

## Renaissance Pere Marquette Hotel

### Project Highlights and Results

- Elara's Energy Audit and HVAC/Mechanical Systems Assessment Report identified opportunities to reduce operating costs with potential estimated savings up to \$241,100 per year
- Identified incentive funding from local utilities for energy efficient commercial HVAC and lighting projects
- Designed and replaced three air-cooled chillers with two cooling-only chillers and one heat recovery chiller to achieve a projected \$116,000 in annual utility cost savings
- Designed solutions to minimize flood impacts on life safety, hotel functionality, and building damage

### Project Background

<b>Owner:</b>	Clearview Hotel Capital, LLC
<b>Location:</b>	New Orleans, LA (Near French Quarter)
<b>Team/Team Lead:</b>	Don McLaughlan, Brian Malone, Adam Sanders, Bhupendra Tailor
<b>Elara Role:</b>	MEFPF Design Engineer
<b>Construction Cost:</b>	\$1,652,000

### Project Overview

<b>Building Type:</b>	Luxury Hotel with Restaurant, Conference/Banquette Rooms, Offices, Parking Garage
<b>Building Attributes:</b>	18 Stories, 286,000 SF
<b>Initial Construction:</b>	1925, 2001 Renovation, 2005 Post-Katrina Flood Repairs
<b>MEFPFIT Systems:</b>	CHW FCUs w/ Electric Heat, MAUs, Air Cooled Chiller Plant, Natural Gas Fired DHW Heaters, Domestic Hot & Cold Water Booster Pumps, Electric Fire Pump, EM Generator, Sump Pumps

### Innovation

- Energy Audit and HVAC/Mechanical Systems Assessment Report identified numerous opportunities to improve operational performance and reliability of the existing building mechanical systems with the potential for an estimated utility savings of up to \$241,100 per year.
- Due to costly, repeated issues with compressor failures, an upgrade of the existing chilled water plant was selected as a priority project. Project replaced three existing air-cooled rooftop chillers with two cooling-only chillers (one configured for low ambient operation) and one heat recovery chiller to preheat the domestic hot water using waste heat to achieve approximately \$116,000 in annual utility savings, based on the first 10 months of actual post implementation utility data.
- Converted one of the building's existing three domestic hot water storage tanks to a preheat tank associated with the heat recovery chiller.
- Installed a new heat exchanger and pump along with associated controls.
- Due to repeated flooding and the location of the critical building systems in the basement, numerous systems were modified or installed to minimize the impact of flooding on building operations. The project scope was coordinated with and reimbursed by the building's insurance provider due to the intent to minimize future claims. Implemented measures include:
  - Relocation of the fire pump and major electrical infrastructure to the first floor
  - Replacement and consolidation of two booster pumps to one on the first floor
  - Additional improvements to building systems to minimize the ingress of flood water to the basement.

