



Introducing the world's longest building maintenance unit

Facts & Figures

Commencement	2018
Completion	2020
Building Height	260m
Floor Count	60
No. of BMUs	1
BMU Type	3000 Series
Building Type	Residencial

Rainier Square Tower is set to form a striking new addition to the Seattle skyline with an instantly iconic and bold form conceived by architects NBBJ. At 259 metres (850 feet) in height, the tower is the tallest building project undertaken in Seattle since 1985 and, once completed, will be the second tallest building in the city overall. The mixed use building will encompass a hotel spanning 12 storeys, office space covering 750,000 square feet, 30,000 square feet of retail space and approximately 200 luxury apartment homes.

The most noteworthy aspect of the building, however, is surely its unique architectural form with a dramatically curving shape formed by multiple steps, rising up from a relatively wide base a negatively sloping 'carve' swoops inwards to achieve a progressively slimmer shape at the higher levels. The East facade also features a complementary positive slope starting from the level 40 Sky Lobby. The facade itself is constructed from glass with numerous aluminium protrusions.

The client was initially considering a davit-based system for their building access needs. However in consultation with the expert CoxGomyl team they established that a more robust system was required as this approach would not be capable of complying with code requirements for height restrictions, providing coverage to the swooping sloped facade surfaces and would not allow for the functionality of lateral movement, further inhibiting comprehensive facade coverage including glass changing to the swooping sloped facade surface and would not allow for the functionality of lateral movement, further inhibiting comprehensive facade coverage.

CoxGomyl's experienced design team therefore developed a new facade access solution which would deliver comprehensive coverage of 100% of the facade with just a single crane-type Building Maintenance Unit (BMU). From a fixed position above the main roof area at level 60, we were able to demonstrate that a highly manoeuvrable BMU was capable of accessing the entire tower whilst achieving a remarkably compact profile when not in use. The functionality required to realise this concept includes a five stage telescopic jib which provides a maximum outreach of 48 metres. In addition a pantographic mast design which, powered by hydraulic cylinders, allows the mast to rise and fall between parked and operating positions.

