

Location:

Slatina, jud. Olt, Romania

Designer:

Proexrom, Romania

Software:

GEO5 Nailed Slopes



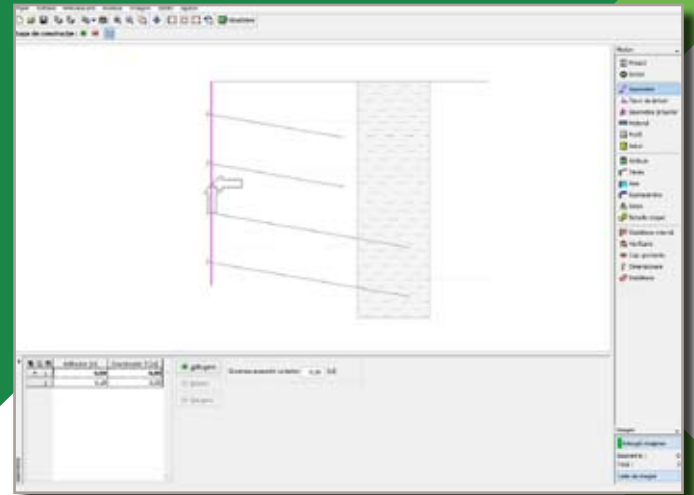
Installation of the anchors and the excavation of the soil



3D Model of the channel



Application of shotcrete



Concrete sewer

About project

In order to transport the waste, it is needed the construction of a curing sewer. The sewer is made of concrete and it is placed under the existing industrial hall.

The construction site

The construction site is placed inside a factory in the eastern part of Slatina city. The factory is placed on the side of the hill, with the slope from east to west and with level difference between the east part of the factory and the west one of 11.00 m.

It is need to provide the stability of the vertical walls resulted after an excavation made for the concrete sewer.

The solution for the stability of the walls consist in two construction systems:

- wall made of micropiles, anchored, in the area next to the foundation of the hall
- nailed soil in the area with lower surcharges

After the instalation of the anchors, it is applied shotcrete on the metal plate.

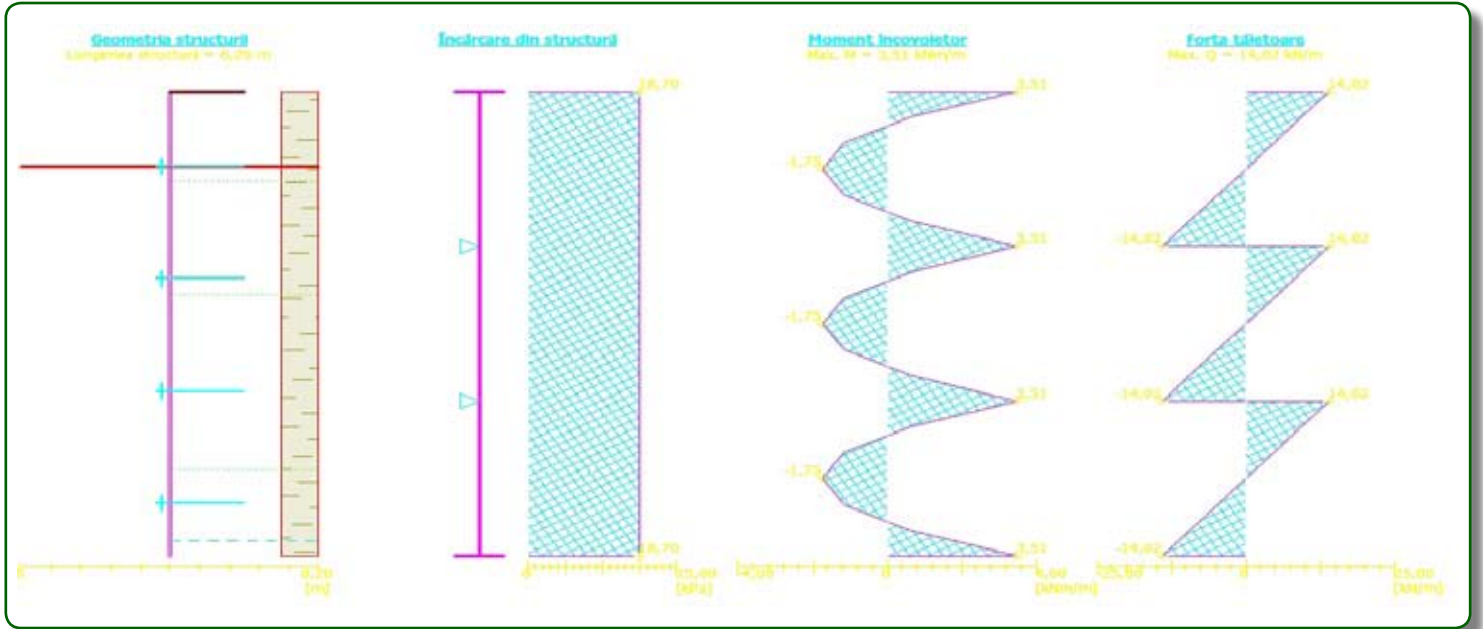
Description of anchors

The anchors are made of steel, with a total length of 4.58 m, 6.06 m and 6.61 m. The model of the anchors is SS150 and SS5, with square section.

For the construction of the nailed wall, were used three types of anchors:

1. SS150 L = 6.06 m

- one lead segment in the top, $l = 154$ cm, with 8", 10" and 12" (20, 25, 30 cm) helical bearing plates;
- two plain extensions, $l = 216$ cm;
- one threaded adapter, $l = 50.8$ cm, with a metal plate (200*200*15mm) to fix the anchor

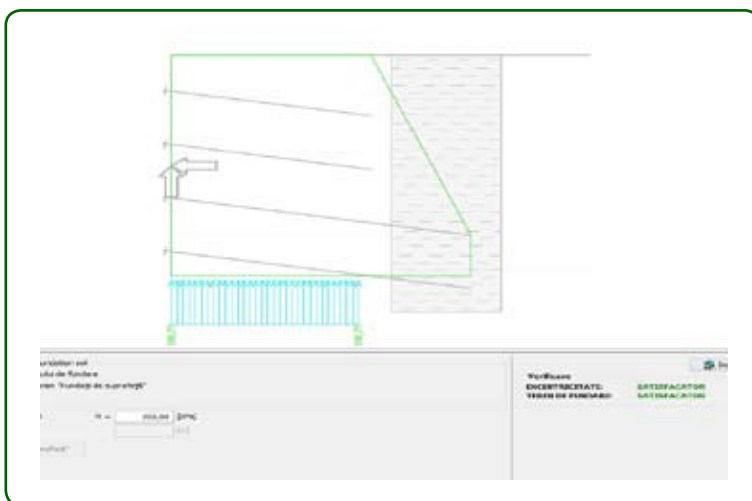
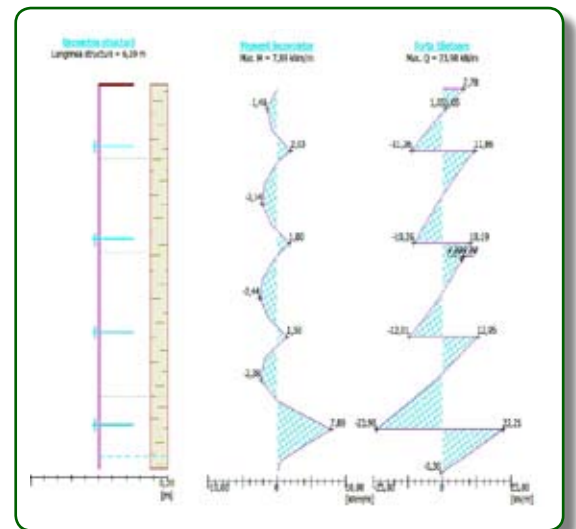


2. SS5 L = 6.61 m

- one lead segment in the top, $l = 261$ cm, with 8", 10" and 12" (20, 25, 30 cm) helical bearing plates;
- one segment, $l = 261$ cm, with 8" (20 cm) helical bearing plates;
- one plain extension, $l = 216$ cm;
- one threaded adapter, $l = 50.8$ cm, with a metal plate (200*200*15mm) to fix the anchor

3. SS5 L = 4.58 m

- one lead segment in the top, $l = 261$ cm, with 8" (20 cm) helical bearing plates;
- one plain extension, $l = 216$ cm;
- one threaded adapter, $l = 50.8$ cm, with a metal plate (200*200*15mm) to fix the anchor



Conclusion

This software was selected due to following reasons:

- user friendly
- intuitiveness and transparency
- quality outputs
- easy input of the construction phases
- speed of calculations