



SPOTLIGHT ON

# BATHURST BASIN

CONSTRUCTION OF A NEW ROAD BRIDGE

Following the successful work at Ashton Avenue Swing Bridge, VolkerLaser were contracted to construct the new bridge at Bathurst Basin by Bristol City Council. The new bridge was a key component of the West of England's £230m AVTM Metrobus project, aimed at improving public transport within the region.

The need for a new bridge crossing the Grade II listed former lock originally arose in 2013, following a change to the MetroBus route. The existing swing bridge, built in 1906, was deemed to have insufficient strength, width and road space for MetroBus traffic. It was considered hazardous to traffic travelling in both directions and also for pedestrians, who traversed the bridge using a narrow cantilevered walkway, with limited edge protection. The solution was the construction of a second parallel bridge, creating a uni-direction traffic flow.

The new bridge was purposely designed as a simple unobtrusive structure so as to minimise the impact on the surrounding historic dockside area. It has a slender deck with open parapets on each side, which gives the structure a lightweight appearance, whilst the imaginative foundation design avoids any load being transferred to the listed lock walls. In order to protect the integrity of the canal basin, the abutments were constructed using ten auger bored piles of 750mm diameter within 900mm diameter casings. VolkerLaser then installed seven beams, each spanning 24m using a 750tonne crane over a full weekend closure.

Another major component of this project was the inclusion of a four metre wide combined footpath and cycleway along the entire southern side, providing the missing link along the riverside walkway. As part of the works, there was a slight realignment of the carriageway required and due to the bridge being located within the wider City Docks Conservation Area, the team had to carefully take up and relay original granite sets.

**£1.5 M**  
CONTRACT VALUE

**74 WEEKS**  
PROJECT DURATION

**24 METRE**  
BRIDGE SPAN

**7**  
BRIDGE BEAMS

Constant communication was required between VolkerLaser and the MetroBus team throughout the construction process. Community events were organised to inform local residents of the extensive construction works, the intended improvements to the local area and to provide details of any necessary traffic management and diversions.

Due to the location of the project within Bristol's transport network, VolkerLaser were required to maintain continued traffic flow, with the programme allowing for minimal weekend closures. With the works being severely constrained by the restricted site location and the heritage nature of the surroundings and lock, VolkerLaser were delighted to note the construction works were completed without a single reportable accident or incident.

VolkerLaser were able to open Bathurst Basin Bridge to traffic in December 2017, removing a key pinch-point on the MetroBus network and providing a significant enhancement to the local area and the wider travelling public.



**i** NEW ROAD BRIDGE AT BATHURST BASIN, BRISTOL, INCLUDING A SERIES OF CARRIAGEWAY TIE INS AND A DEDICATED FOOTWAY / CYCLEWAY

