

Arboricultural Impact Assessment (AIA) and tree protection

329 Sandbanks Road Poole BH14 8HZ

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1 Summary

24 March 2021 report from the Tree and Landscape Officer on the amended scheme states that his previous concerns about the impact on trees have been met.

The current scheme shows the building further from the trees to the rear.

This scheme meets Local Plan Policy PP27 as it does not involve the loss of trees that make a significant contribution to the character of the area.

2 Introduction

2.1 Purpose

This Arboricultural Impact Assessment has been written for the LPA to grant planning permission

This Arboricultural Impact Assessment (AIA) identifies and assesses the significance of the effect of direct and indirect impacts on trees and where necessary recommends mitigation. The AIA and accompanying Tree Survey Schedule (Appendix A), brief Arboricultural Method Statement (AMS) setting out the parameters based on the physiological needs of the trees (Appendix C), Tree Constraints Plan RNapc/058/TCP/2, and Tree Protection Plan RNapc/058/TPP/2, support the planning application for development of this site.

2.2 Context

Local Plan Policy PP27 requirements are met by the retention of trees that make a significant contribution to the area

With regard to trees and landscape, Poole Local Plan Policy PP27 states:

(1) General

Development will be permitted provided that, where relevant, it:

- (a) reflects or enhances local patterns of development and neighbouring buildings in terms of: (v) landscaping;
 - (b) responds to natural features on the site and does not result in the loss of trees that make a significant contribution, either individually or cumulatively, to the character and local climate of the area. Any scheme that requires the removal of trees should, where appropriate, include replacement trees to mitigate their loss.
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The proposals comply with the National Planning Policy Framework

These proposals comply with the NPPF in terms of achieving sustainable development, good design and conserving the natural environment by retaining the significant trees on and adjacent the site. Paragraphs 55 and 56 of the NPPF deal with planning conditions. Sufficient detail has been provided so an enforceable planning condition requiring the trees to be protected can be based on the accompanying Tree Protection Plan.

2.3 Site description

Description of tree and landscape features Trees T001 and T003 on the road frontage are poor quality, unremarkable conifers that would be better replaced as part of a comprehensive landscape scheme. T014, a twin stemmed conifer in the adjacent property is another unremarkable tree.

T002 is a young Oak with a slightly asymmetrical crown which is being retained as a feature landscape tree in the future.

T006 a Holly in the centre of the drive has some merit when viewed from the street but it is a constraint on development and would be better replaced with a new feature tree on completion of the development.

T007 is a Holly adjacent the garages to the rear that is an unremarkable tree and is shown for removal.

T009-T011 are poor quality self-seeded Scots Pine and Evergreen Oak that are not worthy of retention due to their poor form and life expectancy.

The significant trees on the site (apart from T002) are two trees at the rear, a leaning Scots Pine T008 and Sycamore T012. Both trees are to be retained and protected during development. Sycamore T012 is an important tree that will provide a backdrop to the development and continue to make a useful contribution to the character and appearance of the area.

There are other off-site trees to the rear, notably a group of Pines that are unaffected by development.

Site factors will have affected the root protection area (RPA) I have plotted the RPA of the trees as circles except for T012 Sycamore which will have had its notional radial root growth affected by the levels at the rear of the current building and the building itself. I have shown it as a polygon in accordance with the recommendation in paragraphs 4.6.2 and 4.6.3 of BS5837:2012 *Trees in relation to design, demolition and construction – Recommendations* (BS5837:2012).

3 The Development

3.1 Extent of changes proposed

Proposed tree removals are shown on the TCP with dashed crowns This report serves as an application for consent under the TPO with the grant of planning permission being deemed consent for the proposed work. Should the LPA require an application for tree work as not all the felling falls within the 'necessary to implement the planning permission' criteria, it can be supplied.

The tree work is listed in the tree survey data sheet in Appendix A.

New structures respect the RPA The proposed new building is entirely outside the RPA of all retained trees.

The Tree Protection Plan RNapc/478/TPP/1 shows the position of tree protection that is suitable for demolition and construction. There is an existing concrete slab in the area beneath Scots Pine T008 which will be retained for the duration of development so ground protection will not be required in this area.

The proposed building has been revised to reduce the impact on the RPA of the Sycamore T012. The new design of the building has taken this into consideration following comments from the BCP Tree Officer (see below).

There is also a cycle store proposed near the road frontage. This is a lightly loaded structure on a no-dig foundation in an area where there is already hard surfacing so I do not anticipate any adverse impact on T002 or the neighbours trees, T004 and T005. Similarly from the new formalised car parking which uses the existing surfacing. The tree protection fencing will need to be moved for the cycle store to be erected and this should be covered by the pre-commencement meeting.

Changes in levels have been reduced to mitigate damage.

T012 does not have any roots below the existing building because the rate of air/water recharge will be too low to satisfy normal root growth. However the roots will follow the line of the existing retaining structure at the back of the building, and possibly explore the soil volume beneath the footpath slabs. Some, perhaps 10% of the RPA will be affected but the rest is either outside the site or will be protected from construction impacts. The ingress into the RPA is only on one side.

For the existing soft landscaped raised area at the back of the property, there will be no change in levels.

3.2 Effect of proposals

Only a minor impact on landscape and amenity

The loss of the screen at the front will be replaced by a new planting scheme which can be the subject of a planning condition. The loss of the Holly T007 will be noticed only from immediately outside the drive entrance of the property. Although a negative effect, it is localised and can be replaced by a new feature tree on the frontage. The large dominant landscape trees to the rear are all retained so there will be no loss of amenity to the backdrop afforded by them.

Magnitude: Mitigation reduces the impact on the rooting environment

Less than 10% of the RPA of the Sycamore is affected. The finished levels issue has been dealt with by design. This mitigation should ensure the long term retention of this important tree.

There are no liveability issues...

...or other above ground constraints. The Tree Officer commented on the previous scheme that *'The trees will be in communal space and the north facing windows are bedroom windows: the living rooms area faces south. the siting of the building should be revisited to ensure that the communal amenity space at the rear of the building would be sufficient to allow good levels of natural sunlight to be enjoyed by the future occupants. Consideration should also be given to ensure adequate clearance from the canopy of T12 to allow for future growth.'* The increased distance between the rear elevation and T012 coupled with the changes to the rear elevation make the scheme workable in terms of liveability and reasonableness.

4 Recommendation and conclusions

Tree Protection Plans RNapc/478/TPP/1; Tree constraints plan RNapc/478/TCP/1

There are no supportable or reasonable grounds for refusing permission in terms of trees

The scheme is technically compliant with BS5837:2012 and the way in which that Standard has been applied. It meets Local Plan Policy PP27, the requirements of the NPPF and respects the purpose of the tree preservation order.

A Appendix A Tree Survey Schedule

Reference	Common Name	Retention Category	Stem Diameter (mm)	RPA: Radius (m), Area (m ²)	Comments	Height (m)	Crown spread North	Crown spread East	Crown spread South	Crown spread West	Life Stage	Physiological Condition	Structural Condition	Remaining Contribution
T001	False Cypress	C1	400	Radius: 4.8 Area: 72	Unremarkable topped conifer on frontage REMOVE as part of new landscape scheme	8	2	2	2	2	Semi Mature	Fair	Poor	20+ Years
T002	Pedunculate Oak	B2	180	Radius: 2.2 Area: 15	Slightly one-sided. Tree to be retained	7	2	2	0	2	Young	Good	Good	40+ Years
T003	Cypress	C1	300, 200, 180	Radius: 4.8 Area: 72	Unremarkable conifer previously topped at 2m. REMOVE	7	1.5	2	2	2	Semi Mature	Fair	Poor	20+ Years
T004	Holm Oak	C1	350,250	Radius: 5.2 Area: 85	Off-site tree topped at 4m.	6	2	4	1.5	4	Semi Mature	Fair	Poor	20+ Years
T005	Pedunculate Oak	C1	300	Radius: 3.6 Area: 41	Off-site tree. Topped at 3 4m.	6	4	4	2	3	Semi Mature	Fair	Poor	20+ Years
T006	Common Holly	B1	430	Radius: 5.2 Area: 85	Feature of the front garden but would be better replaced as an opportunity of development. REMOVE	7	4	4	4	4	Early Mature	Fair	Fair	20+ Years
T007	Common Holly	U	200, 150	No RPA due to Retention Category of U.	Growing in the corner of two garages. Damage will occur therefore downgraded. Unremarkable tree. REMOVE	6	3	2	2	2	Semi Mature	Poor	Fair	<10 years
T008	Scots Pine	C1	400, 420	Radius: 7.0 Area: 154	Surface roots and levels issues.	7	2	5	6	6	Early Mature	Fair	Poor	10+ Years
T009	Scots Pine	U		No RPA due to Retention Category of U.	REMOVE									

Reference	Common Name	Retention Category	Stem Diameter (mm)	RPA: Radius (m), Area (m ²)	Comments	Height (m)	Crown spread North	Crown spread East	Crown spread South	Crown spread West	Life Stage	Physiological Condition	Structural Condition	Remaining Contribution
T010	Holm Oak	U	300	No RPA due to Retention Category of U.	Self-seeded tree growing out of fence line and rubbing on T011. This tree does merit retention due to condition. REMOVE	10	3	1	2	3	Young	Poor	Collapsing	<10 years
T011	Scots Pine	U	300	No RPA due to Retention Category of U.	Heavily leaning tree suppressed rubbing on T010. This tree does merit retention due to condition. REMOVE	5	5	0	0	5	Young			<10 years
T012	Sycamore	B1	350, 300, 250, 150, 150, 280	Radius: 7.6 Area: 181	RPA not circular		5	6	5	7	Early Mature	Fair	Fair	20+ Years
T013	Maritime Pine	B1	800	Radius: 9.6 Area: 290	Nearest tree in group of Pines to rear	14	1	5	7	6	Early Mature	Poor	Fair	20+ Years
T014	Western Red Cedar	C1	300,300	Radius: 5.1 Area: 82	Off-site tree. Unremarkable.	5	1.5	1.5	1.5	1.5	Semi Mature			20+ Years

B Appendix B Tree Protection

The trees to be retained are important landscape trees that make a significant contribution to the amenity of the area and should be protected from demolition and construction activities

This report provides site-specific mitigation...	It is based on the Arboricultural Impact Assessment data for soil, species, sensitivity of the trees to damage and the magnitude of the impacts of the proposed development
...in order to reduce the likelihood of damage to trees...	The guidance in BS5937:2012 <i>Trees in relation to design, demolition and construction- Recommendations</i> Technical Design stage Sections 6-8 applies

The area within the tree protection fence is a **construction exclusion zone** from which access is prohibited for the duration of a project unless agreed by the Arboriculturist and local authority.

Fires should be avoided	Where they are unavoidable, they should not be lit in a position where heat could affect foliage or branches, so take wind direction and potential size of the fire into account.
Run-off from concrete mixing causes damage to tree roots	Avoid washing out concrete mixers on the temporary ground protection. If this area is to be used for mixing concrete the mixing should take place on a ply board on top of a polythene membrane
Materials must not be stored and handled near trees	Any materials whose accidental spillage would cause damage to a tree should be stored and handled well away from the canopy of a tree
Install tree protection fencing (barriers)	
The fencing should be erected before anything is brought to site and should not be moved	All trees should be protected by barriers before any materials or machinery are brought onto the site, and before any demolition, development or stripping of soil commences The Tree Protection Plan (RNapc/478/TPP/1) shows the approved location and specification of the barriers. Once installed, barriers and ground protection should not be removed or altered without prior agreement of the arboriculturist and the local planning authority

Install Ground protection

Ground protection must be used where shown on the Tree Protection Plan...

Where appropriate ground protection has been shown on plan RNapc/478/TPP/1 it should be installed at the same time as the barriers and vehicles should not be used in these areas of the site during installation.

...and should be fit for purpose

Two different specifications are included: for plant up to 2t gross weight and machinery and vehicles exceeding 2t gross weight.

Plant up to 2t will need inter-linked ground protection

Use inter-linked boards (eg Ground Guard) on 150mm deep woodchip laid on a geotextile

Traffic exceeding 2t will need an Engineering solution

Heavy traffic will need either a proprietary system (eg Trackway) or similar to a specification agreed by the Engineer and Arboriculturist

Realign the barrier

Tree protection fencing will need to be removed before the store at the front of the site and the parking bay is constructed

The fencing is to be moved after the completion of the main construction work and before the no-dig hard surface works begin.

Parking vehicles or storing materials in the exposed area can damage trees.

If parking or material storage is unavoidable, consult the Arboriculturist about temporary ground protection before using the area.

Tree removal

The tree work is listed in the Arboricultural Impact Assessment (AIA) document

All tree work should be carried out by a suitably qualified Tree Contractor

Stumps must be ground out, not grubbed out

Grubbing stumps out with an excavator can damage nearby trees as the roots will be grafted. Only use a mechanical stump grinder

Groundwork and demolition

**Demolition of the removal of the concrete slabs
BS5837 7.2 & 7.3.2**

All plant engaged in demolition work should work from outside the root protection area (RPA) and the demolition should be undertaken inwards within the footprint of the building (top down, pull back)

**New services and soakaways
BS58937 7.7**

Any service trenches should avoid the RPA of retained trees, unless agreed by the Arboriculturist. Soakaways should not be located within the RPA of a retained tree.

Any service trenches that are required can be excavated by machine outside the RPA of retained trees. Where this is not possible manual excavation will be required and no roots with a diameter greater than 20mm shall be severed unless agreed by the Arboriculturist. Soakaways should not be located within the RPA of a retained tree.

Extract from BS5837:2012 Section 7.2**7.2 Avoiding physical damage to the roots during demolition or construction**

7.2.1 To avoid damage to tree roots, existing ground levels should be retained within the RPA. Intrusion into soil (other than for piling) within the RPA is generally not acceptable, and topsoil within it should be retained in situ. However, limited manual excavation within the RPA might be acceptable, subject to justification. Such excavation should be undertaken carefully, using hand-held tools and preferably by compressed air soil displacement.

NOTE Due to the demands that manual excavation places on a development project, and limitations arising from health and safety considerations, it is not realistic to plan for excavation using hand-held tools where there is a need for trench shoring or grading the sides of the excavation to a stable angle of repose.

7.2.2 Roots, whilst exposed, should immediately be wrapped or covered to prevent desiccation and to protect them from rapid temperature changes. Any wrapping should be removed prior to backfilling, which should take place as soon as possible.

7.2.3 Roots smaller than 25 mm diameter may be pruned back, making a clean cut with a suitable sharp tool (e.g. bypass secateurs or handsaw), except where they occur in clumps. Roots occurring in clumps or of 25 mm diameter and over should be severed only following consultation with an arboriculturist, as such roots might be essential to the tree's health and stability.

7.2.4 Prior to backfilling, retained roots should be surrounded with topsoil or uncompacted sharp sand (builders' sand should not be used because of its high salt content, which is toxic to tree roots), or other loose inert granular fill, before soil or other suitable material is replaced. This material should be free of contaminants and other foreign objects potentially injurious to tree roots.
