

INDIANAPOLIS INTERNATIONAL AIRPORT PARKING GARAGE, INDIANAPOLIS, IN

OWNER:
Indianapolis Airport Authority

ARCHITECT:
Browning Day Mullins
& Dierdorf, Inc.

STRUCTURAL ENGINEER:
Fink, Roberts and Petrie, Inc.
Indianapolis, Indiana

GENERAL CONTRACTOR:
Geupel Demars, Inc.

CONSTRUCTION MANAGER:
Glenroy Construction
Company, Inc.

Two complete sets of structural plans were issued for bidding on the new parking structure at the Indianapolis International Airport. The new structure provides parking for 1,850 cars on 5 levels. Bids submitted for the cast-in-place post-tensioned, and the precast, prestressed alternates were as follows:

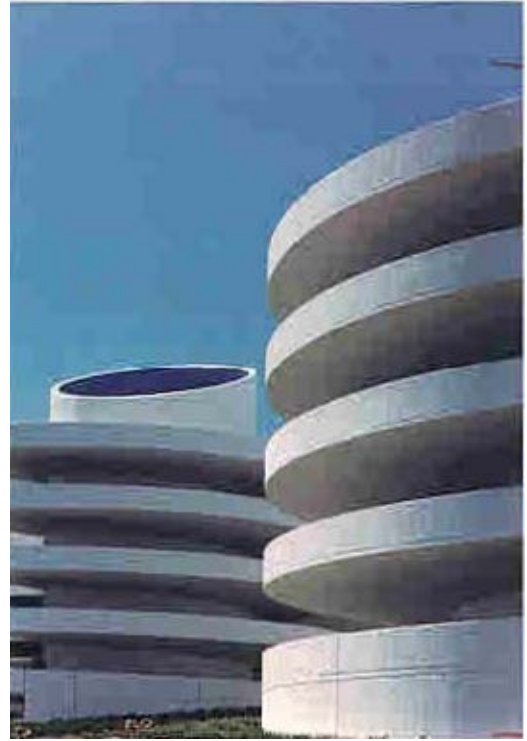
Cast-in-Place Post-Tensioned:

\$7,580,000 7,594,000 7,683,000

8,387,938

Precast: \$8,060,008 8,178,000 8,568,000

The \$480,000.00 savings provided by the cast-in-place post-tensioned frame represented about \$1.00 per square foot for the supported levels. In addition to the lower construction cost, the post-tensioned concrete system was also preferred for durability and lower maintenance costs.



STRUCTURAL SYSTEM

The cast-in-place framing is a post-tensioned, one-way slab and beam system with the beams spanning 62'. Since the structure is on a curve, the span of the 6" and 7" slabs varies from 14' to 27'.

The two helical ramps consist of post-tensioned slabs cantilevering 20' from a 20" thick core wall. The slab thickness varies from 6" to 20". An additional level was included in the design of the ramps. This level acts as a roof protecting the entire driving surface from direct exposure to rain and snow.

All reinforcing within the garage parking decks and ramps, as well as all post-tensioning anchors, are epoxy-coated.