Give us your comments on this proposal

Historic Environment Scotland consult with parties who are directly affected by designation proposals – including owners, occupiers and tenants – and with the planning authority.

We also welcome comments from interested persons or groups.

This designation case is open for comment until 17/07/2020

We consider comments and representations which are material to our decision-making, such as:

- Your understanding of the cultural significance of the site or place.
- Whether sites or places meet the criteria for designation.
- The purpose and implications of designating the site or place. We consider whether these are relevant to the case.
- Development proposals related to the site or place. Where there are development proposals, we consider whether to proceed with designation in line with our designation policy.
- The accuracy of our information.

You can find more guidance on providing comments and how we handle your information on our website.

Information on how we treat your personal data is available on our Privacy Notice.

How to make a comment

You can make comments electronically through our Portal by clicking on the link 'email comments about this case'. This generates an email that you can send to designations@hes.scot. The relevant case details are added automatically so that we can tell what case your comments refer to.

If you would prefer to contact us through other means, you can always write to us at:
Designations,
Historic Environment Scotland,
Longmore House,
Salisbury Place,
Edinburgh,
EH9 1SH.

If you have any further questions you can also telephone 0131 668 8914.

Designation
Report of Handling

Case information

Case ID	300041139
File Reference	N/A
Name of Site	Kingston Bridge, Glasgow
Postcode (if any)	N/A

Local Authority	Glasgow City Council
National Grid Reference	NS 57991 64849
Designation Type	Listed Building
Designation No. and category of listing (if any)	N/A
Case Type	Designation

Received/Start Date	28/10/2019
Decision Date	Pending

1. Decision

Previous Statutory Listing Address	N/A	**Previous category of listing**	N/A
New Statutory Listing Address	Kingston Bridge (bridge only), Glasgow	**New category of listing**	B

An assessment using the selection guidance shows that the building meets the criteria of special architectural or historic interest. The decision is to list the structure at category B.

2. Designation Background and Development Proposals

2.1 Designation Background

There is no previous listing review known for this site.

2.2 Development Proposals

There are no known development proposals.

3. Assessment

3.1 Assessment information

A proposal to designate the Kingston Bridge, including the approach roads, on and off ramps and the Anderston Cross Footbridge, was received on 28/10/2019.

3.2 Assessment of special architectural or historic interest

The bridge was found to meet the criteria for listing. It forms part of the contemporary M8 road network which also comprises approaches and associated ramps to access the bridge. These structures are not proposed to be included in the listing. The location for the bridge was chosen because it is a strategic crossing point over the River Clyde.

An assessment using the selection guidance to decide whether a site or place is of special architectural or historic interest was carried out. See **Annex A**.

The listing criteria and selection guidance for listed buildings are published in Designation Policy and Selection Guidance (2019), Annex 2, pp. 11-13, https://www.historicenvironment.scot/designation-policy.

4. Consultation

4.1 Consultation information

Consultation period: 26/06/2020 to 17/07/2020.

We have consulted with the owner, the planning authority and the local roads authority.

The consultation report of handling is published on our portal for comment from interested parties.

Elizabeth McCrone
Head of Designations
Heritage Directorate
Historic Environment Scotland

Contact	Laurence Parkerson, Designations Officer Laurence.Parkerson@hes.scot, 0131 668 8093

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ANNEX A

Assessment of special architectural or historic interest

1. Building or site name

Kingston Bridge (bridge only), Glasgow

2. Description and historical development

2.1 Description

A wide, ten-lane road bridge carrying the M8 motorway over the River Clyde at Kingston, central Glasgow. The bridge was designed and built between 1966 and 1970 by W. A. Fairhurst & Partners for the Scottish Development Department. William Halford & Associates were the consultant architects. The contractors were Logan/Marples Ridgeway. Strengthening and lifting works (1996-2001) were carried out by Balfour Beatty.

The bridge has an independent cantilevered design comprising two pre-stressed concrete box girder spans, with a separation gap between them, each with a deck carrying five lanes of traffic. The bridge is 42 metres wide. The main span over the river is 143 metres with balancing spans of 62.5m to either side. The clearance height is 18m above the water. The sides of the bridge are clad with polished stone aggregate panels with vertical joints. There are engaged tapering pillars designed to look like cutwaters at the foot of each pier. The northwest pier has a bronze dedication date plaque. Two rows of four parabolic-shaped concrete supporting columns, one at either end where the bridge joins the elevated approach road, are also included in the listing.

2.3 Historical development

A bridge crossing the Clyde between Anderston and Kingston was first proposed in 1945 as part of the Glasgow Inner Ring Road scheme, which sought to address the growing problem of traffic congestion in the centre of the city. In 1963 the Scottish Office published a paper called *Central Scotland - A Programme for Development & Growth* which put improvements to roads at the heart of economic planning. Construction on the Glasgow Inner Ring Road began in 1965. It was planned as a circular urban motorway around the city centre to route traffic away from the central area (Fairhurst, 1971). Only the north and west flanks were constructed, which now carry the M8 motorway through the city.

Alternative designs were drawn up for a bridge to carry the route over the River Clyde, with both a high and a low-level crossing (with motorway traffic above and

pedestrian and local traffic below). This idea was abandoned to allow larger dredging boats to pass beneath and reach further upriver.

The single-deck, free cantilevered bridge design by W. A. Fairhurst was agreed upon because it enabled building to proceed without significant interruptions to traffic in the busy neighbouring streets and to the navigation of the Clyde (Fairhurst, 1971). Construction work on the bridge (and its approaches) began in May 1967. It was officially opened by the Queen Mother on 26 June 1970. The cost of the bridge itself was around £2.4 million. An important aspect of the design was maintaining and diverting £400,000 of public utility services during construction.

By the late 1980s, small movements in the adjoining quay wall and concrete spalling at the base of the bridge piers had become a concern (Civil Engineering Heritage, 2007). This led to a major strengthening and lifting works between 1996 and 2001. The entire 50,000 tonne bridge superstructure was moved 5cm to the south using 128 custom-built hydraulic jacks. Evidence of the strengthening is visible as a grid of pinned plates on the underside of the outer spans of the bridge. The function and general appearance of the bridge has not changed significantly since its completion in 1970 (2020).

3. Assessment of special architectural or historic interest

To be listed a building must be of 'special architectural or historic interest' as set out in the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997. To decide if a building is of special interest for listing, we assess its cultural significance using selection guidance which has two main headings – architectural interest and historic interest (see Designation Policy and Selection Guidance, 2019, Annex 2, pp. 11-13).

The selection guidance provides a framework within which judgement is exercised in reaching individual decisions. The special architectural or historic interest of a building can be demonstrated in one or more of the following ways.

3.1 Architectural interest

The architectural interest of a building may include its design, designer, materials, setting and the extent to which these characteristics survive. These factors are grouped under two headings:

3.1.1 Design

The Kingston Bridge is a modernist bridge design characterised by its clean lines and simple proportions, which are primarily achieved by the arrangement of the (parabolic) colonnaded piers and the shallow profile of the decks and cantilevered arches. The three-dimensional nature of the design means that all the elevations, including the undercarriages, were fully considered. Most notably, the gap which separates the two parallel bridge decks and the arched cantilevers is visible from the

underside of the bridge. This gives dramatic views upwards from beneath the bridge and lightens the visual weight of this large-scale structure.

Materials and finishes are an important aspect of the modern design. High-quality, polished stone aggregate panels were used with a specific type of aggregate chosen to prevent staining in the harsh inner-city conditions. More than utilitarian, these panels were more often applied to high-spec office buildings than civil engineering structures. The aim was to integrate the bridge with the built-up, inner-urban river setting as far as possible (Fairhurst, 1971), which at the time was being transformed with new office blocks and housing schemes.

The pre-stressed concrete box girders were cast 'in-situ' as free cantilevers to allow the neighbouring streets to remain largely open during construction. The design experimented with the use of internal ballasting within the concrete superstructure, to avoid the need for longer and more expensive side spans and to achieve well-balanced proportions between the main and side spans. Cutting-edge computer technology was used by Fairhurst to calculate and predict the various forces that would impact on the bridge structure, including deflection and deformation.

The parabolic supporting columns that elevate the approach roads and access ramps (not part of the listing) are mostly between 10 and 30 metres in height. They were adapted from William Fairhurst's earlier design for the Tay Road Bridge, 1959-66. The Kingston Bridge is independently cantilevered and therefore is not directly supported by the adjoining approach roads.

The designer-engineers are also significant in relation to the structure's special interest. Fairhurst (now one of the largest engineering consultancy companies in the UK) are an important company in the history of bridge design in Scotland. Formed in 1902 as F.A. Macdonald & Partners, William Fairhurst joined the company in 1931 having established his reputation as a civil and structural engineer. The new Tay Road Bridge, linking Fife with Dundee, was pivotal in the firm's development, leading to the business changing its name to W. A. Fairhurst and Partners. Fairhurst retired in 1971, by which time the business had also completed the Kingston Bridge.

The strengthening and lifting works to the bridge were carried out by Balfour Beatty between 1996 and 2001. The work was a significant engineering achievement in its own right and won the Saltire Award for civil engineering excellence in Scotland and the Institution of Civil Engineers' Brunel Medal. This later alteration, as well as other minor changes and adaptations over the years, have not adversely affected the bridge's design, modernist character or level of authenticity.

3.1.2 Setting

The Kingston Bridge is situated in a strategic and prominent location near the centre of the city of Glasgow, crossing over the River Clyde between Kingston on the south side and Anderston on the north. The design was conceived to be a practical means

of connecting the north and south of the city but also to be seen from several points of view, both near and far and from all directions.

The bridge is linked to a complex network of contemporary infrastructural elements including approach roads and the pedestrian flyover to the north side of the bridge. The complexity of this infrastructure demonstrates how the Kingston Bridge is one of the most significant links in the chain of Scotland's motorway network. These integrated elements are a standard type of elevated road structure for their date and are not of special architectural or historic interest. However, they are of interest as part of the road infrastructure associated with Kingston Bridge, forming part of its immediate setting. They add to the concept of the urban picturesque along Clydeside and are now a familiar landmark in Glasgow city centre.

The M8 motorway is the main artery through the city, passing many important and historic buildings. Those sited near the Kingston Bridge and its approaches include Co-Operative House (LB33971), 1897, to the southeast; the former warehouse (LB33211), 1897-1907, and former public school (LB45642), 1890, on Washington Street, to the northeast; and the Mitchell Library (LB33095), 1906-11, and St Patricks' RC Church (LB33093), 1898, to the northwest.

The construction of the bridge and the associated elements was a unified piece of major infrastructure that required large parts of existing streets to be knocked down and totally reconfigured. However, the route was planned so that the demolition of existing fabric would be as minimal as possible. The banks of the Clyde in the general vicinity of the Kingston Bridge have seen much commercial and residential redevelopment in recent years, typical of inner-city urban environments. The newer developments continue to provide an appropriate inner-urban setting for the bridge.

3.2 Historic interest

Historic interest is in such things as a building's age, rarity, social historical interest and associations with people or events that have had a significant impact on Scotland's cultural heritage. Historic interest is assessed under three headings:

3.2.1 Age and rarity

While later 20th century road bridges are not an uncommon building type in Scotland, Kingston Bridge (1966-70) is a major example and among the most significant in the country.

Kingston Bridge is one of several important and high-profile bridge projects completed in Scotland during the 1960s and 1970s. Among them the Forth Road Bridge (1958-64, listed category A, LB47778) which, when opened, was the longest suspension bridge outside of the USA; Tay Road Bridge (1959-66, not listed) which is still among the longest road bridges in Europe; Erskine Bridge (1967-71, listed category A, LB52482) which is the only remaining mono cable-stayed road bridge in

Britain; and Kessock Bridge (1972-76, listed category B, LB52506) which was the largest multi cable-stayed bridge (length, weight and height) in Europe at the time of its completion in 1982.

Kingston Bridge is an important component of the major post-war infrastructural investment in the new road and motorway networks. It was an early example of the cantilevered concrete box girder road bridge in the United Kingdom. The first of this type was Medway Bridge, Kent (1962-65) by Freeman, Fox and Partners. The Kingston Bridge is relatively early and experimentally large example of this type of design.

3.2.2 Social historical interest

Kingston Bridge is of special social historical interest within the context of post-war road building in Scotland.

The bridge is part of the M8, Scotland's first motorway. It is a key part of what was known as the Glasgow Inner Ring Road, first proposed in 1945 to address Glasgow congestion. The Kingston Bridge is a strategically important bridge providing the primary crossing of the River Clyde for both regional and local traffic networks. The listing of the bridge serves to represent the wider engineering achievement of the M8 motorway scheme.

Post-war optimism and an appetite for grand civic projects saw the rapid construction and infrastructural investment in new road and motorway networks across the United Kingdom. Increased reliance on the motor car meant that an integrated road network became a priority in Scotland's largest city, where the use of private cars and the need for commercial road transport was most pressing. As such, the bridge is one of the key signifiers of the impact that private car ownership had on major urban centres in the mid-late 20th century, and how plans were made to address this cultural transformation.

The most important scheme in the west of Scotland during this period was the opening of the M8 in 1965, completed through Glasgow and further connecting the Greater Glasgow area to the west through to the airport at Abbotsinch. The infrastructure scheme for the M8 and the Clyde, which included the building of the Kingston Bridge, the Erskine Bridge and the Clyde Tunnel, were, along with the Tay Bridge (1966) and the Forth Road Bridge (1964) in the east of Scotland, the most significant projects of the time.

Other key elements of the wider Glasgow transport link include the Harthill Bypass, the Ballieston Interchange, the Clydeside Expressway, the Charing Cross Section and the Scotland Street Viaduct. The inner-urban section of the motorway through the city centre is road building on a scale and ambition not seen elsewhere in Scotland, and rarely in Europe more widely.

In 1966 it was anticipated that over 120,000 vehicles would be using the bridge daily by 1990 (Structural Engineer, 1971). The daily average is currently between 150,000 and 160,000 commercial and private vehicles. The bridge is by some distance the most used road bridge in Scotland and amongst the busiest in Europe. It is of great social and economic importance to Scotland as a strategic transport link, giving it special interest under this heading.

3.2.3 *Association with people or events of national importance*

The Kingston Bridge has no direct association with a person or event of national importance.

4. Summary of assessment

Based on the available information, Kingston Bridge meets the criteria of special architectural or historic interest for the following reasons:

- As a major component of Glasgow's inner-urban motorway, representative of the wider transport achievement within Scotland.
- As an early example of cantilevered concrete box girder bridge construction by one of the leading civil engineering firms of its period.
- For its modernist design, including tapered piers and polished aggregate cladding.
- For its setting as an important and prominent feature within the urban centre of Glasgow, which forms part of the wider, unified network of contemporary road infrastructure.
- For its social historical significance as one of the most strategically important and busiest road bridges in Europe.
- It reflects the significant social and economic change that occurred in Scottish cities as a result of the rapid rise in private car ownership in the mid-20th century.

5. Category of listing

Once a building is found to be of special architectural or historic interest, it is then classified under one of three categories (A, B or C) according to its relative importance. While the listing itself has legal weight and gives statutory protection, the categories have no legal status and are advisory. They affect how a building is managed in the planning system.
Category definitions are found at Annex 2 of Designation Policy and Selection Guidance (2019) https://www.historicenvironment.scot/designation-policy.

5.1 Level of importance

Kingston Bridge's level of importance is category B.

Buildings listed at category B are defined as 'buildings of special architectural or historic interest which are major examples of a particular period, style or type.

When compared with the bridges of its period within Scotland, the Kingston Bridge is a major example of the building type for the period and category B is considered the most appropriate level of listing.

6. Other Information

N/A

7. References

Canmore: http://canmore.org.uk/ CANMORE ID: 68418

Map Sources

Printed Sources

Carruthers D, Coutts *A.* (1993) *Refurbishment Aspects of Kingston Bridge, Glasgow*, in Bridge Management 2.

Carruthers, D. Coutts, A, McGown Professor, Greenwood D. (1994), *Background to the design of the quay wall stabilisation works at Kingston Bridge, Glasgow.*

Fairhurst, W. A. *et al* (1971) *The Design and Construction of Kingston Bridge and Elevated Approach Roads, Glasgow*, The Structural Engineer, Vol. 49, No. 1, January 1971.

Historic Scotland (2009) *Scotland: Building for The Future – Essays on the architecture of the post-war era*.

Hutchison N. J, Collings C. M. (1997) *Kingston Bridge, Glasgow: Strengthening and Re-articulation*, in Bridge Modification 2: Stronger and Safer Bridges.

Paxton R and Shipway J (2007) *Civil Engineering Heritage: Scotland - Lowlands and Borders*. London, p.191, figs 4-7.

Williamson E, Riches A and Higgs M (1990) *The Buildings of Scotland - Glasgow*. London: Yale University Press, pp. 621-2.

Online Sources

Glasgow Motorway Archive: https://www.glasgows-motorways.org.uk/ [accessed, 12 June 2020].

Scott Wilson, Scotland: A History. The Glasgow Motorways 1963 to 1976: http://scottwilsonscotlandhistory.co.uk/SW%20History%20Doc%2012.6%20Vol%203%20The%20Glasgow%20Motorways%201963-1976.pdf [accessed, 12 June 2020].

http://scottwilsonscotlandhistory.co.uk/Appendix%201%20Mainly%20Projects/SW%20History%20Doc%2013%20Appx%201%20Kingston%20Bridge%20Paper%201971.pdf [accessed, 12 June 2020].

http://scottwilsonscotlandhistory.co.uk/Appendix%201%20Mainly%20Projects/SW%20History%20Doc%2013%20Appx%201%20Kingston%20Bridge%20Paper%202001.pdf [accessed, 12 June 2020].

Motorways Modern Heritage and the British Landscape: https://www.academia.edu/12076136/Motorways_modern_heritage_and_the_British_Landscape_ [accessed, 12 June 2020].