

# *JW Marriott*

*Grand Rapids, MI*

*Greg Kochalski*

*Structural*

## ***Project Team***

Owner: Alticor Inc. – HP3, LLC.

General Contractors:

Rockford Construction Co.,  
Pepper Construction Group

Architects: Goettsch Partners,  
BETA Design Group

Engineers: Thornton Thomassetti  
Cosentini Associates  
Fishbeck, Thompson, Carr, Huber.

## ***Structural***

Highrise: Concrete

Two way reinforced slab 9.5 in. typ.  
24 in. reinforced columns typ.  
provide gravity load resistance.  
4 concrete shear walls located within  
the elevator core provided lateral force  
resistance.

Lowrise: Steel

Columns/composite beams provide  
gravity load resistance, W shape typ.  
Diagonally braced frames provide  
lateral force resistance, HSS typ.

## ***Architecture***

24 story multi-use facility including:  
parking garage, business center,  
restaurant/lounge, and fitness center.  
Large aesthetic benefits from absence of  
perimeter columns that maximize guest  
views.

Glass cladding and elliptical shape creates a  
strong presence in the conservative  
Grand Rapids skyline.

Heated helipad on tower roof.

## ***Mechanical***

24th floor mechanical penthouse.  
Snow melting zones located on walkway,  
driveway, and helipad that total over  
42,000sf.

100% Outdoor heat recovery for atrium  
and guest rooms from 2 AHU's.

23,130 CFM supply to guest rooms.  
15,120 CFM supply to atrium.

## ***Electrical***

Distribution at 480/277 and 208/120,  
3 phase 4 wire typ.

Guest room voltage at 208/120.

Tower busway 480/277V 1600A.

Transformers every 3rd floor typ.  
at 300kVA, 480-120/208V.

431,730 service demand VA.

(4) 208/120, 3 phase, 4 wire, 100A  
emergency lighting switchboards.