



WGI[®]
**PARKING STRUCTURE
COST OUTLOOK
FOR 2024**

Charlotte Area Transit System, Lynx Blue Line Extension, University City Boulevard Station Parking Structure | Charlotte, NC

Ideas for parking. SOLUTIONS FOR **PEOPLE** 



Kansas City International Airport New Terminal Parking Structure | Kansas City, MO

With more than four decades in the parking consulting business, WGI provides industry-leading insight into the design, construction, operation, and maintenance of parking facilities and systems. Our annual Cost Outlook, first published in 2006, has been downloaded by thousands of owners, contractors, and design professionals to serve as an important planning and budgeting tool.

WGI maintains a database of completed parking structure projects, and we analyze the historical cost information and publish the findings to assist our clients and the architecture, engineering, and construction profession. Our construction cost database contains hundreds of completed parking structure projects of varying size, scope, and geographic location. For this forecast, we omit the cost of statistical outliers, including those parking structures that are entirely or significantly below grade since their construction cost is usually significantly higher.

The cost data that we utilize for our study are 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 Gordian Building Construction Costs with RS Means Data. Applying these two factors to actual construction cost data adjusts it to a current national basis, and from that we determine a national median. The national median construction cost can then be factored to an equivalent median cost in almost every city in the United States.

As of May 2024, our statistical data indicate that the median construction cost for a new parking structure is \$29,900 per space, or \$89.45 per square foot, a 3.1% increase over 2023 when the median cost was \$29,000 per space. The table below lists the 2024 median parking structure construction costs in various U.S. cities with the lowest cost in Dallas, the highest in New York, and Kansas City, MO nearest the national median of 100.0.

It should be noted that the construction cost data do not include costs for items such as land acquisition, architectural and engineering fees, environmental evaluations, materials testing, special inspections, geotechnical investigations, financing, owner administrative and legal fees, jurisdictional permitting, or other project soft costs. Soft costs typically add about 15% to 25% to the actual construction costs. Note also that the



Indiana University, Luddy Artificial Intelligence Center and Parking Garage | Bloomington, IN

2021 edition of the International Building Code (IBC) requires automatic fire sprinklers for all garages with footprints exceeding 48,000 square feet or with floors more than 55 feet above the grade level, regardless of their openness. Most of the parking structures in our database predate the adoption of 2021 IBC, and while our analysis does include fire-sprinklered facilities, the median cost generally does not reflect the cost of a fully sprinklered garage. Additionally, a growing number of jurisdictions require parking facilities to provide for electric vehicle (EV) charging. In certain areas, requirements for EV charging can be up to 100% of the parking spaces serving multifamily residential and up to 25% of the parking spaces serving commercial buildings. WGI incorporated EV charging into many of our garages over the past 15+ years, but EV spaces historically made up only 1% to 2% of the total, at most. When considering the cost of a parking structure in a jurisdiction requiring significant investment in EV charging, owners must factor in the cost accordingly.

FOR COMPARISON, TODAY'S MEDIAN-COST PARKING STRUCTURE TYPICALLY INCLUDES:

- 8'-6" to 8'-9"-wide parking spaces
- Precast concrete superstructure
- Precast concrete façade with simple architecture
- Glass-backed elevators and unenclosed stairs clad with exterior glass curtain wall
- Standard wayfinding and signage
- Shallow-spread or strip-footing foundations
- All above-grade construction
- Open parking structure with natural ventilation; without mechanical ventilation or fire sprinklers
- Minimal or no grade-level commercial space, and no occupancies other than parking within the building
- Conventional parking access and revenue-control system
- Standard energy efficient LED lighting

CONSTRUCTION COST 2024

▲ 3.1% FROM 2023

CITY	INDEX	COST/SPACE	COST/SF
Albuquerque	89.8	\$26,850	\$80.33
Atlanta	91.2	\$27,269	\$81.58
Birmingham	89.2	\$26,671	\$79.79
Boston	112.4	\$33,608	\$100.55
Charlotte	88.6	\$26,491	\$79.26
Chicago	117.2	\$35,043	\$104.84
Cincinnati	91.1	\$27,239	\$81.49
Cleveland	94.9	\$28,375	\$84.89
Denver	91.8	\$27,448	\$82.12
Dallas - Lowest	85.2	\$25,475	\$76.21
Detroit	99.1	\$29,631	\$88.65
Houston	86.6	\$25,893	\$77.47
Indianapolis	92.0	\$27,508	\$82.30
Jacksonville	86.5	\$25,864	\$77.38
Kansas City, MO - Median	100.0	\$29,900	\$89.45
Las Vegas	106.7	\$31,903	\$95.45
Los Angeles	112.5	\$33,638	\$100.64
Miami	88.7	\$26,521	\$79.35
Minneapolis	106.7	\$31,903	\$95.45
Nashville	89.5	\$26,761	\$80.06
New Orleans	88.6	\$26,491	\$79.26
New York - Highest	127.4	\$38,093	\$113.96
Oklahoma City	88.1	\$26,342	\$78.81
Philadelphia	114.3	\$34,176	\$102.25
Phoenix	90.8	\$27,149	\$81.22
Pittsburgh	102.0	\$30,498	\$91.24
Portland, OR	101.4	\$30,319	\$90.71
Richmond	88.6	\$26,491	\$79.26
St. Louis	98.5	\$29,452	\$88.11
Salt Lake City	91.4	\$27,329	\$81.76
San Diego	109.6	\$32,770	\$98.04
San Francisco	126.0	\$37,674	\$112.71
Seattle	105.9	\$31,664	\$94.73
Tampa	88.0	\$26,312	\$78.72
Washington, D.C.	98.0	\$29,302	\$87.67
National Median	100	\$29,900	\$89.45

OVERALL PARKING STRUCTURE CONSTRUCTION COST WOULD BE GREATER THAN THE MEDIAN IF IT INCLUDES THESE ENHANCED FEATURES:

- 9'-0" or wider parking spaces for improved user comfort
- Cast-in-place post-tensioned (PT) concrete superstructure for lower maintenance costs (note that PT construction may be more economical in some markets)
- Architectural façade with ornate precast, brick, metal panels, and other materials
- Stormwater management, including on-site 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 is required
- Fire sprinklers
- Flexibility for future parking / building expansion, or incorporation of roof-level solar panels

COST DRIVERS: Features Impacting the Cost of a Parking Structure



- Service life in northern / coastal regions beyond a standard 50 to 60 years
- Design for future adaptive reuse as detailed in WGI's Flexpark® planning model
- Grade-level commercial space
- Mixed-use development where parking is integrated with office, retail, residential, or other occupancy
- Custom wayfinding and signage system
- ParkSmart® Certification following the Green Business Certification, Inc. (GBCI) program
- Energy efficient LED lighting with occupancy and photocell computer control system
- Facilities that are EV Capable, EV Ready, or have EV charging stations installed
- Enhanced parking technology, including:
 - License-plate recognition
 - Parking-guidance system
 - Car-count system with variable-message LED signs
 - WiFi and cellular services
 - Solar-energy collection
 - Building management system

PARKING INDUSTRY 2024 CONSTRUCTION ECONOMIC FORECAST

Headlining our construction cost forecast is the very positive news that 2023 witnessed some moderation in price increases for most construction materials, including steel, concrete, aluminum, and copper. Despite that welcomed news, the American Institute of Architects (AIA) reports that construction inputs are, and will remain, 35% to 40% higher than the early 2020 rates. Regional population changes due to domestic migration, interest rates, wage inflation, and lack of skilled labor have all contributed to maintaining these cost increases.

According to Dodge Data and Analytics 2024 Construction Market Forecast (Dodge), as reported by Equipment World, cost data demonstrates that building materials prices contracted somewhat compared to 2022 and 2023. Factors still put upward pressure on construction costs, including persistent currency inflation and a lack of skilled labor.

Dodge reports that high inflation and the Federal Reserve's resulting tighter monetary policies put a damper on the commercial construction market. Office and retail will see the most pronounced negative impacts, resulting in a forecasted drop of 2% overall in the commercial construction market. The American Institute of Architects (AIA) echoes that statement, suggesting that tighter credit conditions are an increasingly cited reason for building projects not moving ahead. AIA is predicting somewhat weaker growth in 2024

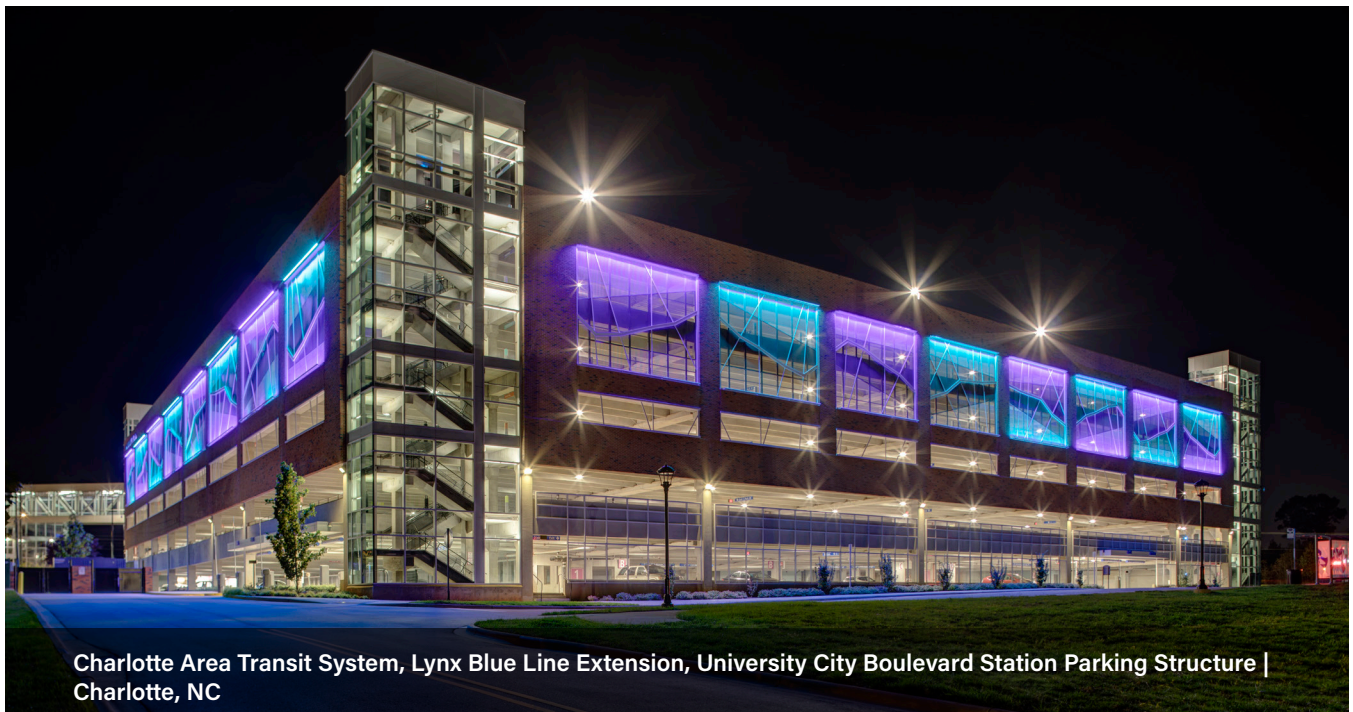


City of Georgetown Austin Avenue Parking Garage | Georgetown, TX

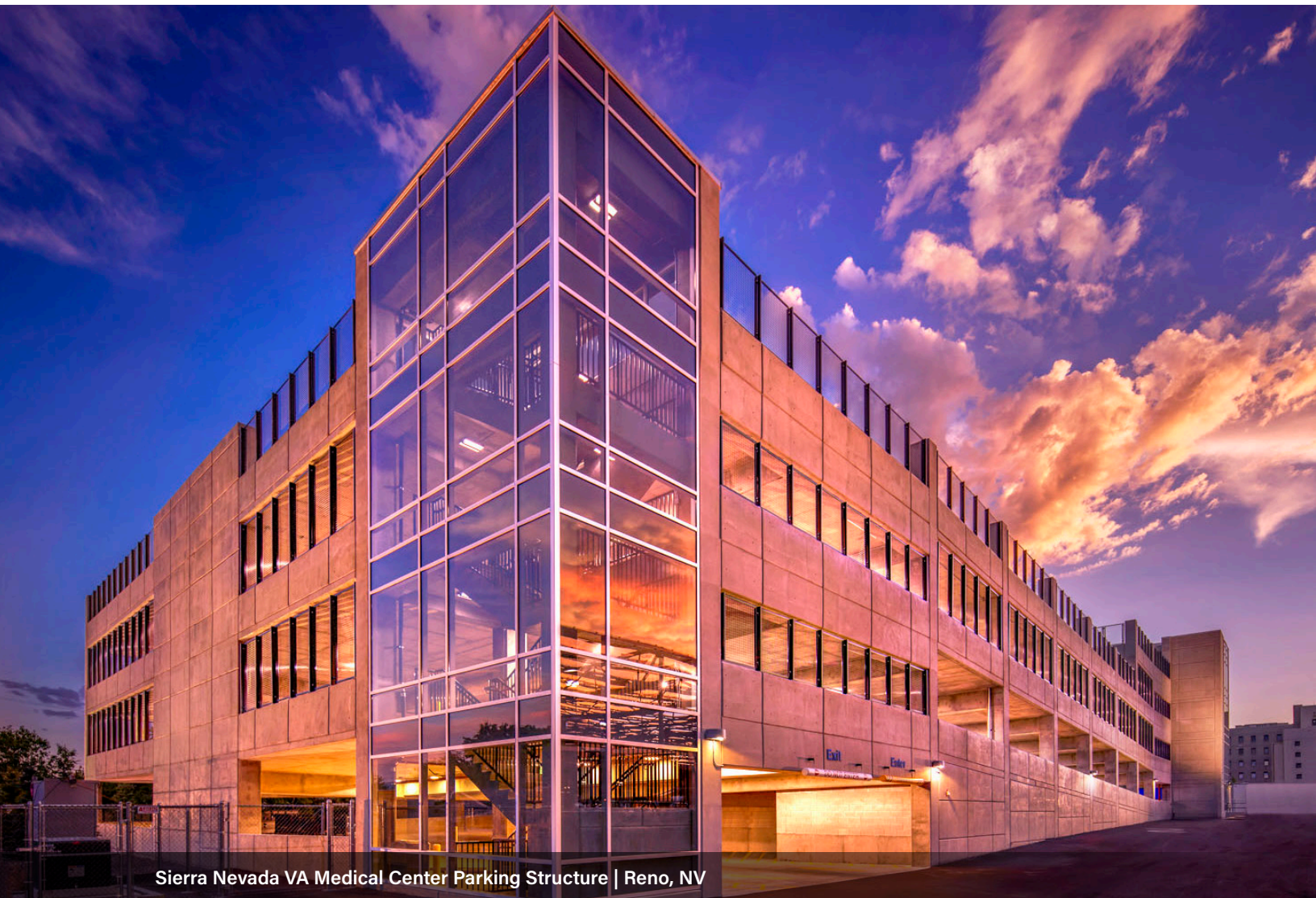
than in the preceding years, with a forecast of 4% growth in the non-residential building sector after increasing by more than 20% last year. The Portland Cement Association (PCA) estimates that overall cement consumption, a key component of parking structure construction, will continue to weaken in the first half of 2024 after overall cement consumption experienced its first demand decline in 13 years in 2023. The PCA, nevertheless, anticipates a very modest recovery in the second half of the year.

At the same time, Dodge forecasts that the non-building infrastructure market is expected to see a 7% increase in spending in 2024 due largely to federal legislative initiatives. Meanwhile, Turner Construction reported a 4.73% annual increase in the non-residential building construction market in its Fourth Quarter 2023 Turner Building Cost Index. When factoring in bridge, road, and multifamily construction starts, Dodge predicts overall net construction starts to rise by 7% in 2024.

Domestic migration patterns continue to impact construction costs on a regional basis. According to the U.S. Census Bureau, southern states experienced faster growth in 2023 than in the record-setting growth of 2022. People continue to move from California, New York, and Illinois to Florida, Texas, and Arizona, although population losses in the northeast and Pacific coast moderated, and midwestern states other than Illinois grew somewhat. The Census Bureau numbers are supported by the National Van Lines Domestic Migration Report. Finally, domestic economic uncertainty affects rising energy prices caused by global conflicts in Ukraine and the Middle East that cannot be accurately predicted during such volatility.



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Sierra Nevada VA Medical Center Parking Structure | Reno, NV

SUMMARY

How does this affect the construction of new parking structures and the median construction cost for these facilities in 2024 and the near term? We anticipate parking structure costs to increase modestly in 2024 due to continued inflation, energy costs, and labor cost pressures. The cost increases will be less dramatic than in previous years because of demand moderation caused primarily by tighter monetary conditions.

While we believe that nearly all the major metropolitan markets will see an increase in the construction cost of parking facilities from 2023, those increases will not be distributed as evenly as in past years on a percentage basis due to the persistence of exaggerated domestic migration patterns. Owners and contractors will see more percentage basis increases in the southern and midwestern states, while cost increases will be less pronounced in the northeast and western states.

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The parking professionals at WGI are happy to assist with planning and budgeting your next parking structure. If you have any questions or would like specific cost information for your area, contact Raymond Smith at Raymond.Smith@WGInc.com and Rob McConnell at Rob.McConnell@WGInc.com. Or call us at 800.FYI.PARK (800.394.7275).

As a multidisciplinary solutions-providing consulting firm, WGI has 25 offices in eight states, serving an active client base in over 49 states, specializing in the following disciplines: parking solutions, mobility planning, traffic and transportation engineering, restoration and structural engineering, environmental sciences and water resources, geospatial and land surveying, subsurface utility engineering, land development, municipal engineering, landscape architecture, architecture, land planning, and MEP engineering. In 2023, ENR ranked WGI #171 on its list of the Top 500 Design Firms in the United States. ENR Magazine also named WGI its 2021 Design Firm of the Year in the southeast United States. For more information, please visit www.wginc.com.

LET'S TALK.

For more information about this study or to have a conversation with one of our experts, please contact us:



Rob McConnell, PE, SE, LEED

VP, Parking Solutions

Rob.McConnell@WGInc.com



Raymond Smith, PE

VP, Parking Solutions

Raymond.Smith@WGInc.com