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## FEDEX HANGAR MEMPHIS, TENNESSEE

### SERVICE:

ELECTRICAL CONSTRUCTION

### BUDGET:

\$11,000,000

### HIGHLIGHTS:

- World's largest aircraft maintenance hangar at 150-feet tall
- Completed without lost-time accidents
- State-of-the-art flame detection system



## The World's Largest Aircraft Maintenance Hangar

### THE PROJECT

Gephart provided electrical construction services for the FedEx Airbus Hangar Facility, the world's largest aircraft maintenance hangar, in Memphis, Tennessee.

### OUR PLANNING

For this large, highly specialized undertaking, we assigned two of our senior field supervisors to lead the complex planning and coordination of the multi-phased project. The depth and experience of our staff also allowed us to assign a dedicated foreman to each phase of the construction, thus ensuring focus and the smooth implementation of our plan.

In addition to coordinating the project's multiple phases, we managed numerous changes to the schedule and project scope. The most significant change occurred several months into the project when FedEx decided to transition from the originally selected Airbus A380s to Boeing 777s. This transition required swift planning and implementation of new configurations for the maintenance facilities.

We also designed and fabricated custom lighting fixture brackets and welded them to the hangar's trusses before they were erected. This foresight in planning and installation improved the project's schedule and made working conditions safer, eliminating the risks inherent in installing the fixture brackets after the trusses were erected over a hundred feet in the air.

**FEDEX HANGAR**  
MEMPHIS, TENNESSEE



**OUR WORK**

We worked with FedEx to develop a power monitoring system—including monitoring devices, software and workstations, UPS power and custom screens—to monitor the status of the facility’s critical power distribution equipment.

We also detailed and finalized the design of the project’s complex, 400 Hz electrical distribution system, which provides ground power to the airplanes via multiple ground power units and maintenance pit boxes.

**SUCCESS**

Gephart successfully completed the project in September of 2009. In addition to the maintenance hangar itself, we also completed a new container storage yard, two-story office addition, logistics warehouse building, GSE building, parking lot expansion, machine shop renovation and expansion, ramp utilities expansion and site work for a new engine test facility.



**Services Performed:**

- 400 Hz POWER SYSTEM
- CABLE TRAY SYSTEM
- COMPUTER/TELEPHONE RACEWAY SYSTEMS
- ELECTRICAL DISTRIBUTION SYSTEM
- EMERGENCY GENERATOR & POWER SYSTEM
- EMERGENCY SYSTEMS
- EXTERIOR PARKING LOT LIGHTING
- FIRE ALARM
- LIGHTING & FLOOD LIGHTING
- LIGHTNING PROTECTION SYSTEM
- SEISMIC RESTRAINTS
- UNDERGROUND DUCT BANK & MANHOLES
- UPS SYSTEM

“Having just recently finished the FedEx Maintenance Hangar Project with your company, I want to commend Gephart Electric on the successful completion of such a complex fire alarm job. At SimplexGrinnell, our systems are only as good as the installation. In this case, your electricians were knowledgeable and attentive to the details. Also, your project management team, both on site and in the office proved to be a valuable asset. Communication and organization on a project of this size is of utmost importance and I was made to feel that we were a team throughout the entire project. Together we have been successful.”

Roger Connell, ESSR, SimplexGrinnell