

Meadgate School, Chelmsford, Essex

Roofing

Task

In 2014 Meadgate Primary School had various flat roofs that were coming to the end of their serviceable life. Access to the various roofs required careful planning so as the works that were furthest away from the access point were completed first and in time for the school to be reoccupied. The Main Hall roof required a new roof deck to be installed as this was in a poor condition.



Solution

NPS prepared a specification that required the majority of roofs to be over laid in a High Performance Felt over a PIR insulated boards to falls scheme. The main hall area required the whole of the existing roof covering along with the existing defective chipboard decking to be stripped up and replaced. The existing roof decking was replaced with a 25mm CE 2 + rated plywood, laid directly over existing timber firrings, 130mm flat PIR insulation board was installed as there were sufficient falls to this roof. An Esha High Performance Elastomeric Felt Roofing System was installed to these roofs.

As the roof decking to the Hall Roof was removed and there was no ceiling it was paramount the Hall floor was not damaged. Protection was put down and the use of an Air Bag system was used in the hall as a scaffold crash deck was not appropriate. As the new insulation was thicker to achieve the require 'U' Value it was necessary to renew a number of high

level windows around the central staircase, increase the existing height of the upstand to accommodate the new insulation to falls scheme. We installed new PVCU windows that complied with current 'U' Values together with new Rooflights. During the course of the works the local Building Control Office inspected the works as works progressed. These works were completed and signed off.

Due to the large volume of cables that had previously been left loose across the roof, Double L Ltd were instructed to test and remove redundant cables and install 80m of cable tray and roof supports over the new felt roof covering.

Following a heavy down pour a month after the installation of the new roof was complete we were advised water ingress had occurred in one of the ground floor classrooms. On further investigation Double L Ltd carried out a full drainage camera survey it was discovered that the

drainage channels in the school were all blocked and backing up. Double L Ltd provide the school with a full plan of all the drainage which discharged to on open ditch. Double L Ltd were employed to excavate the ditch and clear all the drains.

Conclusion

On completion the roof was provided with a 20 Year Warranty, and since the drainage system was cleared there have been no issues with either the roof or the drains.