

ELECTRICAL

Project: Houston Northwest Medical Center Tower and ER Expansion

Description:

FEI was responsible for the HVAC design for this 37 million dollar 6 story tower and ER expansion at Houston Northwest Medical Center. This project included a 26,000 SF emergency department, 24 ICU beds, 38 telemetry beds, 38 medical surgical beds and two shell floors. To support this major expansion, a two story addition was added to the existing central plant.

Challenges:

- Existing facility did not comply with current codes required by the addition / renovation.
- Improper separation of the emergency distribution system.
- In adequate electrical power.
- Limited space for the central plant expansion.
- Existing fire alarm system was not capable of supporting the expansion / renovation.
- Phasing.

Solutions:

- Created separate rooms for the normal and emergency distribution equipment.
- Created new emergency distribution system to serve the new and renovated construction. Back fed existing distribution for future upgrades.
- Added three 5,000 amp double ended switchboards to provide for current and future needs with maximum flexibility.
- Added two story expansion to central plant to fit on tight site with separate rooms for the normal and emergency distribution equipment.
- Coordinated with the power company to get required additional utility infrastructure.
- Added new fire alarm system capable of future expansion into the remainder of the facility.
- Phased expansion to keep the existing facility on line.

