

## SANDS HOTEL/CASINO RED CARPET PARKING STRUCTURE, ATLANTIC CITY

### **OWNER:**

Sands Hotel/Casino  
Atlantic City, N.J.

### **ARCHITECT:**

David Jacobson Associates  
Atlantic, NJ

### **STRUCTURAL ENGINEER:**

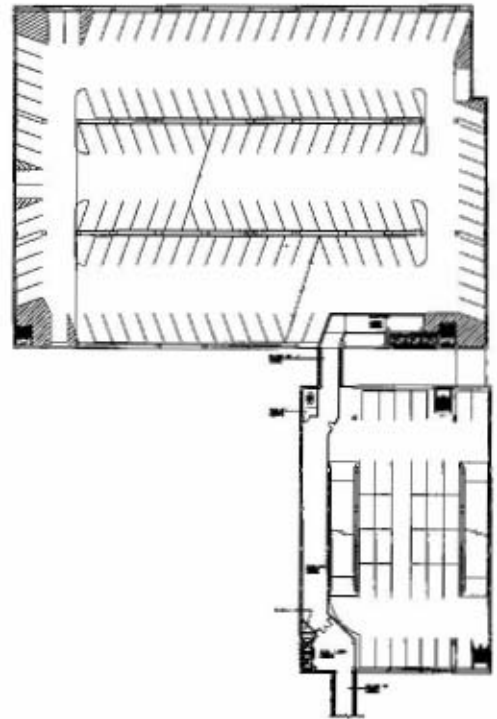
Cagley & Harman, Inc.  
King of Prussia, PA

### **CONTRACTOR:**

J. J. Nugent Co. (General  
Contractor and Concrete  
Contractor)  
Northfield, N.J.

In 1985, the Sands Hotel/Casino chose to expand its existing Atlantic City, N.J. casino complex with 650,000 square feet of structured parking. A large building on a limited site, the proposed parking structure presented multiple design challenges. Not least among these challenges was an accelerated, ten-month building schedule.

One of the first hurdles was the Atlantic City zoning code, which calls for low-rise buildings on the proposed site. The Sands Hotel/Casino, however, sought an eleven story structure, and thus the design team was required to propose a variance. The variance was required to show the Sand's commitment to reducing the structure's height, without compromising the integrity of the building program. The properties of post-tensioned concrete (which allows for minimal beam depths and floor to floor heights) made such a proposal feasible.



The Sands Hotel/Casino Parking Structure occupies every available square foot of its site, and an adjacent site offered only limited staging, storage and erection space. For these reasons, the design team dismissed structural systems of multiple or prefabricated construction components (ie., precast concrete) as infeasible. The modular, repetitive formwork specified for the Sands Hotel/Casino Parking Structure was in continuous use throughout construction and did not require a storage area at the job site.

The Sands Hotel/Casino Parking Structure is an eleven story cast-in-place post-tensioned concrete beam and slab system. There are two separate buildings connected by pedestrian and traffic bridges. The self park structure has a 59' clear span typical bay. The valet structure has a 57' clear center bay and short spans in the side bays to accommodate the ramp system.