Helios Plaza

201 Helios Way



General Building Data

| Size: | 423,500 GSF |
|------------|---------------------------|
| Height: | 113' |
| Occupancy: | Office, Conference Center |



Structure

Framing System: 24 in² concrete columns and posttensioned concrete girders with cylindrical steel columns and long span steel W-shapes.

Lateral System: Concrete moment frames in combination with rigid diaphragm floor system.

Floor System: Two systems typically used. Composite 20 gage decking with lightweight concrete topping and one-way pan joist systems.



Owner: BP p.l.c. Architect: Gensler CM: Bovis Lend Lease Construction Ltd Structural: Walter P. Moore & Associates, Inc. MEP: I.A. Naman + Associates, Inc. Vertical Transportation: Persohn/Hahn Associates, Inc. Security: CPP and Associates CHPP: Turbine Air Systems

Architecture

The design principle is based upon functional, pragmatic design. Utilizing a simple box shape, the building is built in a three stack design to accommodate for two-story trading floors. A true campus environment is achieved by incorporating large expanses of Katy Prairie land in addition to multiple International Cafes on every floor of the six-story complex.

MEP Systems

Mechanical: VAV systems with 555,500 CFM exchange rate. 5 MW natural gas fired combined heat and power system in combination with chillers.

Electrical: 3φ 208Y/120V service voltage. 2 UPS Systems with 3-500kVa modules.



Foundation: Spread concrete footings with 4000 psi strength.

Lighting: Aggressive lighting scheme with high efficiency direct/indirect fixtures. 82% of regularly occupied spaces day lit.

Kevin Zinsmeister

http://www.engr.psu.edu/ae/thesis/portfolios/2011/kzz5000/

Structural Option