



## CASE STUDY

### City National Plaza, LOS ANGELES, CA



#### COMMERCIAL OFFICE BUILDINGS/REAL ESTATE

**OPERATING COMPANY:**

EMCOR Services  
Mesa Energy Systems, Inc.

**CLIENT:**

Thomas Properties Group

**MECHANICAL CONTRACTOR:**

EMCOR Services  
Mesa Energy Systems, Inc.

**SCHEDULE:**

8 months

**COST:**

\$2.2 million

**TECHNICAL SOLUTIONS**

Relationships

Quality Service

VALUE ENGINEERING

Experience

Project Schedule & Coordination

EXPERTISE

**VALUE DELIVERED**

Turnkey delivery of a complex retrofit project; improved occupant comfort; reduced energy consumption and costs; simplified maintenance; non-disruptive operation; greater property marketability, higher return on owner's investment.

**OBJECTIVES**

To replace cooling towers located on the 52nd level of a commercial high-rise building in downtown Los Angeles.

- New Construction
- Retrofit
- Electrical Construction
- Mechanical Construction
- Mechanical Construction
- Consulting Services



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# City National Plaza, LOS ANGELES, CA

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## SOLUTIONS

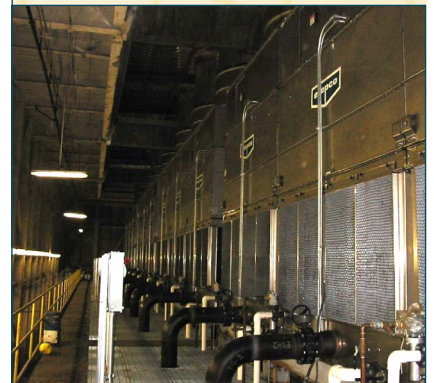
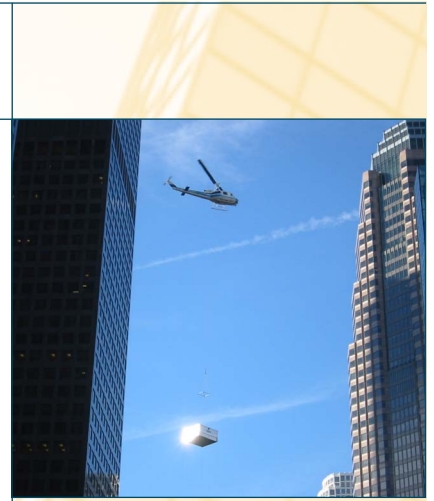
This client chose EMCOR Services Mesa Energy Systems because of the company's extensive experience in performing complex air conditioning system retrofits on a turnkey basis. From the start, Mesa Energy faced two challenges. First, the building's cooling had to be maintained while the cooling towers were being replaced. And second, the units were located at the top of one of the city's tallest buildings, necessitating the use of a helicopter to lift the new units above Los Angeles' busy streets.

To address the first challenge, Mesa Energy demolished and removed half of the existing cells, leaving the remaining cells to continue cooling the building. After mounting seismic isolation bases and springs, Mesa Energy installed two induced-draft counterflow cooling towers. The units were ordered in multiple sections weighing less than 3,500 pounds, so they could be lifted by helicopter. Mesa Energy made all arrangements for the helicopter operation, including obtaining street closure permits, security personnel, and contracting for trucking support services. To minimize disruption to building operations and ensure maximum safety, the company dismantled the old equipment and removed it utilizing the buildings freight elevators after hours. Mesa Energy orchestrated the two helicopter lifts on Saturdays when building occupancy and street traffic were reduced.

Each tower included three cells, each fan driven by a 40-horsepower, 460-volt variable frequency drive. Mesa Energy provided temperature controls through an interface to the building's DDC system, enabling monitoring of the system operation and energy consumption and operating cost reductions. Mesa Energy installed new fan disconnect switches, water piping, two tower cleaning systems, walkway gratings, and stainless steel exhaust ducting from each cell up through the roof. After the tower installation, Mesa Energy performed start-up and commissioning services for the first two towers and completed the same work for the second half of the cooling towers before turning the completed project over to the owner.

## BACKGROUND

City National Plaza encompasses an entire city block in the financial area of Los Angeles' central business district. Completed in 1972, it consists of two 51-story office towers, one plaza level building, and four subterranean levels, comprising in total more than 2.6 million square feet of rentable space.



*Mesa Energy Systems is a licensed full-service HVAC, building automation, and retrofit contractor with a reputation for combining high-quality consulting services with efficient, cost-effective customized energy solutions.*

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