



Edelhöfe Helmstedt

Data and facts

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|-----------|---|
| Company | PORR Spezialtiefbau GmbH |
| Type | Subsoil improvement |
| Runtime | 01.2018 - 12.2019 |
| Principal | Kreis-Wohnungsbaugesellschaft Helmstedt mbH |

[Project report online](#)

www.porr-group.com



Vibro replacement for an apartment and office building.

The planned project is located on a layer of backfill. The backfilled soil consists predominantly of sand under a surface anchorage layer of natural stone paving.

Under the backfill lie layers of sandy silt, sandy clay, peat and lignite. According to the site soil and foundation reports, the construction loads would need to be transferred into the deeper, load-bearing soil.

On the basis of the site soil and predicted loads, a soil exchange or soil improvement process in the form of plug compression was essential.

This soil improvement process was completed using vibro replacement carried out by Stump-Franki. A sluice vibrator was sunk into the soil for the procedure. Activating the support frame then created vibration and pressure to penetrate the soil. After reaching the planned depth, the vibrator was drawn along in small driving steps so that the backfill material could escape from the tip of the vibrator. The columns were thoroughly compacted from bottom to top by repeated insertion of the vibrator. The vibrator displaced the binding soils to the sides, while non-binding soils were compressed by the applied vibrating energy of the deep vibrator.

Technical data / quantities

| | |
|----------------------------------|------|
| Number of vibrated stone columns | 341 |
| Column depths | 4-6m |
| Column diameter | 65cm |

Impressions



Image notes

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Production of the vibrating tamping compaction.

Do you have questions about the project or would you like to learn more? Feel free to contact us for further information.

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