



81 Belsize Park Gardens London NW3 4NJ

Phase II Arboricultural Impact Assessment Arboricultural Method Statement

(Ref. 101 483)
Date: 22/04/2020

Prepared by:
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1.0 INSTRUCTIONS

Arbol Euro Consulting Ltd. is instructed to assess the on and off-site trees in regard to the proposed development:

- Alterations to front and side elevations incorporating new windows and entrance portico and replacement roof-lights
- Alterations to reception area and removal of swimming pool to form internal garden.
- Renewing the paving outside patio area.

See the appended Tree Protection Plan and Arboricultural Method Statement (AMS).

2.0 FINDINGS AND CONCLUSIONS

2.1 The development proposal would not require the removal of any trees or tree pruning works.

2.2 As plotted on the Tree Protection Plan at Appendix 2, with the implementation (in a timely manner) of the tree protection measures specified in this AMS there should be no Root Protection Area impact on the on and off-site trees.

2.3 See Arboricultural Method Statement at Appendix 3. Active random site monitoring by a Consulting Arborist throughout the development process is strongly recommended.

2.4 Site Supervision Responsibilities: This would be an essential element during the proposed build to ensure effect tree protection. See section 8.0 in the appended in the Arboricultural Method Statement.

3.0 REFERENCES

- BS 5837; 2012 *Trees in relation to design, demolition and construction - Recommendations* British Standards Institute, London
- BS 3998; 2010 *Tree Work Recommendations* British Standards Institute, London
- NJUG *Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees* 2007 National Joint Utilities Group (NJUG) Volume No. 4: No. 1.
- Arboricultural Practice Note 12; 2007 – AAIS
- *'Availability of Sunshine'* BRE - CP 75/75
- *'Tree Roots in the Built Environment'* 2006 - Dept. for Communities & Local Government (DCLG).
- *'Up by Roots: healthy soils & trees in the built environment'* 2008 James Urban, International Society of Arboriculture.
- *'Arboriculture'*; 1999 3rd edition R. Harris, J. Clarke & N. Matheny. Prentice Hall.
- *'Soil Management for Urban Trees'* 2014 International Society of Arboriculture, Best Management Practice series.

AMS APPENDICES

1. Tree Survey Schedules & Table 1 - Category Grading (Quality Assessment)
2. Tree Protection Plan
3. Arboricultural Method Statement
4. Tree Protection Barrier Specification

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APPENDIX 1

TREE SURVEY SCHEDULE
(see appended at end of report)

1 page

APPENDIX 2

TREE PROTECTION PLAN

(see appended to the report)

NB The original of this plan was produced in colour – a monochrome copy should not be relied upon.

APPENDIX 3

ARBORICULTURAL METHOD STATEMENT

4 pages

ARBORICULTURAL METHOD STATEMENT (AMS) Site: 81 Belsize Park Gardens London NW3 4NJ

To be read in conjunction with the appended Tree Protection Plan

NB The original of this plan was produced in colour – a monochrome copy should not be relied upon.

This AMS lays down the methodology for any demolition and/or construction works that may have an effect upon trees on and adjacent to this site. It is essential within the scope of any contracts - related to this development - that this AMS is observed and adhered to. It is recommended that this document forms part of the work schedule and that specifications are issued to the building contractor(s) and these must be used to form part of their contract.

Consulting Arborist contact details: Russell Ball – mob. No. 078844 26671

SEQUENCE OF WORKS

From commencement of the subject development, the following methodology will be implemented in the manner and sequence described:

1. Pre-commencement site meeting.
2. Arboricultural pruning and/or removal works
3. Erect *temporary* staked Tree Protection Barriers (TPBs) to establish the fenced-off Construction Exclusion Zone (CEZ): **before** any construction works begin on-site.
4. Route underground services.
5. Main construction works.
6. Remove TPBs.
7. Renewed Patio
8. Site Supervision Responsibilities

1. PRE- COMMENCEMENT SITE MEETING

To outline on-site working methods in relation to trees prior to any construction activity, a site meeting of the following shall take place:

- Client
- Architect/Planning Consultant
- Structural Engineer
- Main Contractor
- LPA Arboricultural Officer (*optional*)
- Consulting Arborist
- Site Agent

2. ARBORICULTURAL PRUNING AND/OR REMOVAL WORKS

1. None required.

3. ERECT *TEMPORARY* STAKED TREE PROTECTION BARRIERS (TPBs)

1. Prior to construction, the main contractor will erect the TPBs around the on-site cherry T1: as per the appended Tree Protection Plan (TPP) and as detailed in the 'Tree Protection Barrier Specification' at Appendix 4 of this report. See also Appendix MS(i) below. This will establish the fenced-off **Construction Exclusion Zone**: CEZ (marked up on the TPP): *that shall also be extended to cover the crown spread of T1*. **NB** Trees T3 and T4 are distally located off-site trees that will not be affected by the proposed development and as such will not require fencing-off.
2. As this a light build project with no use of excavating machinery, the normal staked and braced TPBs will not be required rather booted TPBs with sections clamped together and stabilizing struts.
3. To protect both the trunk and tree pit of the street tree T2 a *temporary* braced heavy-duty ply-board Tree-Box shall be installed. See *example* in photograph below. **NB I** To be installed prior to any construction **NB II** We strongly recommend that this boarded protection extends up to the first low branch/branches to (a) fully protect the trunk from any physical (machinery) damage during the demolition/construction and (b) prevent this boarded box from becoming a receptacle for litter and other unwanted objects.



4. On no account shall these CEZs be used for the storage/preparation of any construction/building materials.
5. Prior to commencement of any site construction, preparation, or material deliveries, the Consulting Arborist will inspect installation of the TPB and the CEZ. Any damage occurring to the TPB during the construction phase will be made good by the main contractor.
6. The TPBs shall remain in place throughout the development and only removed on completion so the renewed patio can then be laid: see section 7.0 below.

4. ROUTE UNDERGROUND SERVICES

1. As this an alterations build-project (i.e. with no new build) this will not likely be an issue. However, if any **proposed/renewed** underground services are required then these should not be sited within the Root Protection Area of T1 and T2 without prior discussion and approval from the LPA and/or a Consulting Arborist. For more information regarding underground services, reference should be made to the National Joint Utilities Group (NJUG) Publication Volume 4: Issue 1. *'Guidelines for the Planning, Installation & Maintenance of Utility Apparatus in Proximity to Trees'* 2007.

5. MAIN CONSTRUCTION WORKS

1. Part of the existing property could be used for a Site Office.
2. **Temporary Storage of Construction Material/Equipment:** See area plotted on the appended TPP.
3. **Cement or other noxious substances (e.g. diesel or solvents):** These shall be mixed/prepared or stored in the NW area of the patio. See Note 1 on the appended Tree Protection Plan.
4. **Skips:** As and when required these will be sited within the street (i.e. not on the patio frontage).
5. **Construction Exclusion Zone (CEZ):** There must be no (a) storage of construction material/equipment or (b) preparation of noxious substances (e.g. cement) in any area designated as the CEZ and enclosed by the TPB.
6. Before commencing work on site, all operatives must be briefed by the **Site Agent/Contract Manager** on the importance of protecting both on and off-site trees. The basis of this briefing will be the protection measures as set out on the Tree Protection Plan (TPP) including the position of staked **Tree Protection Barriers** and **Construction Exclusion Zones**. As such the TPP shall be clearly displayed on the wall of the site office. **NB** During the construction the **Site Agent/Contract Manager** will be responsible for all tree protection measures. See also **Site Supervision Responsibilities** below.

6. REMOVAL OF **TEMPORARY** TREE PROTECTION BARRIERS (TPBs)

1. The TPBs will be removed only upon completion of the building change of use project.

7. RENEWED PATIO

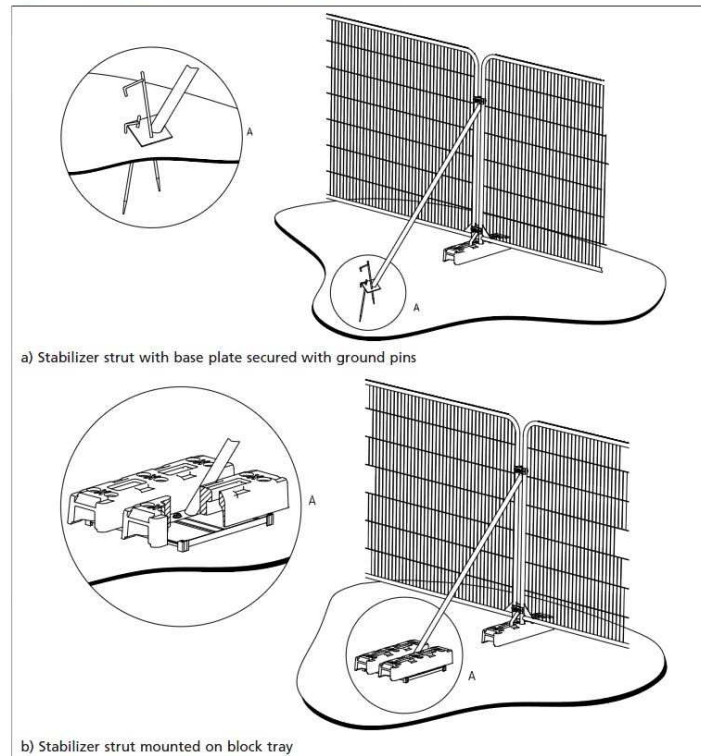
1. The SE section of the patio paving renewal is within the RPA of the cherry T1. To mitigate the Root Protection Area disturbance to this tree:
 - With the TPBs removed, the existing paving slabs shall be taken up using spaces and mattocks and not **on any account** a mini-JCB that could cause RPA soil compaction.
 - The underlying and exposed sub-base **shall be retained** and used for the new patio surface.

8. SITE SUPERVISION RESPONSIBILITIES

1. It will be the responsibility of the main contractor to ensure that any tree protection planning conditions attached to planning consent are adhered to at all times and that a monitoring regime in regards to tree protection is adopted on site.
2. The main contractor must assign tree protection monitoring duties to one or more individuals working at the site, who will be responsible for all tree protection monitoring and supervision (see the *Site Personnel Induction Form* at Appendix MS ii).
3. The individual(s) assigned tree protection monitoring duties must:
 - Be present on site for the majority of the time;
 - Be aware of (a) the Tree Protection Plan and (b) the tree protection measures to be installed and maintained throughout all phases of the development;
 - Be responsible for ensuring all tree protection measures are adhered to as detailed in the Arboricultural Impact Assessment (AIA) report and Arboricultural Method Statement (AMS);
 - Ensure all site operatives without exception read and understand the tree protection and control measures detailed in the AMS;
 - Keep on file all individual Site Personnel Induction Forms which must be signed by all site operatives (including sub contractors) indicating they have read and understood the control measures detailed within the AIA report and AMS;
 - Maintain a written record of Tree Protection / Construction Exclusion Zone inspections, to be kept up to date by the person(s) who have been designated the inspection and monitoring duties;
 - Have the authority to stop any work that is causing, or has the potential to cause, harm to any retention trees;
 - Be responsible for ensuring that all site operatives including sub contractors are aware of their responsibilities toward on/off site trees and the consequences of the failure to observe these responsibilities;
 - Make immediate contact with the Consulting Arboriculturist in the event of any tree related problems occurring, whether actual or potential. (Contact details including telephone number and email address are listed on the Title Page).
4. The Construction Exclusion Zone fencing, ground protection and all signs must be maintained in position at all times and checked on a regular basis by the on-site person(s) who have been designated that responsibility.
5. The main contractor will be responsible for contacting the Local Planning Authority and the Consulting Arboriculturist at any time issues are raised relating to the trees on site.
6. If at any time pruning works are required, permission must be sought from the Local Planning Authority first and then carried out in accordance with BS 3998:2010 Tree Work – Recommendations (As updated).
7. The main contractor will ensure the build sequence and phasing is appropriate to ensure that no damage occurs to the trees during the construction processes. Protective fences will remain in position and undisturbed until completion of ALL construction works on the site.
8. The main contractor will be responsible for ensuring all site operatives including sub-contractors do not carry out any process or operation that is likely to adversely impact upon any tree on site.

APPENDIX MS(i)

Figure 3 Examples of above-ground stabilizing systems



APPENDIX MS(ii)

Site Personnel Induction Form

Name:
Site Address:
Date:

Declaration	Tick to Confirm
I have read and understand the Arboricultural Method Statement and the requirements to be employed / actioned at the site regarding tree protection.	
I understand that all tree protection measures (fencing and ground protection) must not be moved or disturbed throughout the development project without prior agreement with the Consulting Arboriculturist.	
I understand that certain operations must only be undertaken under supervision of the Consulting Arboriculturist or a suitably qualified Arborist and/or must not be undertaken without their approval.	
I acknowledge that any concerns I have regarding the protection of trees at and adjacent to the development site will be brought to the attention of the Site Manager/Supervisor.	
I acknowledge that I must not cause direct or indirect damage to any on site or neighbouring tree, either above or below ground level during the course of my daily operational duties.	

Signed:.....

APPENDIX 4

TREE PROTECTION BARRIER SPECIFICATION

1 page only

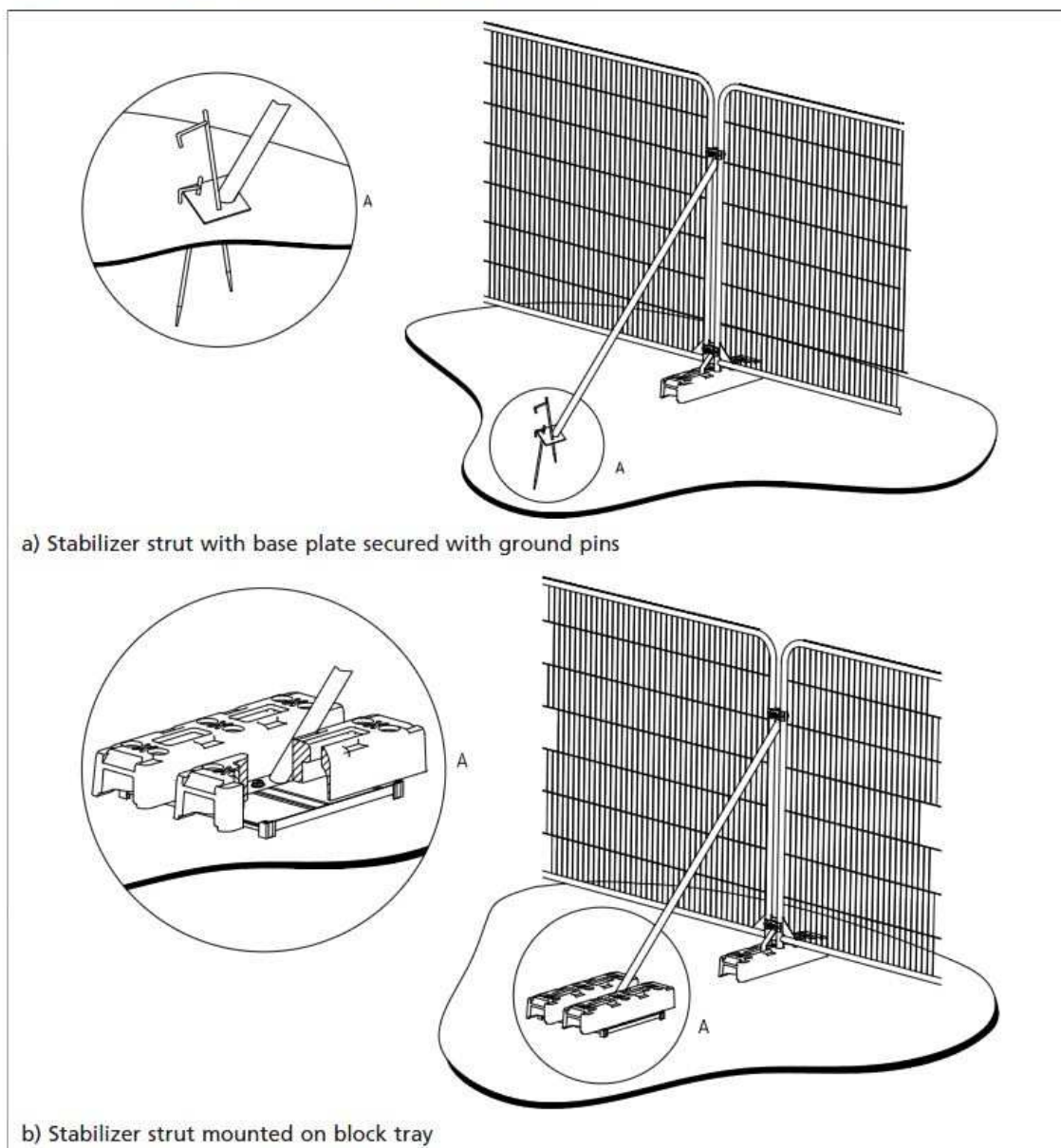
TREE PROTECTION BARRIER SPECIFICATION

The Root Protection Area (RPA) and Construction Exclusion Zone (CEZ) enclosed by temporary protective fencing must:

1. Be erected prior to any site works, demolition or construction works, delivery of site accommodation or materials and must remain for the duration of the demolition/construction works. All-weather notices should be attached to the barriers with the following wording: **"CONSTRUCTION EXCLUSION ZONE – NO ACCESS"**
2. Be protected by temporary protective fencing and other measures as specified and as defined by area (m²) on the drawings (Tree Protection Plan - TPP).
3. Preclude the storage or tipping of all materials and substances, in addition, toxic substances such as fuels, oils, additives, cement, or other deleterious substances within 5.0 metres of an exclusion zone.
4. Any incursion into the Root Protection Area (RPA) and Construction Exclusion Zone (CEZ) as indicated on the Tree Protection Plan (TPP) must be by prior arrangement, following consultation with the Local Planning Authority.

Temporary Tree Protection Barrier (Specification taken from BS:5837 -2012)

Figure 3 Examples of above-ground stabilizing systems



HEADINGS & ABBREVIATIONS

TREE NO.	REFERENCE NUMBER. REFER TO PLAN OR NUMBERED TAGS WHERE APPLICABLE
SPECIES:	COMMON NAME (LATIN NAMES AVAILABLE ON REQUEST)
AGE RANGE/LIFE STAGE:	Y = YOUNG, SM = SEMI MATURE, EM = EARLY MATURE, M = MATURE, PM = POST MATURE
HEIGHT:	ESTIMATED AND RECORDED IN METRES. APPROXIMATELY 1 IN 10 TREES ARE MEASURED USING A CLINOMETER AND THE REMAINDER ESTIMATED AGAINST THE MEASURED TREES
CROWN SPREAD:	MAXIMUM CROWN RADIUS MEASURED TO THE FOUR CARDINAL COMPASS POINTS FOR SINGLE SPECIMENS ONLY (MEASUREMENT FOR TREE GROUPS - MAXIMUM RADIUS OF THE GROUP)
CROWN CLEARANCE &DIRECTION OF GROWTH:	HEIGHT IN METERS OF CROWN CLEARANCE ABOVE ADJACENT GROUND LEVEL (TO INFORM ON GROUND CLEARANCE, CROWN/STEM RATIO AND SHADING)
STEM DIA/MULTI-STEM DIA:	STEM DIAMETER - MEASURED AT APPROXIMATELY 1.5 METRES ABOVE GROUND LEVEL OR A COMBINATION OF STEMS FOR MULTI-STEMMED TREES
VITALITY:	A MEASURE OF PHYSIOLOGICAL CONDITION. D = DEAD, MD = MORIBUND, P = POOR, M = MODERATE, N = NORMAL
ESTIMATED REMAINING CONTRIBUTION:	RELATIVE USEFUL LIFE EXPECTANCY (YEARS)
BS 5837CATEGORY & SUB-CATEGORY GRADING:	A = HIGH QUALITY AND VALUE, B = MODERATE QUALITY AND VALUE, C = LOW QUALITY AND VALUE, U = UNSUITABLE FOR RETENTION: SUB-CATEGORY REFERS TO ARBORICULTURAL (1), LANDSCAPE (2) & CULTURAL/CONSERVATION VALUES (3).
BS 5837 RPA:	ROOT PROTECTION AREA - BS 5837 (2012) ANNEX D (THE RECOMMENDATIONS STATE THAT THE RPA SHOULD BE CAPPED AT 707 M ²)
BS 5837 RADIUS:	PROTECTIVE DISTANCE - RADIUS FROM THE CENTRE OF THE STEM TO THE LINE OF TREE PROTECTION (CONSTRUCTION EXCLUSION ZONE - CEZ) AND PROTECTIVE BARRIER

SITE:	81 Belsize Park Gardens, London NW3 4NJ
CLIENT:	Mr Alex Hayward Cardoe Martin
BRIEF:	CARRY OUT A PHASE II ARBORICULTURAL IMPACT ASSESSMENT ON THE PROPOSED DEVELOPMENT AT THE ABOVE SITE.

SURVEYOR:	R. BALL
ASSESSMENT DATE:	18/04/2020
VIEWING CONDITIONS:	CLOUDY
JOB REFERENCE:	101 483

PAGE: 1 of 1

TREE HEDGE GROUP NO.	SPECIES (COMMON NAME)	AGE RANGE/ LIFE STAGE	HEIGHT (m)	RADIAL CROWN SPREAD (m)				CROWN CLEARANCE & DIRECTION OF GROWTH (m)	STEM/ MULTI- STEM* DIA. (mm)	VITALITY	COMMENTS/STRUCTURAL MORPHOLOGY	PRELIMINARY MANAGEMENT	CATEGORY & SUB- CATEGORY GRADING BS 5837	BS 5837 RPA RADIUS (m)	BS 5837 RPA (m ²)
				N	E	S	W								
T1	Bird Cherry	EM	7.0	2.5	2.5	2.5	2.5	-	* 135; 105	N	Good crown form and provides useful neighbour screening (notably by virtue of multi-suckering). A notable tree within the street-scene (public visual amenity). In short-term, will require tipping-back (western crown) from the building to provide a 1.5m clearance. NB As T1 is within a Conservation Area <i>advance</i> written Council <i>consent</i> will be required for these works.	None at time of survey (NATS)	B1	2.0	13.2
T2	Ornamental Apple <i>Street Tree</i>	EM	9.5	3.8	2.5	3.8	1.5	2.5	305	N	Old vehicle low-scaffold branch tear-out wounding in eastern crown otherwise T2 has good linear crown form (in part formed by past tipping back from the subject building). A significant tree within the street-scene.	NATS	B1	3.6	42.1
T3	Ornamental Cherry <i>Off-site tree with access to fully survey</i>	SM	7.0	1.8	2.8	1.5	0.7	1.6	* 115; 110	N	Unbalanced crown caused by building shading; average crown form	NATS	C1	1.9	11.4
T4	Snowy Mespil <i>Off-site tree with access to fully survey</i>	SM	6.0	1.2	1.2	1.2	1.2	1.6	80	N	Recently established new planting; has future scope to develop into a fine specimen tree	NATS	C1	0.96	2.9

THIS TREE PROTECTION PLAN MUST BE
READ IN CONJUNCTION WITH THE
ARBORICULTURAL METHOD STATEMENT

NOTES.
1. Cement or other noxious substances (e.g. diesel or solvents): These shall be mixed/prepared or stored in the NW area of the patio.

Arbol EuroConsulting Ltd.

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Mobile: 07884426671

81 Belsize Park Gardens NW3 4NJ
Tree Protection Plan

SCALE :

1:200 @ A3

DATE :

4/22/2020

MAP FILENAME :

101 483

Plan Technology Services Ltd. Email: info@pearttechnology.co.uk
Maps based on Ordnance Survey MasterMap or 1:25000 M63 scale data
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colour - a monochrome copy should not be
relied upon

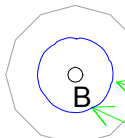
LAMBOLLE PLACE

BELSIZE PARK GARDENS

LANCASTER STABLES

Club

KEY



Root Protection Area (RPA)

Crown Spread

BS: 5837 Retention
Grade

Temporary Booted Tree
Protection Barrier (TPB)

CEZ = Construction Exclusion Zone

5m

10m

15m

20m

SCALE BAR