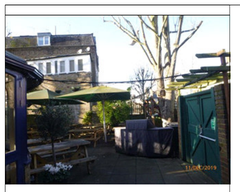

Photo 1

Photo 2

Photo 3

Photo 4

Photo 5

Photo 6

Photo 7

See the accompanying report for more photographs

Tree Constraints Plan
(Existing Layout)

Tree Ref.	Species	Height (m)	Root Protection Area		
			Radius (m)	m²	Square (m)
T1	Sycamore	9	4.7	69	8.3
T2	Ash	8	3.4	35	6.0
T3	Ash	5.5	1.3	5	2.3
T4	Sycamore	8	6.8	147	12.1
T5	Sycamore	10	6.6	137	11.7

MN = Measured North:

Canopy spreads are sometimes measured to an approximate N defined by site features. Often more accurate, especially where rows of trees are not aligned N-S or E-W.

BS 5837 Root Protection Area (radius = 12xstem diameter)

Root Protection Area needing amendment due to site conditions, e.g. presence of exising road or building.

Root Protection Area having been amended to account for for site conditions

T1 = Tree No 1 G2 = Group No 2 H3 = Hedge No 3

1 Photo 1

Drawing No:	CCL 10461 / TCP Rev: 2
Title:	Tree Constraints Plan (Existing Layout)
Site:	The Junction Tavern NW5 1AG
Scale: 1:100	Paper Size: A1

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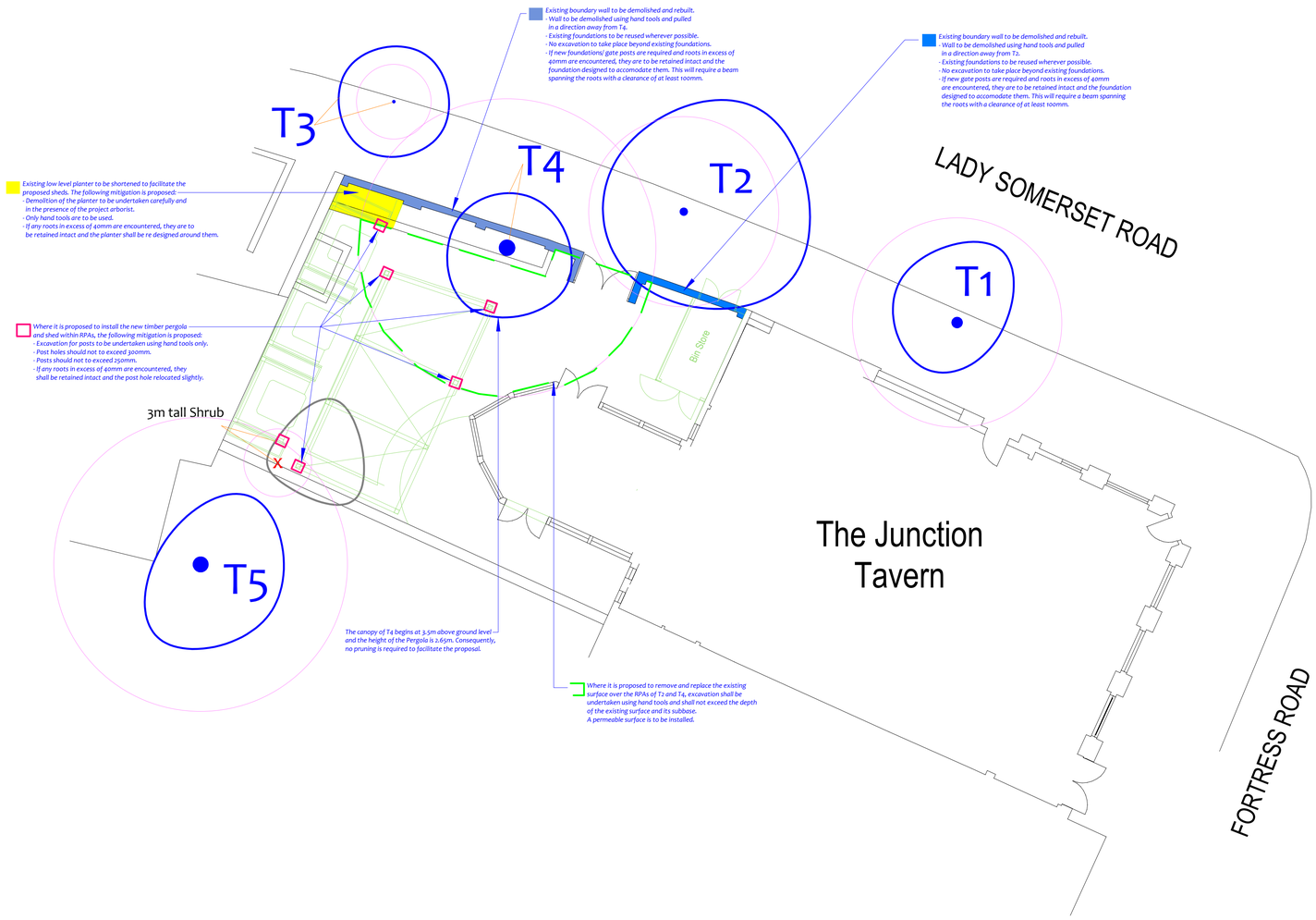
Tree Retention Categories
Stems & canopies shown

- Category A tree — Trees of high quality with an estimated life expectancy of 40+ years. Usually large trees with significant presence or smaller trees with excellent form. Retention of these trees is highly desirable.
- Category B tree — Trees of moderate quality with a life expectancy of 20+ years. Usually maturing trees, or younger trees with good form. Retention of these trees is desirable though less than Category A trees
- Category C tree — Unremarkable trees of low quality and merit. Individual specimens are not considered to be a material planning consideration.
- Category U tree — Trees unsuitable for retention due to their very poor condition.

Tree Constraints Plan

Proposed Layout (Pale Green)



Impact Assessment Plan

(Existing Layout with Proposals Overlaid)

Drawing No:	CCL 10461 / IAP	Rev: 1
Title:	Impact Assessment Plan (Existing Layout with Proposals Overlaid)	
Site:	The Junction Tavern NW5 1AG	
Scale: 1:100	Paper Size: A1	

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01423 316660

Tree Retention Categories
Stems & canopies shown

Category A tree	Trees of high quality with an estimated life expectancy of 40+ years. Usually large trees with significant presence or smaller trees with excellent form. Retention of these trees is highly desirable.
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Category C tree	Unremarkable trees of low quality and merit. Individual specimens are not considered to be a material planning consideration.
Category U tree	Trees unsuitable for retention due to their very poor condition.

Impact Assessment Plan

(Existing Layout with Proposals Overlaid)

BS 5837 Root Protection Area (radius = 12xstem diameter)

Root Protection Area needing amendment due to site conditions, e.g. presence of exising road or building.

Root Protection Area having been amended to account for for site conditions

T1 = Tree No 1 G2 = Group No 2 H3 = Hedge No 3

X Tree to be removed to facilitate the proposal

X Tree to be removed due to its low quality

Proposed pruning

MN = Measured North:

Canopy spreads are sometimes measured to an approximate N defined by site features. Often more accurate, especially where rows of trees are not aligned N-S or E-W.

Tree Ref.	Species	Height (m)	Root Protection Area		
			Radius (m)	m²	Square (m)
T1	Sycamore	9	4.7	69	8.3
T2	Ash	8	3.4	35	6.0
T3	Ash	5.5	1.3	5	2.3
T4	Sycamore	8	6.8	147	12.1
T5	Sycamore	10	6.6	137	11.7

Arboricultural Method Statement

CROWN Tree Consultancy 08000 14 13 30

Site: The Junction Tavern, 101 Fortress Road, London, NW5 1AG		Author: Emma Hoyle, FDSc (Arboriculture), ED (Forestry & Arboriculture), M. Arbor. A	
Date: 24 / 03 / 2020	Revision: 1	CCL ref No: 10461	Client: Nanu Soda

Tree Protection Barriers

The purpose of tree protection barriers is to keep construction activity away from Restricted Activity Zones or Construction Exclusion Zones. They should be appropriate to the nature and proximity of activity within the site. The barriers should be erected prior to the commencement of all activity including demolition, soil stripping and delivery of materials and demolition (except where existing structures require demolition to enable the barriers to be installed). Barrier systems are specified below and should be installed according to the legend on the Tree Protection Plan.

Stem Protection – Timber Boxing

Where indicated by a turquoise square on the Tree Protection Plan, it shall be necessary to install robust plywood boxing to protect a tree stem, The plywood boxing specification is indicated in the diagram opposite. The actual size of the plywood boxing shall be determined by the extent of the root flare at the base of each stem. The box shall be large enough to avoid contact with any part of the tree that it surrounds. No fixings shall be attached to any part of the tree. Instead, it shall be free standing or attached to the ground or adjacent structures (e.g. walls or fences). It shall be made firm enough to withstand occasional knocks from any plant machinery that may be operate in its vicinity.

Stem Protection – Cloth and Chestnut Paling Wrap

Where indicated by a turquoise star on the Tree Protection Plan, it is proposed to protect a tree stem using sturdy cloth and chestnut paling double wrapped around the stem and. Other tree protection barriers, such as those specified above, are not considered appropriate due to the proximity of the tree stem to proposed activity.

The tree stem and any low limbs shall be protected from ground level to a height of 2.5m by wrapping them at least three times with a sturdy material such as hessian cloth or similar. Around this, chestnut paling shall be wrapped at least twice around and secured.

The wrappings shall be secured using string, wire or plastic cable clips. They shall not be secured by driving nails or tacks into the tree stem or bark.

Removal of Tree Protection Barriers

Removal of protective fencing or ground protection measures shall be done after all major construction work is complete and their removal has been approved by the appointed arborist.

Notices

Suitable weather-proof notices should be displayed to identify tree protection zones. They should state the purpose of the fencing and that it should not be moved, or traversed, other than by authorised personnel.

Construction Exclusion Zones

Within Construction Exclusion Zones the following restrictions shall apply:

- Tree Protection Barriers shall be erected and maintained throughout the entire project as indicated on the Tree Protection Plan and under the header -*Tree Protection Barriers*.
- These shall remain in place at all times except when authorised landscaping works are being undertaken. At such times, all restrictions that apply to the *Restricted Activity Zone* shall apply. Furthermore, the project arborist shall be informed prior to any works being undertaken in these zones.
- No construction activity or excavation shall occur unless agreed otherwise by the project arborist and local authority.
- No vehicles or plant machinery shall be driven or parked.
- No tree works, other than those specified in this report shall be undertaken.
- No alterations of ground levels or conditions shall occur.
- No chemicals or cement washings permitted.
- No temporary structures shall be installed.
- No spoil shall be stored.
- No fires shall be permitted.
- All hazardous materials (including non-essential cement products) shall be forbidden.
- Removal of hard surfaces, structures or turf shall be done using hand operated tools only and supervised by the project arborist.

Ground Protection Measures

Within Restricted Activity Zones, soils containing roots may be subject to compaction due to general construction activity (including pedestrian activity and use of plant machinery). In order to minimise compaction, it is proposed to ensure that a suitable load-spreading surface is in place at all times.

Any existing hard surfacing may be retained and reinforced (where applicable and adequate), otherwise suitable new ground protection measures shall be installed. The ground protection shall need to be able to adequately spread the load of construction traffic. Where existing hard surfacing is to be retained, it shall not be necessary to install additional ground protection measures. However, the hard surfacing must be firm enough to spread the load of any traffic passing overhead.

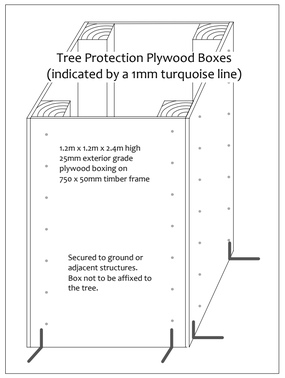
Where only pedestrian traffic will occur, the ground protection measures may be as simple as timber boards, or scaffold planks installed directly onto a geotextile fabric on the ground. The ground should first be made even by raking, or by adding a few centimetres of sand or woodchip.

Where only light vehicles are to operate (e.g. barrows, trolleys etc), thick wooden boards or scaffold planks should also suffice, though at least 150m of compressible woodchip will need to be installed first to help spread the load.

Where existing structures need to be removed, this shall be done with temporary ground protection measures in place to enable this to be achieved without compacting soils.

The ground protection measures shall be installed and approved before commencement of demolition and construction activity and before the arrival of plant machinery or materials. They shall remain in place until all heavy construction activity is complete or until they are due to be replaced with a new hard surface.

Example of Timber Plywood Boxing Stem Protection



Timing of Operations

Activity within the site shall be phased according to the following chronology

Order	Phase	Activity
1st.	Pre-Construction Phase	Planning conditions relating to trees to be identified and discussed with the Project arborist and site manager.
2nd.		All specified shrub removal to be undertaken (see Header -*Tree Works Schedule*).
3rd.		Install the tree protection barriers (boxing, stem wrapping and ground protection boards - see Headers - *Tree Protection Barriers* and *Ground Protection Measures*).
4th.		Pre-Commencement site meeting: Tree protection measures inspected. Additional protection measures to be agreed. Variances to be agreed. Scope of future inspections / monitoring to be agreed.
5th.		Arboricultural Method Statement to be revised and approved.
	Protection measures confirmed acceptable by the local authority	
6th.	Construction Phase	Demolish boundary walls, section of planter and remove existing surfaces.
7th.		Install new walls, surfaces and structures taking into account restricted activities as specified in this Arboricultural Method Statement.
8th.	Post-Construction Phase	Site meeting with project arborist. Landscaping restrictions to be agreed. Condition of retained trees to be assessed and mitigation agreed.
9th.		Remove protective barriers (fencing and ground protection measures as applicable).
10th.		Undertake restricted landscaping operations within Root Protection Areas, including (where applicable) boundary treatments, pedestrian surfaces, decking and any proposed tree planting.

Restrictions in Specific Zones

Restricted Activity Zone

Within this zone trees roots are likely to be present where access will be required to facilitate construction and where works are proposed. The following restrictions shall apply:

- No construction works shall commence until a suitable load spreading surface is in place. The load spreading surface shall be installed and/or maintained as specified under the heading ***Ground Protection Measures***. This shall remain in place throughout the entire construction phase or until any new permanent hard surfacing is installed.
- Removal of existing structures such as, walls, steps, planters and hard surfaces shall be undertaken using hand tools only.
- When **removing and replacing the existing surface**, excavation shall not exceed the depth of the existing hard surfacing and its sub-base and a permeable surface is to be installed.
- When **demolishing and rebuilding the existing boundary walls**, no excavation shall take place beyond the existing foundations. If new gate posts or foundations are required and roots in excess of 40mm are encountered, beams should be installed to span over the roots with a minimum clearance of 100mm.
- When **excavating post holes for the pergola and timber sheds**, post holes shall be kept as narrow as possible and shall not exceed 300mm. If any roots in excess of 40mm are encountered, the post hole shall be relocated and the root retained intact.
- When **demolishing the section of low planter**, the project arborist shall be present and if any roots in excess of 25mm are encountered, they are to remain intact and the planter re-designed around them.
- No further excavation shall occur in this zone without consulting the project arborist and obtaining approval from the local authority.
- Existing ground levels shall be retained undisturbed or raised by no more than 150mm. Ground levels may only be raised using granular topsoil (not rich in clay) or where new surfacing is proposed.
- No new permanent or temporary structures shall be erected other than those shown on the planning application documents unless approved by the local authority.
- Underground services shall not be installed in this area without prior consultation with the project arborist and a methodology agreed and approved by the local authority.
- If roots are encountered in excess of 25mm diameter, they shall be retained wherever possible and protected with damp sacking during times that they are unearthed. Any roots in excess of 10mm that need to be severed shall be pruned with secateurs.
- Storage of materials and spoil shall be avoided unless it has been agreed with the project arborist that the ground protection measures are adequate to ensure no soil compaction or contamination occurs. All hazardous materials (including non-essential cement products) shall be forbidden.
- No fires shall be permitted.
- Vehicles or plant machinery in excess of 2 tonnes shall not be permitted in this area.

General Restrictions - Throughout the Site

Preparatory Works

No demolition, removal of surfaces, or soil stripping shall commence until the protective fencing and ground protection measures are installed to the satisfaction of the local authority.

Fires

No fires shall be permitted beneath any tree canopy or within 5m of any tree stem, branch or foliage. No fires shall be permitted within any Construction Exclusion Zone or Restricted Activity Zone. No fires shall be permitted in the vicinity of any exposed tree roots.

Canopy Protection

In order to protect tree canopies the following restrictions shall apply throughout the site:

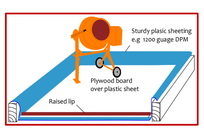
- No machinery in excess of 3m shall pass beneath the canopy of any tree without being carefully marshalled in order to ensure that no branches are damaged.
- If materials require installation or delivery beneath tree canopies, this shall be done without the use of overhead cranes.
- If materials are to be installed or delivered close to tree canopies (but not beneath them) and a crane is required, they shall be carefully marshalled in order to ensure that branches are not accidentally damaged.

Storage of Spoil and Materials

Storage of materials and spoil shall be avoided in any Construction Exclusion Zones and Restricted Activity Zones unless it has been agreed with the project arborist that the ground protection measures are adequate to ensure no soil compaction or contamination occurs. All hazardous materials (including non-essential cement products) shall be forbidden.

Hazardous Materials

Any mixing of cement based materials shall take place outside the Construction Exclusion Zones and Restricted Activity Zones. Where cement is to be mixed at considerable distances from trees and water run-off cannot enter Root Protection Areas, then no further special measures are required. Otherwise, provision shall be made to ensure that the mixing area is contained so that no water run-off enters the Root Protection Area of any trees (see diagram for example). Mixers and barrows shall be cleaned within this area.



All other chemicals hazardous to tree health, including petrol and diesel, shall be stored in suitable containers as specified by current COSHH Regulations, and kept away from Root Protection Areas.

General Restrictions Continued....

Underground Services

No underground services (including soak-aways) shall be located in any part of the Construction Exclusion Zones or Restricted Activity Zones unless done so in a manner detailed in a specific Method Statement and approved by the local authority.

Site Hoarding

If site hoarding shall be installed over the Root Protection Area of any tree, the following restrictions shall apply:

- Ground levels shall be maintained as existing.
- Post holes shall not exceed 300mm x 300mm.
- No post hole shall be excavated within 1.5m of any tree stem.
- Post holes shall be excavated using hand tools or by a post-hole auger attached to plant machinery sited outside of Root Protection Areas.
- Roots in excess of 25mm shall be retained wherever possible.
- Roots in excess of 10mm shall be pruned with sharp secateurs.
- Pruning shall be minimal and only undertaken where absolutely necessary to facilitate the site hoarding. It shall be undertaken by a reputable tree surgeon working to BS 3998 (2010).

Site hoarding may be installed in place of the specified tree protection measures subject to the approval of the local authority with regard to its location and specification.

Siting of Cabins

Cabins shall be located outside of Construction Exclusion Zones and Restricted Activity Zones unless agreed otherwise by the project arborist. Where this is being considered, the project arborist shall be consulted and specific tree protection measures agreed. The following general restrictions will apply:

- All services to and from site cabins shall be installed above ground through any Root Protection Areas.
- No excavation shall occur within Root Protection Areas to enable cabins to be installed.
- The cabins shall be founded on a suitable load spreading surface.

Tree Works Specification

The following table specifies the tree works which will be required prior to the commencement of construction activity:

Tree Reference	Action Required	Notes
One 3m tall shrub.	Remove.	Stumps shall be removed with a stump grinder NOT a mechanical excavator.

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01422 316660

Tree Protection Plan

CROWN Arboricultural Consultants 01422 316660

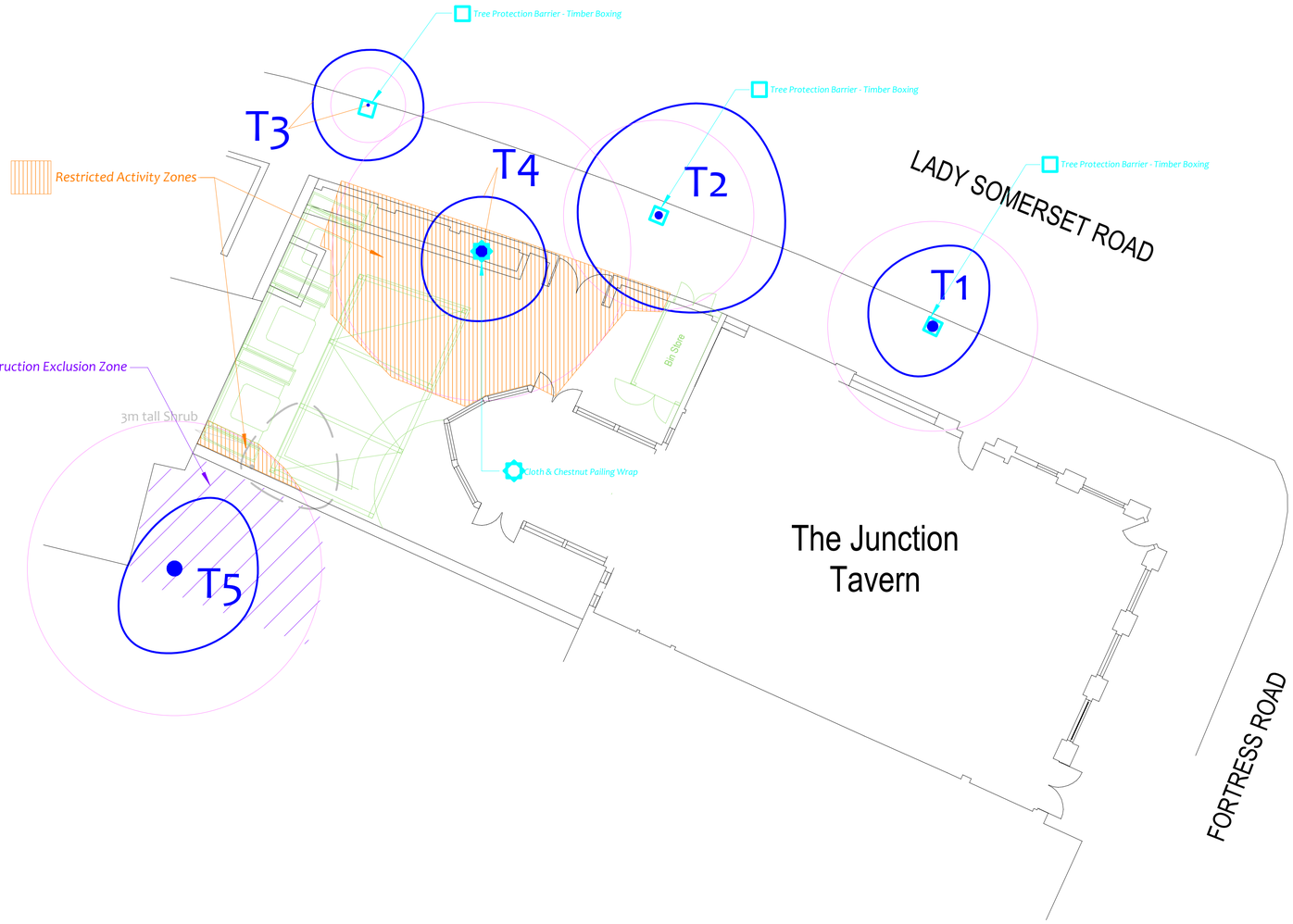
- BS 5837 Root Protection Area (radius = 12xstem diameter)
- Root Protection Area needing amendment due to site conditions, e.g. presence of exising road or building.
- Root Protection Area having been amended to account for for site conditions

T1 = Tree No 1 G2 = Group No 2 H3 = Hedge No 3

Tree Retention Categories
Stems & canopies shown

Category A tree	Trees of high quality with an estimated life expectancy of 40+ years. Usually large trees with significant presence or smaller trees with excellent form. Retention of these trees is highly desirable.
Category B tree	Trees of moderate quality with a life expectancy of 20+ years. Usually maturing trees, or younger trees with good form. Retention of these trees is desirable though less than Category A trees
Category C tree	Unremarkable trees of low quality and merit. Individual specimens are not considered to be a material planning consideration.
Category U tree	Trees unsuitable for retention due to their very poor condition.

Drawing No:	CCL 10461 / TPP Rev: 1
Title:	Tree Protection Plan (Existing Layout with Proposals Overlaid)
Site:	The Junction Tavern NW5 1AG
Scale: 1:100	Paper Size: A1



Site Monitoring Accountability

This table should be completed at the Pre-Start Meeting or earlier

Position	Name	Contact Phone & email	Roles
Project Manager	Insert Details	Insert Details	Liaising with site manager & project arborist regarding any potential issues relating to trees. Oversight of this monitoring schedule. Instructing the project arborist and arranging access. Liaising with local authority regarding discharge of planning conditions and variances to the Arboricultural Method Statement.
Site Manager	Insert Details	Insert Details	Familiarity with Arboricultural Method Statement. Implementation of the tree protection measures. Day-to-day compliance with Tree Protection Measures. Informing the Project Manager of Tree Protection variances & issues affecting trees.
Project Arborist	Insert Details Crown Tree Consultancy	08000 14 13 30 0203 797 7449 Info@crowntrees.co.uk	Inspect tree works and report to the project manager. Inspect tree protection measures and report to Project Manager. Oversee excavations in RPAs, provide mitigation advice, undertake root pruning. Monthly site monitoring and reporting to the Project Manager on tree protection and variances.
Local Authority	London Borough of Camden	Insert Details	Liaising with the project arborist and project manager regarding tree protection issues relating to planning conditions. Advice and assistance with the discharge of planning conditions relating to trees.
Additional Contact	Insert Details	Insert Details	Insert Details
Additional Contact	Insert Details	Insert Details	Insert Details

Tree Data Schedule

Reference T = Tree G = Group H = Hedge	Age & Species	Height (m)	Crown Height (m)	Diameter (cm)	Crown Spread (m) N W E S	Scaled Tree Diagram (m)	Notes	Recommendations (Independent of any development proposals) Priority	Inspect Freq (yrs)	Vigour Physiological Condition	Structural Condition	Amenity Value Life Expectancy (yrs)	Retention Category
T1	Early-Mature **Sycamore** Acer pseudoplatanus.	9	3	39	3, 2.5, 2, 1.5	15	Position: Street Tree. Form: Single stemmed and vertical with a slightly unbalanced crown. History: Multiple pruning wounds due to crown reduction. **Defects: No significant defects observed.**	No action required.	n/a	3	Moderate Good Good	High	40+	B
T2	Semi-Mature **Ash** Fraxinus excelsior.	8	3.5	28	4.5, 3, 4.5, 3	15	Position: Street Tree. Form: Single stemmed with a slight lean and a slightly unbalanced crown. History: No evidence of significant pruning. **Defects: No significant defects observed.**	No action required.	n/a	3	High Good Good	High	40+	B
T3	Semi-Mature **Ash** Fraxinus excelsior.	5.5	3	11	2, 2, 2, 2	15	Position: Street Tree. Form: Single stemmed and vertical with a balanced crown. History: No evidence of significant pruning. **Defects: No significant defects observed.**	No action required.	n/a	3	High Good Good	High	40+	B
T4	Early-Mature **Sycamore** Acer pseudoplatanus.	8	3.5	57	2, 3, 2.5, 2.5	15	Form: Twin-stemmed at 2m with a balanced crown. History: Multiple pruning wounds due to crown reduction. **Defects: No significant defects observed.** Other: I understand that this tree has damaged and distorted the adjacent wall in the past.	No action required.	n/a	3	Moderate Good Fair	Moderate	20-40	B -
T5	Early-Mature **Sycamore** Acer pseudoplatanus.	10	4	55	3, 1.5, 3	15	Position: Situated on third party land. Form: Twin-stemmed at 3.5m with an unbalanced crown. History: Occasional pruning wounds due to crown reduction. **Defects: No significant defects observed.** Other: Limited inspection, dimensions estimated.	No action required.	n/a	3	Moderate Good Fair	Moderate	20-40	B -

Site Monitoring Schedule

Inspection	Site Attendees	Comments
Pre- Start Desk-top To occur prior to any works taking place on the site.	N/A.	Project Manager and Site manager to study this Method Statement & contact the Project Arborist to agree all protection measures.
Pre-Start Meeting After tree works completed & tree protection barriers / ground protection measures installed. Prior to any other activity, inc. demolition & soil stripping.	Site manager, project arborist. Tree Officer invited.	Tree protection fencing locations & specification checked. Additional ground protection measures checked. Further protection measures / restrictions agreed.
All ground disturbance In Restricted Zones & Construction Exclusion Zones Including demolition, soil stripping, removal of hard surfaces, excavation for new surfacing, foundations, service trenches etc.	Site manager, project arborist. Tree Officer invited.	Two week's notice to be given prior to excavation. Excavation to be as specified in this Method Statement. Excavations to be recorded and photographed. Mitigation measures to be employed specified by the project arborist.
Intermediate Inspection and Reporting Throughout the demolition and external construction phase.	Site manager and project arborist.*	Project manager, site manager and project arborist to liaise regarding any issues which may affect trees. To occur at least once per month.
Post-Construction Meeting Post external construction activity but prior to removal of fencing & landscaping operations.	Site manager, project arborist. Tree Officer invited.	Retained trees inspected. Ground conditions assessed and mitigation measures agreed where appropriate. Further landscaping operations and restrictions to be agreed.
Post-Landscaping Meeting After completion of all hard and soft landscaping.	Site manager, project arborist. Tree Officer invited.	Confirm landscaping and mitigation planting is acceptable.

* Where agreed with the L.A. it may be acceptable to supply photographs of the fencing to avoid the necessity for a site visit.