

RiserSafe® - total riser protection

Case Study – Lister Hospital, Stevenage

Ambar Kelly

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Project Overview

Client - East and North Herts NHS Trust

Type of development - Surgicentre

Project Value - c. £31 million

Structure - Reinforced concrete frame

Main Contractor - Carillion

Contractor - Morrisroe

RiserSafe installation - September 2009

Order value - c. £28,000

Carillion secured the £153m PFI contract to construct a new surgicentre for the East and North Hertfordshire Trust in April 2009, work commenced immediately on the £31million 3 storey building with the reinforced concrete frame being awarded to A J Morrisroe Ltd.

Carillion opted for RiserSafe as their preferred method of riser protection following presentations from Ambar Kelly Ltd in which the Safety, programme and cost benefits of using the RiserSafe system were demonstrated. Carillion, Morrisroe and Ambar Kelly coordinated to ensure that the RiserSafe units were detailed to take into account shear walls and fire stopping requirements. Production drawings were then produced by Ambar Kelly with the first units being delivered to site 2 weeks later initially with plain top plates (see main picture above).

The penetrations through the floor slab to be protected by RiserSafe were significant in size being up to 7.3m x 2.0m in plan with the floor slab being 300mm deep. A number of

the riser penetrations were detailed as requiring a 1 hour fire barrier, in these instances the dropped plate RiserSafe Fire Stop option was used. Several of the penetrations were located against either 1 or 2 concrete shear walls, here the RiserSafe shear wall option was utilised. Imposed load on the unit is transferred to the shear wall by chemi bolting through one hole on each plate (3 holes are provided to ensure that reinforcement is missed).

Following the coordinated M&E design new RiserSafe plates were delivered to site. These plates formed the final client riser maintenance platform and incorporated all service holes required through the riser and a number of spares for future use. Each individual hole was protected by a sacrificial cover so that each service could be installed off of the RiserSafe unit without compromising safety.

