



RUSSELL®

# A BUSINESS CASE FOR MODULAR CONSTRUCTION AT AIRPORTS

## **At H. J. Russell & Company, we are honored to be at the forefront of Aviation construction.**

Our latest endeavor, the Concourse D Widening project at Hartsfield-Jackson Atlanta International Airport, showcases our commitment to efficiency and modernization. Known as the world's busiest airport, Hartsfield-Jackson is continually evolving to accommodate its growing passenger traffic.

Through the introduction of modular construction, we are expediting delivery, minimizing gate downtime, and maximizing revenue potential for the airport.



# PROJECT OBJECTIVE

- **INCREASE GATE CAPACITY:**  
Expand Concourse D to include additional gates.
- **MINIMIZE DOWNTIME:**  
Reduce the impact of construction on airport operations, specifically gate closures.
- **MAXIMIZE REVENUE:**  
Preserve and enhance revenue generation during the construction period.

# MODULAR CONSTRUCTION PROCESS

- **CONCURRENT ACTIVITIES::**

While site utilities and foundations were being laid on-site, the modular units—including structural frames, and interior fittings—were simultaneously being assembled off-site.

- **EFFICIENT INSTALLATION:**

The prefabricated modules were then transported to the site and installed in a sequence that was meticulously planned to coincide with the completion of the foundational work.



# CHALLENGES & SOLUTIONS

## LOGISTICS AND COORDINATION

**PROBLEM:**

Managing the complex logistics of transporting and installing large modular units within an active airport environment.

**SOLUTION:**

Detailed planning and coordination with airport authorities to ensure minimal disruption to airport operations and passenger safety.

## REGULATORY COMPLIANCE

**PROBLEM:**

Navigating the stringent regulatory requirements associated with airport construction.

**SOLUTION:**

Close collaboration with regulatory bodies to ensure all standards and regulations are met throughout the construction process.

## INTEGRATION WITH EXISTING INFRASTRUCTURE

**PROBLEM:**

Integrating the new modular structures with the existing airport infrastructure.

**SOLUTION:**

Using advanced engineering techniques and thorough planning to ensure seamless integration and functionality.

# IMPACT ANALYSIS



- **OPERATIONAL BENEFITS**  
The use of modular construction for Concourse D Widening significantly reduced the total construction time by 46 months compared to traditional methods. This reduction minimized the period during which gates were out of service, leading to substantial cost savings and revenue preservation.
- **FINANCIAL IMPACT**  
By reducing gate downtime, the project avoided potential revenue losses estimated at approximately \$400,000,000. This figure is based on the average daily revenue generated per gate.
- **PASSENGER EXPERIENCE**  
The project improved the overall passenger experience by quickly enhancing gate capacity and reducing the visual and noise disruptions typically associated with construction.

# CONCLUSION

## **Concourse D Widening at Hartsfield-Jackson International Airport exemplifies the substantial benefits of modular construction for airport expansion.**

By reducing gate downtime and expediting project delivery, modular construction presents a compelling business case. As airports worldwide evaluate expansion options, the advantages of modular construction will be essential for optimizing operational efficiency and revenue generation.

At H. J. Russell & Company, we are proud to lead this transformative project, ensuring that Hartsfield-Jackson Atlanta International Airport remains at the cutting edge of global aviation.

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