

# ALPHA TAXIWAY REHABILITATION



## Introduction:

Jointline's Construction Division undertook a crucial project at Teesside International Airport, focusing on the rehabilitation of the Alpha Taxiway. The initial issue stemmed from the degradation of the concrete apron, rendering it unserviceable and posing Foreign Object Debris (FOD) risks. To address these challenges, Jointline's Construction Division embarked on a comprehensive scope of works aimed at enhancing the taxiway's functionality and safety.



## The Challenge:

The primary challenge revolved around the deteriorating condition of the concrete apron, which not only compromised operational efficiency but also posed safety hazards due to FOD concerns. Moreover, the project faced operational shutdowns and frequent aircraft touchdowns, necessitating meticulous planning to minimise disruptions while ensuring utmost safety for all stakeholders involved.



## The Solution:

Jointline's Construction Division devised a multifaceted solution to address the challenges at hand effectively. Leveraging innovative techniques and materials, the team implemented the following key strategies:

- **Rehabilitation of Concrete Apron:** The team employed a cost-effective solution by utilising glass grid reinforcement to mitigate reflective cracking, thereby enhancing the apron's durability and longevity. This approach dispersed pressure over a larger area, minimising the risk of future deterioration.
- **Strategic Scheduling:** Recognising the need to minimise disruptions to airport operations, the

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construction activities were meticulously scheduled to coincide with minimal traffic periods. Additionally, the team remained vigilant to accommodate frequent aircraft touchdowns, ensuring seamless coordination and flexibility throughout the project duration.

- **Comprehensive Scope of Works:** The scope of works encompassed various critical tasks, including raising existing infrastructure, overlaying the taxiway with Stone Mastic Asphalt (SMA) incorporating glass grid reinforcement, installation of new surfacing, line marking works, and additional patching and rehabilitation works in key areas adjacent to hangars and gate access points.

### The Results:

Through meticulous planning and implementation of innovative solutions, Jointline's Construction Division successfully addressed the challenges posed by the deteriorating concrete apron at Teeside International Airport. The outcomes of the project include:

- **Enhanced Safety:** The rehabilitated Alpha Taxiway now offers improved safety standards, mitigating FOD risks and ensuring smooth operations for aircraft movement.
- **Increased Durability:** By incorporating glass grid reinforcement and utilising high-quality materials, the taxiway's durability and resistance to reflective cracking have been significantly enhanced,

minimising the need for future maintenance interventions.

- **Minimal Disruptions:** Despite the operational challenges posed by frequent aircraft touchdowns and the need for strategic scheduling, the project was executed with minimal disruptions, showcasing Jointline's commitment to operational efficiency and safety.

Jointline's Construction Division's successful execution of the Alpha Taxiway rehabilitation project at Teeside International Airport underscores their expertise in civil engineering and aviation infrastructure maintenance, setting a benchmark for excellence in the civil engineering and aviation infrastructure maintenance, setting a benchmark for excellence in the industry.

