

## **S61 Ostrów Mazowiecka - Szczuczyn section "Łomża Zachód" interchange (with interchange) - "Kolno" interchange (without interchange)**

Łomża, Poland

Preparation of a technological design with the development of test stands for carrying out test loads of driven piles (static and dynamic)



### **The project**

Load testing of 400x400 mm driven piles as part of the foundation of MS-11, MS-19 and WD-22 structures in the course of the under construction expressway No. S61 Ostrów Mazowiecka - Szczuczyn

### **The challenge**

The project included the design of the stands and the method of performing twenty-two static and sixty dynamic test loads on driven piles.

## The solution

The design of the (static) load test stand consisted of the following components:

- a hydraulic actuator that induces a pushing force on the head of the test pile,
- a system of steel beams transferring loads from the actuator to the anchor piles,
- anchor piles transferring pullout loads from the structure to the ground ground.

An actuator was used to induce a force on the test pile of the design load a hydraulic actuator with a lifting capacity of min. 2.2 MN.

Dynamic tests, i.e. strain and displacement measurements, were performed using two strain gauges and two accelerometers and a PDA (Pile Driving Analyzer) recorder from PDI.

## Project facts

### Owner(s)

GDDKiA

### Keller business unit(s)

GEO-Instruments Polska

### Main contractor(s)

Intecor Sp. z o.o.  
Conway STF Sp. k.

### Engineer(s)

Jerzy Pieronkiewicz - Technical Director

### Services

Deep foundations testing

### Markets

Infrastructure

### Technologies

Deep foundation load tests