M606/M62 Bradford Car-Share Lane Gabion Retaining Wall

BRADFORD - WEST YORKSHIRE - United Kingdom



TYPE OF PROJECT	YEAR OF CONSTRUCTION	CLIENT	CONTRACTOR	DESIGNER
Mass Gravity Retaining Walls	**2008**	**Highways Agency**	**Balfour Beatty Civil Engineering**	**Faber Maunsell**

PROD. RELATED
Gabions (450m)

Challenge

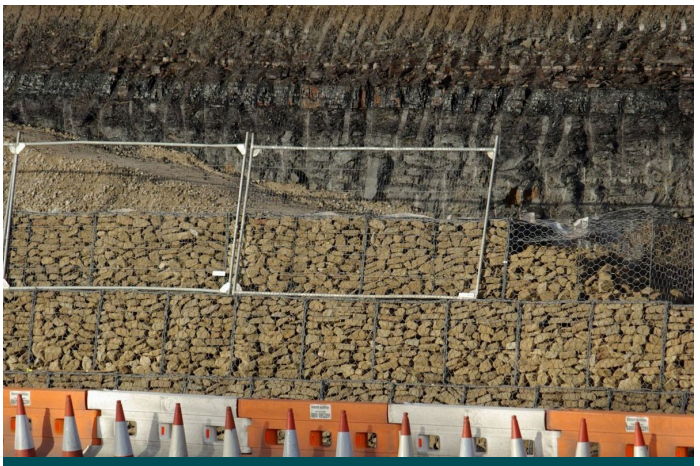
As traffic congestion continues to increase across the UK's motorway network, highway authorities are under growing pressure to maximise the efficiency of existing infrastructure. A critical congestion point was identified at the M606/M62 junction near Bradford, West Yorkshire—specifically the link connecting the southbound M606 to the eastbound M62 towards Leeds.

To address this issue, the Highways Agency commissioned the UK's first motorway car-share lane, delivered by main contractor Balfour Beatty Regional Civil Engineering. The objective was to improve traffic flow and reduce journey times by encouraging car-sharing and prioritising high-occupancy vehicles. The dedicated lane was designed for cars and taxis with two or more occupants, as well as buses and coaches.

The project formed part of a wider transport infrastructure investment funded by the Northern Way economic development partnership, aimed at supporting economic growth across the north of England. However, the scheme presented a significant engineering challenge due to the restricted space at the junction. Expanding the carriageway required a solution that could deliver structural stability, minimise land-take, and meet environmental and aesthetic requirements.



M606 MOTORWAY / M62 JUNCTION



During construction - looking westbound

Solution

Maccaferri's double-twist woven gabions were selected as the ideal solution to support the construction of the new car-share lane. Along the eastbound M62 on-slip at Junction 26 (Chain Bar Junction), approximately 450 metres of roadside retaining wall was constructed using gabion systems.

To create space for the additional lane, existing grassed slopes were excavated and re-profiled. The slopes were then stabilised using over 600 stone-filled gabion baskets, forming a durable and flexible retaining wall structure. This approach allowed the design team to maximise the available footprint without requiring additional land acquisition, an essential factor in such a constrained motorway environment.

Gabion retaining walls offered multiple benefits for this highway project, including rapid installation, cost-effectiveness, and long-term durability. According to Ian Scott of Consulting Engineers Faber Maunsell, who designed the scheme, gabions provided a proven and efficient engineering solution. He noted that their use enabled the project team to meet strict lane width requirements while avoiding more intrusive construction methods.

In addition to their structural performance, the gabions also delivered strong environmental and aesthetic advantages. The baskets were filled with locally sourced York Stone, ensuring the retaining walls blended seamlessly with the surrounding landscape and reduced visual impact.

The successful implementation of gabion retaining walls at the M606/M62 junction enabled the delivery of the UK's first motorway car-share lane within a highly constrained site. The project improved traffic flow, encouraged sustainable travel behaviour, and supported regional economic development.

This case study demonstrates how innovative use of gabion wall systems can provide effective, sustainable solutions for highway widening and infrastructure upgrades, particularly where space, cost, and environmental considerations are critical.

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During construction showing cut slope behind



Nearing completion

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