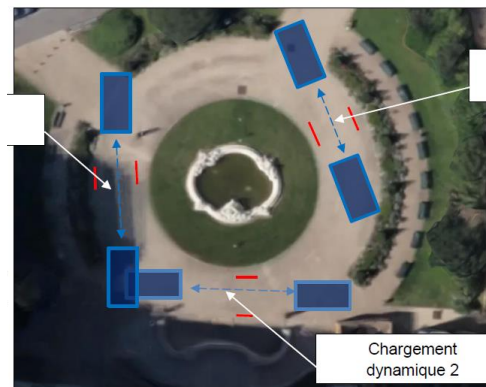


Jean Perrin Square Loading Test, Grand Palais, Paris

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Integrated safety for structures



Chargement dynamique 2

Location of dynamic load tests around the square

Loading Test of public square

Client

RMN (National Museum Organisation)

Structure

Constructed in 1897. Maximal length: 240 m. Height: 45 m. Masonry structure topped by a steel and glass dome of 8 500 tons. Used as an exhibition place and museum. Squares and gardens surrounding the Grand Place, made at the same period.

Context

During renovation works at the Grand Palais, heavy hoisting vehicles will be brought on the square near the building. Regulations require checking the results of a poinçonnement load of 80 kN/cm², if the vehicle is more than 16 tons

Client's Needs

The client needs to make this loading test for using the Jean Perrin Square as a parking place for the heavy equipment.

Instrumentation Installed

Two types of tests:

- Static loading on 4 different points around the square roundabout, with 8 loads of 2 tons.
- Dynamic loading on 3 different points around the square roundabout, with a 16 ton vehicle.

For each test, is used:

- 2x 1-m Optical Strands
- 1 Monitoring Station

First results

The results show that the Jean Perrin square is resistant enough, according to the regulation CO2 de l'arrêté du 25/06/1980.

Client's benefits

Thanks to OSMOS technology, the client is able to use this square as wished, and does not need to carry out reinforcement works.



Static loading test with 2 ton loads



Dynamic loading test with 16 ton truck

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