

APPLICATION OF DRILLING AND MINING METHODS IN THE FIELD OF ROAD INFRASTRUCTURE ON THE EXAMPLE OF THE PIPE-ROOFING METHOD

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A number of methods for trenchless implementation of network infrastructure use drilling technologies. Examples include directional drilling, microtunneling, pneumatic pipe driving, direct pipe. Hybrid technologies combining the principles of mining with drilling are also being implemented, an example of which is the pipe roofing technology. The overview of the latter technology presented here includes the principles of operation, some features and parameters of individual items. Its use in the construction of underground and communication structures is also considered. Elements of a case-study project of a pedestrian and bicycle tunnel using pipe roofing technology in a railway embankment in Wrocław are also presented. The problems of static and strength analysis according to applicable standards at individual stages of tunnel construction are indicated.