

A11 - Red Lodge to Barton Mills

Client:
Milestone Infrastructure Limited

PQX Concrete Bay Replacement

Project Overview & Scope

Gill Civil delivered Lot 2 Lifecycle Extension Works on the A11 pavement between Red Lodge and Barton Mills, targeting critical sections across both carriageways to extend asset service life beyond 15 years. The scope covered the full replacement of 32 existing concrete carriageway bays, each approximately 3.65m wide by 5.00m long and 0.30m deep. Works included the breakout and licensed disposal of old bays, sub-base preparation, and the installation of new PQX concrete bays with a high-friction brush finish.

Challenges and Execution

Works were delivered over two weeks during strict overnight closures (20:00 to 05:00) adjacent to live traffic, maintaining a target output of three to four bays per shift. The scheme presented substantial logistical and environmental challenges: the site's remote location required volumetric mixing trucks to travel long distances, while teams had to overcome unknown ground conditions upon breakout. Works progressed through severe winter conditions - including concrete pours on the coldest night of the year - with crews executing precise saw cutting, dowelling, jointing, and comprehensive QA testing (Schmidt Hammer, cube sampling, and texture testing) to ensure compliance before morning handbacks.

Benefits and Outcomes

Utilising high early-strength PQX concrete accelerated curing times, ensuring the carriageway was reliably reopened to live traffic each morning despite adverse winter temperatures. The newly installed dowelled bays eliminate historical joint failures, restoring structural integrity and providing a smoother, safer running surface along this strategic arterial corridor. Delivered safely, on programme, and to rigorous quality standards, the completed repairs provide exceptional durability and long-term asset value.

