

# case study

## Varying sub-floor heights and loading concerns overcome

Products used: **CK30 cradle & batten flooring & IN22 overlay acoustic flooring**

Client: **Hampton Academy,  
Richmond upon Thames**

Architects: **Astudio Architects**

As part of a major building and refurbishment programme at Hampton Academy, new flooring was required on the ground and first floors of the original school block. Due to the many variations in floor levels, this presented significant challenges and led to detailed discussions between InstaCoustic and Astudio Architects.



Floor levels not only varied from one room to another but also within individual rooms, with height differences ranging from 25mm up to 188mm. Screeding was rejected as impractical due to structural loading limitations, so a lightweight levelling solution was required.

InstaCoustic was able to demonstrate that its CK30 cradle and battens system, at 20kg/m<sup>2</sup>, would provide a weight solution but also address the variance in the floor heights. Almost 400m<sup>2</sup> was installed on the first floor and, later, a further 70m<sup>2</sup> on the ground floor when screeding was not possible due to time constraints. All flooring was height adjusted and laser levelled on site to provide a completely level floor with a vinyl finish on the plywood overlay boards.

The minimum depth the CK30 system can achieve is 53mm so, in areas where the requirement was for a slimmer floor, some 120m<sup>2</sup> of our IN22 overlay system was installed. A vapour barrier was also installed under both systems in accordance with Approved Code of Practices.



The InstaCoustic flooring was specified as it provided various benefits:

- Both systems provided excellent acoustic insulation.
- InstaCoustic was able to identify, and overcome before installation, solutions to the many variations in floor height and concerns about weight loadings.
- The CK30 system was height adjustable on site and laser-levelled to provide a completely even floor surface throughout.
- The CK30's acoustic rubber crumb cradles' 60 year guarantee demonstrated the durability and long-term performance of the floor.

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