



Arboricultural Impact Assessment

Accompanied by Tree Constraints Plan and Tree Protection Plan

40A Sinah Lane,
Hayling Island,
PO11 0HH

Lee Barnes L4 Dip Arb, *Tech Arbor A*

Date: 09/02/15



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CLIENT: Karen Calves

INSPECTION DATE: 30/03/2015

SITE ADDRESS: 40A Sinah Lane, Hayling Island, PO11 0HH

INSPECTED BY: Lee Barnes L4 Dip Arb, Tech Arbor A

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WEATHER CONDITIONS: Bright and dry

INSPECTION TYPE: The inspection was done visually from ground level only. The internal and underground condition of the trees was not assessed. The aerial parts of the trees were observed by eye.

SOIL: No soil samples were taken

CAVEATS:

Trees are living, self-optimising organisms and their condition can change in response to the environment around them. Although our survey remarks and observations refer to the tree when inspected on that particular date, it is not a full Arboricultural condition inspection.

All trees have been inspected from the ground. No climbing inspection or decay detection has been performed.

Brief

Undertake a tree survey and produce an Arboricultural Impact Assessment (AIA) and tree constraints plan.

The aim of the AIA and constraints plan will be to identify any area of conflict between the proposed development and the current tree stock on the site. We have within the AIA made general recommendations to manage the conflicts. A fully detailed Arboricultural Method Statement (AMS) would give more detail, if required under planning condition.

1. The Proposal

An extension to the current dwelling and demolition of existing garage building.

2. Tree Comments and Observation

The current site has 16 individual trees and 2 groups. The quality of the tree stock ranges from mature Oak trees on the front boundary to suppressed Leylandii.

The three stand out specimens on the front boundary are covered by TPO, the rest of the trees on site are of low arboricultural merit due to their species, quality or limited amenity impact. A number of these will need to be removed for the development to take place.

2.1. Trees for removal

The proposal will require the removal of a number of low quality specimens as they are unsustainable in their locations. These trees are indicated on the tree protection plan by the use of a red dot and are highlighted below.

T9- Sycamore. Suppressed by larger close growing trees and has a shared canopy with T10. Has been highlighted for removal mainly due to its poor form and the removal of T10 which will leave it with an asymmetric crown. These trees are therefore being managed as 1 tree.

T10- Sycamore. Compression forks in canopy. This tree is unsustainable in its location due to its proximity with the proposed extension. It is a low value tree and has little arboricultural merit.

T11- Yew, Suppressed small yew. This has been planted on the rear boundary edge and will in time compromise the rear wall and the property built to the rear.

T12- Leylandii. This tree has also been planted on the rear boundary and will be removed to prevent damage to the wall and neighbouring property. There is also a minor ingress into its RPA by the proposed development, which would not require removal. However, due to the poor condition and location of the tree we would recommend removal.

T13- Leylandii. Again, this tree has also been planted on the rear boundary and will be removed to prevent damage to the wall, neighboring property. The proposed development will make this tree unsustainable in its location and removal is required.

G1- Conifer hedge. This hedge is in poor condition and has no arboricultural or amenity value at all. Removal is required for the construction of the proposed development.

2.2. Tree planting

We would discuss the option for replanting under re-landscaping of the property following development. The current trees for removal as highlighted are of limit quality and value and therefore their loss would be mitigated with replacements.

3. Root Protection Area

The BS5837:2012 root protection areas (RPA) are shown on the tree protection plan (TPP).

The majority of trees have been shown with full open crowns and circular RPAs apart from T14, 15 and 16 which I believe would have had their root ingress into Mrs Calves' garden

disrupted by the position of the garden wall, we have therefore shown the root protection area adjusted to follow the wall.

The high quality trees that have been indicated in the report are found on the front boundary (T2,T3 and T4) these trees are consistent with the nature of this tree lined road. They have all been shown with full open grown tree RPA's. The tree protective measures will be in place so they are not affected during the construction process.

4. Tree Protection

To protect the trees throughout the construction protective fence and ground protection must installed as recommended in BS5837:2012.

4.1. Protective Fencing

The protective fencing has been shown on the Tree Protection Plan (TPP).

This fencing must be installed prior to any work on site. A report demonstrating the installation of the fencing and a photographs should be compiled and provided to the local planning authority on request.

The area inside of the fencing is a root protection area and must be treated as sacrosanct; therefore there should be no access for construction personnel, machinery or materials. All staff must be briefed as part of the site induction and signs are to be installed on the fencing marking the RPA

The fence would need to be fit for purpose, therefore controlling construction traffic and material movement within the site. The protective fencing must be as a minimum as set in BS5837:2012, this has been included below as Appendix 3.

4.2. Ground Protection

Due to the position of the site entrance and the protected trees, ground protection will be required for vehicle movement within the RPAs this ground protection will also have to be fit for purpose and installed prior to work commencing. The ground protection must be as a minimum as set in BS5837:2012, this has been included below as Appendix 4.

5. Work within RPA

All work within the area identified as RPA, should be avoided. If there is need to work in these areas it must be done with care and attention to reduce any possible impacts on the trees.

Supervision of work within the RPA should be detailed in the supervision scheme to be agreed at the pre-commencement meeting.

5.1. Entrance gates

The proposed changes to the entrance gate are within the RPA's of the trees at the front of the site. This will therefore need none standard wall foundations to reduce the impact of the work on the surrounding trees.

It would be our recommendations that trial holes are dug along the line of the proposed wall. These holes should be dug by hand or air-spade, no machinery should be used in this area.

AT NO POINT SHOULD ANY MACHINERY BE USED DURING THIS OPERATION.

If no tree roots are found, then standard foundations can be installed and the wall constructed. However, if tree roots are found then they must be rapped and protected and reviewed by an appointed Arboricultural consultant. Once assessed, a recommendation to the foundation style for the wall can be agreed and construction can be undertaken.

5.2. Removal of surface within RPA

The hard standing should remain as protection for the duration of the build this area can be used as an ideal place for vehicle parking or the mixing of materials.

6. Supervision

Stage	Description	Attendees
Pre-commencement meeting	Fencing areas to be identified, agreed time frame for fencing installation and confirmation of type of fencing. Confirm frequency of visits. Review working in RPA supervision time scale.	Site foreman, manager, and retained Arboricultural Consultant (AC). Local Authority (LA) tree officer will be notified of date and asked to attend.
Installation of Tree Protection	Dated photographs of fencing.	Photographs to be made available to LA on request
Monitoring checks of fencing – though the build, likely 3-4 visits	Random site visit to confirm fencing in place	Site foreman and AC
Work with RPA	Discussion and oversee work in the RPA regarding surface removal techniques and need to reinstate fencing after, depending on stage of development.	Site foreman and AC

This supervision recording may be undertaken by the site foreman as a photographic record. Transform Landscapes will only be undertaking the supervision if commissioned as the retained Arboriculturalist.

7. Conclusion

The main development is away from the trees shown for retention; however protective measures will be required to prevent damage to them caused by the movement of vehicles and materials within the site. There are a number of trees of low value that have been identified for removal, it is our recommendation that these trees are in the most removed regardless of the approval of the scheme to and protect the boundary wall from future damage.

The re-position of the entrance walls and gate will require some construction and excavation within the rooting area of the trees at the front of the site. As suggested, with careful excavation, planning and construction this will not be detrimental to these trees.

Appendix 1:

Tree survey results

SURVEY AND TREE DETAILS:

The table below shows the BS5837:2012 tree category grading, as shown in the last column of the survey sheet.

- A - Those of high quality and value identified as Green on site plans
- B - Those of moderate quality and value
- C - Those of low quality and value
- U - Trees for removal due to sound Arboricultural management.

Subsections are listed as 1, 2 and 3 for each Category and detailed as:

- 1 Mainly Arboricultural Value
- 2 Mainly Landscape Values
- 3 Mainly Cultural values including conservation.

Tree No	Species	DBH (mm)	Height	Canopy spread	Canopy clearance	Condition	BS grade	Comment	Recommended work
T1	Monterey cypress	320	7	4,2,2.5,3	1.5	Fair	C2	Suppressed growth under mature Oak.	NA
2	English Oak	72	18	7,3,3,5,	4	Fair/good	B2	Dead wood, crossing limb, minor asymmetric crown.	NA
3	Corsican Pine	430	18	3,3,3,2	10	Fair/good	B2	Minor deadwood	NA
4	Leylandii	250	8	3,3,3,3	2	Fair	C3	Suppressed	NA
5	English Oak	760	17	7.5,6,22	5	Fair/good	B3	Major deadwood, historic pruning, asymmetric crown	Deadwood
6	Sycamore	530	17	2,1.5,4,5,	6	Fair/poor	C3	Die back, deadwood, historic pruning, cavity @14m	Consider future removal, not required for build.
7	English Oak	300 est.	16	1,0,1,5	9	Fair	C3	Off-site tree, Heavily asymmetric crown	NA
8	Monterey cypress	1100 est	19	4,3,2.5,6	7	poor	C3	Off-site tree, many failed limbs, hanging branches, historic pruning	Fell due to poor condition.
9	Sycamore	350	13	1,3,2,2	4.5	Fair poor	C3	Suppressed, major inclusion @3m	Fell to allow build
10	Sycamore	480	14	4,4,2,3	4	Compression fork in canopy	C2	Compression fork in scaffold	Fell to allow build
11	yew	230	5	0.5,1.5,3,2	1.5	Fair/poor	C3	Suppressed, planted very close to wall, and neighbouring building.	Fell to ovoid damage to wall and neighbouring building.
12	Leylandii	770	12	3,3,3.5,3.5	2	Fair	C3	Mature conifer, very close to wall and neighbouring building.	Fell to ovoid damage to wall and neighbouring building and allow for build.

Tree No	Species	DBH (mm)	Height	Canopy spread	Canopy clearance	Condition	BS grade	Comment	Recommended work
13	Leylandii	740	12	4,4,3,3	2	fair	C3	Mature conifer, very close to wall and neighbouring building.	Fell to avoid damage to wall and neighbouring building and allow for build.
14	Silver birch	500 est	12	3,3,3.5,3.5	3m	Fair	C2	Off-site tree, very old tree, signs of dieback.	Off-site tree.
15	Silver birch	450 est	15	4,4,1,3	3.5	fair	C2	Off-site tree, very old tree, signs of dieback.	Off-site tree, Prune back long limb over garage.
16	Sweet chestnut	450 est	13	3,3,2,3	3	Fair	C3	Off-site tree, signs of dieback, Historic pruning.	Off-site tree.
G1	Leylandii hedge	200 ave each stem x 4	7	4.5,1,4.5,1	0	Fair	C3	Conifer hedge.	Fell to allow build
G2	Leylandii hedge	200 ave each stem x 4	3	4.5,1,4.5,1	0	Fair	C3	Off-site tree, Conifer hedge.	NA

Appendix 2:

Root Protection Area (RPA)

The following table has been populated with data from BS5837:2012 – Appendix D.

Tree No.	Species	DBH (mm)	RPA Radius	RPA
1	Monterey Cypress	320	3.84m	46.30
2	English Oak	720	8.64m	234.39
3	Pine	430	5.16m	83.60
4	Leylandii	250	3.00m	28.26
5	English Oak	760	9.12m	261.16
6	Sycamore	530	6.36m	127.01
7	English Oak	300	3.60m	40.69
8	Monterey Cypress	1100	13.20m	547.11
*14	Silver Birch	500	6.00m	113.04
*15	Silver Birch	450	5.40m	91.56
*16	Sweet chestnut	450	5.40m	91.56
*=	RPA has been adjusted due to allow for lack of root ingress under wall.			

Appendix 3:

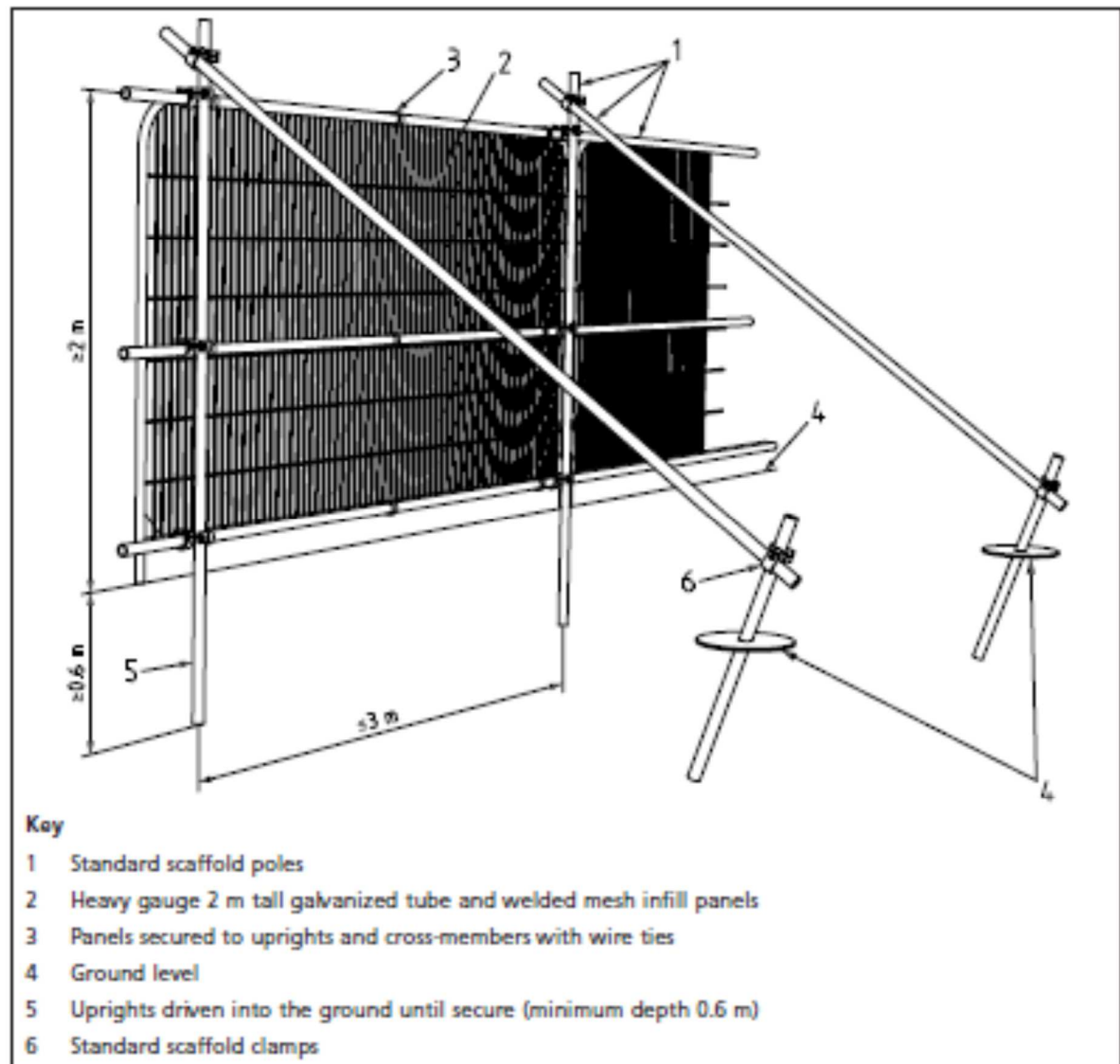
Tree Protective Fence specification
from BS5837:2012

BS5837:2012 – Trees in relation to design, demolition and construction – Recommendations

Root Protection Area – Protective Fencing

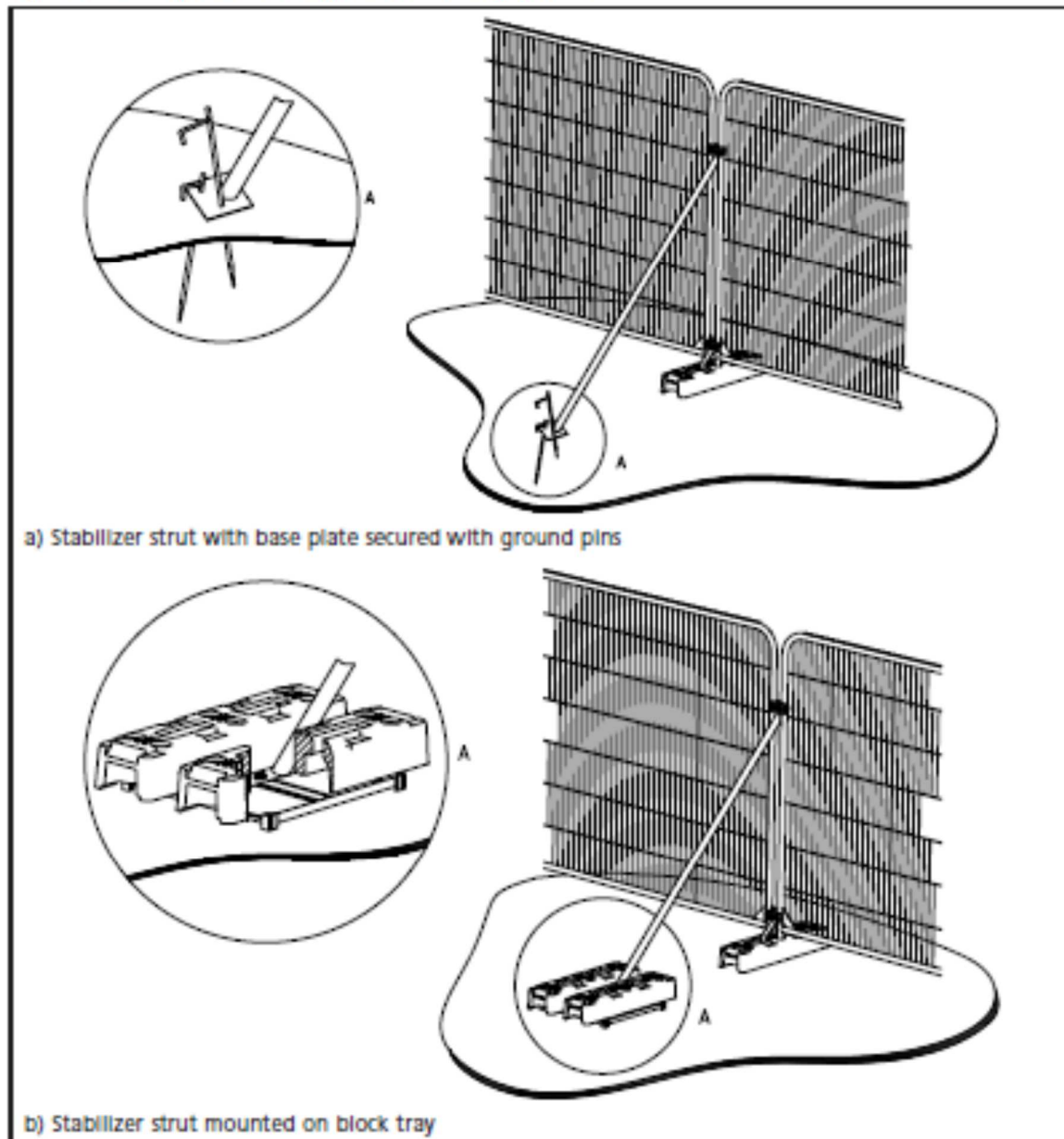
Diagrams lifted from the BS5837:2012.

Figure 2 Default specification for protective barrier



This fencing construction can be used where scaffold poles can be knocked into the ground without damage to the rooting system.

Figure 3 Examples of above-ground stabilizing systems



This type of fencing is to be used in situations where the installation of scaffold poles is likely to cause damage to the rooting system.

Appendix 4:

Ground Protection