



## EDEN DEPLOYMENT CENTRE, PENRITH

**Client:** Cumbria Police & Crime Commissioner

**Value:** £4.5m

**Completion:** December 2019

**Duration:** 85 weeks

**Contract:** JCT Standard Building Contract



**The project involved the construction of a new build three storey Deployment Centre, complete with associated site works located within the Carlton Hall Police and Fire Service site.**

The development consisted of a two-storey structure which adjoined a three-storey structure. The latter provided Police operational areas to the ground floor and cadet accommodation and support facilities to the upper floors. The 'front' two storey building comprised police operational areas with conference facilities to the second floor.

## WORKS INCLUDED

- Demolition of existing dwellings including removing asbestos, diversion of services to adjacent buildings and site clearance.
- Construction consisted of structural steel frame with cast in situ floors, metal SFS wall frame, rainscreen cladding, single ply roof, aluminium curtain wall, doors, and windows.
- Internally concrete block and partition walls, suspended ceilings, full dedicated M&E systems, and high spec finishes.

## CHALLENGES AND HOW THEY WERE OVERCOME

The overriding challenge of forming these two structures revolved around the footprint of the buildings particularly the three-storey which was curved on plan to both elevations similar in shape to that of a 'rugby ball'. The two-storey section likewise was curved to the front elevation but in addition sloped outwards within its height.

Meticulous thought and effort were required from the initial setting out to the actual forming of the structures. Steel frame was set to exact coordinates followed by the application of rainscreen cladding which required close scrutiny to ensure 'creep' in the width of the cladding remained in tolerance so as not to effect location of openings for windows and doors. In addition, the coming together of different construction elements and materials required interrogation of design and likewise construction, to ensure buildability and achievement of required details to provide fire protection, thermal integrity, air tightness and overall resistant to the elements.

All the latter requirements were achieved through close working relationships with the client, design team and specialist subcontractors through design meetings and joint site inspections whilst assuring that those at the workface were kept informed and given guidance.

Police developments require the highest level of security and designs/construction works reflect this using technique different to the norm. In addition to in-built security systems and robust structure this development required the formation of a 'kidney shaped' pond located along the boundary and up to the front elevation of the two-storey structure which in use, prevents vehicles being driven into the building. Working closely with the client, landscape architect and the architect the pond was formed overcoming issues with levels by use of a pond lining material and provision of a dedicated water supply, plantings, and external lighting. Not only was the construction a success but the client now has both a pleasant environment and a high level of security.



