



IR / D659

Virginia Gillece  
The Granary  
Gibbs Hill  
Nettlestead  
Kent  
ME18 5HT

22<sup>nd</sup> September 2021

Dear Virginia,

**RE: ROCKS FARM, NETTLESTEAD, MAIDSTONE KENT – STRUCTURAL ENGINEERS  
REPORT ON PROPOSED BASEMENTS ADJACENT TO HOPPERS HUTS**

1. Further to my visit on 1<sup>st</sup> September 2021 and Julian Pamment's site investigation on the same day, we have now received the laboratory results on the soil sample taken and can report our findings and recommendations.
2. Alan Baxter Partnership LLP were asked to prepare a Structural Feasibility Report on constructing two new basements within the courtyard of the Hopper Huts.
3. The Hoppers Huts are two blocks of single storey masonry building which we believe date from the late 19<sup>th</sup> century.
  - 3.1. Alan Baxter Partnership LLP prepared a report on these buildings on 6<sup>th</sup> February 2019.
    - 3.1.1. See this report for comments on the structural condition of the huts and their suitability for conversion.
4. It is proposed to construct two basements to form additional living spaces to the converted hopper huts. See D659/Sk1.
5. Julian Pamment excavated a 5m deep borehole and two trial holes to establish soil conditions and foundation details of the hopper huts.
  - 5.1. The borehole established that there is approx. 4m of relatively weak sands and gavels overlying stiff clay.
    - 5.1.1. Water seepage was noted at 2m with a water strike at a depth of 3m

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5.2. Trial hole 1 revealed brick corbelled foundations at a depth of 0.4m.

5.3. Trial hole 2 revealed brick corbelled foundations at a depth of 1.55m.

5.3.1. The depth of this foundation suggests that it was constructed at the same depth as the adjacent wall of the hut where the ground level is considerably lower.

6. The geological map for the area shows Hythe Beds, which consists of sands, siltstones and mudstones overlying Atherfield Clay.

6.1. The results of the site investigation correspond with the details on the geological map.

7. Laboratory testing of a clay sample taken at a depth of 1m gave a modified plasticity of 15 %.

7.1. This result corresponds to low shrinkage potential with reference to NHBC Ch4.2 Building Near Trees.

7.2. This result means that any tree related anti heave measures will be minimal.

8. The relatively weak nature of the top 4m of sands and gravels, together with the water strike would cause concerns about the temporary stability of any deep excavations.

8.1. We would therefore recommend that the excavations are supported by using contiguous piled walls. See D659/SK1 to SK3.

8.2. The new basements can then be constructed from reinforced concrete within the contiguous piled walls.

9. These proposals should not require any significant additional structural work to the huts.

#### 10. CONCLUSION

10.1. The construction of the two basements are structurally feasible and are unlikely to have any detrimental effect on the hopper huts.

Yours sincerely,



**IAN RICHARDS**  
**FOR ALAN BAXTER PARTNERSHIP LLP**

**SENT BY EMAIL**