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Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP)

An Arboricultural Method Statement and Tree Protection Plan derived from the Arboricultural Implication Assessment.

Installation of Portacabins
British Museum
Great Russell St
London WC1B 3DG

Ref No: 240131

Client:	Sarah Mather Client Project Manager Capital Development Section Estates and Capital Projects Department The British Museum, Great Russell Street, London, WC1B 3DG
Date instructed:	Jan 2024
Instructed by:	Sarah Mather Client Project Manager
Documents referenced:	Existing site plan - (S)10771-WW-ER-00-DR-A-1110 Survey ERB - Level 00 Plan (dated 14.10.22) DJA-Powerpoint 01-Localised Layout Plan Drawing number 663-DJA-SK-A-11105 Catering Hub – option C pdf Portakabin The British Museum Montague Street London-Plan View 01 pdf Portakabin The British Museum Montague Street London-Plan View 02 pdf
Prepared by:	O.R. Booth
Date completed:	February 2024

ATTACHMENT

Tree Protection Plan (TPP) – Ref. 230811

1: Introduction

1.1 Aspects dealt with within this Method Statement:

The Arboricultural Method Statement (AMS) is a methodology for the implementation of any aspect of development that has the potential to result in loss of or damage to a tree identified as suitable to be retained.
The AMS takes into consideration construction operations undertaken in the vicinity of the trees. It will deal with such issues as site access, intensity of construction activity, space needed for works, location of temporary storage of materials and location of service runs.
This AMS includes with it a Tree Protection Plan (TPP). The TPP outlines trees to be retained, removed, preliminary location of barriers and type of barrier to be installed. This method statement contains a timetable indicating when and how specific works adjacent to trees should be carried out.

1.2 Aspects not dealt with within this Method Statement

Please also refer to Appendix 2.
This report does not deal with issues relating to Subsidence or Heave either as a result of retention or removal of trees. It does not consider the water demands of the trees present to enable decisions as to foundation type and depth. It is considered that such considerations are best dealt within a different report having liaised with the structural engineer. This can be provided on request.

2. Background Information

2.1 Names and Contact numbers of Parties concerned

Contact Name	Company/ Organisation	Role	Contact details
Sarah Mather	Estates and Capital Projects Department The British Museum,	Project Manager	smather@britishmuseum.org 020 7323 8765
Marta Marotta	Dannatt Johnson Architects	Architect	marta.marotta@djarchitects.co.uk 020 7357 7100
Kevin Tate	Portakabin	Install Contractor	Kevin.Tate@Portakabin.com 07895 309597
Oliver Booth	Writtle Forest Consultancy Ltd	Arboricultural Consultant	o.booth@writtleforest.co.uk 01277 355970
TBC	London Borough of Camden	Local Authority Tree Officer	0207 974 4444

2.2 Availability of this Method Statement

The Site Manager and appointed Contractor will each hold a copy of the document, including the Tree Protection Plan. Copies of this document will be made available for contractors visiting site.

3: Supervision and Monitoring

3.1 Monitoring and Supervision

Arboricultural supervisory works and monitoring visits must be confirmed by formal correspondence circulated to all relevant parties, including the council. These records of site visits will provide proof of compliance.

3.2 Site Management

All tree protection measures detailed in this document must be fully understood by all the parties involved in the development. Clarification or modifications to the consented details must be recorded and circulated to all parties in writing. These documents should then form the basis of any supervision arrangements between the Arboricultural Consultant and the proposer, as agreed with the Local Planning Authority where applicable.

It is the Site Manager's responsibility to ensure that the requirements set out within the Arboricultural Method Statement are known and understood by all site personnel. Copies of pertinent documents should be kept on site at all times. The site manager will brief all personnel who may have an impact on any trees and relay specific tree protection requirements.

This methodology should be a part of all site induction procedures and written into appropriate site management documents. The following pertinent points should be explained to all personnel who could have an impact on trees;

1. The specification of the Protective Barriers around retained trees.
2. The requirement for Protective Barriers to be sufficiently robust to prevent incursion by construction activity.
3. Why it is essential that the Protective Barriers remain throughout the works.
4. The importance of the 'exclusion zones' around retained trees.
5. The potential damage caused to trees and new tree planting by compaction of soils and the requirement for ground protection.

4: Schedule of Tree Work

4.1 Tree works to be carried out prior to installation of Protective Barriers

Tree Number	Species	Works required
T25	Field Maple	Reduce crown to west by up to 1m to suitable growth points. **Note:** This is a third-party tree, liaison and permission to be sought from owner before carry out pruning.
T26	Field Maple	Reduce crown to west by up to 1m to suitable growth points. **Note:** This is a third-party tree, liaison and permission to be sought from owner before carry out pruning.
T28	London Plane	1. minor branches of the canopy are lifted to 6m, 2. the major limb at 6m to south is suitable protected against possible impact or scuffs,
T29	London Plane	Crown lift minor branches within crown canopy to achieve a clearance height of 5m. **Note:** This is a third-party tree, liaison and permission to be sought from owner before carry out pruning.
T38	London Plane	Crown lift minor branches within crown canopy to achieve a clearance height of 5m. **Note:** This is a third-party tree, liaison and permission to be sought from owner before carry out pruning.
T39	London Plane	Crown lift minor branches within crown canopy to achieve a clearance height of 5m. **Note:** This is a third-party tree, liaison and permission to be sought from owner before carry out pruning.

4.2 Tree works to be carried out post installation of Portacabins

The exposed ground associated with T28 is densely compacted, prior to works. It is advisable on completion of works to de-compact these areas and provide suitable soil ameliorants to improve the growth of the tree.

5: Sequence of Events

Sequence	Brief outline of events	Arboricultural input required
1	Carry out tree work as detailed in section 4.1 above.	Yes – Site visit to check that tree works have been completed satisfactorily.
2	Install stem protection as shown on the Tree Protection Plan (TPP).	Yes - Site visit to check adequacy and location of stem protection.
3	Install fencing and ground protection	None required
4	Installation of Portacabins	Yes, in relation to Portacabins adjacent to T28
5	De-compact and improve soils relating to T28	None required
6	Re-inspection of retained trees.	Yes - Site visit to carry out the inspection of retained trees within one month of the completion of works.

6. Mitigation in relation to Field Maple Trees T25 &T26

Installation of Cold store buildings and Security Hut will need to be craned into position. These works will require that the crane unit is parked beyond the canopies of T25 and T26, (ideally on the opposite side/ middle of Montague Street).
The Portacabins would need to be craned above the height of the tree canopies (approx. 9m) and lowered into the space within the British Museum (outside of the canopies of T25 and T26), such that the boom (or main crane arm) operates between the canopies of T25 and T26.
The operation should be contacted with Banks person/people to ensure that the operation does not result in contact with the canopies of T25 or T26.
The units would then need to be manoeuvred into position on skates (or dollies).

7. Mitigation in relation to London Plane T28

7.1 Installation of Branch protection

The main lateral to the south at 6m will need to be protected from potential/ possible impact from the install of the upper Portacabin. This work will involve attaching a thick, robust foam material around the stem. This is to remain in situ until the install is complete.

7.2 Installation of Tree Box & Protective fencing

The tree T28, will require the installation of a Tree Box, prior to commencement of the works as shown on the TPP. The Tree Box will remain in-situ throughout the main construction and only removed on completion of the proposed works. This will provide robust protection of the main stem from all installation works.
Protective fencing will also be required to protect the RPA of the tree in relation to the area of the exposed ground (as shown on the TPP). This fencing will remain in situ for the duration of the project.

7.3 Installation of Ground protection

Ground protection will also be laid across the areas of ground which are not laid to tarmac/hard surfacing. This will remain in situ for the duration of the project. This will overlap the areas of Protective fencing and lay beneath some areas where the Portacabins will be sited.

7.4 Installation of Portacabins – Distributive ground weight in RPA

It is understood that some of the supporting legs of the Portacabins will be sited on the areas of the exposed ground within the RPA of T28. It will be imperative that suitable ground support and distribution is installed to spread the weight to reduce compaction of soils as well as ensure that there is no impact within the soils such that the build support may subside or cause damage to the root systems. (This will require input/ recommendations from the installers as to best practice and materials to use).

7.5 Installation of Portacabins – Siting in relation to main laterals of T28.

It is understood that the height of the two storey Portacabin installation to the south will be approx. 6m in height. The main lateral of T28 starts at approx. 6m. It will be imperative to align the base Portacabin to allow sufficient room for the second Portacabin to be installed with sufficient distance from the main lateral (approx. 200mm). This is to ensure 1) no damage to the lateral and 2) to allow for movement of the lateral in wind conditions.

7.6 Arboricultural Consultant Role

All aspects of the above mitigations will need to be supervised by an Arboriculturist prior to and at the time of installation of the Portacabin

8. Mitigation in relation to T29 London Plane

Mitigation with regards to the installation of single storey Portacabin to north east of crown will require that the Portacabin be lifted from Montague Street to the north east of T29 (and outside of T28 and T29 canopies). The Portakabin will then be manoeuvred into position on skates (or dollies) and installed to the north of the crown.
This method should ensure that only minimal crown lift of smaller branches is required to site the Portacabin.

9. Mitigation relating to installation and access to compactors and skip

A crown lift of minor branches within crown canopy of trees T29, T38 and T39 will be needed to achieve a clearance height of 5m. Please note that this is a third-party tree, liaison and permission to be sought from owner before carrying out pruning.

10. General Site Conditions and Tree Protection Measures

Storage of Materials

Designated areas for storage of materials and site office will be decided by the Site Manager before any works can commence. Arboriculturist if the storage areas or site office.

Discharge of Contaminants

No materials that are likely to have an adverse effect on tree health, such as oil, bitumen or cement will be discharged within the RPA of any of the trees to be retained. It is advised that the disposal of all waste materials is carried out in an appropriately sustainable fashion.

Contingency Plans

Should there be any contamination of soils either within or adjacent to the RPA these should be dealt with as quickly as possible with a proprietary emergency clean up kit. The situation should then be assessed as to whether it is appropriate to remove soils. An Arboriculturist should be consulted before a decision is made. The protection barriers erected should be able to be removed relatively easily to access the area in event of an emergency.

Access to the area of proposed works

Main access to the site is understood to be from the east via Montague Street. It is considered that these would be the only access point into the site for the purposes of carrying out the development as proposed. If there are any other proposed access points into the site, this should be agreed prior to use with the Arboriculturist.

Cranes and Lifting Equipment

All lifting equipment, including cranes if utilised, should be so positioned that they operate without contact with the retained trees. Care must be taken so that the arc of the boom fitted to the lifting equipment is sufficiently clear of the retained trees.

Boundaries/ Scope of the Site

The appointed Arboricultural Supervisor must be consulted if the boundaries of the site are extended or if excavations/ storage/ construction related to this development is to be carried out on other parts of the wider area, outside of the development site as indicated on the Tree Protection Plan.

Appendix 1: Protective Barriers - Tree Box

Before the commencement of any works on site (other than those set out in the schedule of tree works, contained in this document), protective vertical barriers must be erected. The location of the barriers is illustrated on the Tree Protection Plan.
The barriers are to be erected to exclude construction activity in the RPAs of retained trees.
The barriers will remain in place until completion of the main construction phase and then only removed with the agreement of the consulting Arboriculturist.
Other than works detailed within this method statement or approved in writing by the local planning authority, no works shall take place within the exclusion zones defined by the protective fencing. No vehicles will be allowed to enter areas to be protected by the barriers.

Specification of Stem Protection

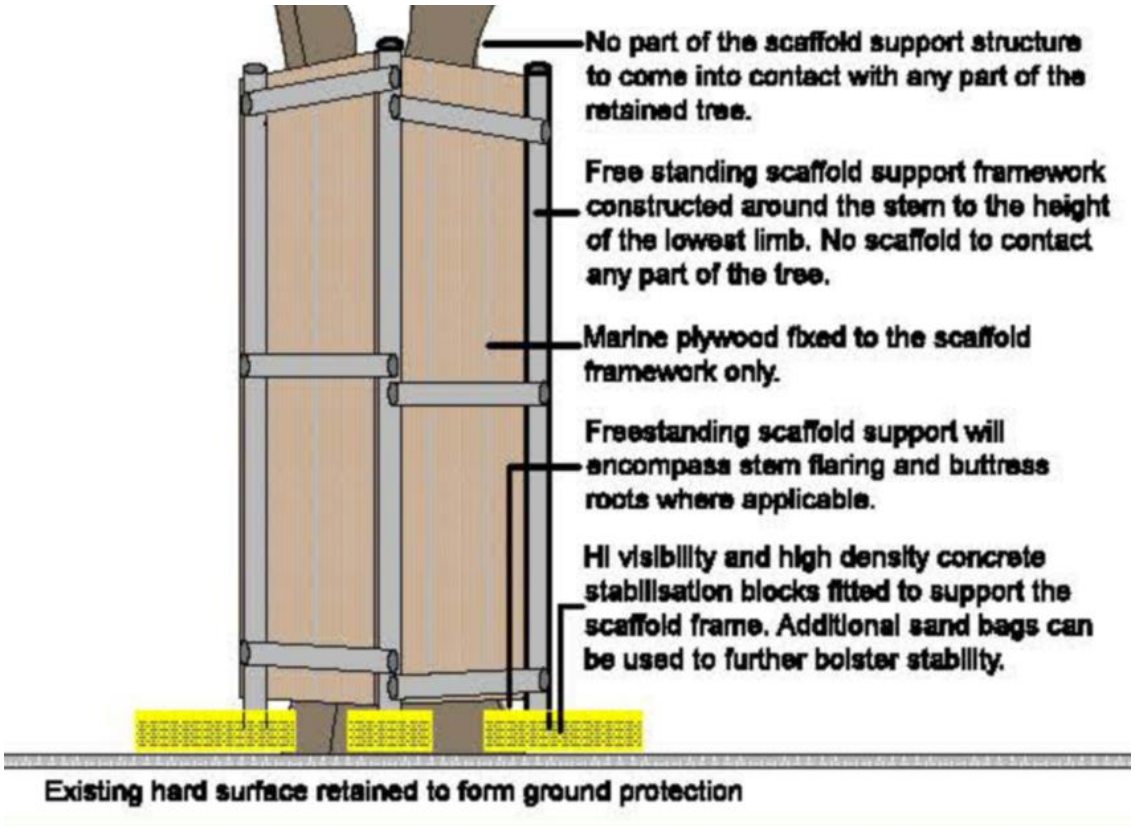

Fig. 1: Example of Stem Protective on hard surface areas.

Appendix 2: Protective Barriers

Before the commencement of any works on site (other than those set out in the schedule of tree works, contained in this document), protective vertical barriers must be erected. The location of the barriers is illustrated on the Tree Protection Plan.
The barriers are to be erected to exclude construction activity in the RPAs of retained trees.
The barriers will remain in place until completion of the main construction phase and then only removed with the agreement with the consulting Arboriculturist.
Other than works detailed within this method statement or approved in writing by the local planning authority, no works shall take place within the exclusion zones defined by the protective fencing. No vehicles will be allowed to enter areas to be protected by the barriers.

Specification of Protective Barriers

The barriers should be fit for purpose of excluding construction activity. At this site, it is considered sufficient to install two-metre-tall welded mesh or solid panels on concrete feet (please refer to figures 1a and 1b. The fence panels (Heras type) should be joined together using a minimum of two anti-tamper couplers and installed so they can only be removed from the inside. The distance between the fence couplers should be at least 1 metre and should be uniform throughout the protective barrier.
The panels should be supported on the inner side by angled stabilizer struts installed every 3.5 metres at the join of the fence panels. Both the concrete feet and the stabiliser strut base plates should be secured with ground pins. Where fencing is to be erected on retained hard surfaces or it is otherwise unfeasible to use ground pins stabilizer struts should be mounted on a block tree.
The specification of the temporary barriers will be installed in accordance with the specification as discussed in the paragraph above and referenced in figures 1a and 1b.
Notices will be affixed to all protective fencing 'Construction exclusion zone - Keep Out' (please refer to figure 2.

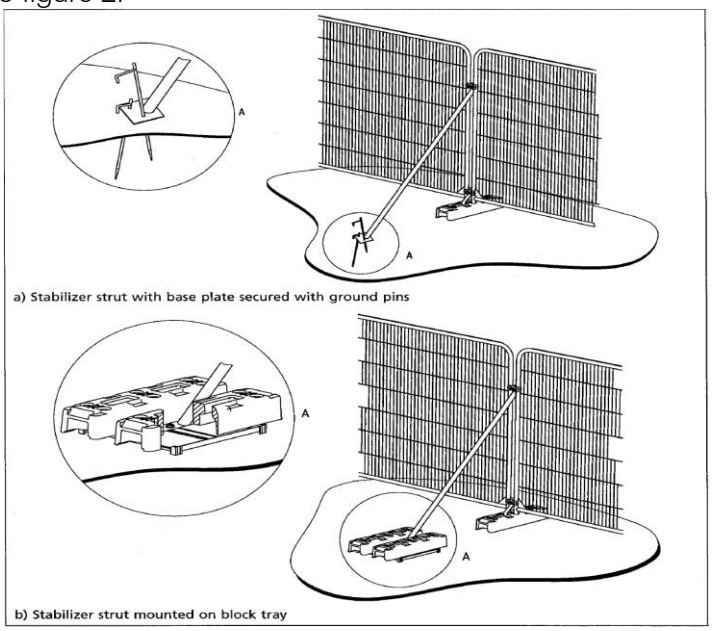

Figure 1a and 1b - Diagram of protective barrier taken from BS 5837 (2012)

Figure 2 - Example of suitable warning sign affixed to protective barrier

Appendix 3: Installation of Ground Protection

Ground Protection will be installed in areas as indicated on the TPP according to the level of use, as follows.

Pedestrian and pedestrian-operated machinery up to a gross weight of 2 tonnes

Lay an impermeable geo-textile matting directly onto the soft ground, onto which will be installed a layer 150 millimetres thick of a compressible material such as woodchip, capped with a finished surface of interlinked ply-board sheets or proprietary ground protection boards.

Machinery in excess of 2 tonnes gross weight

The area shall be protected by the laying of an impermeable membrane onto the site surface. Any levelling off of the ground surface prior to laying the impervious membrane surface shall be made using soil or aggregate infill of hollows to build up to a general site level, no excavation or grading of surfaces will be allowed. Onto this base shall be laid a geotextile pocketed mat, in-filled with inert coarse aggregate to a depth of 150 millimetres spread and levelled to form a wearing surface. Onto which proprietary interlinking ground protection boards can then be installed.

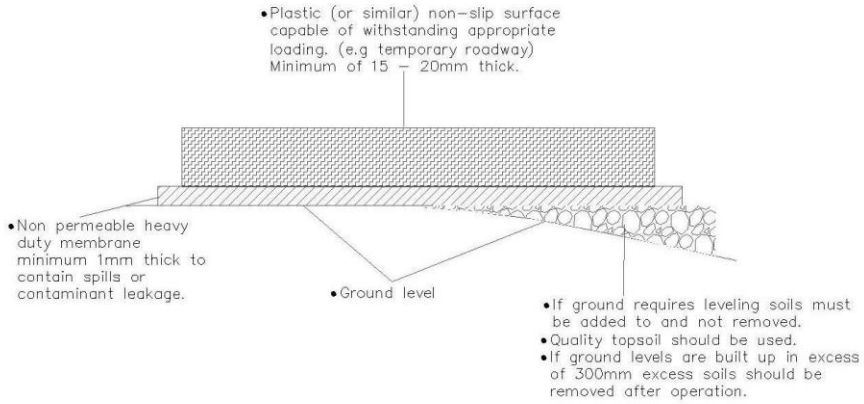

Figure 3 – Example – ‘Ground Guard’

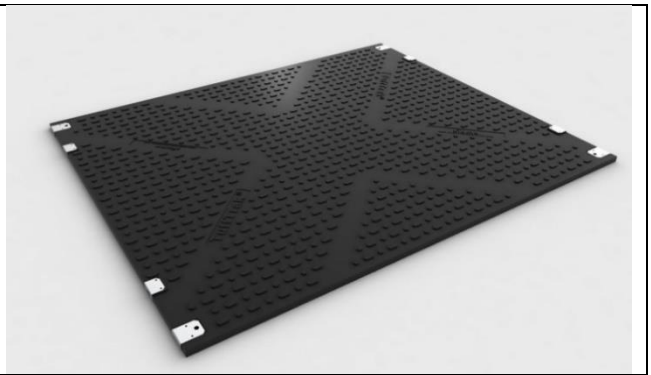

Figure 4 – Example –TuffTrack

Appendix 4: Limitations of Arboricultural Method Statement

Limitations of the Report

Please also refer to sections 1.2 and 1.3 at the beginning of this report.

- The report is based on information provided by third parties and the specifications and recommendations is dependent upon information provided therein.
- This report does not consider the possible implications to any present or future built structures other than those considered within the report.

Findings of the Survey and the Report

- Validity, accuracy and findings of the report will directly relate to the accuracy of information provided at the time of the tree survey.

Timing of the Survey and the Report

- The considerations/ findings in this method statement are valid for one year.
- Such considerations/ findings will become invalid if any building works are undertaken, soil levels are altered or tree work undertaken outside of the scope of works as detailed and presented at the time of compiling this report.
- If there are any alterations to either the property or soil levels, or if tree works are carried out, it is recommended that a new tree report is undertaken.

Trees in relation to other Properties:

- This report/survey only considers the trees in relation to the site as identified.
- It does not comment on possible effects of trees on neighbouring properties, including in relation to subsidence or heave, or with regard to possible hazards presented by trees surveyed.
- Neighbouring owners of trees that are identified as posing a possible risk to the property/site in question should seek their own advice as to possible effects of the recommendations given within this report.
- Damage to, or possibility of damage to, any other structure that is not referred to within the report is not considered unless otherwise specified. This includes both neighbouring structures and any other structure on the property.

Trees in Relation to Subsidence, Heave and Direct damage

- This report does not deal with issues relating to subsidence or heave in relation to any built structures and surrounding vegetation whether the structure or vegetation falls within the boundaries as considered or lies beyond the boundaries.
- The report does not consider issues relating to subsidence or heave in relation to any proposed built structures or future vegetation whether within the boundaries as considered or beyond the boundaries
- It is prudent to consider the effects of heave on any property if trees are removed.
- Similarly, the issue of direct damage (when the roots of a tree have physical contact with a structure) is not considered within this report.

Trees subject to statutory controls:

- If the trees are covered by a Tree Preservation Order or are located in a conservation area it will be necessary to consult the local authority before any pruning works, other than certain exemptions, can be carried out.
- The works specified above are necessary for reasonable management and should be acceptable to the local authority. However, tree owners should appreciate that the local authority may take an alternative point of view and have the option to refuse consent.

Trees are subject to changes outside man's control:

- Trees are living organisms subject to changes outside man's control. Trees and environment alter with the seasons it is as well to inspect trees whilst in full leaf and when out of leaf.
- If there are any harsh or unexpected weather conditions, or heavy storms it is also prudent to inspect trees.
- Changes to ground water conditions will affect the root growth of a tree. Such changes are not always the result of man's influence and other factors may be involved.

Limitations of use of copyright: