



TREE PROTECTION DEMOLITION PHASE

Godwin & Crowndale Estate,
Godwin Court, Crowndale Road, Camden, London, NW1 1NW



Project Number: G2831
Version Number: 2

Project Name: Godwin & Crowndale Estate
Date: 11-11-2021

1. Introduction

Within this Method Statement Goody Demolition Limited will illustrate how the tree protection works are to be carried out. Goody Demolition Limited will carry out the necessary tree protection works for the demolition phase of works where the safety and welfare of all site personnel, general public and neighbouring occupants is paramount. Every effort will be made to ensure any disruption is minimised on and around the site. All demolition work will be carried out in accordance with relevant Codes of Practice and H.S.E. guidelines.

NB: Details of tree protection methods for the Construction Phase, including a method statement for the construction of foundations within root protection areas of trees to be retained, in line guidelines and standards set out in BS5837:2012 "Trees in Relation to Construction" will be covered in the Construction Phase Management Plan by others and does not form part of this document.

NB: The methods described herein are seen as the most appropriate for the works and are based on information available at the time of preparation. In the event of further information becoming available, changes in conditions, requirements or time scale, this document may need to be amended or developed with the agreement of the Client.

| | |
|------------------------------|---|
| CLIENT | London Borough of Camden |
| SITE | Godwin & Crowndale Estate, Godwin Court, Crowndale Road, Camden, London, NW1 1NW |
| COMMENCE | TBC |
| VERSION No | 2 revised 11.11.2021 |
| DATE OF ASSESSMENT | 11-10-2021 |
| NAME OF ASSESSOR | Calum Hay |
| SIGNATURE OF ASSESSOR |  |
| POSITION | Assistant Operations Manager |
| APPROVED BY | Gary Venner & Spencer Nichol |

1.1. The Site

The designated area was utilised as a play area for residents for recreational / sport related activities. The area is to be removed to facilitate the planned development for London Borough of Camden. The site's proposed development is to create residencies in the area.

The area is made up of a MUGA pitch with tall green fencing around the boundary. There are trees within the vicinity, some to be protected and some to be removed. This document will go through the works related to trees within the area.

Operating Hours (see 2.4 for delivery times)

Monday to Friday: **08:00am – 18:00pm** **High Impact Activities**

Saturdays (If Required): **To be agreed**

NB: *There will be no working on Sundays or public holidays. Any changes to the working hours outside of the standard working hours will need be approved by the Client and Local Authority prior to commencing.*

Contractors/Delivery Vehicles:

Delivery times will be 08:00 to 18:00 we will endeavour to avoid peak times to reduce congestion

- So far as is reasonably practicable all deliveries shall be pre-booked and allocated set arrival times.
- Delivery instructions shall be sent to all suppliers and contractors.
- The engines of delivery vehicles shall not be kept idling – in order to minimise noise and air pollution

2. Scope of Works

Goody Demolition will safely carry out the demolition and associated works on this project which will include, but are not limited, to the following: *(A detailed methodology is given later in section 8 of this document).*

- Produce RAMS and agree
- Install tree protection to the identified tree as shown in the "Arbeco" Arboriculture report carried out on 24-04-2019.
- Removal of low quality / unsuitable trees as shown in "Arbeco" Arboriculture report carried out on 24-04-2019.

NB – to be carried out by an approved Tree Surgeon

NB – LBC have arranged a schedule of monitoring and supervision by the project arboriculturist

3. Hazards Identified

We have carefully carried out an extensive survey of any hazardous issues which could cause harm to anyone within the areas of works.

| | |
|-------------------------------|---------------------------------------|
| General safety | See risk assessment no 000 |
| Materials falling from height | See risk assessment no 007, 019 & 032 |
| Fires | See risk assessment no 011 |
| Power Tools | See risk assessment no 018a |
| Work at Height | See risk assessment no 019 |
| Site traffic | See risk assessment no 020, 042 & 043 |
| Manual handling | See risk assessment no 034 |
| Tree Protection | See risk assessment no 049 |
| Covid-19 (Coronavirus) | See risk assessment no 1000 |

4. Plant and Equipment

All plant and equipment will be examined for safety and any found to be defective will be repaired or replaced before work commences.

- Hand tools.
- Power tools.
- Podium Steps / Scaffold Towers.
- Skips/lorries.
- Heras fencing and pedestrian barriers and removable hoarding
- PPE Requirements:
 - Hard-hat.
 - Glasses.
 - RPE (**When required**) – All operatives wearing / soon to be using their RPE must be in possession of a valid face fit test certificate for the specific equipment they are using.
 - Hi-Vis Vest.
 - Gloves (Cut resistant / Penetration resistant are required whilst working with or near sharp objects / glass).
 - Work boots.

The following will be carried out on a daily basis:

- All areas will be inspected for any equipment or materials that may have been left behind that could potentially cause a hazard.
- Permits will be obtained prior to and signed off after each shift.
- All plant Operators shall undertake and record a pre-use inspection of their vehicle.
- All weekly records of plant and equipment inspections shall be issued / made available to Camden Council by the end of play every Friday.
- All skips removed from the site will be recorded by the site supervisor in the site waste log.

5. Personnel Involved

- All personnel on this site will attend a site induction carried out by the Principal contractor prior to commencement of works.
- **All demolition managers, supervisors and operatives will hold valid CCDO cards with the relevant competence categories for the role that they are to undertake.**
- All site operatives will hold a C.S.C.S. equivalent Health and Safety certificate.
- Goody Demolition operate a strict training regime which involves operatives having the correct competency tickets, or in house training for, banks man, abrasive wheels, burning, first aid, HAVs etc.
- The Supervisor shall hold a full First Aid at Work qualification and 2nd in command holds Emergency First Aid at Work both these will be present on site.
- All safety critical staff will have the appropriate safety critical fit for work certificate.
- All training certificates are held at the offices of Goody demolition.
- The copies of these competency tickets will be in the possession of the client's representative on site and are to be held until the demolition works are complete.

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6. Method of Works

6.1. Protection of retained trees during development – DEMOLITION PHASE

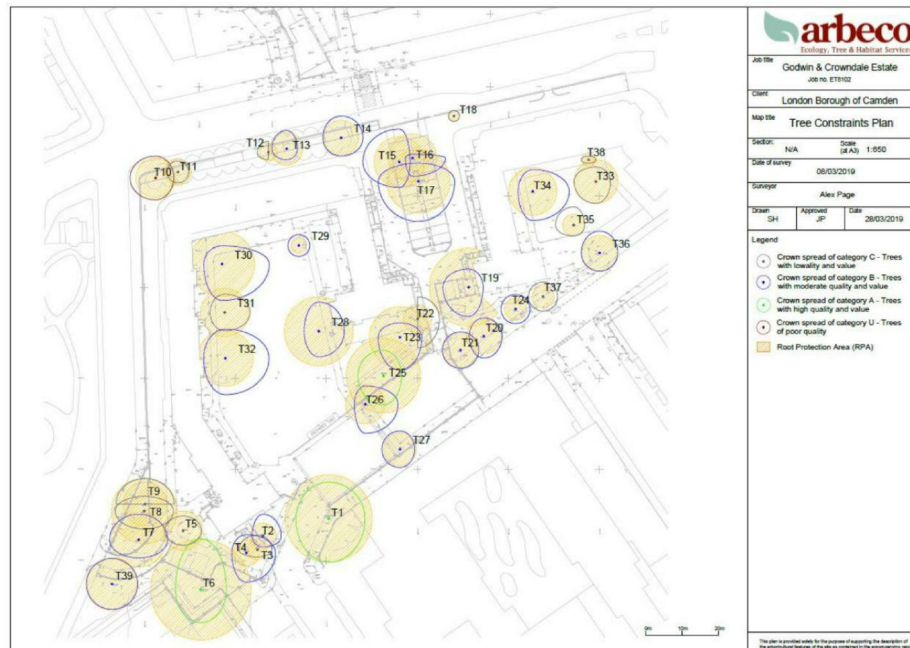
Trees are often overlooked during development and as a result many are either lost or given inadequate protection that results in their demise within a few years. The British Standard *BS 5837 Trees in relation to design, demolition and construction - Recommendations* was reviewed and updated in April 2012 and is the benchmark document for how to successfully take account of and retain suitable trees in proximity to development.

Trees have to adapt to their immediate surroundings and any changes will have some effect therefore it is essential that a detailed tree survey that complies with the British Standard is undertaken before a scheme is designed. This will schedule the trees according to their suitability for retention and identify the extent of land required to ensure that they have the best chance of survival. Older trees are more vulnerable and they are often the most desirable to retain for both their amenity and conservation value.

Please see the below plans detailing conditions of identified trees within the area of the site and their category.

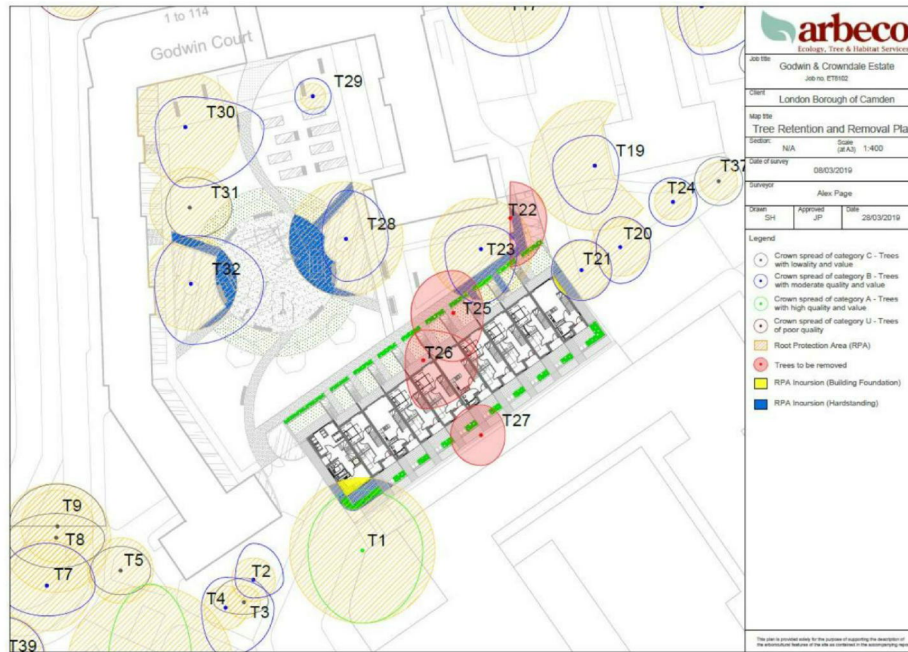
Following on from this on the next page, please also refer to the plan for the designated trees on site for the planned development –

Note Goody Demolition will protect T21 & T23 on our works and remove T22, T25, T26 and T27. Special care will be taken when removing the MUGA pitch in the area of roots of T1.



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Common damage to trees during development

- Abrasion of bark and wounds that leave wood tissue exposed
- Crushing of roots by vehicles / plant equipment and / or storage of materials
- Severing and removal of roots by excavation
- Broken branches leaving wood tissues exposed
- Poor pruning
- Fire damage
- Poisoning of roots from spillage or storage of fuel, oil, chemicals etc
- Changes in soil levels around trees resulting in root death
- Installation of impermeable surfaces

BSI Standards Publication - BS 5837: 2012 Trees in relation to design, demolition and construction Recommendations

The part of the tree most susceptible to damage is the root system because:

- Roots cannot be seen and their extent is not realized.
- Of a lack of understanding of root function and their importance for the health of the tree.

The effects of damage can be serious but often it takes several years for this to become evident and is not always linked back to the actual cause during development work. Often by the time the damage becomes evident the developer may no longer own the site leaving the new owner with the problem and the potential need for costly tree work.

Lack of protection can also result in damage to bark and branches that can disfigure a tree and result in disease and decay that also reduce safe life expectancy.

Tree Root Systems

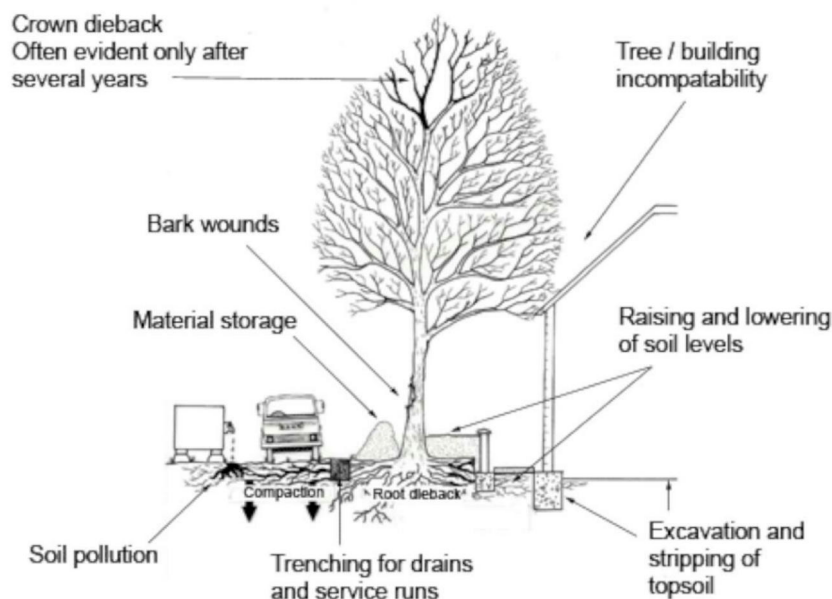
Roots have three main functions:

- absorption of water, oxygen and nutrients
- tree 'food' storage in the form of starch
- structural support

Causes of damage to trees during construction works

The following activities are common causes of damage to trees when construction is carried out within the trees' natural rooting area.

| Activity | Damage caused |
|--------------------------------|---|
| Excavating trenches | - To install and maintain services, for foundations, kerbing and so on. |
| Alterations in soil level | - Raising or lowering the soil level. |
| Installing non-porous surfaces | - Affects soil aeration and drainage. |
| Compacting the surface | - By plant, vehicles and storing material. |
| Soil pollution | - Storing toxic material (for example, diesel oil and road salt). |
| Physical damage | - By plant and machinery to a tree's roots, trunk and branches. |
| Changes to soil hydrology | - Caused by changes to drainage which accelerates water run-off or compacts the soil which causes waterlogging. |
| Fires | - Burning unwanted material within the tree's root spread can cause significant damage to the tree's roots, trunk and branches. |
| Exposure | - Damage caused by increased levels of sunlight and wind when neighbouring trees are removed. |



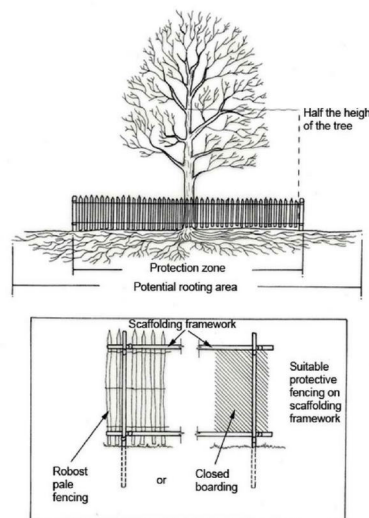
Protection for retained trees on site

Tree root development is entirely opportunistic and spreads horizontally to a distance and depth entirely dependent upon the ground conditions encountered. Very few trees have a 'tap root' after the first few years. Roots require oxygen and water to function and therefore most will remain close to the surface, research has shown that 90% of tree roots are to be found in the top 600mm of soil. Roots may extend horizontally for considerable distances and where conditions are suitable this distance may be equivalent to two or even three times the tree height.

The majority of roots are the easily overlooked fine, fibrous roots that absorb water, oxygen and nutrients from the soil; these are easily damaged by crushing and removal during soil stripping operations. The main structural support roots are usually found within a few metres of the tree stem and these are linked to the fibrous roots by a network of cable like roots that also provide additional anchorage.

All tree roots are important.

A tree's root system can extend radially (outwards) to a distance much greater than the tree's height. Ideally the whole of this area should be protected and remain undisturbed during construction work. If works are necessary within the tree's potential rooting area, you should identify a protection zone from the base of the tree's trunk. This should equal the full extent of the branch spread or be equivalent to half the tree's height, whichever is greater. This area should be protected with substantial fencing (see below) and be excluded from the construction site. If the works are necessary within the protection zone, you must consult our Forestry and Arboricultural Group at the design and implementation stages to identify specific measures to minimise damage. At this stage you should also consider the potential effects of the works on privately-owned trees next to the site.



We will supply all the equipment necessary for you to conform to BS 5837 Tree Protection there is a simple formula which you can use as a guide to calculate the approximate quantities of equipment required to protect trees

Length of run in meters equals (m) = a

Formula:

" a " x 5.13m of Tube (16.83ft)

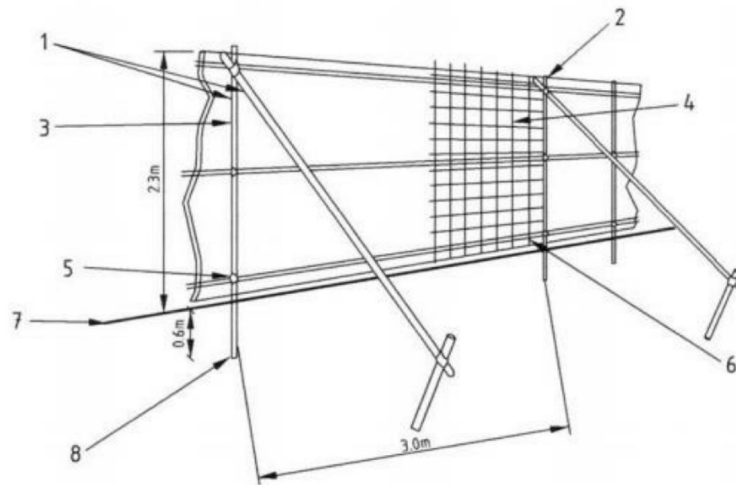
" a " x 0.66 Swivel Couplers

" a " x 1.00 Double Couplers

" a " x 0.45 Sleeve Couplers

We will install a mesh panel, this will be standard site panels, each panel being approx 3.6m long

BS5837 2005 - FIG 2 TREE PROTECTION ZONE BARRIER FENCE



- | | |
|--|---------------------------------------|
| 1 Scaffold poles | 5 Clamp |
| 2 Uprights, to be driven into ground | 6 Wire, twisted and secured |
| 3 Panels, secured to uprights with wire ties and where necessary scaffold clamps | 7 Ground level |
| 4 Weldmesh, wired to the uprights and horizontals | 8 Approx 0.6 m driven into the ground |

6.2. Tree Removal

Goody Demolition will employ a tree surgeon to remove the designated trees. A specific method statement and risks will be issued by the sub-contractor prior to commencement.

6.3. Monitoring

LBC have arranged a schedule of monitoring and supervision by the project arboriculturist and due to the duration of the demolition works they will visit once monitoring the tree removal works.