

Arboricultural Impact Assessment

1.0 Introduction

1.1 It is proposed to redevelop the site as illustrated in this plan.

1.1.1 In this plan, the proposed development layout is illustrated in colour.

1.1.2 In order to provide context with the existing site, and highlight the proposed development, the existing site layout plan is also illustrated in pale grey in this plan.

1.1.3 The trees, their constraints, and areas where specific tree protection measures are required, are illustrated in accordance with the key.

1.2 Planning permission to re-develop the site, ref: APP/16/01237, was granted on the 12th December 2016.

1.2.1 This grant of planning permission requires compliance with our previous tree report, ref: MJC-16-0182.

1.2.2 The currently proposed re-development works departs from the approved re-development layout in three distinct areas as illustrated with discrete application boundaries in this plan.

1.2.3 The tree protection measures required for the approved re-development outside the three application sites that were detailed in a previous tree report have been illustrated in this plan, along with revised tree protection measures within the three application sites. This is to provide consistency with the previous tree report and to allow the tree protection measures for the entire site to be referenced in a single report.

2.0 Tree Works.

2.1 The proposed re-development does not require the removal of any 'A' grade trees as defined in Table 1 of BS5837:2012, or any trees protected by a Tree Preservation Order. Tree nos. T20 and T27 are identified for removal, but this is due to their poor condition and their removal is not strictly necessary to allow the proposed re-development to go ahead. Therefore, the removal of these trees should be regarded as sound management of the existing tree stock on site.

2.2 The proposed development requires the removal of tree nos. T102, T103, T104, T121, T126, T127, T128, T129, T130, T131, T135, T145 and T175, group no. G3, and several areas of scrub/shrub growth, i.e. a total of 13 trees and one group of trees. With regard to the quality assessment of these trees as defined in Table 1 of BS5837:2012, these removals break down as 5 'B' grade trees, 1 'B' grade group, and 8 'C' grade trees. The justification and proposed mitigation for these tree removals are set out below.

2.3 Scrub/shrub growth.

2.3.1 Scrub/shrub growth is not a material consideration in the planning application determination process in the same way as trees are. Therefore, the required removal of these areas of scrub/shrub growth should not form a substantive reason for the Local Planning Authority (LPA) to object to the proposed re-development.

2.4 T121, T126, T127, T128, T135, T145 and T175.

2.4.1 These trees were all 'C' grade with regard to their quality assessment as defined in Table 1 of BS5837:2012. BS5837:2012 describes such trees as 'Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm'.

2.4.2 Such trees cannot be considered to be of high public amenity value as individuals, although they may collectively accrue some public amenity value if they are present in sufficient numbers. It is likely that the LPA will take note of the collective loss of these trees and to require the mitigation planting of some new trees as part of the proposed development to compensate for this collective loss. Therefore, the required removal of these trees should not form a substantive reason for the LPA to object to the proposed development providing adequate mitigation planting of new trees is carried out as part of the proposed development.

2.4.3 In this plan, an indicative tree and shrub planting scheme is illustrated and this confirms that sufficient space has been retained within both the approved and proposed re-development layouts to more than compensate for the loss of these 'C' grade trees in public visual amenity terms. A detailed soft landscaping scheme is currently being drawn up for the site, and the LPA can ensure this planting takes place by granting planning permission for the proposed re-development subject to a planning condition requiring the implementation of the soft landscaping scheme.

2.5 T102, T103, T104, T130 and T131, and G3.

2.5.1 These trees and group were all 'B' grade with regard to their quality assessment as defined in Table 1 of BS5837:2012. BS5837:2012 describes such trees as 'Trees of moderate quality with an estimated remaining life expectancy of at least 20 years'.

2.5.2 The required removal of 'B' grade trees can form a substantive reason for the Local Planning Authority (LPA) to object to the proposed development if the trees are of high public amenity value and their removal would have a significant detrimental impact on the public amenities of the locality. However, in the case of these trees, they are all located internally

within the site and are set back from any public vantage points. This means that they are of limited public visual amenity value and this has been reflected in their grading as B1 trees i.e. trees that have been graded mainly for their arboricultural qualities as opposed to their landscape value. Therefore, the required removal of these 'B' grade trees will not have a significant detrimental impact on the amenities of the locality, and the required removal of these trees should not form a substantive reason for the LPA to object to the proposed redevelopment.

2.5.3 Despite the limited public visual amenity value of these trees, the LPA are still likely to require specific mitigation planting of new trees to compensate for their removal. In this plan, an indicative tree and shrub planting scheme is illustrated and this confirms that sufficient space has been retained within both the approved and proposed re-development layouts to more than compensate for the loss of these 'B' grade trees in public visual amenity terms. A detailed soft landscaping scheme is currently being drawn up for the site, and the LPA can ensure this planting takes place by granting planning permission for the proposed re-development subject to a planning condition requiring the implementation of the soft landscaping scheme.

2.6 The proposed re-development seeks to establish a layout that integrates with the retained trees in a similar way to many other holiday complexes in southern Britain and other locations, for example Sandy Balls in Godshill, The New Forest. In order to achieve this integration, trees have been retained in close proximity to the proposed caravans, and the following crown pruning will be required to accommodate the proposed caravans.

2.6.1 T1, T2, T3, T12, T36, T37, T64, T70, T72, T79, T84, T90, T92, T93, T98, T100, T101, T109, T112, T117, T119, T120, T137, T142, T143, T148, T149, T158, T160, T161, T162, T164, T171 and T174 – Carry out

minor crown reduction and/or crown lifting works as necessary in order to create a minimum 1 metre clearance between the crown edges and the fabric of the proposed caravans, and to create a 3 metre clearance over the surface of proposed access roads and parking bays. This required crown pruning is considered acceptable in arboricultural planning terms for the following reasons.

2.6.1.1 With the exception of tree nos. T3, T12, T101, T112, T117, T119, T120, T137, T143, T148, T160, T161, T162 and T171, these crown lifting works were detailed in our previous tree report for the approved re-development layout. Therefore, the crown lifting of these other trees has already been approved by the LPA.

2.6.1.2 The type and scale of this crown pruning is within the scope of works described in BS3998:2010 'Tree works – Recommendations' (BS3998:2010) and must therefore be considered acceptable in practical arboricultural terms.

2.6.1.3 The type and scale of this crown pruning will not have any significant detrimental impact on the public amenities of the locality as they will be restricted to the lower parts of the crowns. The majority and upper parts of the crowns i.e. the parts that may be publicly visible, will remain untouched.

2.6.1.4 The type and scale of this crown pruning is very similar to the type and scale of crown pruning already routinely carried out in the current context of the site in order to maintain adequate clearance over existing roads and structures. This historic crown pruning has been carried out repeatedly over many years with no significant detrimental impact on the site trees, so there is no reason to believe that the crown pruning required by the proposed development

will have a detrimental impact on the retained trees.

- 2.7 Some of the proposed demolition works will take place under or very close to the crowns of retained trees.

- 2.7.1 In order to avoid damage to the crowns of these trees it will be necessary to take specific tree protection measures, for example; the supervision of the demolition works by a banksperson charged with avoiding damage to the crowns; the use of 'top down draw back' methods and/or hand demolition of structures.

- 2.7.2 This demolition process will, by necessity, be complex if it is to adequately and effectively protect the retained trees. Therefore, the demolition of structures in close proximity to retained trees will need to be carried out in accordance with a detailed and comprehensive combined Arboricultural Method statement and Tree Protection Plan, drawn up after planning permission has been granted.

- 2.7.3 The LPA can ensure the adequacy of this combined Arboricultural Method Statement and Tree Protection Plan by granting planning permission with a planning condition requiring the pre-commencement drawing up and approval of a combined Arboricultural Method Statement and Tree Protection Plan.

3.0 Root Protection Areas (RPA).

- 3.1 The proposed development footprint encroaches over the RPA of several retained trees.

- 3.2 Where the scale of this encroachment is very small and the tree in question has access to either existing additional soil rooting volume, or the existing soil rooting volume is to be improved by the proposed development e.g. through the removal of an existing hard surface or structure, this encroachment is considered acceptable and

no special measures are necessary as a result of this encroachment.

3.3 Where the scale of this encroachment is considered significant it has been identified and illustrated in this plan as the no dig areas. In these areas the following measures will need to be taken in order to restrict the arboricultural impact of the encroachment to an acceptable level.

3.4 No dig 1 areas, illustrated by yellow hexagonal hatching in this plan. In these areas the proposed base of a caravan or other hard surface encroaches over the RPA where the RPA is an area of open ground, invariably grass covered.

3.4.1 The no dig 1 areas will need to be covered by temporary ground protection at the outset of the demolition phase, and this ground protection will need to be retained in place and intact until immediately before the construction of the base.

3.4.2 The base will comprise a concrete slab. This slab will either be constructed on a three-dimensional cellular confinement sub base or will be cast directly on the ground, but in both cases the existing ground levels will be retained with no excavation beyond the removal of the surface deleterious or turf layer to a maximum depth of 50mm. In both cases an impermeable layer will be installed immediately under the concrete slab to prevent the leaching of concrete products into the RPA.

3.5 No dig 2 areas, illustrated by cyan hexagonal hatching in this plan. In these areas the proposed base of a caravan encroaches over the RPA where the RPA is an existing hard surface e.g. an existing access road.

3.5.1 The existing hard surfaces and their compacted sub bases will be devoid of tree roots as a result of their compacted nature.

3.5.2 The new hard surfaces will either be constructed on top of the existing hard surfaces, or the upper wearing courses of the existing hard surfaces will be removed and the new hard surfaces constructed on the existing compacted sub bases. Therefore, no excavation into the RPA under the existing hard surfaces will be required.

3.5.3 The replacement of existing hard surfaces with new hard surfaces in this manner does not increase the impact on the trees compared to the existing situation.

3.5.4 The replacement of existing hard surfaces with new hard surfaces in this manner may create levels issues as it is not possible to dig the new hard surfaces into the ground to reduce their level. This potential issue has been understood fully by the project architect and they have assured me that the hard surface levels over the RPA of retained trees will be used as the starting point for the final levels across the proposed development, thereby avoiding the need to excavate into the RPA of retained trees.

3.6 No dig 3 areas, illustrated by green hexagonal hatching in this plan. In these areas the proposed base of a caravan or hard surface encroaches over the RPA where the RPA is covered by an existing building or above ground structure.

3.6.1 It is likely that the presence of the existing structure will have created an inhospitable soil rooting environment. Therefore, there is likely to be a reduced number of significant tree roots in this area and this will reduce the impact of the proposed base or hard surface on the trees.

3.6.2 The existing structure will be demolished in accordance with the methodologies suggested above and to be detailed in the combined Arboricultural Method Statement and Tree Protection Plan.

3.6.3 Where this demolition exposes the underlying ground, this exposed ground will be immediately protected, and the base or hard surface will be constructed, in accordance with the requirements of the no dig 1 areas.

3.6.4 Where this demolition retains an underlying hard surface of sufficient capacity to bear the loads of the base or hard surface, the base or hard surface will be constructed in accordance with the requirements of the no dig 2 areas.

3.7 No underground service plan has been provided as part of the proposed layout plan. All underground services will be carefully routed so as to avoid crossing the RPA of all the retained trees where-ever possible. Where it is not possible to avoid the RPA, the underground services will be installed using either no dig methods, for example thrust boring, or service trenches will be excavated either by hand or by compressed air displacement with the tree roots left in place and undamaged.

3.8 The process of construction and tree protection will, by necessity, be complex if they are to adequately and effectively protect the retained trees. Therefore, the construction of structures in close proximity to retained trees and their protection will need to be carried out in accordance with a detailed and comprehensive combined Arboricultural Method statement and Tree Protection Plan, drawn up after planning permission has been granted, that uses a combination of tree protection barriers, temporary ground protection, existing hard surface retention, and specific demolition and construction methodologies.

3.9 The LPA can ensure the adequacy of this combined Arboricultural Method Statement and Tree Protection Plan by granting planning permission with a planning condition requiring the pre-commencement drawing up and approval of a combined Arboricultural Method Statement and Tree Protection Plan.

3.10 The tree protection measures detailed above are the same measures that were detailed in our previous tree report for the approved re-development. Therefore, the required use of these measures should still be acceptable to the LPA.

4.0 Future Pressures to Fell or Unreasonably Prune Retained Trees.

4.1 The inappropriate retention of trees within a new re-development can lead to future conflicts between the residents of the new development and the trees, thereby creating future pressures to fell or unreasonably prune trees that had been retained in the design and development process. Section 5.3.4 d) of BS5837:2012 requires this issue to be considered and avoided. In order to comply with this requirement, the following considerations have been made.

4.2 Crown proximity.

4.2.1 The proposed re-development layout has placed caravans in close proximity to, and in some cases under, the crowns of retained trees. This juxtaposition of trees and caravans is considered acceptable for the following reasons.

4.2.2 As has been previously stated, it is an objective of the proposed development to establish a layout that integrates with the retained trees in a similar way to many other holiday complexes in southern Britain and other locations, for example Sandy Balls in Godshill, The New Forest. In order to achieve this integration, trees have been retained in close proximity to the proposed caravans.

4.2.3 It is anticipated that a degree of periodic crown pruning and lifting will be required in the future in order to maintain adequate clearance between the proposed caravans and crown edges of retained trees.

4.2.3.1 The type and scale of this crown pruning is within the scope of works described in BS3998:2010 and must therefore be considered acceptable in practical arboricultural terms.

4.2.3.2 The type and scale of this crown pruning will not have any significant detrimental impact on the public amenities of the locality as they will be restricted to the lower parts of the crowns. The majority and upper parts of the crowns i.e. the parts that may be publicly visible, will remain untouched.

4.2.3.3 The type and scale of this crown pruning is very similar to the type and scale of crown pruning already routinely carried out in the current context of the site in order to maintain adequate clearance over existing roads and structures. This historic crown pruning has been carried out repeatedly over many years with no significant pressures to fell or unreasonably prune the trees so there is no reason to believe that the crown pruning required by the proposed development will create any significant pressures to fell or unreasonably prune the trees.

4.2.4 The residents of the proposed caravans will have a brief and transitory relationship with the retained trees. Pressures to fell or unreasonably prune trees because of their proximity are invariably created when residents live in close proximity to the trees for prolonged periods. Therefore, it is unlikely that the brief periods of occupancy by the residents of the proposed caravans will result in any significant pressures to fell or unreasonably prune the trees as a result of their proximity.

4.3 Tree shade.

4.3.1 At the layout design stage, the indicative shade segment suggested at section 5.2.2 Note 1 of BS5837:2012 was used to assess the impact of

shade on the proposed caravans. This assessment indicated that the proposed caravans would experience a degree of tree shade.

4.3.2 The residents of the proposed caravans will have a brief and transitory relationship with the retained trees. Pressures to fell or unreasonably prune trees because of the shade they cast are invariably created when residents live in close proximity to the trees and experience their shade for prolonged periods. Therefore, it is unlikely that the brief periods of occupancy by the residents of the proposed caravans will result in any significant pressures to fell or unreasonably prune the trees as a result of the shade they cast.

5.0 Summary.

- 5.1 The proposed development does require the removal of a number of trees, but the loss of these trees will have little impact on the public amenities of the locality as the vast majority of these trees are not of high public amenity value, and a comprehensive soft landscaping scheme that provides adequate mitigation planting has been drawn up and will be carried out as part of the proposed development.
- 5.2 The proposed development will require a degree of crown pruning of the retained trees, both at the time of construction and periodically in the future. However, the type and scale of this crown pruning will not have a significant impact on the public amenities of the locality as they are small in scale and the fact that the trees on site are already being successfully managed under a very similar crown pruning regime that has not had a significant impact on the public amenities of the locality.
- 5.3 The proposed development represents a close interaction between the retained trees, and the demolition and construction works.

5.3.1 It has been established in principle above that these works can be carried out whilst providing adequate protection to the retained trees. The demolition and construction processes will, by necessity, be complex if they are to adequately and effectively protect the retained trees. Therefore, the demolition and construction of structures in close proximity to retained trees will need to be carried out in accordance with a detailed and comprehensive combined Arboricultural Method statement and Tree Protection Plan, drawn up after planning permission has been granted, that uses a combination of tree protection barriers, temporary ground protection, existing hard surface retention, and specific demolition and construction methodologies.

5.3.2 The LPA can ensure the adequacy of this combined Arboricultural Method Statement and Tree Protection Plan by granting planning permission with a planning condition requiring the pre-commencement drawing up and approval of a combined Arboricultural Method Statement and Tree Protection Plan.

5.3.3 It is possible to specify some of the tree protection measures required, and this has been done in the following Tree Protection Plan. However, this Tree Protection Plan cannot be comprehensive and complete at this stage as it needs to be combined with an Arboricultural Method Statement if it is to be effective, and this Statement can only be drawn up in close discussion with the demolition and construction teams. These teams will not be put in place until planning permission has been granted.

5.4 Based on the above reasoning and justification, the LPA should grant planning permission for the proposed re-development subject to the following conditions:

5.4.1 Adherence to the proposed soft landscaping scheme for the site.

5.4.2 Adherence to the Tree Protection Plan (see following Tree Protection Plan):

5.4.3 The pre-commencement drawing up and approval of a combined and comprehensive Arboricultural Method Statement and Tree Protection Plan that must be followed throughout the re-development works.

5.5 The use of these conditions is reasonable, necessary and commonplace. Therefore, the required use of these conditions should not form a substantive reason for the LPA to object to the proposed re-development.