

The building access solution required the design and installation of BMUs with the largest reach in Europe



The Nova Building in London offers a sustainable balance of uses, including residences, offices and retail outlets, along with a community space and library. The creation of a series of buildings in this development complement the continuing construction of Transport for London's proposals for the Victoria Station upgrade.

The facade access solution required was challenging in both its scale and complexity. The solution required the design and installation of Building Maintenance Units (BMUs) with the largest reach in Europe, with both negative and positive luffing jibs, something that had never been attempted at this scale before in the UK.

The first challenge to overcome was designing machines of this scale and complexity that fit within the very limited space available. Once this had been achieved a complex movement control system was developed to allow the machines to remain parallel to the sloped facade through their full rotational range of movement. A further challenge was developing a rescue procedure that allows operatives to escape in an emergency scenario from above a catenary lighting system. An emergency descent procedure was developed that allows operatives to be lowered by a descended device through a specially designed hatch in the cradle and down through the catenary lighting suspension cables.

CoxGomyl were selected as the BMU supplier due to their track record of providing viable solutions to the most complex building designs both in the City of London and around the world. The majority of facade access providers in the UK, saw the complexities and scale of the system as insurmountable, and shied away from the challenge. CoxGomyl were able to provide full and robust three-dimensional design input, which enabled the design team to ensure an incredibly high degree of certainty that no clashes would occur between the structure, plant and facade access equipment all needing to be squeezed into the limited roof space.

FACTS & FIGURES

Commencement	2015
Completion	2017
No. of BMUs	6
Building Type	Mixed use





Buildings 5, 6 & 7 - Nova Victoria, London

Building 5

Overlooking the gardens of Buckingham Palace, The Nova Building 5 comprises 170 private residences over 13 storeys. It's facade features Portland limestone cladding and architectural precast concrete elements. Two bespoke Building Maintenance Units (BMUs) were engineered to service the facade, providing reaches of 22 metres and 4 metres, with a dedicated 2.5m cradle and 600kg capacity.

Buildings 6 and 7

The unique facades of these two buildings are a set of glazed elements based on prismatic geometries. Features include a three-story diamond motif and curtain walls with external metal fins of various widths. The fins are designed to shade the facades and visually enhance the architecture. The facade designs utilise technologies to achieve targeted levels of carbon emission reductions for maximum energy efficiency and occupant comfort.

Each building required a unique facade access solution that utilises two BMUs for each building. The building access solutions provide 5 stage telescopic luffing delivering up to 39 metres reach and dedicated 3 metre cradle with capacity of 600kg.

Coxgomyl provided an end to end customised facade access solution including design, supply and installation to ensure this new landmark in London maintains its pristine condition for many years to come.

Figure	Building 5	Building 6	Building 7
Building Height	46 metres	53 metres	87 metres
Floor Count	13 floors	12 floors	16 floors
No. of Access Systems	2	2	2
Outreach	22 & 4 metres	39 & 35 metres	39 metres