

Coal Mining and Ground Stability Risk Assessment in Respect of Proposed Development

22 – 24, Rose Tree Lane, Newhall, Swadlincote, Derbyshire, DE11 0LN.

1. The developers of the site have given consideration to the risk that former coal mining in the vicinity of the site may present problems requiring special measures to prevent potential structural damage to the proposed dwellings.
2. The Coal Authority report, provided with the planning application in respect of the site, has shown that there are no known previous workings at shallow depth.

"The property is in a surface area that could be affected by underground mining in 4 seams of coal at 100 to 200m depth, and last worked in 1952. Any movement in the ground due to coal mining activity associated with these workings should have stopped by now."

3. However, it is recognised that in this area there are potentially uncharted shallow historic excavations for coal which will need to be investigated by trial holes and possibly drilled boreholes, prior to the design of foundations and consideration of ground stabilisation measures to remedy any cavities in the vicinity of the site, prior to the carrying out of development. The Coal Authority draws attention to this in their report:

"In addition the property is in an area where the Coal Authority believe there is coal at or close to the surface. This coal may have been worked at some time in the past."

4. The scale of development involved in this proposal is such that the carrying out of a detailed site investigation at this stage would be at an expense unjustifiable in quantum relative to the site value until such time as a planning permission is granted for the site.
5. It is likely that the measures involved to overcome potential problems will consist of the use of a semi-rigid reinforced concrete raft with underlying membrane to protect from gas as the foundation of the proposed dwellings. Additionally, ground stabilisation techniques such as vibro-compaction may be necessary to remediate any shallow voids.
6. It is evident that there was no constraint to the development of the nearby land in the past, therefore it is concluded that there is unlikely to be a requirement for measures that would prevent the economic development of the site.

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7. In the relevant planning policy guidelines it is clear that it is open to the LPA to impose conditions requiring the submission of satisfactory remediation measures prior to the commencement of development. And in particular in the case of structures, the Building Regulations provide sufficient safeguards to the potential occupiers of the dwellings. In addition the measures required by NHBC or insurers to protect the interests of potential purchasers will have to be met.

Conclusion

8. It is considered that the carrying out of a desk study, which would confirm the factors outlined above, is not justified at this stage because it would conclude that further ground investigations are required. Neither are intrusive investigations justified at the present stage in the development process due to the considerable cost involved, but that the LPA can be assured that the developer is aware of the risks related to the existence of coal and former workings in the vicinity and will be taking appropriate measures should planning permission be granted.

