

Project Overview

The Crossways project saw the strategic use of Ground Bearing Raft foundations and reinforced granular mats to overcome the risk of dissolution features encountered on site and ensure the stability and longevity of the residential structures. The careful management of construction risks, particularly concerning low-hanging overhead-power cables, further exemplifies our dedication to safety and efficiency. A successful development in a short five-week turnaround time for robust residential foundations.



S P E E D E C K
FOUNDATIONS LIMITED



Crossways Oxfordshire

CLIENT TYPE	National Housebuilder
LOCATION	Lower Shiplake, Oxfordshire
NO. OF UNITS	7 units



A complete solution

The challenge:

Risk of Heave: During the geotechnical investigations, it was discovered that the ground composition included Seaford and Newhaven Chalk beneath the Taplow Gravel, with notable dissolution features infilled with soft clay or completely weathered putty Chalk. The shallow soils in the area were predominantly granular, precluding the risk of heave.

The solution:

Following the review of the testing, a combination of a Ground Bearing Raft foundation system and a reinforced granular mattress, capable of spanning 3m internally and 1.5m around the perimeter, was determined to be the most effective solution to address these geological conditions.

We liaised with the warranty provider and project engineer in order to gain approval for the proposed solution ensuring all parties were satisfied of the performance of the solution.

Construction

The construction phase was marked by careful planning and efficient execution. The primary challenge involved ensuring the safe and precise setup for the concrete pour, particularly avoiding interference with low hanging overhead power cables on site. This potential hazard was meticulously managed through proactive measures and on-site diligence. Notably observing a 3m exclusion zone around the 11kVA cable and adhering to guidance within GS6 "Avoiding danger from overhead power lines".

Conclusion

The Crossways Residential Development project demonstrates a successful collaboration between the Westbourne Group and our highly skilled engineering team, highlighting the importance of thorough geotechnical investigations and tailored design solutions in overcoming site-specific challenges.

The project's efficient execution and adherence to timelines underscore our commitment to delivering high-quality residential foundations. In summary, the Crossways Residential Development stands as a testament to innovative engineering and meticulous project management, resulting in a fantastic build for a thriving residential community in Lower Shiplake.