



## Greater Rochester International Airport

### Concourse Lighting Wayfinding

Rochester NY

GRIA Bid Package C concourse lighting upgrades

Scope: Concourse hold room lighting wayfinding

#### **Overview:**

To accommodate for the multitude of hearing-impaired passengers travelling at the Rochester Airport the need for a visual wayfinding system was derived. The Greater Rochester International Airport requested conceptual design, prototyping, systems testing, final design and final programming of the concourse wayfinding system by VS Energy.

#### **Stated Objectives / Problems:**

The initial Airport stated objectives were to provide visual queuing to passengers via the overhead gate hold room lights to signal an Active Gate, Idle Gate, and Gate Page. An Airport wide networkable lighting control system was required to accomplish the airport's objective. The lighting control system needed to have individual control of the light fixtures and maintain a static lighting scene with the ability to have dynamic lighting sequencing.

The static overhead lighting needed to be replaced with DMX controllable lighting fixtures. To reduce the total cost of the project, retrofit kits were designed by VS Energy. The retrofit kits were required to be listed by a Nationally Recognized Testing Laboratory (NRTL), such as Underwriters Laboratories or Edison Testing Laboratories. A complete bid specification with light level requirements, mounting requirements, power supply and DMX decoder performance was prepared by VS Energy and procured by Monroe County Purchasing for the GRIA facility. Energy Solutions International was the low bidder and was required to show proof of NRTL certification within 60 days of award in order to receive a contract for the 720 fixtures required.

#### **VS Energy Process:**

- Proof of Concept and Prototype:
  - VS Energy developed a proof of concept specification and developed a functional prototype including a real time connection to the FIDS network for sequencing the overhead lights
  - The prototype system was expanded to include lighting scenes in each gate for boarding, deplaning, emergency, and TSA emergency.
  - The prototype was expanded to include the use of manual override button stations for activation of lighting scenes by gate agents.
  - VS Energy conducted 30%, 70% and 100% review meetings with stakeholders, and prepared a detailed project budget.
  - VS Energy prepared technical procurement documents for the lighting control system, FIDS integration system, and the LED DMX retrofit kits.

- Contractor scope and selection
  - VS Energy prepared scope and bid documents for the concourse wayfinding lighting as part of a much larger contract.
  - Post receipt of bids, pricing and interviews of contractors were completed by VS Energy.
  - Bid analysis and recommendation performed by VS Energy
- Construction Management
  - VS Energy coordinated the installation of the lighting control network, hardware, and retrofit kits in the concourses
  - VS Energy was onsite to troubleshoot any issues that came up during the installation of the lighting control system
  - VS Energy facilitated ongoing value-added recommendations to the lighting scene and timeline selection to provide the best passenger experience
- Close Out
  - VS Energy reviewed contractor submitted as-built documentation for completeness and accuracy, including complete network connections, operations and maintenance manuals.

**Results:**

- GRIA concourse wayfinding lighting
  - Interactive lighting scene and timelines run automatically using the FIDS information to identify when a gate is active, idle, boarding, paging, and deplaning.
  - Gate agents have the ability to override lighting scenes and timelines to adapt to the current gate status/situation.
  - The airports security team can activate TSA emergency lighting or airport emergency lighting to notify passengers and employees of an emergency