PARKING STRUCTURE COST OUTLOOK FOR 2018
BY GARY CUDNEY, PE, SENIOR VICE PRESIDENT, WGI

Carl Walker, Inc. has prepared this annual statistical analysis of parking structure construction costs and new parking structure market forecast for many years. Last year, Carl Walker, Inc. was acquired by WGI, an ENR Top 500 engineering and consulting firm specializing in transportation engineering, civil engineering, surveying and mapping, structural engineering, parking planning and design, architecture, subsurface utility engineering, landscape architecture, land planning, environmental sciences, water resources, and creative services.

Over the past year, the WGI Parking Division operated as Carl Walker, a division of WGI. The integration of Carl Walker into WGI is now complete and we have many projects incorporating services from multiple WGI divisions; therefore, going forward, we will operate only under the WGI name. The Parking Solutions Division of WGI will continue to specialize in parking structure design, structural engineering, parking studies, parking operations consulting, and restoration of parking structures, plazas, facades, and other buildings just as Carl Walker did.

We maintain a database of completed parking structure projects and have developed a methodology to analyze the historical cost information to assist our clients and the industry. Our construction cost database contains hundreds of completed parking structure projects of varying size, scope, and geographic location. For this forecast, we only omit the cost of parking structures that are completely or significantly below grade, since the cost of such structures is much higher. The cost data is assigned factors based on the time of bidding and location of the parking structure. The time factor is based on the Building Cost Index (BCI), published by Engineering News-Record (ENR). The location factor is taken from the yearly edition of the RS Means Building Construction Cost Data. Applying these two factors to actual construction cost data adjusts the cost to a current national basis and from that we determine the national median. The national median can then be re-adjusted to reflect a median construction cost in almost every city in America.

As of March 2018, our statistical data indicates that the median construction cost for a new parking structure is $20,450 per space and $61.52 per square foot, increasing 3.8% from March, 2017 when the median cost was $19,700 per space based on our historical database. This is the first year where the median cost per parking space topped $20,000. The table below lists the 2018 median parking structure construction cost in various U.S. cities with the lowest in Miami, the highest in New York City, and Portland, OR is right at the national average.

Four level vertical expansion of an existing six level parking structure that was not originally designed for expansion.
It should be noted that the construction cost data does not include costs for items such as land acquisition, architectural and engineering fees, environmental evaluations, materials testing, special inspections, geotechnical borings and recommendations, financing, owner administrative and legal, or other project soft costs. Soft costs are typically about 15% to 20% of construction costs, but can be higher for owners who allocate their internal costs directly to the project.

FOR COMPARISON, A MEDIAN COST PARKING STRUCTURE TODAY TYPICALLY INCLUDES SUCH FEATURES AS:

- 8’-6” to 8’-9” wide parking spaces
- Precast concrete superstructure
- Precast concrete façade with a basic reveal pattern
- Glass backed elevators and unenclosed stairs clad with exterior glass curtain wall
- Basic wayfinding and signage
- Shallow spread footing foundations
- All above grade construction
- Open parking structure with natural ventilation without mechanical ventilation or fire sprinklers
- Little or no grade level commercial space
- Basic parking access and revenue control system
- Energy efficient fluorescent or LED lighting

THE CONSTRUCTION COST OF THE PARKING STRUCTURE TODAY WOULD BE HIGHER THAN THE MEDIAN IF IT INCLUDES SUCH ENHANCED FEATURES AS:

- 9’-0” wide parking spaces for better user comfort
- Cast-in-place post-tensioned concrete superstructure for lower maintenance
- Attractive façade with adorned precast, brick, metal panels and other materials
- ParkSmart Certification following the Green Business Certification, Inc (GBCI) program (formerly Green Garage Certification by the Green Parking Council)
- Energy efficient LED lighting with occupancy and photocell computer controls
- Custom wayfinding and signage system
- Storm water management including onsite retention/detention
- Deep foundations such as caissons or piling
- Below grade construction
- Enclosed stair towers due to local code requirements
- Enclosed parking structure without natural ventilation where mechanical ventilation and fire sprinklers are required
- Grade level commercial space
- Mixed-use development where the parking is integrated with office, retail, residential, or other uses
- State-of-the-art parking access and revenue control system
  - License plate recognition
  - Parking guidance system
  - Count system with variable message LED signs
  - Pay-on-foot stations
- Wi-Fi and cellular services
“The construction market currently is as robust as it has been in a decade, and it seems the near-term prospects continue to be positive.” Likewise, construction of mixed-use and stand-alone parking structures should see continued growth in the near term as construction spending in the institutional sector (e.g., city governments, higher education, and healthcare) is predicted to grow almost 4% during 2018 and 2019 and growth in the commercial, office, and retail sectors are predicted to be about 4.5% during 2018 and 3% for 2019.

Over the past few years, there has been some concern that projected economic growth would lead to escalation of construction costs and longer construction schedules due to labor shortages in construction trades and professional positions and as construction companies increased margins. However, the ENR Building Cost Index increased just 2.6% from March 2017 to March 2018 while the Turner Construction’s Turner Building Cost Index rose 5.0% over the same period. The Consumer Price Index for All Urban Consumers (CPI-U) rose 2.4% for the 12 months ending March 2018, indicating construction inflation reported by both the ENR and Turner indexes exceeded consumer inflation over the same period.

INDUSTRY EXPERTS RECENTLY REPORTED THE FOLLOWING ON CONSTRUCTION ACTIVITY:

• The American Institute of Architects (AIA) chief economist Kermit Baker, PhD stated that “Construction spending for nonresidential buildings is projected to increase 4 percent this year and continue at that pace of growth through 2019...when the institutional sector will dominate the projected construction growth.” While there has been fluctuation and regional differences in the AIA Architectural Billings Index (ABI), AIA further reports that “The majority of architecture firms are still continuing to experience improving business conditions for both inquiries and the value of new design contracts.”

• The AIA also compiles a Consensus Construction Forecast based on predictions of seven leading non-residential construction forecasters in the U.S. The Consensus Construction Forecast indicates the non-residential building construction industry is expecting continued growth the next two years, but at a lower rate than projected the past couple of years. After an unexpectedly low 2.5% growth in nonresidential construction during 2017 when 5.6% was projected, the consensus panel projects about 4.0% growth for both 2018 and 2019, with increases in activity projected for the office sector of 4.6% (2018) and 3.0% (2018), healthcare sector of 4.0% (2018 & 2019), and education sector of 4.0% (2018) and 4.9% (2019).

• Turner Construction’s Turner Building Cost Index which tracks construction cost escalation rose 5.0% during 2017. Their 2017 Fourth Quarter Forecast states that “The busy construction market, shortages of skilled labor, and the impact of natural disasters on material production and demand are putting upward pressure on construction costs.” Additionally, the Turner 2018 First Quarter Forecast indicates a 1.23% increase in costs for the quarter and that “In a construction market that continues to show high levels of activity, the first quarter saw modest growth in raw material prices. Additionally, we are seeing a surge in steel driven by rising demand and limited offshore supply.”

• The ENR recently reported their first quarter 2018 Construction Industry Confidence Index (CICI) increased to 73 points on a scale of 100 compared to 76 at this time last year and 71 the fourth quarter of 2017. There is optimism for 2018 considering “Of the 281 executives of large construction and design firms responding to the survey, most believe market growth will continue at least through the end of 2018.”

To accommodate future high-rises for Ann Arbor’s redevelopment, the 10-foot thick foundation for this project required one of Michigan’s largest continuous concrete pours, taking more than 36 hours.
SUMMARY

The sustained growth in architectural firm backlog reported by the Architectural Billings Index (ABI) is a positive indicator for near-term growth in the construction of parking structures. In the absence of any major political or economic event, construction activity is forecasted to grow about 4% the next two years, including the institutional and commercial sectors that traditionally build parking structures.

With the high level of construction activity, rebuilding due to the impact from the record natural disasters in 2017, and higher steel prices caused by the recent new tariffs, project costs are expected to escalate to a greater level than the projected increase in material and labor costs would indicate. Further, with unemployment being below 4%, shortages of skilled construction workers could restrain market growth and raise construction inflation greater than consumer inflation over the next two years, as well as lengthen project schedules. We are seeing such issues on some of our projects.

The parking professionals at WGI are happy to assist with budgeting of your next parking structure. If you have any questions or would like specific cost information for your area, contact Gary Cudney at Gary.Cudney@WGInc.com or 800-FYI-PARK (800-394-7275).

REFERENCES


