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BY EMAIL

Our Ref: ORH/20/JPl1

11th June 2026

Dear Andrew

Whitehall Road West, Birkenshaw
Garden Soils Validation – Plots 20 and 21

In accordance with your instruction, we visited the above site on the 29th May 2026 to confirm the adequate placement of garden cover soils for plots 20 and 21.

Background

The Remedial Specification (GRO-24208-6584), prepared by Groundtech Consulting, dated May 2026, recommends that a cover system is required for all gardens and soft landscaped areas where made ground is present. The cover system should be a minimum of 0.45m of topsoil and sub soil (minimum 0.15m topsoil). The remediation strategy requires one pit per two plots to be validated.

Import of Clean Topsoil/subsoil and Testing Requirements

Guidance supplied in the document produced by the Yorkshire and Lincolnshire Pollution Advisory Group (YALPAG): "Guidance on the Verification Requirements for Cover Systems" requires that, for each source of topsoil or subsoil from a greenfield site, a minimum number of three samples or one per 250m^3 (whichever is greater) should be tested, and for each source of topsoil or subsoil from a brownfield site, a minimum number of six samples or one per 100m^3 (whichever is greater) should be tested.

Information provided by the client indicates that the topsoil and subsoil for use within garden areas of the above plots is site won. The site investigations undertaken by ARP and RSK both contain details of extensive testing that proves the soil is suitable for use. The investigation by RSK identified elevated concentrations of arsenic in 3 of the 4 samples of topsoil screened from across the southern site area and the later investigation by ARP recorded no elevated concentrations of arsenic in the eight samples screened from the northern area of the site. The elevated concentrations of Arsenic from the RSK investigation were between 37mg/kg and 47mg/kg, where the screening value for residential end use with plant uptake is 37mg/kg. Statistical analysis was undertaken on all the samples taken which determined that the true mean for the recorded arsenic concentrations lies below the critical concentration and no further action was required with respect to arsenic for the natural topsoil at the site.

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Validation Site Work

An Engineer from ARP visited the site on the 29th May 2026. At the plot validated on this visit, hand dug pit was dug to 0.45mbgl, to allow inspection of the materials in the garden. The depth of the pit was measured, and the materials encountered were logged by the ARP engineer before being backfilled. Photographs of the validation pits and the Engineer's summary logs are enclosed.

The hand pit encountered slightly gravelly, slightly clayey sandy topsoil to a depth of 0.3m, over subsoils comprising slightly gravelly slightly sandy silty clay, deemed to be the natural strata to 0.45m depth.

Inspection of the stockpile of material was also undertaken to ensure that the same material was used across all plots validated. The stockpile was shown to be in the rear garden areas of plots 15 to 19, and was approximately 25m long, 10m wide and 2.5m tall which is approximately 760m^3. The material that makes up the stockpile was visually inspected and is shown to be the same topsoil spread in the rear garden of plots 20 and 21.

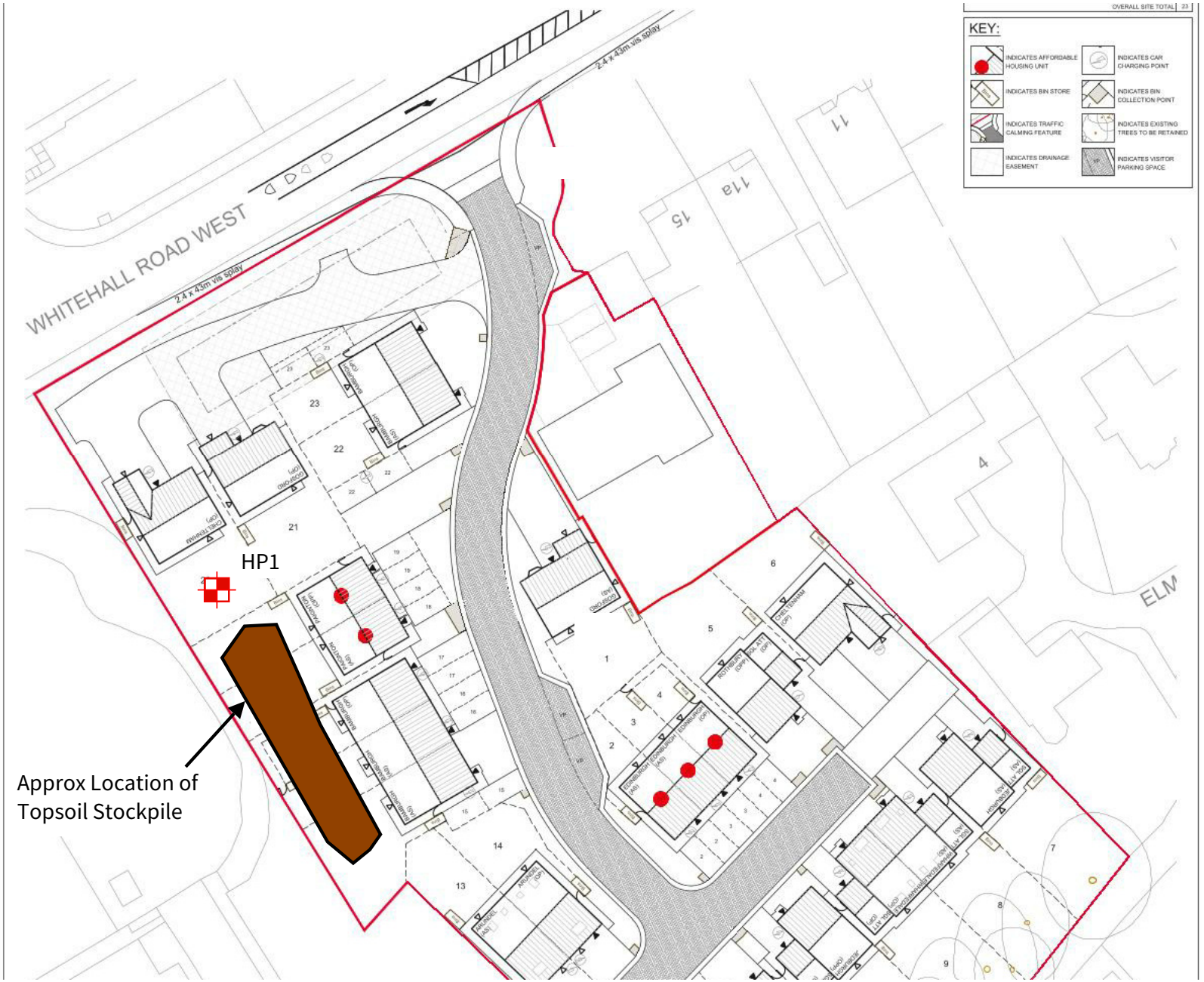
Conclusion

In the light of the above, it is concluded that on plots 20 and 21, an appropriate depth of clean cover soil has been placed, and laboratory testing of the soils present indicates they are suitable for use on the plots, in terms of human health.

We trust the above and attachments are satisfactory, but should you have any queries, please do not hesitate to contact us at your convenience.

Yours sincerely
for ARP GEOTECHNICAL LTD

J Pemberton
Encs



0m 25m

Approximate Scale

KEY

Hand Pit Location

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Project	WHITEHALL ROAD WEST BIRKENSHAW
Client	ORION HOMES LTD
Title	PLOT 20 AND 21 GARDEN VALIDATION
Date	JUNE 2026
Drawn: JP	Scale: AS SHOWN
Job No.	**ORH/20**

ARP GEOTECHNICAL LTD

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WHITEHALL ROAD WEST
BIRKENSHAW

SUMMARY EXCAVATION LOGS

29th MAY 2026

Plot 20

GL – 0.3	Greyish brown slightly gravelly slightly clayey sandy TOPSOIL. Sand is fine to coarse. Gravel is subangular to rounded, fine to coarse, of sandstone.
0.3 - 0.45	Firm to stiff light brown mottled orangish brown and grey slightly gravelly slightly sandy silty CLAY. Gravel is subangular to subrounded, fine to coarse, of mixed lithology including sandstone and mudstone.

All the above depths are in metres below existing ground level at the time of the sampling.
Logging Engineer: JP

ORH/20 – WHITEHALL ROAD WEST, BIRKENSHAW – GARDEN SOILS VALIDATION PHOTOGRAPHS



Photograph 1: General view of the pit dug in the rear garden of Plot 20.



Photograph 2: Closer view of the pit dug in the rear garden of Plot 20.



Photograph 3: View inside the pit of Plot 20.



Photograph 4: View of the topsoil stockpile stored in the rear gardens of Plots 15 to 19