1. Can the applicant please provide the chemical analysis test result for imported soil materials brought to the site in February 2025?

The following is noted in our attached report:

> Information provided by B & X Construction Ltd (Appendix B) indicates that ~3m³ of topsoil (Hallstone Blended Loam Topsoil) was ordered for delivery to the Moorfield Road site on 25 October 2024, with a further ~3m³ of the same material ordered to Moorfield Road on 28 and again on 29 October 2024 (total 9m³). Further to this, following placement of the geogrid system, an additional ~ 6m³ of the same material in total has been delivered to site on 01 and 04 February 2025. It is noted that no delivery tickets have been provided to TEC, although topsoil has been delivered as bulk bags direct from the supplier at Selco Builders Warehouse, with relevant invoices and receipts for payment included within Appendix B.
>
> Further information provided by B & X Construction Ltd indicates the material (referenced Hallstone Blended Loam 01/10) has been analysed by Tim O'Hare Associates, as detailed within Report No. TOHA/24/1592/SS, dated 4th November 2024, sampled on 1st October 2024 (Appendix C). This certificate also remains valid for the topsoil imported during February 2025 as confirmed by the supplier and as this certificate is less than 6 months old. Review of this report indicates the material comprises very dark greyish brown, slightly moist, friable, slightly calcareous loamy sand with a weakly developed, very fine to fine granular structure. The sample was further reported to be slightly stony and containing a high proportion of organic fines and frequent woody fragments. No unusual odours, deleterious materials, roots or rhizomes or pernicious weeds were observed by Tim O'Hare Associates during analysis.

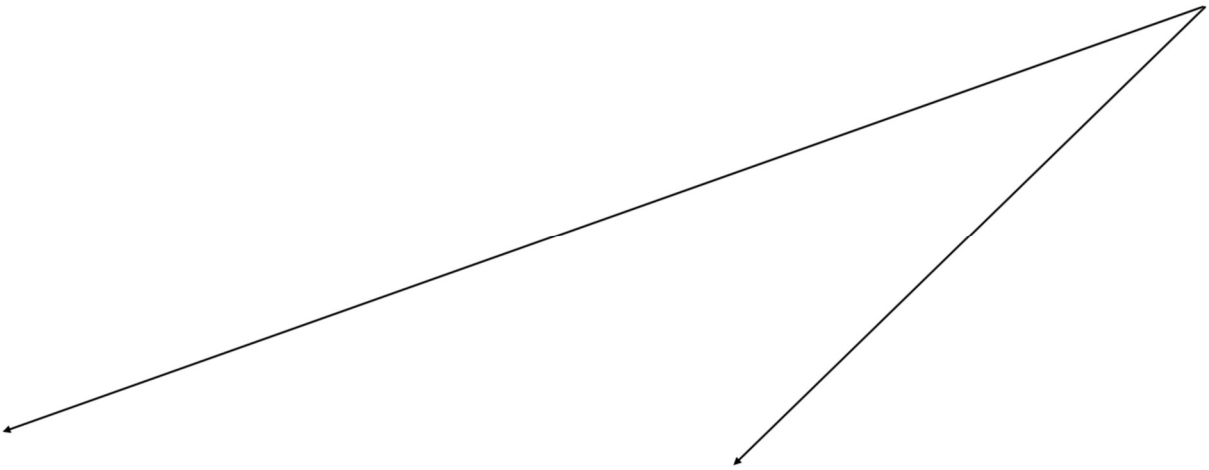
Hallstone Blended Loam topsoil comprises a blend of natural topsoil with peat free soil conditioners from fully traceable suppliers as noted on the associated website. Blended Loam Topsoil 500 Litres | Stocked Nationwide | Hallstone

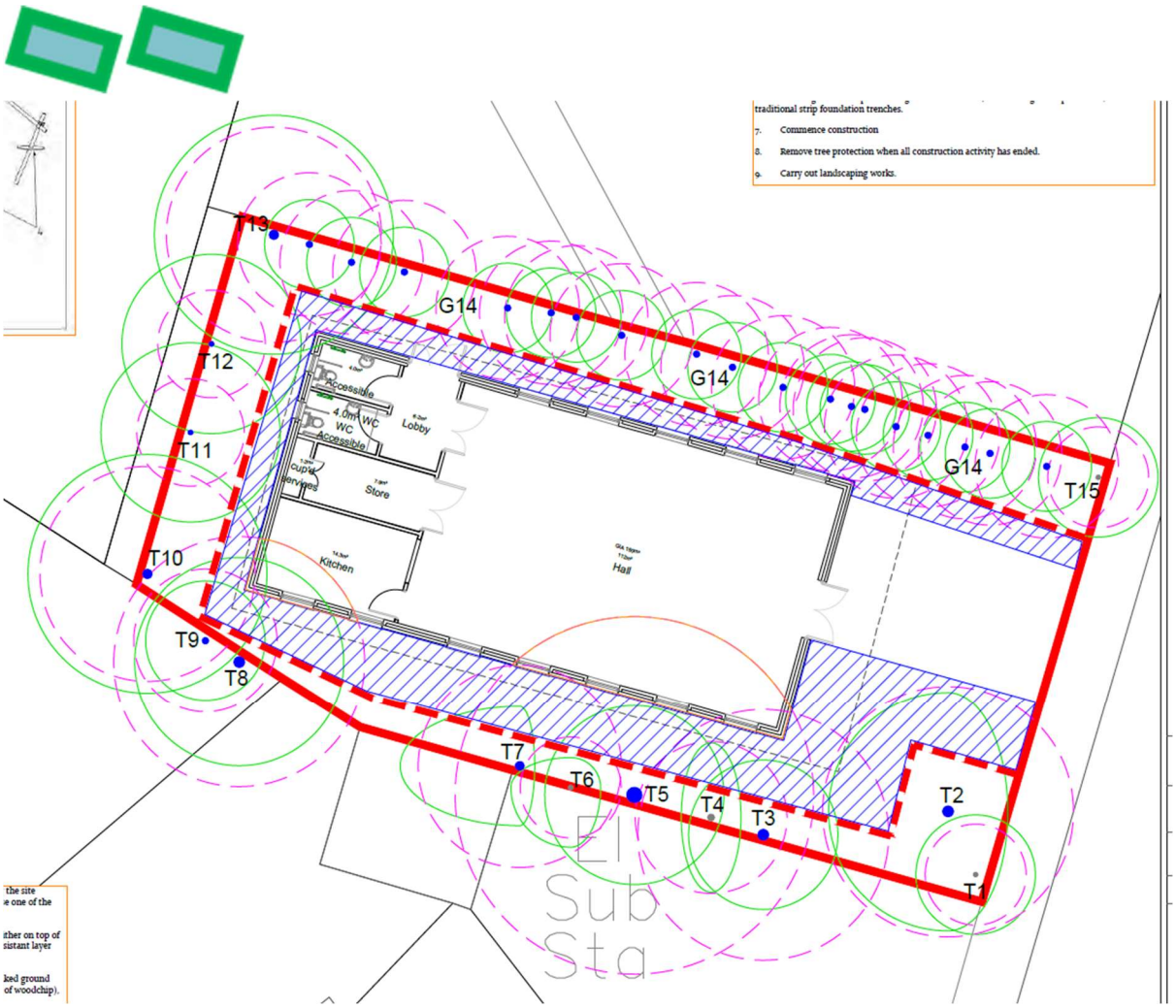
This topsoil is tested on a 6 monthly frequency as has been explained within our report and therefore the soil sample taken on 1st October with analysis certificate dated 4th November is representative of materials imported to site both in October 2024 and February 2025, as the 6 monthly supplier testing would not have become due until 1st March 2025. We are therefore unable to provide further supplier certification, which is relevant to the materials imported.

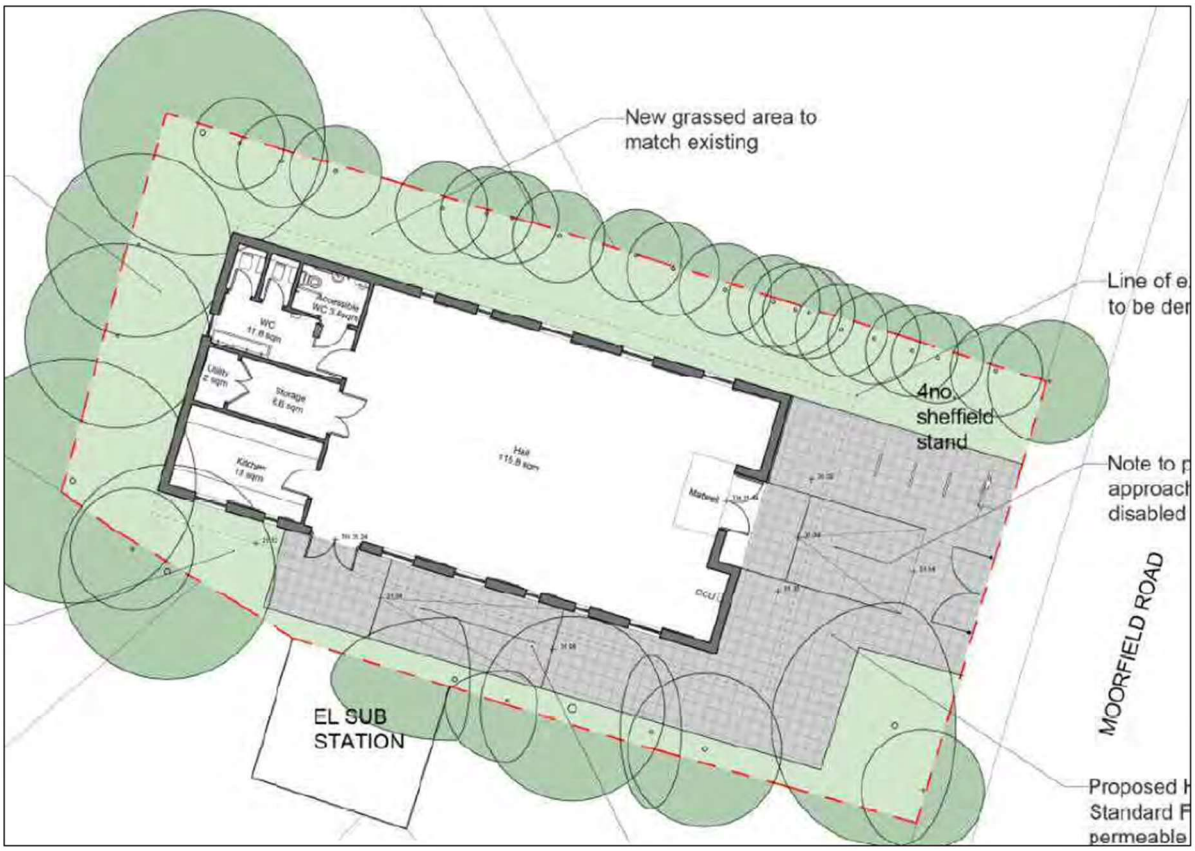
2. Whilst the proposed applicant remedial strategy of providing a combination of hardstanding and a simple cover system to areas of soft landscaping is noted, we have no evidence of excessive trees on site to prevent the installation of the agreed 460mm clean cover system on the site.

The following drawings which were appended to the latest Verification Statement, make it clear that the majority of the site is either subject to provision of hard landscaping (blue hashed areas on the left hand drawing and grey areas on the right hand drawing) or within root protection zones (pink dashed circles). For clarity, the only area of soft landscaping, which is not restricted by the root protection zones, or by provision of hard landscaping (which mitigates the requirement for a simple cover system) is highlighted

in green below. Alternatively, we would welcome a site visit to help in providing a better understanding of the site layout and restrictions.




traditional strip foundation trenches.
7. Commence construction
8. Remove tree protection when all construction activity has ended.
9. Carry out landscaping works.
T13
G14
T12
G14
Accessible
4.0m WC
WC
Accessible
Lobby
T11
Cupd Services
Store
G14
T15
T10
Kitchen
Hall
T9
T8
T7
T6
T5
T4
T3
T2
T1
El
Sub
Sta
the site
e one of the
ither on top of
sistant layer
ked ground
of woodchip).



Moreover, (as defined in BRE465), a simple cover system must consist of a geotextile/separator layers to reduce the possibility of any soil mixing, appropriate design, installation and verification with minimum thickness clean cover of 300mm which cannot be said of the applicant existing remedial measure or mitigations.

BRE465 confirms that a 'simple cover system' provides a reduction of the hazard to human health and to provide a suitable medium for plant growth. It is not specified within the document that geotextile/separator layers are required as part of a simple cover system. It should also be noted that a geotextile layer, and an additional layer of Tensar SS20 geogrid has been provided across all areas of communal soft landscaping proposed at the site, more akin to an 'engineered cover system' in accordance BRE465, and which is arguably more robust than the simple cover system (without a geotextile), which was specified within the originally approved Remediation Strategy.

Therefore, we can't see any reason why the importation of the agreed clean cover thickness would have had any negative impact on the root of any tree for simple soil cover as the applicant as alluded because, all the imported soil are usually above the

water drainage layer/filter/separation layer with no soil removed as confirm in the report by the applicant.

Please refer to NCLOG (National Contaminated Land Officers Group) Guidance 'A Regulator's Guide to Cover Systems and their Verification' for further information as to why the installation of a 460mm capping layer within root protection zones could have a negative impact on existing trees:

5.10.1. The Impact of Cover Systems on Existing Trees

While mulches and other similar well drained substrates can be placed over root systems to greater depths, it is not possible, without specific design, to construct a substantial soil cover system over large portions of a root system. This would compress the ground, starve the roots of oxygen, suppress growth, and ultimately lead to the death of the tree. The amount of soil that can be accommodated without detriment to the tree will vary depending upon species and circumstance but will typically range from 50-200mm. In some instances, it may not be appropriate to add any soils. In some instances, where only a small area of a RPZ is affected, it may be possible to remove a portion of the root system to install the intended cover system. The advice of an arboriculturist should always be sought.

For managed areas, where an RPZ only forms a small portion of the site requiring remediation, the placement of a geotextile could be used to form a marker layer, preventing exposure to the underlying contaminated ground. This could be topped with a layer of mulch or decorative stone. Alternatively, a limited topsoil thickness may be applied, with or without the removal of a superficial layer of soil and potentially with a geotextile layer. The use of self-compacting gravels, resins or permeable paving could also be considered. These techniques would typically only be suitable in communal landscaped areas with an associated management plan and not within private gardens.

Additionally, it is not possible to simply place 460mm of additional imported clean capping material over the top of the existing potentially contaminated material which underlies the soft landscaped areas, whilst achieving the proposed and approved final levels for the site. This is because the soil capping would cover the base of the external walls to the building, causing potential compliance issues with regards to the Building Regulations (Part C and Part M).

The only way of accommodating a 460mm simple cover system to areas of communal soft landscaping at the site, whilst achieving the approved final site levels, would be to excavate and remove the uppermost 460mm of existing materials from across all areas of proposed soft landscaping. This material would then need to be removed from site for disposal, which is neither sustainable, nor cost effective in the context of the overall development. In removing this depth of material, the root protection zones, which are clearly shown on the above drawing would be significantly disturbed with existing tree

roots cut and removed alongside the surrounding soil, which would almost certainly result in death of the existing trees.

Moreover, the amount of soil cover we are talking about here is not substantial and trees from the site layout in the submitted report are either scanty or not existent on the communal soft landscaping area.

Please refer to the above extract from the NCLOG Guidance which confirms that a 460mm depth of soil cover placed over existing tree roots could ultimately lead to death of the tree. A full copy of the existing Arboricultural survey report for the site is provided for further reference, and therefore the above comments regarding the trees being 'scanty or not existent' are not considered to be an accurate reflection of the situation on site. Photographic evidence has been included within the photographs within Appendix A to the report.

Can the applicant therefore take the necessary steps to address the shortcoming in the submitted remedial work? Applicant need to confirm the thickness of the site clean soil cover as its current submission regarding this major aspect of the work is very vague.

As noted above, the soil cover strategy has been developed to take account of the on-site restrictions associated with the proposed final levels and root protection zones in accordance with the NCLOG guidance, therefore we would welcome a meeting to discuss why the NCLOG guidance is not suitable for this site and to assist in the development of an alternative strategy. The submitted report confirms that the installed capping within areas of soft landscaping comprises a geotextile marker membrane, overlain with a layer of clean imported topsoil, which is in turn overlain with Tensar SS20 which has been further dressed with additional imported clean topsoil to cover the layer of geogrid. The nature of this cover system is such that the two layers of geotextile and geogrid will prevent end users of the site from digging into any underlying residual contamination, acting as a physical barrier, which we consider to be in accordance with the NCLOG guidance for root protection zones within managed areas of communal soft landscaping.

3. Can the applicant also please explain to us what additional land contamination mitigation will, Tensar SS20 bring to the site as this, is only used for the stabilisation or reinforcement of soils and aggregates.

As noted above, the simple cover system applied at the site comprises a geotextile marker membrane at the base, clean imported topsoil and then Tensar SS20 geogrid, dressed with a final layer of clean imported topsoil, which has been applied as an additional layer of physical barrier to end users inadvertently digging through the clean topsoil and into any underlying potentially contaminated made ground.

Moreover, contrary to the applicant claims, not all the soft landscaping area were covered with this and effectiveness of this will only be considered once the applicant has undertaken the required site simple soil cover as stated in item b above.

Evidence has been provided that Tensar SS20 has been placed across all areas of soft landscaping at the site by way of photographs and a written statement.

4. With only one or two photographs shown for installation of geotextile marker membrane and imported topsoil over the existing soils at the site, we will need to see a couple of more photographs from the other parts of the site.

Additional photographs attached.

5. Can the applicant please provide a letter from Tim O'Hare Associates Ltd that, confirmed the February 2025 imported topsoil is of the same chemical composition with the October 2024 sample? Can you please also clarify why some of the imported soil order receipt was to Endeavour and the other was to 2nd Ickenham?

Attached a copy of the correspondence regarding the February 2025 topsoil, and the invoices from Selco has been rectified to reflect the correct address.

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