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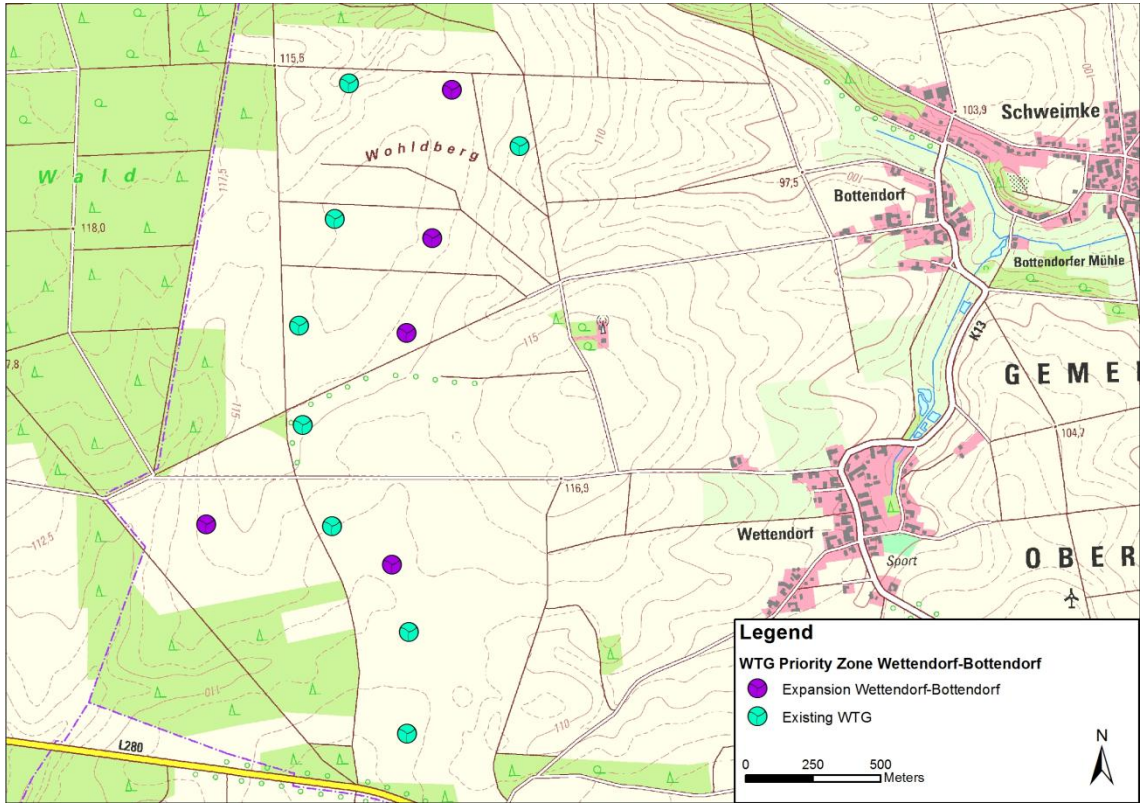
Laubingers Construction Journal

Chronology of the structural realisation of a wind farm exemplified by Wettendorf-Bottendorf II wind farm project

Günter Laubinger (49) is an experienced engineer in the wind industry and BBB's specialist for the monitoring of the construction site of Wettendorf-Bottendorf II project. He knows the key aspects of a proper implementation of wind farm projects very well and invites you to join him on his inspections.

Laubinger is also specialist for Contracting and Procurement services at BBB. Customers benefit from the precise configuration of agreements and contracts needed for the development of wind energy projects.

Overview map of the wind farm project Wettendorf-Bottendorf II



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If you are specifically interested in individual constructional phases, just click on it and access directly.

Contents: Construction activities

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Here you can see the main entrance and the wind park area with the existing installations of the wind farm Wettendorf-Bottendorf I.

1. Wind farm site

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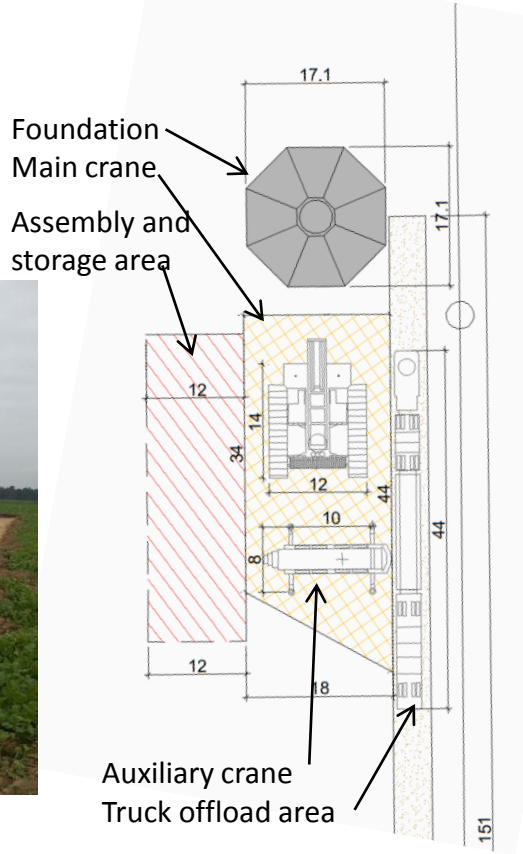
Access roads and crane hard standings must be built according to the specifications of the manufacturer to ensure a smooth delivery and erection.

2. Civil works for the preparation of access roads and crane hard standings

Topsoil removal for road and crane hard standings



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There are several variants to place the power cables: Open design, installation with a cable plow or by drilling for the crossing of roads and railway lines.

3. Cable laying

Cable installation by means of cable plow and drilling

In the background of the image below you can see the delivery of the foundation ring.

4. Foundation construction

4.1 Excavation of the foundation pit

The cable protection pipes are laid under the foundation in correspondence to the park's internal cable layout.

4. Foundation construction

4.2 Laying of cable protection pipes

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The introduction of a soft material layer under the foundation center serves to improve the statics. An increasing number of foundation designers provide this measure.

4. Foundation construction

4.3 Soft material layer under foundation center / Blinding layer and preparation of formwork

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The anchor cage system is provided by the turbine manufacturer and is the direct connection from the foundation to the tower. The accurate positioning is absolutely essential.

4. Foundation construction

4.4 Mounting anchor cage system / Anchor bolt system on the foundation ring

In Germany the design of the foundation reinforcement must be reviewed by a structural engineer when completed.

4. Foundation construction

4.5 Laying of the reinforcing steel

After installation of the reinforcement steel the soil will be filled from the outside to the upper edge of the casing. Then, the concrete can be poured in two steps.

4. Foundation construction

4.6 Pouring of fresh concrete

The foundation surface is smoothed mechanically immediately after the concrete placement. The foundation plinth is concreted in a second step.

4. Foundation construction

4.7 Completion of the first concreting section

In order to avoid fissuring or cracking of the concrete, it is post-treated and covered with foil.

4. Foundation construction

4.8 Concreting of the foundation plinth

4. Foundation construction

4.9 Covering of topsoil and the foundation ring

Track the progress of the work! It is soon to be continued...

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