

# SHOCKEY

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## Gaylord National Harbor Resort and Convention Center – Case Study

The Peterson National Harbor Center is a 300-acre site located on a 1 ¼ mile waterfront stretch of the Potomac River in Prince George, Maryland. National Harbor is home to 7,000,000 square feet of fine restaurants, shopping, office space, lavish residences and hotels, including the Gaylord National Harbor Resort and Convention Center. The Gaylord National Harbor Resort is the largest non-gaming hotel and convention center on the east coast and the largest hotel in Washington D.C.

In the fall of 2005, The Shockey Precast Group began reviewing parking structure plans for the Gaylord National Harbor Resort and Convention Center with Perini/Tompkins a Joint Venture, general contractor; Gaylord Entertainment Company, owner; and Cagley, Harman and Associate, Engineer. Shockey was awarded the parking structure project in December 2005.

## GAYLORD NATIONAL HARBOR RESORT AND CONVENTION CENTER PROJECT TEAM

### Architect

Gensler Architects  
Washington D.C.

### Structural Engineer

Cagley, Harman and Associates  
King of Prussia, PA

### Owner

Gaylord Entertainment Company  
Nashville, TN

### Precaster

The Shockey Precast Group  
Winchester, VA

A number of different parking structure configurations were considered in order to maximize the optimal number of parking spaces. The approved design specified a 247,700 SF, six-level structure to provide 1,933 parking spaces for staff and visitors to the Gaylord National Harbor Resort and Convention Center. The upper five levels of the parking structure were constructed of precast components produced by Shockey at its Fredericksburg and Winchester plants. Shockey manufactured and erected 12' x 30" double tees with a 4" flange, 12' x 30" double tees with a 4" flange, 8" flat slabs, 10" thick walls, stair units, columns with architectural finish, L-beams, 24" x 36" inverted-tee beams, 10" thick prestressed spandrels with an architectural finish and 10" thick prestressed vertical ramp walls for 6' stems.

The parking structure's architectural precast features included horizontal ribs on spandrels and exterior elevator wall panels, column covers and a planter on the north end of the garage roof. The exterior of the parking structure required architectural mix design and finishes be consistent with those of the Hotel and Convention Center.

Despite the expansive project site, the parking structure site was fairly congested and offered limited access for Shockey erection crews. The use of precast rather than CIP concrete enabled the building to be constructed within its own footprint. The proposed schedule was very restrictive regarding Shockey's activities and schedule during the construction process. The use of precast allowed the majority of the work to be performed at Shockey's manufacturing facility, which enabled Shockey to meet the schedule's restraints.

While the parking structure was being erected, construction was also underway on the Gaylord National Harbor Resort and Convention Center. The number of construction crews and amount of simultaneous construction activity added a significant challenge to the overall flow of the parking structure project; however, Shockey's expert engineering, project management, and erection team maintained consistent and clear communication to ensure a smooth and successful work flow despite the added challenges.



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