

Leak Sealing & Waterproofing • Concrete Repairs • Crack Injection • Pressure Pointing & Grouting • Structure Condition Surveys • Protective Coatings • Joint Sealing
Diamond Drilling & Sawing • Concrete Bursting & Crunching • Robotic Demolition

Scheme: **Harrowside Long Sea Outfall, Blackpool**
Problem: **Structural alterations to concrete outfall structures**
Solution: **Diamond drilling and sawing to enlarge or create openings in thick mass concrete walls and roof slab**
Client: **United Utilities Water / Land and Marine**
Works duration: **16 weeks**
Contract value: **£48,000.00**
Date: **July – October 2015**

As part of a scheme to upgrade the facilities to manage storm water flows along the Fylde Coast, Ram Services Limited undertook a structure condition survey of the Harrowside LSO structures for United Utilities, and then were tasked to undertake a range of structural alterations and repair works for Land and Marine during the upgrade process. Work included the formation of access openings in the roofs of the outfall chambers, and then formation or enlargement of openings between the chambers using a variety of diamond drilling, sawing and controlled demolition techniques.

Wire saw, track saw, core drilling and robotic demolition using a Brokk 90 implement carrier were utilised during the work.

Work was undertaken using confined space trained operatives in accordance with safe systems of work developed with Land and Marine staff on site.

Ram Services Limited has completed similar schemes elsewhere for United Utilities Water and Yorkshire Water.

