Clyde Arc - 2006
Engineer: Iain McAllister

The Clyde arc was completed in 2006 and is intended to be one of the main crossing points over the river, especially for traffic into the city's eastern areas. The arch was cast in place, starting from the south pier, and then lifted to its current height. The arch’s cross-section is elliptical and its crown is slightly curved, mimicking the shape of the river. The arch is supported by a system of concrete-filled cast iron caissons, sunk some 86 ft below water level. Traditional masonry was rejected in favour of riveted wrought iron elliptical arches, the largest of which spans 35 m. The arch ribs are masked by cast iron spandrels adorned with the Royal coat of arms, the coat of arms of Prince Albert and those of various corporate bodies. This is the fifth bridge of its kind in the UK. The bridge is 186 m long and reaches a maximum height of 43 m. The foundation consists of concrete-filled wrought iron cylinders, 1.5 m in diameter, which were bored into the riverbed and were then filled with concrete. The bridge was designed by Sir John Wolfe-Barry.

Millennium Bridge - 2000
Engineer: John McAlpine

This bridge was built by the Heritage Lottery Fund to the bridge was designed by Sir John Wolfe-Barry. It is a balanced cantilever design primarily made of concrete filled cast iron caissons, sunken some 86 ft below water level. Traditional masonry was rejected in favour of riveted wrought iron elliptical arches, the largest of which spans 35 m. The arch ribs are masked by cast iron spandrels adorned with the Royal coat of arms, the coat of arms of Prince Albert and those of various corporate bodies. This is the fifth bridge of its kind in the UK. The bridge is 186 m long and reaches a maximum height of 43 m. The foundation consists of concrete-filled wrought iron cylinders, 1.5 m in diameter, which were bored into the riverbed and were then filled with concrete. The bridge was designed by Sir John Wolfe-Barry.

Bell’s Bridge - 1988
Engineer: Blyth & Westland

This bridge is a principal railway bridge in the centre of Glasgow. It crosses over the River Clyde at its confluence with the River Kelvin, linking Central and Southside. The bridge is 545 m long and has six spans. It is a balanced cantilever design, primarily made of concrete filled cast iron caissons, sunken some 86 ft below water level. Traditional masonry was rejected in favour of riveted wrought iron elliptical arches, the largest of which spans 35 m. The arch ribs are masked by cast iron spandrels adorned with the Royal coat of arms, the coat of arms of Prince Albert and those of various corporate bodies. This is the fifth bridge of its kind in the UK. The bridge is 186 m long and reaches a maximum height of 43 m. The foundation consists of concrete-filled wrought iron cylinders, 1.5 m in diameter, which were bored into the riverbed and were then filled with concrete. The bridge was designed by Sir John Wolfe-Barry.

The bridge was opened in 1988 and is one of the main crossing points over the river, especially for traffic into the city’s eastern areas. The arch was cast in place, starting from the south pier, and then lifted to its current height. The arch’s cross-section is elliptical and its crown is slightly curved, mimicking the shape of the river. The arch is supported by a system of concrete-filled cast iron caissons, sunk some 86 ft below water level. Traditional masonry was rejected in favour of riveted wrought iron elliptical arches, the largest of which spans 35 m. The arch ribs are masked by cast iron spandrels adorned with the Royal coat of arms, the coat of arms of Prince Albert and those of various corporate bodies. This is the fifth bridge of its kind in the UK. The bridge is 186 m long and reaches a maximum height of 43 m. The foundation consists of concrete-filled wrought iron cylinders, 1.5 m in diameter, which were bored into the riverbed and were then filled with concrete. The bridge was designed by Sir John Wolfe-Barry.
The story of Glasgow’s Clyde Bridges in many ways reflects the development of Glasgow. Glasgow may not have grown beyond a quiet monastery town had it not also been the least fordable point on the Clyde. As the city flourished in the 18th and 19th centuries, the demands for better communications resulted in bridges being built which, in turn, encouraged further trade and prosperity. So bridges both nurtured and reflected the growth of the city.

The story of Glasgow’s bridges also reflects the story of transportation, from the pedestrian and horse traffic of the middle ages, through railway mania in the 19th century, and the 20th century age of the motor car, onwards into the new millennium.

It also reflects the story of civil engineering. Developments in engineering materials and knowledge can be traced in the techniques used to construct the Clyde bridges. Timber and stone, cast iron, wrought iron and steel, reinforced and pre-stressed concrete, were all used in Glasgow’s Clyde bridges. Virtually all bridge types are represented on the Clyde: the beam, beam and slab (with solid girders, lattice girders or box girders), the arch, the tied bowstring arch, the suspension bridge, the cable stayed bridge and the balanced cantilever. A walk from the Millennium Bridge to Dalmarnock Bridge will take you past exhibits of more than 150 years of bridge engineering history.