



United States & Canada | 2022

Research

U.S. & Canada Office Fit Out Guide

Office construction cost benchmarking report

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Executive summary

JLL's Office Fit Out Guide provides benchmark costs to build out a range of office types across major markets in the United States and Canada. The data in this report is based on an analysis of thousands of construction projects managed by JLL Project and Development Services (PDS) teams across North America.

The San Francisco Bay Area holds the title as the most expensive metro for office fit outs in 2022, followed closely by New York City. The South and Southeast remain the most affordable areas of the country to build in. The three Texas markets of Austin, Fort Worth and San Antonio rank as the cheapest major markets for office construction this year, unchanged from last year.

However, costs are up a significant amount across the board, with an average increase of 22.9 percent year-over-year.

Construction-related headlines in 2021 were dominated by materials cost increases, supply chain disruptions and labor shortages. These issues have continued through the first quarter of 2022, with further complications emerging from the Russian invasion of Ukraine. While price increases identified in this guide are deeply connected to these global events, discussion is limited due to the report's narrow focus. For a more robust exploration of these overarching cost trends, please refer to [JLL's Construction Outlook](#).

Our report identifies four important design trends: mobility and remote work, increased technology requirements and renewed focus on sustainability as well as health and wellness. These trends have gained prominence as we've navigated the COVID-19 global pandemic and remain strong forces at play

today. The guide addresses how each trend has evolved in the second year of the pandemic and how it will impact office fit out costs in 2022.



Andrew Volz
Construction Research Lead
Americas Research

Report assumptions and methodology

What is this report?

This report is a reference guide that provides average office fit out cost benchmarks across major markets in the United States and Canada.

This guide is ... a comprehensive data-driven tool that provides a comparison of fit out costs across U.S. and Canadian markets.

This guide is not ... a cost-estimating or cost-of-occupancy tool. Fit out costs can vary greatly based on the scope and requirements of the user. This guide provides a holistic picture of how various geography and fit out decisions can affect your bottom line.

How was it created?

The benchmark costs in this report were developed using a robust data analysis and validation process based on thousands of real-world projects managed by JLL's Project and Development Services (PDS) teams across North America.

- 2,900+ projects
- 500+ clients
- 52 local markets

Trends were explored and transferred into cutting-edge fitouts by Big Red Rooster, JLL's in-house brand experience firm. These test fits were analyzed by cost management experts and against our project data to produce exceptionally accurate costs for forward looking office designs.

Why is it useful for you?

The goal of this guide is to provide readers with cost transparency across office styles, build quality levels and geographic markets to enable them to make better and more informed real estate decisions. There are two primary ways that we recommend you use this report:

- Early pre-project planning to get a sense of what different types of construction projects might cost across different markets
- Post-completion comparison to learn how costs for your completed projects compared to average projects around the country

... at a glance

Below are four key points to understand the methodology used to develop this report. Much more detail about the methodology behind this Fit Out Guide can be found in the FAQ section at the end of the report.

1. **All costs are sourced from the real world.** This guide is based on the average cost of real JLL-managed projects across the United States and Canada.
2. **All costs assume an office fit out from a warm lit shell condition.** To standardize the costs included here, all figures represent the cost to fit out a second-generation space from existing warm lit shell condition. Other types of projects like minor space modifications, paint and carpet updates, many subleases and most spec suites will generally be less expensive than the costs in this guide. Any ground-up office projects will generally be much more expensive than the costs in this guide.
3. **Even the high and low costs represent averages.** For example, a "base-quality" space is the lowest cost benchmark shown in this report, but it represents the average cost for that quality level and not the lowest achievable number. The same goes for the highest cost benchmark: it is the average for "high-quality" projects but does not represent the absolute high end of the market.
4. **FF&E and tenant factor costs are level across markets.** As a result of wide variance in these costs based on tenant needs, we determined an appropriate average cost for each of the three levels of quality and complexity and kept that cost constant across all geographic markets. The exact costs used are listed in the appendixes of this report.

Office fit out cost trends in 2022

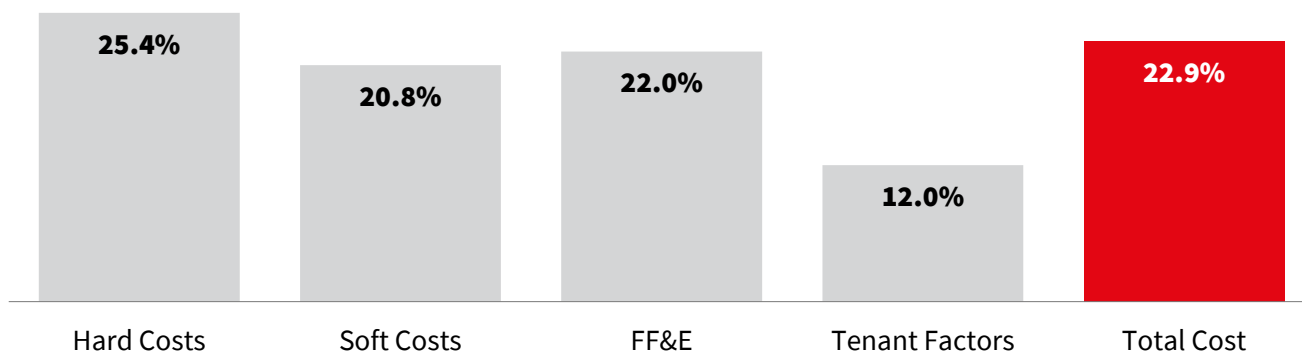
Where are we now?

Following a series of COVID-19 variant outbreaks and other setbacks in 2021, return-to-office at scale is finally materializing at the end of the first quarter of 2022. Repealed or reduced public health policies and pandemic fatigue have shifted the prevailing approach to COVID-19 toward an endemic status, largely being approached like the flu. The latest BA.2 variant outbreak has been termed the “So What?” wave in the United States. Despite general acceptance of the virus, it still represents a public health hazard, with notable lockdowns occurring in Shanghai, China, at the time of writing, and has continued to shape the trajectory of office use and design. Delayed return to office and evolving work patterns and labor relations throughout 2021 have allowed us to probe further into the questions framed in our prior report: How will offices change in a post-pandemic world? JLL’s research into the regenerative office and aligned design work have brought new approaches front and center, but we remain in the early stages of a great renegotiation around office work. Flexibility and choice will be key elements of all future office planning, as will prioritizing health and wellness in the office

environment and the environmental sustainability of the space. These are big themes with broad implications across the future of office real estate for decades to come. This report is not designed to answer all of them. Instead, we focus on one critical piece: **What will it cost?**

Importantly, construction costs saw record increases across the board in 2021. Relative to the 2021 fit out guide, costs are up 22.9 percent year-over-year. Broken apart, we see that hard costs have played the largest role in the increase, with an astounding 25.4 percent increase. Our measure for hard costs incorporates all the substantial material and labor costs of 2022, as well as some of the underlying infrastructure required for increased technological capacity. These components, heavily relying on copper and other metals as well as assembly in South Asia, have been most disrupted by the Russian invasion of Ukraine. Additionally, rising design standards have contributed significantly to cost increases as well, with a conscious effort to support employee wellness as part of return-to-office strategies.

Cost increases in 2021



Source: JLL Research



In keeping with changes in our 2021 guide, we have kept our proprietary cost matrix and continue to revise what goes into each benchmark level to account for how office designs are changing. The three levels of design quality and complexity, for every major market, allow users to use specific benchmarks that fit with their plans, while designs reflecting emerging trends allow users to better understand costs and other commitments necessary to facilitate an optimal return to office. Rather than just providing inflated costs for outmoded designs, this challenges users to think critically about the future interactions between their employees, the built environment and emerging patterns of work.

Our prior report identified three major trends in the priorities of office occupiers. These trends remain relevant to the office market in 2022 and are central to the larger conversation around return to office. Due to new variants and additional waves of COVID-19, a general return to office was delayed and many office-using firms remain in a holding pattern. At the end of the first quarter of 2022, less than 50 percent of the workforce has returned to the office on a regular basis and more than half of the workforce intends to engage in a hybrid or work-from-home pattern in the future. JLL Research has spent

considerable effort exploring these themes, deepening our understanding of each and their collective impact on the return to office. Each of these continuing trends is outlined in the section that follows, along with the latest research, revisions to their implementation and an explanation of how we incorporated them into the cost benchmarks provided in this report.

In previous Office Fit Out Guides, we analyzed cost data from thousands of projects managed by JLL PDS, and this real-world cost data formed the backbone of our cost benchmarking efforts. It still does in 2022. We also incorporate a detailed quantity survey and cost modeling process to provide additional depth and to anchor our data with the most updated costs. In addition, every cost benchmark in this report has been reviewed and validated by teams working on the ground in each local market. The results are cost benchmarks that can be relied on: built on thousands of real projects, supported by detailed cost estimating models and confirmed by local experts working across the country. These numbers are only benchmarks, and should be treated as such, but they are benchmarks supported by the best data available in 2021.

National average office fit out cost benchmarks

		Space quality and complexity		
		Base	Medium	High
2022 US National Average Office Fit Out Cost Matrix (cost shown in USD per RSF)		Simple and straightforward design on a minimal budget with a templated feel. Finishes and aesthetic design are focused on function and include few unnecessary touches. Space contains basic technology with few additional features.	Standard project complexity with a few unique design features and some upgrades throughout. Average-quality finish materials along with midlevel lighting. Moderate technology complexity with upgrades in some key room or for priority tools.	Complex and custom project with top-quality materials, finishes and technology. Emphasis placed on unique and flexible spaces specific to the end-user, with complex technology integrated throughout.
Office Fit Out style	Progressive Efficient open-office floor plan with predominantly bench-style desk seating and few or no enclosed offices. Includes a high ratio of small huddle rooms for privacy or small group collaboration and a variety of collaboration and conference spaces.	\$194 p.s.f.	\$221 p.s.f.	\$257 p.s.f.
	Moderate Agile floor plan composed mainly of workstations in an open setting, along with a moderate number of private offices. Mix of conference and collaboration spaces with an emphasis on medium-size rooms for team or group collaboration. Some space set aside as flexible collaboration areas.	\$205 p.s.f.	\$233 p.s.f.	\$275 p.s.f.
	Traditional Private-office-heavy floor plan with roughly a quarter to a third of the space dedicated to private offices, while open areas contain large individual workstations. Conference and collaboration space includes a mix of rooms with an emphasis on medium or large dedicated conference rooms.	\$212 p.s.f.	\$242 p.s.f.	\$290 p.s.f.

Cost implications of 2022's top trends in office design

1.

Mobility and partially remote



Where are we now?

At the release of the prior JLL Office Fit Out Guide, more than half of corporate employers were expecting employees to work from home at least two days a week. It was expected that long-term work from home would have implications on the total size of the office, with the overall footprint expected to shrink due to an abandonment of the one-to-one ratio of dedicated desks to employees. While work from home remains an active part of many employees' current work cadence, most office users have opted to retain a one-to-one desk ratio for employees, even as overall design has shifted toward more collaborative spaces and hoteling in more progressive and even moderate design patterns. The rationale for this is complicated, indicating a lingering desire for a full-time return to office by corporate heads, complications scheduling a truly hybrid workforce or simply institutional inertia around such a fundamental change. While the ratio of desks to employees remains largely unchanged, there are nevertheless opportunities for space saving, with the per employee footprint reduced through smaller workstations and other configurations. Work from home will also continue to be an evolving part of most workers' lives.

What are the cost implications?

Little has changed regarding the cost implications of this trend from the prior report: more carefully designed and customized office that meets the needs of multiple overlapping users on any given day will cost more. On a per-square-foot basis, the cost of a mobility- and collaboration-focused office design will generally be higher than a standard layout with primarily dedicated workstations. Hard costs are higher, as less of the footprint is given to simple open spaces that will be filled with rows of workstations. On the other hand, some occupiers may consider slightly smaller footprints given that fewer employees will be using the office at a time, even if they choose to retain a one-to-one ratio of desks to employees. The right balance will depend on each company, but a reduced footprint could potentially offset a higher cost per square foot, leaving the total capital cost of a project unchanged. Regardless of size, a mobility-focused office with a high ratio of flexible collaboration space will generally come at a higher cost per square foot, driven by the custom design, unique features and elevated technology needs. Expenses are notably higher this year however, with global availability and inflation driving costs up generally. Even more traditional office layouts need to contend with these issues, and the entire construction industry is acutely feeling the effects.

How does the Fit Out Guide address this trend?

The "moderate style, medium quality" benchmark of the cost matrix corresponds roughly to the needs of an average corporate user with a hybrid workforce. The moderate style allows for a mix of work patterns, seating arrangements and collaboration. We recognize that, while change is necessary to support both new patterns of work and a strong return to office, it is largely an incremental process influenced significantly by the needs of individual sectors. For office users looking to transition their space away from more traditional floorplans, the "moderate style, high quality" cost benchmark may better reflect needs, as the "high quality" element represents a more unique and customized space. It includes the type of one-off features that will generally be necessary to build the right collaboration spaces needed to support overlapping groups of office users. This and all styles of office identified here have seen significant cost increases, the allocation of which will be explored in the next section.

Cost implications of 2022's top trends in office design

2. *Tech-centric workspaces*

Where are we now?

Tech remains one of the critical expenditures for office fit outs, regardless of other trends and the complications surrounding large-scale return to office. As noted in our prior Fit Out Guide, increasing tech integration is a long-standing trend in offices: capacity for sharing virtual space is critical in multisite corporations regardless of the pandemic, as is large-scale data sharing and collaboration. Future tech, including the Metaverse and other emerging platforms, will further push the envelope of required technological infrastructure in offices.

What are the cost implications?

The cost implications will directly depend on both the scope and the quality of the technology being integrated into a workplace. Within each project budget, the share of spend being dedicated to technology is expected to grow for most companies over the coming years. This is not an area where savings are expected due to densification or any downsizing in office footprints. Anyone planning to build or renovate an office this year should carefully reconsider any technology budget based on past assumptions and exercise caution before relying on benchmarks from previous years. The quantity of technology in an average office is forecast to continue rising, which will mean increased complexity to support a more robust technology suite. In the short term, this is an area where costs have seen significant acceleration, with both raw and finished materials under intense pressure due to global supply chain issues. Increasing demands across all office-using sectors and further complications in the supply chain are likely to drive significant cost increases over the course of 2022.

How does the Fit Out Guide address this trend?

The shift toward higher technology spending is both a broad-based, long-term trend across all office fit out projects and a particular concern for mobility-focused offices that support a partially remote workforce. Both shifts have been accounted for within the benchmark costs in this report.

Tech expenditures remain a fast-growing expense due to both shortages and increasing design requirements. The increased expenditures represented a major transition from pre-pandemic needs, as audio-visual infrastructure and other technologies have become a baseline requirement in all quality levels of office build out. As a result, prices have increased significantly at the lower end and less at the higher end, as most were already incorporated into the latter designs. At the base build-out level, tenant factors (which include most tech components) have increased 20 percent year-over-year, 14 percent at the medium level and just 3 percent at the high level. The appendix data in the report can be used for readers to substitute their own specific technology costs to arrive at a more customized benchmark.

Cost implications of 2022's top trends in office design

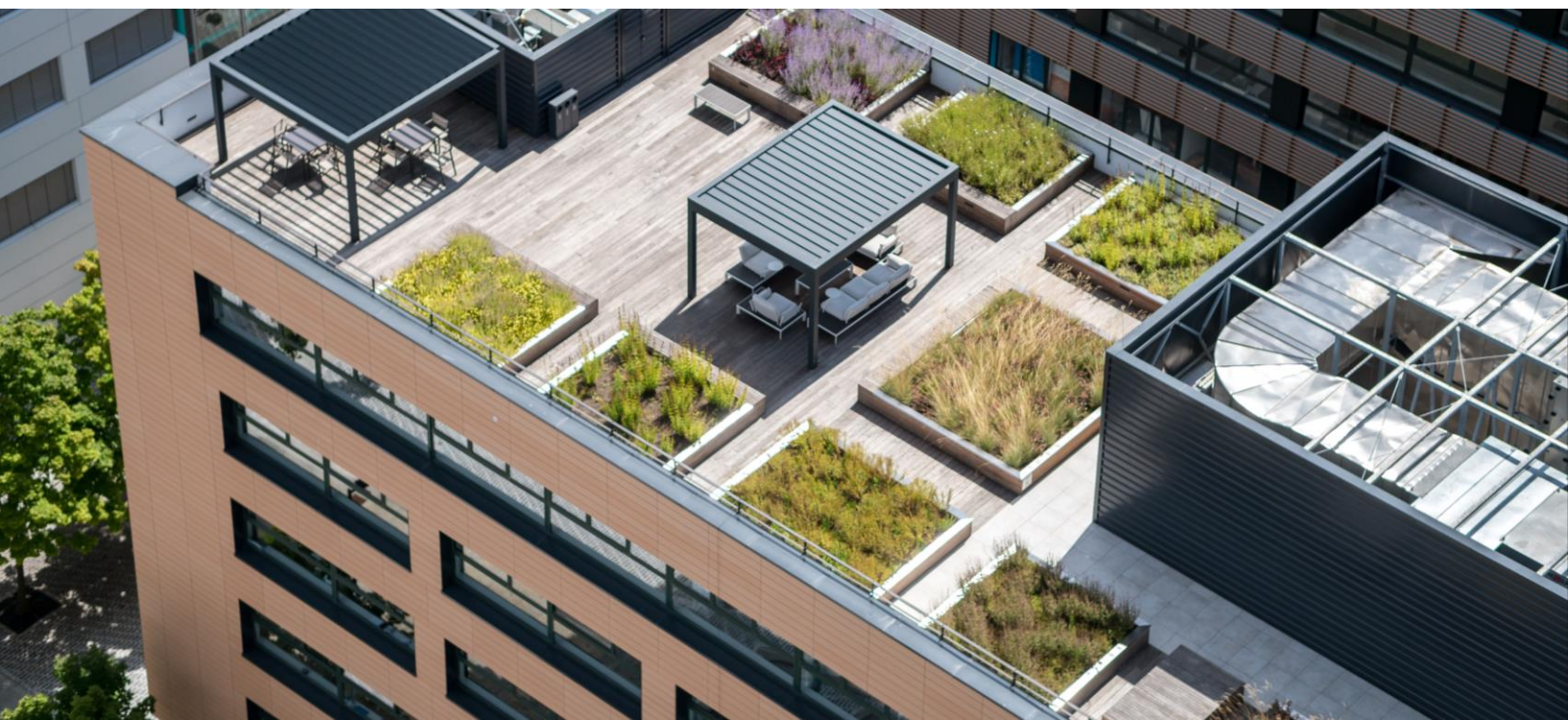
3. *Sustainability*

Where are we now?

Almost 90 percent of the global economy is attached to a net-zero goal. As of March 2022, over 2,600 companies have committed to the Science Based Targets initiative (SBTi) to reduce their carbon emissions. In fact, more corporations committed to climate action in 2021 than during all previous years combined since SBTi's inception in 2015. With the built environment accounting for 40 percent of global emissions, it is no surprise that business leaders are looking to align the spaces they occupy with their company's environmental goals.

As noted in the prior Office Fit Out Guide, the shift toward sustainability as well as health and wellness in office design is not anything new. Still, the pandemic has

accelerated this shift and has pushed demand toward higher-end office spaces, highlighting the significant physical differences between old and new space when it comes to sustainability and well-being. JLL's [Return on Sustainability](#) research report from earlier this year emphasized that the definition of a best-in-class building is radically changing, with carbon footprint, climate change and health and wellness at front of mind. The discussion around the "value of the green premium" is moving toward one regarding operational excellence, preservation of value and allowing occupiers and owners alike to achieve sustainability goals. Tenant spaces play a critical role in achieving regulatory and market demand, for net-zero and office-using firms have a chance to reimagine their commitments to sustainability through new office space and conscious design decisions.



Sustainability cont'd

What are the cost implications?

Internal sustainability goals will vary from corporation to corporation but should be taken into consideration, as they will increasingly require their real estate to reflect their ambitions. In fact, JLL's [Responsible Real Estate Survey](#) reveals that 79 percent of occupiers are prioritizing location searches to buildings that help reduce emissions.

As more and more office users look to incorporate sustainability into the process of selecting a new space, new metrics are being introduced into the "cost" conversation: in addition to dollars, the carbon footprint is being factored into cost in sophisticated, but increasingly easy to perform, approaches. Carbon footprint can be derived from two sources: operational carbon (from operating a building) or embodied carbon (carbon generated from the construction and embedded in the materials used).

Embodied carbon is a particularly important consideration when discussing fit outs because there are tools today that can help minimize the embodied carbon of a renovation or fit out: for example, the Embodied Carbon in Construction Calculator (EC3) is a free database of construction EPDs and matching building impact calculator. In addition, One Click LCA is an automated life cycle assessment software that calculates the environmental impacts of buildings and infrastructure projects, products and portfolios. Because the most sustainable building is the one that already exists, energy-

conscious transformation of existing stock and tenant spaces is key. Creating a top list of preferred materials that are eco-conscious is a one-time cost that can get amortized across many fit out projects and is well worth the carbon savings.

While the upfront cost of incorporating sustainable practices generally includes higher construction costs as well as fees to apply for and receive desired certifications, buildings that do so command a rent premium, and over time, any energy-efficiency gains realized in the process of sustainability improvements will usually pay for themselves. Moreover, the recent record increases in construction costs across the board have caused the percent of sustainability spend to significantly shrink. The spend is also not all incremental; some of it involves redirecting spend in new ways and bringing more intentionality to design elements that can strike both healthy and sustainable targets. Though building scale improvements and certifications are generally the responsibility of the property owner, tenant improvements and appropriate design can go a long way in greening a building. Green lease clauses, such as cost recovery, submetering, data sharing and minimum efficiency standards clauses, may also help align incentives for owners and occupiers. Given the widespread adoption of carbon reduction targets for corporate sustainability plans, a sustainability-focused office fit out is critical to reaching these goals while accruing other benefits of operational efficiency.

How does the Fit Out Guide address this trend?

The benchmark office costs in this report do not directly include explicit sustainability measures or certifications. The cost premium for incorporating a sustainability strategy to a project will vary significantly based on site specifics, like existing conditions in the building, project location and other factors. Our prior reports included a range of pricing premiums that

remain relevant in this report. Base-quality projects tend to see a cost premium closer to the top of the range, while high-quality projects average lower in the range, given that some of these sustainability features are often already included in a higher-end project. A full analysis of the return on investment for any sustainability investment should also consider how quickly it would pay for itself in reduced operating costs.

Upfront cost premium average for LEED certifications:

Certified: +2%–3% | Silver: +3%–4% | Gold: +3%–5% | Platinum: +4%–8%

Upfront cost premium averages for WELL certifications:

Silver: +1%–3% | Gold: +2%–5% | Platinum: +5%–10%

Cost implications of 2022's top trends in office design

4. *Health & wellness*

Where are we now?

People spend 90 percent of their time indoors, highlighting the importance of creating spaces that allow for optimal human performance. The pandemic further demonstrated what a central role a building can have in keeping occupants healthy. The conversation around health and wellness has evolved from being more centered on tenant amenities to incorporating air quality, ventilation and other health measures. The lessons provided by the pandemic, about what worked and what needs an overhaul, are valuable and must form the basis for a healthier work environment moving forward. Prioritizing the well-being of employees as well as the environmental sustainability of the space are at the forefront of many occupiers' and business leaders' strategies, and a conscious design practice is key to advancing both.

What are the cost implications?

There is much to be said about the intersection of healthy and green and the ability to positively impact both during the tenant fit out process. Examples include the use of sustainable, healthy materials, which directly result in improved air quality in office spaces. More directly, there are several studies showing increased employee satisfaction among companies with responsible business practices and environmental commitments. According to JLL's Responsible Real Estate Survey previously mentioned, 42 percent of occupiers believe employees will increasingly demand green, sustainable spaces. For purely wellness- or health-focused features, the return on investment cannot be quantified as directly, but these have positive returns in employee productivity, health, engagement and retention. While beyond the scope of this report, JLL's research in the Return on Sustainability mentioned above details the substantial productivity increases associated with some of these wellness decisions. For example, according to the Harvard T.H. Chan School of Public Health, optimizing conditions like ventilation, lighting and temperature can improve cognitive function by 26 percent, decrease "sick building" symptoms by 30 percent and improve sleep by 6.4 percent.

How does the Fit Out Guide address this trend?

Occupiers, especially those looking to bring people back into the office, want health and wellness to be echoed throughout the workplace design to promote people's physical and mental well-being. While the benchmark office costs in this report do not include health and wellness certifications, the Fit Out Guide incorporates various well-being features into the model build outs. All floorplans now include wellness rooms and more flexibility spaces, and open collaboration areas can be found throughout. Two gender-neutral restrooms have also been added to the progressive design. While these do not represent all potential wellness options, they demonstrate how these features can be strategically incorporated into any office design. What options are employed will vary from workplace to workplace and should address the most pressing needs of the workforce.





How will construction costs change in the upcoming year?

A note on construction cost inflation and the Fit Out Guide

This Fit Out Guide report is based on project data from the past 12 months and on cost estimating models completed in early 2022. The costs provided in this report are intended as annual benchmarks and are not designed for cost inflation adjustments over coming months or quarters. As outlined elsewhere in this report, they are high-level estimates intended to help early in the project planning process or as a benchmark comparison after projects are done. They will not be updated until the next annual version of this report in 2023.

Although the cost benchmarks in this report are recommended to be used throughout the year, the reality on the ground for any project is that total costs vary based on market conditions and input costs on a monthly or even weekly basis. When moving from the pre-project ballparking phase to specific cost estimating and capital planning, a more precise lens on cost inflation is critical. To address those concerns, we also release JLL's Construction Outlook reports on a biannual basis, which cover specific construction cost, construction labor and construction materials forecasts for the coming year. These reports are publicly available to download from JLL's Research website.

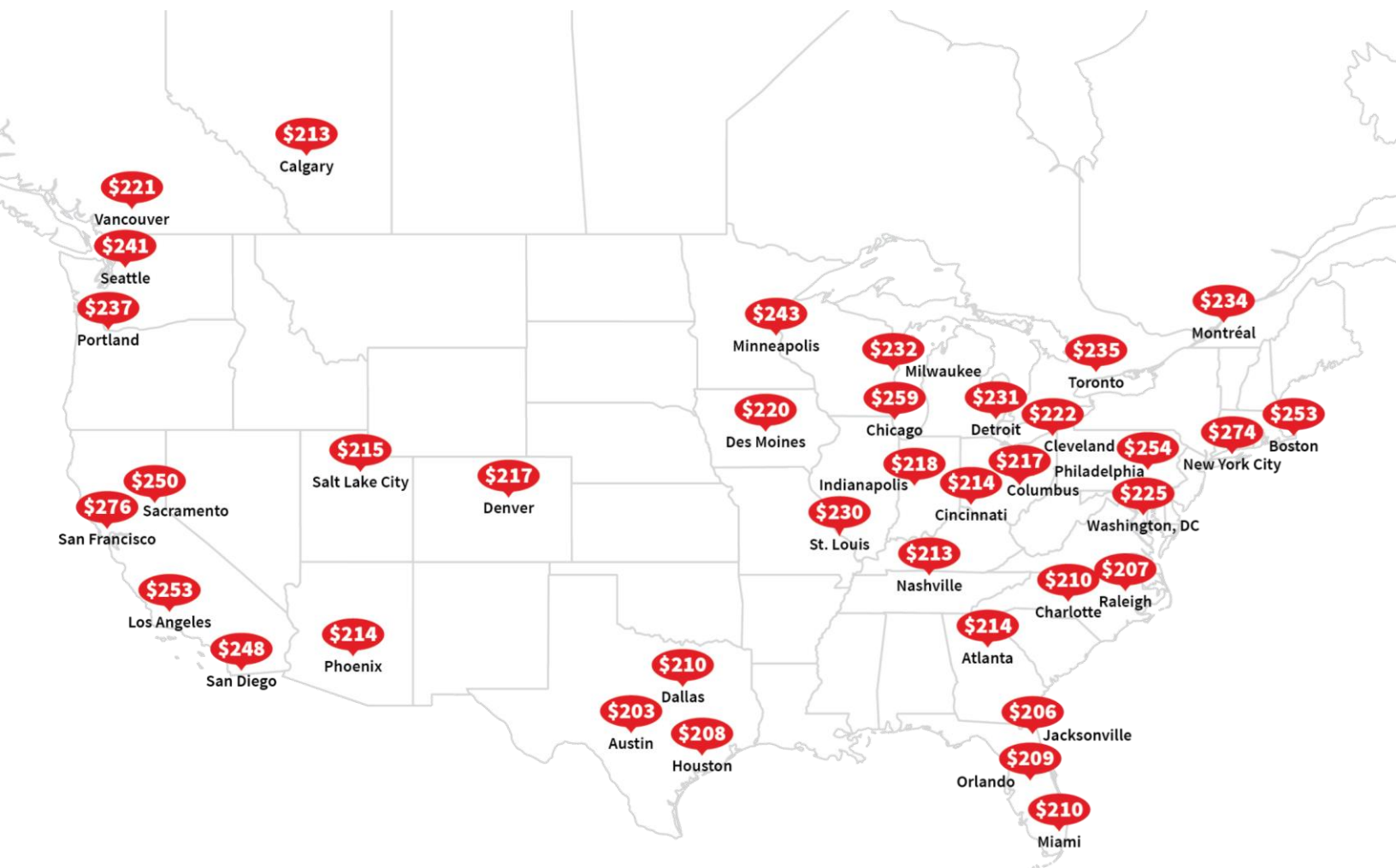
Construction Outlook: summary forecast for 2022

Our current Construction Outlook for the first half of 2022 calls for elevated cost increases over the course of the year, following on the heels of exceptionally high increases in 2021. Overall construction costs were up roughly 12 percent in 2021 and are forecast to increase between 8 and 12 percent this year. While materials drove the largest share of cost increases in 2021, charting a remarkable 21 percent year-over-year growth, construction wages also saw their largest increase in 40 years at 6 percent. Looking forward on the materials side, geopolitical conflicts and disrupted supply lines are likely to cause major fluctuations in prices and further undermine supply chains. The effects of the Russian invasion of Ukraine are most notable in energy prices and delays in products of Southeast Asian manufacture at the time of writing but will spread further as the conflict continues, with potential major disruptions to food supply, batteries and computer chips. Construction labor is anticipated to see substantial increases in wages as well, due to the combined forces of inflation and a critical shortage of workers that has worsened over the pandemic. Resultantly, the outlook for a full-scale recovery of project volume and inflation-adjusted spending in the construction industry has been pushed back further to 2023 at the earliest.

Fit out cost benchmarks: **in-depth**

Fit out costs by geography

Fit out costs across the United States and Canada range widely from region to region and market to market. The map below shows average fit out costs per rentable square foot for a moderate-style, medium-quality office in select markets.

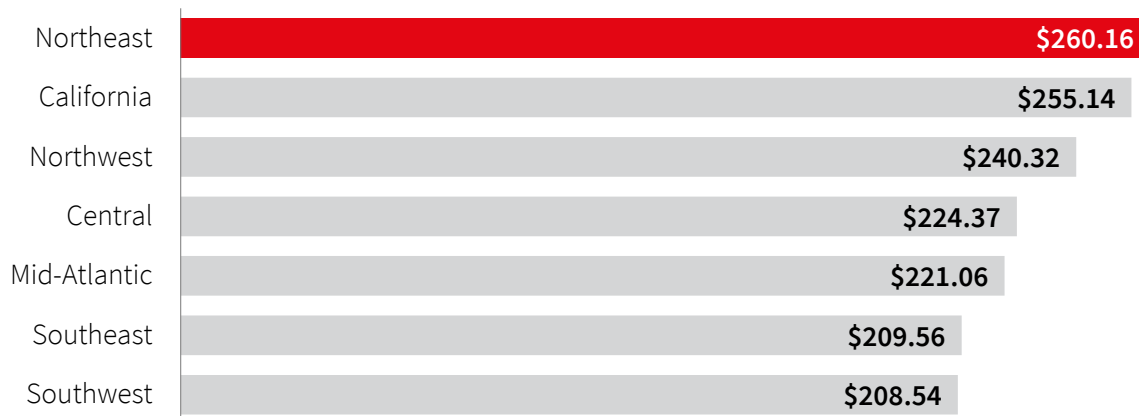


Note: All costs shown in USD.

Fit out cost benchmarks: in-depth

Fit out costs by region

One of the largest factors in determining the ultimate cost of an office fit out project is the cost of construction labor, which varies more widely by geography than the cost of materials. The chart below shows the average cost of building a moderate-style, medium-quality office in each U.S. region. These regional costs represent a simple average of the fit out costs for each market within the region included in this guide.

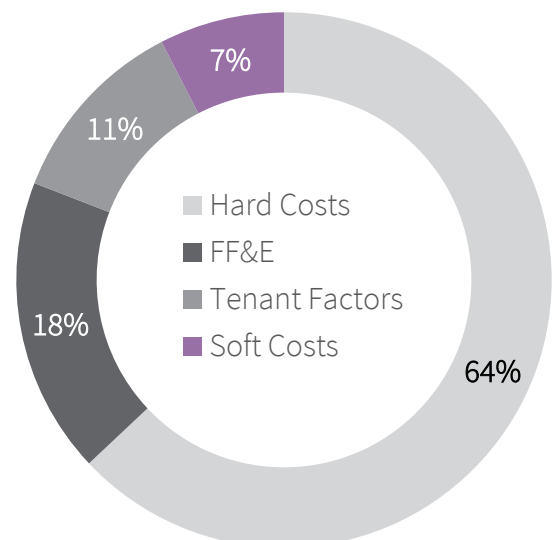


Source: JLL Research

Fit out costs by category

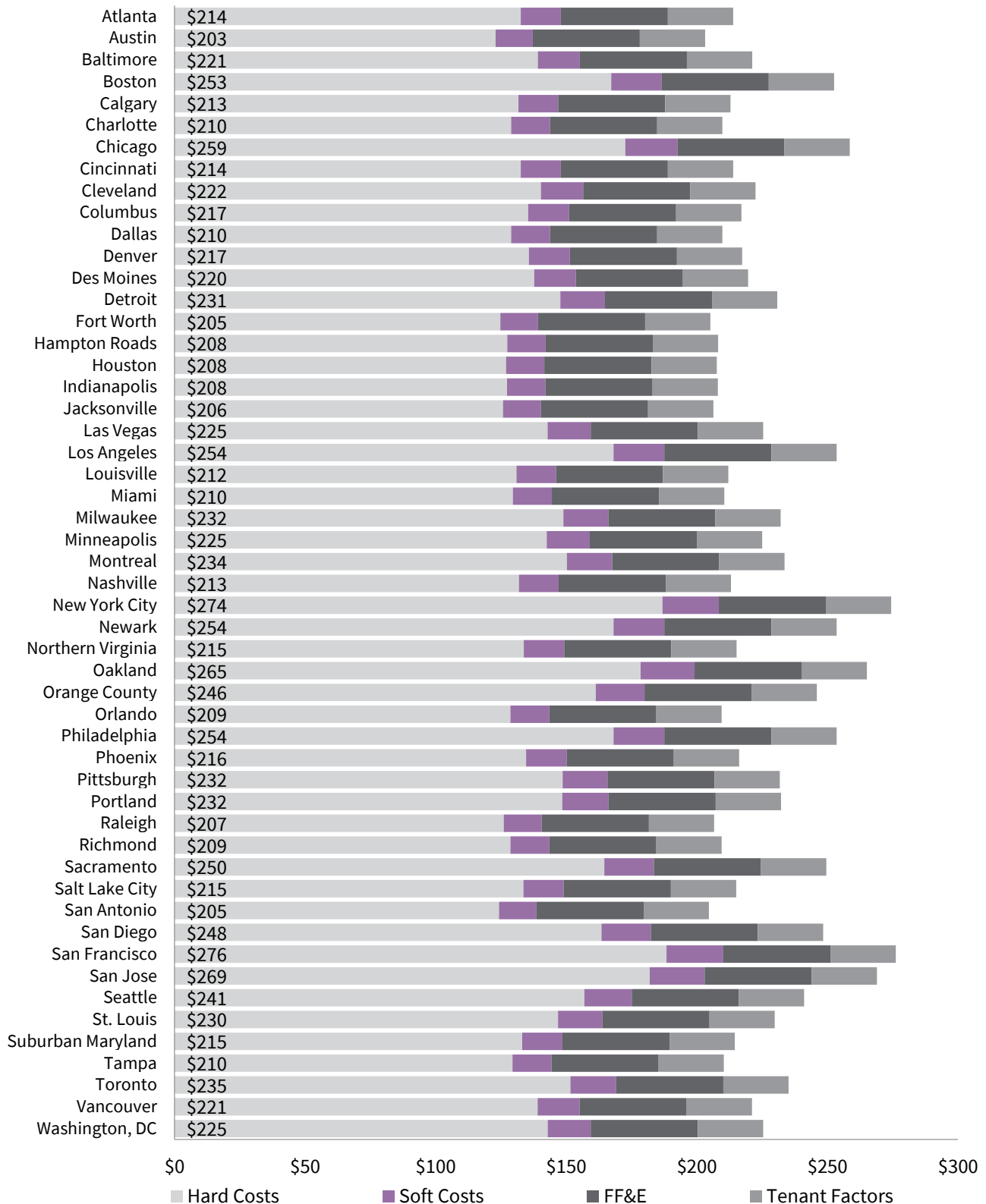
The chart at right represents an average breakdown of different categories for a moderate-style medium-quality office at the national average level. See appendix data for specific cost breakdowns in each market.

National average cost breakdown



Source: JLL Research

Fit out costs by market: **Moderate**



Source: JLL Research | Note: All costs shown in USD.

Market spotlights





A favorable outlook driven by strong suburban office demand

2022 Atlanta

Office Fit Out Costs

Space quality and complexity

Office Fit Out Costs		Base	Medium	High
Office Fit Out style	Progressive	\$178 p.s.f.	\$203 p.s.f.	\$236 p.s.f.
	Moderate	\$188 p.s.f.	\$214 p.s.f.	\$252 p.s.f.
	Traditional	\$194 p.s.f.	\$221 p.s.f.	\$265 p.s.f.

State of the Office market:

Atlanta's low cost of living and high quality of life remain a strong draw for people and corporations alike. While 2020 saw a concentration of activity in the urban core, strong suburban office demand in 2021 helped stabilize vacancy rates, and net absorption is trending upward after several negative quarters. Rents have held fast as well, tempered somewhat by strong CBD construction activity. However, creative office is still seeing exceptional rental rate growth despite supply gains. Overall, Atlanta's office market is anticipated to see fundamentals strengthen alongside a continuing flight to quality.

Local Office market stats:

Office vacancy rate (Class A CBD): **24.3% total**

Average asking rent (Class A CBD): **\$37.23**

Concessions direction: **Stable**

New office development pipeline
(under construction in metro): **5.3 m.s.f.**

2021 office completions (metro): **4.6 m.s.f.**



Life sciences demand supports strong marketwide recovery

2022 Boston

Space quality and complexity

Office Fit Out Costs

Office Fit Out Costs		Base	Medium	High
Office Fit Out style	Progressive	\$209 p.s.f.	\$238 p.s.f.	\$277 p.s.f.
	Moderate	\$222 p.s.f.	\$253 p.s.f.	\$298 p.s.f.
	Traditional	\$229 p.s.f.	\$262 p.s.f.	\$314 p.s.f.

State of the Office market:

Bolstered by an incredibly strong life sciences and biotech scene, the Boston office market is among the best-recovered in the nation. Leasing activity especially has been strong in recent quarters, and the market has the lowest vacancy rate of any explored in this report. Boston's relatively tight office market is impressive considering not only the pandemic but also the consistently high deliveries in recent years. Fundamentals should continue to tighten over the near term, driven by strong occupier demand and investor activity.

Local Office market stats:

Office vacancy rate (Class A CBD): **12.1% total**

Average asking rent (Class A CBD): **\$79.87**

Concessions direction: **Increasing**

New office development pipeline
(under construction in metro): **5.0 m.s.f.**

2021 office completions (metro): **2.9 m.s.f.**



Flight to quality and an accelerating return to office lead to a positive, albeit uneven, outlook

2022 Chicago

Space quality and complexity

Office Fit Out Costs

Office Fit Out style	Space quality and complexity		
	Base	Medium	High
	Progressive	Moderate	Traditional
	Base	Medium	High
Progressive	\$214 p.s.f.	\$244 p.s.f.	\$284 p.s.f.
Moderate	\$228 p.s.f.	\$259 p.s.f.	\$305 p.s.f.
Traditional	\$235 p.s.f.	\$268 p.s.f.	\$322 p.s.f.

State of the Office market:

The Chicago office market saw Class A and Trophy office spaces record positive net absorption for the first time since the start of the pandemic in the first quarter of 2022, accounting for more than 75 percent of total leaving activity and a majority of that concentrated in newly delivered buildings. While this is a turning point for the market, the overall vacancy rate has continued to climb and marketwide rents are seeing slow to modest growth. With Chicago's return to office beginning in earnest at the end of the first quarter, occupancy rates are expected to see a rapid increase in the near term from current lows, but long-term rates remain uncertain as regional firms continue to negotiate hybrid work schedules.

Local Office market stats:

Office vacancy rate (Class A CBD): **18.9% total**

Average asking rent (Class A CBD): **\$50.04**

Concessions direction: **Stabilizing**

New office development pipeline
(under construction in metro): **1.8 m.s.f.**

2021 office completions (metro): **1.3 m.s.f.**



As the pandemic improves, workers return to the office and more companies contemplate post-pandemic real estate strategies

2022 Dallas

Office Fit Out Costs

Space quality and complexity

Office Fit Out Costs		Base	Medium	High
Office Fit Out style	Progressive	\$174 p.s.f.	\$199 p.s.f.	\$232 p.s.f.
	Moderate	\$184 p.s.f.	\$210 p.s.f.	\$247 p.s.f.
	Traditional	\$190 p.s.f.	\$217 p.s.f.	\$260 p.s.f.

State of the Office market:

With net absorption trending positive and limited speculative construction, the Dallas–Fort Worth market is seeing a healthy recovery. Vacancy rates, while moderately elevated from pre-pandemic times, are stabilizing. Total office-using employment has returned to pre-pandemic levels, and strong population growth is expected to continue, further boosting demand. However, though Dallas remains above the national rate for weekly average office occupancy, most offices remain vacant. Like most markets, tenants in Dallas continue to contemplate hybrid strategies and how to balance employee wellness with productivity. Nevertheless, most space needs are staying approximately the same and flight to quality is reshuffling firms within the metro.

Local Office market stats:

Office vacancy rate (Class A CBD): **26.3% total**

Average asking rent (Class A CBD): **\$36.42**

Concessions direction: **Stable**

New office development pipeline
(under construction in metro): **4.2 m.s.f.**

2021 office completions (metro): **5.5 m.s.f.**



Persistent negative net absorption and returning construction activity push vacancy rates to peak levels and temper recovery outlook

2022 Los Angeles

Office Fit Out Costs		Space quality and complexity		
Office Fit Out style		Base	Medium	High
	Progressive	\$210 p.s.f.	\$239 p.s.f.	\$278 p.s.f.
	Moderate	\$223 p.s.f.	\$254 p.s.f.	\$299 p.s.f.
	Traditional	\$230 p.s.f.	\$263 p.s.f.	\$315 p.s.f.

State of the Office market:

Leasing activity remains below pre-pandemic levels in Los Angeles and sublease availability is growing, making for a slow recovery and weak fundamentals. However, the entertainment sector is one of the market's bright spots and is expected to continue to be a strong driver for demand through year-end 2022 and beyond. Highlighting this is the Westside submarket's disproportionate number of leases signed in recent quarters and concentration of development activity. Like most markets, flight to quality is a major trend in Los Angeles, especially with new creative product attracting talent.

Local Office market stats:

Office vacancy rate (Class A CBD): **21.0% total**

Average asking rent (Class A CBD): **\$45.96**

Concessions direction: **Increasing**

New office development pipeline (under construction in metro): **4.6 m.s.f.**

2021 office completions (metro): **3.0 m.s.f.**



Elevated sublease availability and flight to quality pose challenges for the market

2022 New York City

Office Fit Out Costs		Space quality and complexity		
Office Fit Out style		Base	Medium	High
	Progressive	\$227 p.s.f.	\$258 p.s.f.	\$301 p.s.f.
	Moderate	\$242 p.s.f.	\$274 p.s.f.	\$324 p.s.f.
	Traditional	\$250 p.s.f.	\$285 p.s.f.	\$342 p.s.f.

State of the Office market:

Net-new supply additions outpaced demand as sublease availability rose 2.1 million square feet, driven by large footprint contractions by companies that underwent restructurings throughout the COVID-19 pandemic. Over 95 million square feet of direct and sublease space was marketed for lease in the first quarter of 2022, up from 67.7 million square feet prior to the pandemic, pushing vacancy to a historical peak. However, higher-quality product has seen strong demand and correspondingly high rental rate growth and now is above pre-pandemic rates. Like many other major metros, flight to quality is creating two very different stories of recovery by building class.

Local Office market stats:

Office vacancy rate (Class A CBD): **14.4% total**

Average asking rent (Class A CBD): **\$93.20**

Concessions direction: **Stable**

New office development pipeline
(under construction in metro): **19.7 m.s.f.**

2021 office completions (metro): **1.9 m.s.f.**



Flat availability and declining sublease space mark an optimistic turning point for the Office market

2022 San Francisco

Office Fit Out Costs

Space quality and complexity

		Base	Medium	High
Office Fit Out style	Progressive	\$228 p.s.f.	\$260 p.s.f.	\$302 p.s.f.
	Moderate	\$243 p.s.f.	\$276 p.s.f.	\$326 p.s.f.
	Traditional	\$251 p.s.f.	\$287 p.s.f.	\$344 p.s.f.

State of the Office market:

In the first quarter of 2022, San Francisco saw positive net absorption for the first time since fourth-quarter 2019, causing a modest decrease in vacancy rates and keeping asking rents stable. While fundamentals are weaker than pre-pandemic times, quarter-over-quarter stabilization is a welcome improvement. Numerous commitments to begin the return to office in earnest from major tech companies at the end of the first quarter have spurred a further positive outlook, with full recovery possible within the next year and a half.

Local Office market stats:

Office vacancy rate (Class A CBD): **17.2% total**

Average asking rent (Class A CBD): **\$82.84**

Concessions direction: **Increasing**

New office development pipeline
(under construction in metro): **0.7 m.s.f.**

2021 office completions (metro): **4.7 m.s.f.**



Federal agencies' return to office and returning demand for Trophy assets create a positive outlook

2022 Washington, DC

Office Fit Out Costs

Space quality and complexity

Office Fit Out style		Base	Medium	High
	Progressive	\$187 p.s.f.	\$213 p.s.f.	\$248 p.s.f.
	Moderate	\$198 p.s.f.	\$225 p.s.f.	\$266 p.s.f.
	Traditional	\$204 p.s.f.	\$233 p.s.f.	\$280 p.s.f.

State of the Office market:

Like many other markets, the Washington, DC office market is beginning to see fundamentals strengthen due to flight to quality. While this creates a split recovery, the DC market is seeing success in residential conversions for underperforming Class B assets. Lower sublease availability and active leasing from tech firms, including TikTok and Meta, have dropped vacancy to a pandemic low. While federal agencies are returning to the office en masse, driving up daily occupancy again, some uncertainty remains around the GSA's leasing strategies moving forward. Nevertheless, increased activity in DC bodes well for the market's near-term recovery.

Local Office market stats:

Office vacancy rate (Class A CBD): **17.9% total**

Average asking rent (Class A CBD): **\$69.42**

Concessions direction: **Increasing**

New office development pipeline
(under construction in metro): **2.2 m.s.f.**

2021 office completions (metro): **2.8 m.s.f.**

A photograph of a modern building with a glass facade and a large overhang. The building is reflected in the glass. The foreground is a paved plaza. A dark grey rectangular box is overlaid on the bottom left of the image, containing the word 'Appendixes' in white text.

Appendixes

Appendix A: Fit out cost breakdown—Canada

In the rest of this report, all costs are shown in USD to allow a direct comparison between different markets. On this page, costs for the four major Canadian markets covered in this report are shown in CAD. This is intended to eliminate the need for Canada-based companies to convert the

benchmarks to local currency and to simplify cost comparisons across Canadian markets. The exchange rate used in this report is 1 USD to 1.25 CAD, and additional details on currencies and exchange rate is provided in the Report methodology FAQ.

Progressive style	Base quality	Medium quality	High quality
Calgary	\$221.03	\$252.09	\$293.60
Montreal	\$242.13	\$275.98	\$321.23
Toronto	\$243.71	\$277.76	\$323.30
Vancouver	\$229.41	\$261.58	\$304.58

Moderate style	Base quality	Medium quality	High quality
Calgary	\$234.04	\$266.10	\$313.88
Montreal	\$256.98	\$291.96	\$344.36
Toronto	\$258.69	\$293.90	\$346.64
Vancouver	\$243.15	\$276.37	\$325.99

Traditional style	Base quality	Medium quality	High quality
Calgary	\$240.99	\$275.29	\$329.91
Montreal	\$264.90	\$302.45	\$362.65
Toronto	\$266.69	\$304.48	\$365.10
Vancouver	\$250.49	\$286.08	\$342.91

Note: All costs are shown in CAD per RSF.

Appendix B: Progressive office style fit out costs

City	Base Quality and Complexity					Medium Quality and Complexity					High Quality and Complexity				
	Hard Costs	Soft Costs	FF&E	Tenant Factors	Total	Hard Costs	Soft Costs	FF&E	Tenant Factors	Total	Hard Costs	Soft Costs	FF&E	Tenant Factors	Total
Atlanta	\$108.18	\$12.48	\$37.00	\$20.00	\$177.66	\$122.02	\$14.59	\$41.00	\$25.00	\$202.62	\$142.03	\$15.94	\$49.00	\$29.00	\$235.98
Austin	\$100.32	\$11.57	\$37.00	\$20.00	\$168.90	\$113.16	\$13.53	\$41.00	\$25.00	\$192.69	\$131.71	\$14.79	\$49.00	\$29.00	\$224.50
Baltimore	\$113.51	\$13.09	\$37.00	\$20.00	\$183.60	\$128.03	\$15.31	\$41.00	\$25.00	\$209.34	\$149.03	\$16.73	\$49.00	\$29.00	\$243.76
Boston	\$136.45	\$15.74	\$37.00	\$20.00	\$209.19	\$153.90	\$18.40	\$41.00	\$25.00	\$238.31	\$179.14	\$20.11	\$49.00	\$29.00	\$277.25
Calgary	\$107.43	\$12.39	\$37.00	\$20.00	\$176.83	\$121.18	\$14.49	\$41.00	\$25.00	\$201.67	\$141.05	\$15.83	\$49.00	\$29.00	\$234.88
Charlotte	\$105.16	\$12.13	\$37.00	\$20.00	\$174.29	\$118.61	\$14.18	\$41.00	\$25.00	\$198.80	\$138.06	\$15.50	\$49.00	\$29.00	\$231.56
Chicago	\$140.83	\$16.25	\$37.00	\$20.00	\$214.08	\$158.85	\$19.00	\$41.00	\$25.00	\$243.84	\$184.90	\$20.76	\$49.00	\$29.00	\$283.65
Cincinnati	\$108.18	\$12.48	\$37.00	\$20.00	\$177.66	\$122.02	\$14.59	\$41.00	\$25.00	\$202.62	\$142.03	\$15.94	\$49.00	\$29.00	\$235.98
Cleveland	\$114.45	\$13.20	\$37.00	\$20.00	\$184.66	\$129.10	\$15.44	\$41.00	\$25.00	\$210.54	\$150.27	\$16.87	\$49.00	\$29.00	\$245.14
Columbus	\$110.49	\$12.75	\$37.00	\$20.00	\$180.24	\$124.63	\$14.90	\$41.00	\$25.00	\$205.53	\$145.06	\$16.28	\$49.00	\$29.00	\$239.35
Dallas	\$105.16	\$12.13	\$37.00	\$20.00	\$174.29	\$118.61	\$14.18	\$41.00	\$25.00	\$198.80	\$138.06	\$15.50	\$49.00	\$29.00	\$231.56
Denver	\$110.71	\$12.77	\$37.00	\$20.00	\$180.49	\$124.88	\$14.93	\$41.00	\$25.00	\$205.81	\$145.36	\$16.32	\$49.00	\$29.00	\$239.67
Des Moines	\$112.38	\$12.96	\$37.00	\$20.00	\$182.34	\$126.75	\$15.16	\$41.00	\$25.00	\$207.91	\$147.54	\$16.56	\$49.00	\$29.00	\$242.10
Detroit	\$120.54	\$13.91	\$37.00	\$20.00	\$191.44	\$135.96	\$16.26	\$41.00	\$25.00	\$218.22	\$158.26	\$17.77	\$49.00	\$29.00	\$254.02
Fort Worth	\$101.80	\$11.74	\$37.00	\$20.00	\$170.54	\$114.82	\$13.73	\$41.00	\$25.00	\$194.55	\$133.65	\$15.00	\$49.00	\$29.00	\$226.65
Hampton Roads	\$103.95	\$11.99	\$37.00	\$20.00	\$172.94	\$117.25	\$14.02	\$41.00	\$25.00	\$197.27	\$136.48	\$15.32	\$49.00	\$29.00	\$229.80
Houston	\$103.57	\$11.95	\$37.00	\$20.00	\$172.52	\$116.82	\$13.97	\$41.00	\$25.00	\$196.79	\$135.98	\$15.27	\$49.00	\$29.00	\$229.25
Indianapolis	\$103.88	\$11.98	\$37.00	\$20.00	\$172.86	\$117.17	\$14.01	\$41.00	\$25.00	\$197.18	\$136.38	\$15.31	\$49.00	\$29.00	\$229.69
Jacksonville	\$102.63	\$11.84	\$37.00	\$20.00	\$171.47	\$115.76	\$13.84	\$41.00	\$25.00	\$195.60	\$134.74	\$15.13	\$49.00	\$29.00	\$227.87
Las Vegas	\$116.57	\$13.45	\$37.00	\$20.00	\$187.01	\$131.48	\$15.72	\$41.00	\$25.00	\$213.20	\$153.04	\$17.18	\$49.00	\$29.00	\$248.22
Los Angeles	\$137.16	\$15.82	\$37.00	\$20.00	\$209.99	\$154.71	\$18.50	\$41.00	\$25.00	\$239.21	\$180.08	\$20.22	\$49.00	\$29.00	\$278.30
Louisville	\$106.82	\$12.32	\$37.00	\$20.00	\$176.14	\$120.49	\$14.41	\$41.00	\$25.00	\$200.90	\$140.25	\$15.74	\$49.00	\$29.00	\$233.99
Miami	\$105.69	\$12.19	\$37.00	\$20.00	\$174.88	\$119.21	\$14.26	\$41.00	\$25.00	\$199.47	\$138.76	\$15.58	\$49.00	\$29.00	\$232.34
Milwaukee	\$121.48	\$14.01	\$37.00	\$20.00	\$192.50	\$137.03	\$16.39	\$41.00	\$25.00	\$219.41	\$159.50	\$17.90	\$49.00	\$29.00	\$255.40
Minneapolis	\$116.30	\$13.42	\$37.00	\$20.00	\$186.72	\$131.18	\$15.69	\$41.00	\$25.00	\$212.87	\$152.69	\$17.14	\$49.00	\$29.00	\$247.83
Montreal	\$86.06	\$9.93	\$37.00	\$20.00	\$152.99	\$97.07	\$11.61	\$41.00	\$25.00	\$174.68	\$112.99	\$12.68	\$49.00	\$29.00	\$203.68
Nashville	\$107.58	\$12.41	\$37.00	\$20.00	\$176.99	\$121.34	\$14.51	\$41.00	\$25.00	\$201.85	\$141.24	\$15.86	\$49.00	\$29.00	\$235.09
New York City	\$152.43	\$17.58	\$37.00	\$20.00	\$227.01	\$171.93	\$20.56	\$41.00	\$25.00	\$258.49	\$200.13	\$22.47	\$49.00	\$29.00	\$300.59
Newark	\$137.17	\$15.82	\$37.00	\$20.00	\$209.99	\$154.72	\$18.50	\$41.00	\$25.00	\$239.22	\$180.09	\$20.22	\$49.00	\$29.00	\$278.31
Northern Virginia	\$109.13	\$12.59	\$37.00	\$20.00	\$178.72	\$123.09	\$14.72	\$41.00	\$25.00	\$203.81	\$143.27	\$16.08	\$49.00	\$29.00	\$237.36
Oakland	\$145.63	\$16.80	\$37.00	\$20.00	\$219.43	\$164.26	\$19.64	\$41.00	\$25.00	\$249.90	\$191.20	\$21.46	\$49.00	\$29.00	\$290.66
Orange County	\$131.61	\$15.18	\$37.00	\$20.00	\$203.79	\$148.45	\$17.75	\$41.00	\$25.00	\$232.20	\$172.79	\$19.40	\$49.00	\$29.00	\$270.19
Orlando	\$104.93	\$12.10	\$37.00	\$20.00	\$174.04	\$118.36	\$14.15	\$41.00	\$25.00	\$198.51	\$137.77	\$15.47	\$49.00	\$29.00	\$231.23
Philadelphia	\$137.16	\$15.82	\$37.00	\$20.00	\$209.99	\$154.71	\$18.50	\$41.00	\$25.00	\$239.21	\$180.08	\$20.22	\$49.00	\$29.00	\$278.30
Phoenix	\$109.85	\$12.67	\$37.00	\$20.00	\$179.52	\$123.90	\$14.82	\$41.00	\$25.00	\$204.72	\$144.22	\$16.19	\$49.00	\$29.00	\$238.41
Pittsburgh	\$121.26	\$13.99	\$37.00	\$20.00	\$192.24	\$136.77	\$16.36	\$41.00	\$25.00	\$219.13	\$159.20	\$17.87	\$49.00	\$29.00	\$255.07
Portland	\$120.22	\$14.45	\$37.00	\$20.00	\$191.67	\$136.24	\$16.89	\$41.00	\$25.00	\$219.14	\$159.41	\$18.46	\$49.00	\$29.00	\$255.86
Raleigh	\$102.85	\$11.87	\$37.00	\$20.00	\$171.72	\$116.01	\$13.87	\$41.00	\$25.00	\$195.89	\$135.04	\$15.16	\$49.00	\$29.00	\$228.20
Richmond	\$104.94	\$12.11	\$37.00	\$20.00	\$174.05	\$118.37	\$14.16	\$41.00	\$25.00	\$198.53	\$137.78	\$15.47	\$49.00	\$29.00	\$231.25
Sacramento	\$134.25	\$15.49	\$37.00	\$20.00	\$206.74	\$151.43	\$18.11	\$41.00	\$25.00	\$235.54	\$176.26	\$19.79	\$49.00	\$29.00	\$274.05
Salt Lake City	\$109.01	\$12.58	\$37.00	\$20.00	\$178.59	\$122.96	\$14.70	\$41.00	\$25.00	\$203.66	\$143.12	\$16.07	\$49.00	\$29.00	\$237.19
San Antonio	\$101.38	\$11.70	\$37.00	\$20.00	\$170.08	\$114.35	\$13.67	\$41.00	\$25.00	\$194.03	\$133.10	\$14.94	\$49.00	\$29.00	\$226.05
San Diego	\$133.39	\$15.39	\$37.00	\$20.00	\$205.77	\$150.45	\$17.99	\$41.00	\$25.00	\$234.44	\$175.12	\$19.66	\$49.00	\$29.00	\$272.78
San Francisco	\$153.71	\$17.73	\$37.00	\$20.00	\$228.45	\$173.38	\$20.73	\$41.00	\$25.00	\$260.11	\$201.81	\$22.66	\$49.00	\$29.00	\$302.47
San Jose	\$148.46	\$17.13	\$37.00	\$20.00	\$222.59	\$167.46	\$20.03	\$41.00	\$25.00	\$253.48	\$194.92	\$21.88	\$49.00	\$29.00	\$294.80
Seattle	\$128.06	\$14.77	\$37.00	\$20.00	\$199.83	\$144.44	\$17.27	\$41.00	\$25.00	\$227.71	\$168.13	\$18.87	\$49.00	\$29.00	\$265.00
St. Louis	\$119.82	\$13.82	\$37.00	\$20.00	\$190.64	\$135.15	\$16.16	\$41.00	\$25.00	\$217.31	\$157.31	\$17.66	\$49.00	\$29.00	\$252.97
Suburban Maryland	\$108.64	\$12.53	\$37.00	\$20.00	\$178.17	\$122.53	\$14.65	\$41.00	\$25.00	\$203.19	\$142.63	\$16.01	\$49.00	\$29.00	\$236.64
Tampa	\$105.57	\$12.18	\$37.00	\$20.00	\$174.75	\$119.08	\$14.24	\$41.00	\$25.00	\$199.32	\$138.61	\$15.56	\$49.00	\$29.00	\$232.17
Toronto	\$123.70	\$14.27	\$37.00	\$20.00	\$194.97	\$139.53	\$16.69	\$41.00	\$25.00	\$222.21	\$162.41	\$18.23	\$49.00	\$29.00	\$258.64
Vancouver	\$113.44	\$13.09	\$37.00	\$20.00	\$183.53	\$127.96	\$15.30	\$41.00	\$25.00	\$209.26	\$148.94	\$16.72	\$49.00	\$29.00	\$243.66
Washington, DC	\$116.57	\$13.45	\$37.00	\$20.00	\$187.02	\$131.48	\$15.72	\$41.00	\$25.00	\$213.21	\$153.05	\$17.18	\$49.00	\$29.00	\$248.23

Note: All costs are shown in USD per RSF.

Appendix B: Moderate office style fit out costs

City	Base Quality and Complexity					Medium Quality and Complexity					High Quality and Complexity				
	Hard Costs	Soft Costs	FF&E	Tenant Factors	Total	Hard Costs	Soft Costs	FF&E	Tenant Factors	Total	Hard Costs	Soft Costs	FF&E	Tenant Factors	Total
Atlanta	\$117.59	\$13.56	\$37.00	\$20.00	\$188.14	\$132.58	\$15.32	\$41.00	\$25.00	\$213.90	\$156.26	\$18.05	\$49.00	\$29.00	\$252.31
Austin	\$109.04	\$12.57	\$37.00	\$20.00	\$178.62	\$122.95	\$14.20	\$41.00	\$25.00	\$203.16	\$144.91	\$16.74	\$49.00	\$29.00	\$239.65
Baltimore	\$123.38	\$14.23	\$37.00	\$20.00	\$194.60	\$139.11	\$16.07	\$41.00	\$25.00	\$221.19	\$163.96	\$18.94	\$49.00	\$29.00	\$260.90
Boston	\$148.31	\$17.10	\$37.00	\$20.00	\$222.41	\$167.22	\$19.32	\$41.00	\$25.00	\$252.54	\$197.09	\$22.76	\$49.00	\$29.00	\$297.85
Calgary	\$115.84	\$13.46	\$37.00	\$20.00	\$186.31	\$131.67	\$15.21	\$41.00	\$25.00	\$212.88	\$155.18	\$17.92	\$49.00	\$29.00	\$251.10
Charlotte	\$114.30	\$13.18	\$37.00	\$20.00	\$184.48	\$128.88	\$14.89	\$41.00	\$25.00	\$209.77	\$151.90	\$17.54	\$49.00	\$29.00	\$247.44
Chicago	\$153.07	\$17.65	\$37.00	\$20.00	\$227.72	\$172.60	\$19.94	\$41.00	\$25.00	\$258.54	\$203.42	\$23.49	\$49.00	\$29.00	\$304.91
Cincinnati	\$117.59	\$13.56	\$37.00	\$20.00	\$188.14	\$132.58	\$15.32	\$41.00	\$25.00	\$213.90	\$156.26	\$18.05	\$49.00	\$29.00	\$252.31
Cleveland	\$124.40	\$14.34	\$37.00	\$20.00	\$195.75	\$140.27	\$16.21	\$41.00	\$25.00	\$222.48	\$165.32	\$19.09	\$49.00	\$29.00	\$262.42
Columbus	\$120.09	\$13.85	\$37.00	\$20.00	\$190.94	\$135.41	\$15.64	\$41.00	\$25.00	\$217.06	\$159.60	\$18.43	\$49.00	\$29.00	\$256.03
Dallas	\$114.30	\$13.18	\$37.00	\$20.00	\$184.48	\$128.88	\$14.89	\$41.00	\$25.00	\$209.77	\$151.90	\$17.54	\$49.00	\$29.00	\$247.44
Denver	\$120.34	\$13.88	\$37.00	\$20.00	\$191.21	\$135.69	\$15.68	\$41.00	\$25.00	\$217.36	\$159.92	\$18.47	\$49.00	\$29.00	\$256.39
Des Moines	\$122.14	\$14.08	\$37.00	\$20.00	\$193.23	\$137.73	\$15.91	\$41.00	\$25.00	\$219.64	\$162.32	\$18.75	\$49.00	\$29.00	\$259.07
Detroit	\$131.02	\$15.11	\$37.00	\$20.00	\$203.12	\$147.73	\$17.07	\$41.00	\$25.00	\$230.79	\$174.11	\$20.11	\$49.00	\$29.00	\$272.22
Fort Worth	\$110.65	\$12.76	\$37.00	\$20.00	\$180.40	\$124.76	\$14.41	\$41.00	\$25.00	\$205.17	\$147.04	\$16.98	\$49.00	\$29.00	\$242.02
Hampton Roads	\$112.99	\$13.03	\$37.00	\$20.00	\$183.01	\$127.40	\$14.72	\$41.00	\$25.00	\$208.12	\$150.15	\$17.34	\$49.00	\$29.00	\$245.49
Houston	\$112.58	\$12.98	\$37.00	\$20.00	\$182.56	\$126.94	\$14.66	\$41.00	\$25.00	\$207.60	\$149.60	\$17.28	\$49.00	\$29.00	\$244.88
Indianapolis	\$112.91	\$13.02	\$37.00	\$20.00	\$182.93	\$127.31	\$14.71	\$41.00	\$25.00	\$208.02	\$150.05	\$17.33	\$49.00	\$29.00	\$245.38
Jacksonville	\$111.55	\$12.86	\$37.00	\$20.00	\$181.41	\$125.78	\$14.53	\$41.00	\$25.00	\$206.31	\$148.24	\$17.12	\$49.00	\$29.00	\$243.36
Las Vegas	\$126.70	\$14.61	\$37.00	\$20.00	\$198.31	\$142.86	\$16.50	\$41.00	\$25.00	\$225.36	\$168.37	\$19.45	\$49.00	\$29.00	\$265.82
Los Angeles	\$149.09	\$17.19	\$37.00	\$20.00	\$223.28	\$168.10	\$19.42	\$41.00	\$25.00	\$253.52	\$198.13	\$22.88	\$49.00	\$29.00	\$299.01
Louisville	\$116.11	\$13.39	\$37.00	\$20.00	\$186.50	\$130.92	\$15.12	\$41.00	\$25.00	\$212.04	\$154.30	\$17.82	\$49.00	\$29.00	\$250.12
Miami	\$114.88	\$13.25	\$37.00	\$20.00	\$185.12	\$129.53	\$14.96	\$41.00	\$25.00	\$210.49	\$152.66	\$17.63	\$49.00	\$29.00	\$248.29
Milwaukee	\$132.04	\$15.23	\$37.00	\$20.00	\$204.27	\$148.89	\$17.20	\$41.00	\$25.00	\$232.09	\$175.48	\$20.27	\$49.00	\$29.00	\$273.74
Minneapolis	\$126.41	\$14.58	\$37.00	\$20.00	\$197.99	\$142.53	\$16.47	\$41.00	\$25.00	\$225.00	\$167.99	\$19.40	\$49.00	\$29.00	\$265.39
Montreal	\$93.54	\$10.79	\$37.00	\$20.00	\$161.33	\$105.48	\$12.19	\$41.00	\$25.00	\$183.66	\$124.31	\$14.36	\$49.00	\$29.00	\$216.67
Nashville	\$116.93	\$13.48	\$37.00	\$20.00	\$187.41	\$131.84	\$15.23	\$41.00	\$25.00	\$213.08	\$155.39	\$17.95	\$49.00	\$29.00	\$251.34
New York City	\$165.68	\$19.10	\$37.00	\$20.00	\$241.78	\$186.81	\$21.58	\$41.00	\$25.00	\$274.40	\$220.18	\$25.43	\$49.00	\$29.00	\$323.61
Newark	\$149.09	\$17.19	\$37.00	\$20.00	\$223.29	\$168.11	\$19.42	\$41.00	\$25.00	\$253.53	\$198.13	\$22.88	\$49.00	\$29.00	\$299.02
Northern Virginia	\$118.61	\$13.68	\$37.00	\$20.00	\$189.29	\$133.74	\$15.45	\$41.00	\$25.00	\$215.19	\$157.63	\$18.21	\$49.00	\$29.00	\$253.83
Oakland	\$158.29	\$18.25	\$37.00	\$20.00	\$233.54	\$178.48	\$20.62	\$41.00	\$25.00	\$265.10	\$210.35	\$24.30	\$49.00	\$29.00	\$312.65
Orange County	\$143.05	\$16.49	\$37.00	\$20.00	\$216.54	\$161.30	\$18.63	\$41.00	\$25.00	\$245.93	\$190.10	\$21.96	\$49.00	\$29.00	\$290.06
Orlando	\$114.05	\$13.15	\$37.00	\$20.00	\$184.20	\$128.60	\$14.86	\$41.00	\$25.00	\$209.46	\$151.57	\$17.51	\$49.00	\$29.00	\$247.07
Philadelphia	\$149.09	\$17.19	\$37.00	\$20.00	\$223.28	\$168.10	\$19.42	\$41.00	\$25.00	\$253.52	\$198.13	\$22.88	\$49.00	\$29.00	\$299.01
Phoenix	\$119.39	\$13.77	\$37.00	\$20.00	\$190.16	\$134.62	\$15.55	\$41.00	\$25.00	\$216.18	\$158.67	\$18.33	\$49.00	\$29.00	\$254.99
Pittsburgh	\$131.80	\$15.20	\$37.00	\$20.00	\$203.99	\$148.61	\$17.17	\$41.00	\$25.00	\$231.78	\$175.15	\$20.23	\$49.00	\$29.00	\$273.38
Portland	\$131.11	\$15.69	\$37.00	\$20.00	\$203.80	\$148.47	\$17.73	\$41.00	\$25.00	\$232.20	\$175.88	\$20.89	\$49.00	\$29.00	\$274.77
Raleigh	\$111.80	\$12.89	\$37.00	\$20.00	\$181.69	\$126.06	\$14.56	\$41.00	\$25.00	\$206.62	\$148.57	\$17.16	\$49.00	\$29.00	\$243.73
Richmond	\$114.07	\$13.15	\$37.00	\$20.00	\$184.22	\$128.62	\$14.86	\$41.00	\$25.00	\$209.47	\$151.59	\$17.51	\$49.00	\$29.00	\$247.09
Sacramento	\$145.93	\$16.83	\$37.00	\$20.00	\$219.75	\$164.54	\$19.01	\$41.00	\$25.00	\$249.55	\$193.92	\$22.40	\$49.00	\$29.00	\$294.32
Salt Lake City	\$118.49	\$13.66	\$37.00	\$20.00	\$189.15	\$133.60	\$15.43	\$41.00	\$25.00	\$215.04	\$157.46	\$18.19	\$49.00	\$29.00	\$253.65
San Antonio	\$110.19	\$12.71	\$37.00	\$20.00	\$179.90	\$124.25	\$14.35	\$41.00	\$25.00	\$204.60	\$146.44	\$16.91	\$49.00	\$29.00	\$241.35
San Diego	\$144.98	\$16.72	\$37.00	\$20.00	\$218.70	\$163.47	\$18.89	\$41.00	\$25.00	\$248.36	\$192.67	\$22.25	\$49.00	\$29.00	\$292.92
San Francisco	\$167.08	\$19.26	\$37.00	\$20.00	\$243.34	\$188.39	\$21.76	\$41.00	\$25.00	\$276.15	\$222.03	\$25.64	\$49.00	\$29.00	\$325.68
San Jose	\$161.37	\$18.61	\$37.00	\$20.00	\$236.97	\$181.95	\$21.02	\$41.00	\$25.00	\$268.97	\$214.45	\$24.77	\$49.00	\$29.00	\$317.21
Seattle	\$139.19	\$16.05	\$37.00	\$20.00	\$212.24	\$156.94	\$18.13	\$41.00	\$25.00	\$241.07	\$184.97	\$21.36	\$49.00	\$29.00	\$284.34
St. Louis	\$130.24	\$15.02	\$37.00	\$20.00	\$202.25	\$146.85	\$16.96	\$41.00	\$25.00	\$229.81	\$173.07	\$19.99	\$49.00	\$29.00	\$271.06
Suburban Maryland	\$118.08	\$13.61	\$37.00	\$20.00	\$188.69	\$133.14	\$15.38	\$41.00	\$25.00	\$214.52	\$156.92	\$18.12	\$49.00	\$29.00	\$253.04
Tampa	\$114.75	\$13.23	\$37.00	\$20.00	\$184.98	\$129.39	\$14.95	\$41.00	\$25.00	\$210.34	\$152.50	\$17.61	\$49.00	\$29.00	\$248.11
Toronto	\$134.45	\$15.50	\$37.00	\$20.00	\$206.96	\$151.60	\$17.51	\$41.00	\$25.00	\$235.12	\$178.68	\$20.64	\$49.00	\$29.00	\$277.31
Vancouver	\$123.31	\$14.22	\$37.00	\$20.00	\$194.52	\$139.03	\$16.06	\$41.00	\$25.00	\$221.10	\$163.86	\$18.93	\$49.00	\$29.00	\$260.79
Washington, DC	\$126.70	\$14.61	\$37.00	\$20.00	\$198.31	\$142.87	\$16.50	\$41.00	\$25.00	\$225.37	\$168.38	\$19.45	\$49.00	\$29.00	\$265.83

Note: All costs are shown in USD per RSF.

Appendix B: Traditional office style fit out costs

City	Base Quality and Complexity					Medium Quality and Complexity					High Quality and Complexity				
	Hard Costs	Soft Costs	FF&E	Tenant Factors	Total	Hard Costs	Soft Costs	FF&E	Tenant Factors	Total	Hard Costs	Soft Costs	FF&E	Tenant Factors	Total
Atlanta	\$122.60	\$14.14	\$37.00	\$20.00	\$193.74	\$139.22	\$16.09	\$41.00	\$25.00	\$221.31	\$167.80	\$19.43	\$49.00	\$29.00	\$265.22
Austin	\$113.69	\$13.11	\$37.00	\$20.00	\$183.80	\$129.11	\$14.92	\$41.00	\$25.00	\$210.03	\$155.61	\$18.02	\$49.00	\$29.00	\$251.62
Baltimore	\$128.64	\$14.84	\$37.00	\$20.00	\$200.47	\$146.08	\$16.88	\$41.00	\$25.00	\$228.96	\$176.06	\$20.38	\$49.00	\$29.00	\$274.44
Boston	\$154.63	\$17.84	\$37.00	\$20.00	\$229.46	\$175.60	\$20.29	\$41.00	\$25.00	\$261.88	\$211.64	\$24.50	\$49.00	\$29.00	\$314.14
Calgary	\$121.75	\$14.04	\$37.00	\$20.00	\$192.79	\$138.26	\$15.97	\$41.00	\$25.00	\$220.23	\$166.63	\$19.29	\$49.00	\$29.00	\$263.93
Charlotte	\$119.17	\$13.75	\$37.00	\$20.00	\$189.92	\$135.33	\$15.64	\$41.00	\$25.00	\$216.97	\$163.11	\$18.88	\$49.00	\$29.00	\$259.99
Chicago	\$159.60	\$18.41	\$37.00	\$20.00	\$235.00	\$181.24	\$20.94	\$41.00	\$25.00	\$268.18	\$218.44	\$25.29	\$49.00	\$29.00	\$321.72
Cincinnati	\$122.60	\$14.14	\$37.00	\$20.00	\$193.74	\$139.22	\$16.09	\$41.00	\$25.00	\$221.31	\$167.80	\$19.43	\$49.00	\$29.00	\$265.22
Cleveland	\$129.71	\$14.96	\$37.00	\$20.00	\$201.67	\$147.29	\$17.02	\$41.00	\$25.00	\$230.31	\$177.53	\$20.55	\$49.00	\$29.00	\$276.08
Columbus	\$125.21	\$14.44	\$37.00	\$20.00	\$196.66	\$142.19	\$16.43	\$41.00	\$25.00	\$224.62	\$171.38	\$19.84	\$49.00	\$29.00	\$269.22
Dallas	\$119.17	\$13.75	\$37.00	\$20.00	\$189.92	\$135.33	\$15.64	\$41.00	\$25.00	\$216.97	\$163.11	\$18.88	\$49.00	\$29.00	\$259.99
Denver	\$125.47	\$14.47	\$37.00	\$20.00	\$196.94	\$142.48	\$16.46	\$41.00	\$25.00	\$224.94	\$171.72	\$19.88	\$49.00	\$29.00	\$269.61
Des Moines	\$127.35	\$14.69	\$37.00	\$20.00	\$199.04	\$144.62	\$16.71	\$41.00	\$25.00	\$227.33	\$174.30	\$20.18	\$49.00	\$29.00	\$272.48
Detroit	\$136.60	\$15.76	\$37.00	\$20.00	\$209.36	\$155.12	\$17.92	\$41.00	\$25.00	\$239.05	\$186.96	\$21.65	\$49.00	\$29.00	\$286.61
Fort Worth	\$115.36	\$13.31	\$37.00	\$20.00	\$185.67	\$131.00	\$15.14	\$41.00	\$25.00	\$212.14	\$157.89	\$18.28	\$49.00	\$29.00	\$254.17
Hampton Roads	\$117.80	\$13.59	\$37.00	\$20.00	\$188.39	\$133.78	\$15.46	\$41.00	\$25.00	\$215.23	\$161.23	\$18.67	\$49.00	\$29.00	\$257.90
Houston	\$117.37	\$13.54	\$37.00	\$20.00	\$187.91	\$133.29	\$15.40	\$41.00	\$25.00	\$214.69	\$160.65	\$18.60	\$49.00	\$29.00	\$257.25
Indianapolis	\$117.72	\$13.58	\$37.00	\$20.00	\$188.30	\$133.68	\$15.45	\$41.00	\$25.00	\$215.13	\$161.12	\$18.65	\$49.00	\$29.00	\$257.78
Jacksonville	\$116.30	\$13.42	\$37.00	\$20.00	\$186.72	\$132.07	\$15.26	\$41.00	\$25.00	\$213.33	\$159.18	\$18.43	\$49.00	\$29.00	\$255.61
Las Vegas	\$132.09	\$15.24	\$37.00	\$20.00	\$204.32	\$150.00	\$17.33	\$41.00	\$25.00	\$233.33	\$180.79	\$20.93	\$49.00	\$29.00	\$279.72
Los Angeles	\$155.44	\$17.93	\$37.00	\$20.00	\$230.37	\$176.52	\$20.40	\$41.00	\$25.00	\$262.92	\$212.75	\$24.63	\$49.00	\$29.00	\$315.38
Louisville	\$121.06	\$13.96	\$37.00	\$20.00	\$192.02	\$137.47	\$15.88	\$41.00	\$25.00	\$219.36	\$165.69	\$19.18	\$49.00	\$29.00	\$262.87
Miami	\$119.77	\$13.82	\$37.00	\$20.00	\$190.59	\$136.01	\$15.72	\$41.00	\$25.00	\$217.73	\$163.93	\$18.98	\$49.00	\$29.00	\$260.91
Milwaukee	\$137.67	\$15.88	\$37.00	\$20.00	\$210.55	\$156.34	\$18.06	\$41.00	\$25.00	\$240.40	\$188.43	\$21.82	\$49.00	\$29.00	\$288.24
Minneapolis	\$131.80	\$15.20	\$37.00	\$20.00	\$204.00	\$149.67	\$17.29	\$41.00	\$25.00	\$232.96	\$180.39	\$20.88	\$49.00	\$29.00	\$279.27
Montreal	\$97.53	\$11.25	\$37.00	\$20.00	\$165.78	\$110.76	\$12.80	\$41.00	\$25.00	\$189.55	\$133.49	\$15.45	\$49.00	\$29.00	\$226.94
Nashville	\$121.91	\$14.06	\$37.00	\$20.00	\$192.97	\$138.44	\$16.00	\$41.00	\$25.00	\$220.44	\$166.86	\$19.32	\$49.00	\$29.00	\$264.18
New York City	\$172.74	\$19.93	\$37.00	\$20.00	\$249.67	\$196.17	\$22.67	\$41.00	\$25.00	\$284.83	\$236.43	\$27.37	\$49.00	\$29.00	\$341.80
Newark	\$155.45	\$17.93	\$37.00	\$20.00	\$230.38	\$176.53	\$20.40	\$41.00	\$25.00	\$262.92	\$212.76	\$24.63	\$49.00	\$29.00	\$315.39
Northern Virginia	\$123.67	\$14.26	\$37.00	\$20.00	\$194.93	\$140.44	\$16.23	\$41.00	\$25.00	\$222.66	\$169.26	\$19.60	\$49.00	\$29.00	\$266.86
Oakland	\$165.03	\$19.04	\$37.00	\$20.00	\$241.07	\$187.41	\$21.65	\$41.00	\$25.00	\$275.07	\$225.88	\$26.15	\$49.00	\$29.00	\$330.03
Orange County	\$149.15	\$17.20	\$37.00	\$20.00	\$223.35	\$169.37	\$19.57	\$41.00	\$25.00	\$254.94	\$204.13	\$23.63	\$49.00	\$29.00	\$305.77
Orlando	\$118.91	\$13.72	\$37.00	\$20.00	\$189.63	\$135.04	\$15.60	\$41.00	\$25.00	\$216.64	\$162.76	\$18.84	\$49.00	\$29.00	\$259.60
Philadelphia	\$155.44	\$17.93	\$37.00	\$20.00	\$230.37	\$176.52	\$20.40	\$41.00	\$25.00	\$262.92	\$212.75	\$24.63	\$49.00	\$29.00	\$315.38
Phoenix	\$124.48	\$14.36	\$37.00	\$20.00	\$195.84	\$141.36	\$16.33	\$41.00	\$25.00	\$223.70	\$170.38	\$19.73	\$49.00	\$29.00	\$268.10
Pittsburgh	\$137.41	\$15.85	\$37.00	\$20.00	\$210.26	\$156.05	\$18.03	\$41.00	\$25.00	\$240.08	\$188.08	\$21.77	\$49.00	\$29.00	\$287.85
Portland	\$136.91	\$16.37	\$37.00	\$20.00	\$210.28	\$156.15	\$18.62	\$41.00	\$25.00	\$240.77	\$189.23	\$22.49	\$49.00	\$29.00	\$289.72
Raleigh	\$116.56	\$13.44	\$37.00	\$20.00	\$187.00	\$132.37	\$15.29	\$41.00	\$25.00	\$213.66	\$159.53	\$18.47	\$49.00	\$29.00	\$256.00
Richmond	\$118.93	\$13.72	\$37.00	\$20.00	\$189.65	\$135.06	\$15.60	\$41.00	\$25.00	\$216.66	\$162.77	\$18.85	\$49.00	\$29.00	\$259.62
Sacramento	\$152.14	\$17.55	\$37.00	\$20.00	\$226.69	\$172.78	\$19.96	\$41.00	\$25.00	\$258.74	\$208.24	\$24.11	\$49.00	\$29.00	\$310.35
Salt Lake City	\$123.54	\$14.25	\$37.00	\$20.00	\$194.79	\$140.29	\$16.21	\$41.00	\$25.00	\$222.50	\$169.09	\$19.58	\$49.00	\$29.00	\$266.66
San Antonio	\$114.89	\$13.25	\$37.00	\$20.00	\$185.14	\$130.47	\$15.07	\$41.00	\$25.00	\$211.54	\$157.25	\$18.21	\$49.00	\$29.00	\$253.45
San Diego	\$151.16	\$17.44	\$37.00	\$20.00	\$225.60	\$171.66	\$19.83	\$41.00	\$25.00	\$257.49	\$206.89	\$23.95	\$49.00	\$29.00	\$308.84
San Francisco	\$174.20	\$20.09	\$37.00	\$20.00	\$251.29	\$197.82	\$22.86	\$41.00	\$25.00	\$286.68	\$238.42	\$27.60	\$49.00	\$29.00	\$344.02
San Jose	\$168.24	\$19.41	\$37.00	\$20.00	\$244.65	\$191.06	\$22.08	\$41.00	\$25.00	\$279.14	\$230.27	\$26.66	\$49.00	\$29.00	\$334.93
Seattle	\$145.12	\$16.74	\$37.00	\$20.00	\$218.86	\$164.80	\$19.04	\$41.00	\$25.00	\$249.84	\$198.63	\$23.00	\$49.00	\$29.00	\$299.62
St. Louis	\$135.79	\$15.66	\$37.00	\$20.00	\$208.45	\$154.20	\$17.82	\$41.00	\$25.00	\$238.02	\$185.85	\$21.52	\$49.00	\$29.00	\$285.37
Suburban Maryland	\$123.11	\$14.20	\$37.00	\$20.00	\$194.31	\$139.81	\$16.15	\$41.00	\$25.00	\$221.96	\$168.50	\$19.51	\$49.00	\$29.00	\$266.01
Tampa	\$119.64	\$13.80	\$37.00	\$20.00	\$190.44	\$135.87	\$15.70	\$41.00	\$25.00	\$217.57	\$163.75	\$18.96	\$49.00	\$29.00	\$260.71
Toronto	\$140.18	\$16.17	\$37.00	\$20.00	\$213.35	\$159.19	\$18.39	\$41.00	\$25.00	\$243.59	\$191.87	\$22.21	\$49.00	\$29.00	\$292.08
Vancouver	\$128.56	\$14.83	\$37.00	\$20.00	\$200.39	\$145.99	\$16.87	\$41.00	\$25.00	\$228.86	\$175.96	\$20.37	\$49.00	\$29.00	\$274.33
Washington, DC	\$132.10	\$15.24	\$37.00	\$20.00	\$204.34	\$150.02	\$17.33	\$41.00	\$25.00	\$233.35	\$180.81	\$20.93	\$49.00	\$29.00	\$279.74

Note: All costs are shown in USD per RSF.

Appendix C: Report methodology **FAQ**

Details on the methodology and data behind this report, presented in an FAQ organized from least to most technical.

1. What exactly is an office fit out?

An office fit out includes designing, constructing and furnishing the physical workplace. Office fit outs can range widely in scope based on tenant needs and geography. For the purpose of this guide, we assume a baseline of a second-generation space that is provided by the landlord as a warm lit shell that is in a condition ready for tenant improvements. An office fit out can also be called a fit up, build out or tenant improvement.

2. Do these benchmark costs apply to any type of office space and office building?

The cost benchmarks in this report are designed to apply to office fit outs in Class A buildings in each market. The specific quality of buildings varies by market, as a Class A building will be different in a gateway market compared to a secondary market. The costs provided here will generally apply for an office in the 10,000- to 40,000-square-foot range. They can also apply to larger offices, but note that our benchmarks do not include the type of features common in large HQ offices, like auditoriums, large cafeterias, etc. All national averages listed in this report are based on the medium quality and complexity and moderate style definitions.

3. I know of example fit out projects that were either considerably cheaper or considerably more expensive than the costs listed in this guide. Why does this guide not cover everything?

This report is designed to represent average costs in each of the categories listed. It is very possible to build an office for much more or much less than any of the costs listed here. These cost benchmarks should not be viewed as the lowest or highest achievable numbers.

4. Can I compare the costs in this guide to previous versions of the report from past years?

No, the cost benchmarks in this report should not be used for comparison to previous versions to determine construction cost inflation. Our JLL Construction Outlook reports include specific

historical and future construction cost inflation data for that purpose. The benchmarks in this report change each year to cover the average project at that time, and we tweak and improve the methodology with each cycle. Comparing to previous versions is not guaranteed to accurately represent true construction cost inflation.

5. What kinds of costs go into the fit out benchmarks in this report?

The fit out costs for each market depict the average cost of building comparable office space across the country. While many aspects of an office fit out can affect the final budget, including materials selection, existing space conditions and layout design, these costs represent a midpoint scope and factor in:

- **Hard Costs**
- **Soft Costs (Design and Fees)**
 - Architecture, engineering, project management, consulting and additional fees
- **Furniture, Fixtures, and Equipment (FF&E)**
- **Tenant Factors**
 - Audio/video installation, IT and technology costs, security costs and moving fees

6. How are the costs for FF&E and tenant factors determined, and why are they the same across all the markets in this report?

Due to the varying nature of tenant needs for FF&E and tenant factors (A/V, technology, security, moving), midpoints were determined from an analysis of the raw data. Average values were selected for each of the three categories of space quality and complexity. Those same benchmark values are kept equal across all cities and office styles. For example, all cost benchmarks for medium quality and complexity will have the same FF&E and tenant factor cost, regardless of geography and office style. If you know your standard FF&E and tenant factor costs, you are encouraged to use the data found in the appendixes and substitute your specific costs into those categories to create a more precise number for your needs.

Appendix C: Report methodology **FAQ**

7. Are these costs based on union or non-union labor?

The costs in this guide are not union or non-union specific. Instead, the costs represent the average cost of construction in each given market. If union labor is more common in one particular city, the resulting cost increase is included in the market cost numbers published in this guide. In other words, the project mix that was used to create the averages in this guide is reflective of the typical union versus non-union labor mix found in each market. If a project will require union labor in a market where union work is not the norm, or vice versa, the benchmark costs in this guide would likely need to be adjusted up or down to reflect that requirement.

8. This report includes markets in both the United States and Canada. How do you adjust for currency differences?

The benchmark costs shown throughout this report are all shown in USD, except for the Canadian appendix on page 27. All currency conversions in this report are at a 1 USD to 1.25 CAD exchange rate, which was the latest rate at the time of this writing in April 2022. The cost benchmarks in this report are based on local project data in each market, so any changes in the exchange rate would not directly change the cost benchmark in local currency in each market. However, it would change the relative

affordability of Canadian cities from the perspective of U.S.-based companies. For clarity and to avoid any discrepancies as exchange rates change, the national average benchmark costs and analysis in this report reflect U.S. markets only.

9. Are these cost benchmarks based on usable square footage (USF) or rentable square footage (RSF)?

All benchmark costs in this report are listed on a cost-per-rentable-square-foot basis. This guide is intended to be most useful from the perspective of a company looking to lease and occupy their own space. When considering options of space to lease, offices sizes are generally advertised and listed in RSF, so this guide is designed to be easy to use without needing any conversions.

10. Do the costs in this report include unique COVID-19-related costs from 2020 or 2021?

No, the cost benchmarks in this report are not designed to represent the unique and one-off costs incurred from operating a construction site over the past year. For example, projects operating in 2020 may have had to shut down for a month and then design and implement new safety protocols to restart operations. Those additional costs are excluded from the benchmarks, which are designed to represent 2022 costs.





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