

# Hotel The Chedi, Andermatt

2014



"Andermatt Swiss Alps" is a year-round vacation destination being built in the middle of the Swiss Alps. The project includes six hotels in the 4- and 5-star range, about 500 apartments in 42 buildings, 25 exclusive chalets.

## The project

The innovative and sustainable Andermatt Swiss Alps project will transform the traditional Swiss mountain village into an attractive year-round destination. When completed, it will include six hotels in the 4- and 5-star range, around 500 vacation apartments in 42 buildings, 25 exclusive chalets, congress facilities as well as a swimming pool and an 18-hole golf course. In addition, the ski areas of Andermatt and Sedrun will be merged to form the attractive SkiArena Andermatt-Sedrun. The task In this context, the 5-star superior hotel "The Chedi Andermatt" is being built centrally in the village. For the entire hotel complex, Timbatec was commissioned to design the façade and roof structure and to advise on the façade design with regard to fire protection and construction.

## The challenge

To ensure the greatest possible flexibility in attics, the architects demanded a column-free roof structure. An arched truss structure with rooftop elements spanning the roof spaces with a width of around 23 meters was now realized. A particular sticking point in the roof structure were the large canopies, which have a projection of up to 3 meters at the eaves and verge. This with snow loads of  $12\text{kN/m}^2$  plus snow overhang along the roof edges of around  $8.3\text{ kN/m}^1$ . Another challenge was the fire safety of the wooden façade with curtain-type wooden lattice, especially in the high-rise area of the main building.



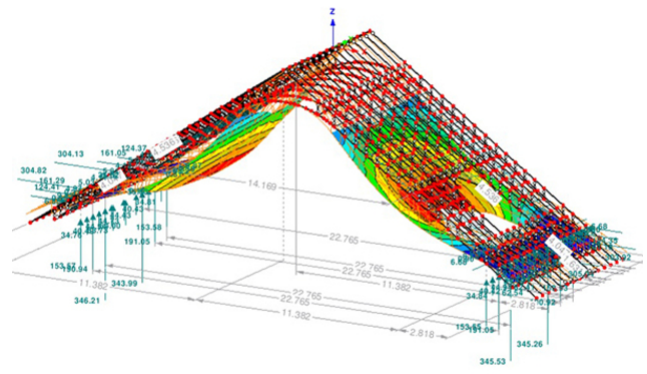
Assembly of trusses and roof elements building H3



Assembly of roof elements on the primary structure



Detail view canopy corner



Static model of the roof structure

### Construction Data

- - 13'000 m<sup>2</sup> roof area - 2150 m<sup>3</sup> structural timber (BSH) - 910 m<sup>2</sup> panel material (3-layer - OSB) - 12'000 pcs fully threaded screws SFS-WRT 13x900 - 25'000 pcs rod dowels Services Timbatec - preliminary project - cost estimate - construction project - fire protection - statics / construction - tendering - implementation project - site supervision - site inspections

### Client

Andermatt Swiss Alps  
6460 Altdorf

### Design Architect

Denniston Ltd  
MYS-50529 Kuala Lumpur

### Architect

Germann und Achermann AG  
6460 Altdorf

### Facade and lattice in wood

Arge RBB, Ruch AG  
6460 Altdorf

### Timberconstructors

Holzbautechnik Burch AG  
6060 Sarnen

### Timberconstruction engineers

Timbatec Holzbauingenieure Schweiz AG, 8005 Zurich