Welcome to Glasgow's Clyde Bridges civil engineering trail

Glasgow's bridges connect the city, enabling us to cross numerous roads, railways, rivers and canals. The bridges also reflect the story of transport; from the pedestrian and horse traffic of the middle ages, through the railway mania of the 19th century, the growth of cars in the 20th century, to today's need to reduce pollution and reliance on fossil fuels and focus on more active ways of travelling.

On this walk past the city centre bridges you'll learn about the engineering behind them and see things you may never have noticed before.

Firstly, a little bit of background…

Glasgow has had an impressive industrial past. The oldest surviving bridges on the Clyde were built in the 1850s when Britain had harnessed new technology including steam power, to become the "workshop of the world". At this time, with half of the world's ocean-going ships and twice as many railways, Britain was a world leader in manufacturing,

Glasgow played a huge role in this economic supremacy, tripling it's population between 1850 and 1920. Shipbuilding and heavy engineering flourished, and the lower Clyde was transformed into a navigable channel for ocean-going vessels transforming the city into one of the world's great ports.

By 1900 Glasgow was the fourth largest city in Europe after London, Paris & Berlin and at the height of it's prosperity as "the second city of the Empire".

After the second World War however, the closure of many heavy industries resulted in a decline for the city. Glaswegians are never down for long though and the city has enjoyed an economic and cultural renaissance with new industries flourishing alongside some of the more traditional. The city is now a centre of culture, learning and technology with modern buildings and bridges built alongside the old.

The Clyde Bridges have bridged the years and this trail tells their story.

THE TRAIL

This trail follows the north bank of the River Clyde from the Millennium Bridge at Glasgow Science Centre to the St Andrew's Susension Bridge near Glasgow Green but can be walked in either direction, taking approximately one hour each way. The trail follows National Cycle Route 75 and is easily accessible.

There are various public transport options from the city centre, with cycle, bus and train access along the route.

This leaflet has been produced by the Institution of Civil Engineers.

An engineer led guided walk is available for groups on request.

Find out more:

ice.org.uk/what-is-civil-engineering

ice.org.uk/scotland

@ICEScotland

ICE Scotland

scotland@ice.org.uk

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Glasgow's Clyde Bridges Trail

GLOSSARY

Abutment – the element that supports the end of a bridge

Bascule Bridge – a moving bridge with a counterweight which balances the deck of the bridge as it lifts, like a drawbridge.

Caisson foundation – a prefabricated hollow box or cylinder sunk into the ground and then filled forming a foundation. These are used in the building of structures that require foundations beneath water, such as bridge piers & harbour works.

Cantilever – a beam supported only at one end

Deck – the traffic carrying surface of a bridge

Facing/façade – an outer layer covering the surface of a wall or other construction

Girder – a large beam used for building bridges and buildings, usually iron, steel or sometimes concrete. It usually has an I-shaped or box shaped cross section (hence box girder).

Parapet – a low protective wall along the edge of a roof, bridge, or balcony.

Pier – intermediate vertical support for a bridge superstructure

Pile – a slender column of materials such as concrete, stone or steel which acts as a deep foundation, transferring load from a structure to more stable ground below the surface.

Span – the distance between the supports for a structure

Spandrel – the space between two arches or between an arch and a rectangular enclosure

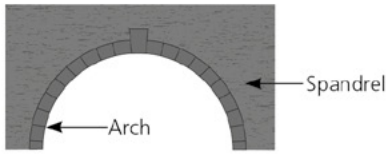
Superstructure – the part of a structure that is above ground. That below ground is known as sub-structure

Weir – a barrier or dam across a river that alters the flow of water raising the upstream water level

BEAM

BEAM AND SLAB

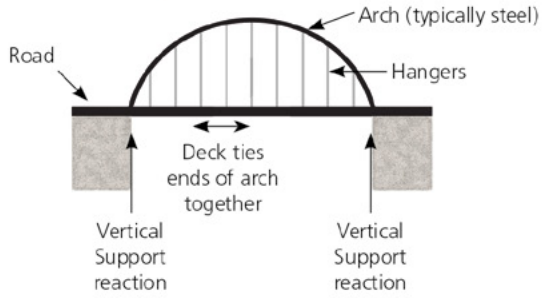
ARCH



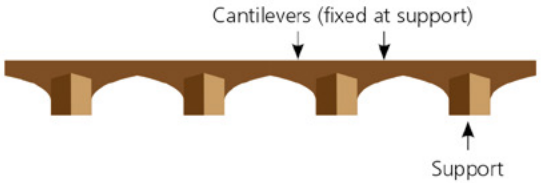
TRUSS

Main support beam (can be rolled steel section, plate girder (welded together from flat plates) or box girder)

TIED (BOWSTRING) ARCH



BALANCED CANTILEVER



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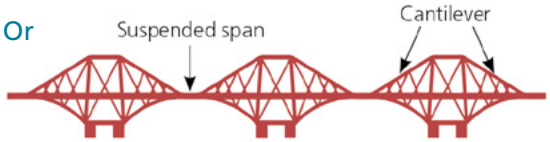

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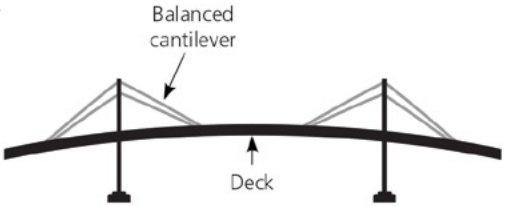
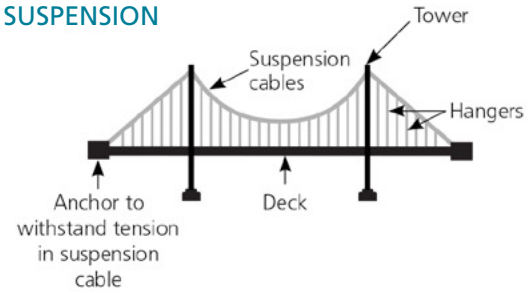
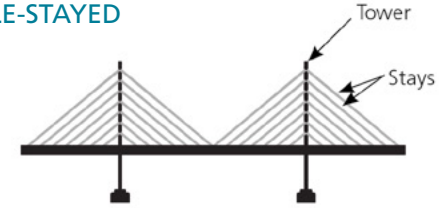


SUSPENSION



CABLE-STAYED



Deck supported from towers by cables

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Total walking route is **2.5 miles (~4.5 km)**

-0.5 miles using St Enoch / Buchanan St Subway **(£1.80)**

Every effort will be made to guide back for 4 pm in time for the 4.15 pm Engineering Faculty Tour

Institution of Civil Engineers Volunteer Guides:
Colin MacDonald
David Martin
Steven White

Printed Guide Available on the day (**17th June 2026**)

^ 1 mile

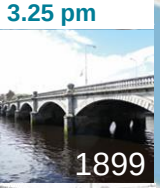
0.6 Miles v

4.00 pm E

2.15 pm S

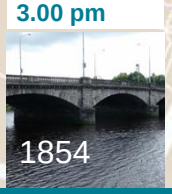
3.15 pm

3.25 pm



2.50 pm

3.00 pm



2.35 pm

Start Univ. of Strathclyde Learning and Teaching Building, Richmond Street / N. Portland Street

1. **Tidal Weir & Pipe Bridge** (1901, rebuild 1949) / **Albert Bridge** (1871)
2. **The City Union Railway Bridge** (1899)
3. **Victoria Bridge** (1854)
4. **Portland St Bridge** (1853)
5. **Jamaica Street Bridge** (1899)
   1st Caledonian Railway Bridge (1878)
   2nd Caledonian Railway Bridge (1905)
   King George V Bridge (1928)

Google Map:

End Univ. of Strathclyde Learning and Teaching Building