



BRODICK FERRY TERMINAL REDEVELOPMENT

The project involved the construction of a new Ferry Terminal facility for the busy port of Brodick on the Isle of Arran in the Firth of Clyde, encompassing three main elements of a new terminal building, land-side marshalling areas complete with taxi rank, drop-off/pick-up areas and bus stances and a new berthing structure complete with link-span to accommodate a new 100m long vessel. The contract was awarded on a contractor's Alternative Tender, which offered a £2.05m saving on the conforming bid



Main Elements of Marine Works:

- 120m x 20m 'open' piled structure
- 762mm & 711mm diam tubular piles
- 30t pre-stressed concrete cross-beams
- Pre-cast & in-situ concrete deck
- 40m long tubular fender piles
- Parallel-motion fendering system
- New link-span with lifting structures
- Overhead Passenger Access System
- 12,000cum dredging

Main 'Landside' Works & New Terminal Building:

- 9,000sqm of land reclamation
- 250m pre-cast retaining wall
- 16,000t x 2t-4t rock armouring
- 35,000t of rock and general bulk infill
- 15,000sm of blacktop, concrete & paving finishes
- New marshalling areas, taxi rank, drop-off & pick-up points, and bus stances complete with shelters
- 60m x 20m two storey steel-frame building with sandstone & glazed cladding and full services, incorporating a Biomass system



Key savings and innovation:

Dredged material recycling for infill - redesigned pier-head strongpoint - pre-cast concrete walls

CLIENT:	Caledonian Maritime Assets Ltd
ENGINEER / DESIGNER:	CH2M & Wallace Stone
CONDITIONS OF CONTRACT:	NEC3 Option A
DURATION OF WORKS:	Jan 2016 to Aug 2017
CONTRACT VALUE:	£24m

KEY CHALLENGES:

Managing live port operations
Phasing of the works
Resource planning
Winter weather working
Sea transport of key materials
Tidal working