Woodley Green, Reading

Tree Survey and Arboricultural Impact Assessment

for

Churchgate Services

Planning | April 2023

thelandscapepartnership
planning and designing environments for life

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The Landscape Partnership Ltd is a practice of Chartered Landscape Architects, Chartered Ecologists and Chartered Environmentalists, registered with the Landscape Institute and a member of the Institute of Environmental Management & Assessment and the Arboricultural Association.

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Registered in England No. 2709001

Contents

Appendices

1 Introduction

1.1 The Landscape Partnership was commissioned to carry out a tree survey at Woodley Green, Reading.

1.2 The scope of survey work included a site visit and visual tree inspection, the collection of tree data, the production of a tree survey and impact assessment report, tree survey drawing and schedule, and tree protection plans. The tree survey and arboricultural assessment has been carried out in accordance with British Standard 5837 2012.

1.3 The site visit was carried out in October 2022.

2 Site Description

2.1 The site is shown as a builder's yard on Wokingham Borough Councils online mapping, and comprises of areas of concrete hardstanding and various industrial buildings. There are no trees within the site itself. All trees surveyed were growing on adjacent land with canopies overhanging the site. The main area of trees is along the western boundary, growing on the Woodley telephone exchange land and forming a cohesive landscape feature.

3 Arboricultural Survey

3.1 A total of two survey items were recorded, of which one was categorised as low-quality category C, and one item categorized as moderate quality category B (appendix 2/3).

3.2 The survey plan (appendix 2) shows various off-site trees which are growing on adjacent land, with no access at the time of survey. The stems have been estimated and RPAs plotted.

3.3 G1-B2 is a mixed group of trees growing outside of the site along the western boundary, containing Norway maple, Ash, Oak, Hazel, Birch, Cherry and Apple which are self-set and have been growing and form a vegetated corridor. Each tree is not of any particular arboricultural merit in its own right, but collectively form a cohesive feature along the boundary.

3.4 A selection of site photographs is set out on the following pages.

Photo 1

Photo 2

Photo 3

Photo 4

Photo 5

Photo 6

Photo 7

Photo 8

Photo 9

Photo 10

4 Statutory Tree Protection and Designations

4.1 A review of Wokingham Council's online TPO map shows that the site is not within a Conservation Area and that none of the trees are subject to a TPO.

5 Arboricultural Impact Assessment (AIA)

5.1 The AIA uses information provided in the tree survey to identify areas where the proposed development construction may be at odds with accepted standards, in terms of a tree's requirements for soil volume in which to maintain existing roots and shoots and soil volume for future growth.

5.2 Details of the trees surveyed are given in the accompanying Tree Survey Schedule. Tree locations are shown on the accompanying Tree Survey Drawing B22115-601 (appendix 2).

5.3 The quality and relative importance of each is shown as coloured polygons. The colour used relates to the British Standard categories as follows: A, green; B, blue; C, grey and U, red. Red trees are discounted as they are recommended for removal. In general, the design process will try to retain at least A and B category trees. Proposed construction will therefore normally be excluded from the root protection area of A and B category trees.

5.4 The root protection area (RPA) is shown as a default pink dashed circle on the Tree Survey Drawing B22115-601(appendix 2).

5.5 The AIA considers existing site conditions and the effect that they may have on the development of the surveyed tree root systems. Hard structures such as buildings and paved roads and paths can influence the root activity of trees by reducing the availability of both moisture and nutrients.

6 Assessment of proposed development on retained trees

6.1 Refer to the accompanying AIA drawing B22115-602 (appendix 4). and 603(appendix 5) for the relationship between the proposed development and the trees on the site.

6.2 The proposals are for a care home development with associated open space (appendix 7).

6.3 The proposals do not require any trees to be removed given they are all off site.

7 Assessment of potential impacts of development on retained trees

7.1 The Arboricultural Impact Assessment provide the means by which areas of construction activity or working space requirements identified in the AIA as being within or close to the RPA of retained trees, can be achieved whilst minimising the impact of that construction activity on the affected trees.

Site Preparation and Construction Close to Retained Trees

7.2 The tree protection demolition plan (appendix 4) shows the locations of Heras barriers that will be erected prior to site clearance/demolition to protect the canopies of off-site trees and the overhanging canopies. The barriers will be erected prior to site demolition of the existing buildings and remain in place until the existing buildings are removed and debris is cleared from site.

7.3 The existing concrete hard surfacing acts as an existing form of ground protection to any roots that may extend beneath these areas. The hard surfacing will be retained as a working platform during demolition of the existing buildings.

7.4 The cherry tree within G1 will require a lateral reduction across the eastern side, cutting the canopy back by 1.5m. This will be done at the same time as site clearance, and will then allow working space for scaffolding for the new building and pull the canopy back from the new building.

Services and Access

7.5 At this stage there is no services information available, however several assumptions can be made.

7.6 There is plenty of space within the site to install services without a requirement to affect retained boundary vegetation. The site likely already has various services within the site which can be upgraded/used where required, without impacting the off-site trees.

7.7 There is plenty of space to access the site, store materials and machinery during the build program.

Tree Protection

7.8 Heras barriers have been shown on the construction protection plan (appendix 5), which shall be installed prior to any site construction works being undertaken, and remain in place until all building work has been completed.

7.9 It is not known the order of the build program; however, it is recommended that areas of hard surfacing are retained immediately adjacent to off-site trees, with hard surfacing retained to the extent of the overhanging canopies and RPAs to provide ground protection whilst the new building is being built.

7.10 If it is required to remove the existing hard surfacing across the site as part of site clearance, and before the new building can be built, Heras barriers are shown on the protection plan to protect the canopies, RPAs and areas of new landscaping during construction. Existing hard surfacing, whenever it is to be taken up, must be broken up carefully and removed, with no heavy machinery or vehicles crossing exposed ground once hard surfacing is removed. Ideally the surfacing should be removed in one operation, and Heras barriers installed immediately to enclose the soft landscape areas. As part of general landscaping, it would be beneficial to de compact the ground using air spade decompaction,

or at least hand cultivation as part of gardening/landscape operations to improve the ground below the trees.

7.11 The construction protection plan shows areas in purple, which represent areas outside of Heras barriers, where ground guards (appendix 6) must be installed prior to building works commencing, to protect the ground and provide working space for scaffolding and access around the new building during construction.

7.12 The area in orange adjacent the off-site Apple tree is an area where the new building encroaches on the outer edge of the default RPA. In this location, there is a tall 2m high brick wall on the boundary between the tree and the site, as well as concrete hard surfacing in the site covering the RPA. It is likely that the wall foundations and the concrete will have inhibited root growth in this area. The RPA was not adjusted, as some roots might extend to within this area, but there is no conclusive evidence that there aren't some roots. Therefore, when hard surfacing is removed and the new building foundations are to be installed, any roots of whatever size found in this area must be cut back to the edge of the foundation trench and be cut cleanly using sharp cutting tools. No diggers must be used to excavate this section of the foundations, as digger buckets can rip roots out and cause unnecessary damage. If any roots are found and cut, the trench for foundations should be lined with a non-permeable membrane before pouring concrete, to prevent any roots from coming into contact with the concrete.

7.13 The Apple tree will be able to tolerate any minor pruning of roots found in this area.

7.14 The off-site Cypress tree to the north includes an adjusted RPA to take into account of the large existing building beneath it. The proposed parking bays in this area of the default RPA can be installed without impact to the tree, as roots are already likely growing within rear gardens.

7.15 The other off-site trees along the eastern boundary are all small trees and have brick walls between them and the site, with hard surfacing covering their default RPAs in the site. The walls will likely have inhibited root growth. The outer edges of RPAs that extend within the site will be retained in areas of soft landscaping, which is considered betterment for the trees compared to the baseline scenario.

Overbearing effects

7.16 The trees within G1 do extend into the site at varying distances, but do not extend to form a consistent overbearing canopy encroachment into the site. The private patio and garden areas will still receive plenty of sunlight in the late afternoon and evenings, as well as communal areas free from existing trees. Several of the trees will require management, as would be expected, to maintain space between the canopies and the building, as the trees grow. The larger Oak, Ash and Cherry are the larger trees and will require periodical lateral reductions as the canopies/tree grows.

Betterment of growing conditions

7.17 The area of land beneath all of the off-site trees is currently hard standing. In all areas (apart from the off-site Cypress to the north) the existing hard surfacing will be replaced with soft landscaping, and in respect of G1-B2, small areas of patio paving also. On the whole, this is considered betterment for the adjacent trees. The small areas of patio beneath G1-B2 can be installed using a shallowed construction depth than the existing concrete they replace. This is also considered betterment compared to the baseline scenario.

8 Conclusions

8.1 The proposals retain all off-site trees as would be expected, with the protection methods suggested appropriate for the proposals and will allow the trees to be retained and their canopies and RPAs protected, with ground conditions greatly improved. It is therefore considered feasible to remove the existing hard surfacing and buildings and install the new proposals without impacting the retained arboricultural resource.

9 Recommendations

9.1 This report should be read in conjunction with the B22115_601, 602 and 603.

10 Project contact details

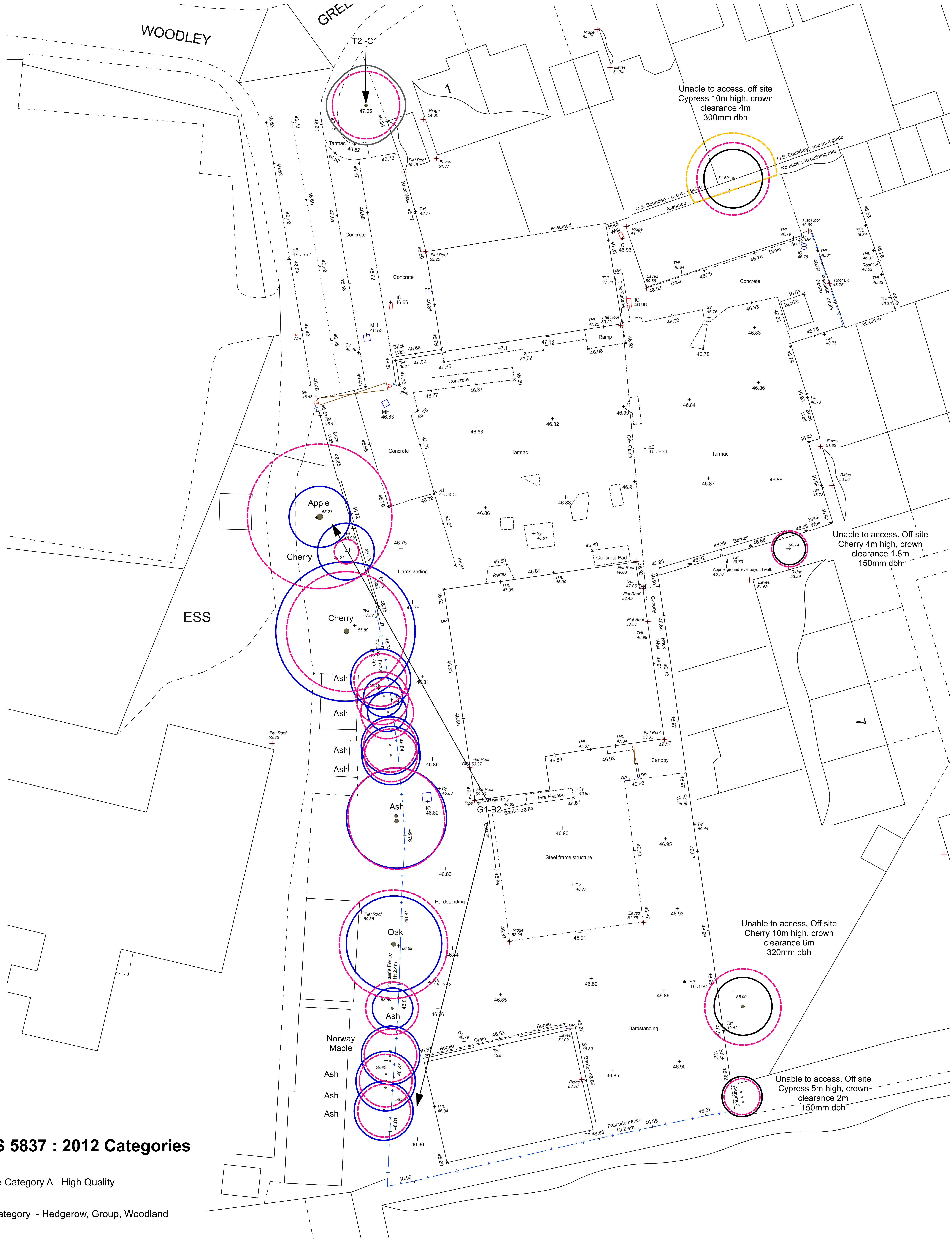
Client	Churchgate Services
Arboriculturist	The Landscape Partnership t: 01234 261 315
Local Planning Authority	Wokingham Council

Appendix 1

Table 1 **Cascade chart for tree 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 realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, irremediable, structural defect, 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 it might be desirable to preserve; see **4.5.7**.*			See Table 2
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**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 formal or semi-formal arboricultural features (e.g. the dominant and/or principal 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)	See Table 2
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	See Table 2
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 150 mm	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 collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2

Appendix 2



KEY - BS 5837 : 2012 Categories

- Tree Category A - High Quality
- A Category - Hedgerow, Group, Woodland
- Tree Category B - Moderate Quality
- B Category - Hedgerow, Group, Woodland
- Tree Category C - Low Quality
- C Category - Hedgerow, Group, Woodland
- Tree Category U - Unsuitable for Retention
- Default Root Protection Area to BS:5837:2012
- Adjusted Root Protection Area to BS:5837:2012
- Shrub Mass / Offsite Tree

Note: The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

Revision	Description	Date
-	First issue	27/10/22

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Project:
Woodley Green, Reading

Description:
Tree Survey and Constraints Plan

Status:
For Planning

Scale:	Drawn I Checked		Date:
1:200 @A1	**DP**	**MP**	**27/10/2022**

Job Number:	Drawing Number:	Revision:
B22115	**601**	**-**

Appendix 3

Project:	Dorking Way, Reading
Ref:	B22051
Date:	October 2022
Client:	
Surveyed by:	DP
Weather:	Overcast
Tagged:	No

BS 5837 2012 Trees in relation to construction - recommendations

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Type	No.	Common Name	Height (m)	DBH (mm)	Canopy Spread				Height of branch clearance N,S,E,W	Height of crown clearance	Age class	Physiological Condition	Structural Condition	Notes	Estimated remaining contribution years	BS Category
					N	E	S	W								
G	1	Norway maple, ash, oak, hazel, birch, cherry, apple	15.0	350	As shown				N/A	1.5	M	Fair	Fair	Stems off site, some larger stems with self set small species growing alongside. Ivy on stems. Several lower canopies overhanging site. Individually lower quality, collectively higher quality. Minor deadwood throughout.	20+	B1

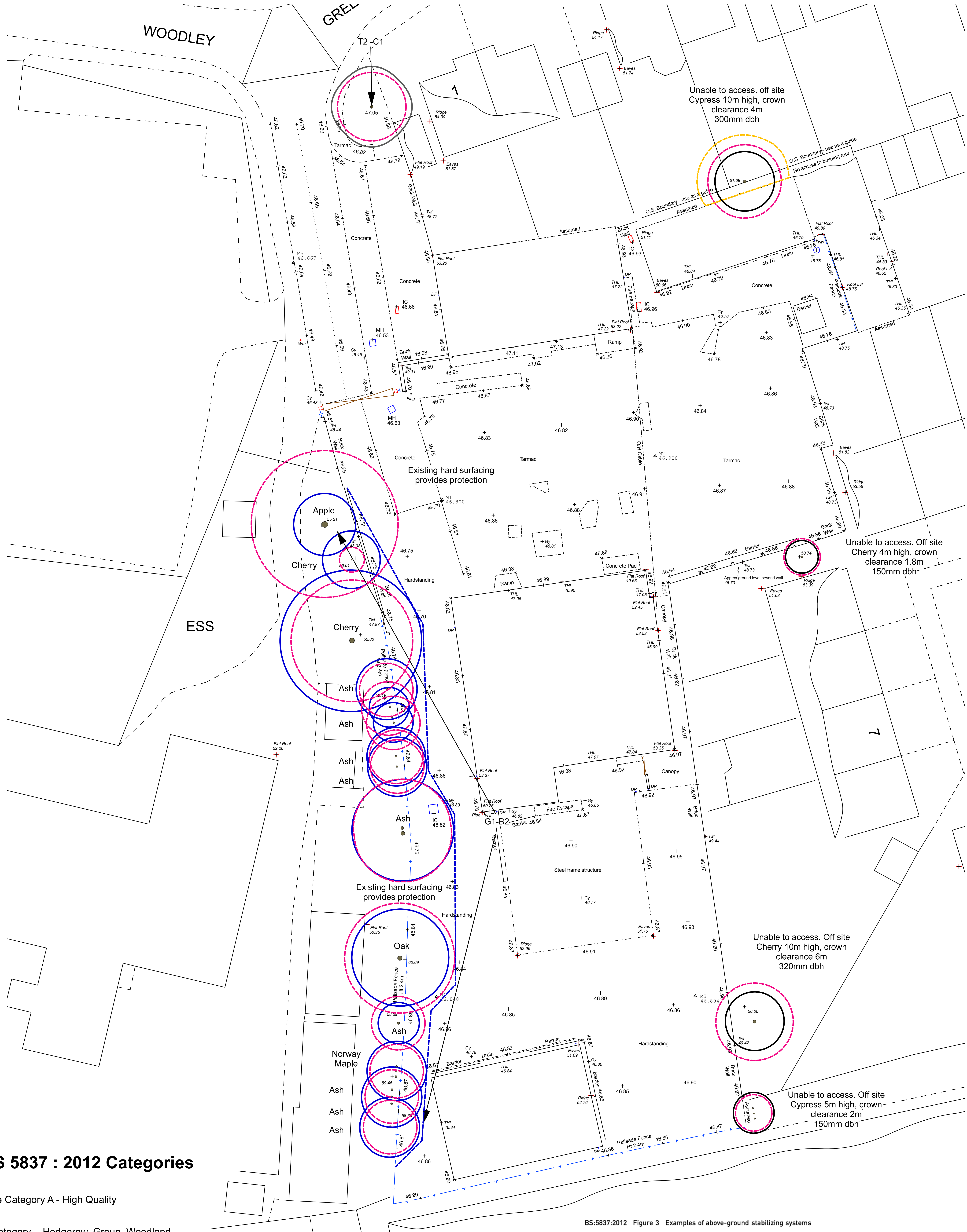
Project:	Dorking Way, Reading
Ref:	B22051
Date:	October 2022
Client:	
Surveyed by:	DP
Weather:	Overcast
Tagged:	No

BS 5837 2012 Trees in relation to construction - recommendations

thelandscapepartnership
landscape architecture urban design environmental planning

Type	No.	Common Name	Height (m)	DBH (mm)	Canopy Spread				Height of branch clearance N,S,E,W	Height of crown clearance	Age class	Physiological Condition	Structural Condition	Notes	Estimated remaining contribution years	BS Category
					N	E	S	W								
T	2	Crab apple	7.0	280	4.0	4.0	4.0	4.0	N/A	2.0	M	Fair	Fair	Minor deadwood, good shape, typical of age and species.	10+	C1

Appendix 4



Unable to access. off site Cypress 10m high, crown clearance 4m 300mm dbh

Existing hard surfacing provides protection

Unable to access. Off site Cherry 4m high, crown clearance 1.8m 150mm dbh

Existing hard surfacing provides protection

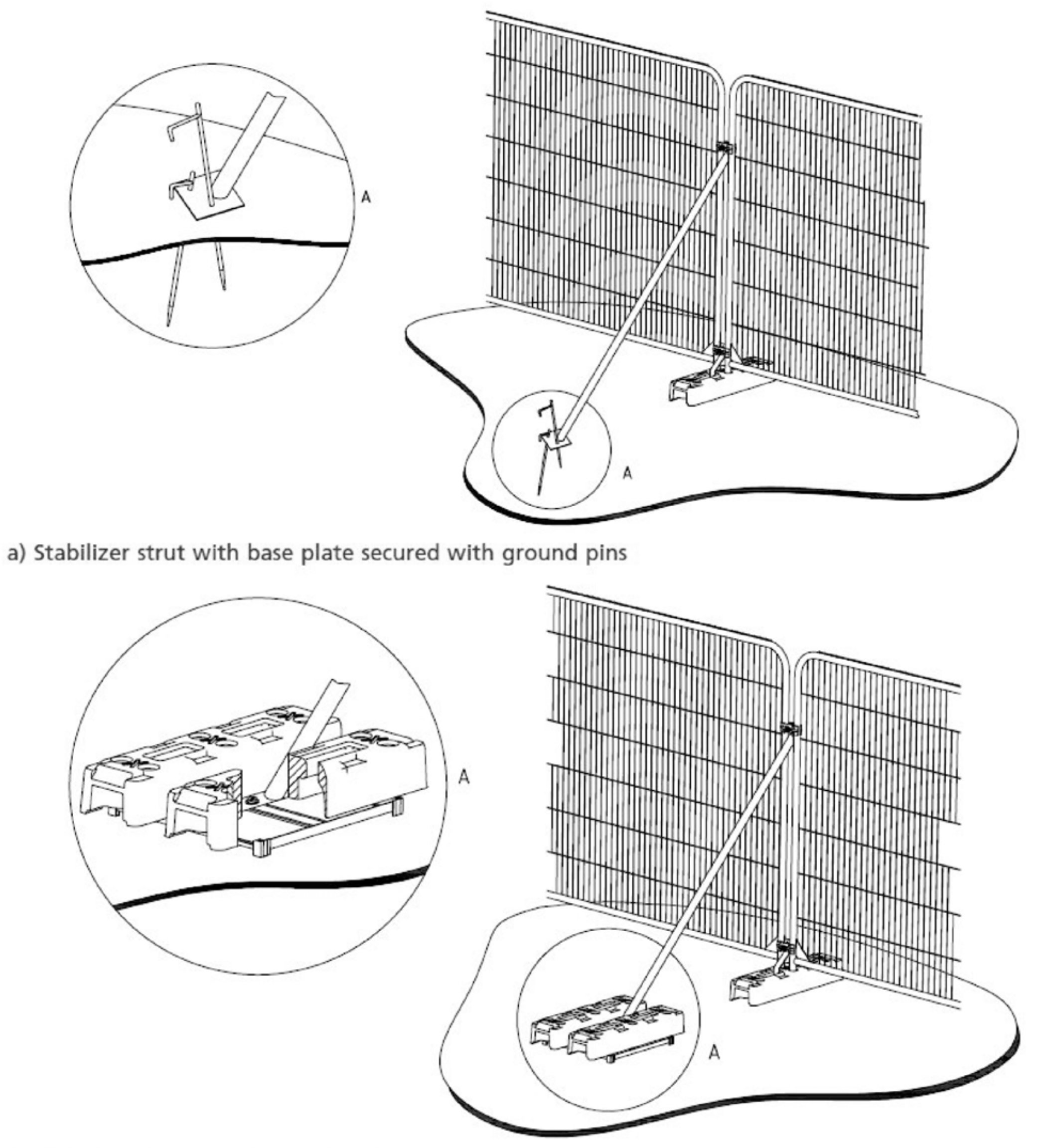
Unable to access. Off site Cherry 10m high, crown clearance 6m 320mm dbh

Unable to access. Off site Cypress 5m high, crown clearance 2m 150mm dbh

KEY - BS 5837 : 2012 Categories

- ◯ Tree Category A - High Quality
- — A Category - Hedgerow, Group, Woodland
- ◯ Tree Category B - Moderate Quality
- — B Category - Hedgerow, Group, Woodland
- ◯ Tree Category C - Low Quality
- — C Category - Hedgerow, Group, Woodland
- ◯ Tree Category U - Unsuitable for Retention
- ◯ Default Root Protection Area to BS:5837:2012
- ◯ Adjusted Root Protection Area to BS:5837:2012
- — Shrub Mass / Offsite Tree
- - - Tree Protection Barrier to BS:5837:2012 Primary Position

BS:5837:2012 Figure 3 Examples of above-ground stabilizing systems



a) Stabilizer strut with base plate secured with ground pins

b) Stabilizer strut mounted on block tray

Note: The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

Revision	Description	Date
-	First issue	14/4/23

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Project:
Woodley Green, Reading

Description:
Tree Protection Plan - Demolition

Status:
For Planning

Scale:	Drawn I Checked		Date:
1:200 @A1	**DP**	**MP**	**14/04/2023**

Job Number:	Drawing Number:	Revision:
B22115	**602**	**-**

Appendix 5

T2 -C1

Unable to access. off site
Cypress 10m high, crown
clearance 4m
300mm dbh

Existing boundary fencing
provides protection

Unable to access. Off site
Cherry 4m high, crown
clearance 1.8m
150mm dbh

Unable to access. Off site
Cherry 10m high, crown
clearance 6m
320mm dbh

Unable to access. Off site
Cypress 5m high, crown
clearance 2m
150mm dbh

Tarmac
Flat Roof
Eaves
Refuse Store
O.S. Boundary - use as a guide
Assumed
Retaining Wall
Ambulance Bay
SW Sewer Diversion
Care Home Sign
Main Entrance
LAWN
Trellis
Fire Escape
Goods Entrance
Bicycle Stand
Garden Shed
Hedge against existing 2.5m High Wall
Approx ground level beyond wall.
GROUND FLOOR LEVEL 47.00
GAZEBO
Raised Bed
Potting Shed
Hard s
Apple
Cherry
Ash
Oak
Norway Maple
Palisade Fence Ht 2.4m
Existing Hedge
ESS
Wm
Gy
Twl
Ridge
Eaves
TTL
Approx
G1-B2
N
METRE SCALE
0 1 2 3 4 9 10 15 20

KEY - BS 5837 : 2012 Categories

- Tree Category A - High Quality
- A Category - Hedgerow, Group, Woodland
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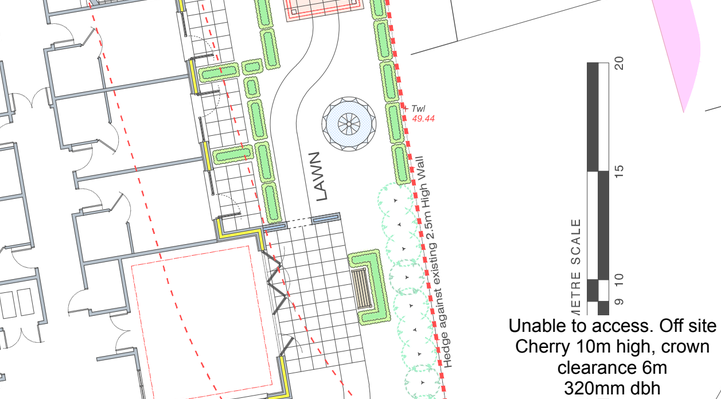
- Default Root Protection Area to BS:5837:2012
- Adjusted Root Protection Area to BS:5837:2012
- Shrub Mass / Offsite Tree
- Tree Protection Barrier to BS:5837:2012 Primary Position
- Tree Protection Secondary Barrier to BS:5837:2012 Secondary Position
- Temporary Ground Protection to BS:5837:2012
- Roots to be cut back cleanly using sharp cutting tools

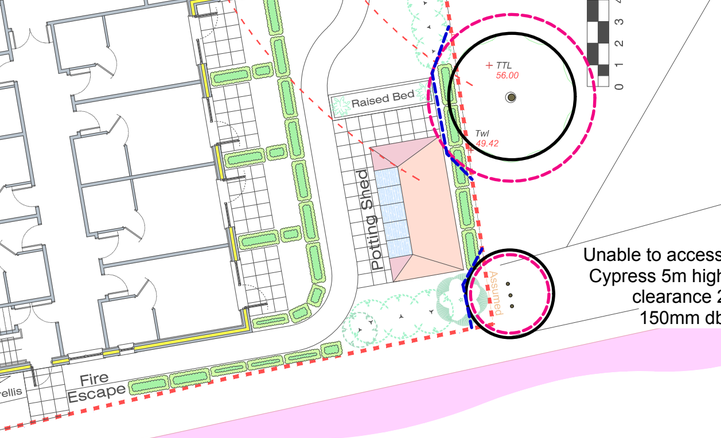
N

0 50m

BS:5837:2012 Figure 3 Examples of above-ground stabilizing systems



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

Note: The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

Revision	Description	Date
-	First issue	14/4/23

thelandscapepartnership

Project:
Woodley Green, Reading

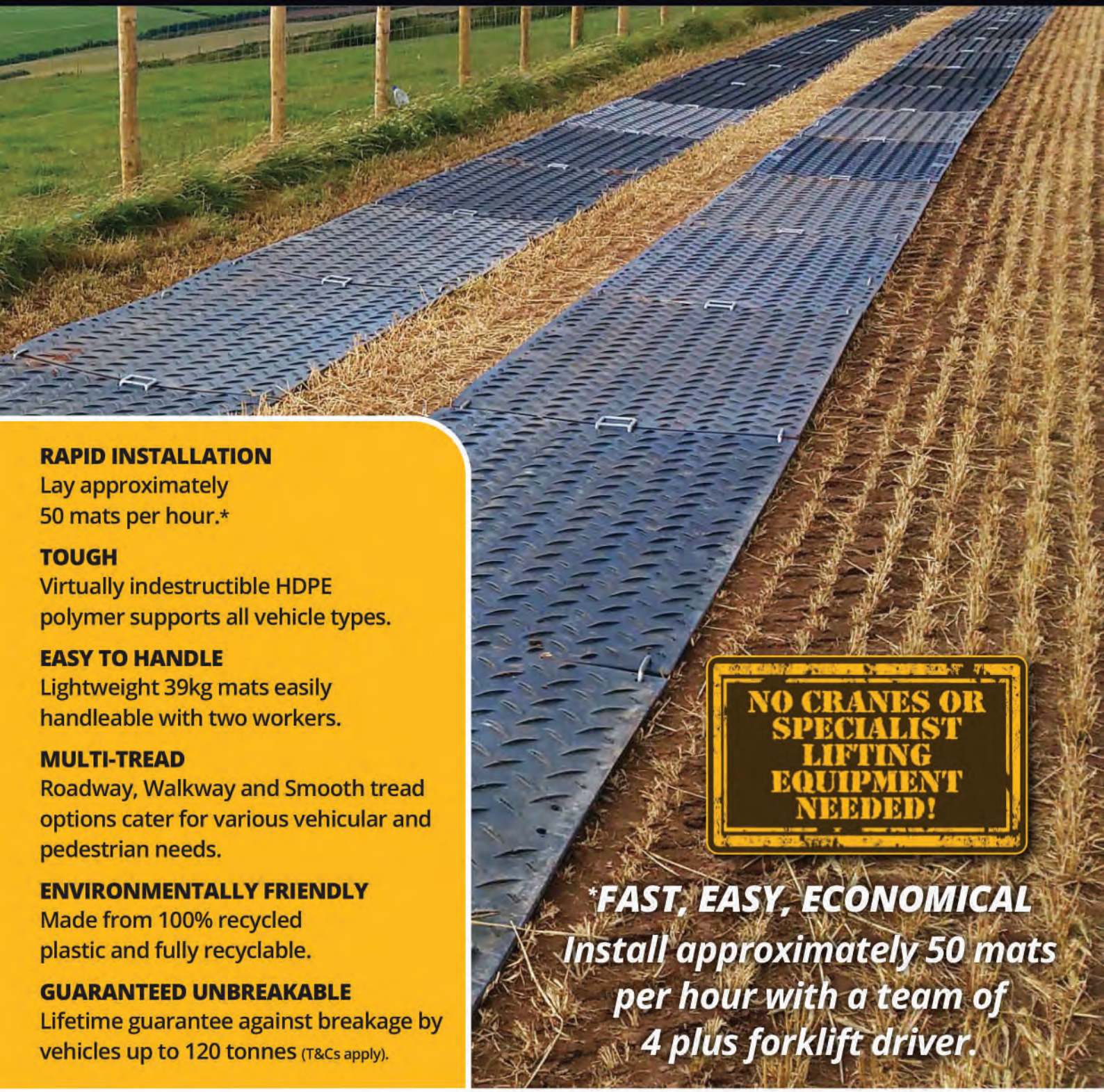
Description:
Tree Protection Plan - Construction

Status:
For Planning

Scale:	Drawn I Checked	Date:
1:200 @A1	**DP MP**	**14/04/2023**
Job Number:	Drawing Number:	Revision:
B22115	**603**	**-**

Appendix 6

MultiTrack



RAPID INSTALLATION
Lay approximately 50 mats per hour.*

TOUGH
Virtually indestructible HDPE polymer supports all vehicle types.

EASY TO HANDLE
Lightweight 39kg mats easily handleable with two workers.

MULTI-TREAD
Roadway, Walkway and Smooth tread options cater for various vehicular and pedestrian needs.

ENVIRONMENTALLY FRIENDLY
Made from 100% recycled plastic and fully recyclable.

GUARANTEED UNBREAKABLE
Lifetime guarantee against breakage by vehicles up to 120 tonnes (T&Cs apply).

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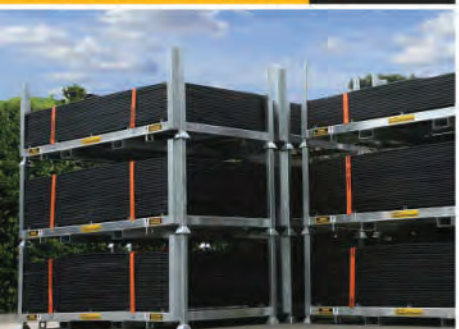
MultiTrack

MultiTrack mats are the strongest in their category

Mats are easily moved using a HandiHook

Standard no-tools joiners quickly clip the mats together

Low profile joiners for walkways plus bolted joiners



SafeStore stillages hold 25 mats

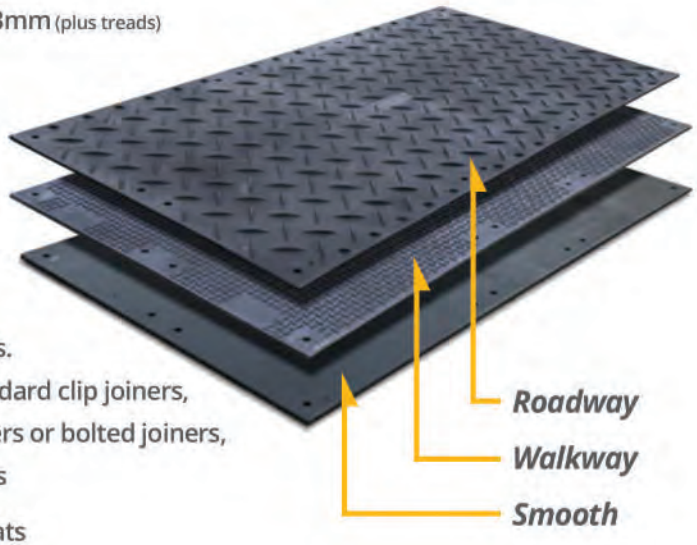
fully recyclable

Overall Size: 2435 x 1215 x 13mm (plus treads)

Surface Area: 2.95m²

Weight: 39kg

Tread Options: Roadway, Walkway and Smooth, or a combination



Connectors: 10 joining points. A choice of standard clip joiners, low profile joiners or bolted joiners, plus anchor pins

Packed in: Stillage of 25 mats

Stillage Pack: **Weight:** 1105kg
Dimensions: 2550 x 1260 x 900mm

Fire Rating: UL94 HB

Slip Testing: BS7976 part 2

Deflection: Tested on varying CBR ground conditions using a 300mm diameter steel platen with 6 tonnes load to simulate the pressure of an HGV wheel

Ground CBR 11.35% : Deflection 17.68mm

Ground CBR 8.58% : Deflection 20.41mm

Ground CBR 4% : Deflection 22.00mm

Guarantee:

MultiTrack temporary roadway mats are guaranteed for life against breakage up to 120 Tonnes UDL (Uniformly Distributed Load).

It is the user's responsibility to assess the load-bearing capacity of the ground, and to only operate vehicles within the weight that the ground is capable of safely supporting. Ground-Guards Ltd accepts no liability whatsoever for any damage, loss or injury arising from the ground conditions on which these products are used.

MultiTrack mats are not suitable to use for bridging purposes. Damage caused by mechanical equipment (e.g. cuts by digger buckets) or sharp protrusions beneath the mats is not covered by this guarantee.

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info@ground-guards.co.uk
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Appendix 7

Notes

Do not scale without prior approval, use written dimensions where provided. Large scale drawings take precedence over small scale drawings unless advised otherwise. This drawing is to be read in conjunction with all related drawings, schedules, and specifications.

All component and assembly dimensions are to be checked on site prior to beginning the production of any shop drawing or off-site fabrication. Any discrepancies with drawn information are to be reported to Churchgate Services.

THIS IS AN **A1** DRAWING

Rev	Date	Description	Initials
P1	09-03-2023	Layout Revised	ihd

Refer to Drawing CSxxx
for Global Setting Out including levels

Churchgate Services
Your Partner in Healthcare
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info @ churchgateservices.co.uk • TEL 01708 380940

Project
Woodley Green
Reading
RG5 4QP

Drawing Title
Site Plan

Scale 1:150 @ A1
1:300 @ A3
Date 22.02.2023
Drawn by ihd
Checked by ---

Job No. CS2301
Drawing No. 01
Rev. P1

STATUS
Preliminary