



Report No: LTM0299.MS.03

Date: 11/04/2023

Project: Chorlton Baths, Manchester Road, Chorlton-cum-Hardy, M21 9GA

BS 5837:2012 Method Statement

Inspection Record.

Date of Inspection	Surveyor
06/09/2021	Matthew Lally. FdSc MArborA

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Revision	Date	Prepared by	Status
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Contents

1.0	Discussion	4
2.0	Method Statement	5
2.1	Tree Works.....	5
2.2	Protective Fencing	6
2.3	Additional Precautions Outside Fenced Areas	6
2.4	Re-Laying of Existing Hardstanding.....	7
2.5	Demolition of existing buildings adjacent to Trees & RPAs	7
2.6	Stem Guards.....	7
2.7	Pre-commencement Site meeting.....	7
2.8	Summary of Methodology for the Protection of the Trees	8
2.9	Site Briefing	8
	Appendix One Tree Removal Plan & Tree Protection Plan	
	Appendix Two Tree Protection Fencing	
	Appendix Three Stem Guard	
	Stem Guard design	

1.0 Discussion

- 1.1 The majority of the root system of a tree is in the surface 600mm of the soil extending radially for distances frequently in excess of the trees height. Beyond the main structural roots (close to the base of the trunk), the root system rapidly sub-divides into smaller diameter roots: off this main system, a mass of fine roots develops.
- 1.2 The shape of the main structural roots develops in response to the need for the tree to have physical stability. Beyond these major roots, root growth and development is influenced by the availability of water and nutrients. Unless conditions are uniform around the tree, which would be unusual, the extent of the root system will be very irregular and difficult to predict. It will not generally show the symmetry seen in the branch system.
- 1.3 The parts of the root system, which are active in water and nutrient uptake, are very fine, typically less than 0.5mm diameter. They are short lived, developing in response to the needs of the tree, with the majority dying each winter. It is *essential* that conditions in the soil remain conducive to the healthy growth of these fine roots so that the water and nutrients necessary for healthy tree growth can be absorbed.
- 1.4 All parts of the root system, but especially the fine roots, are vulnerable to damage. Once they are damaged, water and nutrient uptake will be restricted until new roots have regenerated. Vigorous young trees will be capable of rapid regeneration, but over mature trees will respond slowly, *if at all*.
- 1.5 In order to live and grow, roots need oxygen from the soil. Respiration by the roots and other soil organisms depletes this oxygen and increases carbon dioxide levels in the soil; a correct balance of these gases is normally maintained by diffusion between the soil and the atmosphere. Anything, which disturbs this balance, will affect the condition of the root system.
- 1.6 The factors that most commonly affect this diffusion adversely, and therefore damage roots, are the following: -
 - a) Compaction of the ground, which reduces the space between soil particles. This is particularly important on clay soils. A single passage by heavy equipment on clay soils or storage of heavy materials can cause significant damage.
 - b) Changing soil levels, even for a few weeks.
 - c) Covering the root area with impervious surfaces.
 - d) A rise in the level of the water table. Roots can tolerate submersion for short periods. But a permanent rise will deplete the soil of oxygen.
- 1.7 Serious damage is often caused during preliminary site works by stripping the topsoil. For this reason, such works should be avoided until protective fencing has been erected.
- 1.8 Excavations in the rooting area can sever roots. As the majority of roots are in the surface 600mm, even shallow excavations can cause damage.
- 1.9 Excavations for foundations, landscaping or service trenches are usually sufficiently deep to sever most of the roots, and it should therefore be assumed that all parts of the root system beyond the excavation would no longer serve the tree.

- 1.10 Excavation or soil stripping which sever or damage the roots may impair the stability of the tree and make it dangerous.

2.0 Method Statement

Before any form of development commences on the site the following works should be undertaken: -

2.1 Tree Works

Tree No.		Proposed Works
T1	Sycamore	Remove
G2	Cypress x 5	Remove
T3	Robinia	Reduce crown on development side of crown by up to 1m as outlined in the tree removal plan.
T4	Robinia	Reduce crown on development side of crown by up to 3m as outlined in the tree removal plan.
T5	Robinia	Reduce crown on development side of crown by up to 2m as outlined in the tree removal plan.
T6	Sycamore	No Action
T7	London Plane	No Action
T8	Cherry	No Action
T9	Cherry	No Action
T10	Cherry	No Action
T11	Ash	No Action
T12	Oak	Reduce crown on development side of crown by up to 2.5m as outlined in the tree removal plan. Crown lift to 4m over development site.
G13	Ash x 1. Oak x 1	No Action
T14	Ash	No Action
G15	Ash	No Action
T16	Ash	No Action
T17	Willow	No Action
T18	Ash	Remove

All works to be undertaken in line with BS 3998:2010. Tree Work. Recommendations

2.2 Protective Fencing

- 2.2.1 All fencing used on the site should fully comply with BS 5837:2012 (Trees in Relation to Construction – Recommendations).
- 2.2.2 The fencing should be strong and suitable for local conditions. It should also take into account the degree of construction activity on the site.
- 2.2.3 The fencing should be at least 2.3m in height and should be erected with both a vertical and horizontal scaffolding framework capable of withstanding impact, with vertical tubes spaced at a maximum of 3 m. This should support weldmesh panels which should be securely fixed with wire or scaffold clamps.
- 2.2.4 Notices should also be erected on the fencing stating, 'Protected Area - No operations within fenced area'.
- 2.2.5 The positioning of the protective fencing is also very important and should be erected in the proposed location identified in appendix one. Once the fence has been erected it should never be crossed and particular care should be taken not to store any materials or soil within the protected area.

2.3 Additional Precautions Outside Fenced Areas

- 2.3.1 Oil, bitumen, cement or other material likely to cause damage to the tree will not be stacked or discharged within 10m of the trees stem or within the protective area. Also, materials in general will not be stacked or discharged within the exclusion zone.
- 2.3.2 Concrete mixing and washing will not be carried out within 10m of any retained trees.
- 2.3.3 Fires will not be lit beneath the foliage or in a position where the flames could extend to within 5m of the foliage, branches or trunk. If the fire is large, then this may necessitate a distance of at least 20m.
- 2.3.4 Trees that are to be retained will not be used as anchorage for equipment.
- 2.3.5 Notice boards, telephone cables, or other services will not be attached to any part of the retained tree.
- 2.3.6 Care should be taken when using cranes or other equipment near the canopy of the retained trees. Also, any trees to be felled in proximity to the retained trees should be done so with particular care.

2.4 Re-Laying of Existing Hardstanding

- 2.4.1 The uplift re-laying of the existing hardstanding could have implications for T4, T5, T6, T7, T8, T9, T10, T11, T12 & G13 and may adversely affect the Safe Useful Life Expectancy of these trees.
- 2.4.2 During the uplift & re-laying of the existing hardstanding within the RPA of any retained trees all excavation within the RPA of these trees will be limited to the existing hard standing layer only and work will be undertaken with the smallest machine that can undertake the task and be supervised by an Arboricultural Consultant.
- 2.4.3 The existing hardstanding will remain in place within the RPA of retained trees until the buildings works are complete as this will act as ground protection for the roots.

2.5 Demolition of existing buildings adjacent to Trees & RPAs

- 2.5.1 During demolition, the following restrictions will apply:
- Where direct damage by falling masonry is likely, the tree should be protected by exterior grade plywood sheets constructed around the main stem.
 - The main body of any mechanical excavator will operate outside the RPA.
 - Masonry will be pulled away from trees.
 - When breaking masonry, a fine water spray will be used to minimise dust particles if it is likely to cover leaves.
 - Excessive dust particles on trees will be removed each day by spraying with water.
 - Hard surfaces should be kept in place for as long as possible during construction works in order to prevent soil compaction in the RPA.

2.6 Stem Guards

- 2.6.1 The proposed uplift and relaying of the pavement area could result in stem damage to the street trees from machinery and other equipment.
- 2.6.2 To prevent this, the stem of the trees will be protected by stem guards. A stem guard design can be found in appendix 3

2.7 Pre-commencement Site meeting

- 2.7.1 Prior to commencement of site works, a meeting onsite must take place including the site manager and an Arboricultural Consultant. This meeting will allow further discussion of the programme of works, tree protective measures, locations of areas for storage/site organisation and the agreement of any changes to the method statement that may be required which will be formally updated and approved as required.

2.8 Summary of Methodology for the Protection of the Trees

- 1) Pre-commencement site meeting.
- 2) Tree removal and tree pruning.
- 3) Site briefing for personnel.
- 4) Installation of protective fencing & stem guards.
- 5) Implementation of development.
- 6) Completion of development works.
- 7) Completion signed off.
- 8) Removal of protective fencing.
- 9) Supervised excavation into existing hardstanding within RPA of retained trees for landscaping works.
- 10) Completion of landscape works.
- 11) Removal stem guards.
- 12) Soft landscaping works.

2.9 Site Briefing

- 2.9.1 The site manager is responsible for ensuring that all personnel are made fully aware of the constraints posed by the retained trees on site and that there are measures in place to protect these trees, this includes having full access to the Arboricultural Method Statement and Tree Protection Plan (TPP).

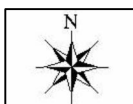
Appendix One

Tree Removal Plan & Tree Protection Plan



Do not scale this drawing (printed or electronic version).
Contractors must check all dimensions from site.
This drawing is for use on this site only and should be used in conjunction with all relevant consultants drawings.

LEGEND



- Retained Trees
- Removed Trees
- Root Protection Areas
- Area of Crown to be removed
- Position estimated on site

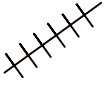


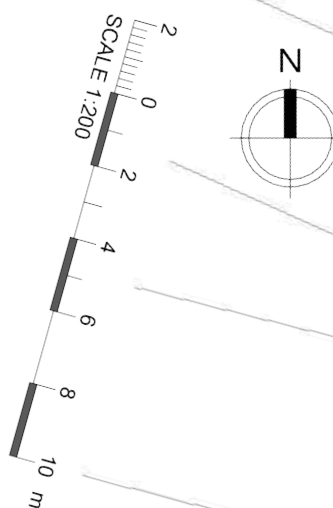
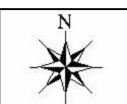
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Client:	Buttress		
Drawing Number:	LTM0299.TRP.03		
Drawn by:	Matthew Lally		
TREE REMOVAL PLAN			

Project Title	Chorlton Baths
Client	Buttress
Location	Manchester
Drawing ref	Proposed
Date	27/03/2023 17:08:5
Checker	9136
Job No:	9136
CHOA-BUT-ZZ-0	

Do not scale this drawing (printed or electronic version).
Contractors must check all dimensions from site.
This drawing is for use on this site only and should be used in conjunction with all relevant consultants drawings.

LEGEND

-  Retained Trees
-  Root Protection Areas
-  Protective Fencing (Metal)
-  Supervised Excavation in to Existing Hardstanding Layer Only Once Building Phase is Complete.
-  Stem Guard
-  Position estimated on site



Project Title		Chorlton B
Client		Rowington C
Location		Manchester A
Drawing ref		Proposed Site A
Date	27/03/2023	17:08:53
Checker	Checker	
Job No.	9136	
Project	CHOB-BUT-ZZ-004	

Kensington Road

Manchester Road

Beeline Cycle Lane (under construction)

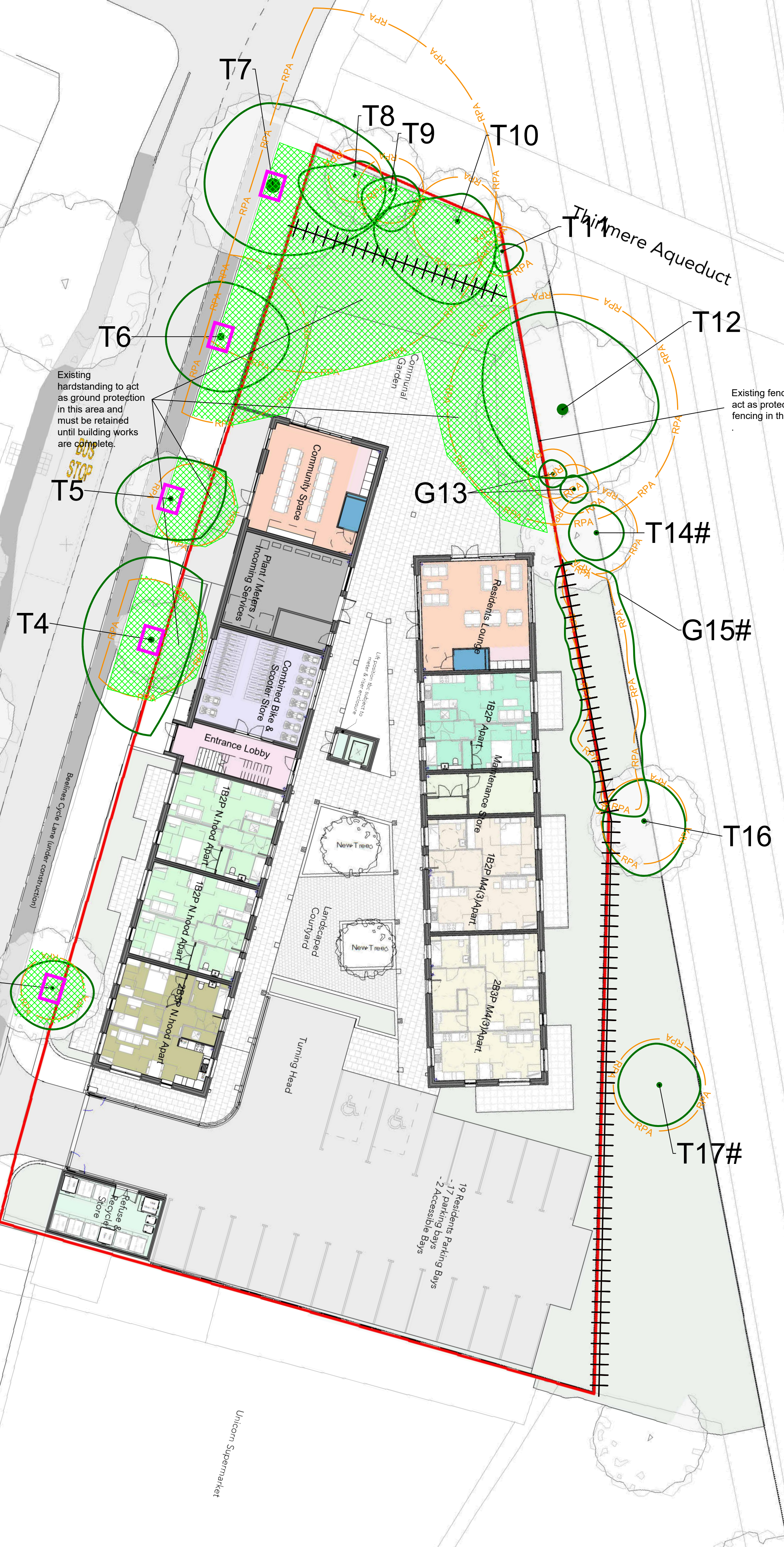
Beeline Cycle Lane (under construction)

Existing hardstanding to act as ground protection in this area and must be retained until building works are complete.

Existing fencing to act as protective fencing in this area.

Thimere Aqueduct

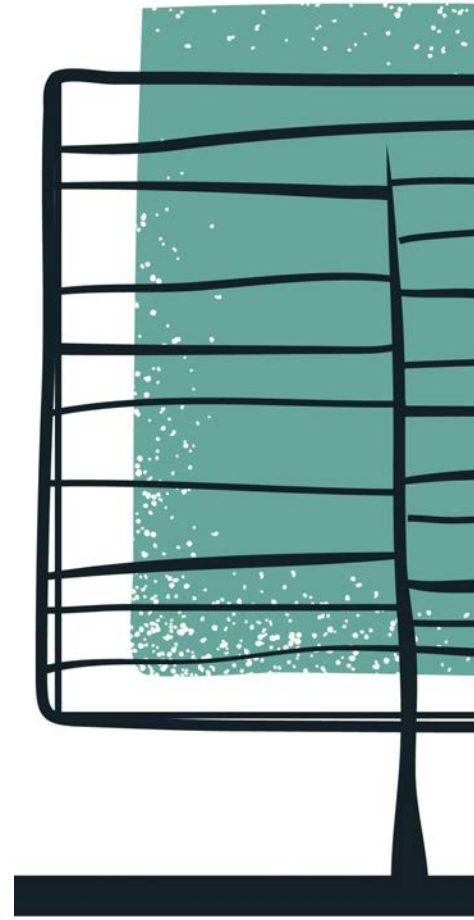
Unicom Supermarket



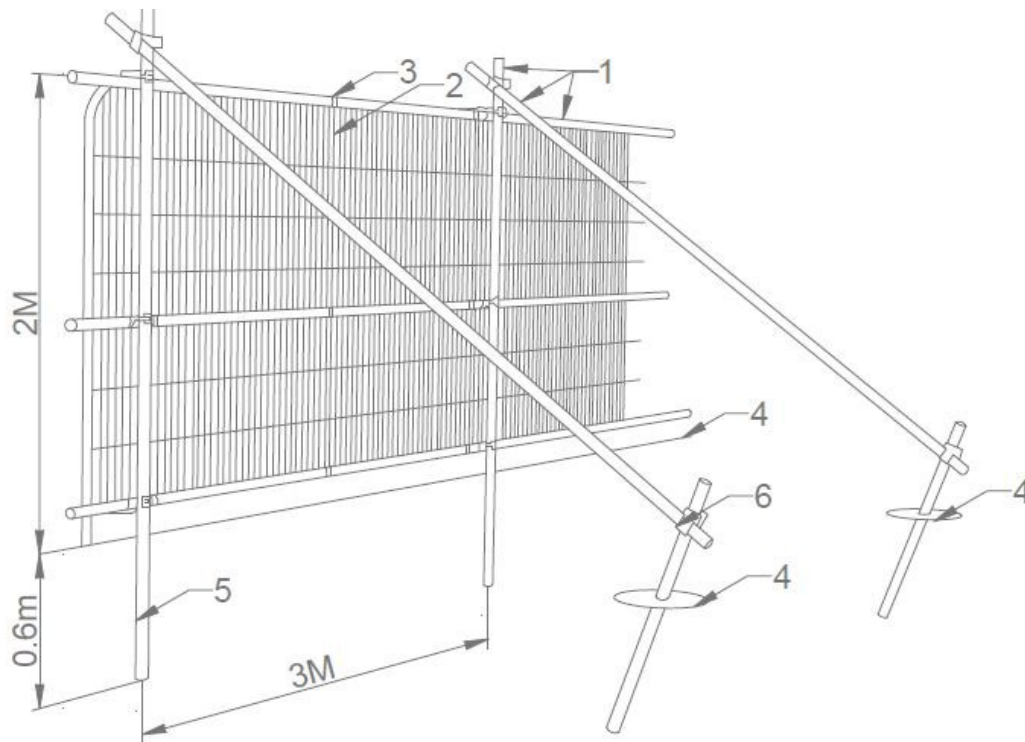
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Address	Chorlton Baths, Manchester Rd, Manchester, M21 9GA		
Client:	Buttress		
Drawing Number:	LTM0299.TPRP.03		
Drawn by:	Matthew Lally		
TREE PRUNING PLAN			

Appendix Two

Tree Protection Fencing



Tree Protection Fencing (BS5837: 2012)



Key

- 1 Standard scaffold poles
- 2 Heavy gauge 2m tall galvanised tube and welded mesh infill panels
- 3 Panels secured to upright and cross-members with wire ties
- 4 Ground level
- 5 Uprights driven into the ground until secure (minimum depth 0.6m)
- 6 Standard scaffold clamps

Protective fencing Notice to attached to fencing



Appendix Three

Stem Guard



Stem Guard design

