

RUNWAY I. RECONSTRUCTION AT BUDAPEST LISZT FERENC INTERNATIONAL AIRPORT



Client:
BUDAPEST AIRPORT

Features:

Length of reconstruction: 1030 m

Width of reconstruction: 15,0 m

Total reconstructed surface: 16 150 m²

Concrete pavement:

16 150 m² load bearing concrete pavement in the middle of the existing runway pavement, 30 cm thick, 5.00 m x 5.00 m slabs replacing 7.50 m x 7.50 m slabs built in place of the demolished top concrete layer and on top of an earlier runway surface now serving as a base.

Runway marking

Airfield ground lighting

Time of design: June 2016 – September 2016

Services:

Preparation of construction design

Due to the increasing traffic and the higher load and weight of aircrafts at Budapest Liszt Ferenc International Airport, the reconstruction of the damaged, middle 15.0 m wide strip of concrete pavement of runway I (RWY 13R-31L) was completed.

After assessing the existing condition, sample drillings and demolition, the cause of the failure was discovered, which is the excessively watertight old track concrete.

In order to ensure proper dewatering, 150 holes were drilled in the lower concrete course (which used to function as a runway pavement and now serves as a base layer) on which the cement stabilization supporting the slabs was built.

Onto this stabilization layer, in place of the demolished 7.5 x 7.5 m 30 cm thick concrete slabs, more durable 5.0 x 5.0 m slabs of jointed plain concrete pavement of the same thickness were rebuilt.

As part of the investment, the markings and lighting elements were also renovated.

In order to ensure the traffic safety of the airport, it was possible to close the runway for a short time, for which organizational plans were prepared.

During the project the following sectoral design works were completed:

- geodesy, geotechnical engineering
- airport design (pavements, markings)
- hydraulic engineering (pavement structure dewatering)
- high voltage power supply (airfield ground lighting)
- organization