



PROJECT EXPERIENCE

IARNRÓD ÉIREANN (IRISH RAIL) UNDERWATER INSPECTION OF 105 STRUCTURES—2009/2010

Iarnród Éireann awarded CEI Collins Engineers, Ltd. a contract for inspections and condition surveys of 105 bridges and culverts throughout Ireland in 2009 and 2010. The inspections comprised recording all pertinent dimensions, a visual and tactile inspection to 1m above high water level, recording any defects in structure material, surveying the channel bottom, noting any evidence of scour near the substructure elements, and soundings to 60 m upstream and downstream of the bridge. Channel bed levels were compared with previous data, if available, to determine if general scour was occurring.

The results of each inspection were provided in a detailed underwater inspection report that included drawings, photographs, soundings, defect locations and extent, and channel bottom conditions including any noted scouring.

Project elements included:

- Structures comprised of steel, concrete, prestressed concrete, and timber material
- Underwater inspections conducted using scuba and surface supplied diving equipment
- Several inspections were conducted in locations with high currents and some partially restricted areas

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