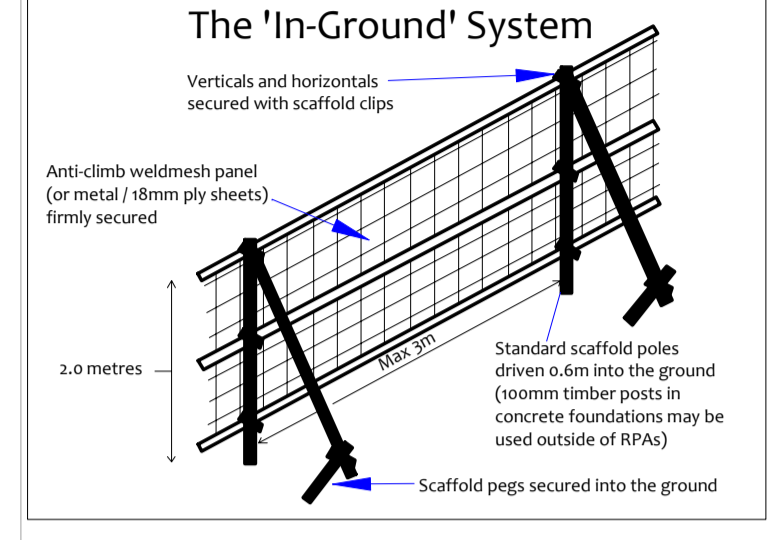


**Tree Protection Barriers**

The purpose of tree protection barriers is to keep construction activity away from Restricted Activity Zones or Construction Exclusion Zones. They must be erected prior to the commencement of all activity within the site. The barriers must 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 are to be installed according to the legend on the Tree Protection Plan.

**The In-Ground System**

This system will be installed where indicated by a solid purple line on the Tree Protection Plan. It will be robust enough to withstand occasional knocks by plant machinery and, once installed, will remain in place throughout the entire construction phase.



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

**Removal of Tree Protection Barriers**

Removal of protective fencing or ground protection measures will only be done after all major construction works are complete and their removal has been approved by the appointed arborist.

**Construction Exclusion Zones**

- Within Construction Exclusion Zones the following restrictions apply:
- Tree Protection Barriers will be erected and maintained throughout the entire project as indicated on the Tree Protection Plan and under the header 'Tree Protection Barriers'.
  - These will remain in place at all times except when authorised landscaping works are being undertaken. At such times, adequate ground protection measures will be installed, and excavation will be limited to that required for new planting and any new pedestrian paving/surfaces.
  - No other construction activity or excavation will occur unless agreed otherwise by the project arborist and local authority.
  - No vehicles or plant machinery will be driven or parked.
  - No tree works, other than those specified on this document will be undertaken.
  - No alterations of ground levels or conditions will occur.
  - No chemicals or cement washings will be permitted.
  - No temporary structures will be installed.
  - No spoil will be stored.
  - No fires will be permitted.
  - All hazardous materials (including non-essential cement products) will be forbidden.
  - Removal of hand surfaces, structures or turf will be done using hand-operated tools.



**Restrictions in Specific Zones**

- Restricted Activity Zone A**
- Within this zone, tree roots are likely to be present where access is required to facilitate construction. The following restrictions shall apply:
- No vehicles or plant machinery will park or operate unless a suitable load-spreading surface is in place. The load spreading surface will be installed as specified under the heading 'Ground Protection Measures'. These will remain in place throughout the entire demolition and construction phase or until any permanent hard surfacing is installed.
  - Removal of existing structures such as garden walls, steps and hard surfaces (where applicable) will be undertaken using hand tools.
  - When demolishing the existing outbuilding, hand tools only will be used. Any walls, surfaces and foundations will be demolished and pulled onto the existing footprint and then carefully removed from the site.
  - Where it is proposed to maintain in place soft landscaping in the vicinity of T3, T4 and the RPA of T6, hand tools will be used for levelling any existing ground. Excavation will be limited to the removal of loose ground/topsoil only.
  - Where existing paving is to be replaced/overlaid over the RPA of T6, excavation will be limited to the removal of the existing surfaces and any associated sub-base. New surfaces shall be permeable.
  - Ground levels will not be altered by any more than that specified in the approved drawings. Ground levels may only be raised using granular topsoil (not rich in clay) or where new surfacing is proposed. No raising or lowering of ground levels will occur within 0.5m of any tree stems.
  - No further excavation will occur in this zone without consulting the project arborist and obtaining approval from the local authority.
  - No new permanent or temporary structures will be erected other than those shown on the planning application documents unless approved by the local authority.
  - Underground services will 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 will be retained wherever possible and protected with damp sacking during times that they are unearthed. Any roots in excess of 50mm that need to be severed will be pruned with secateurs.
  - Storage of materials and spoil will 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) will be forbidden.
  - No fires will be permitted.
  - Vehicles or plant machinery in excess of 2 tonnes will not be permitted in this area.

**Restricted Activity Zone B**

- In this zone, foundations are to be installed. In order to minimise the impact on roots, it is proposed to install a **Shallow Foundation**. The following restrictions will apply:
- Deep concrete strip foundations will not be acceptable in this area. Instead, shallow raft or slab foundations will be installed.
  - Excavation for the raft or slab will be limited to a depth of 250mm.
  - No excavation will be undertaken using hand tools only.
  - Narrow diameter (micro) piles may be installed to support the raft or slab. Before installing any piles, trial pits will be excavated. Trial pits will not exceed 300mm in diameter and will be excavated to a depth of 100mm. The soil will first be loosened with a pick or garden fork to ascertain if large roots are present before the loosened soil is removed with a spade. If roots in excess of 50mm are encountered, or an abundance of roots in excess of 25mm, they will be retained intact, and the pile will be relocated and positioned to avoid the roots.
  - Pile diameter will not exceed 250mm unless agreed otherwise with the local authority.
  - In excess of 25mm which are located close to the bottom or the edge of the excavation are to be retained intact if possible and covered with wet sacking whilst exposed. All roots in excess of 10mm which cannot be retained will be neatly pruned with secateurs.



**Ground Protection Measures**

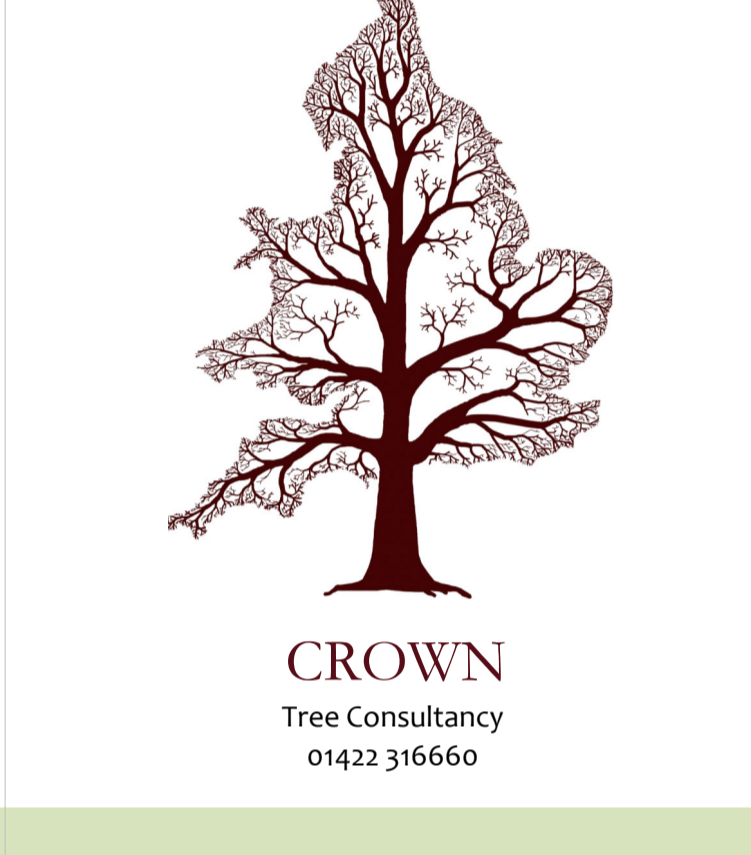
Within Restricted Activity Zones, soils containing roots may be subject to compaction due to general construction activity (including pedestrian activity and use of plant machinery). In order to minimise compaction, it is proposed to ensure that a suitable load-spreading surface is in place at all times. Any existing hard surfacing may be retained where engineers consider it adequate to spread the load of construction traffic. Otherwise, it will be reinstated or replaced with adequate ground protection measures.

Unless specified otherwise, ground protection will consist of 24mm OSB boards laid at double thickness and screwed together to prevent slippage. The ground will be made even by raking, and by adding a 50mm of sand or woodchips, wherever vehicular access is proposed. Where only pedestrian traffic will occur, boards or planks may be laid directly onto the ground.

**Tree Works Specification**

| Tree Reference  | Action Required  | Notes  |
|---|--|--|
| T1, T2, T5, an Apple sapling & small trees & specimens. | Remove.  | Stumps of trees within the RPAs of retained trees shall be removed with a stump grinder NOT a mechanical excavator.                    |
| T3  | Lightly trim foliage overhanging the existing and proposed structure as necessary in order to create suitable clearance for construction activity. | Branches to be pruned back to a suitable branch junction wherever possible. Pruning works to be undertaken in accordance with BS 3998. |
| T5  |  | Trees to be removed are indicated by a thin, dashed line.  |

Trees to be removed are indicated by a thin, dashed line.



**General Restrictions - Throughout the Site**

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

**Preparatory Works**

- Fires**  
No fires will be permitted beneath any tree canopy or within 5m of any tree stem, branch or foliage. No fires will be permitted within any Construction Exclusion Zone or Restricted Activity Zone. No fires will be permitted in the vicinity of any exposed tree roots.
- Canopy Protection**  
In order to protect tree canopies the following restrictions will apply throughout the site:  
No machinery in excess of 2m will 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 will be done without the use of overhead cranes.  
Materials are to be installed or delivered close to tree canopies (but not beneath them) and a crane is required, they will be carefully marshalled in order to ensure that branches are not accidentally damaged.

**Storage of Spoil and Materials**

Storage of materials and spoil will 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) will be forbidden.

**Hazardous Materials**

Any mixing of cement based materials will 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 will 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 will be cleaned within this area.

**Underground Services**

No underground services (including soak-aways) will be located in any part of the Construction Exclusion Zones or Restricted Activity Zones unless prior approval by the local authority.

**Site Hoarding**

- If site hoarding shall be installed over the Root Protection Area of any tree, the following restrictions will apply:
- Ground levels will be maintained as existing.
  - No post holes will be excavated within 1.5m of any tree stem.
  - Post holes will 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 will be retained wherever possible.
  - Roots in excess of 50mm will be pruned with sharp secateurs.
  - Pruning will be minimal and only undertaken where absolutely necessary to facilitate the site hoarding. It will be undertaken by a reputable tree surgeon working to BS 3998 (2019).
  - 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 will 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 will be consulted, and specific tree protection measures agreed. The following general restrictions will apply:
- All services to and from site cabins will be installed above ground through any Root Protection Areas.
  - No excavation will occur within Root Protection Areas to enable cabins to be installed.
  - The cabins will be founded on a suitable load spreading surface.

**Fence Posts or Decking Posts**

- If permanent fencing or decking is to be installed within Root Protection Areas, the following restrictions will apply:
- All post holes will be dug before committing to post / panel positions. If any roots in excess of 50mm are encountered they are to remain intact and the post hole will be relocated slightly. The fencing system must permit such flexibility (i.e. where fixed panel widths are used all post holes must be excavated before committing to the final location).
  - Any roots in excess of 10mm which are covered will be neatly pruned back with secateurs. This shall encourage healing and reduce the likelihood of infection.
  - Walls will be avoided over Root Protection Areas, unless their foundations are spanned over roots using a beam system.

**Timing of Operations**

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

| Order   | Phase                             | Activity  |
|---|-----------------------------------|---|
| 1st.  |                                   | Planning conditions relating to trees to be identified and discussed with the Project Arborist and Site Manager.  |
| 2nd.  |                                   | All specified tree removal and pruning to be undertaken (see Header -Tree Works Schedule).  |
| 3rd.  | Pre-Construction Phase            | Install the tree protection barriers (fencing and ground protection boards - see Headers -Tree Protection Barriers and Ground Protection Measures).   |
| 4th.  |                                   | Pre-Commencement site meeting: Tree protection barriers inspected. Additional protection measures to be agreed. Variances to be agreed. Location of any underground services to be agreed. Boundary treatments to be agreed. Extents of excavation to be agreed. Scaffold restrictions to be agreed. Scope of future inspections / monitoring to be agreed. |
| 5th.  |                                   | Arboricultural Method Statement to be revised and approved (if necessary).  |
| Protection measures confirmed acceptable by the Local Authority |                                   |   |
| 6th.  | Demolition and Construction Phase | Demolish existing structures and remove existing surfaces where applicable.   |
| 7th.  |                                   | Install new buildings, hard surfaces and services taking into account restricted activities as specified in this Arboricultural Method Statement.   |
| 8th.  |                                   | Site meeting with Project Arborist. Landscaping restrictions to be agreed. Condition of retained trees to be assessed and mitigation agreed. Ground conditions to be assessed and ground remediation to be agreed.  |
| 9th.  | Post-Construction Phase           | 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.  |

**Personnel and Accountability**

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

| Position           | Name                     | Contact Phone & email                                    | Roles   |
|--------------------|--------------------------|--|---|
| Project Manager    | TBC at Pre-Start Meeting | Insert Details   | Liaising with site manager & project arborist regarding any potential issues relating to trees (including pre-start clarification of the Arboricultural Method Statement). Scheduling of meetings, excavations and inspections (including project arborist and local authority tree officer where applicable). Overseeing 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. Reporting to the local authority following site inspections and any variation or incidents. |
| Site Manager       | TBC at Pre-Start Meeting | Insert Details   | Day to day monitoring of tree protection measures. Induction of all contractors. Reporting to the Project Manager and the Appointed Arborist of any incidents or potential variations to the agreed tree protection measures.   |
| Project Arborist   | Crown Tree Consultancy   | 08000 14 13 30<br>0203 797 7410<br>Info@crowntrees.co.uk | Liaising with LPA Tree Officer over technical arboricultural matters. Upon instruction the arborist shall inspect the tree protection barriers including ground protection measures and produce a short report for the project manager to submit. Upon instruction the arborist shall attend any specified site visits and inspections and produce a short report for the project manager to submit.  |
| Local Authority    | London Borough of Camden | Insert Details   | Approval of the Arboricultural Method Statement and site monitoring reports. Liaising with the appointed arborist on all technical arboricultural matters. Liaising with the Project Manager to agree suitability of tree protection measures and any variations. Enforcement. Discharge of planning conditions relating to trees.  |
| Additional Contact | Insert Details           | Insert Details   | Insert Details  |

**Site Monitoring Schedule**

| Inspection   | Site Attendees   | Comments  |
|--|--|---|
| <b>Pre-Start Desk top</b><br>To occur prior to any works taking place on site.   | N/A.   | Project Manager and Site Manager to study this Method Statement & contact the Project Arborist to clarify all protection measures.  |
| <b>Pre-Start Meeting</b><br>To occur prior to any tree protection barriers / ground protection measures installed and prior to any other activity, inc. demolition & soil stripping.   | Project Manager, Site Manager, Project Arborist, relevant contractors. Tree Officer invited. | Tree protection fencing locations & specification checked. Ground protection measures checked. Contractor to be instructed to all relevant aspects of the Arboricultural Method Statement. Responsibilities checked and acknowledged. Adherence to the Arboricultural Method Statement to be discussed and agreed. Report on findings to be provided to the arborist and sent to the local authority tree officer by the project manager. |
| <b>Monthly Inspection and Reporting</b><br>To occur once per calendar month throughout the entirety of the project until the local authority agree that tree protection measures may be removed.                               | Site Manager and Project Arborist.   | Tree protection fencing locations & specification checked. Ground protection measures checked. Past month, present and future month - activities and adherence to Arboricultural Method Statement discussed and checked. Report on findings to be provided by the Project Arborist and sent to the local authority by the Project Manager.  |
| <b>Any other ground disturbance in Restricted Zones &amp; Construction Exclusion Zones</b><br>Including demolition, soil stripping, removal of hard surfaces, excavation for new surfacing, foundations, service trenches etc. | Site Manager, Project Arborist.  | Two week's notice to be given prior to commencement. Excavation to be as specified in this Method Statement. Excavations to be recorded and photographed. Mitigation measures to be employed as specified by the project arborist.  |
| <b>Post-Construction Meeting</b><br>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.  |

**Tree Data Schedule**

| Reference | Age & Species           | Height (m) | DBH (cm) | Crown Spread (m) | Scaled Tree Diagram (m) | Notes  | Recommendations (in line with any assessment proposals) | Value    | Physiological Condition | Structural Condition | Priority | Priority (Project) | Priority (Public) | Priority (Private) | Priority (Other) | Priority (Overall) | Priority (Overall) | Priority (Overall) | Priority (Overall) |
|-----------|-------------------------|------------|----------|------------------|-------------------------|--|---|----------|-------------------------|----------------------|----------|--------------------|-------------------|--------------------|------------------|--------------------|--------------------|--------------------|--------------------|
| T1        | Early-Mature Bay Laurel | 11         | 3        | 30               | 3                       | Position: Immediately adjacent neighbours extension. Form: Multi-stemmed at 1.5m with unbalanced crown. History: Occasional pruning wounds due to crown lifting (now healed). Defects: No significant defects.   | No action required.                                     | High     | Good                    | Good                 | n/a      | 3                  | 3                 | 3                  | 3                | 3                  | 3                  | 3                  | 3                  |
| T2        | Young Holly             | 5.5        | 2        | 11               | 2                       | Position: Narrow brick planter. Form: Leaving killed stems. History: No evidence of significant pruning. Defects: No significant defects.  | No action required.                                     | Moderate | Good                    | Good                 | n/a      | 3                  | 3                 | 3                  | 3                | 3                  | 3                  | 3                  | 3                  |
| T3        | Early-Mature Magnolia   | 8          | 2.5      | 30               | 3                       | Position: Situated within the rear garden. Form: Multi-stemmed at 1.5m with a well-formed crown. History: No evidence of significant pruning. Defects: No significant defects.   | No action required.                                     | Moderate | Good                    | Good                 | n/a      | 3                  | 3                 | 3                  | 3                | 3                  | 3                  | 3                  | 3                  |
| T4        | Semi-Mature Weeping Ash | 5          | 2        | 27               | 1.5                     | Position: Situated within the rear garden. Form: Multi-stemmed at 1.5m with an awing habit. History: No evidence of significant pruning. Defects: No significant defects.  | No action required.                                     | Moderate | Fair                    | Fair                 | n/a      | 3                  | 3                 | 3                  | 3                | 3                  | 3                  | 3                  | 3                  |
| T5        | Mature Lime             | 28         | 6        | 45               | 3                       | Position: Situated within the rear garden. Form: Twin-stemmed at 1m with a balanced crown. History: Occasional pruning wounds due to crown reduction. Defects: Major cavity at ground level to 2m. Other: Stem bulges at 1.5m so diameter taken at 2m. | Remove.   | High     | N/A                     | Very Poor            | High     | N/A                | N/A               | N/A                | N/A              | N/A                | N/A                | N/A                | N/A                |
| T6        | Mature Lime             | 28         | 8        | 90               | 3                       | Position: Situated on third party land. Form: Multi-stemmed at 1m with a slightly unbalanced crown. History: Limited inspection, dimensions estimated. Defects: No significant defects.  | No action required.                                     | High     | Good                    | Moderate             | n/a      | 3                  | 3                 | 3                  | 3                | 3                  | 3                  | 3                  | 3                  |



**Tree Protection Plan**

**CROWN Tree Consultancy**  
01422 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.
- Category B tree: Trees of moderate quality with a life expectancy of 20+ years. Usually medium 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 form. Individual specimens are not considered to be a material planning consideration.
- Category U tree: Trees unsuitable for retention due to their very poor condition.

**BS 5837 Root Protection Area (Radius = 12xstem diameter)**

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

**Drawing No:** CCL 11403 / TPP Rev: 2  
**Title:** Tree Protection Plan (Existing Layout with Proposals Overlaid)  
**Site:** 18 Well Walk, NW3 1LD  
**Scale:** 1:100  
**Page Size:** A1