to safety, welfare and weather conditions.**

**NHBC Standards Chapters 4.1 and 4.6**

**Pride** – Site investigation reports and any land quality conditions should be addressed before commencement. You need to demonstrate that the following points have been considered.

- Have the plot areas been suitably prepared?
- Is there any tree influence that will affect the foundation design?
- Is the subsoil on this development susceptible to clay shrinkage and have appropriate precautions been taken?
- Notice the spoil tips – do they contain demolition spoil, and if so, does it include any unsuitable material?
- Is care taken with the storage of removed soil, especially if it is to be used for gardens later?

Ground preparation can be a messy and muddy business, but extra marks are available for clear efforts to control these issues and maintain a tidy groundwork area.



# Section 1 Continued

**It's vital to have the correct information and relevant foundation designs that reflect the specific site conditions. Employing the correct groundworkers who understand the design details is also important.**

**Pride** – All foundations require some form of excavation and judges will pay close attention to:

- quality in the formation and verticality of the sides
- correct depths, especially where there may be tree influence as per NHBC Standards Chapter 4.2
- clean bottoms prior to concrete pour
- accurate step formations
- neat and effective placement of heave precautions both with strip and in preparation for reinforced beam work, all with consideration for adjacent foundations
- the installation logs and test results
- basic good practice such as trimmed pile heads penetrating a minimum of 50mm into the beam plus adequate visible penetration of reinforcement bars into the beams
- formwork comes in many forms but is now mostly of the flexible 'Pecafil' type where accurate setting out, alignment and support are required to achieve the best standards possible in the finished beam.



Best practice guides - Section 1

## Ground preparation, excavations, piling and formwork



3



4

Best practice guides - Section 1

## Ground preparation, excavations, piling and formwork

Page 5 of 9



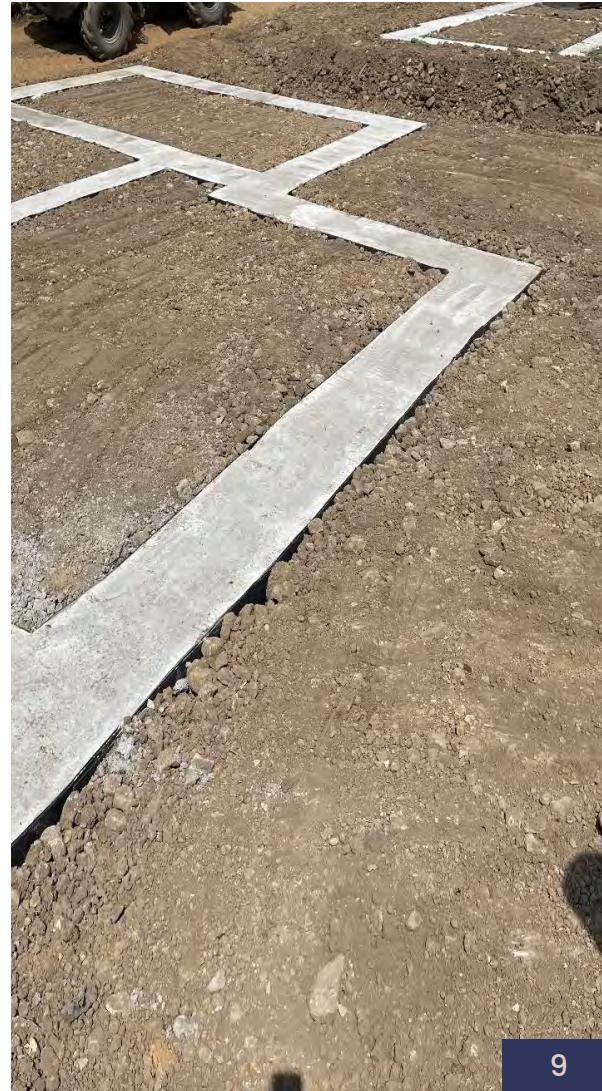


## Section 1

# Reinforcement and concrete placement

The judges will look for consistent high quality across all beams observed, both in terms of alignment and finish. Achieving this, plus accurate setting out, allows for accuracy of wall placement down the centre-line of the beam

**Pride** – The judges will be checking that Reinforcement is of the correct size and position with attention to detail at junctions, tie beams and at pile connections. They will look at the detailing around spacers to the formwork and at the sides and the bottom of beams to ensure adequate concrete coverage. Evidence in the finished beam will indicate the correct mix of concrete and if it was properly poker vibrated and finished to a smooth level finish. It's really important to have the foundation design handy too. With concrete placement, the aim is to achieve as neat and level a surface as possible for the following substructure brick trades. The amount of concrete overspill will be an indicator of the techniques employed for placing the concrete.



# 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.