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## RAF Alconbury Medical Facility, UK

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**Client:** Defence Estates

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**Management Contractor:** Vinci Construction UK

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RAF Alconbury is an active Royal Air Force station in Cambridgeshire under the control of the 423rd Air Base Group and 501st Combat Support Wing of the United States Air Force. The primary mission of RAF Alconbury is support for the U.S. European Command at RAF Molesworth and the USAF Medical Clinic at RAF Upwood. In support of RAF Upwood a new medical facility was designed and built at RAF Alconbury to serve the immediate medical and dental needs of active duty personnel, their families and retired military that live in the area.

Incendia Consulting on behalf of the specialist fire engineering contractor carried out the full design and engineering of the sprinkler protection to the three storey medical facility. The design and engineering of the sprinkler protection was carried out to RIBA stage K and in accordance with the

European sprinkler design standards EN12845, incorporating the additional requirements of the United States Department of Defence document UFC 3-600-01 and the Defence Estates Fire Officer.

The sprinkler system to the medical facility comprised of a zoned wet installation valve set controlling the protection at ceiling level and within the ceiling void for the Ground and First floor medical levels, and a Dry installation valve set controlling the protection to the Second floor plantroom level. The water supply to the facilities sprinkler system is taken from the pumped site fire main which provides the water supply to the stations external hydrant system.

Incendia Consulting developed the design drawings to fabrication stage using AutoCAD drafting software, and sized the piping in accordance with the EN12845 pressure loss calculation method.