

# Elite Precast Concrete **case study**

Legato® interlocking concrete blocks used for critical flood defence infrastructure...

For more information or technical advice, contact 01952 588885.

**The Holderness Flood Alleviation Scheme (FAS) is a £28 million initiative delivered for the Environment Agency between 2018 and 2024 by JN Bentley as a Design and Build contract, with JBA Consulting as the designer. The project aimed to significantly reduce flood risk for communities along the Holderness Drain, a vital watercourse that serves a 238 km<sup>2</sup> catchment and is crucial for the drainage of Hill and surrounding areas.**



The scheme was developed in response to historic flooding events, notably the 2007 floods that impacted over 55,000 homes and 95 schools in Hull City Centre.

Elite Precast was selected as a key supplier for the project, providing Legato® interlocking concrete blocks for critical flood defence infrastructure. These blocks were chosen for their rapid installation, durability and adoptability to challenging site conditions – qualities that made them ideal for both permanent and emergency flood protection applications.



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## Project Components

### East Hull Pumping Station

A new, online pumping station designed to handle up to 10 m<sup>3</sup>/s of water, with overdrive capacity to 12 m<sup>3</sup>/s. Elite Legato® blocks were integrated into the site's flood defence systems, providing robust protection for the station and surrounding infrastructure.

### Castlehill Flood Storage Area (Aquagreen)

This area was transformed from a wet, inaccessible agricultural buffer zone into a multi-functional flood storage and community asset. The Legato® blocks contributed to the construction of new embankments and access routes, supporting both flood resilience and improved community access.

## Advantages of Legato® interlocking blocks

### Rapid Installation

The Legato® blocks enabled quick deployment, reducing construction time and minimising disruption.

### Durability and Adaptability

The interlocking design provided strong flood defence, even in areas with limited space or complex access requirements.

### Environmental Benefits

The use of precast concrete reduced the need for extensive on-site concrete pours, lowering the project's carbon footprint and supporting the scheme's broader sustainability goals.

## Project Outcomes

The Holderness FAS has delivered a significant improvement in flood protection. The Legato® interlocking blocks contributed to both the structural integrity and operational resilience of the scheme, while also supporting the creating of valuable community and ecological assets.

## Conclusion

Elite Precast played a vital role in the success of the Holderness Flood Alleviation Scheme, providing innovative, reliable and sustainable solutions that met the project's demanding technical and environmental requirements.



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