

Trees

Comment by FLAC	Response by Applicant	Further Response by FLAC	Further Response by Applicant																
<p>4. The height of the classroom block has been reduced from 9.1m to 8m (12%), but the school's arboricultural report proposes that it should be lifted 350mm to save the roots of the protected holm oaks and this change in height is not shown in the architect's plans, so in reality a reduction of 1.1m will not be achieved.</p> <p>The height of the music tower has been reduced from 10.9m to 10.4m (4%) but this is not achievable if tree 22 is to survive, rather the tower height would need to increase by 750mm-950mm to almost 11.4m.</p>	<p>The finished floor level (FFL) of the proposal is the same as the 2020 proposal, (22.57m above O/S datum).</p> <p>In terms of the Holm Oak trees, the impacts of the proposal on these trees have been fully explored and extensive trial excavations, in locations agreed on site with the Councils Tree Officer, completed to determine the extent of any root development present. The results of these, including photographic evidence, have been provided within the supporting arboricultural documents.</p> <p>In regard to Tree 22 the FLAC review of the proposal is incorrect. The music block involves an incursion of only 2% into the Root Protection Area (RPA) of lime tree 22 which is well within acceptable levels. An incursion of 17% is associated with tree 21.</p> <p>The principal of RPA encroachment is established within British Standard 5837:2021 and supported by the source document, National Joint Utilities Guidelines (NJUG) 10 / Vol. 4 1995 / 2010. NJUG introduced the x12 diameter <i>Precautionary Zone</i> for supervised working and <i>Prohibited Zone</i> at a universal 1m from the base of the tree. RPA's are frequently confused with the NJUG Prohibited Zone, when they clearly correlate with the NJUG Precautionary Zone. A RPA encroachment of <20% of RPA may be considered as low impact, given the permissive references to 20% RPA relocation and impermeable paving within BS5837:2012 and other published references to healthy trees tolerating up to 30-50% root severance. Both trees 21 and 22 are healthy specimens with good vitality and are species with a good level of resistance to development impacts, both trees are quite capable of tolerating these low impacts. That notwithstanding, the RPA encroachment of tree 21 in particular, is adequately compensated for elsewhere within contiguous land that is proposed for post development planting. Moreover, the foundation</p>	<p>Holm oaks</p> <p>This comment merely restates the Applicant's position. It does not address the difficulty we have identified from the outset (potential for severe root damage from formation of nearby foundations) and as such our critique remains to be addressed.</p> <p>Tree 22</p> <p>The response is correct in identifying tree 22 as having a 2% RPA incursion, not 17%. The latter is the incursion for tree 21, with 22 being listed by way of error carried forward from a typo. The concerns raised in the June review do, therefore, relate to tree 21.</p> <p>The principle of RPA encroachment in BS5837:2012</p> <p>This arises at Clause 7.4 & 7.5 of BS5837:2012 for which I was a technical editor. It relates to two types of construction only:</p> <p>i) Permanent hard surfacing in the RPA (7.4.2); and</p> <p>ii) Slab foundations for lightly-loaded structures such as garden sheds (7.5.3)</p> <p>In both cases, the 20% figure relates to maximum permissible extent of new hard surfacing relative to existing unsurfaced areas within the RPA. In both cases, BS5837:2012 stipulates that the 20% figure applies without excavation.</p> <p>The relevant extracts from BS5837:2012 are as follows:</p> <p><i>7.4.2.1 The design should not require excavation into the soil, including through lowering of levels and/or scraping</i></p>	<p>Holm Oaks</p> <p>This has been addressed in the response to point 18 below.</p> <p>Excavation depth</p> <p>FLAC state that we haven't consulted an arboriculturist on foundation depths and root impacts. This is false. They claim an excavation depth of 950mm. This is actually 880mm. Still within the allowable incursion into the trees RPA.</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-left: 20px;">Tower</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">Existing ground level</td> <td style="text-align: right;">23.070</td> </tr> <tr> <td style="padding-left: 20px;">Proposed FFL</td> <td style="text-align: right;">22.570</td> </tr> <tr> <td style="padding-left: 20px;">Floor build-up</td> <td style="text-align: right;">00.380</td> </tr> <tr> <td style="padding-left: 20px;">Excavated level</td> <td style="text-align: right;">22.190</td> </tr> <tr> <td colspan="2"> </td> </tr> <tr> <td style="padding-left: 20px;">Total excavation</td> <td style="text-align: right;">00.880</td> </tr> <tr> <td style="padding-left: 20px;">(not FLAC's 950mm)</td> <td></td> </tr> </table> <p>Excavation can be undertaken by hand in this location to minimise any root damage. This can be set out in a Detailed Arboricultural Method Statement.</p> <p>It is noted that the foundations to the music block will be piles into a flat slab, rather than strip foundations.</p> <p>Furthermore, it is likely that root growth of T21 to the north will have been affected by competition with T20 which has been removed.</p> <p>It is noted that a watching brief will be maintained during the construction phase with all excavation work within the RPAs of trees to facilitate the installation of the</p>	Tower		Existing ground level	23.070	Proposed FFL	22.570	Floor build-up	00.380	Excavated level	22.190			Total excavation	00.880	(not FLAC's 950mm)	
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	<p>design in this area utilises piles and ground beams limiting the impacts of the foundations to circa 500mm in depth enabling the retention of root growth beneath this depth.</p> <p>One final element that appears to have been overlooked is that the RPA of tree 21 is unlikely to have developed symmetrically due to the proximity of the existing all-weather sports pitch. As has been displayed through the trial excavations on site the area under the all-weather sports pitch is made ground which is not conducive to root development. As part of the proposal an area of approximately 60m² which is under existing hard surfacing will be returned to soft landscape increasing available rooting volume for tree 21, and offsetting any impacts associated with the proposed footprint incursion.</p>	<p><i>7.4.2.3 New permanent hard surfacing should not exceed 20% of any existing unsurfaced ground within the RPA</i></p> <p><i>7.5.3 Where a slab for a minor structure (e.g. shed base) is to be formed within the RPA, it should bear on existing ground level, and should not exceed an area greater than 20% of the existing unsurfaced ground.</i></p> <p>It is apparent from the foregoing that the response is misleading and wilfully seeks to distort the clear advice of the British Standard in question. The tower foundation proposals are non-compliant to BS5837:2012 and would severely prejudice the retention of tree 21.</p> <p>Claim that “NJUG 10” is the or a source document for BS5837:2012</p> <p>As a technical editor of the British Standard, I can confirm that this claim is straightforwardly wrong: the inclusive of NJUG 10 as a “normative reference” does not identify it as a “source document” but a companion reference. As is always the case for such documents, where any difference arises between them, the British Standard in question takes primacy (which inevitably comes after the referenced document), takes primacy.</p> <p>Claim that a 17% incursion into the RPA is “low impact”</p> <p>At Clause 3.7, the RPA is identified in BS5837:2012 as the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree’s viability, and where the protection of the roots and soil structure is treated as a priority (my emphasis)</p> <p>The Applicant’s response provides not one shred of evidence or authority that supports reduction of a minimum by almost a fifth. It is irrational to describe a reduction of this scale as “low impact”.</p>	<p>foundation system being completed under direct arboricultural supervision.</p>
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<p>11. This proposed back land development is inappropriate:</p> <ul style="list-style-type: none"> • Does not retain similar spacing between buildings. • Does not respect the local context in terms of building height. • Builds over 45% of the rear garden of the building of townscape merit, 66 Kings Rd. 	<p>Policy LP39:</p> <p>7. Retain or re-provide features important to character, appearance or wildlife, in accordance with policy LP 16 Trees and Landscape;</p> <p>Response:</p> <p>7. The key trees contributing to the green character of the rear of the plot have been retained, and additional trees, planting, green walls and roofs are</p>	<p><i>Point 7 Claim that key trees are being retained</i></p> <p>This claim remains disputed. The following outcomes are inherent in the proposals:</p> <p>Trees 2 & 4 probable severe root damage from foundations well within RPA</p> <p>Trees 14 & 19 damaged by construction access and/or by very harsh pruning for same</p>	<p>Our position remains as previously stated. Our responses demonstrate that key trees will be retained and protected. Additional trees, planting, green roofs and walls will enhance the landscape.</p>																								

<ul style="list-style-type: none"> • Requires the removal of protected trees important to the appearance of the area • Is not more intimate in scale or lower than the frontage properties. • Last year the music tower described by the applicant and planning officers as a 'landmark building', exactly what planning policy recommends against. • Clearly breaches LP39. 	<p>being provided to enhance the landscaped and planted area in the proposal.</p>	<p>Trees 11 & 12 damaged by construction access and drainage proposals</p> <p>Tree 21 probable severe root damage from foundations well within RPA</p> <p>G2 inadequate protection proposed during construction</p> <p>Point 7 Claim that new planting will lead to enhancement</p> <p>Tree planting proposals are set out within the DAS on page 89. The following species are proposed:</p> <p>Amur maple</p> <p>Bird cherry</p> <p>Dwarf apple</p> <p>Hawthorn</p> <p>Hazel</p> <p>Holly</p> <p>The six proposed trees all have one thing in common: they are all small-growing species, unlike almost all of the trees which we have identified as being at risk from the proposals. As such, the proposed planting palette will never lead to recovery of lost canopy area, and is simply not capable of providing "enhancement" at the necessary scale.</p>	
<p>15. The drainage proposals include a run through the root protection areas of trees 21 and 22 and is so close to the stem of tree 22 that it may well kill it due to severance of anchor roots. This is also the case with trees 11 and 12. This means the drainage proposals are non-compliant with several clauses within BS5837:2012 <i>Trees in Relation to Design, Demolition & Construction –Recommendations</i>, including Clause 7.7 <i>Underground and above-ground utility apparatus</i>.</p>	<p>Amendments to the drainage proposal are being made that direct the route outside the root protection areas of retained trees.</p>	<p>The statement that amended drainage proposals will avoid the impacts identified in our June review is not borne out by an analysis of the revised proposals themselves. Specifically, while the impact* to trees 21 & 22 has been addressed by a design modification, the high probability of damage to trees 11 & 12 remains: harm from the proposed drainage alignment cannot be mitigated by hand-digging because this method is unavailable for deep drainage (for health and safety reasons). See also my reply to Comment 20.</p>	<p>FLAC are again pushing the false notion that we have not engaged with the arboriculturist.</p> <p>It is usual that the issues of drainage and levels are addressed in a detailed Arboricultural Method Statement, which is usually prepared post planning, and which will be prepared in this case.</p> <p>We are currently investigating alternative drainage routes (for example combining the runs from FW4 and SW8 into the</p>

		<p>* Note: it is highly invidious that the impact to trees 21 & 22 from the prior drainage proposal was identified by FLAC acting for a third party, rather than by the Applicant's arboriculturist. This strongly indicates lack of appropriate arboricultural engagement with and input into the design process, which gives no confidence that the proposals at hand have been worked up with proper diligence in respect of existing trees.</p>	<p>existing manhole EX MH1 as the downstream pipe already exists – this manhole is currently buried and so further investigation would be needed at stage 4). However, if this is not possible then steps will be taken to minimise damage, for example: simplification of the drainage, root radar, and a methodology to shore around any larger routes will be developed and set out in the detailed Arboricultural Method Statement.</p>																												
<p>17. The development includes the removal of two protected trees, Ash and Holly. The Council previously refused an application to prune the Holly because "the tree is a prominent feature within the landscape and makes a positive contribution towards the local and wider landscape; the proposed reduction therefore would have a noticeable and detrimental impact upon public visual amenity".</p>	<p>The Ash and Holly trees will be replaced. The Holly like for like. A review of planning application type TCA – works to a tree in a conservation area, from 2019 onwards, shows many examples of applications which were approved to prune and in some cases fell mature trees on King's Road.</p>	<p>The Applicant's response states that there have been "many" successful applications to the Council for consent to fell or prune mature trees along the King's Road. This has no bearing on the arboricultural acceptability of tree removal in this case. Indeed, in the context of ongoing attrition of protected trees both along King's Road and within the application site, it becomes increasingly important to retain and properly safeguard dwindling tree cover. Far from justifying additional tree removal, prior tree loss in fact makes a strong case for not permitting it.</p>	<p>Our position remains as previously stated.</p>																												
<p>18. The development will put at severe risk 2 of the protected Holm Oaks at the rear of the site, as the construction method is unsatisfactory as regards root protection, unless the finished floor slab is raised higher to 500-600mm rather than the 350mm proposed.</p>	<p>The impacts of the proposal on these trees have been fully explored and extensive trial excavations, in locations agreed on site with the Councils Tree Officer, completed to determine the extent of any root development present. The results of these, including photographic evidence, have been provided within the supporting arboricultural documents.</p>	<p>The Applicant here restates its position that holm oaks 2 and 4 will not be harmed by the proposals. It continues to refuse to engage with my criticism of the air spade investigation which, as I have pointed out, was not progressed to sufficient depth relative to the depth of the proposed excavation. In this regard, here is the analysis of the excavation depth prepared by the clients' Architect:</p> <table border="1" data-bbox="1137 1169 1686 1441"> <thead> <tr> <th></th> <th style="text-align: right;">Classroom Block</th> </tr> </thead> <tbody> <tr> <td>Existing ground level (A)</td> <td style="text-align: right;">22.900</td> </tr> <tr> <td>Finished floor level (B)</td> <td style="text-align: right;">22.570</td> </tr> <tr> <td>Screed and Floor finish</td> <td style="text-align: right;">0.100</td> </tr> <tr> <td>250mm suspended slab</td> <td style="text-align: right;">0.250</td> </tr> <tr> <td>100mm biodegradeable void</td> <td style="text-align: right;">0.100</td> </tr> <tr> <td>Sub total (C)</td> <td style="text-align: right;">0.450</td> </tr> <tr> <td>Total excavation (A-B-C)</td> <td style="text-align: right;">0.780</td> </tr> <tr> <td>Excavated level</td> <td style="text-align: right;">22.120</td> </tr> </tbody> </table>		Classroom Block	Existing ground level (A)	22.900	Finished floor level (B)	22.570	Screed and Floor finish	0.100	250mm suspended slab	0.250	100mm biodegradeable void	0.100	Sub total (C)	0.450	Total excavation (A-B-C)	0.780	Excavated level	22.120	<p>FLAC claim an excavation depth of 780mm from the existing level of the sports pitch. This is false. The actual existing ground level is 200mm below the sports pitch - around 22.700. Trial pits showed no roots at all. See previous responses & submitted arboricultural assessment.</p> <table border="1" data-bbox="1722 1206 2063 1430"> <tbody> <tr> <td>Classroom block</td> <td></td> </tr> <tr> <td>Existing ground level</td> <td style="text-align: right;">22.700</td> </tr> <tr> <td>Proposed FFL</td> <td style="text-align: right;">22.570</td> </tr> <tr> <td>Floor build-up</td> <td style="text-align: right;">00.355</td> </tr> <tr> <td>Excavated level</td> <td style="text-align: right;">22.215</td> </tr> </tbody> </table>	Classroom block		Existing ground level	22.700	Proposed FFL	22.570	Floor build-up	00.355	Excavated level	22.215
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		<p>As this data demonstrates, the excavation depth significantly exceeds the trial investigation depth: the presence of roots in harms way is far from excluded. I consider that planning permission should not be granted unless or until the Applicant has undertaken sufficient trial excavations to confirm that the holm oaks have not rooted at the depth where nearby building foundations are now proposed.</p>	<p>Total excavation 00.585 (not Flac's 780mm) Trial pit depth Trial pit ground level 22.510 Trial pit depth 00.450 – 500.00 Trial pit excavated level 22.060 – 22.010</p> <p>Therefore, no roots found down to proposed base of slab.</p> <p>The building has been designed on a slab rather than using strip foundations as a precautionary measure in case there are roots at greater depth.</p> <p>A biodegradable layer is not necessary however, we are happy for it to be included. This would bring the excavated level to 22.115 which is still above the trial pit excavated level.</p> <p>It is noted that a watching brief will be maintained during the construction phase with all excavation work within the RPAs of trees 1, 2 and 4 to facilitate the installation of the foundation system being completed under direct arboricultural supervision.</p>
<p>19. The development will put at severe risk the protected frontage tree 19, Strawberry, by over pruning for construction access. The Council last year refused the same proposed crown lifting of this tree by 4m.</p>	<p>Construction access will be restricted by the available width between the boundary of 64 and the retained sections of the school. As such large vehicles will not be able to access the site and consequently any access facilitation pruning required to tree 19 will not be required to that extent.</p>	<p>The response indicates that no additional pruning to frontage tree 19 is required. This is contrary to the statement in the <i>Method of Construction Statement & Transport Plan</i> (MCS 2021), which identifies a 4m crown lift to be necessary. This is a clear internal contradiction between the application material and the response. The Applicant should clarify which of these documents is correct and amend the other to remove the inconsistency.</p>	<p>As stated previously large vehicles will not be able to access the site and so any facilitation pruning will be limited to extent needed.</p> <p><i>Further information to be provided.</i></p>
<p>20. The development will put at severe risk the frontage Lime tree and two of the London Plane trees on the northside unless the construction method is</p>	<p>The lime tree (tree 14) is located within a raised planter and an area of existing hard standing. There is no adverse risk to the tree as a result of the proposal. Comparably, trees 12 and 14 are largely</p>	<p>In relation to frontage lime tree 14, the response does not address the problem raised in our June review of spoil heap location within the crown-spread. Accordingly, this remains a very damaging feature of</p>	<p>Our position remains as previously stated.</p> <p>Any protection required to T14 will be addressed in the detailed Arboricultural</p>

<p>changed. (Trees 11, 12 and 14). It is clear this has not been assessed.</p>	<p>located within areas of existing hard standing are located off site and separated from the site by the existing boundary fencing. Relocation of the proposed drainage route ensures that there will no incursions into the RPA's of these trees. Construction access will be restricted by the available width between the boundary and the school building. As such large vehicles will not be able to access the site, any concerns relating to damage to underlying roots can be appropriately addressed through the use of a temporary construction access.</p>	<p>the proposals. Moreover, the response is not accompanied by a revised tree protection plan showing adequate protection for this tree and as such it remains at clear risk of serious damage during the construction process. In relation to the revised drainage proposals and trees 11 & 12, I note that it is still proposed to form drainage well within the RPAs by hand. However, this solution is not available as it against clear HSE advice to progress excavations below 1m without trench-shoring: this safety-critical method prevents root retention within the trench and so the potential advantage of hand excavation is lost.</p> <p>See also my reply to Comment 15.</p> <p>Neither of the matters addressed by Comment 20 removes the concerns raised in our June review.</p>	<p>Method Statement, after detailed discussion with the contractor. Appropriate ground protection and fencing will be provided if required.</p> <p>See point 15 for the response regarding drainage.</p>
<p>25.The proposed development is at odds with the character and appearance of the St Mathias Conservation Area, with large buildings that are uncharacteristic of the conservation area in their location, footprint, scale, appearance and massing. It also involves the loss of trees that contribute to the character and appearance of the conservation area. The proposed development worsens the existing expansion of the school into the garden enclave of the conservation area behind the street-facing houses, whose openness and greenness is a fundamental part of the conservation area's character and appearance. The development will harm views within the conservation area with alien and uncharacteristic development.</p>	<p>The impact of the proposed development is discussed in the HAS, paragraphs 4.17-4.28. To summarise this section, the proposed development will create a perceptible change but this change occurs in the context of the established character of this part of the conservation area and the school campus. As such it does not harm the significance of, or the understanding or appreciation of, the heritage assets involved. The key trees which contribute to the character of the conservation area are retained, and appended with new planting, green roofs and walls. The net effect of the proposals on the openness and greenness of the rear area is neutral. The question of views is discussed below.</p>	<p>The Applicant states that the <i>key trees which contribute to the character of the conservation area are retained</i>: this has not been demonstrated and if anything the reverse is true. My response to Comment 11, point 7, refers. It follows that the Applicant's claim that the <i>net effect of the proposals on the openness and greenness of the rear area is neutral</i> is incorrect in relation to trees and tree cover.</p>	<p>Our position remains as previously stated, and as set out in the response to point 11.</p>