

W Hotel

San Francisco, California

Architectural precast concrete panels were used to beautify the entire façade of this prestigious 33-story building in downtown San Francisco.

Rising to a height of 320 ft (97.6 m), this 33-story hotel building is considered to be one of the most beautiful structures to grace the famous San Francisco skyline. At the time of its completion three years ago, the W Hotel was the tallest concrete building in the city. It has since been eclipsed by the 39-story Paramount, a precast, prestressed concrete building.

Located on 181 Third Street, the hotel is situated next to the San Francisco Museum of Modern Art and the Moscone Center. Because of its proximity to such important cultural facilities, the architects generated a podium and tower design with boldly massed pure forms articulated to reflect a latent classical appearance. A major emphasis was placed on aesthetics and the need to minimize shadows on ad-

jacent buildings. The concern for visual appeal led the architects to choose architectural precast concrete panels for cladding the building.

The building stands on a very tight 140 x 160 ft (42.7 x 48.8 m) site. The gross area of the interior space is 290,000 sq ft (27000 m²). The facility contains 425 rooms.

To minimize shadows on adjacent buildings, a slender guest room tower



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with an L-shaped plan was built on the eastern side of the site. Beneath the tower, there is a partial single basement level. The building's first four levels (the podium) cover all but the northern 15 ft (4.57 m) of the site. The podium contains a reception level, conference rooms, two gourmet restaurants, administrative office, swimming pool, spa and other recreational facilities.

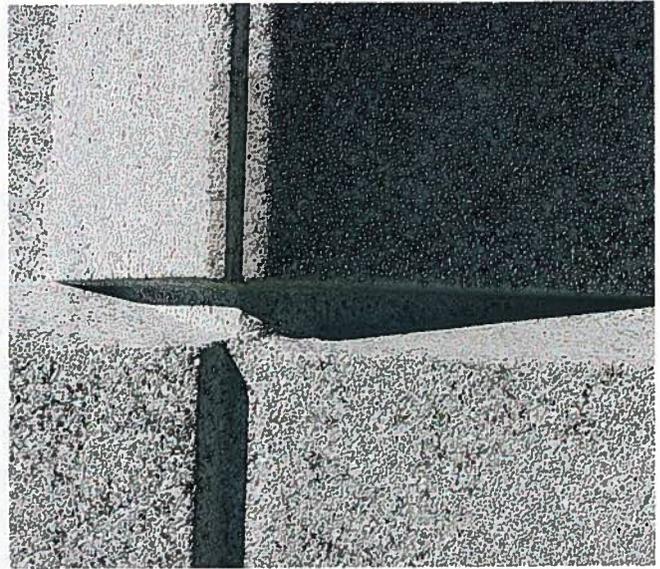
The core structure of the building is a cast-in-place concrete moment resisting frame with interior shear walls. The structure was designed to satisfy Seismic Zone 4 requirements.

The design team felt very strongly that architectural precast concrete would be the ideal material to clad the concrete frame. The following design features were built into the precast panels:

- Two three-story, six-sided full column wraps at the main entry consisting of ten separate precast panels each, with "peribonka" black granite cladding.
- Fully integrated precast panels with polished and thermal finished granite wainscot, horizontal one-quarter round ogee detail around the entire perimeter.
- All three-story window wall/store-



Sandblasting of wall panel assembly.



Closeup of sandblasted finish.

front openings granite piped with large, 2 ft 6 in. to 5 ft (0.76 to 1.52 m) deep returns.

- Panels literally cling to structure, maximizing useable interior space.
- Several vents were installed through the precast head portion of the tower panel system to deliver outside air to the respective floors.
- Large cornice panels at fourth floor slope back into the building, drawing water on to the balcony or through piping installed in the panel, thus diverting water from traveling down the face of the building.
- All of the 3 in. (76 mm) wide, 2 in.

(51 mm) deep reveals at the lower level required special, light sandblasting.

- At typical floors, there are 18 different geometrical patterns out of 24 panels.
- One major result of the panel design is the creation of very strong, deep shadows to give the building additional elegance and character, and provide excellent lines for exterior lighting.

Over 1500 precast panels, comprising a total surface area of 166,100 sq ft (15,500 m²), were used to clad the exterior facia. These included span-

drels, flat wall panels, column covers, cornice panels and beam covers. Panel sizes varied from 1 ft 6 in. to 32 ft (0.46 to 9.75 m) in width to 19 ft 4 in. (5.89 m) in height.

The precast components were manufactured by Clark Pacific at their plant in West Sacramento, California. The pieces were shipped by truck-trailer to the project site – a distance of about 85 miles (137 km).

The total cost of the project was about \$48 million. The cost of producing, transporting and erecting the precast panels was \$4.4 million.

The building was completed in May



Hoisting of flying form.



Richly articulated façade of building.



The area around the W Hotel has become a great place to relax and enjoy the scenery.

1999 and occupied soon thereafter. During the past three years, the facility has become increasingly popular with the city's residents and tourists alike, and the building has become a well-recognized landmark.

Owner: Hampshire, LLC, Starwood International Resorts & Lodging, San Francisco, California.
Architect: Hornberger & Worstell, San Francisco, California.
Structural Engineer: Middlebrook +

CREDITS

Louie, San Francisco, California.
General Contractor: Webcor Builders, Inc., San Mateo, California.
Precast Concrete Manufacturer: Clark Pacific, West Sacramento, California.