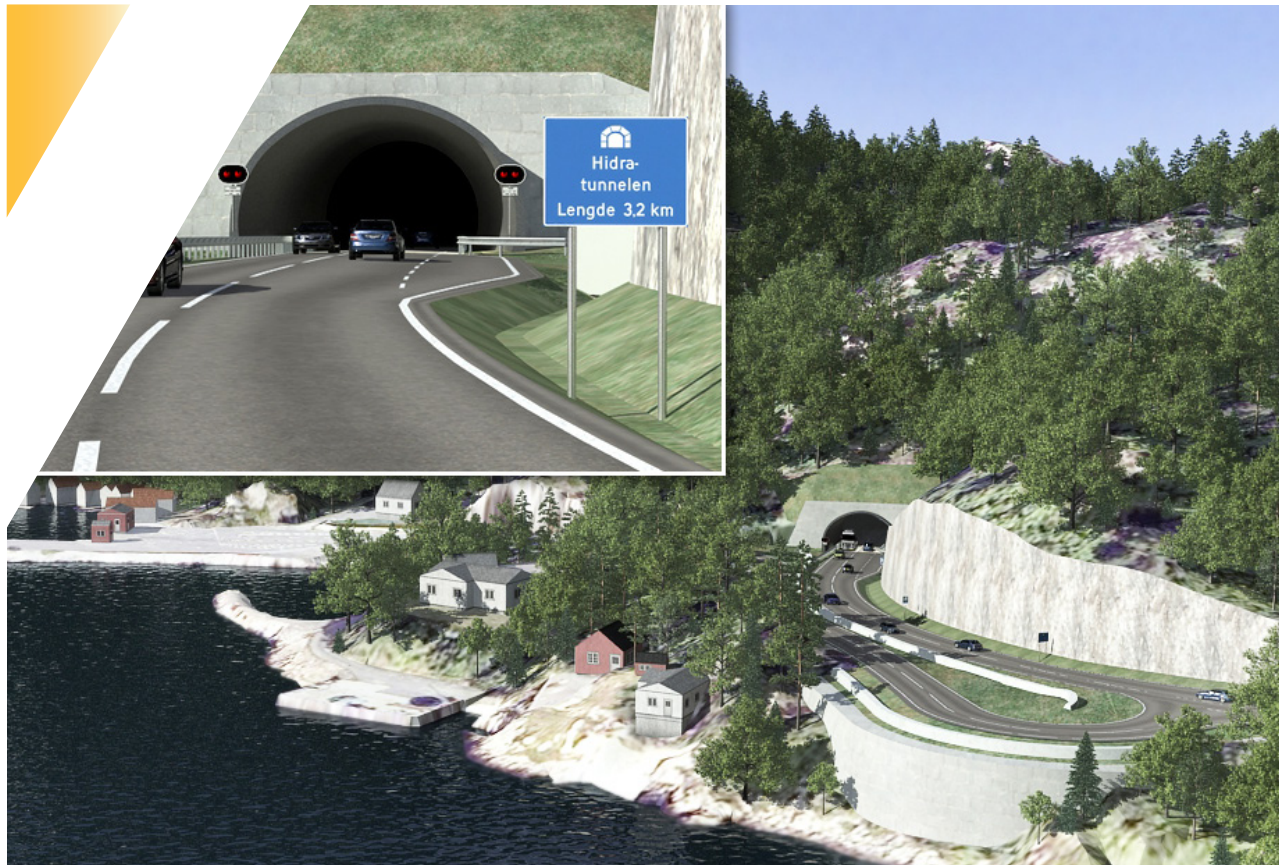




Hidra Ferry-Free Highway

3.2 kilometre undersea tunnel



Summary – tunnel portal, Kvellandstrand | Visualization: Multiconsult

A tunnel link with the mainland will simplify daily life for about 600 residents of Hidra who currently depend on the Kvellandstrand-Launes ferry service. This will also benefit industry and the owners of holiday cabins on the island, and improve access for the many tourists who visit it every year.

The undersea tunnel will be 8.5 metres wide, in line with the requirements of the Norwegian Public Roads Administration. The traffic lane in each direction will be 3.25 metres wide. Driving time through the tunnel is estimated at roughly five minutes. In addition to the tunnel, a 300-metre access road will be built to the marina at the mainland end.

Multiconsult has been responsible for drawing up a complete construction plan, including tender documents. Technical disciplines include risk management, safety, health and the working environment (SHA), the natural environment and visualisation. The work has been executed as an infrastructural building information modelling (BIM) project. This means that a virtual three-dimensional model has been created with intelligent object properties for all technical disciplines, based on the requirements and guidance in Handbook 138 on the model basis from the Public Roads Administration.

PROJECT

Hidra Ferry-Free Highway

PROJECT TYPE

Screening report, planning programme, main plan, impact assessment and local authority subplan

LOCATION

Hidra outside Flekkefjord, Vest-Agder county

CLIENT

Norwegian Public Roads Administration, southern region

TIME PERIOD

2010 - 2012

KEY NUMBERS

3.2-kilometre undersea tunnel | T8.5 profile | Project cost NOK 400 million

SCOPE OF WORK

The construction plan was developed as an infrastructural BIM project. Multiconsult has been responsible for preparing all tender documents.

OUR SERVICES

- Complete construction plan with associated tender documents
- Complete infrastructural BIM model

DISCIPLINES

- Road design
- Tunnel design
- Natural environment
- Risk management
- Safety, health and working environment plans
- Water and drainage
- Geology
- Geotechnology
- Electrical engineering
- Traffic technology (signage, management)
- Electrical installations in tunnel
- Ventilation in tunnel
- Structural engineering
- Visualisation
- Acoustics
- Landscape architecture
- Conditions registration



Overview, tunnel portal, Hidra | VR model: Multiconsult



Top: Tunnel Portal Hidra | Model: Multiconsult
Bottom: Tunnel Portal Hidra | Model: Multiconsult

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