FOUNDATION TECHNICAL NOTE

Project Information	
Project	3 Tanners Hill, Hythe, Kent. CT21 5UE
Project No.	21006
Date	3 December 2020
Report No.	21006-CFN-00-XX-RP-S-0001-S2-P2
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Introduction

- The purpose of this technical report is to support the planning application for the residential development at 3 Tanners Hill, Hythe, Kent.
- The location of the property and the anticipated underlying ground conditions is such that Folkestone and Hythe District Council (FHDC) may, impose a "Latchgate" condition on the proposed development that would require the applicant to provide a specialist report with respect to the stability of the site both during and after the redevelopment and assess the impact the works may have on neighbouring properties.

Existing Site

- The existing site is situated to the southern end of Tanners Lane, the site slopes from north to south with an overall level difference of 7.5m.
- The existing site has a detached 4-bedroom property located at the lower end of the site on an existing levelled area with an existing retaining wall around the rear part of the existing property.

Proposed Development

- The proposed development is a 3-storey residential structure to replace the existing property.
- The proposed structure utilises the same threshold level and is located generally within the existing level area of the site. The enlarged property extends to the western part of the site and regrading/retaining of the garden adjacent to the boundary will be required.
- A new retaining wall to the rear of the property will be required to allow the property to make use of the existing step in levels and to create a level access into the first floor of the property.

Site Geology

- Reviewing the British Geological Survey information available online indicates the near surface geology to be Weald Clay which is defined as; Dark grey thinly-bedded mudstones (shales) and mudstones with subordinate siltstones, fine- to medium-grained sandstones, including calcareous sandstone (e.g. Horsham Stone Member), shelly limestones (the so called "Paludina Limestones") and clay ironstones.

- To the north of the site the near surface geology is noted as the Atherfield Clay Formation; generally massive yellowish brown to pale grey sandy mudstone throughout most of its outcrop, with an impersistent phosphatic pebble bed with vertebrate bones, gritty sandstone or very shelly sandy mudstone with glauconite, at the base.
- To the south of the site the Weald Clay is overlain by Storm Beach deposits which are described as coarse materials comprising gravels, cobbles and boulders.
- The Atherfield and Weald Clays are usually identified within this area as potential for landslips or is overlain by historic landslip deposits.
- To the north of the site (approximately 120m) two historic boreholes are referenced and are noted to be relating to the Folkestone and District Water Co, Town Springs extraction and identified Hythe Beds at depth which is assumed to underlain the Atherfield Clay.
- At the time of writing it was not possible to confirm if the site lies within an area that FHDC would designate as a “Latchgate” area however based upon the geological mapping information reviewed for the site as detailed above it is likely that the condition will be applied to the redevelopment on this site.

Conclusion

- The site is located at the lower end of the Tanners Hill which is on the boundary of the Atherfield and Weald Clay formations.
- The redevelopment area of the site whilst predominantly level will require localised retaining structures adjacent to the boundaries and along the rear of the proposed property.
- There is no significant excavation or cutting into the site and minimal fill to provide level areas to the rear entrance.
- Due to the localised excavation of retained and sloped areas to the west of the site it would be appropriate to ensure that these works do not affect the slope stability of the soils within the site and to neighbouring sites.
- A detailed site investigation will be required to enable the detailed design of the foundations and retaining walls, the site investigation will include identification of the underlying geology, previous landslips and ground water levels.
- Should the site investigation identify the existing geology may be affected by cutting into the retained soils, a detailed slope stability analysis will be required to assess the impact of the works.
- The design would select appropriate construction methods to ensure short term stability during the works and long term stability of the site is maintained.
- Past experience of undertaking construction projects in the area has shown that it is possible to design and construct developments on sites with potential slope instability and undertake these in a safe manner.
- The detailed site investigation will be undertaken by an appropriately experienced specialist with knowledge of slope stability assessments.
- The development area is predominantly on the existing footprint and to similar levels therefore the impact of the development on the site is minimised and potential impact on slope stability is greatly reduced.