

Uber Boat
by **thames clippers**

HAMMERSMITH TEMPORARY FERRY

LANDSCAPE AND EXTERNAL DESIGN & ARBORICULTURAL ASSESSMENT

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CONTENTS

1	INTRODUCTION	2
1.1	Purpose of Document	2
1.2	Project Background	3
1.3	Site Assessment	3
2	LANDSCAPING DESIGN.....	5
2.1	Existing Layout	5
2.2	Design	6
2.3	Site Plan	9
2.4	Landscaping Impacts.....	11
2.5	Ecology.....	14
2.6	Decommissioning	17
3	SUMMARISED ARBORICULTURAL IMPACT ASSESSMENT	18
3.1	General.....	18
3.2	Desktop Study	18
3.3	Tree Root Protection Zones.....	20
3.4	Likely Alteration to Site Levels.....	22
3.5	Likely Changes to Surfacing	23
3.6	Exposure Due to Tree and Structure Removal	23
3.7	Sunlight and Shading	23
3.8	Replacement Tree Planting	23
3.9	Other Protection Measures.....	23
3.10	Overview Arboricultural Method Statement	24
4	CONCLUSION	25

1 INTRODUCTION

1.1 Purpose of Document

1.1.1 Beckett Rankine (BR) has been commissioned by Uber Boat by Thames Clippers (UBTC) to prepare studies to support statutory consent applications for two passenger piers for the Hammersmith Temporary Ferry. This report has been prepared to accompany applications for:

- Planning, where the relevant authorities are:
 - The London Borough of Hammersmith and Fulham (LBHF)
 - The London Borough of Richmond upon Thames (LBRuT)
- Marine consents, where the relevant authorities are:
 - The Marine Management Organisation (MMO)
 - The Environment Agency (EA)

1.1.2 Recognising the environmental and social sensitivity of the area, BR has been working with, and is in ongoing discussion with, the following statutory authorities:

- London Borough of Hammersmith and Fulham (LBHF)
- London Borough of Richmond Upon Thames (LBRuT)
- Marine Management Organisation (MMO)
- Environment Agency (EA)
- Port of London Authority (PLA)
- Greater London Authority (GLA)

1.1.3 Additionally, consultations are being held with local residents, local schools, and river users.

1.2 Project Background

- 1.2.1 Hammersmith Bridge provides a major link between Hammersmith and Barnes. There are no cross-river London Underground services in this location. The bridge's closure to all traffic in August 2020 has resulted in major disruption to the local and wider area due to the absence of an alternative nearby river crossing.
- 1.2.2 Transport for London (TfL) has concluded that the quickest way to provide a safe alternative river crossing at Hammersmith is to provide a Temporary Ferry operation for pedestrians, wheelchair users and cyclists. To enable this service two temporary piers are required, one on the Hammersmith shore and the other on the Barnes shore.
- 1.2.3 Both Hammersmith Pier and Barnes Pier, which enable the Hammersmith Temporary Ferry service, are to be temporary in nature and will be removed on re-opening of Hammersmith Bridge. The design of each structure has therefore been completed with ease of removal as a key criterion. The Hammersmith Temporary Ferry will be in place up to 3 years.

1.3 Site Assessment

- 1.3.1 The two temporary piers will be located on either side of the river, immediately downstream of Hammersmith Bridge as seen in Figure 1.1. Hammersmith Pier on the north bank will land at the end of Queen Caroline Street, while Barnes Pier will land of the Thames towpath on the south bank.
- 1.3.2 Site visits have been carried out to identify the location, girth, condition of trees and other vegetation at the site. This has been undertaken in accordance with the recommendations in BS 5837.

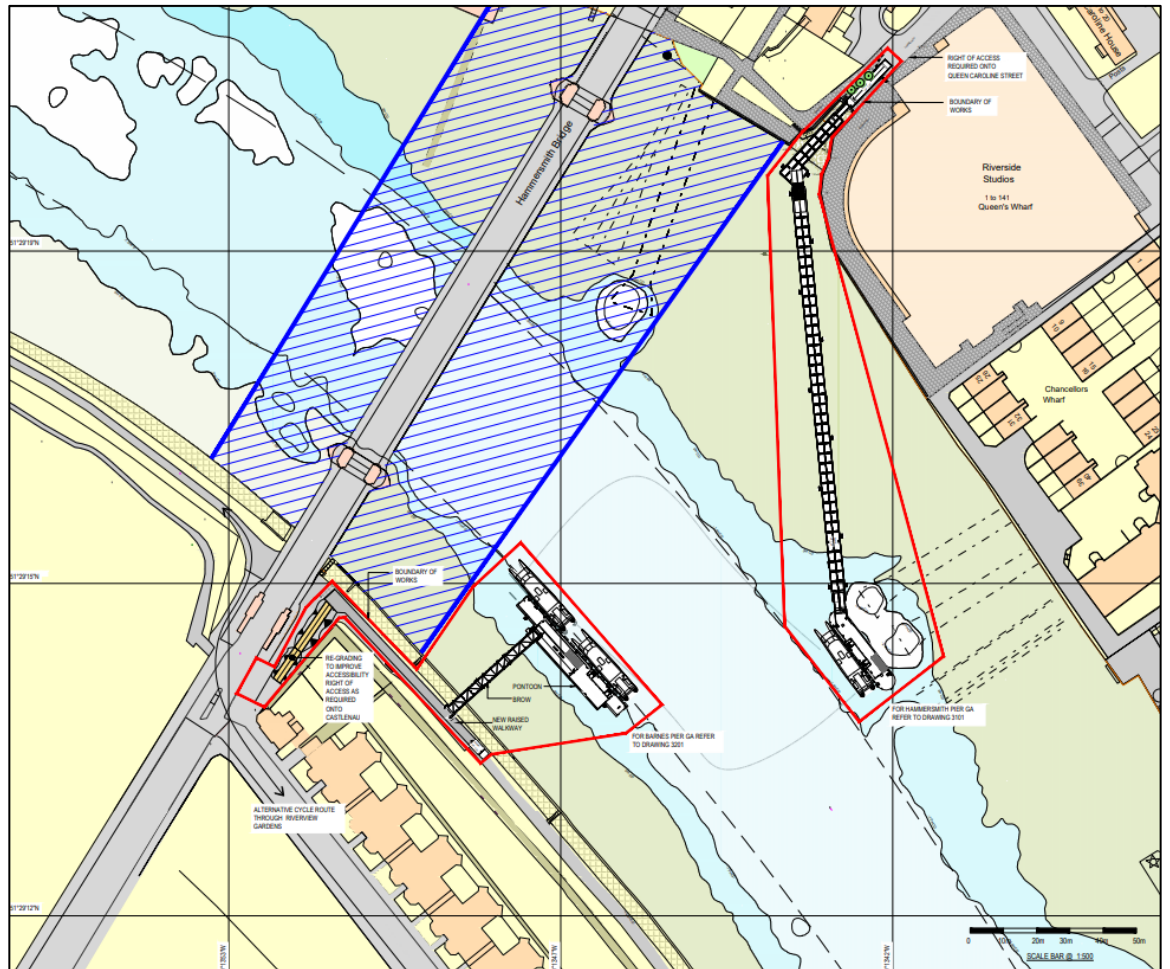


Figure 1.1: Proposed Scheme Location

2 LANDSCAPING DESIGN

2.1 Existing Layout

Temporary Hammersmith Pier (North Side)



Figure 2.1: Proposed Landing Area for Hammersmith Pier Access Ramp

2.1.1 Figure 2.1 shows the existing landside of the area to be used for landing the Hammersmith Pier.

Temporary Barnes Pier (South Side)



Figure 2.2: Proposed Landing Area for Barnes Pier

2.1.2 Figure 2.2 shows the existing landside of the area to be used for landing the Barnes Pier.

2.2 Design

2.2.1 Before construction, a Construction Environment Management Plan (CEMP) is required to set out the overarching construction. The CEMP is included alongside the planning application. The document sets out the best practice environmental management controls during the works, and measures to reduce noise, dust emissions, light emissions, and how to avoid the risk of potential river water contamination due to accidental spills and leakages.

2.2.2 The materials and finishes of the design are shown in the drawing package which forms part of the submission, and will be developed further for fabrication.

Temporary Hammersmith Pier (North Side)

2.2.3 The landside works for Hammersmith Pier will consist of installing a ramp that will land on a transition platform and gangway which will provide access to the slipway

at the end of Queen Caroline Street. Note that the upper flood board will be removed as part of this process, this will not comprise the flood defence level at the site. The overall length of the ramp together with the transition platform is 17.5m. The proposed landing area is shown in Figure 2.1. The slope of the ramp will be (Disability Discrimination Act) DDA compliant with a limited slope as per the recommended guidelines. A further walkway of 125m length spans between the transition platform and the pontoon.

Temporary Barnes Pier (South Side)

- 2.2.4 The landside works for Barnes Pier will involve installing a concrete base for the brow bearings, a raised walkway on the current embankment towpath and re-grading the slope to the side of Hammersmith Bridge.
- 2.2.5 The embankment towpath is located below Highest Astronomical Tide level and floods on large tides. As part of the works, a 45m long lightweight steel frame raised walkway will be installed to allow dry access to the pier. The clear width of this structure will be a minimum of 2.5m to suit segregated pedestrian and cycle traffic. The slope to the side of Hammersmith Bridge will be regraded to improve accessibility to the walkway. The slope consists of a gravelled path, an image of which is shown in Figure 2.3.



Figure 2.3: Concrete Path to the Side of Hammersmith Bridge

- 2.2.6 The path will be reprofiled as shown in Figure 2.4 with compacted MOT Type 1 (i.e. granular fill material typically used for footpaths).

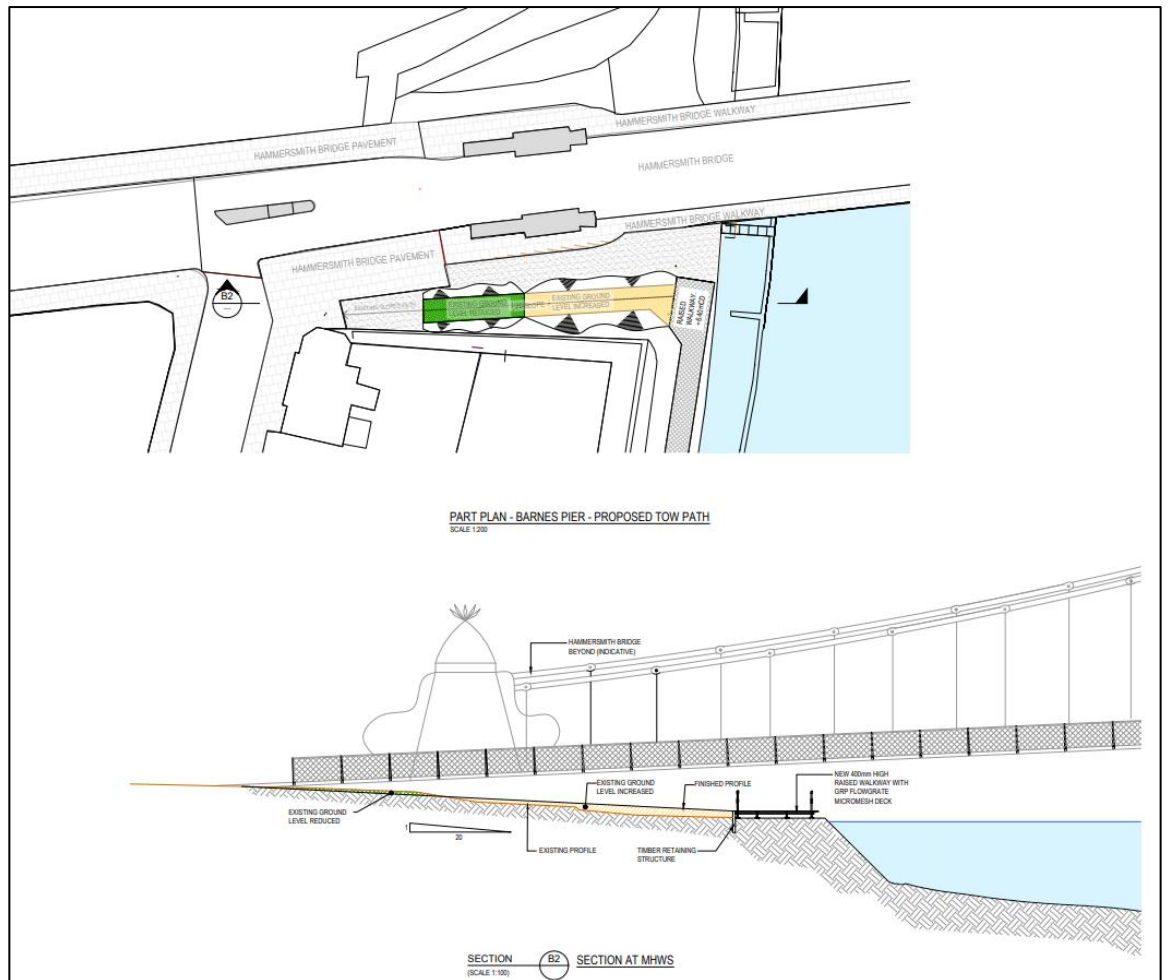


Figure 2.4: Proposed Footpath Regrading

2.3 Site Plan

- 2.3.1 The locations of the landscaping for the Temporary Hammersmith Pier and Barnes Pier access are shown in Figure 2.5 and Figure 2.6.

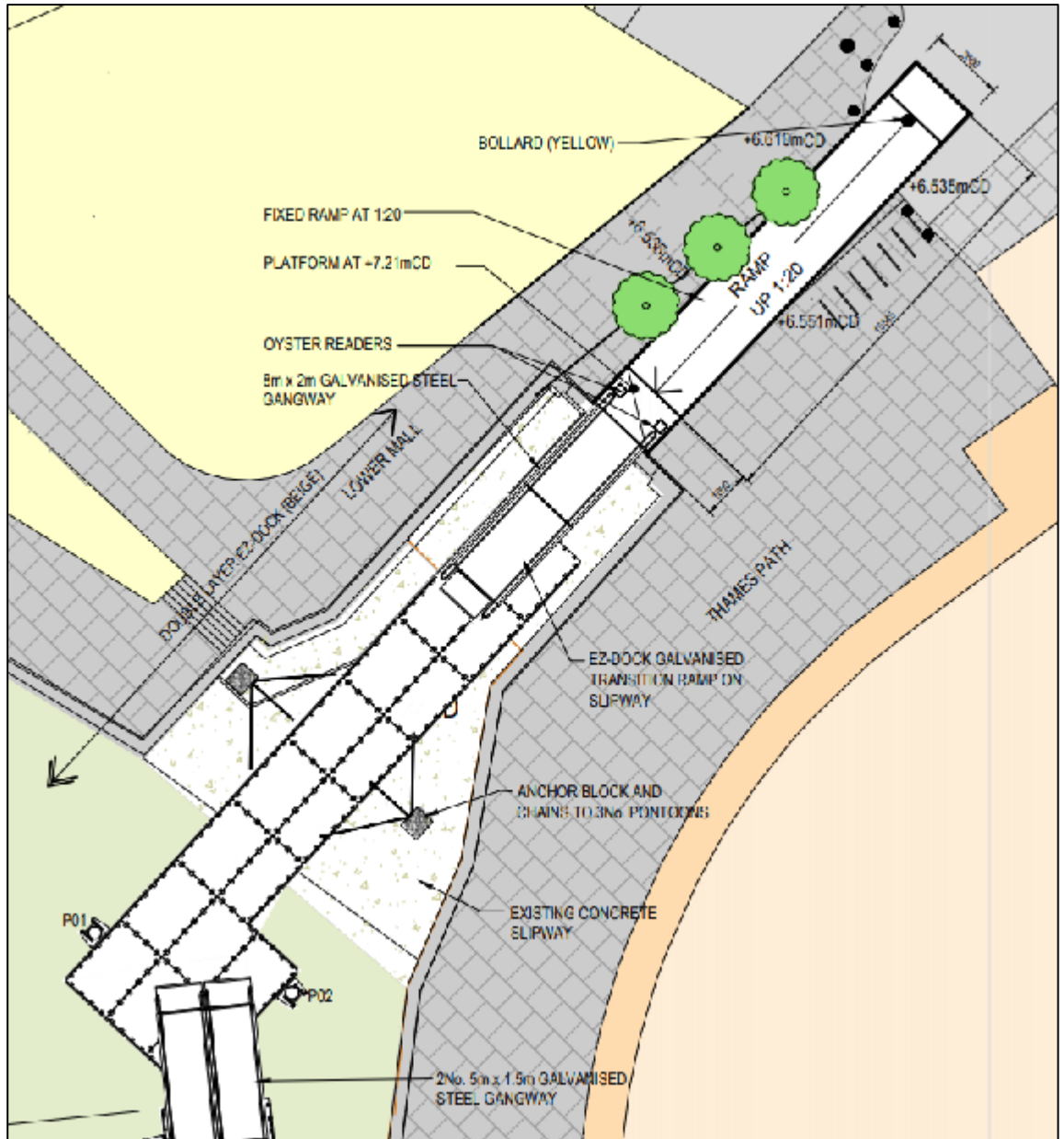


Figure 2.5: Proposed Plan for Temporary Hammersmith Pier

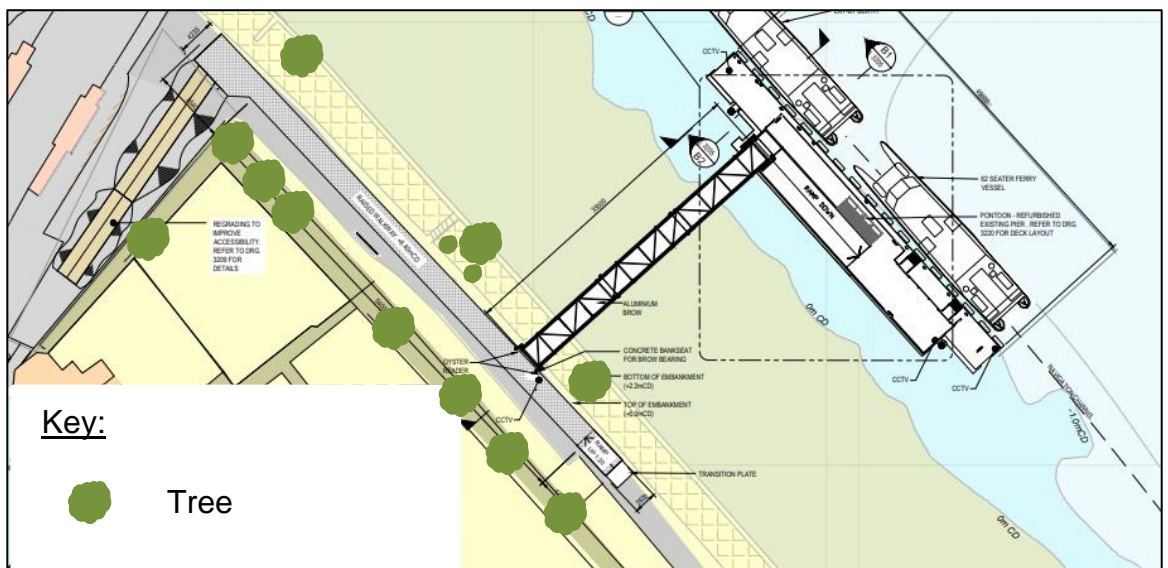


Figure 2.6: Proposed Plan for Temporary Barnes Pier with approximate tree locations

2.4 Landscaping Impacts

Trees

2.4.1 See section 3 - Arboricultural Impact Assessment.

Townscape and Landscape

2.4.2 The CEMP sets out a range of measures and good practices with the aim of reducing townscape and visual effects during construction.

2.4.3 Prior to operation ceasing, a reinstatement landscape design strategy should also be implemented to ensure that all areas affected will be reinstated once the temporary piers are removed. The landscape design should also address ecological recommendations and opportunities for biodiversity enhancement and net gain and improvement in line with LBHF and LBRuT local plans and the new London Plan.

Views

2.4.4 Several views of the Hammersmith Temporary Ferry service are provided in Figures 2.7 to 2.10 below.

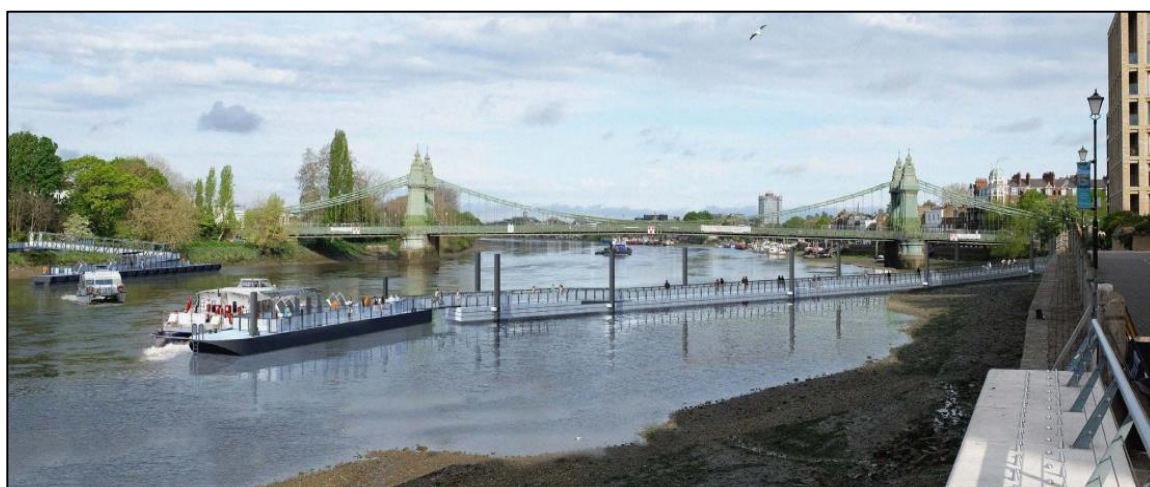


Figure 2.7: Proposed Hammersmith Temporary Pier CGI



Figure 2.8: Proposed Hammersmith Temporary Ferry Aerial CGI



Figure 2.9: Proposed Hammersmith Pier Landside CGI



Figure 2.10: Proposed Barnes Pier Landside CGI

2.4.5 As shown in Figure 2.7, during operation, the physical presence of the Hammersmith Temporary Ferry will affect the protected views to the historic Hammersmith Bridge from the East. However, this image also shows that, based

on the pile heights, the bridge will still be predominantly visible at both high and low water from the northern bank. On the southern bank, the extent of the Barnes Pier is lesser meaning that only a small proportion of the bridge is covered (at all tides states) and the subsequent impact is therefore limited.

2.4.6 Further, this impact will be temporary and will only occur while Hammersmith Bridge is being refurbished. The bridge is currently closed off by hoarding and dismantling of the decorative cladding has commenced with scaffolding and temporary enclosures in place. Additional dismantling and erection of scaffolding enclosures will further obscure the bridge from view as the refurbishment works progress. Compared to these visual obstructions the ferry will have only a minor impact on views of the bridge. The visual impact of the ferry on views from the west will be minimal.

2.4.7 Considering all the above it is not expected that the presence of the pier structures will cause any significant harm to protected views and it is not likely to give rise to significant adverse visual effects.

2.4.8 For further details, refer to the Heritage Statement (ref. 1817-125/05/21)

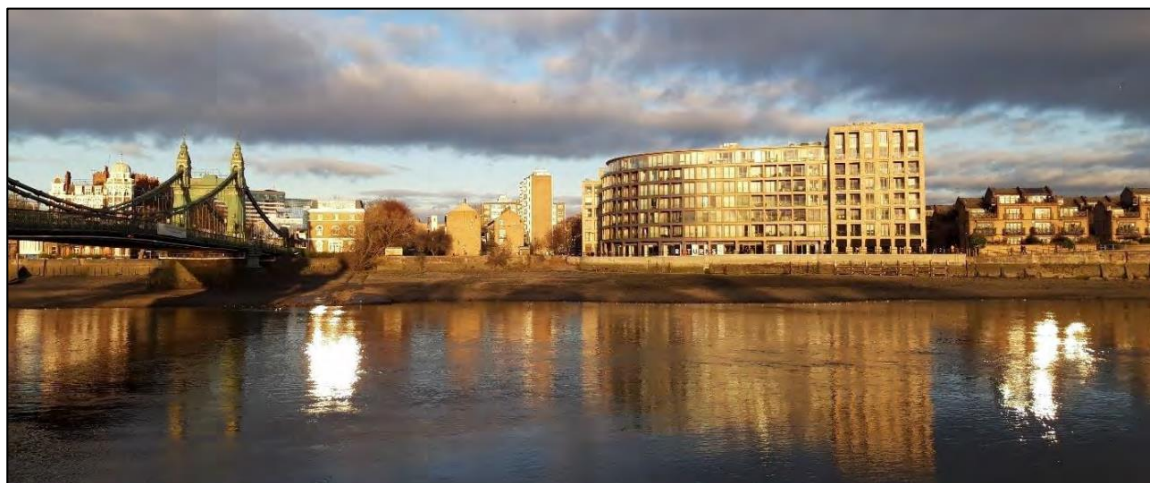


Figure 2.11: View to North Bank where the Temporary Hammersmith Pier will Land

Other Foliage

2.4.9 The other foliage on the Barnes footpath consists of low level scrub which can be seen in Figure 2.12. These plants do not have any arboricultural merit to constrain the development proposals.



Figure 2.12: Image of the Temporary Barnes Pier Towpath

2.5 Ecology

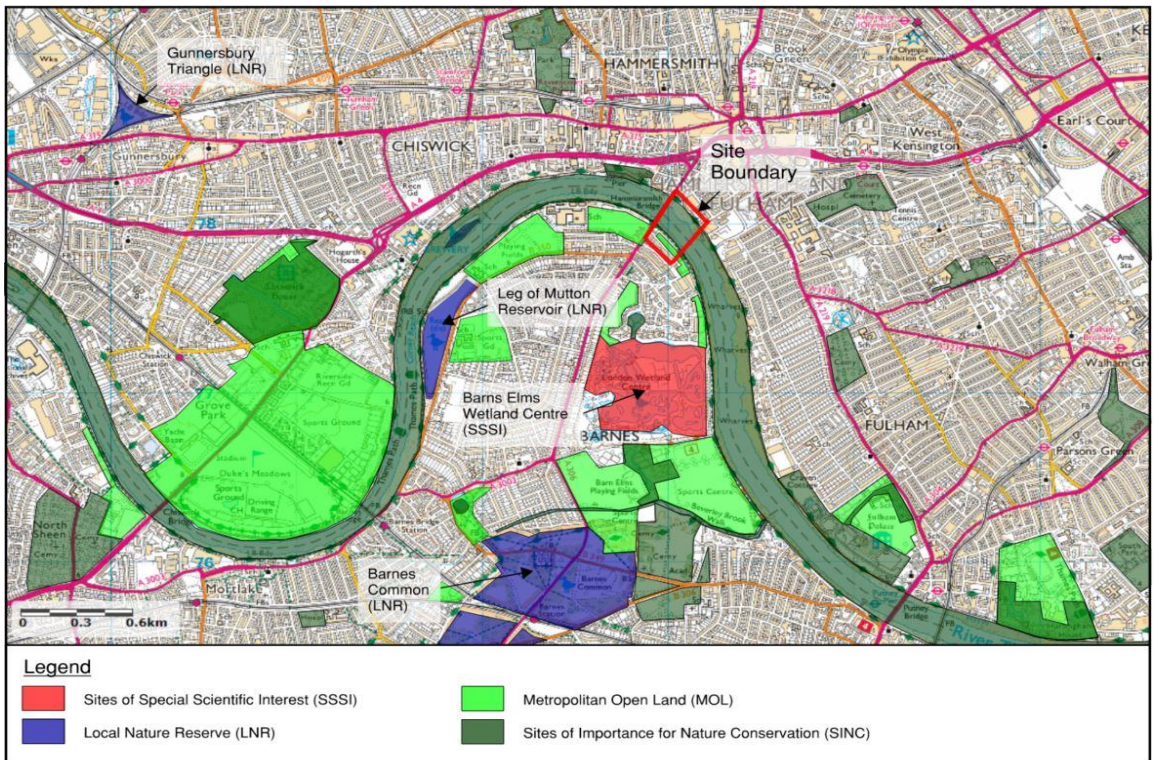


Figure 2.13: Ecological Designations

Statutory Designated Sites

2.5.1 No international designated sites (marine or terrestrial) have been identified within 5 km of the Site.

2.5.2 No marine statutory designated sites have been identified within 5 km of the Site. The following land-based statutory designated sites of importance for nature conservation have been identified within 1km of the Site:

- Barn Elms Wetland Centre Site of Specific Scientific Interest (SSSI), located approximately 650m south of the proposed Site;
- Chiswick Eyot Local Nature Reserve (LNR), located approximately 940m west of the Site; and
- Leg of Mutton Reservoir Local Nature Reserve (LNR), located approximately 1km south-west of the Site.

2.5.3 The Site is also situated within a SSSI Impact Risk Zone for Barn Elms Wetland Centre SSSI (see Figure 2.12 **Error! Reference source not found.**).

Non-statutory Designated Sites

2.5.4 The following non-statutory designated sites of importance for nature conservation (SINCs) have been identified within 1 km of the proposed Temporary Ferry site:

- River Thames and Tidal Tributaries (M031), located within the Site and classified as a Site of Metropolitan Grade Importance;
- Furnivall Gardens, located approximately 285m north-west of the Site and classified as a Site of Local Importance;
- Disused track bed west of Hammersmith station, located approximately 600m to the north-west of the Site and classified as a Site of Borough Grade Importance (Grade I);
- Ravenscourt Park, located approximately 895m north-west of the Site and classified as a Site of Borough Grade Importance (Grade II); and
- Margravine Cemetery, located approximately 780m east of the Site and classified as a Site of Local Importance.

2.5.5 As per the Planning DataMap, the following areas of metropolitan open land (MOL) are within 1km of the Site (these are limited to the Southern bank only):

- Thames Barn Elms Foreshore;
- Riverview and Harrods Thames Footpath; and
- St Paul's Playground.

Tree preservation orders and conservation areas

2.5.6 No Tree Preservation Orders (TPO) are found near the Site. However, there are three Conservation Areas within the Site and immediately adjacent;

- The Mall Conservation Area;
- Fulham Reach Conservation Area; and
- Castelnau Conservation Area

2.5.7 These conservation areas are shown in Figure 2.14, for further information refer to the Heritage Statement (ref. 1817-125/05/21). Trees within the conservation areas are under protection.

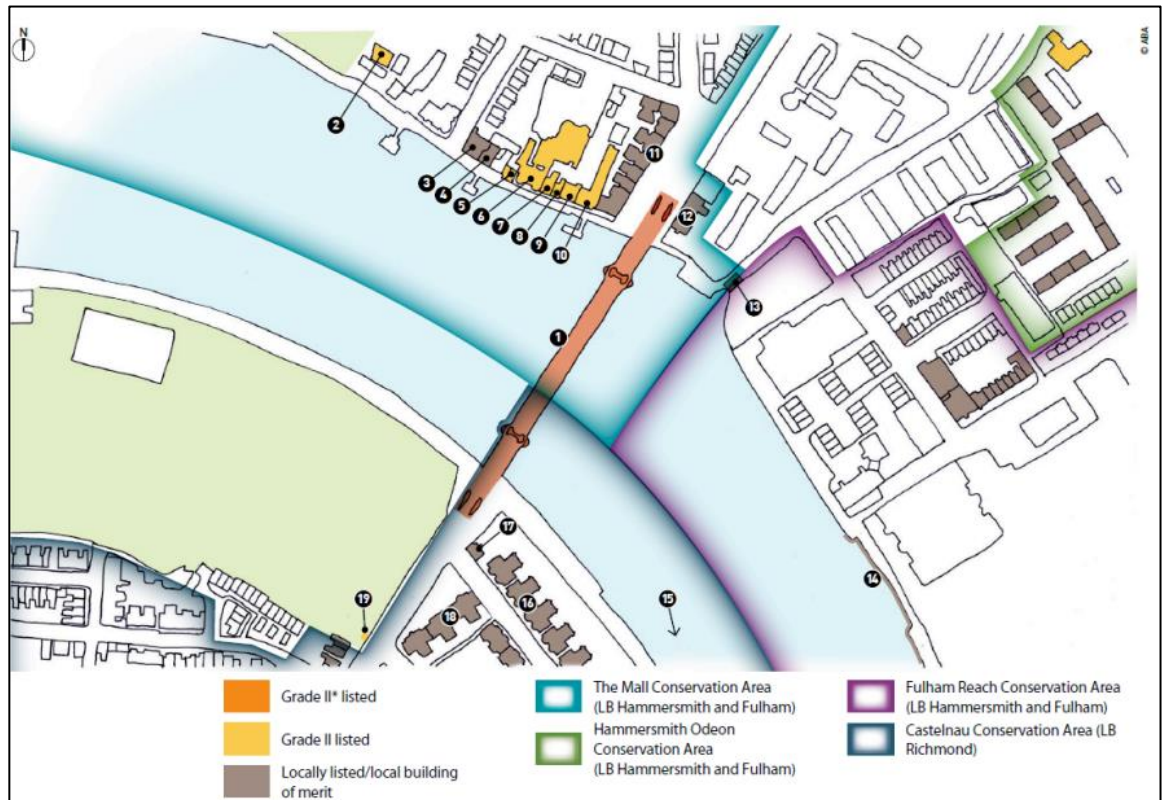


Figure 2.14: Local Conservation Areas

Source: Alan Baxter

2.6 Decommissioning

- 2.6.1 The environmental effects during the decommissioning of the Hammersmith Temporary Ferry (e.g., noise, nuisance, dust emissions) are likely to be similar to those of the construction phase; thus a similar CEMP (or a development of the initial CEMP) will be produced.

3 ARBORICULTURAL IMPACT ASSESSMENT

3.1 General

3.1.1 An Arboricultural Impact Assessment (AIA) is a type of tree survey that considers how a proposed development, and its associated trees will co-exist and interact in the present and future. A summarised version is produced below.

3.2 Desktop Study

3.2.1 A high level desktop study has been carried out to inform the proposed design for the Hammersmith Temporary Ferry. The tree grading used for this report is as follows:

- Category A (marked Green on the Tree Constraints Plan - see Figure 3.1 & Figure 3.2). Trees which are significant, and which must be retained, wherever possible, within the layout. Category A trees which are particularly good examples of their species or are essential components of a group (e.g., the dominant and/or principal trees within an avenue).
- Category B (marked Mid Blue on the Tree Constraints Plan - see Figure 3.1 & Figure 3.2). These trees should be retained, wherever possible, within any development proposals. These trees have been downgraded due to impaired condition, such that they are unlikely to be suitable for retention beyond 40 years.
- Category C (marked in Grey on the Tree Constraints Plan – see Figure 3.1 & Figure 3.2). Trees which do not have sufficient arboricultural merit to constrain development proposals.

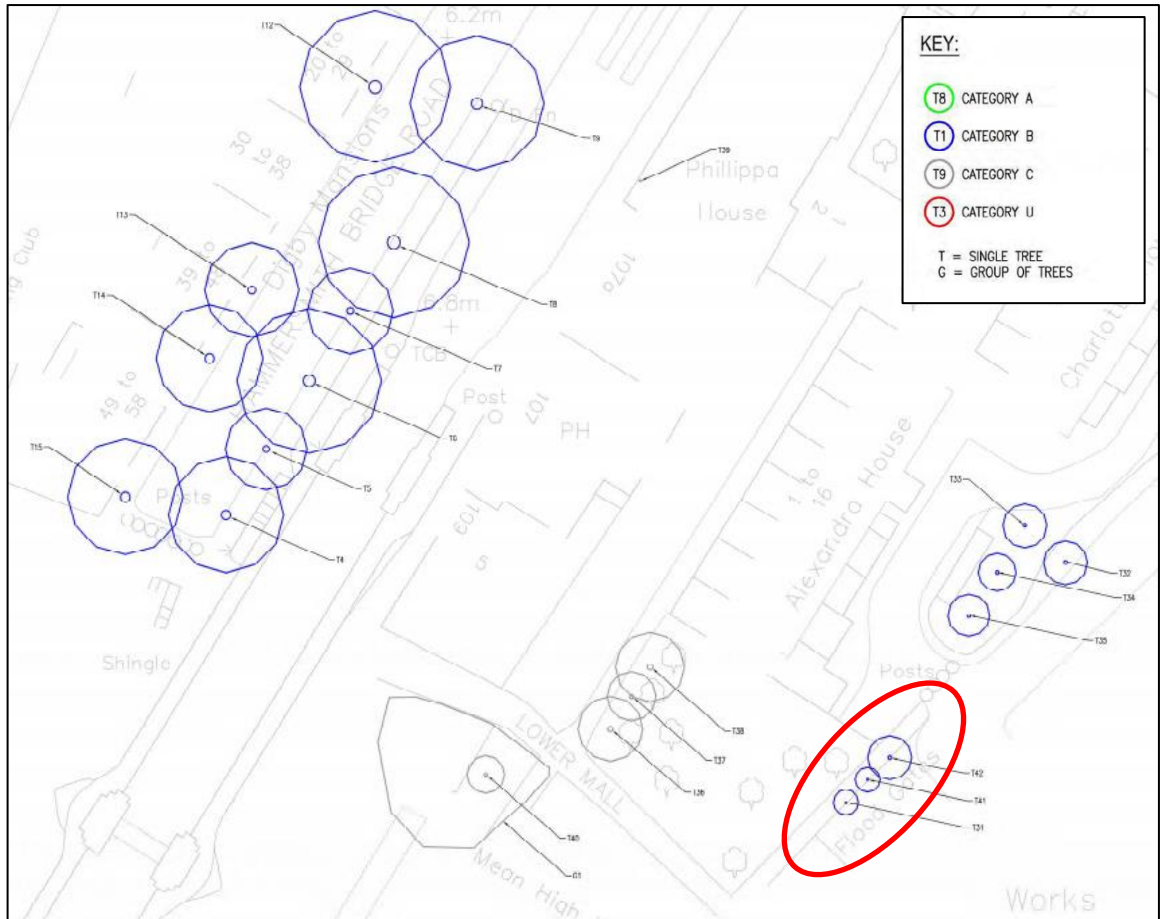


Figure 3.1: Location and Categorization of Trees on the North Bank

Source: Pell Frischmann

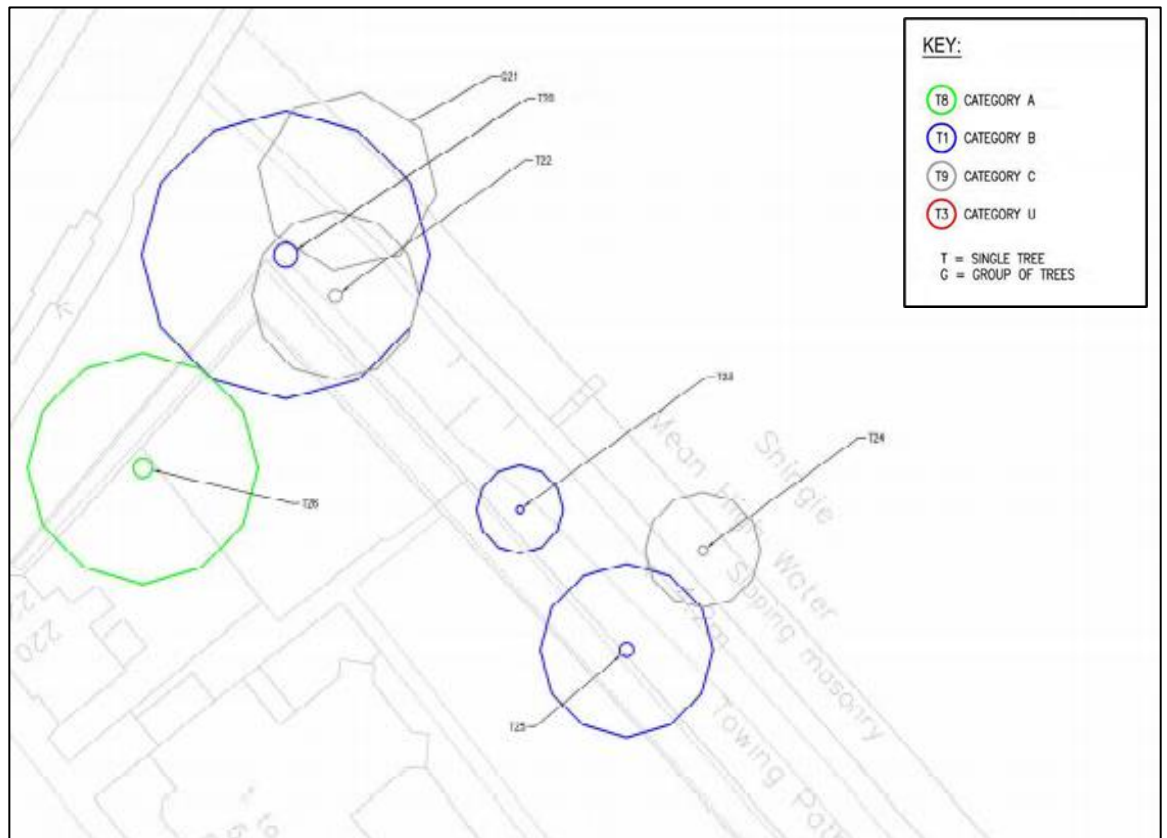


Figure 3.2: Location and Categorization of Trees on the South Bank

Source: Pell Frischmann

3.3 Tree Root Protection Zones

Temporary Hammersmith Pier (North Side)

3.3.1 There are three trees in the vicinity of the works shown Figure 3.1. These trees are category B meaning that they should be retained if possible and are currently surrounded by pedestrian areas. The proposed access ramp will be placed on top of the pavement over the existing ground and no excavation is proposed. Therefore the works to the Hammersmith Pier will not impact any of the trees.

Temporary Barnes Pier (South Side)

3.3.2 Given the proximity of some trees to the proposed Barnes Pier location, a further site survey was performed to assess those in the immediate vicinity of the works (see Figure 3.3). As part of this, the location of nearby trees was determined as well as the approximate extent of their canopies.

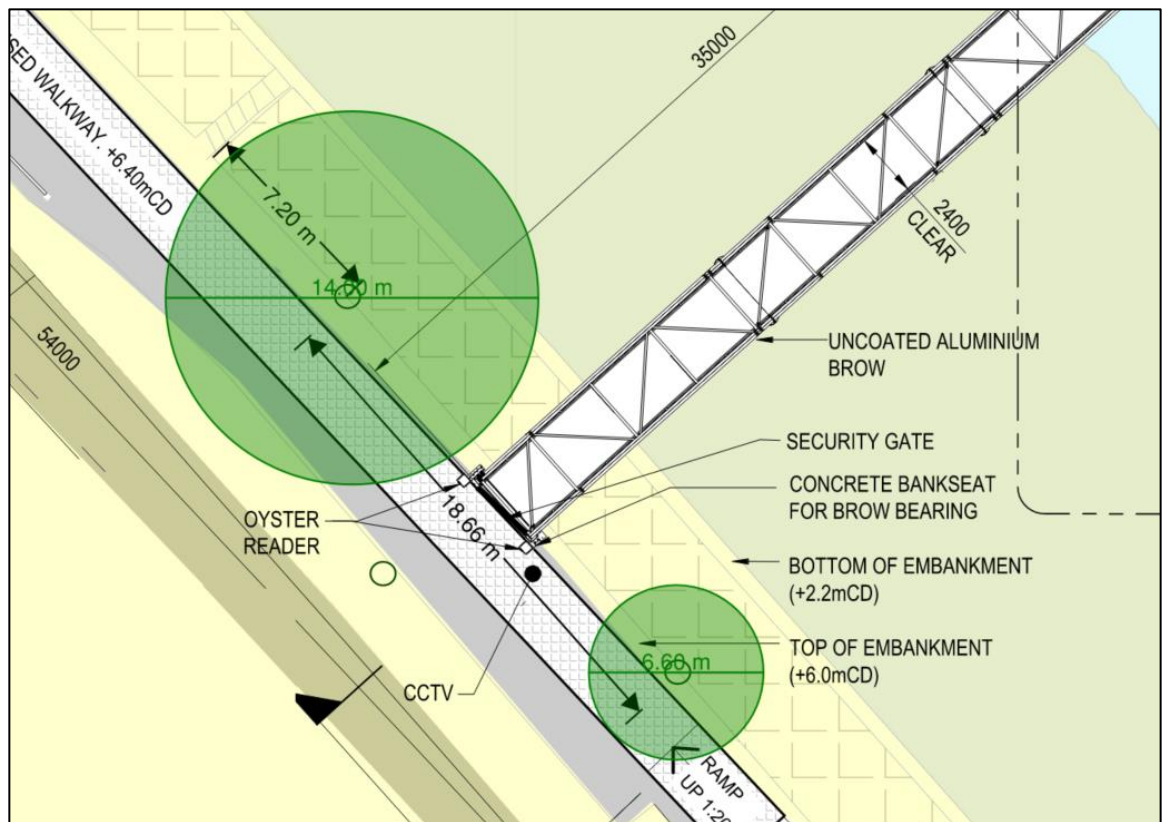


Figure 3.3: Tree Survey

3.3.3 In accordance with section 3.7 of BS 5837, the survey produced approximate Root Protection Area (RPA) radii of 10.8m for the larger diameter trees, and 3.6m for the smaller (see Figure 3.4).

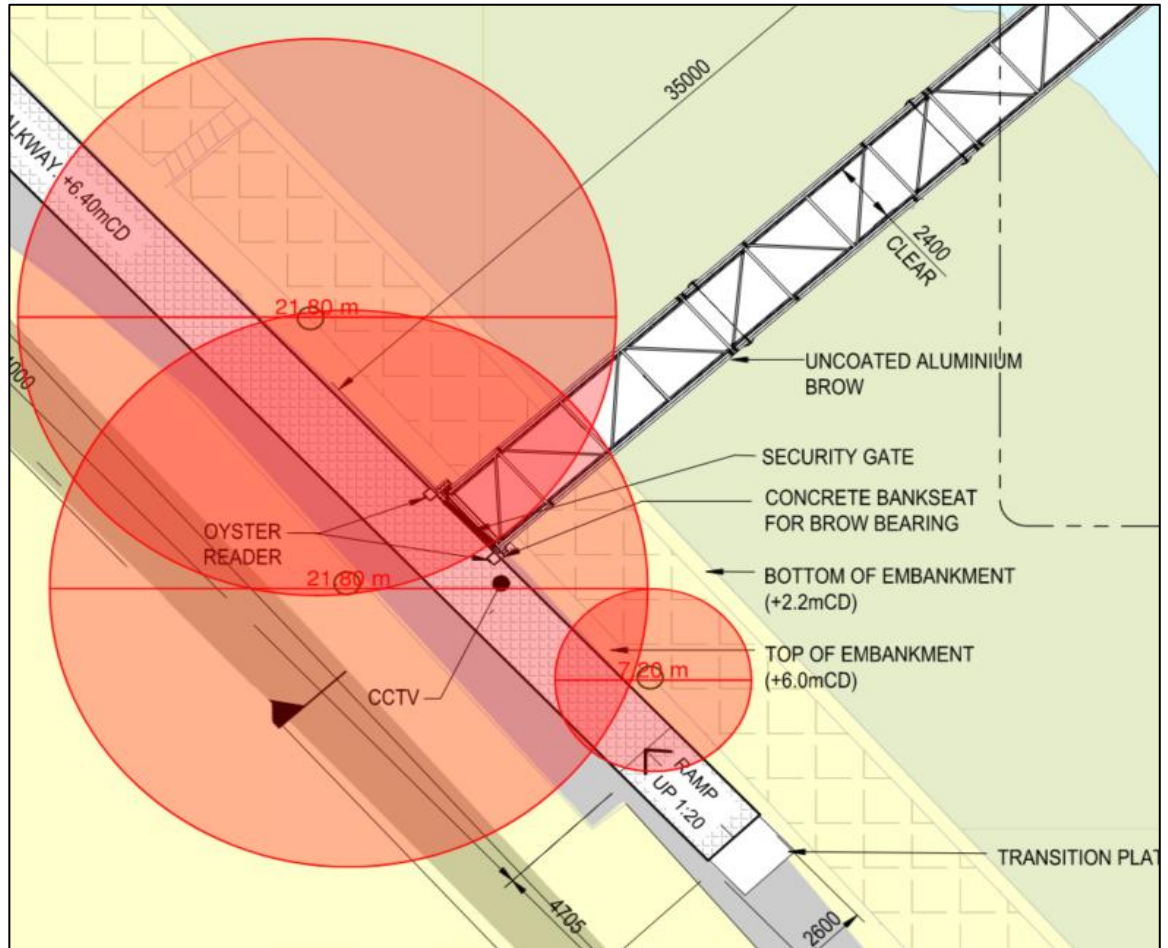


Figure 3.4: Root Protection Areas

3.3.4 Given the above, there is the possibility that installation of the in-situ concrete bankseat could impact tree root systems in the area. However, movement of the bankseat and therefore the brow brings about the more likely risk of clashing with the tree canopies.

3.3.5 The risk of impacting a tree root system when installing the bankseat is reduced by it being located directly behind the embankment capping stone – an area where there is unlikely to be extensive roots as there would be little benefit in terms of stability and nutrition, as these would only be in the direction of the water face of the embankment

3.3.6 The minimal depth of the excavation (0.75m) reduces the risk further – it is expected that the sub-base of the main path already goes to a similar depth,

meaning the roots in the region are likely be developed lower down. As they have not been excavated before (and are therefore tougher), should a root be unearthed during excavation, it is less likely it will be damaged, increasing the possibility for appropriate construction mitigation techniques to then be implemented.

- 3.3.7 In the long term, there shall still be sufficient space for roots to grow either side of the bankseat.

Summary

- 3.3.8 Generally within the RPAs, “no-dig” construction techniques will be implemented. However, given the above mitigation, it is unlikely that installing the concrete bankseat will negatively effect the tree root systems of the area and so this is deemed permissible.

- 3.3.9 For further details of how roots will be addressed during construction if unearthed, refer to the CEMP.

3.4 Likely Alteration to Site Levels

- 3.4.1 During construction and decommissioning, care will be taken to ensure that the existing ground levels around trees are maintained as trees are sensitive to any changes in water level or factors which alter the aeration of the root system.

Temporary Hammersmith Pier (North Side)

- 3.4.2 The site levels will only be changed because of the temporary access ramp and will not change the existing ground levels. Therefore, the works to the Hammersmith Pier will not impact the trees.

3.4.3 Temporary Barnes Pier (South Side)

- 3.4.4 The site levels will change because of the temporary raised platform above the towpath as well as the reprofiling of the concrete slope to the side of Hammersmith Bride. The temporary raised platform will not cause a change to the existing ground levels and therefore will not impact the surrounding tress.

3.4.5 The slope reprofiling will be on top of the existing footpath slope and the change in level will be minimal. Methods shall be included in the CEMP such as “no-dig” construction techniques to ensure that the alteration does not impact trees.

3.5 Likely Changes to Surfacing

3.5.1 The only surfacing changes are those associated with the regrading on the Barnes towpath (see 2.2.5). This shall have no impact on any trees as described above.

3.6 Exposure Due to Tree and Structure Removal

3.6.1 No trees or structures shall be removed as part of the works, therefore there shall be no additional exposure due to the works.

3.7 Sunlight and Shading

3.7.1 The proposed works will have limited height, below the levels of the tree canopies. Therefore, no additional shading will be created which could affect trees in the area.

3.8 Replacement Tree Planting

3.8.1 As no trees are to be removed as part of the works, replacement tree planting is not required.

3.9 Other Protection Measures

3.9.1 The following protection measures are to be undertaken as detailed in the CEMP:

- Materials which could contaminate the soil, such as concrete mixings, diesel, and vehicle washings, should not be discharged within 10 metres of any tree stems. The works shall utilise environmentally friendly sensitive oils and drip trays will be installed under static plant.
- Notice boards, telephone cables or other services shall not be attached to any part of the trees.

- Fires shall not be lit within 10 metres of any tree trunk, branch, or foliage.
- No materials or rubbish shall be left within the Construction Exclusion Zones (CEZ).
- Crown clearance heights will be considered during construction to prevent damage to overhanging limbs.

3.10 Arboricultural Method Statement Overview

3.10.1 A suitable Arboricultural Method Statement (AMS) for the works shall be produced in accordance with best practices. The method statement should include, as a minimum, the following:

- Construction Exclusion Zones (CEZ) generally based on the Root Protection Areas (RPA).
- In the direct vicinity of the trees, “no-dig” construction techniques should be used.
- The method for dealing with roots should they be unearthed during excavation works.

3.10.2 All retained trees or groups of trees should be protected by RPAs marked by the erection of a protective barrier.

4 CONCLUSION

4.1.1 The following assessments have been undertaken for the works of the Hammersmith temporary ferry:

- Landscape and External Design assessment;
- Summarised Arboricultural Impact Assessment (AIA)

4.1.2 From the findings of this study it has been determined that the risks posed to the existing landscaping of the surrounding area and to the trees situated in close proximity to the works is very low and temporary in nature.

4.1.3 As such, it is concluded that the proposed works will not cause or contribute to deterioration of status, or jeopardise achieving good status for the ecology or environment of the surrounding area of the works in the long term.

4.1.4 Prior to operation ceasing, a reinstatement landscape design strategy should also be implemented to ensure that all areas affected will be reinstated once the temporary piers are removed.