Ground and Water Limited
Unit 2
The Long Barn, Norton Farm
Selborne Road
Selborne, Alton
Hampshire
GU34 3NB

Tel: 0333 600 1221
E-mail: enquiries@groundandwater.co.uk/
roger.foord@groundandwater.co.uk

Preliminary Summary – Ground Investigation Report

CLIENT	Greenway Architects c/o Vincent & Rymill
SITE ADDRESS	42 Avenue Road, Primrose Hill, London NW8 6HS
REPORT REFERENCE	GWPR1330
ENGINEER	Francis Williams, Ground and Water Limited
INVESTIGATION LOCATIONS	Please see Figure 1 Attached.

GROUND CONDITIONS ENCOUNTERED

Summary of Strata Encountered (WS1 and WS2)		
Strata	**Depth Encountered (m bgl)**	**Thickness (m)**
MADE GROUND (Tarmac over type 1 sub-basE)	GL	0.20
MADE GROUND (Stiff brown clay fill with brick and frequent roots).	0.20	0.40
HEAD DEPOSITS (Stiff orange/grey silty CLAY with occasional, medium gravels).	0.60	1.50
LONDON CLAY FORMATION (Stiff brown/blue clay, becoming brown and then dark grey with depth, silty CLAY. Silt layers/pockets noted. Selenite crystals noted at depth).	2.10	>13.35

As drillers logs. Subject to engineer review.

IN-SITU STRENGTH TESTING	HEAD DEPOSITS: Medium undrained shear strength (55kPa) LONDON CLAY FORMATION: Medium to very high undrained shear strength (55 - 165kpa).
GROUNDWATER	Groundwater seepage noted at 4.30m bgl.
ROOTS	Fine roots noted to 1.80m bgl. Traces of roots noted at 5.70m bgl.
ANTICIPATED VOLUME CHANGE POTENTIAL	HEAD DEPOSITS: Likely to have **LOW TO MEDIUM** volume change potential. LONDON CLAY FORMATION: Likely to have **HIGH** volume change potential. All in accordance with NHBC Standards Chapter 4.2. May have volume change potential in accordance with BRE240. Subject to confirmation of results of geotechnical classification testing.
FOUNDATION RECOMMENDATIONS	At the time of reporting, July 2015, it is understood the proposed development will comprise the excavation of a basement below the entire footprint of the house. Due to the soils having the potential for volume change foundations must not be placed within cohesive root penetrated and/or desiccated soils and the influence of the trees surrounding the site must be taken into account. The base of foundation excavations must extend at least 300mm into non-root penetrated soils. Should trees be removed from footprint of proposed development then a piled foundation should be considered.

	Fresh roots were noted to 1.80m bgl. The root traces at 5.70m bgl were considered to be relic and therefore not likely to pose a risk to the serviceability of the proposed structure. Therefore based on the above the assumed minimum foundation depth of 3.00-3.50m bgl for the basement shall be excavated below the root penetrated soils. Foundations constructed on the soils of the London Clay Formation at 3.00-3.50m can be designed based on a presumed safe bearing capacity of 125 - 150kN/m^2. This is based on trial hole records, inspection of samples recovered, geotechnical laboratory results, and referral to BS 8004:1986, *Code of Practice for Foundations,* the results of the insitu testing, and based on a 5m long by 1m wide foundation and a maximum settlement of ~25mm.

This preliminary information may be subject to amendment in the final report and no liability can be accepted for any actions based on this preliminary information.