

## OB2 Warehouse Refurbishment

New Insulated Roof and Wall Cladding Installations

### PROJECT DETAILS

**CLIENT** Valneva Ltd

**PROJECT** OB2 Warehouse New Insulated Roof and Wall Cladding Installations

**LOCATION** Unit 1, Oakbank Park Road, Livingston, West Lothian, EH53 0TG

**START DATE** 26 February 2021

**DURATION** 52 Weeks

**END DATE** 25 February 2022

**VALUE** £1,792,460

**RTM** Single Stage Open Procedure

**CONTRACT** SBCC (JCT) Design & Build 2016

**ROLE** Specialist Subcontractor



### PROJECT SUMMARY

Valneva is a specialist European Pharmaceutical Company which develops and manufactures prophylactic vaccines for infectious diseases. They recently appointed built environmental specialists Bouygues UK to project manage the refurbishment of their base of operations in Livingston, West Lothian. The refurbishment included contractor designed secondary steel, new steel purlins, new insulated roof panels and insulated wall cladding specified at 0.13 w/m<sup>2</sup>k as well as specifications and designs for perimeter doors and windows, internal partitions and the formation of clean rooms for laboratory and pharmaceutical use.

An experienced Principal Contractor and roofing, cladding and coatings specialist in our own right, McConnell were selected to participate in a pre-appointment, scoping exercise before accepting an appointment as Specialist Subcontractor with specific responsibility for design and construction of major structural steel, insulated roofing and insulated cladding components.

Working collaboratively with the client's project managers, we quickly completed a full review of the pre-construction information, the design specifications for the roof and wall cladding replacements, the design and operation of access scaffold solutions, mobile platforms and cranes, and, technical solutions and load calculations for new structural steel work, purlins and parapets.

Work started in March 2021 and completed in June 2021. The end result is a highly attractive, dry, warm, energy efficient industrial premise, finished in attractive ground to roof insulated cladding panels set out horizontally on secure cladding rails.

### SCOPE OF WORKS

- ▶ Removal of roof panels and external wall cladding from the existing building
- ▶ Design and installation of secondary steel, new purlins, new insulated roof panels and insulated wall cladding to the existing building and the new build warehouse
- ▶ New metal deck and waterproof membrane installations in stairwells
- ▶ Design and installation of new parapets and increased capacity gutter and drainage systems
- ▶ Design and installation of roller doors, fire exit doors, and perimeter windows
- ▶ Internal formation and fit out of "clean rooms" for the pharmaceutical industry
- ▶ Associated mechanical, electrical, heating and ventilation installations

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## CRITICAL SUCCESS FACTORS

- ▶ The collaborative, three-way interface that we built and maintained throughout the project with Valneva (the end user) and Bouygues UK (the project manager) was critical in bottoming out the project specification and finalising our specific Contractor's Design roles and responsibilities.
- ▶ Our ability and willingness to embrace significant Contractor's Design Responsibilities and our strategy to significantly de-risk the design and installation of key structural components was equally critical to our overall success.
- ▶ We appointed a specialist NASC Approved Scaffold Designer to ensure that we had the appropriate safe access and roof edge protection.
- ▶ A critical temporary installation was a Tension Access Net installed on the underside of the roof structure in the existing building. These nets provided a safe working platform where our roofing operatives could walk within easy reach of the underside of the roofs, getting into tight and awkward spaces without the need for clunky mobile elevating platforms.
- ▶ Easidex Boards and Youngman Staging provided a safe, solid working platform for roofing operatives working on the new structure while mansafe nets and exclusion cordons underneath provided additional safety and protective segregation from the works above.
- ▶ We specified and installed a market leading Kingspan QuadCore KS1000RW through-fix profiled insulated roof panel. We chose this product as it can be used for building applications with roof pitches of 4° or more, it is pre-fabricated and quick to install, making roofs and elevations instantly watertight. Complimenting the roof panel, we specified a matching Kingspan QuadCore AWP Wall Panel which we mounted horizontally on top of a proprietary rail carrier system.
- ▶ We supported our operations with a 60ft crane which lifted materials to and from the roof.
- ▶ Our Structural Engineer completed an independent appraisal of the primary frame, ensuring that structural load calculations were competent and correct.
- ▶ Delivered during the Covid 19 Pandemic, the internal layout for the vaccine-producing pharmaceutical company continuously evolved during the course of the project. We embraced these unfolding changes and responded pro-actively, ensuring that the vaccine manufacturing facility had operational capability immediately upon handover.