3590 Cloud House Farm

Application Ref: SMD/2017/0233 and SMD/2017/0232

Method of paint removal to internal timber beams

Dry Ice blasting system
Dry ice blasting methods are proposed.
Work to be carried out by Ice Blasting Solutions or other approved specialist contractor.
Dry Ice Blasting is a cleaning process using solid CO2 pellets. Dry Ice Pellets sublimate upon impact with the surface to be cleaned meaning the pellets convert directly from a solid to a vapour leaving a clean, dry surface with no residue.
Ice blasting uses CO2 at -79 degrees, with low pressure emission at 35psi. The cold removes the paint or contamination from the beams and comes out the nozzle mainly as a gas which means there is no abrasion to the hardwood timber.
Dry Ice Pellets are directed at a surface in order to be propelled at high speed via a compressed air gun. Upon impact, the dry ice creates a micro-thermal shock (caused by the extreme cold temperature of -79º C). The energy transfer vaporises the contaminant without abrasion and the force of this impact is the primary means of cleaning.
A sample area is to be completed to ensure the selected method is suitable and does not damage the historic timber. The most appropriate system to be used would not be determined without first completing the test sample areas.

Ice blasting would not be undertaken without a more detailed method statement being prepared by the contractor completing the works.

For removing modern paint finishes the DOFF steam cleaning system may also be considered although not in moisture sensitive areas. A sample area would be completed to inspect the suitability of the methods.

Health and Safety
For all mechanical and chemical systems, the property is to be suitably ventilated during the works.

The proposed methods noted for paint removal require specialist PPE equipment and present a possible risk to contractors on site. The main contractor on site is to ensure suitable protection measures are in place during these works to comply with CDM Regulations 2015.