

DOUGLAS PARKING STRUCTURE, LONG BEACH, CALIFORNIA

OWNER:

McDonnell Douglas
Realty Company
Long Beach, California

ARCHITECT:

Teng Li and Associates
Pasadena, California

STRUCTURAL ENGINEER:

Bijan, Florian & Assoc., Inc.
Redwood City, California

CONTRACTOR:

Saffell & McAdam, Inc.
Irvine, California

The Douglas Parking Structure consists of three two-way traffic flat drive isles with double loaded 90 degree parking. One exterior bay is typically one-half level lower than the remainder of the structure. The split level is connected by two speed ramps, up and down. The structure measures 189' x 595' in plan. Attractive exterior cast-in-place stairs echo architectural expression of the adjacent office building.

Cast-in-place post-tensioned two-way flat slab floors provide parking on seven levels. The slabs are supported by site-cast rectangular concrete columns. The lateral support of the garage is provided by cast-in-place shear walls in each direction. Due to its excessive length, the structure is separated into two parts by one expansion joint.

To reduce the dominating effect of the large parking structure, an important architectural requirement was to lessen the total building height. This was achieved by use of cast-in-place post-tensioned flat slab floors. The flat slab provided a critical 13 foot reduction in height compared to the precast alternative, and proved to be the most economical solution.

