



The Wednesbury to Brierley Hill Metro extension route's planning, design, and execution fall under the jurisdiction of the Midland Metro Alliance, acting on behalf of Transport for West Midlands (TfWM). This initiative, supported by Sandwell and Dudley Councils, as part of the WMCA, is a highlight among numerous captivating projects in the region.

When complete, the Wednesbury to Brierley Hill Metro extension will enhance public transportation in the Black Country, by connecting existing rail networks and providing access to education and career opportunities.

Main contractor MPB Structures, as part of the Midland Metro Alliance (MMA) and on behalf of TfWM, appointed Bauer Technologies as

the piling contract for the project. Specifically, Bauer was contracted to instal 4no. x 54.5m 1000mm rotary bored piles, using 37m of 1180mm casing. These piles were crucial for supporting the abutment of the access road flyover bridge, over the depot access road, mitigating potential settlement issues due to back-filled mine workings in the area.

The project presented challenges, due to its complexity and space constraints. The site operations required innovative 3D planning to ensure effective arrangements in the confined area, while maintaining access to the ramp structure and adjacent metro depot throughout the programme of works. The use of the BG45 Premium Line Bauer rig, with an extended mast and a 64m

Kelly bar, along with a 100t telescopic crane, enabled completion within the stringent two-week delivery program.

SUSTAINABILITY

The project was a showcase for Bauer Technologies, to demonstrate its commitment to sustainability by employing various initiatives, namely:

- The use of low carbon concrete, from suppliers Hanson & Tarmac
- Tarmac's fully electric concrete wagon was used for site deliveries, highlighting progress towards low-carbon logistics
- A collaboration with F Brazil Reinforcements, led to redesigning pile cages (longer four-piece cages), which reduced delivery wagons to the site by a staggering 50%.

Works took place from 14th July to 3rd August 2023, although the overall Delta Junction project began in April 2020 and is marked for completion in March 2024.

The Delta Junction piling works played a pivotal role in supporting the Metro extension project, showcasing Bauer Technologies' innovative solutions, commitment to sustainability, and ability to navigate complex construction challenges.

The successful completion of this phase contributes to the overall success of the Wednesbury to Brierley Hill Metro extension, enabling improved public transportation and connectivity in the West Midlands region.



Principal Contractor:

MPB Structures working as part of the Midland Metro Alliance

Piling Contractor:

BAUER Technologies Limited

Contract Period:

14 July 2023 to 3 August 2023

Bauer's Scope of Works:

- 4Nr x 54.5m 1000mm rotary bored piles installed using 37m of 1180mm Casing

Equipment Used:

- BG45 Piling Rig c/w 5m mast extension
- 64m Kelly Bar