

Arboricultural Impact Assessment

Minster Court
Courtwick Lane
Littlehampton
West Sussex
BN17 7RN

4th September 2019



PJC ref: 5302/19-02 Rev –

This report has been prepared by

PJC Consultancy Ltd

on behalf of

Cordatus Property LP

**Prepared
by**

Peter Davies FdSc Arboriculture M.Arbor.A

Peter has a Foundation Degree in Arboriculture from the University of Brighton and is a professional member of the Arboricultural Association. He has over ten years experience in the arboricultural industry, originally working as a groundsman and feller, and progressing into consultancy. He is a Lantra accredited professional tree inspector.

**Checked
by**

Lewis Rumsey FdSc Arboriculture

Lewis is an arboriculturist with several years' experience working within the arboricultural and forestry industry. He gained a foundation degree in arboriculture with distinction from the University of Brighton in 2017 and is a member of the Institute of Chartered Foresters.

CONTENTS

1 Executive summary

2 Introduction

3 Arboricultural impact assessment

4 Conclusions

Appendices:

1. Tree Constraints Plan, Tree Retention Plan and Tree Protection Plan
2. Tree Survey Schedule

1 EXECUTIVE SUMMARY

1.1 This report should be read in conjunction with arboricultural survey ref. PJC/5302/19–01.

1.2 **Site location:** The site is situated on the south side of Courtwick Lane, opposite the junction with Goldcrest Avenue, more broadly to the north of Littlehampton Town Centre. It has a central national grid reference of TQ 02373 03608. The surrounding land use is comprised of suburban residential development beyond Courtwick Lane to the north, and large commercial buildings to the east, south-east and south. A parking area for a commercial unit is located to the south-west of the site and there is a largely unmanaged wooded area to the west. The location of the site within its environs is shown in figure 1.



Figure 1: Location of Site and Environs (Map data: © 2019 Google)

1.3 **Proposal:** A proposal has been outlined to construct four new commercial units to the north of the existing units on the east and west site boundaries. These will replace the two existing site entrances, therefore a new site entrance with associated soft landscaping shall be constructed at the centre of the northern site boundary. There shall also be minor amendments to the existing parking layout within the site, including the addition of an accessible parking space for all existing and proposed units.

1.4 **Tree removals:** Trees G1–T9 will be removed to facilitate the proposed development.

1.5 **Access facilitation pruning:** No access facilitation pruning is anticipated in addition to the initial tree/vegetation clearance works to enable the proposed construction works.

1.6 **Works within root protection areas:** All proposed buildings and hard standing will be located outside the root protection areas of all retained trees.

2 INTRODUCTION

2.1 Instruction: PJC Consultancy has been instructed by Cordatus Property LP to provide an arboricultural impact assessment in accordance with BS5837: 2012 '*Trees in relation to design, demolition and construction – Recommendations*' for the proposed development at Minster Court in Littlehampton.

2.2 Objectives of report: This report has been undertaken with the following objectives:

- To identify the tree removals and pruning works that will be required as a result of the proposed development and to assess the impact of the tree works.
- To provide recommendations on mitigation measures to reduce the impact of tree removals from the development site.
- To assess the potential impact the proposed construction works will have on retained trees and provide recommendations for mitigation measures to reduce the impact on the trees.
- To assess the post development relationship between trees and the proposed development.

2.3 Scope of this report: This report is concerned with all significant trees and arboricultural features located within the site boundary. Additionally, trees located around the curtilage of the site have also been assessed when they are considered likely to have the potential to impact on the development (in relation to root and crown protection or foundation design).

2.4 Contents of report: This report includes the following:

- A schedule of trees to be retained/removed.
- A schedule of access facilitation pruning required for the development.
- An assessment of the impact construction works will have on retained trees and mitigation measures to be implemented.
- An assessment of post development pressures on trees resulting from the development.
- Tree Constraints Plan, Tree Retention Plan and Tree Protection Plan.
- Tree Survey Schedule including management recommendations related directly to the proposed development.

2.5 Documents and information provided: The following documents were used to aid the preparation of this report:

- Drawing ref. 40430 – Topographical Survey
- Drawing ref. 1054486/P02 Rev B – Proposed Site Plan – Option B

2.6 Limitations of report: The following arboricultural impact assessment has been prepared for the proposal stated in paragraph 1.3 and using the plans and information listed in paragraph 2.5. The report should not be relied upon if the stated proposal or proposed design changes unless the author confirms the changes do not have a bearing on the arboricultural impacts or recommended mitigation measures.

3 ARBORICULTURAL IMPACT ASSESSMENT

3.1 Tree removals: Trees to be removed for the proposed development are shown with dashed outlines on the Tree Retention Plan in Appendix 1 and are shaded to indicate their BS5837 tree category. These comprise trees G1–T9.

3.2 Group G1 needs to be removed to enable construction of the new site entrance. G1 has been awarded category B2 due to its collective landscape value on Courtwick Lane. Soft landscaping areas on the northern boundary, adjacent to the new site entrance and within the site are included on the proposed layout, however it is intended that the detailed soft landscaping scheme is conditioned with any planning approval.

3.3 Trees T2–T9 are all category C specimens located in the north–west corner of the site. They will be removed as a result of direct conflict with units 13 and 14, as well as the maintenance/fire escape pathway on the site boundary. The loss of these trees should not result in a significant loss of screening or local visual amenity as the adjacent, third party wooded area including the TPO trees will be unaffected by the proposed development.

3.4 The tree works contractors should carry out all tree works to BS3998: 2010 '*Tree works – recommendations*', as modified by research that is more recent. They should also carry relevant, adequate and up to date insurance. It is also recommended that all tree works are carried out by an Arboricultural Association approved contractor. Approved contractors are expected to work to industry best standards, and the Arboricultural Association website (www.trees.org.uk) contains contact details and information on engaging a suitable contractor.

3.5 Access facilitation pruning: Based on the information currently available, it is anticipated that the crowns of all retained trees will be located a sufficient distance from proposed construction activities and expected construction access routes so as not to require access facilitation pruning.

3.6 Any requirements for access facilitation pruning that cannot be predicted at this stage in the design process (e.g. for contractor compound or movement of large or specialist plant machinery) shall be discussed at the pre–commencement meeting with the project arboriculturist and agreed with the local authority arboricultural officer. No works may be carried out on protected trees without prior permission from the local authority.

3.7 Building footings in proximity to trees: All four of the proposed new commercial units will be located outside the root protection areas of all retained trees, therefore use of specialist foundations for root protection is not deemed necessary. The foundation depth and type for the new units will be provided by a structural engineer, and should take into account existing/proposed trees and other vegetation surrounding the buildings as well as soil profiles at the site.

3.8 Hard standing in proximity to trees: All new hard standing will be located outside the root protection areas of retained trees, and no existing hard standing will be removed from a root protection area. The amendments to the car park layout and site access will therefore not impact on retained trees.

3.9 Services: Details of the routing of services for the proposed development are not currently available. All underground services should be located outside the root protection areas of retained trees and above ground services should be located outside the anticipated mature crown spreads. Sympathetic methodology to enable the installation of services within root protection areas (in certain instances) is available, however there will always be a potential arboricultural impact and arboricultural advice must be sought regarding the suitability of these methods before they are relied upon. If it is achievable, root protection areas should always be completely avoided.

3.10 Once details of the routing of new services become available, prior to commencement, these shall be reviewed by the project arboriculturist. The arboriculturist shall then confirm either that no works will be carried out within root protection areas or provide details of the methodology required to ensure the works are carried out in accordance with NJUG4 '*Guidelines for the planning, installation and maintenance of utilities in proximity to trees*' and BS5837: 2012.

3.11 Vulnerability of trees during construction period: Construction activities can cause compaction or contamination of the rooting medium, which can have a significant detrimental impact on root function and the long-term health of trees. Similarly construction activities can result in damage to the above ground parts of trees that are not sufficiently segregated from the works area. However, the potential impact on the retained trees at this site resulting from construction activities is deemed to be low. This is because G10 (including the group root protection area) is located outside the site boundary in an inaccessible location (third party private land), and G11 is surrounded by hard standing and located on the far side of the site to the main construction activities.

3.12 The potential impact on the retained trees can be further reduced by implementing the following tree protection measures:

1. The areas highlighted yellow on the Tree Protection Plan shall be referred to as the construction exclusion zones. The following restrictions shall apply within the construction exclusion zones:
 - No vehicular access shall be permitted.
 - Regular pedestrian access shall be restricted unless on suitable ground protection measures agreed with the project arboriculturist.
 - No storage of construction materials shall occur.
 - No storage of building spoil or construction debris (including short-term temporary storage) shall occur.
 - No harmful chemicals shall be stored or handled.
 - No fires shall be permitted.
 - No mechanical excavation including regrading of levels shall occur.
 - There shall be no change in ground level unless undertaken under the supervision of the project arboriculturist.
2. Tree protection fencing shall be installed in the location shown on the Tree Protection Plan to protect the group canopy of G11. The requirement for tree protection fencing may be reviewed when a construction management plan has been created. The specification for tree protection fencing shall be metal welded mesh panels (e.g. Heras panels), in concrete or rubber feet. The panels shall be supported by metal stabiliser struts mounted on either a base plate secured by ground pins, or in a block tray (refer to Tree Protection Plan).

3. The existing boundary chain-link fence adjacent to G10 shall be maintained throughout the construction period to segregate the construction exclusion zone from the works area.

3.13 Post development tree pressures and management: The proposed development has been assessed to determine the likely impact of tree shade, and also the likely future pressure to prune or remove additional trees.

3.14 Tree shade is not expected to have a detrimental impact on the function of the proposed commercial units because there will be no windows (other than potentially within the fire escape doors) on the west elevation of the building. Also relatively large commercial structures such as these do not generally rely on natural light for their function.

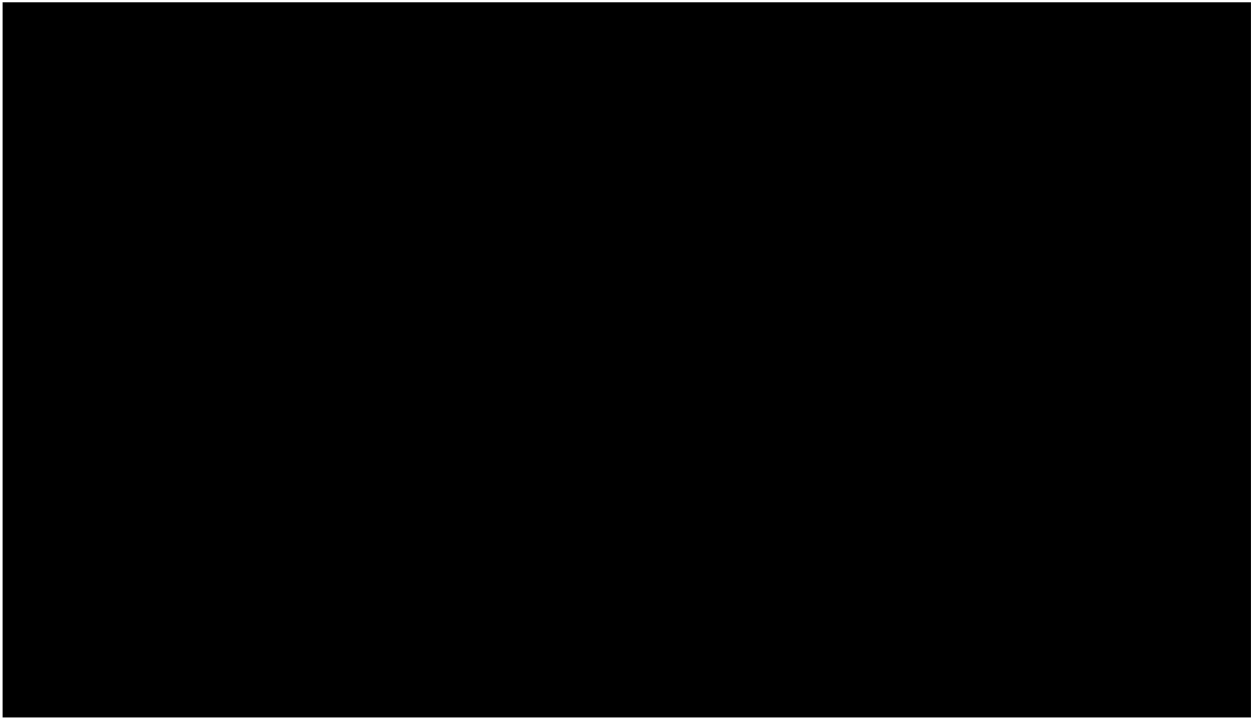
3.15 There shall be no post development impact on group G11 as the only layout change in proximity to these trees will be to the parking arrangement, and the new parking spaces will not conflict with G11.

4 CONCLUSIONS

4.1 One group categorised as B along with seven trees and one group categorised as C will be removed to facilitate the proposed development. The proposed layout includes provision for soft landscaping, including potentially mitigation tree planting, however it is intended that the detailed soft landscape proposals will be provided and approved following the attainment of planning permission.

4.2 All proposed buildings and areas of new hard standing will be located outside the root protection areas of retained trees. Provided the exclusion zones and methodologies described in paragraph 3.12 and on the Tree Protection Plan are followed, trees proposed for retention should not be adversely affected by the construction works.

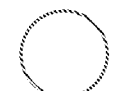
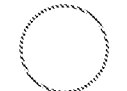
4.3 Based on the above assessment, trees recommended for retention in this report can be protected during the construction period and successfully integrated into the site post development.



APPENDIX 1

Tree Constraints Plan, Tree Retention Plan and Tree Protection Plan

Key:

-  Root protection area for category B* tree
-  Root protection area for category C* tree
-  Tree canopy - no TPO
-  Tree canopy - with TPO

* Tree categorised in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.

Appendix 2, (Tree Survey Schedule) contained within the arboricultural report ref. PJC/5302/19-01 contains further information for each tree.

This drawing should be viewed in colour.

Tree numbers suffixed with PA indicate the tree position is approximate.



Drawing no: PJC/5302/19/A Rev: - Sheet number: 1 of 1

Client and site:
Cordatus Property LP

Minster Court
Courtwick Lane
Littlehampton, BN17 7RN

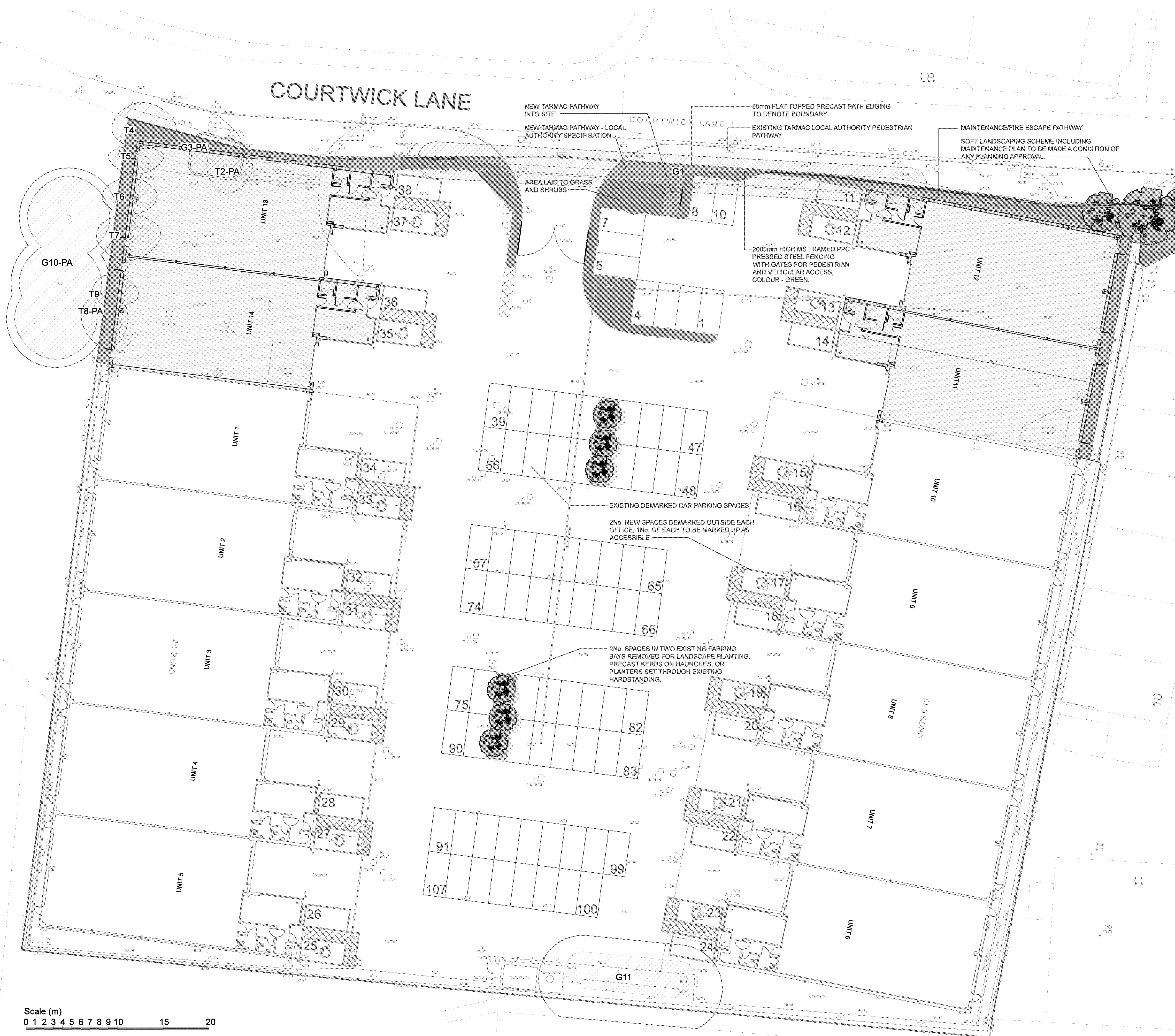
Drawing title: Tree Constraints Plan

Date drawn: 30/07/2019

Scale: 1:200 at A1

Drawn by: PD

Checked by: NB



Key:

- Root protection area for category B* tree to be retained
- Root protection area for category C* tree to be retained
- Canopy of tree to be retained without TPO
- Canopy of tree to be retained with TPO
- Canopy of category B* tree to be removed
- Canopy of category C* tree to be removed

* Tree categorised in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.

Appendix 2, (Tree Survey Schedule) contained within the arboricultural report ref. PJC/5302/19-02 contains further information for each tree.

This drawing should be viewed in colour.

Tree numbers suffixed with PA indicate the tree position is approximate.

Scale (m)
0 1 2 3 4 5 6 7 8 9 10 15 20

Drawing no: PJC/5302/19/B Rev: - Sheet number: 1 of 1

Client and site:
Cordatus Property LP

Minster Court
Courtwick Lane
Littlehampton, BN17 7RN

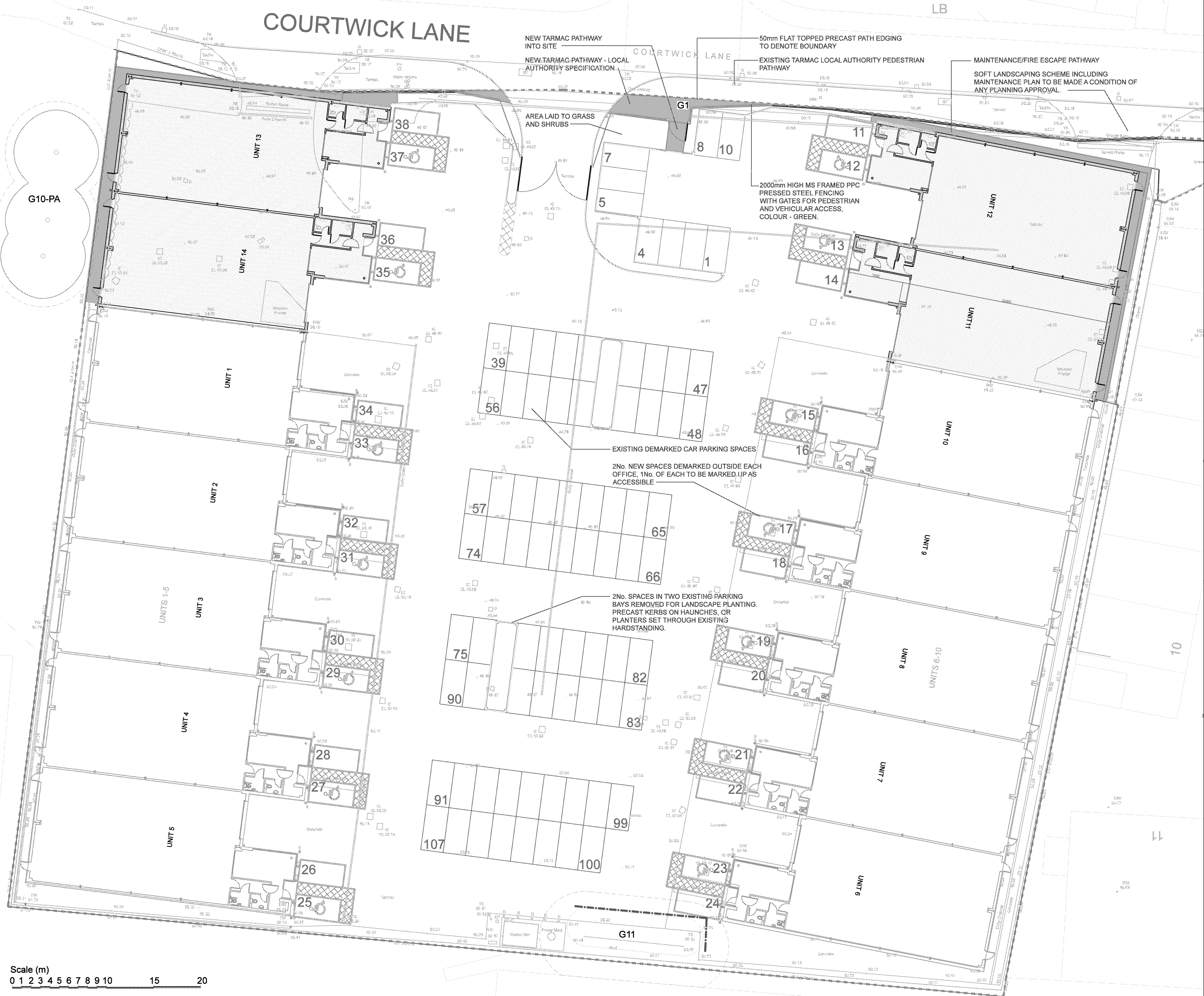
Drawing title: Tree Retention Plan

Date drawn: 30/07/2019

Scale: 1:200 at A1

Drawn by: PD

Checked by: LR



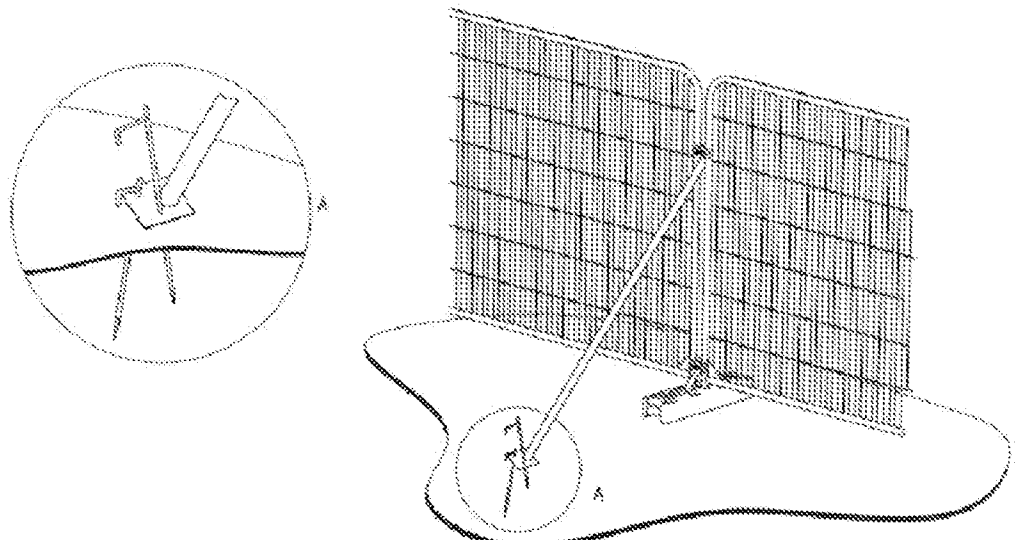
- Key:**
- Root protection area for tree to be retained
 - Canopy of tree to be retained without TPO
 - Canopy of tree to be retained with TPO
 - Tree protection fencing
 - Construction exclusion zone

Appendix 2, (Tree Survey Schedule) contained within the arboricultural report ref. PJC/5302/19-02 contains further information for each tree.

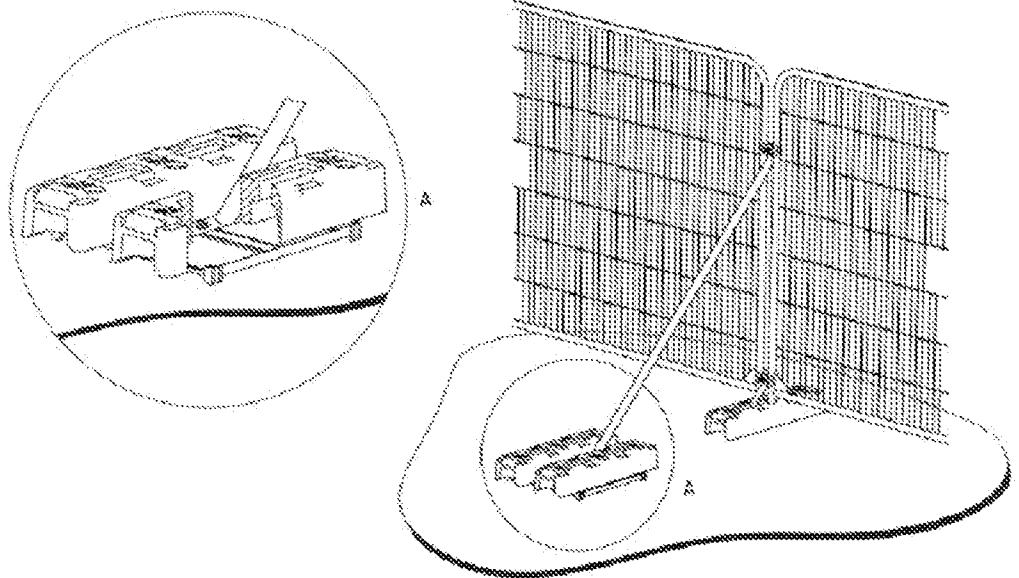
This drawing should be viewed in colour.

Tree numbers suffixed with PA indicate the tree position is approximate.

Tree protection fencing specification:



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

Example tree protection fencing sign:



Drawing no: PJC/5302/19/C Rev: - Sheet number: 1 of 1

Client and site:
Cordatus Property LP

Minster Court
Courtwick Lane
Littlehampton, BN17 7RN

Drawing title: Tree Protection Plan

Date drawn: 30/07/2019

Scale: 1:200 at A1

Drawn by: PD

Checked by: LR

APPENDIX 2

Tree Survey Schedule

Site: Minster Court, Littlehampton

Tree Survey Schedule



Survey date: 30/07/2019

Surveyor: Peter Davies

Tree ref.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Management recommendations	Category grading	Root Protection Area (m ²)	Root Protection Radius (m)
G1	Leyland cypress (Cupressus x leylandii)	6-7 average	Up to 200 average	1.5-2 average	0-1 average	Early mature	Good	Fair	Cypress screen along road frontage. Topped and crown lifted over pavement/car park.	Fell and remove stumps.	B2	18.1 average	2.4 average
T2	Leyland cypress (Cupressus x leylandii)	9	350 est	N: 3 E: 3 S: 3 W: 2	Crown: 4 average Branch: 2 south	Early mature	Good	Fair	Group G3 inhibits inspection of stem and suppresses lower crown.	Fell and remove stump.	C2	55.4	4.2
G3	Mixed (hawthorn, sycamore)	3-8 average	Up to 150 average	1-3 average	0-3 average	Semi mature	Good	Fair	Scrub and small trees around base of T2. Pruned back from car park.	Fell and remove stumps.	C2	10.2 average	1.8 average
T4	Leyland cypress (Cupressus x leylandii)	12	500 est	N: 3 E: 4 S: 2 W: 3	Crown: 0 average Branch: 1 average	Mature	Good	Fair	Asymmetric crown due to group pressures. Multi-stemmed. Ivy inhibits inspection of stem.	Fell and remove stump.	C1	113.1	6.0
T5	Leyland cypress (Cupressus x leylandii)	12	260, 320, 270 over ivy	N: 1 E: 3 S: 2 W: 3	Crown: 0 north Branch: 0 north	Mature	Good	Fair	Multi-stemmed. Ivy clad stems. Crown lifted over car park.	Fell and remove stump.	C1	109.9	5.9
T6	Leyland cypress (Cupressus x leylandii)	13	400, 150, 150 est	N: 2 E: 3 S: 2 W: 3	Crown: 0 average Branch: 0 average	Mature	Good	Fair	Lower crown trimmed to formal line on edge of car park. Upper crown lifted over car park. Multi-stemmed. Ivy clad.	Fell and remove stump.	C1	92.7	5.4

Site: Minster Court, Littlehampton

Tree Survey Schedule

Survey date: 30/07/2019

Surveyor: Peter Davies



Tree ref.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Management recommendations	Category grading	Root Protection Area (m ²)	Root Protection Radius (m)
T7	Leyland cypress (Cupressus x leylandii)	12	190, 220, 400 est	N: 2 E: 4 S: 3 W: 3	Crown: 0 average Branch: 0 average	Mature	Good	Fair	Lower crown trimmed to formal line on edge of car park. Upper crown lifted over car park. Multi-stemmed. Ivy clad.	Fell and remove stump.	C1	110.6	5.9
T8	Leyland cypress (Cupressus x leylandii)	8	300 est	N: 2 E: 2 S: 4 W: 3	Crown: 0 average Branch: 0 average	Early mature	Good	Fair	Lower crown trimmed to formal line on edge of car park. Upper crown lifted over car park.	Fell and remove stump.	C1	40.7	3.6
T9	Sycamore (Acer pseudoplatanus)	10	150 est	N: 2 E: 4 S: 1 W: 1	Crown: 4 east Branch: 5 east	Semi mature	Good	Fair	Third party tree only viewed from site. Stem leans over site, and on boundary fence. Drawn up growth habit.	Reduce stem to site boundary or fell to ground level if permission is granted by trees owner.	C1	10.2	1.8
G10	Sycamore (Acer pseudoplatanus)	14-15 average	Up to 450 average	4-5 average	2-6 average	Mature	Good	Good	Third party trees only viewed from site and road. No direct access to survey so all dimensions approximate.	TPO - No action required.	B1	91.6 average	5.4 average
G11	Leyland cypress (Cupressus x leylandii)	8-9 average	Up to 400 average	N: 3 E: 2 S: 1 W: 2	2 average	Mature	Good	Fair	Cypress screen on southern site boundary. Topped, reduced from third party warehouse and lifted over car park.	No action required.	B2	72.4 average	4.8 average