



Spurr House, Bury

Arboricultural Survey

For Bury Council

Project No.: GAR001-003

November 2022

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1. Summary	5
2. Introduction	6
2.1 Development Background	6
2.2 Brief and Objectives	6
2.3 Limitations	6
3. Methodology	8
3.1 Desk Study	8
3.2 Tree Survey	8
4. Results	12
4.1 Desk Study	12
4.2 Tree Survey	12
5. Recommendations	13
5.1 General Tree Retention Guidance	13
5.2 Site Specific Guidance	13
5.3 Tree Protection	13
5.4 General Recommendations	14
6. Bibliography	15
Appendix 1 - Tree Schedule	16
Appendix 2 - Table of Quality Assessment	21
Appendix 4 - Example of Protective Fencing	23

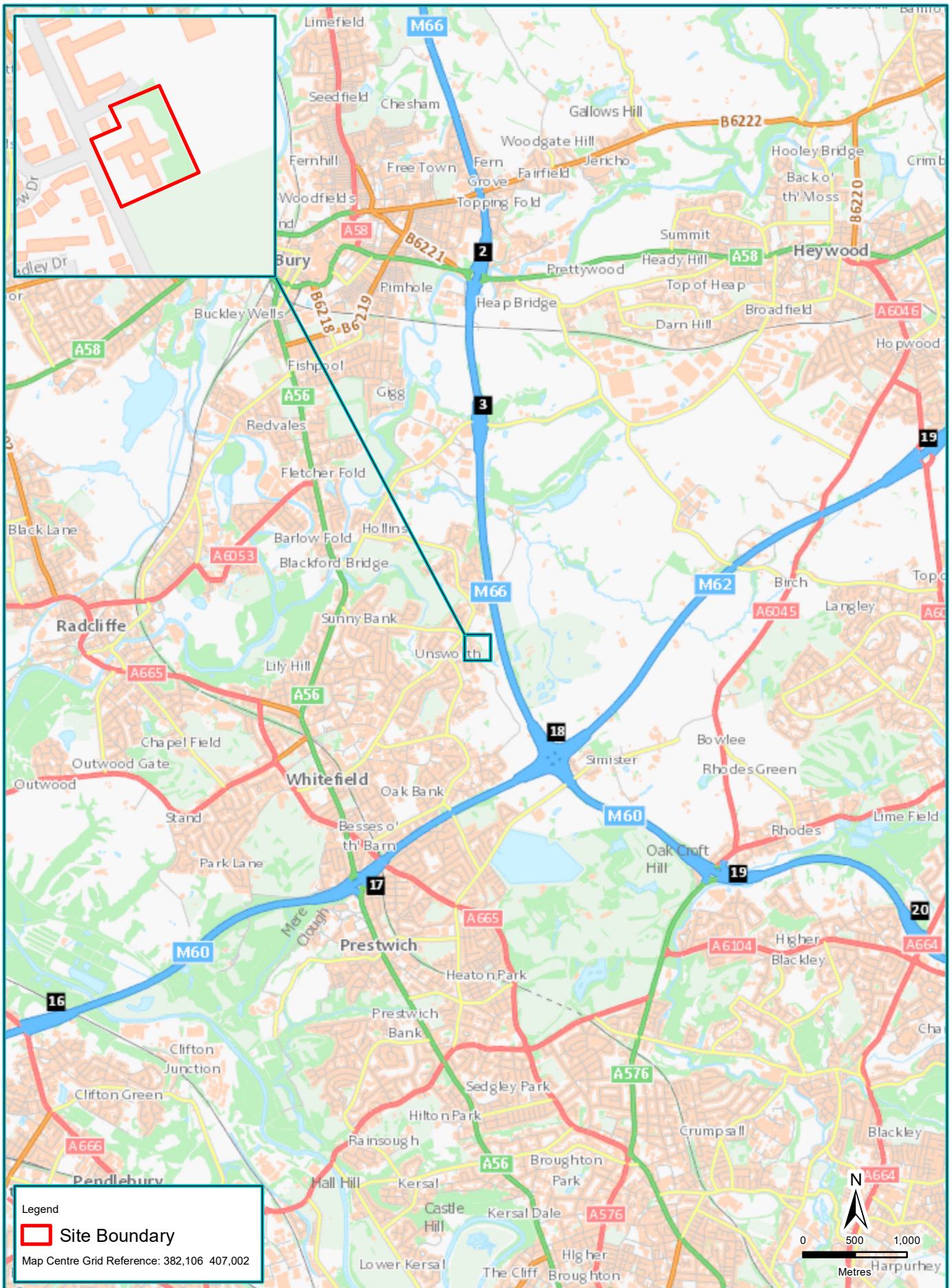
FIGURE 1: SITE LOCATION

FIGURE 2: TREE CONSTRAINTS PLAN (TCP01)

1. Summary

- 1.1.1 Bury Council commissioned Thomson Environmental Consultants to undertake an arboricultural survey of trees within and adjacent to Spurr House, Bury, BL9 8QL. The arboricultural survey was carried out in accordance with BS5837:2012 '*Trees in Relation to Design, Demolition and Construction - Recommendations*' (BS5837:2012).
- 1.1.2 All trees were categorised in accordance with the cascade chart for tree quality assessment in BS5837:2012 (see Appendix 2). Trees were given a ranking of A, B or C in descending order of value and assigned one or more subcategories qualifying the basis of that value as either arboricultural, landscape or cultural. Trees with only short-term remaining value or that require immediate removal for safety or management reasons are given a U rating.
- 1.1.3 A total of 30 individual trees and 14 groups of trees were recorded during the survey, details of which are listed in the Tree Schedule. The surveyor recorded 0 Category A tree features, 7 Category B individual trees, 5 Category B groups of trees, 20 Category C individual trees, 9 Category C groups of trees and 3 Category U individual trees located within or adjacent to the site (see Figure 2).
- 1.1.4 Category A, B and C trees represent a material consideration to development. Concerted effort should be made to retain A and B category trees within the development. While Category C trees should be retained where possible, they should not be retained where they would present a serious constraint to development.
- 1.1.5 In order to meet the requirements of the Local Planning Authority, an Arboricultural Impact Assessment and Arboricultural Method Statement should be undertaken once detailed plans of the proposed development are available.

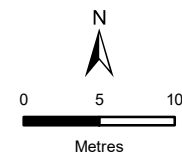
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Figure Number	1		Scale at A4	1:50,000	
Figure Title	Site Location		Drawn	KC	Checked AS
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- Legend
- Tree Stem Location
 - Tree Canopy Extent
 - Root Protection Area of Category 'B' Tree
 - Root Protection Area of Category 'C' Tree
 - Root Protection Area of Category 'U' Tree
 - Site Boundary

Map Centre Grid Reference: 382,100 407,004

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This map has been drawn at a sufficient level of accuracy to fulfil the requirements of an Arboricultural survey. The level of accuracy depends on both the size of the area involved, GPS accuracy and the detail of topographic mapping. Every effort has been made to create a map that is as accurate as possible. However, this map is not intended to represent a scaled landscape survey so should not be used to pin-point accurate engineering work or as a basis for detailed site planning where an accurate topographical survey has not been provided to help inform the arboricultural survey.

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Scale at A3
1:500

Drawn KC	Checked AS
Date 20/12/2022	Date 20/12/2022

Client
Bury Council

Figure Number
2

Figure Title
Tree Constraints Plan
(TCP01)

2. Introduction

2.1 Development Background

2.1.1 Bury Council are involved with development proposals at Spurr House, Bury and instructed Thomson Environmental Consultants Ltd to carry out an arboricultural survey of the site to inform development proposals by identifying any tree related constraints. These proposals are hereafter referred to as 'the development'.

2.1.2 The site is located on an approximately a 0.5 hectare area of land (grid reference SD820070), shown on Figure 1. The area affected by the development is hereafter referred to as 'the site'.

2.1.3 There are a number of trees within the site and adjacent to the site boundary that may be affected by future development proposals.

2.2 Brief and Objectives

2.2.1 Bury Council commissioned Thomson Environmental Consultants to complete an arboricultural survey and report of the site.

2.2.2 The objective of the survey and report was to assess the condition of the existing trees on site and any off-site trees that might be affected by future development, providing sufficient information to enable decisions to be made on potential design layout and tree retention for the proposed development. The brief was to complete:

- An Arboricultural Survey of trees within or immediately adjacent to the site, in line with BS5837:2012;
- A desktop exercise to determine whether trees on site are subject to a Tree Preservation Order or are covered by Conservation Area restrictions; and
- An Arboricultural Report detailing our survey methods, results and recommendations, including the Tree Schedule and Tree Constraints Plan, which should be used to inform feasibility studies and design options at an early stage.

2.2.3 This report details the methods and results of the tree survey and provides the Tree Schedule and Tree Constraints Plan.

2.3 Limitations

2.3.1 The information provided within this report and in the accompanying Tree Schedule covers only those trees that were inspected and their condition at the time of survey.

2.3.2 A full hazard assessment has not been made and therefore no guarantee is given as to the structural integrity of any of the trees on site.

-
- 2.3.3** Where trees were clad in ivy (*Hedera helix*), or where dense epicormic growth or dense underplanting obscured the main stem, this was recorded in the Tree Schedule. The inspection of such trees is impeded and as such a further inspection may be required following the removal of the obstruction. The retention categories of such trees should be considered as provisional only.
- 2.3.4** Measurements for off-site trees have been estimated and therefore may not fully represent the related constraints.
- 2.3.5** Whilst this report makes general observations on the long-term potential of the trees surveyed, trees are dynamic organisms and subject to continual change, thus this report should not be relied upon for the purposes of development for more than 12 months from the date of survey.

3. Methodology

3.1 Desk Study

- 3.1.1 Records of Tree Preservation Orders (TPOs) and Conservation Areas within or adjacent to the site were sought using Bury Metropolitan Borough Council's interactive mapping software.

3.2 Tree Survey

- 3.2.1 All significant trees at the site were assessed for their potential to be affected by the development proposals. Significant trees are defined as those with a trunk diameter of greater than 75mm at 1.5m above ground level according to the survey methodology outlined in BS5837:2012. Off-site or third-party trees have been included where it is likely they would influence the development.
- 3.2.2 The trees surveyed were inspected from ground level only and no internal investigations were undertaken.
- 3.2.3 Trees were categorised as single trees or those that formed part of a distinct group such as a woodland or hedgerow. Groups can be defined as cohesive arboricultural features, either aerodynamically (for example, companion shelter), visually or culturally including for biodiversity (BS5837:2012). The information recorded for each tree can be seen in Table 1.

Table 1: Information recorded for each tree during survey

Attribute	Description
Tree No.	Numerical reference given in sequential order starting at number '1', corresponding with the numbers as set out in Figure 2; trees are given the prefix 'T', groups 'G', woodlands 'W' and hedgerows 'H'.
Species	The common names are based upon on site identification and expressed according to <i>Tree Guide</i> (Johnson & More, 2004).
Height	Measured approximately from ground level with the aid of a clinometer and shown in metres (m).
Stem Diameter	Diameter measured at approximately 1.5m above ground level. In the case of multi-stemmed trees, measurement is taken of each stem at 1.5m, where there are two to five stems; or a mean stem diameter at 1.5m, where there are more than five stems. Given in millimetres (mm).
Canopy Spread	Maximum branch spread measured in metres from the centre of the trunk in the direction of the four cardinal points of the compass (or an average can be given if branches demonstrate an even spread).
Crown Clearance	Height above ground level of the first significant branch and direction of growth, and the height above ground level of the overall canopy.

Attribute	Description
Age Class	• Young - less than one-third natural life span spent; • Middle-aged - between one-third and two-thirds natural life span spent; • Mature - greater than two-thirds life span completed; • Over-mature - mature, and in an overall state of decline; • Veteran - surviving beyond the typical age range for the species with a high value in terms of conservation and amenity.
Physiological Condition	Overall health, condition and function of the tree in comparison to a 'normal' example of the species of a similar age; e.g. 'good', 'fair', 'poor' or 'dead'. If deemed necessary, these gradings may be elaborated upon in the 'Comments' section.
Structural Condition	The overall structural condition of the tree including the roots, butt, trunk, limbs and their unions, and the presence of any structural defects, decay or pathological defects. • Good - no significant visible structural defects with a form typical for the species; • Fair - a specimen with only minor defects that are easily remedied or of no long term significance; • Poor - significant and irremediable physiological or structural defects that may lead to early or premature decline; • Hazardous - significant structural defects of such a degree that there is a risk of imminent collapse or failure. If deemed necessary, these gradings may be elaborated upon in the 'Comments' section.
Comments	Comments have been made, where appropriate, relating to location, health and condition, structure and form, estimated life expectancy, conservation value and amenity value within the local landscape.
Preliminary Management Recommendations	Tree work that should be undertaken for good arboricultural management, regardless of the requirements of the development.
Estimated Remaining Contribution	The estimated time, in years, that the tree will provide a safe contribution to the site (i.e. <10, 10+, 20+ and >40).

Quality Assessment

- 3.2.4** During the survey, the trees were assessed qualitatively, categorising the quality and value of the trees based on arboricultural, landscape and cultural (including conservation) features. Each tree was then placed into one of four categories. The four categories can be seen in Table 2. Definitions for these categories can be found in Appendix 2.

Table 1: Quality assessment categories

Category	Description
Category U	Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.
Category A	Trees of high quality with an estimated life expectancy of at least 40 years.
Category B	Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.
Category C	Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.

3.2.5 Trees categorised as either A, B or C, were also allocated up to three subcategories. The subcategories chosen for each tree are dependent on the main reasons for selection of the particular category grading. The three subcategories are as follows:

1. Category grading based on mainly arboricultural qualities;
2. Category grading based on mainly landscape qualities; and
3. Category grading based on mainly cultural values, including conservation.

Root Protection Areas (RPAs)

3.2.6 Trees that are selected for retention on the site could be at risk of damage during construction, such as root damage during excavations for foundations or services, or any ground-working for landscaping. Further impacts on the trees may potentially result from vehicle movements and materials storage, including root severance, compaction of the soil and exclusion of air and water to the soil. The risk of tree damage is minimised if construction activities are planned to avoid the roots of trees.

3.2.7 The area of ground adjacent to each tree or group of trees that contains the majority of the roots can be calculated using the equation provided in the BS5837:2012. This Root Protection Area (RPA) is a radius around the tree of 12 times the stem diameter for a single stem. For multi-stemmed trees of two to five stems and greater than five stems, the cumulative stem diameters to be multiplied by 12, are calculated as per the equations in Table 3.

Table 3: Equations for the calculation of the RPA of multi-stemmed trees

Number of stems	Equation
Two to five	$\sqrt{((\text{stem diameter } 1)^2 + (\text{stem diameter } 2)^2 \dots + (\text{stem diameter } 5)^2)}$
More than five	$\sqrt{(\text{mean stem diameter})^2 \times \text{number of stems}}$

- 3.2.8** The RPA for each tree in the Tree Schedule has been calculated and, where relevant, has been adjusted to take into account site conditions. For example, when a tree is growing in a confined root space adjacent to an existing building or other solid structure that would restrict root growth in that direction, the RPA has been adjusted accordingly (see Figure 2).
- 3.2.9** The RPA for tree groups is calculated using the stem diameter of the largest tree within the group. The RPA radius is calculated as per Section 3.2.7 and then used to define the RPA by following the outline of the group's extent.
- 3.2.10** Where the calculated RPA exceeds 707m², it has been capped at this figure, as per BS5837:2012. This is equivalent to a circle with a radius of 15m or a square with approximately 26m sides.

Date of Survey

- 3.2.11** The site was visited and the survey undertaken on 17th November 2022 by Arboricultural Consultant Robert Armitage BSc (Hons), MArborA.

Weather Conditions

- 3.2.12** At the time of survey, it was raining heavily with a strong wind. Deciduous trees had begun to shed leaves.

4. Results

4.1 Desk Study

4.1.1 Checks made using Bury Metropolitan Borough Council's interactive mapping software on 21st November 2022 confirmed that no trees surveyed as part of this report are subject to any Tree Preservation Orders and the site is not located within a Conservation Area.

4.1.2 However, before any works to trees within the site are carried out, those proposing to carry out the works should satisfy themselves that all appropriate consents are in place to avoid any potential breach of legislation.

4.2 Tree Survey

4.2.1 A total of 30 significant individual trees and 14 groups of trees were recorded during the survey, a breakdown of categories can be found in Table 4. The locations of all trees, RPAs, retention categories and reference numbers are shown on Figure 2. A detailed description of each tree is given in the Tree Schedule in Appendix 1.

Table 2: Number of significant trees allocated to each retention category.

Tree Category	Number of Trees	Tree Numbers	Number of Groups	Group numbers	Total
A	0	-	0	-	0
B	7	T01, T07, T10, T11 T15, T20, T21	5	G06, G08, G09, G11 G12	12
C	20	T02, T03, T04, T05 T08, T09, T12, T13, T14, T16, T17, T18, T19, T22, T23 T25, T26, T28, T29, T30	9	G01, G02, G03, G04 G05, G07, G10, G13 G14	29
U	3	T06, T24, T27	0	-	3
Total	30		14		44

Root Protection Areas (RPAs)

4.2.2 The RPAs for the trees and groups surveyed can be seen in Figure 2. The actual RPAs, in m², for the individual trees surveyed are shown in Appendix 1.

5. Recommendations

5.1 General Tree Retention Guidance

- 5.1.1** All trees on site should be considered for retention where possible, with the greatest consideration given to Category A trees and then B trees where these specimens occur, and finally Category C trees. However, the retention of Category C trees should not be at the expense of an efficient design. Category U trees are recommended for removal for sound arboricultural reasons. Where trees of any category are on adjacent land, and removal is required for the development, permission must be sought from the landowner before any works can be undertaken.

5.2 Site Specific Guidance

- 5.2.1** Category A trees are high quality trees worthy of retention. They are excellent examples of typical form for their species and removal of these trees would adversely affect the amenity value of the local landscape. However, in this instance, no Category 'A' tree features were recorded during the survey.
- 5.2.2** Category B trees are also in good condition and are important features within the locality. Loss of these trees would adversely affect the landscape and reduce the canopy cover in the area. Category 'B' tree features are shown with a blue root protection area on the attached Tree Constraints Plan at Figure 2. Category 'B' tree features are shown with a blue root protection area on the attached Tree Constraints Plan at Figure 2.
- 5.2.3** Category C trees could be a constraint to any future development and removal or some or all of the trees may be necessary if the site is to be developed. Whilst the loss of these Category C trees will have an impact on the arboricultural value of the site, it will provide an opportunity to plant suitable species of a better quality with a longer useful life expectancy. Over time, this will increase the arboricultural and landscape value of the site and the impact of the tree losses will be negated. Category 'C' tree features are shown with a grey root protection area on the attached Tree Constraints Plan at Figure 2.
- 5.2.4** Category U trees T06, T24 and T27 are recommended for removal due to them having less than 10 years useful life expectancy.

5.3 Tree Protection

- 5.3.1** For those trees selected to be retained as part of the redevelopment, it will be necessary to maintain Construction Exclusion Zones (CEZs) during the construction phase. The purpose of CEZs is to prevent damage to the tree roots from severance, compaction of the soil, or exclusion of air and water to the soil.
- 5.3.2** The CEZ should cover the area around the RPAs of all trees at the site that are not directly affected by the works. The CEZ should be maintained by suitable stout fencing (see Appendix 3) and identified by marking with suitable notices (see Appendix 5) or adequate ground protection suitable to withstand any likely loading. The fencing should be fit for the purpose of excluding construction activity and remain rigid and complete throughout the duration of the works. If the ground protection is intended for pedestrian movements, a single thickness of scaffold boards on

top of a compressible layer laid onto a geotextile may be acceptable; however, if intended for wheeled or tracked construction traffic, the ground protection should be designed by an engineer.

5.3.3 Where CEZs overlap with existing areas of tarmac, restricted working may be allowed and may not require protection by fencing. Such areas should, however, be clearly identified as restricted working areas within the CEZ by markings on the ground and notices. Within restricted working areas in CEZs, construction activities should be limited to surfacing works only. Strictly no digging should be allowed within these areas, except in cases where root-sensitive excavation techniques have been recommended in an Arboricultural Method Statement.

5.3.4 An adequate water and air supply to roots should be provided for all trees both during and after construction. This should include preventing impermeable surfacing from being allowed to cover more than 20% of the RPA.

5.4 General Recommendations

5.4.1 The following points are made as general recommendations:

- Building lines should be kept outside the RPA where possible. Limited use of RPAs may be made for parking, drives or hard surfaces, subject to advice from a qualified arboriculturist;
- Wherever possible, service runs should be routed outside the RPAs. If this is not possible, they should be kept together and trenchless techniques should be used. At all times where services pass within an RPA, detailed plans showing the proposed routing should be drawn up in conjunction with an arboriculturist.
- On residential developments consideration must be given to future tree growth and orientation (BS5837:2012), i.e., adverse shading and blocked views from windows, which may lead to pressure to fell or remove trees in the future. Wherever possible, the windows of primary rooms should be orientated to avoid any potential conflict with tree canopies;
- A full ecological survey should be undertaken in order to determine the presence of any protected species; and
- An Arboricultural Impact Assessment and Arboricultural Method Statement should be produced once detailed plans for the development are available.

6. Bibliography

- 6.1.1 British Standards Institution (2012) BS5837:2012 *Trees in Relation to Design, Demolition and Construction - Recommendations*. BSI, London.
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- 6.1.10 Patch, D. & Holding, B. (2007) Arboricultural Practice Note 12: *Through the Trees to Development*. London: AAIS.
- 6.1.11 Robertson, J, Jackson, N & Smith, M (2006) *Tree Roots in the Built Environment*. The Stationery Office, London.
- 6.1.12 Rose, B. (2020) Guidance Note 12: *The use of cellular confinement systems near trees. A guide to good practice*. The Arboricultural Association.

Appendix 1 - Tree Schedule

Tree/ Group No	Species	Height (m)	Stem diameter (mm)	N	E	S	W	Height of lowest limb and direction	Crown clearance (m)	Age class	Estimated remaining contribution (years)	Physiological condition	Structural condition	Comments	Preliminary management recommendations	BS category	RPA radius (m)
T01	Lawson's cypress; <i>Chamaecyparis lawsoniana</i>	11	450.00	1	1	1	1	1 N	1	Early mature	20+	Fair	Fair	Developing bark inclusion at approximately 1.5m. Some landscape importance along adjacent road.	None.	B 2	5.40
T02	Swedish whitebeam; <i>Sorbus intermedia</i>	5	190.00	2	3	1	1	1 W	2	Semi- mature	10+	Poor	Poor	Main leader snapped out. Appears in relatively poor condition.	None.	C 1	2.28
T03	Swedish whitebeam; <i>Sorbus intermedia</i>	5	190.00	2	2	2	2	2 N	1	Semi- mature	10+	Fair	Fair	Some damage to lower stem. Not a particularly important tree.	None.	C 2	2.28
T04	field maple; <i>Acer campestre</i>	9	200.00	3	3	3	3	2 S	4	Semi- mature	20+	Fair	Fair	Diameter of stem estimated. Tree located immediately adjacent to assumed site boundary fence.	None.	C 2	2.40
T05	silver birch; <i>Betula pendula</i>	10	300.00	3	3	3	3	2 W	1	Semi- mature	20+	Good	Good	Developing well. Balanced canopy. Good vitality.	None.	C 2	3.60
T06	silver birch; <i>Betula pendula</i>	10	380.00	4	4	4	4	2 S	4	Early mature	<10	Poor	Poor	Evident reduction in canopy vitality and small diameter dead wood throughout. Fungal fruiting bodies of <i>Piptoporus betulinus</i> on lower stem.	Remove due to limited remaining life expectancy.	U	4.56
T07	silver birch; <i>Betula pendula</i>	12	400.00	5	5	5	5	3 W	2	Early mature	20+	Good	Good	Important landscape feature along adjacent road.	None.	B 2	4.80
T08	Lawson's cypress; <i>Chamaecyparis lawsoniana</i>	11	340.00	1	1	1	1	2 N	1	Early mature	20+	Good	Good	Typical conical form for species. Not particularly important.	None.	C 2	4.08

T09	silver birch; Betula pendula	13	410.00	2	4	5	4	2 S	2	Early mature	20+	Good	Good	Developing a slight canopy bias away from adjacent trees.	None.	C 2	4.92
T10	silver birch; Betula pendula	18	480.00	6	6	6	6	3 S	3	Early mature	20+	Good	Good	Prominent landscape feature with no evident significant structural defects or signs of ill health. Some minor strimmer damage to base. Tree leans slightly East.	None.	B 2	5.76
T11	silver birch; Betula pendula	11	420.00	4	4	4	4	2 W	2	Early mature	20+	Good	Good	Good example of species forming an important feature along adjacent road.	None.	B 2	5.04
T12	silver birch; Betula pendula	9	170.00	2	2	2	2	3 W	1	Young	20+	Fair	Fair	Two main stems, one leaning on ground.	None.	C 1	2.90
T13	silver birch; Betula pendula	13	310.00	5	3	3	5	3 W	3	Early mature	20+	Good	Good	Slight canopy bias away from trees to East. Some strimmer damage to base.	None.	C 2	3.72
T14	goat willow; Salix caprea	4	90.00	2	2	2	2	2 S	2	Young	20+	Fair	Fair	Low value self seeded goat willow on-site.	None.	C 2	1.08
T15	crack willow; Salix fragilis	20	600.00	4	1	7	7	2 S	3	Mature	40+	Good	Good	One of the larger trees on site. Lower stem becoming Ivy colonised. Dense bramble understorey. Canopy bias away from adjacent willow.	None.	B 2	7.20
T16	crack willow; Salix fragilis	18	550.00	3	2	2	2	10 S	13	Mature	20+	Fair	Fair	Diameter of stem estimated. Somewhat fastigate, etiolated form.	None.	C 2	6.60
T17	wild cherry; Prunus avium	6	280.00	1	3	8	3	2 S	0	Semi-mature	20+	Fair	Fair	Significant canopy biased South. Not a particularly good example of species.	None.	C 2	3.36
T18	wild cherry; Prunus avium	8	150.00	2	1	3	1	3 S	4	Young	20+	Fair	Fair	Low value self seeded with canopy bias.	None.	C 2	1.80

T19	crack willow; <i>Salix fragilis</i>	19	350.00	4	3	3	7	5 W	3	Early mature	20+	Fair	Fair	One of a larger group of self seeded willows. Ground drops off by approximately 1.5m.	None.	C 2	7.42
T20	crack willow; <i>Salix fragilis</i>	18	350.00	5	9	6	10	4 W	3	Early mature	20+	Fair	Fair	Multi stemmed willow. Canopy can be suitably lifted to 5m by removing two to secondary branches back to main stem.	None.	B 2	7.27
T21	crack willow; <i>Salix fragilis</i>	19	613.33	6	11	11	11	4 W	5	Mature	20+	Fair	Fair	Some medium diameter dead wood in lower canopy. Ivy beginning to colonise main stems.	None.	B 2	12.76
T22	wild cherry; <i>Prunus avium</i>	3	100.00	1	2	1	3	1 N	1	Semi-mature	<10	Poor	Poor	Low value cherry with significant damage to main stem.	None.	C 1	1.20
T23	Swedish whitebeam; <i>Sorbus intermedia</i>	4	60.00	3	1	1	1	2 N	2	Young	<10	Fair	Fair	Low-value tree.	None.	C 1	1.25
T24	crack willow; <i>Salix fragilis</i>	15	450.00	7	1	2	4	2 N	4	Mature	10+	Poor	Poor	Canopy appears in decline at a number of branch tips. Some fungal fruiting bodies on lower stem.	Remove due to limited remaining life expectancy.	U	7.64
T25	wild cherry; <i>Prunus avium</i>	5	200.00	5	4	2	4	2 N	1	Semi-mature	20+	Fair	Fair	Stem diameters estimated. Not a particularly good example of species.	None.	C 2	3.39
T26	silver birch; <i>Betula pendula</i>	12	360.00	6	4	1	4	2 W	1	Early mature	10+	Fair	Fair	Significant canopy bias to North. Some small diameter dead wood.	None.	C 2	4.32
T27	silver birch; <i>Betula pendula</i>	9	300.00	1	2	2	3	3 W	2	Early mature	<10	Poor	Poor	Piptoporous fungal fruiting body on main stem.	Remove due to limited remaining life expectancy.	U	3.60
T28	silver birch; <i>Betula pendula</i>	8	90.00	2	2	2	2	2 N	1	Young	20+	Fair	Fair	Low-value self seeded tree.	None.	C 1	1.08
T29	field maple; <i>Acer campestre</i>	7	250.00	3	3	3	3	2 N	3	Semi-mature	20+	Fair	Fair	Low value tree located immediately adjacent site boundary.	None.	C 2	3.00

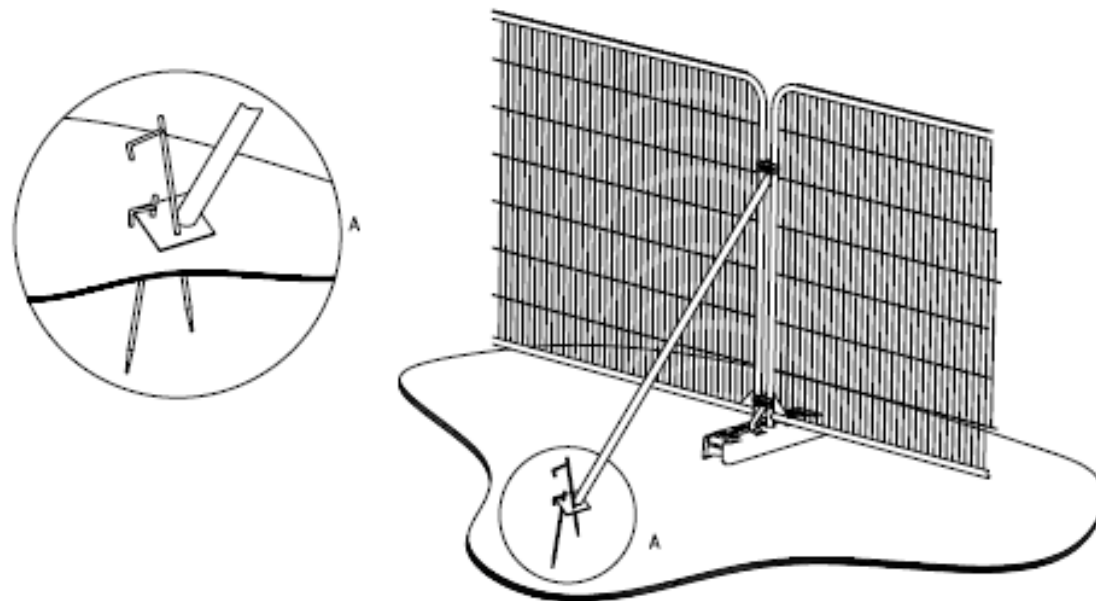
T30	field maple; Acer campestre	9	300.00	4	3	1	5	2 N	2	Early mature	20+	Fair	Fair	Canopy bias to North. Located just outside the assumed site boundary fence.	None.	C 2	3.60
G01	Swedish whitebeam; Sorbus intermedia	5	210	2	2	2	2	-	-	Semi-mature	10+	Fair	Fair	All trees with an element of trimmer damage around base of stem. Appear in slightly reduced vitality.	None	C 2	2.52
G02	blackthorn; Prunus spinosa / field maple; Acer campestre / silver birch; Betula pendula	7	280	2	2	2	2	-	-	Semi-mature	20+	Fair	Fair	Linear group of trees along boundary. Stems located outside the assumed site boundary fence. Most trees are relatively young of approximately 100mm diameter with occasional larger stemmed field maples.	None	C 2	3.36
G03	silver birch; Betula pendula	14	280	3	3	3	3	-	-	Semi-mature	<10	Poor	Poor	Trees with trimmer damage. All with evident defects. One tree with significant Phytophthora infection. One tree is dead with Piptoporous. Others showing evident decline.	None	C 1	3.36
G04	silver birch; Betula pendula	16	280	3	3	3	3	-	-	Semi-mature	20+	Fair	Fair	Self-seeded birch trees. Not particularly good examples of species.	None	C 2	3.36
G05	silver birch; Betula pendula	16	200	2	2	2	2	-	-	Semi-mature	10+	Fair	Fair	Etiolated self-seeded birch trees. All have large trimmer damage wounds to base.	None	C 2	2.40
G06	Lombardy poplar; Populus nigra 'Italica'	28	550	2	2	2	2	-	-	Mature	20+	Fair	Fair	Unable to inspect stems thoroughly for dense brambles around base. Diameter of stem estimated.	None	B 2	6.60
G07	silver birch; Betula pendula	9	220	3	3	3	3	-	-	Semi-mature	20+	Fair	Fair	Low value self-seeded birch trees with dense ivy colonisation on main stems.	None	C 2	2.64
G08	crack willow; Salix fragilis	19	400	9	9	9	9	-	-	Early mature	40+	Fair	Fair	Linear group of high planting density self-seeded crack willows along boundary to River. Dense ivy colonisation on main stems. Prominent, tall trees.	None	B 2	4.80

G09	silver birch; <i>Betula pendula</i>	17	450	6	6	4	6	-	-	Early mature	20+	Good	Good	Two stems approximately 2m apart forming one mostly uniform canopy. Some retention value.	None	B 2	5.40
G10	wild cherry; <i>Prunus avium</i>	7	300	4	4	4	4	-	-	Early mature	20+	Fair	Fair	Self-seeded cherry trees approximately 3m from assumed site boundary fence.	None	C 2	3.60
G11	crack willow; <i>Salix fragilis</i>	23	750	5	5	5	5	-	-	Mature	40+	Good	Fair	Multiple self-seeded prominent willows adjacent to site boundary. Some minor small-diameter dead wood.	None	B 2	9.00
G12	crack willow; <i>Salix fragilis</i>	22	580	8	8	8	8	-	-	Mature	40+	Good	Fair	High planting density group of mature crack willows. Prominent landscape features. Canopies appear in good vitality.	None	B 2	6.96
G13	goat willow; <i>Salix caprea</i> / hawthorn; <i>Crataegus monogyna</i> / Norway maple; <i>Acer platanoides</i>	6	150	4	4	4	4	-	-	Semi-mature	20+	Fair	Fair	Low value self-seeded trees with a low value unmaintained hawthorn hedge feature along boundary.	None	C 2	1.80
G14	crack willow; <i>Salix fragilis</i>	8	180	1	1	1	1	-	-	Young	20+	Fair	Fair	Two self-seeded offsite willows.	None	C 2	2.16

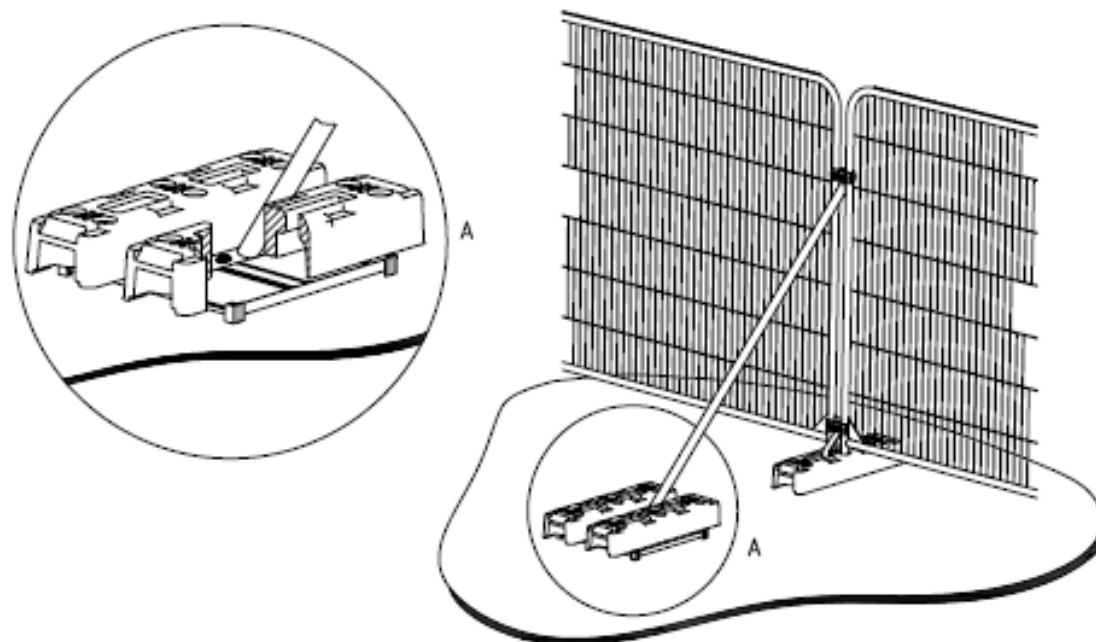
Appendix 2 - Table of Quality Assessment

Category and definition		Criteria (including subcategories where appropriate)		Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot be retained as living trees in the context of the current land use for longer than 10 years	- Trees that have serious, irremediable, structural defects, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) - Trees that are dead or are showing signs of significant, immediate and irreversible overall decline - Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality NOTE Category U trees can have existing or potential conservation value which might be desirable to preserve			DARK RED
	1 Mainly arboricultural values	2 Mainly landscape values	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or of formal or semi-formal arboricultural features (e.g. the dominant and/or principle trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical commemorative or other value (e.g. veteran trees or wood-pasture)	LIGHT GREEN
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	MID BLUE
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	GREY

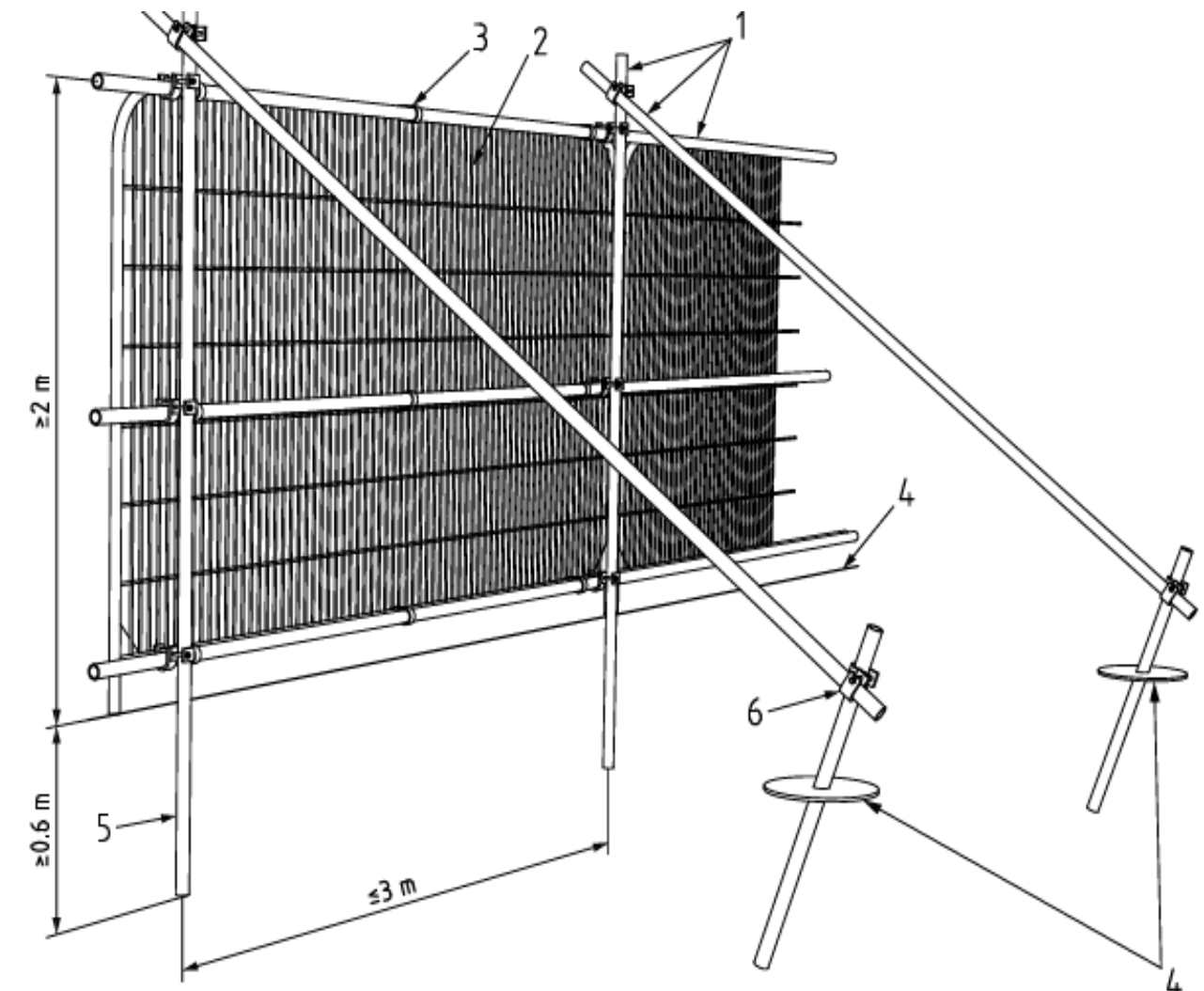
Appendix 3 - Example of Protective Fencing



a) Stabilizer strut with base plate secured with ground pins



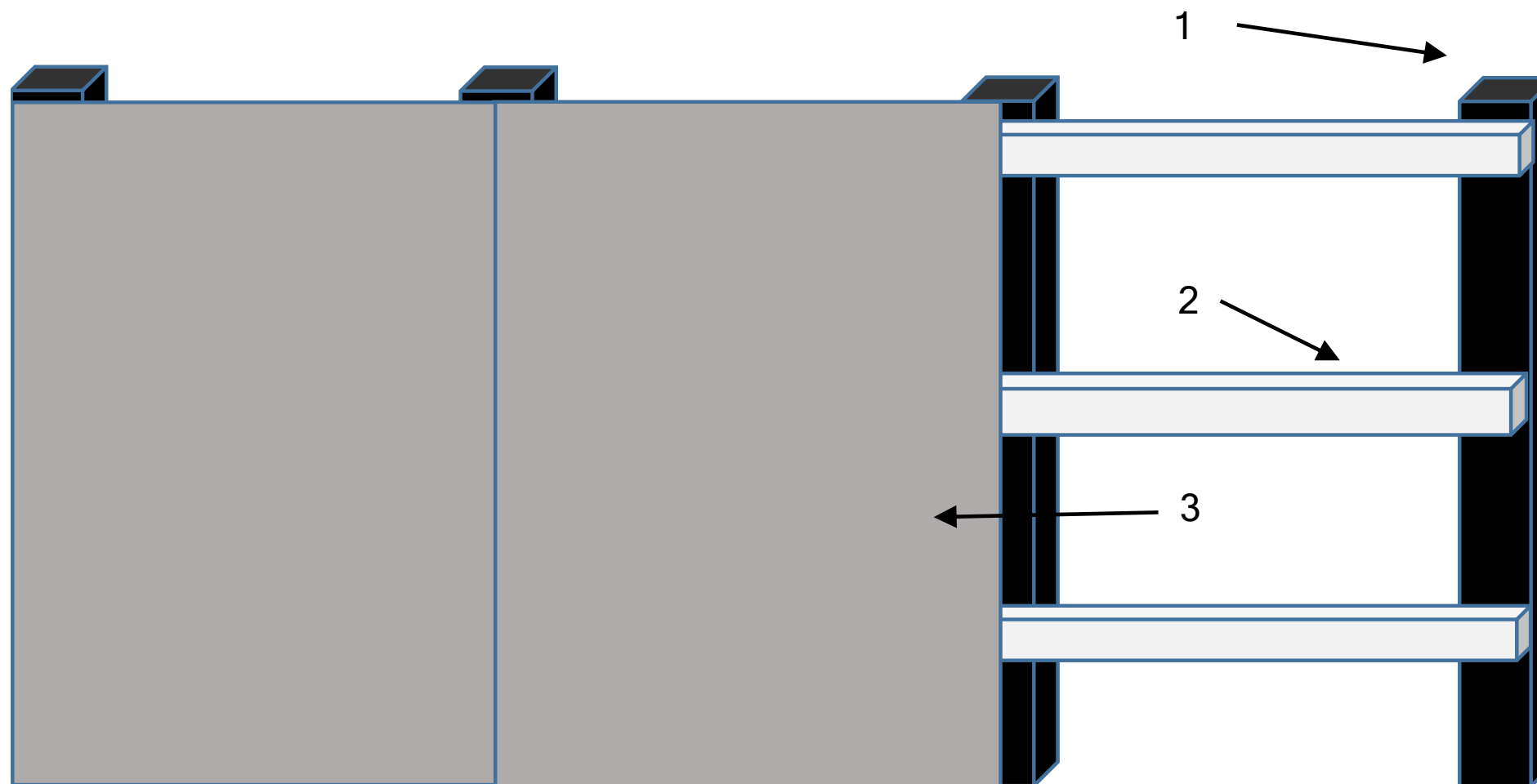
b) Stabilizer strut mounted on block tray



Key

- 1 Standard scaffold poles
- 2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
- 3 Panels secured to uprights and cross-members with wire ties
- 4 Ground level
- 5 Uprights driven into the ground until secure (minimum depth 0.6 m)
- 6 Standard scaffold clamps

Appendix 4 - Example of Protective Fencing



1. 100mm x 100mm timber posts at 1.2m centres
2. Three 100mm x 50mm timber rails
3. 12mm WBP Virola hardwood through plywood framed panels

Appendix 5 - Tree Protection Fencing Notice



**PROTECTIVE FENCING. THIS
FENCING MUST BE
MAINTAINED IN ACCORDANCE
WITH THE APPROVED PLANS
AND DRAWINGS FOR THIS
DEVELOPMENT.**



**TREE PROTECTION AREA
KEEP OUT !**

(TOWN & COUNTRY PLANNING ACT 1990)

**TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY
PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A
TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY
LEAD TO CRIMINAL PROSECUTION**

**ANY INCURSION INTO THE PROTECTED AREA MUST BE
WITH THE WRITTEN PERMISSION OF THE LOCAL
PLANNING AUTHORITY**