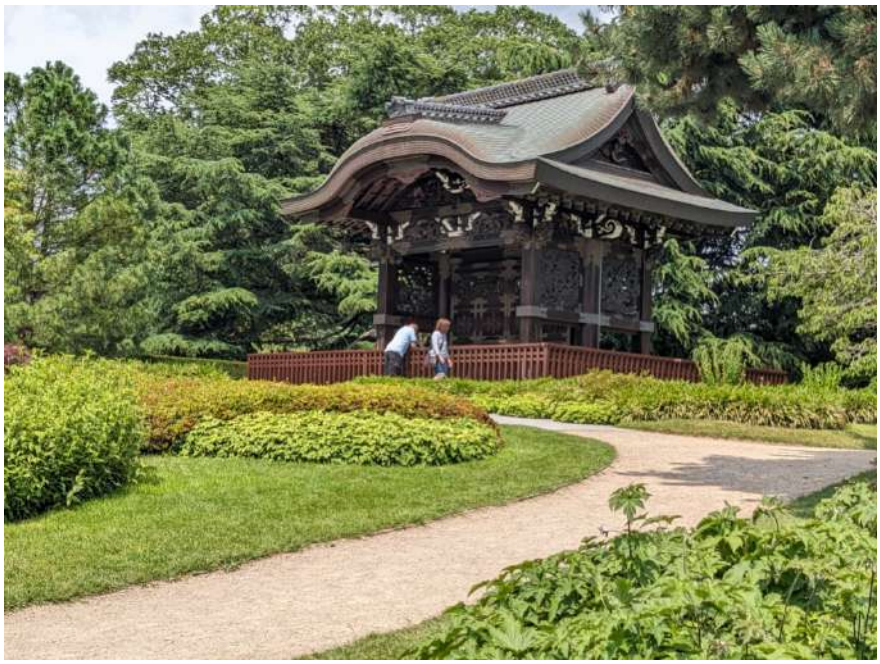
Design, Access and Heritage Impact Statement

Refurbishment and Repairs to:

Japanese Gateway Chokushi-Mon
Royal Botanic Gardens, Kew
Richmond, TW1 9AE

For the Royal Botanic Gardens, Kew

R3/23_082 Rev B



Prepared by
Clews Architects
Acanthus House
57 Hightown Road
Banbury
Oxon
OX16 9BE

ORIGINAL ISSUE DATE
August 2023

Revision No.	Project Architect	Checked	Date of Issue
Rev B	Sarah Mitchell-Dolby	CF	January 2024

CONTENTS

APPENDICES

1.0 INTRODUCTION

This document has been prepared on behalf of Stephen Sinnott, Project Manager at the Royal Botanic Gardens Kew, in support of an application for listed building consent for the refurbishment and repair of the Japanese Gateway Chokushi-Mon, Royal Botanic Gardens Kew, Richmond, which is a Grade II listed building. The aim of the proposals is to protect and conserve the gateway for future generations and improve the visitor and guest experience.

As described in the Royal Botanic Gardens Kew World Heritage Management Plan 2020-2025, due to limited funding the Estate has survived in repeated cycles of reactive minimal maintenance for many years. The cumulative effect has been a deterioration of Kew's assets, such as the Grade II listed Japanese Gateway.

A Condition Survey was carried out on the Japanese Gateway by Martin Ashley Architects (MTA) in March 2021, which identified several defects that require repairs and general maintenance; and Clews Architects carried out an appraisal of MTA's Condition Survey in June 2023 that identified further ongoing signs of decay/damage to the structure.

This report focuses on the historic fabric of The Japanese Gateway and also includes proposals for repairs to the structure established in 1910.

This Access, Design and Heritage Impact Statement has been prepared by Caroline Edwards, Sarah Mitchell-Dolby and Jun Bin Yap of Clews Architects. Clews Architects have been appointed to the Royal Botanic Gardens, Kew Conservation Framework and oversaw the recently completed repairs and refurbishment of the Orangery. Clews are an award-winning RIBA chartered practice with extensive experience carrying out repairs and alterations to significant grade I and II* historic buildings.

1.1 The Purpose of the Design, Access, and Heritage Impact Statement

The purpose of this document is to assess the impact on the historic fabric and environment of the proposed work. This is to aid an understanding of the potential harm caused by the proposed alterations to the gateway and what measures have been undertaken to mitigate against this. The document will also assess the potential benefits and gains that the project introduces.

When designing in such a special context, heritage considerations are inseparable from other design matters, and have been actively considered throughout the design process. The impact of the proposals has been assessed formally in a Heritage Impact below.

1.2 Methodology

This document is written in conjunction with the following documents:

- Condition Survey, 2279-7_W1 prepared by Martin Ashley Architects
- Heritage Report R2 23_082 prepared by Clews Architects
- Ecology Report prepared by Furesfen

1.3 Design Process

A series of desk-based, site investigations and specialist studies were conducted at and around the Japanese Gateway in Kew Gardens, to gain a comprehensive understanding of the structure and its context, thereby informing our repair and restoration approach.

As the Japanese Gateway is described as a 'replica' of the Karamon Gateway of Hongan-ji, a series of desk-based studies were conducted on the gateway in Kyoto, which was recently refurbished.

The necessary repair and restoration methods were then established, taking into account the specific nature of the structure and its condition. These methods have been further refined following review and feedback.

Detailed proposals outlining the repair work for the Japanese Gateway, for which Listed Building Consent is sought, are included in Appendix C.

Where applicable, an assessment of how the repair work aligns with local and national conservation policies is provided at the end of the section.

1.4 Sustainable Construction

Works undertaken to the gateway are expected to endure for a long time, a fundamental concept when seeking to build sustainably.

Incorporating measures to improve the structure's resilience to environmental factors will enhance the longevity of the restoration. Adjustments to the structure, while maintaining the aesthetic integrity, have been carefully considered to accommodate future needs without drastic alterations.

1.4.1 Clews Approach to Sustainable Conservation

We understand conservation as "the process of managing change to a significant place in its setting in ways that will best sustain its heritage values, while recognising opportunities to reveal or reinforce those values for present and future generations." *English Heritage (2008) Conservation Principles - Policies and Guidance for the Sustainable Management of the Historic Environment.*

We further recognise sustainability as “meeting the needs of the present without compromising the ability of future generations to meet their own needs.” *United Nations (1987) Brundtland Commission.* We acknowledge the climate emergency which places heritage and society at risk.

We believe that the act of conservation in inherently sustainable as the world’s resources are finite, securing the survival of an existing resource such as a building safeguards that investment long-term. We further believe that all acts of conservation should be appraised against the key sustainability benchmarks for impact; environmental, economic, social, and ecological.

We recognise that ‘traditional’ buildings are by their very nature significant, having proved the test of time, but there are always opportunities to make them more sustainable in their environmental performance without detriment to their character. We advocate appraising the performance and environmental efficiency of all buildings and exploring all opportunities to enhance the building performance and reduce the operational carbon footprint. We advocate using tried and tested building techniques, craftsmanship and the use of traditional materials to meet emerging standards for sustainability and energy conservation.

We understand that to secure the future for some structures managed change may be required to ensure the building is accessible, sustainable, and maintainable for future generations. In delivering that change we seek high-quality sustainable design solutions that meet the specific needs of the users without detriment to the significance of the historic fabric.

Our approach to sustainable conservation is to always:

- Understand the significance and nature of the fabric,
- Understand the condition and background to any change,
- Understand the environmental and building performance,
- Understand the access for use and maintenance,
- Understand the building costs and activity plan,
- Understanding the management plan and resources available,
- Understand the sustainability of materials used, and
- Understand all building techniques (traditional and modern) used.

It is with this knowledge that we can develop and appraise the options for sustainable conservation and secure the survival of our historic built environment.

2.0 LISTED STATUS

The Japanese Gateway is listed grade II (list entry no 1251790) and as such is recognised as being of the highest architectural and historical importance. The list description describes the gateway as follows:

> *A replica of the famous gateway in Japan. It was made for an exhibition in London in 1910, and presented to the Gardens. Six piers in rectangular formation, with gates hung within centre pair. Timber, with traditional copper roof (which replaced the original made of cedar bark as part of the 1995 restoration works), gabled on all four sides. Rich carving within gables, and to screens and corbels below.*

3.0 SITE CONTEXT

Royal Botanic Gardens, Kew, is a world-renowned global scientific institute. Founded in 1759, the gardens are now a UNESCO World Heritage Site that uses the power of science and the rich diversity of its gardens and collections to provide botanical and mycological knowledge, inspiration and understanding of why plants and fungi matter to everyone. The iconic architecture and historic heritage, such as the Japanese Gateway, is an attribute of Kew Gardens inscription as a World Heritage Site.

The Royal Botanic Gardens, Kew, operates two sites: Kew and Wakehurst. The land and buildings of the Kew estate are the hereditary property of The Crown, managed by Kew under the 1984 Ministerial Direction. The estate consists of 132 hectares of gardens, botanical glasshouses and approximately 200 mixed use buildings.

Set beside the River Thames' south-western reaches, this Grade I registered historic landscape garden includes work by renowned landscape designers including, in the eighteenth century, Charles Bridgeman, William Kent and Lancelot “Capability” Brown and, in the nineteenth century, William Hooker, William A Nesfield and Decimus Burton.

Alongside the botanic collection Kew is also the site of a very important collection of buildings. The Gardens has over two hundred and seventy built structures; fifty-six of which are listed buildings and monuments that reflect the stylistic expressions of various periods; six are Grade I listed, seven are Grade II*, and forty-three are Grade II listed.

The Japanese Gateway Chokushi-Mon, which is the subject of this report, is a Grade II listed building, located close to the Lion Gate entrance of the gardens (southeast extent of the site) within Site Zone 5, Pagoda Vista Zone. As described in the Royal Botanic Gardens Kew World Heritage Management Plan 2020-2025, the historically the Pagoda Vista Zone was part of Kew Gardens and was, and still is, focused on the Grade I listed Pagoda, a significant surviving architectural element of William Chambers’ design and can be seen from the Japanese Gateway. The gateway stands

as the centrepiece in the beautifully landscaped Japanese gardens at Kew, which are divided into three thematic sections: the Garden of Harmony, the Garden of Peace, and the Garden of Activity. These gardens serve to accentuate the symbolic and aesthetic significance of the Japanese Gateway, creating a tranquil environment that invites reflection and admiration.

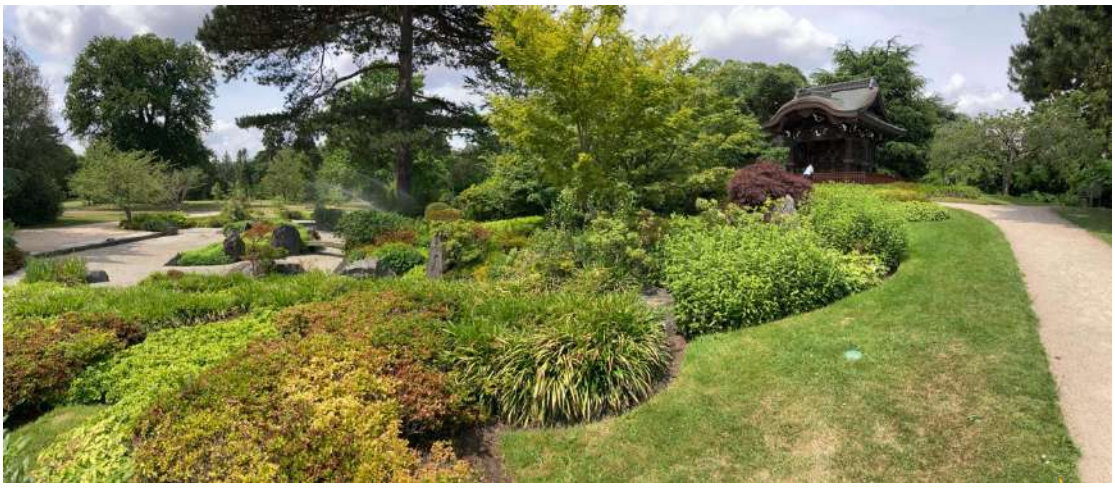


Fig. 1 The Japanese Gateway and Landscape

3.1 General historical development of the gateway

The Japanese Gateway was created for the Japan-British Exhibition held at White City in London in 1910, the Japanese Gateway is built in the architectural style of the late-16th century Momoyama (or Japanese rococo) period. Several restoration works have been carried out on the building, including the following:

i) 1910: Constructed for the Japan-British Exhibition in London
ii) 1936: Restoration by woodcarver Kumajiro Torii
iii) 1956: Restoration by woodcarver Kumajiro Torii (*Shillito, S. (2023) Hello Kew. Royal Botanic Gardens Kew)*
iv) 1994 (Nov)-1995 (Oct): Restoration project

3.2 Japanese Gateway

Fig. 2 South elevation, 1910 Kew Archive

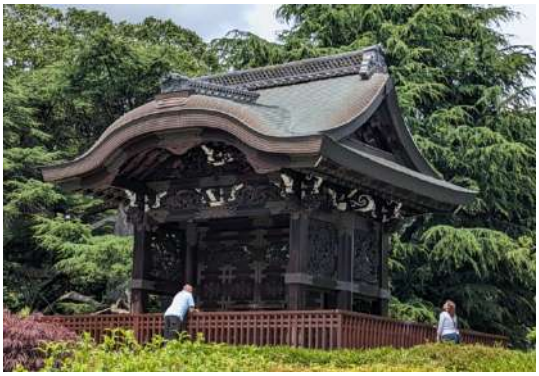


Fig. 3 South elevation, 2023

The Japanese gateway is a softwood timber framed construction with elaborate carvings and copper repoussé details. It has six posts and mid-height rails on its north and south sides. Gablets on the north and south show iconographic carvings above a timber sill. The roof features small copper shingles and metallic glazed terracotta ridge tiles.

Except for minor changes to the roof covering and timber balustrading, features like the terracotta ridge, finials, white-painted corbels, and carpentry remain as they were in 1910.

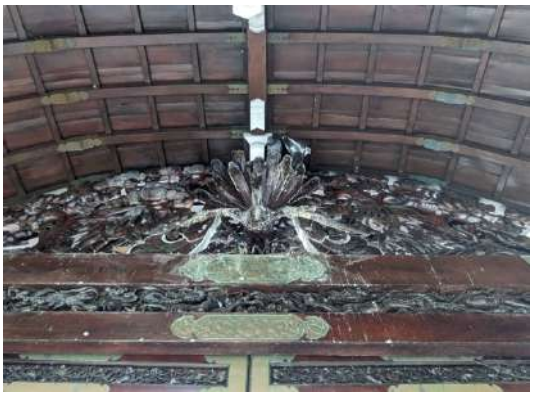


Fig. 4 Guano on high level carvings on the North elevation

Fig. 5 Degraded decoration on the door on the South elevation

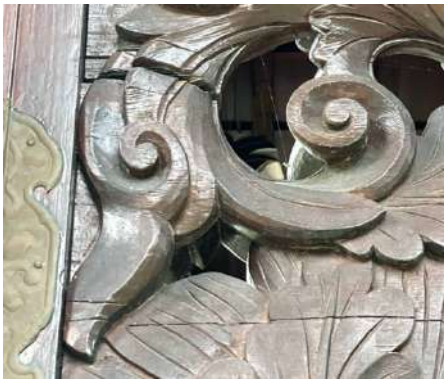


Fig. 6 Split in carving on east elevation

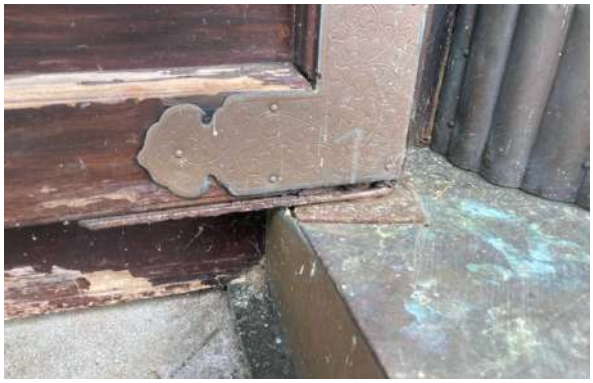


Fig. 7 Degraded decoration on the door on the south elevation

Whilst the overall condition of the structure and finishes of the Japanese Gateway appear to be in relatively good condition, there are a number of items that require attention which are the following: -

- The ridge finial brackets are loose and can be moved by hand.
- The ridge tiles could possibly not have achieved a good bond with their bedding mortar as one tile could be lifted away behind west finial.
- There are pigeons roosting underneath the copper roof. As a consequence, guano has covered some of the elaborate carvings and the pavement. Pigeon spikes have been previously installed but this has not deterred the pigeons.

- The decoration on the timber has degraded, which is particularly evident in some of the more exposed locations.
- Highly elaborate carvings within the gateway move quite easily and some have some developed splits

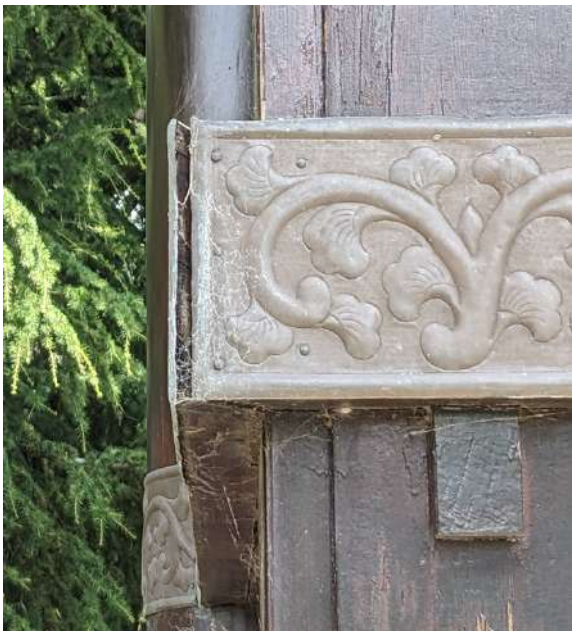


Fig. 8 Split in bracket on the south east corner

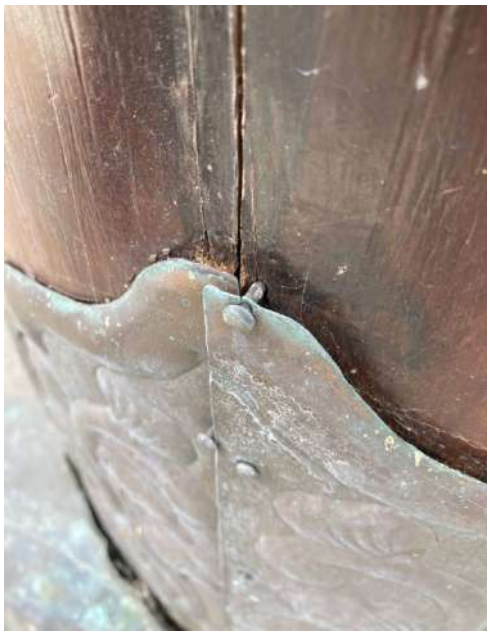


Fig. 9 Copper repousse detail coming away from post

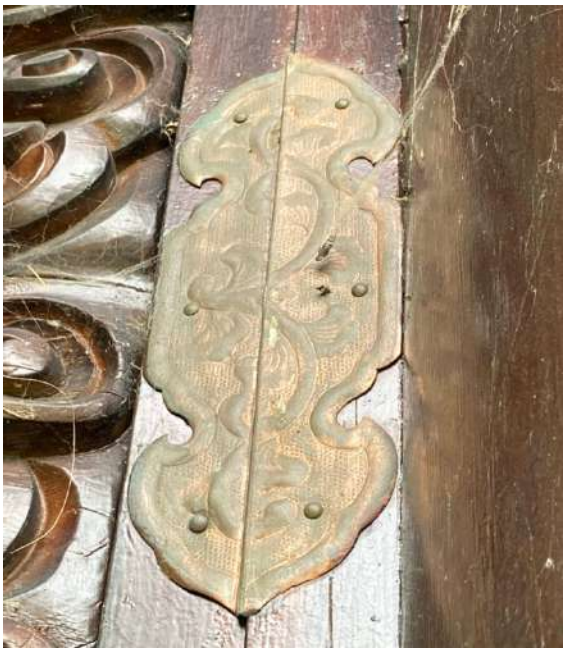


Fig. 10 Copper repousse detail evidence of mirror polish finish on east elevation

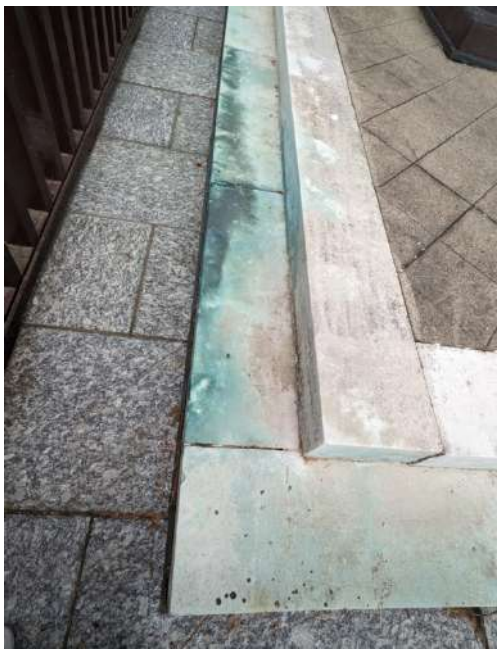


Fig. 11 Copper staining to pavement in south east corner

- Carvings suspended from the underside of the north and south barge boards are generally slightly loose.
- The north gate hanging stile has split where the journal has decayed. In addition, the gate bottom iron hinge journals are severely decayed.

- The gate leaves have slightly sagged towards the centre.
- The copper detailing has become tarnished. In historic photographs the copper detailing appeared to have a mirror finish.
- Some of the fine copper repousse details have started to become loose and have some projecting nail heads. In particular, the bracket on the south east corner has split
- Water run off from above is causing copper staining to stone paving below, mostly along the East and West sides.
- Some of the steps and paved surfaces are slightly proud and may present a trip hazard.
- The perimeter balustrade is suffering patches of local decay.
- A bat box is mounted in the North West corner beside the top of the post. Any works will need to be coordinated and mitigated accordingly.

4.0 CONSULTATION

As part of ongoing regular meetings with the Local Authority, about planning matters at Royal Botanical Gardens Kew, the planning and conservation officers have been informed about the plans to submit proposals for a project involving the repair and restoration of the Japanese Gateway.

5.0 PREVIOUS PLANNING HISTORY

The Japanese Gateway has the following planning history:

1. Restoration of The Japanese Gateway – permitted on 9th March 1995 (application no. 95/0254/C84)

6.0 EXISTING PHOTOGRAPHS

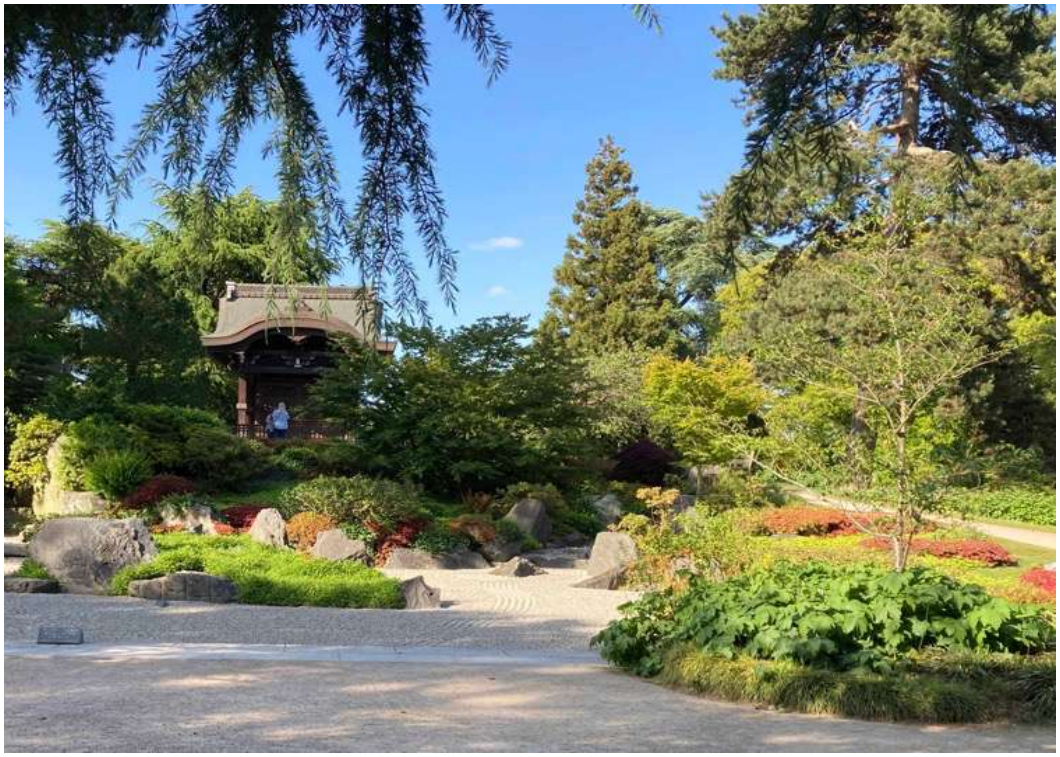


Fig. 12 General view of Japanese Garden and Japanese Gateway looking north.

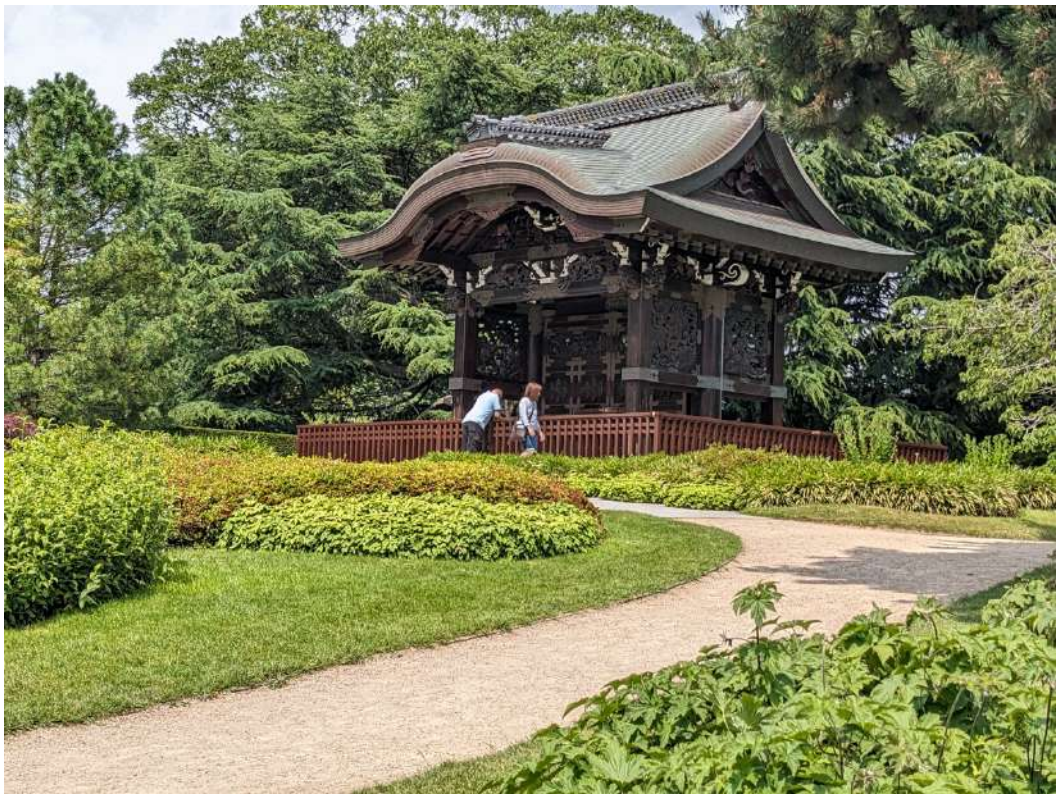


Fig. 13 Japanese Gateway looking north west

Fig. 14 South elevation

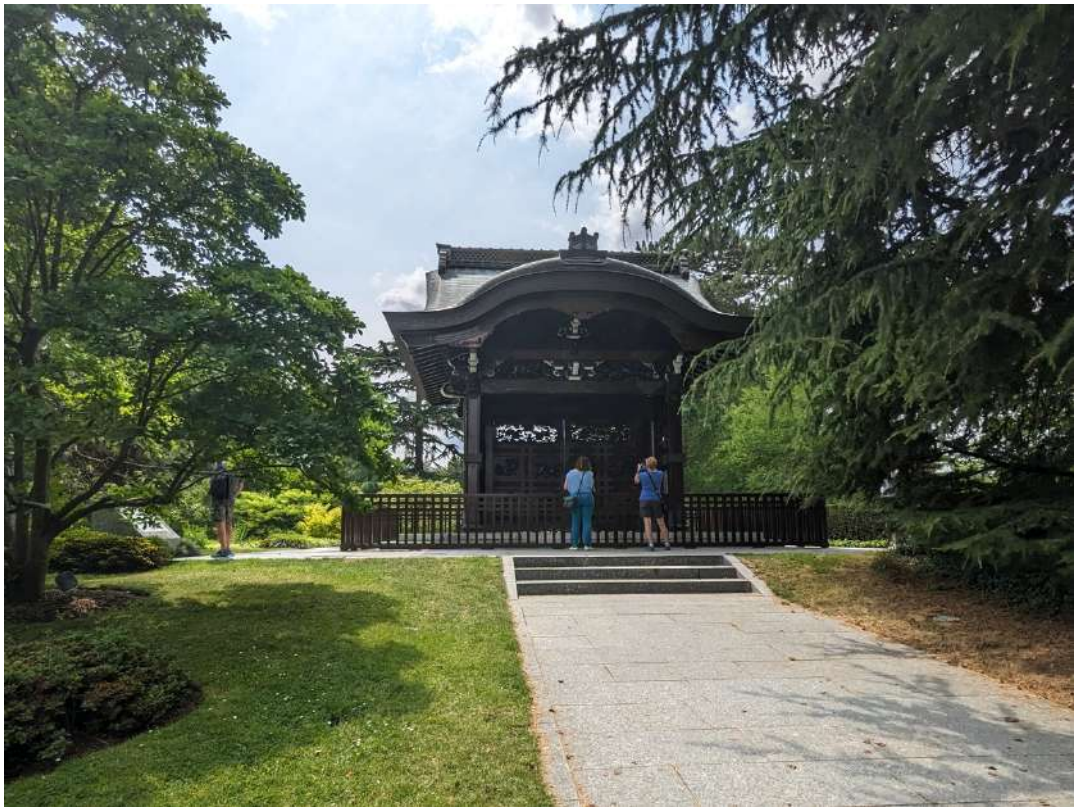


Fig. 15 North Elevation

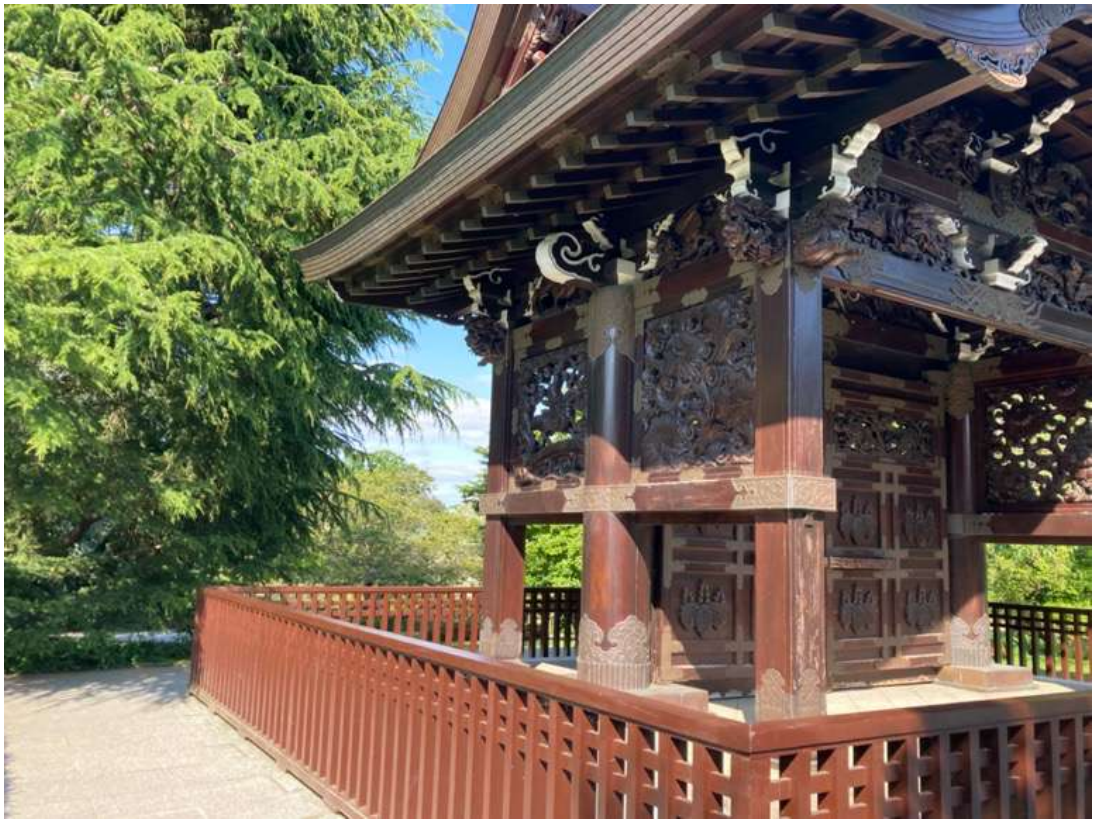


Fig. 16 West elevation

Fig. 17 East elevation

7.0 PLANNING POLICIES

The National Planning Policy Framework says that heritage assets are an irreplaceable resource and need to be conserved in a manner appropriate to their significance. In determining planning applications, local planning authorities should take into account of the desirability of sustaining and enhancing the significance of heritage assets.

The London Borough of Richmond upon Thames Local Plan Policy LP1 seeks to retain the high-quality character and heritage of the borough. Policy LP3 requires development to conserve and, where possible, take opportunities to make a positive contribution to, the historic environment of the borough. Development proposals likely to adversely affect the significance of heritage assets will be assessed against the requirement to seek to avoid harm and the justification for the proposal. The significance (including the settings) of the borough's designated heritage assets, encompassing Conservation Areas, listed buildings, Scheduled Monuments as well as the Registered Historic Parks and Gardens, will be conserved and enhanced. Policy LP6 identifies that the Council should protect, conserve, promote and where appropriate enhance the Royal Botanic Gardens, Kew World Heritage Site, its buffer zone and its wider setting.

8.0 PROPOSED WORK

The proposals to The Japanese Gateway seek to carry out the following:

i) Carefully refix loose ridge finial brackets to match with existing fixing detail
ii) Carefully refix loose carved joinery to match existing
iii) Specialist conservation clean and carefully refix loose copper repousse detail to match existing
iv) Repair decayed timber to match existing
v) Splits in carved joinery to be repaired to match existing
vi) Redecorate the gateway and balustrade in appropriate finish to compliment the traditional Japanese architecture using paint analysis and historical records to determine the finish
vii) Carefully re-fix ridge tiles to match existing
viii) Install bat mitigation as designed by ecologist
ix) Install bird deterrent measures as designed by specialist
x) Replace corroded bottom iron hinge journals with new to match existing and adjust hinges
xi) Clean paving stones to remove blue/green staining caused by copper roof
xii) Reset raised paving stones to provide level surface finish

9.0 HERITAGE IMPACT

Item	Impact	Mitigation	Observation / Comment
Japanese Gateway			
Refix loose ridge finial brackets	Visual impact	Identify and observe fixings of existing finial brackets and use similar fixing methods to match existing.	Minimal impact on historical fabric and improving condition.
Refix loose carved joinery	Visual impact	Repair to match existing.	Minimal visual impact on historical fabric.
Repair decayed timber to the balustrade surrounding the gateway.	Visual impact	Repair to match existing.	Minimal impact on historical fabric and improving condition.
Clean and refix loose copper repousse detail.	Visual impact	Use non-invasive tools and techniques to handle the historic fabric by a specialist	Minimal impact on historical fabric and improving condition.
Repair splits in carved panels	Visual impact	Use traditional Japanese techniques to match existing.	Minimal visual impact on historical fabric.
Redecorate the finishes of the gateway including the balustrade.	Visual impact	Use appropriate finish to compliment the traditional Japanese architecture using paint analysis and available historical records to determine the finish.	Minimal visual impact and potential improved aesthetic on historical fabric.
Refix ridge tiles.	Visual impact	Use traditional Japanese techniques to preserve the original construction methods and aesthetics. Avoid damaging the underlying structure.	Minimal visual and structural impact on historical fabric.
Install bat mitigation	Visual impact	Subject to ecologist design. Ensure design is made as unobtrusive as possible.	Minimal visual impact on historical fabric.
Install bird deterrent measures	Visual impact	Ensure design is made as durable, robust, and unobtrusive as possible	Minimal visual impact on historical fabric.
Replace corroded bottom iron hinge journals with new to doors	Visual impact	Ensure hinge journal replacement matches existing	Minimal visual impact on historical fabric and improve conditions.
Reset raised paving stones to provide level surface finish.	Visual impact	Ensure paving stones provide level surface finish.	Minimal visual impact on historical fabric and improve safety conditions.

Clean paving stones to remove blue/ green staining caused by the copper roof	Visual impact	Include this method of cleaning in the general maintenance programme when staining reoccurs.	Minimal visual impact on historical fabric and improve conditions.
Implement corrective measures to address the sagging of the central gate door leaves.	Visual impact	Use new timber wedge to support centre of door leaves when closed.	Minimal visual impact on historical fabric and improve conditions.
Remove and clean area affected by bird guano	Visual impact	Ensure care is taken not to damage delicate timber carvings.	Minimal visual impact on historical fabric and improve conditions.

10.0 ACCESS

The building offers level access to the perimeter balustrade, with steps leading to the gateway's base, which remains closed off to the public. The building's current accessibility provisions will be preserved as they are.

11.0 CONCLUSION

The proposal is to conserve the historic fabric and enhance the general appearance using appropriate materials, techniques and designs, using historic precedent. The proposed repairs and restorations are carried out in such a manner that has minimal impact on the historic fabric and features of the building and respect the traditional Japanese methods and materials. The proposal, therefore, will enhance the significance of the listed building and so complies with the relevant provisions of the National Planning Policy Framework and the Council's policies.

APPENDIX A

Martin Ashley Condition Report

APPENDIX B

CA Heritage Report

APPENDIX C

CA Drawings

APPENDIX D

Furesfen Preliminary Bat Habitat Assessment