

Focus Mall

Zielona Góra

Extension and modernization of Focus Mall shopping center in Zielona Góra, including construction of a multi-storey parking lot with nearly 360 parking spaces.



The project

The use of a monitoring system for deep excavation shoring and adjacent structures during excavation dredging construction activities.

The challenge

Monitoring of horizontal displacement of the excavation shoring and vibration monitoring of structures adjacent to the construction site exposed to impacts caused by the construction activities.

The solution

Nine wireless inclinometers cooperating with a remote communication box (Gateway) and two devices for vibration measurement were installed on the construction site. Due to the fact that the measurements were conducted in a deep excavation and up to 15 m above the ground surface, automatic measuring systems were used, which allowed viewing the data in real time. All measured parameters were made available to the engineers via QuickView, a web-based platform for real-time data viewing. QuickView automatically informed its users immediately after exceeding predefined limit values. Alert messages were sent to a predetermined group of users via email.

Project facts

Owner(s)

NEPI ROCKCASTLE

Keller business unit(s)

GEO-Instruments Polska

Main contractor(s)

Mostostal Warszawa

Engineer(s)

Jerzy Pieronkiewicz - Dyrektor Techniczny

Services

Automated monitoring

Excavation support

Software and web-based data presentation

Markets

Buildings

Technologies

Wireless sensors

Vibration and noise monitors