

Arboricultural Method Statement

Reading Civic Centre - Library and landscaping modifications

HCC Arb Ref: P-ReBC-ReadingLibrary-SS23519-AMS-4.4

Application Number: 240565 to discharge condition 8 of 231495/FUL

Application Type: Regulation 3 Planning Approval

Address: Civic Offices Bridge Street Reading RG1 2LU

Proposal: Proposals to extend the Reading Borough Council Offices on Bridge Street to enable the accommodation of the relocated the Reading Central Library function, currently on Kings Road, Reading, and provide an enhanced Customer Services reception. Site is currently use class E, proposal to co-locate with library use class F1.

IMPORTANT

This document is required for the protection and safe retention of trees.
All contractors and site staff must read and understand the
entirety of this document before commencing construction activity.

FAILURE TO FOLLOW THE METHOD STATEMENT MAY CONSTITUTE A BREACH
OF PLANNING CONDITION AND
COULD RESULT IN ENFORCEMENT ACTION.

Read with Tree Protection Plans: E05236-HCC-00-00-DR-L-7009 T02

Document Control Table:

Ref	Status	Summary of changes	Init.	Date
4.4	Proofed	Revision to reflect location of electrical duct.	LJ/SK	19/12/24
4.3	Proofed	Appendices updated to reflect NMA	LJ/SK	11/12/24
4.2	Issued	Minor corrections in line with environment officer's requirements.	SK	23/08/2024
4.1	Issued	Changes in line with environment officer's requirements.	SK	21/08/24
4.0	Draft	Revisions to reflect changes to site layout and production of new Tree Protection Plan (TPP)	SK/CF	23/08/2024
3.0	Draft	Amends to reflect environment officer's comments.	SK	23/06/2024
2.0	Issued	Included changes discussed with David Shore 040424 – temp path to registrar's office	SK	05/04/2024
1.0	Draft	-	SK	

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Glossary

Term	Meaning
RPA	Root Protection Area
CEZ	Construction Exclusion Zone
BS5837:2012	British Standard for trees in relation to design, demolition and construction
BS3998:2010	British Standard: tree work recommendations
AIA	Arboricultural Impact Assessment
AMS	Arboricultural Method Statement
TPP	Tree Protection Plan
LPA	Local Planning Authority

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Introduction, Caveats and Limitations

This Arboricultural Method Statement has been written in line with the BS5387:2012.

It describes working methods to be adopted for construction operations (temporary &/or permanent) once on site, with the specific aim of retaining trees safely and without damage.

Read this report with the Tree Protection Plan and as a supporting document to the Arboricultural Impact Assessment.

Only trees with diameters greater than 75mm and woodland groups with stems of 150mm or greater were surveyed and therefor considered within this report.

Any unknown or unforeseen factors on site that result in changes to the design of the scheme, which may have an impact on trees or their protection, must be brought to the attention of the project arboriculturalist for assessment as amendments may be required. The purpose of this process is to ensure trees are safely retained through any in-process design changes.

Design options for protection methods, landscape structures and surfaces have been recommended with tree retention in mind.

Where alternative methods, surfacing or installations are needed, these must be agreed with the project arboriculturalist BEFORE installation.

At any point in the construction any operations that require excavation within the RPA MUST be agreed with the project arboriculturalist first.

The project arboriculturalist must approve final detailed designs and must approve all protection measures before construction activity. Failure to do so may result in adverse impact to retained trees and delays in construction completion.

Where trees are legally protected, damage may result in prosecution.

Timings of works

Trees are more likely to resist damage if works in or near the RPA are done in winter when the tree is dormant (for deciduous trees) or when trees have maximum energy reserves at the end of summer, prior to leaf-fall.

Tree surgery works for access, facilitation or safety reasons are to be done in advance of site occupancy by main contractor wherever possible. This reduces the risk of harm to all concerned. Tree surgery operations to be done prior to the erection of the tree protection fencing as the arborists will need access to the trees.

Facilitation works are listed in Appendix 2 – Tree Work Schedule.

1 Requirements prior to start of works.

- 1.1 Prior to any start of works, locations for; contractor working areas, compounds, lavatories, parking and other contractor facilities must be identified and positioned outside of the RPAs and crown spreads of retained trees (including any not shown on the TPP).
- 1.2 A compound location has been identified - it occupies the existing car park to the southeast of the site.

Tree works required

- 1.3 All tree works required are stated within Appendix 2 Tree Works Schedule. See also Appendix 7 -Tree removal plan.
- 1.4 All tree surgery works are to be carried out before the site is occupied by contractors and before any construction activity starts. This is to prevent damage to retained trees and injury to site contractors.
- 1.5 All tree works must be carried out in accordance with ecological reports as they may specify timing of year for tree works specific to the site and relevant legal considerations. For this site, bird nesting is the most likely consideration.
- 1.6 A suitably qualified, accredited and insured tree surgery contractor must be employed for all tree works. They must also comply with any licences or permissions that may exist for the work to take place – e.g. highway/local authority licences or planning consent.
- 1.7 All works must adhere to BS3998:2010.

2 Tree protection specification

- 2.1 Physical tree protection is required to avoid damage to above and below ground tree features and must be in place prior to any construction activity. All protection methods must be approved fit for purpose and erected in the correct position as shown on the TPP by the project arboriculturalist. Any required changes to the protection must be approved by the project arboriculturalist and mitigated as necessary.

Note: a non-material amendment to planning may be required if the protection alters to that supplied in support of planning consent.

- 2.2 A suitably qualified (level 4 or higher) or experienced arboriculturalist must be employed to sign off the installation and removal of all temporary and permanent tree protection.

Tree protection barrier/fencing specification:

- 2.3 All protection requirements are shown on the TPP. This includes physical protection in the form of barriers, ground protection for temporary access and construction exclusion zones.
- 2.4 Tree protection barriers and ground protection are to remain in place throughout all phases of construction. Should access be required into the RPA of retained trees, the fencing shall remain in situ until such time as an agreement on set back and ground protection measures is reached with the project arboriculturalist. Details of how this may be achieved are shown in paragraph 2.9 Temporary Ground Protection.
- 2.5 Tree protection fencing is specified during construction to prevent activity from damaging physical features of trees such as their stem and branches and to prevent access within RPAs to prevent damage to soils which may adversely impact roots.
- 2.6 Tree protection fencing is to be erected in line with figure 2 and 3 of BS5837:2012 as shown in Appendix 1. It must be fit for purpose, tamper-proof, resist knocks and exclude activity within the RPA/beneath the crown spread. Any deviation from this will require approval from the project arboriculturalist before implementation.
- 2.7 The Tree Protection Plan reference **E05236-HCC-00-00-DR-L-7009 T01** identifies where protection fencing is required to protect retained trees. It must be at least to the edge of the tree's RPA, or the outer extent of their canopies, whichever is greater unless localised pruning is specified to lift branches above the range of all works.
- 2.8 Where construction activity is anticipated inside RPAs the fencing may be temporarily offset from these areas to allow the works: ground protection must be laid to cover any newly exposed unprotected ground. This to be done on a laydown-move forward basis. Ground protection is to be lifted on a reverse install method (pull up, move back) and fencing to be reinstated at the earliest opportunity. No activity is to take place on unprotected soft landscaping within the RPA.

- 2.9 Clear weatherproof signage shall be affixed to the tree protection fence at spaced intervals no greater than 20m. The signage must be as per figure 1 or similar:



Figure 1: Example of signage to be affixed to tree protection fencing at intervals of no greater than 10m

The project arboriculturalist must approve protective barriers/fencing prior to start of works.

3 Works near individual trees.

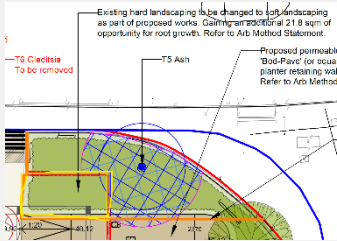
Surfacing and structures surrounding retained trees

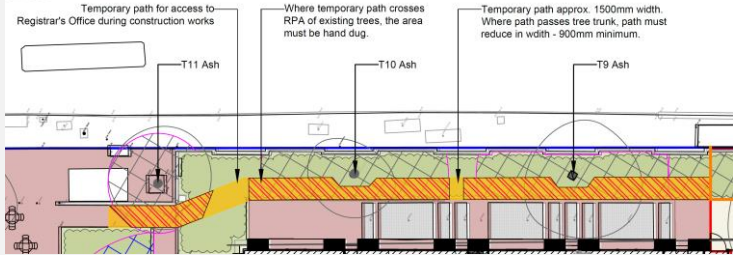
T5 - new hard and soft landscaping

- 3.1 Surfacing surrounding retained trees shall be of a flexible design to take account of distortion which could be caused by tree roots and may need redressing.
- 3.2 New, flexible porous surfacing will be tied in to existing hard surfacing using a porous, permeable bonded gravel, similar in appearance to the remainder of the existing hard surfacing that may be impermeable. The new permeable surfacing will be laid over a cellular confinement system when it is on existing soft landscaping.
- 3.3 The impact of this will be mitigated at least in part by an existing area of hard landscaping being put to soft landscaping and being made available for roots to colonise. This area is shown in the landscape plan and is an area of 21.8m². All new hard surfaces shall be designed with a default of 2000 mm radial gap from base of stem to the surface or structure. To facilitate this, existing brick retaining/edging walls will be removed on a take-down/pull back basis working only from existing hard surfacing and with no incursion to the soft landscaping. Any temporarily exposed roots will be left undamaged and wrapped with damp hessian or lightly backfilled with a damp soil/sand mix.
- 3.4 Existing trees shall be assessed for future incremental growth and an allowance of this plus 500mm to any existing or proposed infrastructure will be allowed. Additional allowances may be necessary for any species with pronounced buttress development.

4 Specification for works near individual trees

Tree No	Potential for damage	Control measure, specification or, working methodology
T5 ash	Installation of the new frontage of the building.	This is within the canopy spread of T5, but not the RPA. The canopy will need to be pruned back to allow installation and clearance. This will mean pruning to clear by up to 2.0m - see work schedule. A crane will be necessary to install the steels for the frontage. This will mean lifting over and near to T5. A banksperson must be present for all crane movements on site. To aid the visualisation of the tree, a line of barriers or barrier tape will be positioned to indicate the extent of the canopy of T5 post-pruning on the ground.

Tree No	Potential for damage	Control measure, specification or, working methodology
T5 ash	New porous surfacing with the RPA	I. The new porous surfacing is deliverable without soil level changes. There is an existing soil level difference between the planting bed in which the tree is growing and the paved surface, delineated by a low brick wall. This is accommodated in the design by use of a ramp to give level access to the new lobby. II. A new path to the north of the proposal (indicated beige on the landscape drawing and below) has a small incursion into the existing RPA of T5 (yellow hatch). The whole path is to be constructed using a NO DIG method and surfaced with Terrabase classic by addagrip (a resin bound anti-slip surfacing) or equal and approved. Colour 'Golden Tan' Spread over Cellweb tree root protection system by geosynthetics (150mm depth) See detail at para 5.2 below. III. Sufficient uncompacted soil will remain to support T5 into the future. This is achieved by minimising the new hard surfacing using Cellweb system and this occupies the minimum possible percentage of the RPA: indicated in yellow:  IV. In addition, there will be new soil volumes available to T5 where 21.8m² (depth unknown at the time of existing hard paving lifted and put to soft landscaping by the steps for T5 roots to explore. <i>Highlighted in on the clip right.</i> This take time and is seen as mitigation for the disturbance that will inevitably result from the works. The work instruction will be to break out sub-base to a minimum of 600mm deep and backfill with tree soil. This will compensate somewhat for the changes in surfacing over time.  V. Loose gravel infill is to be used in this location as the wearing course. VI. There is an Electrical duct route located immediately adjacent to the existing basement structure. Trenching to be completed under supervision and coordinated with linear excavation that is required locally along the line of existing basement wall / proposed extension to lap the new DPC onto existing basement wall waterproofing. Seek arboricultural advice if roots over 25mm in diameter are encountered Screengrab from electrical drawing RLR-EAL-55-000-D-ME-0001-T01

Tree No	Potential for damage	Control measure, specification or, working methodology
T8-11	Installation of a temporary but long-term path to give level, smooth access to Registrar's office.	 Cellular confinement system (CCS) to be used, with asphalt wearing surface. See installation methodology below at paragraph 5 – Temporary ground protection. The following constraints must be adhered to: • Entire system to be installed with no excavation and working from the building side only • Removal of vegetation to facilitate install to be done using hand tools or brush cutters only, and never within 500mm of stem base. • No installation to be closer than 200mm to stem base. • No tree bark or roots are to be impacted by any kind of machinery during installation. • Timber edgings to be notched to accommodate roots and soil changes as necessary
T8-11	Trunk impact damage during installation of path	Trees 9, 10 and 11 to be protected from incidental impact damage by the deployment of 1.2m to prevent incidental damage – hessian wrap or landscaping fabric (e.g. felted Terram ² will be suitable for this purpose.

5 Temporary ground protection

Temporary footway to give access to Registrar's office is to be installed as part of the enabling works.

This temporary footway is to be installed over the RPA of T9 & T10 and is likely to remain in place for over a year. The solution must allow gaseous and aqueous exchange so a cellular confinement system (CCS) to be used – installation methodology as follows:

5.1 Cellular confinement system (CCS) installation

This methodology is superseded by the manufacturer's recommendations for the system to be used but the following serves as generic guidelines:

- I. The cellular confinement system (CCS) will be installed using a 100mm deep system.

- II. Remove any surface vegetation using appropriate hand-held tools or contact herbicide applied with wipe applicator.
- III. Remove any high points caused by rocks or debris across area to be resurfaced. Surface roots must remain undamaged and be worked over – reprofiling may be necessary. The path will be raised above the existing ground level to avoid excavation within the RPA.
- IV. Create a level surface by filling any hollows with clean angular stone or sharp sand.
- V. Where edging is required for footpath and light structures a peg and treated timber board edging is acceptable.
- VI. Lay out a suitable geotextile base layer to stop infill mixing with sub-base, Terram™ or similar. See below for suitable products.
- VII. Layout the cellular confinement system (CCS) over the prepared area, overlaying the edges of the required area by c. 300mm.
- VIII. There must be a gap of minimum 100mm at the base of the stem.
- IX. Overlap any joins by a minimum of 300mm.
- X. Layout the CCS, pinning into place using vertical steel or treated wooden pegs that are up to 250mm long, avoiding larger roots.
- XI. Each cell must be fully extended and under slight tension.
- XII. Infill cells with clean angular stone in accordance with manufacturer's recommendations but usually a 20/40mm angular gravel, never an infill that contains fines.
- XIII. Work towards the tree using the infilled panels as a platform for the next load of fill.
- XIV. Minimum 15mm overfill of clean angular stone when used in conjunction with a hard surface.
- XV. No compaction is required of the infill , though a Vibraplate can be used lightly if needed.
- XVI. Asphalt surfacing is anticipated at this location (bonded permeable gravel elsewhere) This can be laid over the infill layer once it has settled.

Suitable products (other brands are available):

Cellular confinement system:

– <http://www.geosyn.co.uk/product/cellweb-tree-root-protection>

and a downloadable installation guide is available here:

<https://www.geosyn.co.uk/downloads>

Landscape fabric:

– <https://www.geosyn.co.uk/product/ekotex-non-woven-geotextiles>

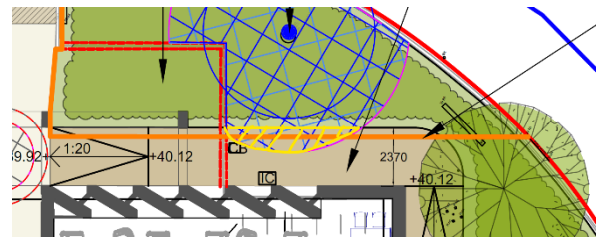
– <https://terram.com/products/standard-geotextiles/>

6.2 Removing trip hazards where path edge is higher than path surface.

If the edge of the temporary path is higher than the level of the adjacent surface there is a potential for a trip/fall hazard. The adjacent ground must be brugh up to the level of the path with either:

- a) a batter formed from a 50/50 mix of clean sharp sand & soil, no more the 45° angle to the path upright, shallower where possible.
- b) Where there is insufficient room to install a batter, the void (e.g. between tree trunks and path edge) must be filled with a 20/40 angular gravel, laid over Terram™ or similar landscaping fabric to stop mixing and to allow for easy removal. This allows full gaseous and aqueous exchange. This may need topping up occasionally to ensure levels are still met.

- 5.3 Cellweb root protection system is to be installed to the frontage entrance (see brown footpath on landscape drawings) Cellweb is a cellular confinement system that laterally dissipates loads rather than transferring to the soil and roots below. It is installed over soft landscaping that has been overlaid with a Terram™ landscape fabric to stop the infill mixing with the soil beneath.



Cellweb Tree Root Protection System complies with [BS5837:2012](#), APN 12 and tree preservation order (TPO) guidelines. The specified 150mm system has the capacity to achieve 30T loading ² which is deemed sufficient for pedestrian traffic and occasional maintenance vehicle access, while retaining the bulk density of the soil at a suitable level for root growth.

Preceding the installation of the footpaths a toolbox talk will be held with the project arboriculturalist and the project arb will be on call for advice at any point through the installation if roots are encountered.

6 Special precautions required to protect trees

- 6.1 Consideration must be given to the storage and mixing or refuelling of any chemicals that can be injurious to trees/plants. Special consideration is required where tree RPAs are even slightly downhill from an area proposed to store or mix chemicals, or where a soil level difference is likely to result in overspill to RPAs. Spillages can leach downhill through soil, impacting tree's rooting environment; alternate mixing areas must be sourced or mixing bunds shall be used with capacity to store 10% over that being mixed.
- 6.2 Construction activities must not be carried out within the RPA unless protection methods have been stated in this report and approved onsite. Should additional space for working areas be required, RPA's must not be entered without prior approval from the project arboriculturalist accompanied with a technical update stating how trees are to be protected.
- 6.3 Above ground apparatus (including CCTV and lighting) shall be sited to avoid tree pruning unless already specified in the AIA (and conditioned through planning if appropriate).
- 6.4 Pruning must only be carried out in line with BS 3998:2010 unless there are exceptional circumstances, agreed by the project arboriculturalist.

Contingency plans

Only in exceptional circumstances should ingress occur into the tree protection areas. In the following circumstances, the recommended actions are:

- 6.5 Chemical Spillage. A COSHH data sheet should be available for all chemicals bought onto site. For any spillage that occurs where chemicals may run into root protection area (above or below ground) a spill kit should be available to deal with immediate spills or for oil-based chemicals. For water-soluble chemicals thorough irrigation of the area using water must take place as soon as possible after the spill has occurred and continue for an appropriate time thereafter. The project arboriculturalist must then be informed to assess any further action that may be required.
- 6.6 Collision. A suitably qualified arborist must be called to assess the damage and their recommendations carried out following a collision. If the tree has been uprooted or thrown by the collision, the area must be made safe and the project arboriculturalist must then be informed to assess any further action that may be required.
- 6.7 Emergency access within RPAs. This is only allowed in exceptional circumstances and should be kept to a minimum in terms of footfall, vehicle, or plant movements. Remediation work may be required to de-compact the soil within the RPAs after the emergency has passed.

7 Quitting the site.

- 7.1 Once completed, the site must be left 'in reverse' so all material and plant are removed prior to the ground protection and tree protection fencing being removed. This is then done on a 'furthest away first' basis, using the remaining ground protection as the access route out. Any areas that show compaction or overrun into the RPA must be ameliorated with either an air spade or an application of seasoned mulch, depending on soil bulk density values.

8 Chronology of tree protection advice, measures and supervision.

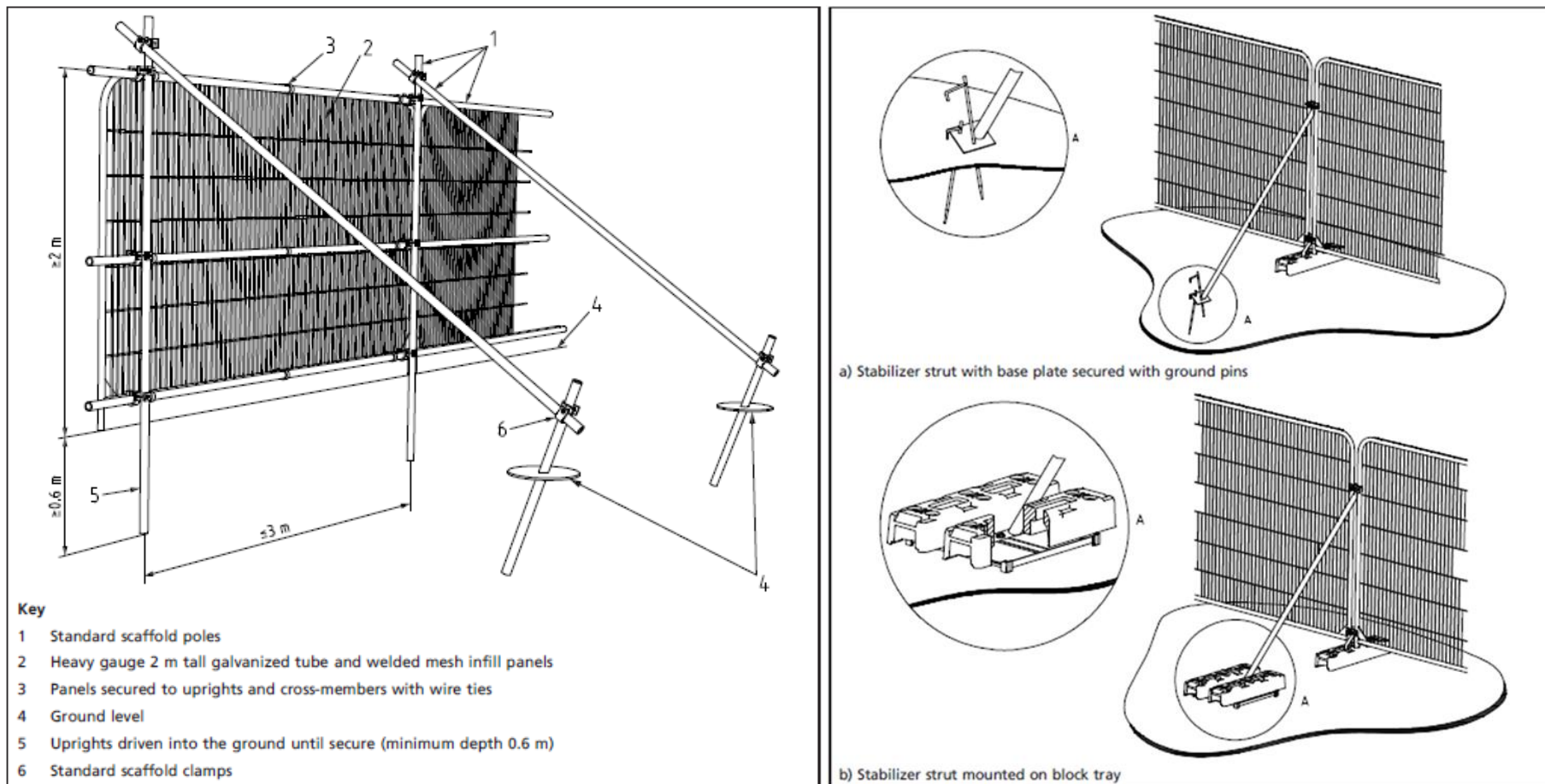
Ref.	Action	Start/ Date when completed
1	Tree surgery works and tree removals to take place as specified in the Tree Works Schedule (Appendix 2).	Pre-commencement of construction
2	Toolbox talk with contractors to cover tree protection, installation of both pathway systems and the damage that compaction can do to tree roots. NOTE: the project arb can be on call so if they find ANYTHING tree related that they are not sure of to call in.	Pre-commencement of construction
3	Temporary protective fencing to be erected as shown on the TPP (appendix 4). Fencing/hoarding to be erected as shown on the TPP.	
4	Enabling works: Trunk wrap added to trees 9-11. Installation of path to registrar's office	Early in phasing
5	Start of main works to include use of crane.	Main phase
6	Construction of main build is carried out and completed along with hard landscaping.	
7	Removal of tree protection measures. Start of landscaping activities with due adherence to ground protection.	
	Soft landscaping including mitigation tree planting to take place in the next available planting season.	

Should further impact to tree roots, stems or crowns be identified that are not documented within this report, a revised tree protection plan and arb method statement shall be created and implemented to ensure the continued protection of trees throughout development.

Alternatively, on-site arboricultural advice may be appropriate/adequate. This shall be decided and completed by a competent arboriculturalist, and any changes communicated to the project arboriculturalist.

Appendix 1 – Specification examples for protective measures

Figure a) diagram showing specification for protective fencing



Appendix 2 – Tree work schedule.

All arboricultural operations to be done to BS3998: Tree works.

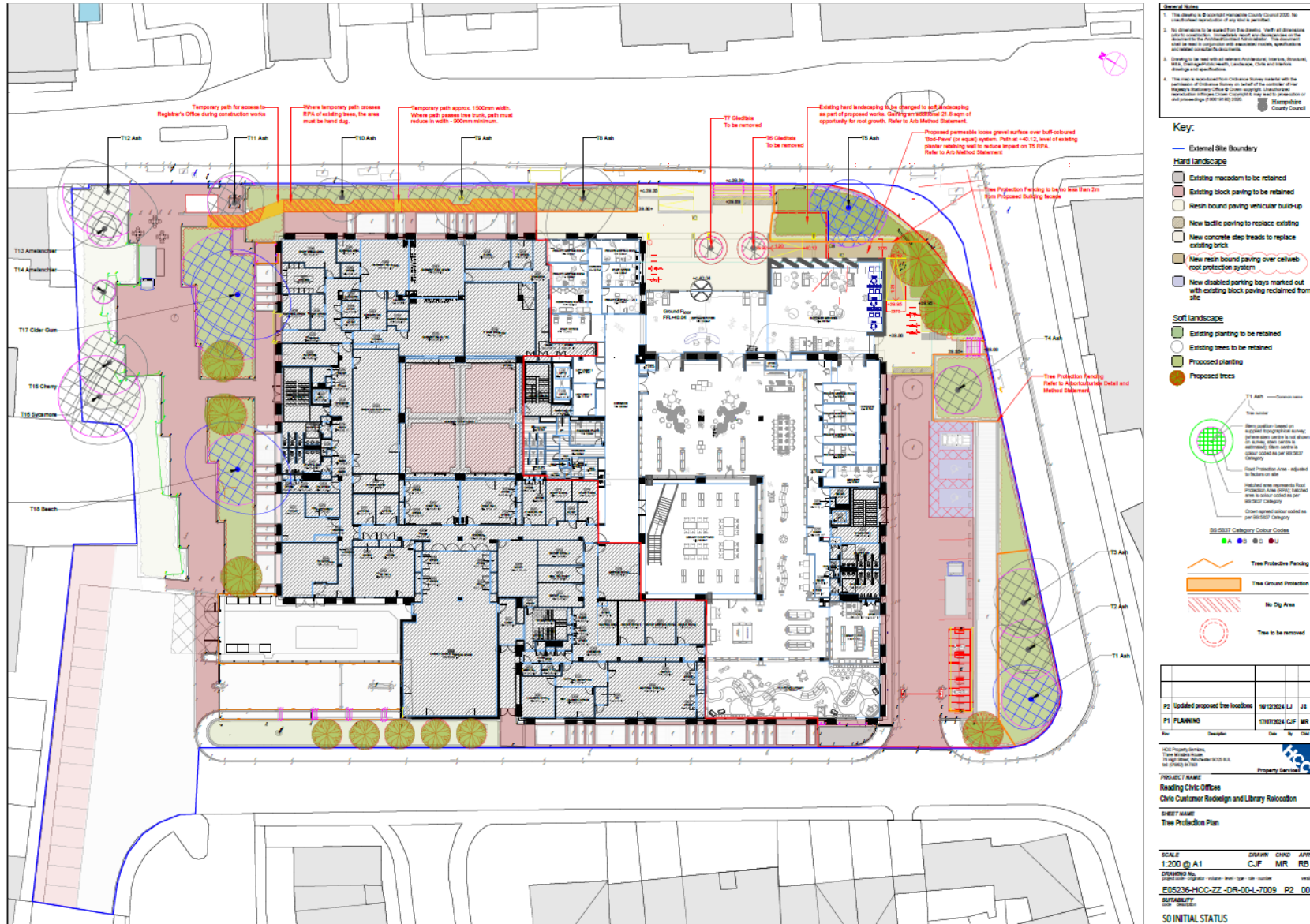
Tree no	Species common	Binomal	Ht	Dia at 1.5	RPA, m	Cat	Preliminary work recommendations (not project related)	Facilitation works
T1	Ash	<i>Fraxinus excelsior</i>	8	300	3.6	B2,3	Sever ivy	Retain and protect.
T2	Ash	<i>Fraxinus excelsior</i>	7	310	3.7	C2,3	Sever ivy	Retain and protect.
T3	Ash	<i>Fraxinus excelsior</i>	6	290	3.5	C2,3	Sever ivy	Retain and protect.
T4	Ash	<i>Fraxinus excelsior</i>	8	320	3.8		None	Crown lift to 4.5m agl over hard surfacing.
T5	Ash	<i>Fraxinus excelsior</i>	8	320	3.8		None	Crown lift to 2.5m agl over hard surfacing. Prune western canopy to clear line of proposal by up to 2.0m to good pruning points. Sever ivy. Clear vegetation from around base for minimum 1m radius.
T6	Gleditsia	<i>Gleditsia triacanthos</i>	5	120	1.4	C2	None	Fell for proposal
T7	Gleditsia	<i>Gleditsia triacanthos</i>	5	120	1.4	C2	None	Fell for proposal
T8	Ash	<i>Fraxinus excelsior</i>	7	320	3.8	C2,3	Sever ivy	Retain and protect.
T9	Ash	<i>Fraxinus excelsior</i>	7	300	3.6	C2,3	Sever ivy	Retain and protect. Temporary footpath to be installed very close to base of tree. See orange shading on TPP and para 5.5 above
T10	Ash	<i>Fraxinus excelsior</i>	7	290	3.5	C2,3	Sever ivy	Retain and protect. Temporary footpath to be installed very close to base of tree. See orange shading on TPP and para 5.5 above
T11	Ash	<i>Fraxinus excelsior</i>	7	260	3.1	C2,3	None	Retain and protect. Temporary footpath to be installed very close to base of tree. See orange shading on TPP and para 5.5 above
T12	Ash	<i>Fraxinus excelsior</i>	10	320	3.8	C2,3	Sever ivy	Retain and protect.
T17	Cider gum	<i>Eucalyptus gunnii</i>	14	490	5.9	B2,3	Proximity prune to clear building by 2 to 2.5m.	Retain and protect.
T18	Beech	<i>Fagus sylvatica</i>	14	300	3.6	B1,2,3	Proximity prune to clear building by 2 to 2.5m	Retain and protect.

Appendix 3 – Tree constraints plan – north & south sections clipped for legibility and reference, whole plan attached separately



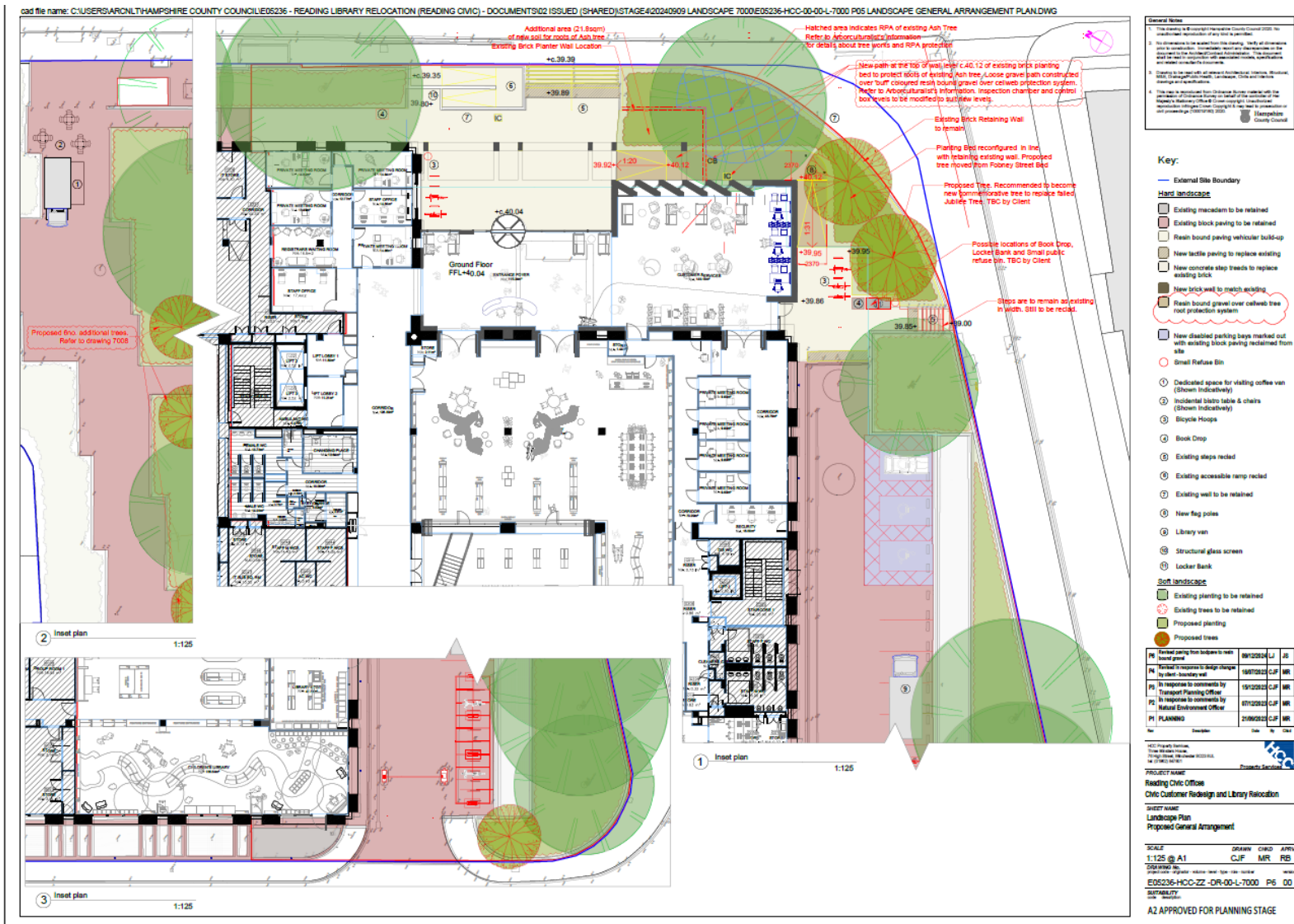


Appendix 4 – Tree protection plan – drawing ref: E05236-HCC-00-00-L-7009 P02 Tree Constraints Plan



Appendix 5 – landscape proposals drawing reference: E05236-HCC-00-00-DR-L-7000 P6 general arrangement

Please ignore blue curve line on eastern corner



Appendix 6 – Tree removal plan. Attached separately but clipped below for reference.

