

Arbortrack Systems Ltd
The Granary Studio
Crewe Lane
Kenilworth
Warks
CV8 2LA

Arboricultural & Planning Integration Report

Location	The Cottage, Shripney Road, Bognor Regis, PO22 9PA.	Ref jwmb/ rpt8/ thecottage/ PI
Client & Instructions From	Mr Julian Chatterton, Castle Property Developments Ltd, 1 & 2 The Barn, Oldwick, West Stoke Road, Lavant, Chichester, PO18 9AA.	Date 7 th October 2021
Terms of Reference	To survey the subject trees in order to assess their general condition and to provide a planning integration statement for the proposed development that safeguards the long term well being of the retained trees in a sustainable manner.	
Report Prepared by	James Bell BSc (Hons.), MSc, Arbor. A. Tech. Cert.	Page N° 1 of 11

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Summary

The proposals are for a reserved matters planning application and are for the demolition of the existing dwelling & outbuildings and for the construction of a two-storey, 66 bed care home, car park and associated facilities. The existing access to 'The Cottage' will be closed with new access constructed where shown. See accompanying material for full details.

There are sixty-three surveyed trees or groups of trees on or near the site. Of these, one is 'A' (high quality) category i.e. 36, eleven are 'B' (moderate quality) category i.e. 1, 2, 6, 20, 21b, 27, 33, 33a, 34, 35 & 37, forty three are 'C' (low quality) category and eight trees are 'U' (unsuitable for retention quality) category i.e. 13, 21, 22 23-25, 42 & 44.

The following surveyed trees will be removed to allow or facilitate development or for landscape enhancement or for sound arboricultural management: 5, 5a, 7, 8, 11, 11a, 13, G14, 17, 18, 19, 20, 21, 23, 24, 25, G27a, 31 32a, 32b, 38, 39, 40, 41, 42, 43, 44, 46, 48 & 49. Excepting tree 20, a weeping willow, these are all low-quality trees. The loss of this moderate quality tree is acceptable in the context of these proposals (and was previously consented in an outline scheme in 2017 reference BE/63/17/OUT): the landscape planting on the eastern boundary is retained and can readily be reinforced with further planting. The two cedars (36 & 37) that are the prominent arboricultural features of the site are retained and there is good scope for replacement planting on the roadside boundary, which is currently over-reliant on low-quality post mature Monterey cypress (42, 43 & 44) which have all lost significant elements of their crowns and which have limited useful life expectancies.

All retained trees will be protected in accordance with current standards and guidance. New hard standing within the root protection area (RPA) of trees 9, 10 & 36 will be constructed to a low invasive, porous, engineer designed specification where required & possible: details can be agreed via the discharge of conditions - see section 8.4 & Appendix E for additional guidance. Areas within RPAs requiring ground protection are shown in Appendix A, i.e. trees 6, 9, 10, 15 & 33. Ground protection should be fit for purpose as per the guidance in BS5837:2012 section 6.2.3.3. The preferred specification is provided by products such as dura base (<http://www.terrafirmagb.com>) or eve trakway, which are widely available and approved by many local authorities.

There is good scope & provision for new planting in and around the site, e.g. on the roadside boundary, on the eastern flank of the site and internally. On this basis, the landscape impact of the proposals, which has been minimised, can be neutral or positive in time.

The proposed scheme is sound in arboricultural terms and the long term well being of the retained trees can be safeguarded in a sustainable manner.

Documents Supplied

- 2 Topographical survey of site from Quickdraw Surveys Ltd, 58 Mavis Drive, Coppull, Lancashire, PR7 5AF. Proposed Site Plan reference PO22-9PA-03 from LNT Construction Ltd, Unit 2, Helios 47, Isabella Road, Garforth, LS25 2DY.

1.0 Scope of Survey

- 1.1 The survey is concerned with the arboricultural aspects of the site only. Whilst all the significant trees have been assessed; this report does not include discussion in respect of all vegetation, including some small and insignificant trees such as shrubs and some small garden ornamental trees near the site. However, general comments are made about lower storey trees and shrubs where appropriate.
- 1.2 Arbortrack Systems Ltd understand that the site does not stand within a conservation area. Trees 33, 34, 35 & 54 are protected by Arun District Council (ADC) Tree Preservation Order (TPO) reference TPO/BE/2/17 and trees 27, 36, 37 & 45 by TPO reference TPO/BE/1/17.
- 1.3 No discussions took place between the surveyor and any other party.
- 1.4 The trees were inspected on the basis of the Visual Tree Assessment method expounded by Mattheck and Breloer (The Body Language of Trees, DoE booklet Research for Amenity Trees No. 4, 1994).
- 1.5 A resurvey of the site was undertaken on 16th September 2021 by James Bell in accord with British Standard 5837:2012 Trees in relation to design, demolition and construction 'Recommendations (BS5837:2012).
- 1.6 Pruning works will be required to be in accord with British Standard 3998:2010 Tree work (BS3998:2010).
- 1.7 Underground services near to trees will need to be installed in accord with the guidance given in BS5837:2012 together with the National Joint Utilities Group Volume 4: 2007 Guidelines for the planning, installation and maintenance of utility services in proximity to trees (Issue 2) (NJUG4).
- 1.8 The survey does not cover the arrangements that may be required in connection with the laying or removal of underground services.

- 1.9 Where hard surfacing may be required in close proximity to trees BS5837:2012 and the principles of Arboricultural Practice Note 12 'Through the Trees to Development', AAIS 2007 (APN 12) with regard to 'No-Dig' surfacing will be employed, although incorporating improvements with the construction methods.
- 1.10 The survey does not set out the working specifications of tree protection measures and engineering and design features but provides enough detail in principle to demonstrate the feasibility of the scheme.

2.0 Survey Method

- 2.1 The survey was conducted from ground level with the aid of binoculars.
- 2.2 No tissue samples were taken, nor was any internal investigation of the subject trees undertaken.
- 2.3 No soil samples were taken.
- 2.4 The height of each subject tree was estimated by eye.
- 2.5 The stem diameters (SD) were measured in centimetres at 1.5 metres above ground level for single stems and just above the root flare for multi-stemmed trees.
- 2.6 The crown spreads were estimated by pacing or by using a Bosch DLE 50 Professional Laser Measure where deemed necessary.
- 2.7 The positions of the subject trees are plotted at Appendix A in a site & tree protection plan. Please note that the attached plan is for indicative purposes only.

3.0 The Site

- 3.1 The site stands on the eastern flank of the A29 Shripney Road in the village of Shripney, which itself lies just beyond the northern confines of Bognor Regis. A Premier Inn hotel stands to the north of the site with a residential property to the south. The local character of the wider area north of Bognor Regis is rural/agricultural. The site was formerly used as a small scale nursery and a disused greenhouse, shed and 'buildings' are scattered throughout the site (north of the footpath) in addition to the current dwelling.
- 3.2 The site is approximately 0.6Ha in size & slopes marginally up to the rear (eastern) boundary. The site stands approximately 1.2-1.5m above the A29 road level. A deep drainage culvert runs along the frontage south of the entrance beside the carriageway and there is an unused entrance at the southern end of the frontage. The existing dwelling stands in the north-west corner of the plot near the main entrance. Open fields stand to the east of the site and that boundary has been slightly raised into a bank.

- 3.3 Prominent surveyed trees stand on the flanks of the site and intermittently beside the public footpath that transects the site. Two significant Cedar of Lebanon (*Cedrus libani*), numbers 36 & 37, stand slightly more centrally beside a greenhouse - just to the north of the public footpath. The frontage is dominated by three large post mature Monterey cypress (*Cupressus macrocarpa*) numbers 42, 43 & 44 on the plan. Tree quality beyond the northern boundary is rather indifferent overall with tree 6, a moderate quality sycamore (*Acer pseudoplatanus*) & two mature Leyland cypress (*Cupressocyparis x leylandii*), trees 9 & 10, and low-quality western red cedar (*Thuja plicata*) trees 13, G14, 16 & G50, present with a slightly post mature hawthorn (15), amongst others. The landscape planting in the northeast corner of the site (20a-31) is an attractive feature in its entirety and tree 20, the moderate quality weeping willow (*Salix babylonica*), that stands alone in the north eastern quadrant of the site, is relatively prominent within the site.
- 3.4 Data from the iGeology app from the British Geological Survey suggests that it is likely that the site lies within an area of bedrock geology of Lewes Nodular Chalk Formation, Seaford Chalk Formation, Newhaven Chalk Formation & Culver Chalk Formation. Superficial geology is River Terrace Deposits (Undifferentiated) - Sand, Silt & Clay. The prevailing soil conditions evidently provide a good medium for tree growth. Any potential for soil compaction (highly deleterious to root function) during development will depend on the proportion of clay present in the upper profile - the presence of clay in this location would appear to be possible. Further to confirmation of the precise soil type present, a structural engineer may be able to advise further on the local geology and its implications, if any, for development.
- 4.0 Subject Trees
- 4.1 The BS5837:2012 categorisation of trees is explained in the key to the survey schedule in Appendix B, which provides full detail on surveyed trees. Sixty-three trees or groups of trees were surveyed - see Appendix B for full details.
- 4.2 Of the sixty-three surveyed trees or groups of trees on or near the site, one is 'A' (high quality) category i.e. 36, eleven are 'B' (moderate quality) category i.e. 1, 2, 6, 20, 21b, 27, 33, 33a, 34, 35 & 37, forty three are 'C' (low quality) category and eight trees are 'U' (unsuitable for retention quality) category i.e. 13, 21, 22 23-25, 42 & 44.

The following sections provide detail on potentially significant trees:

- 4.3 Trees 42, 43 & 44 are large post mature Monterey cypress (*Cupressus macrocarpa*) standing on the eastern roadside boundary of the site. Two have had large elements of their crowns removed (42 & 44) after storm damage in all likelihood. Tree 43 is in slightly better condition (although it has still undergone remedial work) than its neighbours. Tree 44 is in particularly poor condition with large hung up detached branches in the crown and deadwood. Removal or extensive remedial work is required on this tree irrelevant of development and as of 24th August 2018 appears to have been carried out.
- 4.4 Trees 36 & 37 are two large mature Cedar of Lebanon (*Cedrus libani*) that are the principal arboricultural features within the site – although these are slightly less visible to road users and other members of the public from directly outside the site, due to being partially obscured by trees 22-24. Despite some broken branches as a result of storm damage, these are trees with a high amenity value. The condition of tree 37 has declined however since the original survey with several new woodpecker holes noted in the lower main trunk. Routine inspection every 3 years (and after storms) is recommended hereafter.
- 4.5 Tree 4 is a mature twin stemmed hybrid poplar standing near the entrance on the northern boundary of the site. The vigour of the tree appears to be good, but the structural condition is less favourable with areas of included bark at the base between the two trunks. This species is likely to become extremely large given time and my professional opinion is that it is in the wrong location and that the noted defect is likely to shorten its useful life expectancy. On this basis, the tree has been given a 'C' (low quality) category.
- 4.6 Trees 41 & 45 are mature ash (*Fraxinus excelsior*) standing beside the driveway and obscured from the A29 by the large Monterey cypress (44). Tree 41 has decay present on the stub of a basal sucker, but the extent of any basal decay in the main trunk appears to be minimal and cannot be quantified without further investigation beyond the scope of this report. Tree 41 has been downgraded to 'C' (low quality) category on this basis. Tree 45 has no obvious major defects but is showing early symptoms of ash dieback disease and has been downgraded to a C category on this with a likely useful life expectancy of ten plus years. However, the ongoing potential for premature death of all ash on the site due to the Chalara pathogen should be borne in mind and routine monitoring is recommended.
- 4.7 Tree 20 is an early mature free-standing weeping willow (*Salix babylonica*) in the northeast quadrant of the site. This is a 'B' category (moderate quality) tree with no obvious major defects noted.
- 4.8 Trees 33, 33a, 34 & 35 are early mature/ mature sycamores (*Acer pseudoplatanus*) that stand beside the footpath in the southern area of the site, with 34 & 35 nearer the frontage. These are 'B' category (moderate quality) trees (34 & 35 are multi-stemmed) with long useful life expectancies of 20+ years.

5.0 The Proposal

- 5.1 The proposals are for a reserved matters planning application and are for the demolition of the existing dwelling & outbuildings and for the construction of a two-storey, 66-bed care home, car park and associated facilities. The existing access to 'The Cottage' will be closed with a new access where shown. See accompanying material for full details.

6.0 Planning Integration

- 6.1 The following surveyed trees will be removed to allow or facilitate development or for landscape enhancement or for sound arboricultural management: 5, 5a, 7, 8, 11, 11a, 13, G14, 17, 18, 19, 20, 21, 23, 24, 25, G27a, 31, 32a, 32b, 38, 39, 40, 41, 42, 43, 44, 46, 48 & 49. Excepting tree 20, a weeping willow, these are all low-quality trees. The loss of this moderate-quality tree is acceptable in the context of these proposals and was previously consented in an outline scheme in 2017 (reference BE/63/17/OUT). The landscape planting on the eastern boundary is retained and can be readily reinforced with further planting, as shown on the planting plan at Appendix G. The two cedars (36 & 37) that are the prominent arboricultural features of the site are retained (along with other now TPOd trees, i.e. 27, 33, 34, 35 & 45), and there is good scope for replacement planting on the roadside boundary, which is currently over-reliant on low-quality post mature Monterey cypress (42, 43 & 44) that have all lost significant elements of their crowns.

- 6.2 Retained trees can be successfully integrated with the proposals if mitigation measures recommended in section 8 are carefully adhered to, i.e. specialist low invasive footpaths within RPAs and ground protection where indicated.

- 6.3 There is good scope & provision for new planting in and around the site, see the planting plan at Appendix G. On this basis, the landscape impact of the proposals, which has been minimised, can be neutral or positive in time.

7.0 Post Development Pressure

- 7.1 The orientation of the retained trees to the proposed development is likely to be acceptable in terms of daylight.

8.0 Tree Protection Measures

- 8.1 BS5837:2012 gives a RPA for each retained tree by reference to section 4.6 in the BS5837:2012. The RPA is usually described as a circle with a radius (Root Protection Area Radius (RPR)) of the prescribed distance within which no activity should occur, though the shape and position of the RPA can be modified by the arboriculturist to meet individual site conditions according to the probable distribution of tree roots. Intrusion into the RPA can usually take place only where the ground is adequately protected in accord with the requirements of section 7 of BS5837:2012.
- 8.2 Retained trees should be protected where appropriate & necessary by a tree protection barrier (TPB) comprising steel mesh panels of 1.8m in height ('Heras'). These panels should be mounted on a scaffolding frame, as shown in Figure 2 of BS5837:2012. This TPB should be erected before any work commences on site, should remain 'in situ' undamaged for the duration of all work or each phase, and should only be removed once all work is completed. The only exception is the completion of soft landscaping, but if any excavations, however minor, are to be carried out as part of soft landscaping within RPAs, an arboricultural assessment must be carried out beforehand and any arboricultural protection measures incorporated. The TPB should carry waterproof warning notices denying access within the RPA. A suggested location for the TPB is shown on the tree protection plan in Appendix A. A reinforced specification is also provided in Appendix C and it is recommended that the use of fencing based on this more robust system is considered.
- 8.3 Areas within RPAs requiring ground protection are shown in Appendix A. Ground protection should be fit for purpose as per the guidance in BS5837:2012 section 6.2.3.3. The preferred specification is provided by products such as dura base (<http://www.terrafirma.gb.com>) or eve trakway, which are widely available and approved by many local authorities.
- 8.4 No specialist foundations are required for main building footprints. New hard standing within the RPA of trees 9, 10 & 36 will be constructed to a low invasive, porous, engineer designed specification where required & possible; details can be agreed via the discharge of conditions - see Appendix E for additional detail. Surfaces should be porous to allow water infiltration & gaseous exchange. Various products are available with warranty & guarantees; contact providers for full details
- 8.5 The former driveway must be lifted carefully by hand from within the RPA of trees 1 & 45, using handheld power tools only. See Appendix F for further guidance. Replacement should be with good quality topsoil.

- 8.6 The surface water run off and soil drainage have not been studied. Given the site topography and soil type on site, I do not foresee any likely detrimental effects on the retained trees in hydrological terms caused by the proposed development.
- 8.7 If any new service runs are envisaged that pass through RPAs, then the provisions of BS5837:2012 and NJUG 4 should be employed and if necessary further arboricultural advice sought.
- 8.8 Given that the large majority of tree roots usually exist within the top 60cm of the soil profile, it is important that level changes are avoided on the proposed site.
- 8.9 Many site activities are potentially damaging to trees, e.g. material storage, parking and the use of plant. In this latter example, particular care is required to ensure that the operational arcs of excavation and lifting machinery, including their loads, do not physically damage retained trees when in use.
- 9.0 Conclusion
- 9.1 Trees 5, 5a, 7, 8, 11, 11a, 13, G14, 17, 18, 19, 20, 21, 23, 24, 25, G27a, 31 32a, 32b, 38, 39, 40, 41, 42, 43, 44, 46, 48 & 49 will be removed to allow or facilitate development or for landscape enhancement or for sound arboricultural management. Excepting tree 20, a weeping willow, these are all low-quality trees and their loss is acceptable and was approved by ADC in a previous consented outline application reference BE/63/17/OUT.
- 9.2 Protection of all retained trees on site will be in accordance with the requirements of BS5837:2012: appropriate fencing will be employed as detailed in Appendices A & C. Sections of new hard standing within the RPA of trees 9, 10 & 36 will be constructed to a low invasive, porous, engineer designed specification where required & possible.
- 9.3 There is good provision for new planting in and around the site, e.g. on the roadside (eastern) & western flanks & within the site, see Appendix G. On this basis, the landscape impact of the proposals is likely to be neutral and has the scope to be positive in time.
- 9.4 I have taken account of the information given to me and my own observations on site and I am satisfied that this scheme is arboriculturally sound and that the long term well being of the retained trees will be safeguarded in a sustainable manner.

10.0 Recommendations

10.1 The successful integration of the proposal with the retained trees will need to take account of the following points:

- i) Plan of underground services.
- ii) Schedule of tree protection measures, including the management of harmful substances.
- iii) Method statements for constructional variations with regard to tree proximity (e.g. foundations, surfacing and scaffolding) if required
- iv) Site logistics plan to include storage, plant parking/ stationing, materials handling.
- v) Tree works' felling, required pruning and new planting. All works must be carried out by a competent arborist in accord with BS3998:2010 and any other prevailing good professional practice.
- vi) Site supervision' an individual, e.g. the Site Agent, must be nominated to be responsible for all arboricultural matters on site. This person must:
 - a) be present on-site for the majority of the time
 - b) be aware of the arboricultural responsibilities
 - c) have the authority to stop any work that is causing or has the potential to cause harm to any tree
 - d) be responsible for ensuring that all site operatives are aware of their responsibilities toward trees on site and the consequences of the failure to observe these responsibilities.
 - e) make immediate contact with the local authority and/ or a retained arboriculturalist in the event of any tree-related problems occurring, whether actual or potential.

10.2 As a matter of course, these points will be resolved in consultation with and subject to the approval of the planning authority through their arboricultural officer.

10.3 The sequence of works should be as follows:

- i) agreed tree works - see Appendix B
- ii) erection of protective fencing & laying of ground protection
- iii) installation of underground services
- iv) main construction inc. footpath hard standing where indicated to engineered low invasive type specification where required/ possible
- v) removal of TPB & ground protection
- vi) soft landscaping

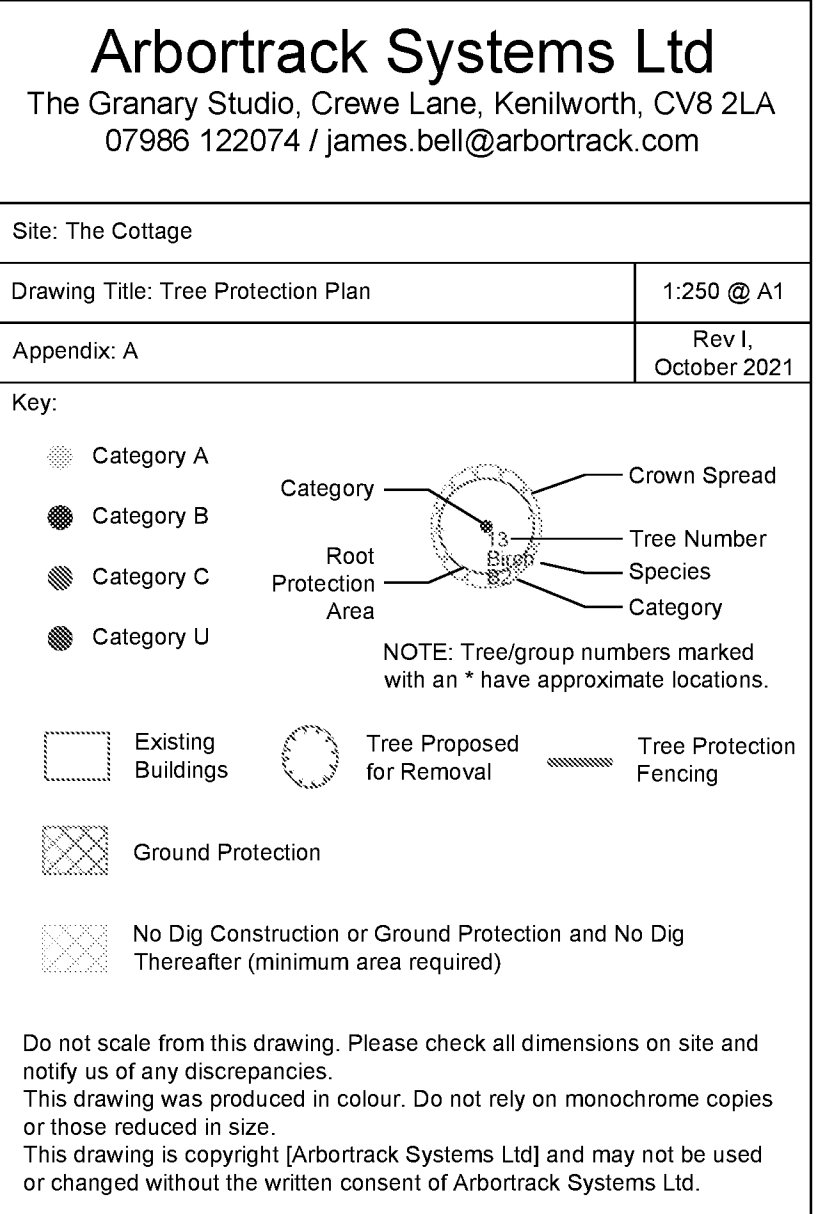
11.0 References

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|---|---|
| é | British Standards Institute. 2012. Trees in relation to design, demolition & construction-recommendations BS 5837:2012 HMSO, London. |
| é | Barlow J F & Harrison G. 1999. Shade By Trees, Arboricultural Practice Note 5, AAIS, Farnham, Surrey. |
| é | Lonsdale D 1999. Research for Amenity Trees No.7: Principles of Tree Hazard Assessment and Management, HMSO, London. |
| é | Matheny, N; Clark, J. R.1998. Trees and Development: A Technical Guide to Preservation of Trees during Land Development, International Society of Arboriculture, Champaign, IL. |
| é | Mattheck C. & Breloer H. 1994. Research for Amenity Trees No.4: The Body Language of Trees, HMSO, London. |

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Appendix A	Tree Protection Plan
Appendix B	Schedule of Trees & Recommended Tree Works
Appendix C	Protective Fencing Detail
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Site: The Cottage Shripney Road Bognor Regis

Date: 16th September 2021

Appendix B

BS5837:2012 Tree Survey Schedule

Arbortrack Systems Ltd

07986 122074

Surveyor(s): James Bell

Ref: jwmb/rpt8/thecottage/PI



Tree No	English Name	Height	Crown Spread	Ground Clearance	Stem Diameter	Protection Radius	Age Class	Growth Vitality	Structural Condition	B.S. Cat	Sub Cat	Useful Life	Comments
1	Sycamore	18	6455	1.5	550	6.6	Mature	Normal	Good	B	2	20+	Suckering from base Offsite on verge straddling boundary
2	Sycamore	15	7446	2	570	6.8	Mature	Normal	Good	B	2	20+	Power lines through crown Offsite on verge but straddling boundary
3	Plum, Purple					0.0							Removed
4	Poplar spp	25	10/8/9/9	7	900	10.8	Mature	Normal	Good	C	2	20+	Minor deadwood lower crown Included bark in main stem unions Bifurcates @ 1.4m; small multi stem bay @ base
5	Western Red Cedar	18	2.5/4/4/3.5	2	370	4.4	Early Mature	Moderate	Good	C	2	20+	Needle browning Asymmetry (minor)
5a	Western Red Cedar	9	1.5/2.5/2/2	2	210	2.5	Semi- mature	Moderate	Good	C	2	20+	Needle browning
6	Sycamore	18	7597	3	602 #	7.2	Mature	Normal	Good	B	2	20+	Remote survey: offsite

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Tree No	English Name	Height	Crown Spread	Ground Clearance	Stem Diameter	Protection Radius	Age Class	Growth Vitality	Structural Condition	B.S. Cat	Sub Cat	Useful Life	Comments
7	Holly	8	2.5	1.5	383	4.6	Early Mature	Normal	Good	C	2	20+	Bark removed by sheep; interfering with neighbouring sycamore
8	Walnut, Common	3.5	5/4/4.5/4.5	1.5	472	5.7	Early Mature	Normal	Fair	C	2	20+	Upper crown regrowing impressively after crown removal
9	Cypress, Leyland	19	4827	2.5	700 #	8.4	Mature	Normal	Good	C	2	20+	Minor deadwood Possible Coryneum canker No access to base; leaf browning
10	Cypress, Leyland	19	4472	2.5	620 #	7.4	Mature	Normal	Good	C	2	20+	Minor deadwood Possible Coryneum canker No access to base;
11a	Ash, Common	3.5	2.5/2.5/1/1	2	240	2.9	Semi-mature	Normal	Fair	C	2	10+	Early chalara Trained as espalier
11	Eucalyptus	12	8466	2	450	5.4	Early Mature	Poor	Fair	C	2	10+	Uniform marked leaf browning
12	Hawthorn, Common	8.5	4433	2.5	319 #	3.8	Mature	Normal	Fair	C	2	10+	Boundary tree New fencing limits viewing

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Tree No	English Name	Height	Crown Spread	Ground Clearance	Stem Diameter	Protection Radius	Age Class	Growth Vitality	Structural Condition	B.S. Cat	Sub Cat	Useful Life	Comments
13	Western Red Cedar	16	3232	4	550	6.6	Mature	Moderate	Poor	U			Decay in trunk Leaning to NE No obvious change since last survey; damage to boundary fence
G14	Western Red Cedar	16	4944	2	571 #	6.9	Mature	Moderate	Fair	C	2	10+	Untidy multi stem Two branches extend into site & should be removed
15	Hawthorn, Common	9	5855	2	636 #	7.6	Post-Mature	Poor	Poor	C	2	10+	Remote survey: offsite A sparser than normal canopy Dying back ongoing from last survey
16	Western Red Cedar	3.5	1211	1.5	140	1.7	Young	Normal	Good	C	1	10+	Sheep damaged bark 7m stem 2m to E same species; SD=220mm
17	Thuja spp	3	1	1.5	224	2.7	Early Mature	Normal	Fair	C	2	10+	Garden ornamental Only trunk remains as of 160921 [P]
18	Walnut, Common	10	4444	1.75	250	3.0	Semi-mature	Normal	Good	C	2	20+	Large bark wound @ 70cm on trunk; vigorous growth since last surveyl
19	Spruce spp	9	3333	1.5	280	3.4	Early Mature	Normal	Good	C	2	20+	Good growth since last survey

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BS5837:2012 Tree Survey Schedule

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07986 122074

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Tree No	English Name	Height	Crown Spread	Ground Clearance	Stem Diameter	Protection Radius	Age Class	Growth Vitality	Structural Condition	B.S. Cat	Sub Cat	Useful Life	Comments
20	Willow, Weeping	17	6777	1.5	700	8.4	Mature	Normal	Good	B	2	20+	
20a	Ash, Common	12	2424	2.5	250	3.0	Semi-mature	Normal	Good	C	2	20+	2 low quality elder & a twin stemmed ash near base
21	Western Red Cedar	12	2	3	210	2.5	Mature	Normal	Good	U	2	<10	
21b	Ash, Common	14	6646	3.5	380	4.6	Early Mature	Normal	Good	B	2	20+	Bacterial canker; removed 160921
21a	Ash, Common	12	3.5	2.5	230	2.8	Semi-mature	Normal	Good	C	2	20+	Removed 160921
22	Cypress, Monterey	22	7999	4	1303 #	15.6	Post-Mature	Poor	Poor	U		<10	Dying back (lead stem /centre) Deadwood A sparser than normal canopy; decline has continued since last survey
23	Cypress, Monterey	15	2		670	8.0	Mature	Dead	Poor	U			

Site: The Cottage Shripney Road Bognor Regis

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Appendix B

BS5837:2012 Tree Survey Schedule

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07986 122074

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Tree No	English Name	Height	Crown Spread	Ground Clearance	Stem Diameter	Protection Radius	Age Class	Growth Vitality	Structural Condition	B.S. Cat	Sub Cat	Useful Life	Comments
24	Cypress, Monterey	17	2		540	6.5	Mature	Dead	Poor	U			
25	Cypress, Monterey	14	4474	3	840	10.1	Mature	Poor	Poor	U			Leader is dead
26	Ash, Common	15	4/5/2.5/2.5	4	380	4.6	Early Mature	Moderate	Fair	C	2	10+	Minor deadwood Early chalara symptoms Multi stem hazels near base; SM ash 2m to SSE not on topo
27	Oak, English	16	5655	2	480	5.8	Early Mature	Normal	Good	B	2	>40	TPO tree; good growth since last survey
G27a	Mixed Species	6	2	1.5	250 #	3.0	Semi-mature	Moderate	Fair	C	2	10+	Small low quality cherry, horse chestnut, apple & hazel
28	Ash, Common	15	6736	3	400	4.8	Early Mature	Moderate	Fair	C	2	10+	Asymmetry (minor) Deadwood Early chalara
28a	Ash, Common	14	2.5/5/3/2.5	2	230	2.8	Semi-mature	Normal	Fair	C	2	10+	Minor deadwood Low quality plum saplings to SSE close to shed

Site: The Cottage Shripney Road Bognor Regis

Date: 16th September 2021

Appendix B

BS5837:2012 Tree Survey Schedule

Arbortrack Systems Ltd

07986 122074

Surveyor(s): James Bell

Ref: jwmb/rpt8/thecottage/PI



Tree No	English Name	Height	Crown Spread	Ground Clearance	Stem Diameter	Protection Radius	Age Class	Growth Vitality	Structural Condition	B.S. Cat	Sub Cat	Useful Life	Comments
29	Ash, Common	17	6844	3	410	4.9	Early Mature	Moderate	Fair	C	2	10+	Minor deadwood Early chalara symptoms
30	Ash, Common	16	7763	4.5	430	5.2	Early Mature	Normal	Good	C	2	10+	Asymmetry (minor) Very early chalara symptoms
31	Plum, Myrobalan	4.5	3323	1.5	330	4.0	Early Mature	Poor	Fair	C	2	10+	Topped Only trunk remains 160921 [P]
32	Ash, Common	11	6966	1.5	517 #	6.2	Early Mature	Normal	Fair	C	2	20+	Topped & reflushed Grown on quickly ; 32a & 32b = 2.3m stumps
32a	Birch, Silver	6	3221	0.5	190	2.3	Semi-mature	Moderate	Fair	C	2	10+	Topped @ 3m
32b	Birch, Silver	6	2.5	1	219	2.6	Early Mature	Moderate	Fair	C	2	10+	Topped @ 3m
33a	Sycamore	16	5382	2.5	400	4.8	Early Mature	Normal	Good	B	2	20+	Asymmetry (major) Remote survey: offsite Treat as group with 33; TPO

Site: The Cottage Shripney Road Bognor Regis

Date: 16th September 2021

Appendix B

BS5837:2012 Tree Survey Schedule

Arbortrack Systems Ltd

07986 122074

Surveyor(s): James Bell

Ref: jwmb/rpt8/thecottage/PI



Tree No	English Name	Height	Crown Spread	Ground Clearance	Stem Diameter	Protection Radius	Age Class	Growth Vitality	Structural Condition	B.S. Cat	Sub Cat	Useful Life	Comments
33	Sycamore	17	7/7/4/7	2.5	780 #	9.4	Mature	Normal	Good	B	2	20+	Asymmetry (major) Treat as group with 33a; bifurcation @ 1.75m SD = 460 & 510; trunk removed to E @ 1.5m; TPO
34	Sycamore	15	6	5	616 #	7.4	Mature	Normal	Good	B	2	20+	Ivy clad TPO
35	Sycamore	15	6546	4	673 #	8.1	Mature	Normal	Good	B	2	20+	Asymmetry (major) Ivy clad TPO
36	Cedar, Atlantic	28	10/13/11/10	2	930	11.2	Mature	Normal	Fair	A	1,2	>40	Deadwood Asymmetry (major) Storm damaged but rather fine tree; TPO tree
37	Cedar, Atlantic	28	8/9/8.5/4	2	690	8.3	Mature	Moderate	Fair	B	2	20+	Deadwood Asymmetry (major) Storm damaged but rather fine tree; TPO tree; broken branches; 60ft; broken branches; multiple woodpecker holes
38	Birch, Silver	17	6.5/5/5/6	2.5	570	6.8	Mature	Normal	Fair	C	2	10+	Topped @ 8m & reflushed; C category multiple stem 7m laburnum at base
39	Western Red Cedar	17	1.5/4/3/3	2	610	7.3	Mature	Normal	Fair	C	2	10+	Leaning (significantly)

Site: The Cottage Shripney Road Bognor Regis

Date: 16th September 2021

Appendix B

BS5837:2012 Tree Survey Schedule

Arbortrack Systems Ltd

07986 122074

Surveyor(s): James Bell

Ref: jwmb/rpt8/thecottage/PI



Tree No	English Name	Height	Crown Spread	Ground Clearance	Stem Diameter	Protection Radius	Age Class	Growth Vitality	Structural Condition	B.S. Cat	Sub Cat	Useful Life	Comments
40	Western Red Cedar	17	2.5/3/3/3	4	540	6.5	Mature	Normal	Fair	C	2	20+	Dying back (lead stem /centre) Bifurcates @ 2.75m
41	Ash, Common	22	7784	5	620	7.4	Mature	Moderate	Fair	C	2	10+	Decay at trunk base Deadwood (minor) throughout crown Ganoderma bracket @ base; FInv option
42	Cypress, Monterey	19	4964	1.5	1300 #	15.6	Post-Mature	Moderate	Poor	U		<10	Split (attached) branches Ivy clad Two branches removed @ 8/9m
43	Cypress, Monterey	21	10/12/8/8	4	1500 #	18.0	Post-Mature	Normal	Fair	C	2	10+	Minor deadwood throughout Uniform needle browning Power lines through lower crown
44	Cypress, Monterey	20	9979	5	1200 #	14.4	Post-Mature	Poor	Poor	U		<10	Large sections of crown removed
45	Ash, Common	23	7866	4	650	7.8	Mature	Moderate	Fair	C	2	10+	Daldinia on stub @ 7/8m Early chalara Lower southern crown cut back off BT lines; TPO tree; minor deadwood throughout crown
46	Cypress, Monterey	13	3844	4	550	6.6	Early Mature	Normal	Fair	C	2	>40	Asymmetry (major)

Site: The Cottage Shripney Road Bognor Regis

Date: 16th September 2021

Appendix B

BS5837:2012 Tree Survey Schedule

Arbortrack Systems Ltd

07986 122074

Surveyor(s): James Bell

Ref: jwmb/rpt8/thecottage/PI



Tree No	English Name	Height	Crown Spread	Ground Clearance	Stem Diameter	Protection Radius	Age Class	Growth Vitality	Structural Condition	B.S. Cat	Sub Cat	Useful Life	Comments
G47	Bay	7	2.5	1.5	305	3.7	Early Mature	Normal	Good	C	2	20+	3 trees in group Ganoderma @ base of one tree in grp
48	Plum, Myrobalan	7.5	4222	3	300 #	3.6	Early Mature	Moderate	Fair	C	2	10+	
49	Plum, Myrobalan	9	3	3	270 #	3.2	Early Mature	Moderate	Fair	C	2	10+	Other smaller trunks between 49 & 48
G50	Western Red Cedar	13	2.5	0.5	200 #	2.4	Semi-mature	Normal	Good	C	2	10+	A sparser than normal canopy Offsite Western red cedar & Leyland cypress
51	Sycamore	8	3243	1.5	250	3.0	Semi-mature	Normal	Fair	C	2	20+	Reflushing from topping @ 2m
52	Sycamore	11	3.5/2.5/4/2	1.5	410	4.9	Early Mature	Normal	Fair	C	2	20+	Reflushing from topping @ 1.25m
53	Sycamore	9	1232	1.5	160	1.9	Semi-mature	Normal	Good	C	2	20+	

Site: The Cottage Shripney Road Bognor Regis

Date: 16th September 2021

Appendix B

BS5837:2012 Tree Survey Schedule

Arbortrack Systems Ltd

07986 122074

Surveyor(s): James Bell

Ref: jwmb/rpt8/thecottage/PI



Tree No	English Name	Height	Crown Spread	Ground Clearance	Stem Diameter	Protection Radius	Age Class	Growth Vitality	Structural Condition	B.S. Cat	Sub Cat	Useful Life	Comments
54	Beech, Common	8	4343	1.75	190	2.3	Semi-mature	Normal	Good	C	1	>40	

Site: The Cottage Shripney Road Bognor Regis

Date: 16th September 2021

Appendix B

Recommended Tree Works

Arbortrack Systems Ltd

07986 122074

Surveyor(s): James Bell

Ref: jwmb/rpt8/thecottage/PI



Tree No	English Name	Height	Stem Diameter	Crown Spread	BS Cat	Sub Cat	Recommended Works	Comments / Reasons
4	Poplar spp	25	900	10/8/9/9	C	2	Monitor	Minor deadwood lower crown Included bark in main stem unions Bifurcates @ 1.4m; small multi stem bay @ base Recommended husbandry 3
5	Western Red Cedar	18	370	2.5/4/4/3.5	C	2	Fell	Needle browning Asymmetry (minor) To allow landscape enhancement
5a	Western Red Cedar	9	210	1.5/2.5/2/2	C	2	Fell	Needle browning To allow landscape enhancement
7	Holly	8	383	2.5	C	2	Fell	Bark removed by sheep; interfering with neighbouring sycamore To facilitate development
8	Walnut, Common	3.5	472	5/4/4.5/4.5	C	2	Fell	Upper crown regrowing impressively after crown removal To permit development

Site: The Cottage Shripney Road Bognor Regis

Date: 16th September 2021

Appendix B

Recommended Tree Works

Arbortrack Systems Ltd

07986 122074

Surveyor(s): James Bell

Ref: jwmb/rpt8/thecottage/PI



Tree No	English Name	Height	Stem Diameter	Crown Spread	BS Cat	Sub Cat	Recommended Works	Comments / Reasons
11a	Ash, Common	3.5	240	2.5/2.5/1/1	C	2	Fell	Early chalara Trained as espalier To permit development
11	Eucalyptus	12	450	8466	C	2	Fell	Uniform marked leaf browning To permit development
13	Western Red Cedar	16	550	3232	U		Fell	Decay in trunk Leaning to NE No obvious change since last survey; damage to boundary fence Recommended husbandry 2
G14	Western Red Cedar	16	571	4944	C	2	Remove	Untidy multi stem Two branches extend into site & should be removed To permit development
17	Thuja spp	3	224	1	C	2	Fell	Garden ornamental Only trunk remains as of 160921 [P] To permit development

Site: The Cottage Shripney Road Bognor Regis

Date: 16th September 2021

Appendix B

Recommended Tree Works

Arbortrack Systems Ltd

07986 122074

Surveyor(s): James Bell

Ref: jwmb/rpt8/thecottage/PI



Tree No.	English Name	Height	Stem Diameter	Crown Spread	BS Cat	Sub Cat	Recommended Works	Comments / Reasons
18	Walnut, Common	10	250	4444	C	2	Fell	Large bark wound @ 70cm on trunk; vigorous growth since last survey To permit development
19	Spruce spp	9	280	3333	C	2	Fell	Good growth since last survey To permit development
20	Willow, Weeping	17	700	6777	B	2	Fell	To permit development
21	Western Red Cedar	12	210	2	U	2	Fell	To allow landscape enhancement
22	Cypress, Monterey	22	1303	7999	U		DWD Aerial inspection to inform further works	Dying back (lead stem /centre) Deadwood A sparser than normal canopy; decline has continued since last survey Recommended husbandry 2

Site: The Cottage Shripney Road Bognor Regis

Date: 16th September 2021

Appendix B

Recommended Tree Works

Arbortrack Systems Ltd

07986 122074

Surveyor(s): James Bell

Ref: jwmb/rpt8/thecottage/PI



Tree No	English Name	Height	Stem Diameter	Crown Spread	BS Cat	Sub Cat	Recommended Works	Comments / Reasons
23	Cypress, Monterey	15	670	2	U		Fell	Recommended husbandry 2
24	Cypress, Monterey	17	540	2	U		Fell	Recommended husbandry 2
25	Cypress, Monterey	14	840	4474	U		Fell	Leader is dead Recommended husbandry 2
31	Plum, Myrobalan	4.5	330	3323	C	2	Remove	Topped Only trunk remains 160921 [P] To allow landscape enhancement
36	Cedar, Atlantic	28	930	10/13/11/10	A	1,2	DWD	Deadwood Asymmetry (major) Storm damaged but rather fine tree; TPO tree Recommended husbandry 2

Site: The Cottage Shripney Road Bognor Regis

Date: 16th September 2021

Appendix B

Recommended Tree Works

Arbortrack Systems Ltd

07986 122074

Surveyor(s): James Bell

Ref: jwmb/rpt8/thecottage/PI



Tree No	English Name	Height	Stem Diameter	Crown Spread	BS Cat	Sub Cat	Recommended Works	Comments / Reasons
37	Cedar, Atlantic	28	690	8/9/8.5/4	B	2	DWD Monitor 3 yrs	Deadwood Asymmetry (major) Storm damaged but rather fine tree; TPO tree; broken branches; 60ft; broken branches; multiple Recommended husbandry 2
38	Birch, Silver	17	570	6.5/5/5/6	C	2	Fell	Topped @ 8m & reflushed; C category multiple stem 7m laburnum at base To permit development
39	Western Red Cedar	17	610	1.5/4/3/3	C	2	Fell	Leaning (significantly) Recommended husbandry 2
40	Western Red Cedar	17	540	2.5/3/3/3	C	2	Fell	Dying back (lead stem /centre) Bifurcates @ 2.75m To permit development
41	Ash, Common	22	620	7784	C	2	Fell	Decay at trunk base Deadwood (minor) throughout crown Ganoderma bracket @ base; Flnv option To permit development

Site: The Cottage Shripney Road Bognor Regis

Date: 16th September 2021

Appendix B

Recommended Tree Works

Arbortrack Systems Ltd

07986 122074

Surveyor(s): James Bell

Ref: jwmb/rpt8/thecottage/PI



Tree No	English Name	Height	Stem Diameter	Crown Spread	BS Cat	Sub Cat	Recommended Works	Comments / Reasons
42	Cypress, Monterey	19	1300	4964	U		Fell	Split (attached) branches Ivy clad Two branches removed @ 8/9m To permit development
43	Cypress, Monterey	21	1500	10/12/8/8	C	2	Fell	Minor deadwood throughout Uniform needle browning Power lines through lower crown To permit development
44	Cypress, Monterey	20	1200	9979	U		Fell	Large sections of crown removed To permit development
45	Ash, Common	23	650	7866	C	2	Monitor	Daldinia on stub @ 7/8m Early chalara Lower southern crown cut back off BT lines; TPO tree; minor deadwood throughout crown Recommended husbandry 3
46	Cypress, Monterey	13	550	3844	C	2	Fell	Asymmetry (major) To permit development

Site: The Cottage Shripney Road Bognor Regis

Date: 16th September 2021

Appendix B

Recommended Tree Works

Arbortrack Systems Ltd

07986 122074

Surveyor(s): James Bell

Ref: jwmb/rpt8/thecottage/PI



Tree No.	English Name	Height	Stem Diameter	Crown Spread	BS Cat	Sub Cat	Recommended Works	Comments / Reasons
48	Plum, Myrobalan	7.5	300	4222	C	2	Fell	To permit development
49	Plum, Myrobalan	9	270	3	C	2	Fell	Other smaller trunks between 49 & 48 To permit development
32a	Birch, Silver	6	190	3221	C	2	Fell	Topped @ 3m To allow landscape enhancement
32b	Birch, Silver	6	219	2.5	C	2	Fell	Topped @ 3m To allow landscape enhancement
G27a	Mixed Species	6	250	2	C	2	Remove	Small low quality cherry, horse chestnut, apple & hazel To allow landscape enhancement

Appendix B

Notes on Tree Survey Schedule:

- ¿ Height describes the approximate height of the tree measured in metres from ground level.
- ¿ The Crown Spread refers to the crown radius in metres from the stem centre and is expressed as an average of N SE W aspect if symmetrical.
- ¿ Ground Clearance is the height in metres of crown clearance above adjacent ground level.
- ¿ Clear Stem Height is the distance between trunk base and first branch separation measured in metres.
- ¿ Stem Diameter is the diameter of the stem measured in millimetres at 1.5m from ground level for single stemmed trees. See section 4.6 for detail of treatment for multistems.
- ¿ Protection Radius is a radial distance in metres measured from the trunk centre.
- ¿ Growth Vitality - Normal growth, Moderate (below normal), Poor (sparse/ weak), Dead (dead or dying tree).
- ¿ Structural Condition - Good (no or only minor defects), Fair (remediable defects), Poor - Major defects present.
- ¿ B.S. Category refers to (British Standard 5837:2012 Table 1) and refers to tree/ group quality and value; 'A' - High, 'B' - Moderate, 'C' - Low, 'U' - Unsuitable for Retention.
- ¿ Sub Cat refers to the retention criteria values where 1 is mainly arboricultural qualities, 2 is mainly landscape qualities and 3 is mainly cultural values including conservation.
- ¿ Useful Life is the tree's estimated remaining contribution in years.
- ¿ First Significant Branch (FSB) is the height of the first significant branch above ground level taken at the trunk separation point.

Notes on Recommended Tree Works:

1, 2,3	Urgent (ASAP), Standard (6-12 months), Non-Urgent (2-3 years)
CB	Cut back to boundary/ clear from structure
CL#	Crown lift to given height in meters
CT#%	Crown Thinning by identified %
CCL	Crown clean (remove deadwood/ crossing & hazardous branches & stubs)
CR#%	Crown Reduce by given maximum percentage (of outermost branch & twig length)
DWD	Remove deadwood
Fell	Fell to ground level
FInv	Further Investigation (generally with decay detection equipment)
Pol	Pollard or re-pollard
Mon	Monitor ongoing condition (annually by staff/ owners & every 2-3 years by consultant). Svr Ivy/ Clr Bs Sever Ivy/ clear base and re-inspect base/ stem for concealed defects

Appendix C Tree Protective Fencing Detail (from BS5837:2012)

Figure 2 Default specification for protective barrier

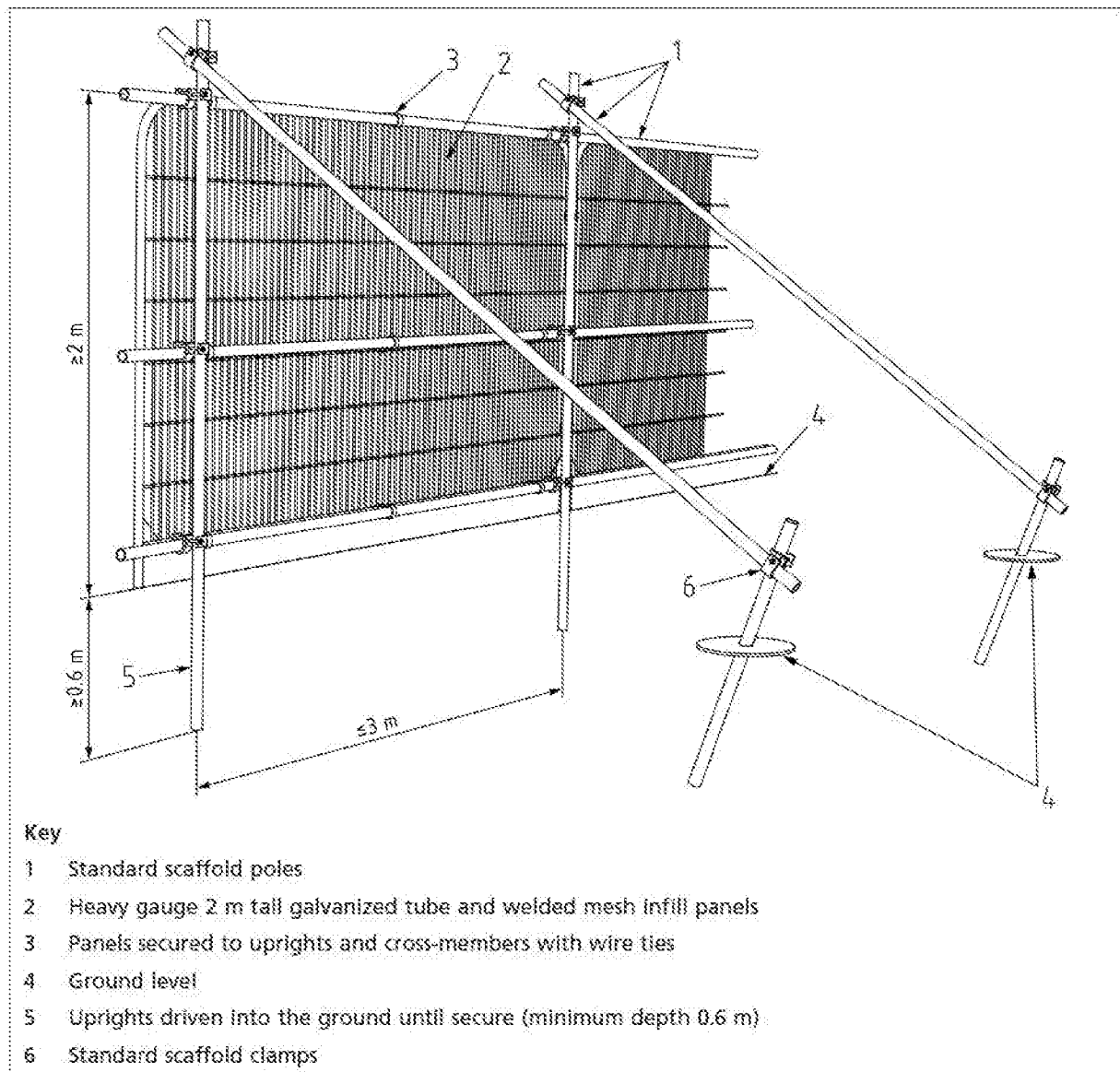
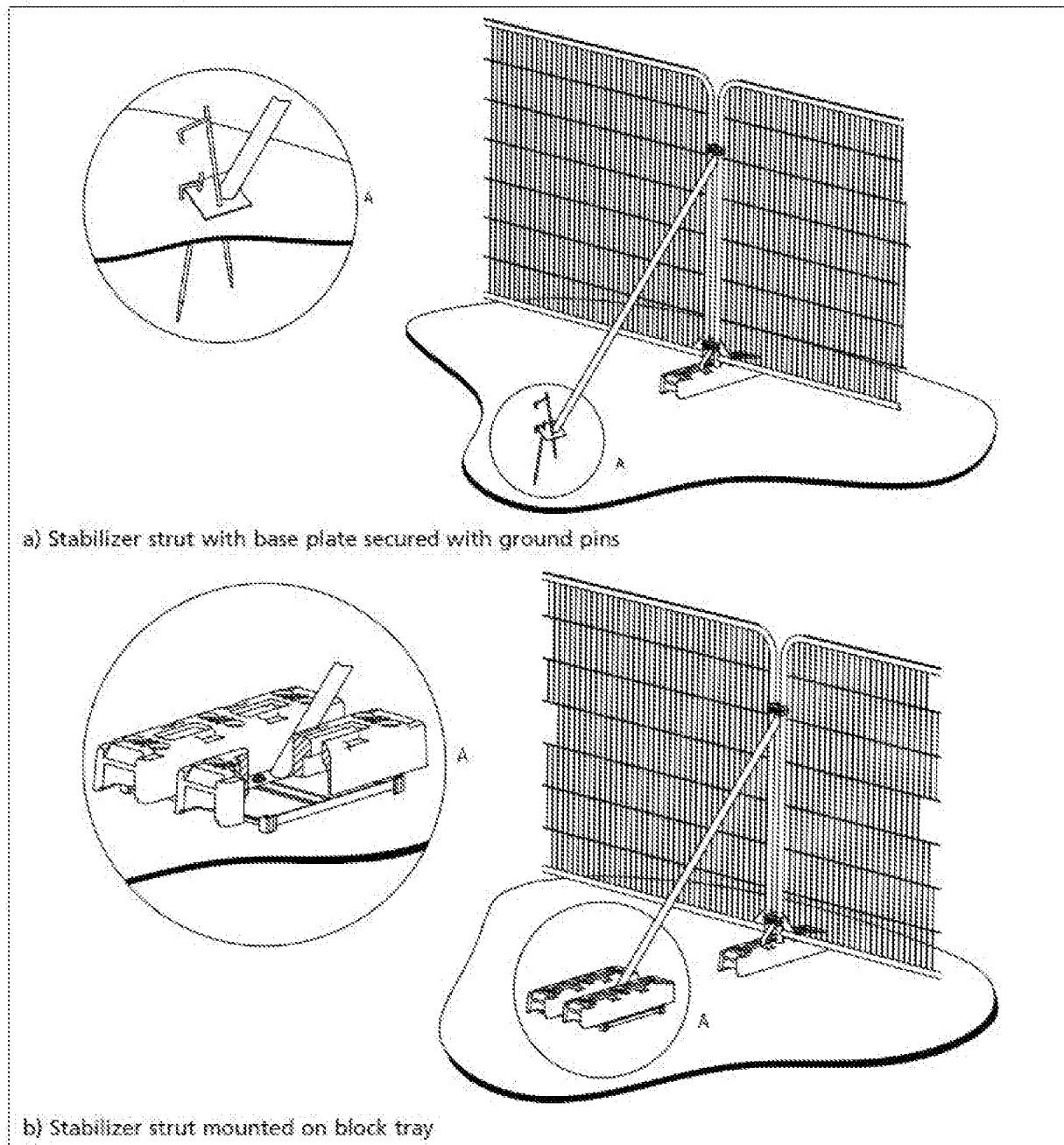
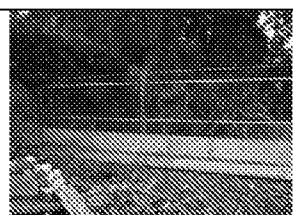
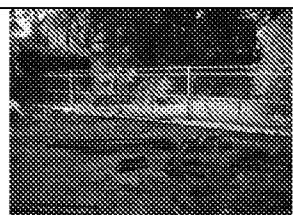
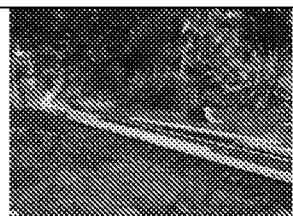
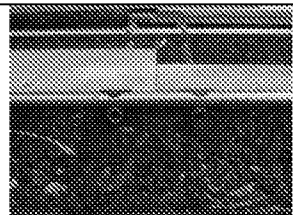
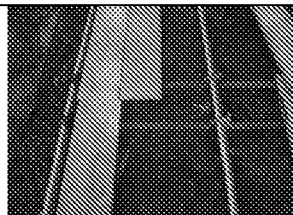


Figure 3 Examples of above-ground stabilizing systems





Illustrative example of strengthened tree RPA ground protection set forward of protective barrier.

An adaptation of BS 5837: 2005 Trees in Relation to Construction (Figure 3.)

Installation by Tree Projects 2008.



Appendix D

1.0 Glossary of Terms & Abbreviations

Canker	Disease damaged area of a tree, usually caused by fungus or bacteria.
Co-dominant Stem	A stem which has grown in direct competition to the main stem and which has formed a substantial size influencing the appearance of the tree.
Crown Lift	The removal of the lowest branches, usually to a given height. It allows more residual light and greater clearance underneath for vehicles etc.
Crown reduce	The reduction of a tree's height or spread while preserving its natural shape.
Crown thin	The removal of some of the density of a tree's crown, usually 5-25% allowing more light through its canopy and reducing wind resistance.
Deadwood	The removal of all dead, dying and diseased branches from a tree. Also, wood which is dead.
Dieback	Where branches are beginning to show signs of death usually at the tips in the crown.
Epicormic shoots	Small branches that grow in uncharacteristic clusters around the base or the stem of a tree, usually as a result of bad pruning or some other stress factor.
Formative pruning	The trimming of a tree to remove weaknesses and irregularities which may lead to problems. The formative pruning operation is aimed at reducing the potential for future weaknesses or problems within the tree's crown.
Included bark	Where the bark on two adjoining branches or stems is growing tight together, forming a joint with limited physical strength.
Pollarding	A method of tree management in which the main trunk of the tree is cut at about 4m, and the resulting branches are then cropped on a regular basis.
Remedial pruning	The removal of old stubs, deadwood, epicormic growth, rubbing or crossing branches and other unwanted items from the tree's crown. Sometimes referred to as crown cleaning.
Topping	Topping is a form of pruning that removes terminal growth leaving a 'stub' cut end. Topping causes serious health problems to a tree.

2.0 General Guidelines

- 2.1 All work must be to BS 3998:2010 – Tree work-Recommendations
- 2.2 Staff carrying out the work must be qualified, experienced and ideally be Arboricultural Association approved contractors, and should be covered by adequate public liability insurance.
- 2.3 Any defects seen by a contractor or the client that were not apparent to the consultant must be brought to the consultant's attention immediately.
- 2.4 No liability can be accepted by the consultant in respect of the trees unless the recommendations of this method statement are carried out under the supervision of the designated arboriculturist.
- 2.5 It is advisable to have trees inspected by designated arboriculturist regularly. On this site it is recommended that these inspections are made every year.

Appendix E

'No Dig' Construction-Guidance Notes

- ¿ Install F4M Geotextile Separation Fabric over cleared levelled ground surface N.B. ensure that existing material is carefully removed and levels altered minimally: infill with salt free sharp sand where necessary.
- ¿ The cellular confinement system (e.g.1 x 100 mm 'ProtectaWeb' (or equivalent) cellular confinement system subject to site requirements & manufacturer's recommendations) is then laid on the membrane and adjacent panels are stapled together. Place staking pins to maintain 'ProtectaWeb' cells open.
- ¿ Panels are then backfilled with 100mm depth of no-fines 20-40mm particle size stone (clean granular fill).
- ¿ The construction should ideally be undertaken between May and October when the ground is sufficiently dry to prevent compaction occurring. The sub-base should be flat, that is to say any small hollows should be filled with sharp sand to bring up to surrounding levels.
- ¿ The geotextile should be laid out and not trafficked across at any time.
- ¿ The 'ProtectaWeb' confinement system should be laid out and worked on as the contractor progresses across the length of the area. The panels are sequentially filled with the no-fines aggregate, each serving as a platform for the next section.
- ¿ There is no need at any time for the ground to be crossed by heavy traffic. The particles/ gravel pieces are transported from the on site storage area over the freshly-laid confinement system BY WHEELBARROW and installed BY HAND. There will be no trespass on to the root protection area beyond the installation of the confinement system itself.
- ¿ The infill can then be rolled to compact the particles and create a tight interlock across the cells. The finished surface can then be laid on top. Again no fines material to be used: porous tarmac is recommended for this site given the level changes that are required.
- ¿ New kerb lines may be cast into the ProtectaWeb cells.
- ¿ During the main construction phase a wearing course should be placed over the 'Protectaweb' system.
- ¿ For technical data on the ProtectaWeb system always refer to the manufactures guidelines for design and implementation.

Further technical advice can be gained from the manufacturer(s): Wrekin Products
www.wrekinproducts.com. Contact Roy Partington on 0 [REDACTED]

Appendix F

Method Statement for the uptake of hard surfacing near to trees

1/. The uptake of the existing surfacing should be carried out from outside the root protection area (RPA) whenever possible and from within the footprint of the existing surfacing or building where within the RPA of the tree(s).

2/. The excavation of the material must not extend into the soil underneath. In practical terms the bucket of the excavator must be used so that the teeth are horizontal in order that disturbance of the underlying soil is kept to an absolute minimum.

3/. The rubble must not be stockpiled within the RPA of the tree and must be exported without crossing the RPA.

4/. Due care and planning must be taken to ensure that the operational arcs of excavators do not damage the crowns of retained trees.

5/. Where new surfacing is to be installed, if the depth of the old surface is insufficient, the wearing surface may need to be higher than existing in order to accommodate the appropriate thickness. There may be a requirement for a geo-textile membrane to be laid on the soil surface, but this is an engineering matter dependent on soil type. The separation is beneficial to root development.

6/. Where the old surface is taken up and not replaced the infill should be of good quality topsoil laid without compaction.



Arbortrack Systems Ltd

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Site: The Cottage

Drawing Title: Planting Plan

Appendix: G

1:250 @ A1

October 2021

Key:

Category A

Category B

Category C

Category U

Category

Root Protection Area

Tree Number

Species

Category

Crown Spread

Proposed Planting

NOTE: Tree/group numbers marked with an * have approximate locations.

Do not scale from this drawing. Please check all dimensions on site and notify us of any discrepancies.

This drawing was produced in colour. Do not rely on monochrome copies or those reduced in size.

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ARUN DISTRICT COUNCIL BE17621P/L