

Duration: 175 weeks

## L∆KE L∇ND ∆RTS

# **WINDERMERE JETTY:**MUSEUM OF BOATS, STEAM AND STORIES

Value: £11.7m Contract: JCT Standard Building Contract with

**Completion:** March 2019 Contractor Design



Source: hufton + crow

The scheme involved the construction of a new boat museum on the eastern shore of Lake Windermere in the Lake District National Park with associated facilities. The new buildings will provide a main exhibition space, a conservation workshop and gallery, a shop, café, educational learning space and administration space for staff. A wet dock allows a display of boats on the water within the museum.



#### **WORKS INCLUDED:**

- Piled foundations
- Structural steelwork
- Dredging of the lake bed
- Wooden piles for jetties and sheet piling to form a new quay side
- Ground floor concrete slabs which were polished and sealed to provide a modern and contemporary finish
- Oxidised Copper Cladding
- Internal and external doors
- Bespoke windows and doors of steel construction
- Douglas Fire timber cladding to public areas and plasterboard finish to areas back of house.
- M&E including high specification lighting with the most modern and energy efficient fittings installed, under floor heating and energy provided to the UFH by a Water Source Heat Pump system installed within Lake Windermere.
- New timber jetties and slipway
- In river works for beck wall repairs
- External works including access roads, coach & car parking and complemented with landscaping







Source: hufton + crow

### **CHALLENGES AND HOW THEY WERE OVERCOME**

- Enhance details to provide some resistance to flood waters which TAC incorporated into their design packages.
- The main workshop building was in fact built below the recommended flood plain floor level and
  when excavating for foundations works the depth would be at and below the water table. To
  overcome this and allow works it was necessary to lower the water table level. Specialist
  subcontractor employed for the insertion of wells to drain the area during the works provided
  suitable conditions to excavate and lay concrete foundations.
- Reclaiming land was another specialised aspect of this project. To form dry land for locating the main
  museum building required the reclaiming of Lake Windermere. This proved environmentally
  challenging particularly so because of the sensitive environment in which we worked. However,



through correct procedure and close management the lake was reclaimed through the importing of aggregates working for the land out into the lake.

- The completed museum included timber jetties for the mooring of not only museum craft but also
  ferries which travelled the lake. In addition, a new slipway was constructed to allow the museum
  facility to launch boats into and take out of the lake. Through research we employed subcontractors
  who were fully experienced with the design aspect and construction of such structures in water.
- A section of the museum included a boat house built on the area of a previous boat house, but the
  replacement building was to be much larger. To one end elevation large doors were required formed
  using three separate doors each opened by winch. The construction of this building was particularly
  difficult due to the fact it was over water and access to install doors being very limited. Using
  pontoons and scaffold formed over the lake we were able to construct.

#### **ACHIEVEMENTS**

- The project was delivered with zero reportable Health & Safety incidents.
- The project was delivered with zero environmental incidents
- Over 91% of waste was diverted from landfill
- Existing marine and plant life was protected throughout the project.
- The has won many accolades from the local community, press, organisations, and specialist journals. The museum was officially opened by HRH the Prince of Wales
- Compliance with the Considerate Constructors Scheme.
- During the project we co-operated with Clients request to allow visits by groups for all walks of life, such as personnel from other museums, schools, specialist interest groups, local community groups and journalists.







