

= Richmond Bridge , London =

Richmond Bridge is an 18th @-@ century stone arch bridge that crosses the River Thames at Richmond , connecting the two halves of the present @-@ day London Borough of Richmond upon Thames . It was designed by James Paine and Kenton Couse .

The bridge , which is a Grade I listed , was built between 1774 and 1777 , as a replacement for a ferry crossing which connected Richmond town centre on the east bank with its neighbouring district of East Twickenham to the west . Its construction was privately funded by a tontine scheme , for which tolls were charged until 1859 . Because the river meanders from its general west to east direction , flowing from southeast to northwest in this part of London , what would otherwise be known as the north and south banks are often referred to as the " Middlesex " ( Twickenham ) and " Surrey " ( Richmond ) banks respectively , named after the historic counties to which each side once belonged .

The bridge was widened and slightly flattened in 1937 ? 40 , but otherwise still conforms to its original design . The eighth Thames bridge to be built in what is now Greater London , it is today the oldest surviving Thames bridge in London .

= = Background = =

The small town of Sheen on the Surrey bank of the Thames , 10 miles ( 16 km ) west of the City of London or 16 miles ( 26 km ) by river , had been the site of a royal palace since 1299 . After it was destroyed by fire in 1497 , Henry VII built a new palace on the site , naming it Richmond Palace after his historic title of Earl of Richmond , and the central part of Sheen became known as Richmond .

Although a ferry had almost certainly existed at the site of the present @-@ day bridge since Norman times , the earliest known crossing of the river at Richmond dates from 1439 . The service was owned by the Crown , and operated by two boats , a small skiff for the transport of passengers and a larger boat for horses and small carts ; the Twickenham Ferry , slightly upstream , was also in service from at least 1652 . However , due to the steepness of the hill leading to the shore @-@ line on the Surrey side neither ferry service was able to transport carriages or heavily laden carts , forcing them to make a very lengthy detour via Kingston Bridge .

In the 18th century Richmond and neighbouring Twickenham on the opposite bank of the Thames , both of which were distant from London but enjoyed efficient transport links to the city via the river , became extremely fashionable , and their populations began to grow rapidly . As the ferry was unable to handle large loads and was often cancelled due to weather conditions , the river crossing became a major traffic bottleneck .

Local resident William Windham had been sub @-@ tutor to Prince William , Duke of Cumberland , and was the former husband of Mary , Lady Deloraine , mistress to George II . As a reward for his services , George II leased Windham the right to operate the ferry until 1798 . Windham sub @-@ let the right to operate the ferry to local resident Henry Holland . With the ferry unable to serve the demands of the area , in 1772 Windham sought Parliamentary approval to replace the ferry with a wooden bridge , to be paid for by tolls .

= = Design = =

The plans for a wooden bridge proved unpopular , and in 1772 the Richmond Bridge Act was passed by Parliament , selecting 90 commissioners , including landscape architect Lancelot " Capability " Brown , historian and politician Horace Walpole and playwright and actor David Garrick , to oversee the construction of a stone bridge on the site of the ferry . The Act stipulated that no tax of any sort could be used to finance the bridge , and fixed a scale of tolls , ranging from ½ d for a pedestrian to 2s 6d for a coach drawn by six horses ( about 50p and £ 14 respectively in 2016 ) . Henry Holland was granted £ 5 @,@ 350 ( about £ 613 @,@ 100 in 2016 ) compensation for the loss of the ferry service . The commission appointed James Paine and Kenton Couse to design and

build the new bridge .

The Act specified that the bridge was to be built on the site of the existing ferry " or as much lower down the river as the Commission can settle " . Local residents lobbied for it to be built at Water Lane , a short distance downstream from the ferry site . The approach to the river was relatively flat , avoiding the steep slope to the existing ferry pier on the Surrey bank . However , the Dowager Duchess of Newcastle refused to allow the approach road on the Middlesex bank to pass through her land at Twickenham Park , and the commission was forced to build on the site of the ferry , despite a steep 1 in 16 ( 6 @. @ 25 % ) incline .

The bridge was designed as a stone arch bridge of 300 feet ( 91 m ) in length and 24 feet 9 inches ( 7 @. @ 54 m ) in width , supported by five elliptical arches of varying heights . The tall 60 @-@ foot ( 18 m ) wide central span was designed to allow shipping to pass , giving Richmond Bridge a distinctive humpbacked appearance . It was built in Portland stone , and ran between Ferry Hill ( Bridge Street today ) on the Surrey side and Richmond Road on the Middlesex side ; sharp curves in the approach roads on the Middlesex side ( still in existence today ) were needed to avoid the Dowager Duchess of Newcastle 's land at Twickenham Park . Palladian toll houses were built in alcoves at each end .

= = Construction = =

The building was put out to tender , and on 16 May 1774 Thomas Kerr was awarded the contract to build the bridge for the sum of £ 10 @, @ 900 ( about £ 1 @. @ 24 million in 2016 ) . With additional costs , such as compensating landowners and building new approach roads , total costs came to approximately £ 26 @, @ 000 ( about £ 2 @. @ 98 million in 2016 ) .

Most of the money needed was raised from the sale of shares at £ 100 each ( approximately £ 11 @, @ 500 in 2016 ) in two tontine schemes , the first for £ 20 @, @ 000 and the second for £ 5 @, @ 000 . The first was appropriately called the Richmond @-@ Bridge Tontine , but when it became clear that the initial £ 20 @, @ 000 would not be sufficient to complete construction a second tontine was set up . Each investor was guaranteed a return of 4 % per annum , so £ 1 @, @ 000 per annum from the income raised from tolls was divided amongst the investors in the two tontines . On the death of a shareholder their share of the dividend was divided among the surviving shareholders . To avoid fraud , each investor was obliged to sign an affidavit that they were alive before receiving their dividend . Any revenue over the £ 1 @, @ 000 per annum required to pay the investors was held in a general fund for the maintenance of the bridge .

Construction began on 23 August 1774 . The Prince of Wales was invited to lay the first stone but declined , and so the stone was laid by commission member Henry Hobart . The bridge opened to pedestrians in September 1776 and to other traffic on 12 January 1777 , at which time the ferry service was closed , although work on the bridge was not completed until December 1777 . A large milestone was placed at the Richmond end , giving the distances to other bridges and to local towns .

= = Operation = =

There was no formal opening ceremony , and little initial recorded public reaction . However , the bridge soon became much admired for its design ; an article in The London Magazine in 1779 said that the bridge was " a simple , yet elegant structure , and , from its happy situation , is ... one of the most beautiful ornaments of the river ... from whatever point of view the bridge is beheld , it presents the spectator with one of the richest landscapes nature and art ever produced by their joint efforts , and connoisseurs in painting will instantly be reminded of some of the best performances of Claude Lorraine " . James Paine proudly illustrated it among the designs in the second volume of his Plans , Elevations , and Sections of Noblemen and Gentlemen 's Houses , 1783 . Richmond Bridge was the subject of paintings by many leading artists , including Thomas Rowlandson , John Constable and local resident J. M. W. Turner .

Severe penalties were imposed for vandalising the bridge . The Richmond Bridge Act 1772

specified that the punishment for " willful or malicious damage " to the bridge should be " transportation to one of His Majesty 's Colonies in America for the space of seven years " . A warning against damage can still be seen on the milestone at the Surrey end of the bridge .

Richmond Bridge was a commercial success , generating £ 1 @, @ 300 per annum in tolls ( about £ 83 @, @ 190 in 2016 ) in 1810 . By 1822 , the company had accumulated a sufficient surplus that all vehicle tolls were reduced to one penny .

On 10 March 1859 the last subscriber to the main tontine died , having for over five years received the full £ 800 per annum set aside for subscribers to the first tontine , and with the death of its last member the scheme expired . On 25 March 1859 Richmond Bridge became toll @-@ free . A large procession made its way to the bridge , where a team of labourers symbolically removed toll gates from their hinges . The toll houses were demolished , replaced by seating in 1868 ; investment income from the revenue accumulated during the 83 years the tolls had been charged was sufficient to pay for the bridge 's maintenance .

In 1846 the first railway line reached Richmond . Richmond Gasworks opened in 1848 , and Richmond began to develop into a significant town . The District Railway ( later the District line ) reached Richmond in 1877 , connecting it to the London Underground . Commuting to central London became feasible and affordable , leading to further population growth in the previously relatively isolated Richmond and Twickenham areas .

= = 20th @-@ century remodelling = =

By the early 20th century the bridge was proving inadequate for the increasing traffic , particularly with the introduction of motorised transport , and a 10 miles per hour ( 16 km / h ) speed limit was enforced . With the remaining investment income from tolls insufficient to pay for major reconstruction , on 31 March 1931 the bridge was taken into the joint public ownership of Surrey and Middlesex councils , and proposals were made to widen it . The plans were strongly opposed on aesthetic grounds , and the decision was taken to build instead a new bridge a short distance downstream to relieve traffic pressure .

The new Twickenham Bridge opened in 1933 , but Richmond Bridge was still unable to handle the volume of traffic , so in 1933 Sir Harley Dalrymple @-@ Hay proposed possible methods for widening the bridge without significantly affecting its appearance . The cheapest of Dalrymple @-@ Hay 's proposals , to transfer the footpaths onto stone corbels projecting from the sides of the bridge thus freeing the entire width for vehicle traffic , was rejected on aesthetic grounds , and a proposal to widen the bridge on both sides was rejected as impractical . A proposal to widen the bridge on the upstream side was settled on as causing the least disruption to nearby buildings , and in 1934 it was decided to widen the bridge by 11 feet ( 3 @. @ 4 m ) , at a cost of £ 73 @, @ 000 ( about £ 4 @. @ 67 million in 2016 ) .

The Cleveland Bridge and Engineering Company of Darlington was appointed to carry out the rebuilding . In 1937 each stone on the upstream side was removed and numbered and the bridge widened ; the stone facing of the upstream side was then reassembled and the bridge reopened to traffic in 1940 . Throughout the redevelopment , a single lane of traffic was kept open at all times . It was found that the 18th @-@ century foundations , consisting of wooden platforms sunk into the river bed , had largely rotted away , and they were reinforced with steel pilings and concrete foundations . During the widening works the opportunity was also taken to lower slightly the roadbed at the centre of the bridge and raise the access ramps , reducing the humpbacked nature of the bridge 's central section .

= = Legacy = =

James Paine went on to design three other Thames bridges after Richmond , at Chertsey ( 1783 ) , Kew ( 1783 ) , and Walton ( 1788 ) . Paine and Couse renewed their working relationship on the design of Chertsey Bridge , the only one of the three still in existence . Paine became High Sheriff of Surrey in 1783 .

In 1962 , Richmond Council announced the replacement of the gaslamps on the bridge with electric lighting . The Richmond Society , a local pressure group , protested at the change to the character of the bridge , and succeeded in forcing the council to retain the Victorian gas lamp @-@ posts , converted to electric light , which remain in place today .

In the history of Richmond Bridge there have only been two reported serious collisions between boats and the bridge . On 20 March 1964 , three boats tied together at Eel Pie Island , 1 1/2 miles ( 2 @.@ 4 km ) upstream , broke from their moorings in a storm and were swept downstream , colliding with the bridge . Although no serious damage was caused to the bridge , the Princess Beatrice , an 1896 steamer once used by Gilbert and Sullivan , was damaged beyond repair . On 30 January 1987 , the Brave Goose , the £ 3 @,@ 500 @,@ 000 yacht of National Car Parks founder Sir Donald Gosling , became wedged under the central arch of the bridge , eventually being freed at low tide the next day .

The eighth Thames bridge to be built in what is now Greater London , Richmond Bridge is currently the oldest surviving bridge over the Thames in Greater London , and the oldest Thames bridge between the sea and Abingdon Bridge in Oxfordshire . Richmond Bridge was Grade I listed in 1952 and it is the only Georgian bridge over the Thames in London . Its bicentenary was celebrated on 7 May 1977 ; the commemoration was held four months after the actual anniversary of 12 January , to avoid poor weather conditions .

Just to the south of the bridge , in a park at the Richmond end , is a bust of the first president of Chile , Bernardo O 'Higgins . He studied in Richmond from 1795 until 1798 , and in 1998 , 200 years after he left Richmond , the bust , whose sculptor is unknown , was unveiled . The patch of ground which the statue overlooks is called " O 'Higgins Square " . The Mayor of Richmond lays a wreath at the bust every year in the presence of staff from the Chilean Embassy in London .