**A Solid Foundation for an Industrial Park**

**During the development of a new industrial site, Wirtgen Group machines in conjunction with a John Deere tractor lay the foundation for the business park’s further construction.**

**Strengthening the Foundation**

Soil stabilizing is a particularly cost-effective and resource-friendly method for achieving the proper bearing capacity and quality of the soil and preparing it for civil engineering or building construction projects. In order to permanently improve the soil’s properties, a series of machines are usually required. Depending on the application, this can include a binding agent spreader, a soil or tractor-towed stabilizer, a grader, and soil compactors.

**The Perfect Recipe**

In order to prepare the more than 80,000 m² site for development, the earthworks activities included raising the site’s ground level by up to 10 m. In the process, several hundred thousand cubic meters of soil had to be stabilized and consolidated layer by layer. The binding agent for the soil with a low bearing capacity was defined as 10 kg/m² lime-cement mixture. While lime improves the ability to pave over and consolidate the wet, cohesive soil, cement permanently increases its bearing capacity, volume stability, and resistance to water and frost.

**Outstanding Mix Quality**

First, binding agent spreaders from the Wirtgen Group’s system partner Streumaster precisely pre-spread the mixed binding agent. Wirtgen soil stabilizers were responsible for homogeneously mixing in the binding agents. All-wheel-drive soil stabilizers like the WR 250 were used for this process – which, with 766 PS, a working width of 2.4 m, and a working depth of 560 mm, is particularly suitable for such large-scale jobs. As such, the high-performance WR 250 can achieve daily rates of between 6,000 and 12,000 m².

A WS 250 tractor-towed stabilizer, also known as a stabilizing or tractor-towed milling machine, was also used. Unlike the self-propelled machines in the WR series, the WS 250 requires a traction vehicle to mix soils up to 500 mm deep across a working width of 2.5 m – in this case, a John Deere 8R 370 tractor from the new 8R series. It only takes a few simple steps to attach the WS 250 to the tractor using the standardized three-point hitch, and it is then immediately ready for use.

Using their powerful milling and mixing rotors, Wirtgen soil stabilizers and tractor-towed milling machines jointly mixed the binding agents into the soil at a depth of 40 cm, transforming it layer by layer into the desired high-quality, homogeneous soil-binding agent mixture.

**Consolidating with the Right Technology**

For final consolidation, the contractor relied on powerful compactors from Hamm’s H series. The compactors owe their excellent off-road performance to the 3-point swivel joint which, together with the large bank sloping angles at the front and rear, also makes the compactors highly maneuverable and stable.

Since the most effective way to consolidate cohesive soil is to use compactors with padfoot drums, an H 13i P initially took the lead on site. With its trapezoidal pad feet on the drum, the roller left deep impressions in the soil, which could then dry out better due to the increased surface area. After graders had leveled the soil, H series compactors took over again, this time with smooth drums. They were responsible for the final compaction of the stabilized soil and its ultimate stiffness.

Photos:

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|  | W\_photo\_WR250\_01878\_HI In addition to soil stabilization, Wirtgen’s WR 250 is also used as a mobile cold recycler in road rehabilitation. |

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|  | W\_photo\_WS250\_00785\_HI With Wirtgen’s tractor-towed stabilizers like the WS 250, a tractor can be quickly converted into a soil stabilizer, enabling it to be used productively outside the harvesting season as well. |

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|  | W\_photo\_WS250\_00820\_PR In addition to impressive compaction force, Hamm’s H series of compactors also stand out for their simple Easy Drive operating concept and an operator’s cabin with excellent all-round visibility. |

*Please note: These photographs are only intended as a preview. For printing in publications, please use the photographs in 300 dpi resolution that are available for download from the Wirtgen GmbH/Wirtgen Group websites.*

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| For further information,  please contact:  WIRTGEN GROUP  Public Relations  Reinhard-Wirtgen-Strasse 2  53578 Windhagen  Germany  Phone: +49-2645-131-1966  Fax: +49-2645-131-499  E-mail: PR@wirtgen-group.com  www.wirtgen-group.com |  |