

Perry Park View, Birmingham

A multidiscipline piling package for a new housing development



AARSLEFF

Aarsleff Ground Engineering has recently completed a piling package on site for a new housing development in Perry Barr, Birmingham.

Perry Park View, a Persimmon Homes development situated 4 miles north of Birmingham, will provide a range of 1, 2 and 3-bedroomed houses and apartments. The development will feature easy access to Birmingham, Solihull, Royal Leamington Spa and Coventry, with good road and rail links.

Aarsleff were awarded the precast concrete piling package for the foundations of the 72 houses and 6 apartment blocks. In August 2019, Aarsleff commenced driving 466no. 250mm and 200mm square precast concrete piles of 5m lengths utilising its Junttan PM20 piling rig. All piles were installed within a three-week period and to schedule.

Following on from their driven precast piling works, Aarsleff were then approached by Persimmons to install a King Post Wall to replace an existing failing brick wall on a short section of the site perimeter. Due to already commencing the construction of houses, access to the existing wall was restricted. Aarsleff deployed its Klemm 702 restricted access rig to access the area and bore out the position of the posts, which were then concreted into

place. The panels were then lifted in by crane to replace the 26 linear meter wall with a maximum height of 3m.

Whilst on site and impressed with the finished results of the first wall, Persimmon Homes awarded Aarsleff an additional contract to install another three King Post Walls. The location of these walls made it impossible for a drilling rig to gain access to the post positions, with the new wall being installed halfway down an embankment which ran into the River Tame. Instead, Aarsleff utilised its decades of driven piling experience to drive the posts using a Movax vibratory hammer attached to a 9.5m radius reach excavator. After the piles were initially driven in, Aarsleff then utilised a suspended air hammer to drive the 7.5m and 8.5m length posts fully into position to meet the design lengths. The prestressed concrete panels were slotted in between the king posts and then back filled to the required level.

Steve Gilbank, Aarsleff's Operations Manager and retaining walls specialist said on completion of the three phases of work,

"The more common and preferred method of installing the king posts is to pre-bore holes and concreting the posts into place. This wasn't a feasible option for the Perry Barr development, so we used our experience and knowledge as



a piling contractor to develop a solution of driving the king posts instead. This not only overcame the access issues, but also provided a solution that was safe and quicker to install. Overall, it has been a pleasure to work with Persimmon Homes and demonstrate how we can develop a ground engineering solution that's fast to install and cost effective."

Despite the weather causing issues on site throughout some of the works, Aarsleff was able to finish each contract to budget and to the clients scheduled programme.

Scope of Works

264no. 200mm square precast concrete piles
202no. 250mm square precast concrete piles
In total, 215 linear metres of King Post Wall

Client

Persimmon Homes

Equipment

Junttan PM20
Klemm 702 restricted access rig
Movax vibratory hammer
Air hammer

Construction period

28th August 2019 - 9th April 2020 (total of 3 visits)

Aarsleff Ground Engineering Ltd, is the UK trading arm of Danish contracting giant Per Aarsleff A/S, and is one of the UK's leading piling and geotechnical design and installation specialist contractors; actively promoting early consultation to ensure each scheme can be Value Engineered to give clients the best service, quality design, safety and value. Aarsleff's strategy and philosophy of investment into the future has resulted in its wholly owned subsidiary Centrum Pile Ltd having the most advanced precast pile production facilities in the UK, producing segmentally jointed precast concrete piles to BS En12794 to Class 1A.

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