Achieving great design with technical excellence means setting bold design aspirations ...

Great design is realized at the intersection of art, craft and science. Technical excellence is critical to that realization and it is important that everyone understands the difference between technical competence and technical excellence, as well as the importance of each to our aspirations for our constantly developing practice.

Technical competence is essential to the delivery of good projects and forms the foundation of our professional responsibilities: code compliance, interdisciplinary coordination, good specifications, clear documents and effective construction phase services.

Technical excellence requires all of these competencies and much more. It demands a creative process that melds the craft of building with the science of buildings. It is an exciting and joyous process by which a deep understanding of the nature of materials—how they are composed, fabricated and installed—can coax from those materials the communication of a building’s underlying design concept.

Achieving great design with technical excellence means setting bold aspirations that are achieved by independent thinking, building science and sound judgment—all supported by a collaborative team and advanced digital technology. We provide the best service to both our contractual and extended clients by realizing great designs that are enjoyed by those who experience them, and whose elegant expressions are informed by intelligence, efficiency and craft.

The 2017 Design Annual illustrates a diverse range of building typologies and scales, from concepts to completed works that exemplify the integration of design ambition with technical excellence. The places and spaces we create combine imagination and knowledge to make the world a better place. Ours is a constant endeavor to evolve and improve, informed by optimism and the thrill of creative effort.

Speaking for everyone in HOK, I hope you enjoy seeing our work from the past year as much as we have enjoyed creating it.

Carl Galioto, FAIA
President

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LaGuardia Airport
Central Terminal B
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Master Plan

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White & Case Office

Jacob K. Javits Convention Center Design Competition

Sutton Place
Design Competition

White & Case Office

Our Urban Midwest
633 S. LaSalle Street Tower

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Dairy Farmers of America Headquarters

Nile Valley Aquaponics Facility

Polsinelli Office

Duque de Cuiabá Brazilian Steakhouse

Gilmore Station

Center for Academic Medicine for Confidential Client

Medical Research Building for Confidential Client

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The Francis Crick Institute

The Allen Mixed-Use Development

Center for Academic Medicine for Confidential Client

Medical Research Building for Confidential Client

Education Building for Confidential Client

Polsinelli Office
The design of LaGuardia Airport’s Central Terminal B will provide a state-of-the-art passenger terminal and modern New York travel experience. The 35-gate terminal will replace the existing 1964 Central Terminal Building and optimize use of the airport’s limited airside and landside real estate.

The design for the new terminal will transform LaGuardia Airport into a single, unified hub with expanded transportation access and world-class passenger amenities. A phased construction approach allows it to be built on the constrained site with minimal impact to existing operations.

To optimize airfield performance and efficiencies, the team devised an island-concourse gate configuration. A pair of pedestrian bridges connects the headhouse to the island concourses. The bridges traverse over active taxiways and offer sweeping views of the airfield and Manhattan skyline.

The interior will feature intuitive wayfinding, ensuring the efficient movement of passengers through the terminal. Other enhancements will include an abundance of natural light at all levels, short curb-to-gate walking distances, regional cuisine and concession offerings, and spacious waiting areas with ample seating capacity.

By moving the terminal closer to Grand Central Parkway, the project will expand the airport taxiways by more than two miles and reduce airport ground delays.

Under a 35-year lease agreement with the Port Authority of New York and New Jersey, LaGuardia Gateway Partners (LGP) will design, build, manage and maintain LaGuardia Terminal B. LGP includes Vantage Airport Group, Skanska and Meridiam for development and equity investment; Skanska-Walsh as the design-build joint venture; HOK and WSP for architecture and engineering; and Vantage Airport Group for airport operations and management.
Half of the gates in the new Terminal B will open to the public in 2019. The main terminal area will open in early 2020, and a second set of gates will open in two phases—one later in 2020 and the final phase in 2021.

The project is expected to achieve LEED Silver certification for sustainable design.

HOK is also providing master planning advisory services for LaGuardia in collaboration with the Port Authority and Delta Air Lines, which operates Terminal C and D on the airport’s east end.
“The design is intended as a commentary on the contemporary expectation of air travel—a celebration of movement utilizing an architecture of transparency and fluidity. The terminal is a civic building serving as a noble welcome to New York. In the spirit of the city’s great high-rises like the Woolworth and Chrysler buildings, which in their time were considered cathedrals of commerce, we see the new terminal as a cathedral of mobility.”

- Peter Ruggiero, AIA, Design Principal
1. construction timeline

2. arrivals floor
SECTION

1. north-south section

2. east-west section
1. pedestrian bridges + airfield

2. concessions + bridge floor
pedestrian bridge
2928

1. pedestrian bridge + headhouse connection

2. departures hall
1. Pedestrian bridge structural model

2. Concourse entry
aerial view of central terminal b
HOK’s comprehensive master plan and design guidelines for the new LaGuardia Airport will ensure visual continuity as the projects and phases of development proceed beyond the construction of Central Terminal B, designed by the LaGuardia Gateway Partners joint venture of HOK/WSP.

The guiding principle for the plan is to create a single unified airport of multiple terminals across a varied landscape of constraints and existing conditions. The master plan team developed design guidelines for the long-term development of all airport facilities to ensure design consistency and to improve the passenger experience—from the moment of arrival to the time of departure. A key element of the plan is to phase and implement various stages of programming while the airport continues to operate.

The master plan concept focuses on the exterior expression as viewed from the Grand Central Parkway—a view that will project LaGuardia’s new brand to the community and world.

Folded roof plates define the roofscape and form of the new Central Terminal B, giving LaGuardia a distinctive shape. Terminal C and the new AirTrain stations will reinforce this architectural language. The prominent roof shape introduces a unifying canopy and defines a continuous edge that integrates the new structures with the existing garage and adjacent support facilities.

The flanking terminals will use similar headhouse massing and architectural details to create visual connectivity. The architectural expression of two AirTrain stations will unify Terminal B with the new Terminal C.

Located in the heart of the new airport, the Central Hall will provide a grand entry point for arriving passengers by car or AirTrain while also linking Terminals B and C. A proposed airport hotel will anchor the Central Hall.
The master plan guidelines unite over 2,000 continuous linear feet of frontage along the parkway and further unify the airport by defining a comprehensive approach to roadways, parking and public transit with the AirTrain link to Willets Point Station.

Extensive airfield improvements such as dual and loop taxi lanes will help the new LaGuardia Airport function efficiently into its next century of service.
diagrammatic plan of core terminal area + connectors
A. concourse a 
B. concourse b 
C. west parking garage 
D. terminal b 
E. central hall 
F. grand central parkway 
G. concourse d 
H. concourse e 
I. concourse f 
J. concourse g 
K. concourse connector 
L. east parking garage 
M. terminal c
1. Gate area redevelopment plan

2. Redefined airside/landside boundary

3. Increased circulation capacity of taxilanes

4. Increased gate flexibility
1. Conceptual long-term development plan aerial
2. Conceptual long-term development elevation along the Grand Central Parkway
"The vision for a single, unified airport presented design and implementation challenges. By condensing the primary elements of the new Central Terminal B into three key components—a big roof, a continuous brow and a continuous enclosure language—we were able to establish parameters for a single language across all the varied aspects of the Grand Central Parkway frontage. This also reinforced linking Terminal B to Central Hall, existing and new parking structures, AirTrain stations and the new Terminal C.

We worked extensively with the Port Authority, airport stakeholders and Governor Cuomo’s Airport Advisory Panel to ensure the guidelines illustrated great design for the airport of tomorrow, consistency and achievable programs for all parties."

- Greg Cranford, AIA, Design Principal
The design rejuvenates and links two adjacent 1970s buildings into one freestanding, trophy-class office building along 16th Street, providing vistas to the White House in downtown Washington, D.C. The concept pays respect to this historic corridor while introducing modern elements including an all-glass curtain wall system.

As with many formal buildings within the district, the design team chose limestone as the primary exterior material. This is accented by new curtain wall systems with evergreen vines supported along vertical tension cables. The irregular structural bays of each building are cloaked by new west and south facades. This new unified facade design expression required careful structural reinforcement at the existing edge of slab conditions.

Evergreen vines positioned at the glass curtain wall of alternating floors are sustained by a hydroponic system that continuously circulates tempered and nutrient-rich water to ensure growth throughout the year.

The front plaza, which lies beyond the property line, was conceived as a public park. Though green space is not common along the 16th Street corridor, this addition was fully supported by the district’s Historic Preservation Review Board. Spanning the full 16-foot floor-to-ceiling height of the main lobby is a three-dimensional, sculptural wall that connects to the secondary lobby at the north and spreads down into the subterranean lobby. The solid basswood feature wall is fabricated with Computer Numerical Control technology optimized for efficient material use and installation.

A monumental stair floating within a new two-story atrium complements the fluid, dynamic sculptural wall while seamlessly connecting the previously separate building lobbies. This connective tissue is mirrored in the public park, which features an aluminum-perforated element that carves through the landscape and links the Main and secondary building entrances.
The team took advantage of this unique repositioning opportunity along the 16th Street corridor to create an additional level of tenant space that replaces two mechanical penthouses on top of the existing structure. Adhering to zoning restrictions, this new penthouse level is set back from the main facade. This creates public and private rooftop terraces with views of the White House a few blocks to the south.

The design team is targeting LEED Platinum and WELL certification.

annual EUI: 30 kBtu/sf/yr
32.6% below ASHRAE 2007
FACADE

1. west elevation

2. stainless steel cable trellis

3. trellis with hydroponics vegetation

4. section view of curtain wall with trellis

5. plan view of curtain wall with trellis
view of penthouse lounge + terrace

“The building sits within the historic context of 16th Street, which frames the vista to the White House. It combines contextual massing with contemporary details and provides a complete surprise in the lobby.”

- Bill Hellmuth, FAIA, Design Principal
Located west of downtown Houston along the Buffalo Bayou, this luxury mixed-use development on Allen Parkway will feature a 42-story hotel and condominium tower, a 22-story office building, and a retail pavilion. Green space connects all the architectural elements.

The orientation and design of the buildings provide clear, open sight lines. A consistent design concept focused on form, light, materiality, and transparency ties together the three distinct components.

The hotel and condominium high-rise will be an iconic addition to Houston's skyline. The tower is made up of three uniform volumes stacked horizontally, with a dramatic shift in the middle. Residents will enjoy expansive views of the park and city.

Luxury condominiums on the upper levels feature individual balconies with luxurious "plunge pools." Amenities include a pool and terraced gardens.

Thompson Hotels, a New York-based luxury hotel chain, will operate the 180-key hotel. The design creates a locally inspired Texas experience that incorporates Thompson's brand DNA.

The adjacent office building with approximately 340,000 square feet of Class A office space will share the tower’s sleek, glazed look. The office tower will feature an interior park and a lively retail base.

With an organic form and smooth curves, the retail pavilion welcomes the public into the complex. The ground-level structure will house retail outlets as well as a high-end fitness facility overlooking the outdoor public areas.

Landscape pathways, water features, outdoor seating and an art program encourage public activity on the site. A pedestrian overpass across Allen Parkway links the development to Buffalo Bayou Park.
INFORMATION

CLIENT: DC Partners and Tianqing R.E.D.

DESIGN PRINCIPAL: Roger Soto, AIA

1.3 million sq. ft / 120,700 sq. m

CONCEPT

1. massing sketch
2. site plan studies
3. landscape sketch - pavilion
4. landscape sketch - walkway
5. landscape sketch - walkway
SITE STRATEGY

1. Location map
2. Site plan

3. Building location studies
4. Elevated park studies
5. Landscape studies

“We sought to connect and expand Buffalo Bayou Park into the project and organize the mixed uses around the creation of activated outdoor spaces on multiple levels. The project’s signature elements—the mixed-use hotel and residential tower and the retail pavilion—engage the city at the skyline and at the ground level to provide both a landmark and a live-work-play experience that will be unique to Houston.”

-Roger Soto, AIA, Design Principal
SITE PLAN

1. site
   A. retail pavilion
   B. hotel + condominium
   C. office
   D. multifamily residential
   E. medical office building

public park - market setting

public park - private event setting

public park - concert setting

2. concept landscape

3. landscape activity diagram
FACADE

1. view from buffalo bayou park

2. facade studies

2.
COMMERCIAL
COMMERCIAL
GHIRARDELLI
SQUARE
PLAZA
San Francisco, California, USA

COMMERCIAL

From housing the historic Ghirardelli Chocolate Company’s headquarters to becoming our nation’s first major adaptive reuse project, the 160-year-old Ghirardelli Square is one of the United States’ most enduring icons.
In 1962, Lawrence Halprin and William Wurster repurposed the historic factory buildings into a tourism destination organized around a large public plaza. Recognizing their cultural value for future generations, the Woolen and Ghirardelli buildings were listed on the National Register of Historic Places in 1982.
Since the 1980s, a series of exterior alterations departed from Halprin’s 1960s vision. These changes introduced challenges including inaccessibility, poor visual connections, excessive clutter, blocked Bay views, incompatible materials and circulation pinch points. All of this combined to hinder use of the plaza and contributed to the Square’s decline.
The team led the vision and master plan, design guidelines and design projects to revitalize the Square and guide future improvements.
Today, the new Square has become a vital community space for San Francisco’s iconic waterfront, social fabric and urban landscape, providing settings for outdoor dining, art exhibitions, music festivals and more.

1. central plaza transformation
2. view from the water
CLIENT  Jamestown, L.P.

DESIGN PRINCIPAL  Brian Jencek, ASLA

3 acres / 1.2 hectares

HISTORY

1. Woolen Mill Era: 1858-1889
Pioneer Woolen Mills circa 1862-1899 at the original shoreline.

Ghirardelli complex circa 1911. The Pioneer Woolen Mills were originally built in 1862. Between 1893 and 1919, the D. Ghirardelli company developed the site with several new buildings.

Ghirardelli Square 1965. The property was designed for adaptive reuse and rebranded Ghirardelli Square by Lawrence Halprin and architects Wurster, Bernardi and Emmons.

SITE PLAN

A. aquatic park pier
B. aquatic cove
C. hyde street pier
D. sf maritime national historic park
E. maritime museum
F. ghirardelli square
G. aquatic park
H. powell-hyde cable car
I. galileo academy
J. fort mason

A
P

beach street
larkin street
hyde street
polk street
van ness avenue
north point street

B
C
D
E
G H
I
J
The city-approved vision plan identified 14 ongoing projects focused on improving public access; day, night and year-round uses; transportation connections; regional plantings; and thoughtful choreography of historic and modern material and furnishing palettes.

The vision plan, master plan, design guidelines and implementation projects reconnect the Square to its context, transportation lines and extraordinary views. New gateway design elements such as monolithic, reclaimed redwood timber seating, pedestal paving and regional plantings enable fresh uses and functions while complementing the historic factory material palette.

High-performance design elements include the introduction of stormwater treatment gardens to reduce runoff and improve water quality returning to the Bay. Reclaimed redwood timbers are used for sculptural seating, tables and other amenities that link the Square to the Bay Area. Low-voltage, high-efficiency LED fixtures replace the historic incandescent masts, maintaining their character while improving energy performance. Heat island reduction is achieved through new, high-reflectivity precast concrete pavers that decrease the Square’s overall cooling and energy demands. Regionally native and adaptive vegetation replace the previous English garden plantings to reduce water demand and increase regional biodiversity.

Because sustainability and accessibility go hand-in-hand, the design introduces universally accessible routes and systems that ensure access to these new amenities and sustainable features across the Square.
The addition of suspended paving systems creates voids beneath the terrace and plaza for concealed electrical, water and audiovisual infrastructure connections that support plaza programs, events, festivals and films while maintaining the sense of openness and order that is central to the historic factory context.

1. ground systems
2. pre-renovation
3. post-renovation

A. cast-in-place concrete
B. brick inlay
C. corrugated steel
D. i-beam
E. remnant foundation wall
F. i-beam pedestal
G. cast-in-place concrete 1
H. cast-in-place concrete 2
I. deteriorated waterproofing
J. garage structural slab
K. drainage pipe
L. 6” x 12” concrete modular pavers
M. 12” x 48” concrete modular pavers
N. paving pedestal
O. new waterproofing
P. concrete structural slab
Q. reuse existing drainage
R. additional drainage

4. materiality
A. reclaimed redwood timber seating
B. timeless materials
C. new paving retraces historic grid patterns + textures
D. board-formed concrete wall detail
“The revitalized Square serves multiple roles at multiple scales at the intersection of land, water, city and nature.”

- Brian Jencek, ASLA, Design Principal
The design creates a dynamic, multi-use development anchored by an existing luxury shopping mall. The two complementary, high-performance towers reflect the grandeur and upscale sophistication of the mall and its clientele. Similarities in the design language allow the towers—a 32-story office building and 35-story hotel and serviced apartment building—to function as a cohesive unit. The material and texture varies between the two towers, giving each distinct character. The office tower uses the contrast between two alternating glass types to create a texture varying from complete smoothness to deep patterns with vertical shading fins. The slightly taller hotel and serviced apartment tower features a faceted stone facade with deep-set windows and bronze accents that create a richness of color and texture reminiscent of obsidian, onyx or gold ore.

Both buildings spring from their base with subtly curving forms to frame the vehicular entry to the development and a new ground-level mall entry. As they rise, the towers reinforce the welcoming gesture by twisting gently away from each other, creating a simple yet elegant composition that emphasizes the ground connections.

Featuring nearly identical floor plans at the top and base of each tower, every floor plate has the same area. This provides a high degree of flexibility for commercial office layouts and room arrangements for the hotel and apartments.

The hotel tower’s curved form maximizes the number of rooms facing the north side, which features desirable views over the main mall entry court as well as commanding views of the plateau beyond. Upper floors of both buildings offer dramatic glimpses of Riyadh’s city center and the King Abdullah Financial District to the south.

To improve energy performance, the design team configured each tower to minimize the amount of eastern and western facade exposure to the harsh sun and positioned the buildings’ masses to shade each other in the morning and evening.
"A hotel and an office are functional opposites in many respects. While an office boasts openness and transparency, a hotel luxuriates in privacy and caters to the individual spirit. The two towers are harmonic opposites: complementary, not contradictory."
- Roger Soto, AIA, Design Principal
DESIGN

1. model photo - view from north
2. diagram - dna of an icon
3. model photo - view from south
ANNUAL AVERAGE DAILY INSOLATION VALUES

PROPOSED SCHEME:

- 94 95
- Riyadh, Saudi Arabia
- 8:00 AM - 6:00 PM
- Average Daily Wh/m²

Riyadh, Saudi Arabia

- 0
- 8:00 AM - 6:00 PM
- Average Daily

The following pages illustrate the performance metrics, including: daylight availability; thermal comfort; peak HVAC system capacities; and conducted heat and solar radiant heat for occupant comfort. The use of a high performance low-E glazing can maintain a high (40%+) visible light transmittance.

The following pages also help alleviate potential glare issues and promote the importance of the moment of the building’s form. However, it is also a critical component of the building design impacting a wide range of building attributes of the proposed facade systems.

The following pages illustrate the performance design process and beyond. Going forward, these tools will also be used to analyze the same tools that informed the selection of this study. After settling upon a final massing strategy, massing have also been used to examine the effects of the facade and shading systems for each building.

STUDY After settling upon a final massing strategy, the following pages illustrate the performance study. The torqued mass of each building ends of the buildings.

The extrusion of inward-sloping folds on the north twisting tometry at the east and west dramatically increasing capacity for the office and hotel.

This effect turns the towers away from each other, creating a striking composition and emphasizing the importance of the moment of the building.

As they rise, the towers reinforce this effect, twisting and stepping self-shading from the buildings, and internal blinds can also help alleviate potential glare issues and promote high-quality daylighting in the building interiors.

This combined with effective external shading devices, maintaining a high (40%+) visible light transmittance. The importance of the moment of the building’s form. However, it is also a critical component of the building design impacting a wide range of building attributes of the proposed facade systems.

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1. View from west
2. Aerial view of the development
This research study identifies and analyzes major population and lifestyle trends that impact urban development in the Midwest region of the U.S. The study reveals three macro trends within the region: a shifting population, challenges of deindustrialization, and an increase in connectivity. While migration to the nation's urban city centers remains a defining micro trend, the center of the nation continues to lose population as people relocate to the South and both coasts.

As the Midwest continues experiencing the effects of deindustrialization, the region is also undergoing a small, but significant shift toward aligning its economies with new methods of production. Though the Midwest ranks fourth in the nation in the number of graduates with technology-focused degrees, a large percentage of these individuals leave the region after graduation.

With a robust highway and train network, the Midwest is one of the most connected regions in the U.S. Leveraging this connectivity requires looking beyond the political boundaries of cities and states to view the region as an interconnected urban and economic unit.

The research is helping the team evaluate the impact of its current project work within the broader context of the region’s future opportunities and challenges. Research insights are also guiding the studio’s expansion strategies.

An exhibit within the HOK office highlights the practice’s regional impact to clients, prospects, and other visitors. An accompanying booklet and presentation will be used for community outreach, educational activities, and marketing opportunities.
“To be as effective as possible in shaping our Midwestern cities through our practice, we must understand the context in which we work and live and the important challenges and opportunities shaping our region. Working within this context helps us identify and prioritize projects that will have a positive impact on reinvestment in our region.”

- Domenic Salpietra, AIA, Design Principal

SHIFTING POPULATIONS

- High growth (>1.25%)
- Normal growth (<1.25%)
- Decline

CLIENT: HOK
DESIGN PRINCIPAL: Domenic Salpietra, AIA
**SHIFTING POPULATIONS**

1. Population growth/decline of major midwestern cities
2. National GDP position + growth/decline

- **CHICAGO**
  - 2013: 2,719,000
  - 2000: 2,896,000

- **INDIANAPOLIS**
  - 2013: 852,000
  - 2000: 782,000

- **COLUMBUS**
  - 2013: 822,000
  - 2000: 715,000

- **DETROIT**
  - 2013: 688,000
  - 2000: 945,000

- **MILWAUKEE**
  - 2013: 590,000
  - 2000: 597,000

- **KANSAS CITY**
  - 2013: 468,000
  - 2000: 442,000

- **MINNEAPOLIS**
  - 2013: 400,000
  - 2000: 382,000

- **CLEVELAND**
  - 2013: 392,000
  - 2000: 476,000

- **ST LOUIS**
  - 2013: 318,000
  - 2000: 347,000

- **CINCINNATI**
  - 2013: 299,000
  - 2000: 296,000

---

**GDP Growth Rate**

- Below National Average (Number is National Total GDP Ranking)
- Above National Average (Number is National Total GDP Ranking)

- **CHICAGO**
  - GDP Growth Rate Below National Average: 26
  - GDP Growth Rate Above National Average: 30

- **INDIANAPOLIS**
  - GDP Growth Rate Below National Average: 3
  - GDP Growth Rate Above National Average: 36

- **COLUMBUS**
  - GDP Growth Rate Below National Average: 6
  - GDP Growth Rate Above National Average: 21

- **DETROIT**
  - GDP Growth Rate Below National Average: 3
  - GDP Growth Rate Above National Average: 13

- **MILWAUKEE**
  - GDP Growth Rate Below National Average: 14
  - GDP Growth Rate Above National Average: 56

- **KANSAS CITY**
  - GDP Growth Rate Below National Average: 14
  - GDP Growth Rate Above National Average: 101

- **MINNEAPOLIS**
  - GDP Growth Rate Below National Average: 23
  - GDP Growth Rate Above National Average: 27

- **CLEVELAND**
  - GDP Growth Rate Below National Average: 124
  - GDP Growth Rate Above National Average: 609

- **ST LOUIS**
  - GDP Growth Rate Below National Average: 149,951
  - GDP Growth Rate Above National Average: 540

- **CINCINNATI**
  - GDP Growth Rate Below National Average: 121
  - GDP Growth Rate Above National Average: 407

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**Population Trends**

- **CHICAGO**
  - 2013: 2,719,000
  - 2000: 2,896,000

- **INDIANAPOLIS**
  - 2013: 852,000
  - 2000: 782,000

- **COLUMBUS**
  - 2013: 822,000
  - 2000: 715,000

- **DETROIT**
  - 2013: 688,000
  - 2000: 945,000

- **MILWAUKEE**
  - 2013: 590,000
  - 2000: 597,000

- **KANSAS CITY**
  - 2013: 468,000
  - 2000: 442,000

- **MINNEAPOLIS**
  - 2013: 400,000
  - 2000: 382,000

- **CLEVELAND**
  - 2013: 392,000
  - 2000: 476,000

- **ST LOUIS**
  - 2013: 318,000
  - 2000: 347,000

- **CINCINNATI**
  - 2013: 299,000
  - 2000: 296,000

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**Population Decline/Growth**

- **CHICAGO**
  - Decline: 177,000
  - Growth: 17,000

- **INDIANAPOLIS**
  - Decline: 22,000
  - Growth: 22,000

- **COLUMBUS**
  - Decline: 33,000
  - Growth: 33,000

- **DETROIT**
  - Decline: 257,000
  - Growth: 257,000

- **MILWAUKEE**
  - Decline: 37,000
  - Growth: 37,000

- **KANSAS CITY**
  - Decline: 76,000
  - Growth: 76,000

- **MINNEAPOLIS**
  - Decline: 46,000
  - Growth: 46,000

- **CLEVELAND**
  - Decline: 83,000
  - Growth: 83,000

- **ST LOUIS**
  - Decline: 29,000
  - Growth: 29,000

- **CINCINNATI**
  - Decline: 26,000
  - Growth: 26,000

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**Midwest Population Percent**

- **Midwest**
  - 1960: 21.7%
  - 2015: 22.0%

**Potential to absorb**

- **923,662 more people**

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**GDP Growth Rate**

- Below National Average: 3
- Above National Average: 36
In Chicago, 34.9% growth in tech jobs from 2010-2015.

Ranked 5th in the country after SF BAY AREA, D.C., NEW YORK, and DALLAS.

4th in TECH DEGREE COMPLETIONS, with 10,454 graduates in 2014.

However, we are experiencing a NET LOSS of tech jobs relative to graduates. WHERE are they headed? How do we ATTRACT AND RETAIN them?
Chicago Ranked 7th in U.S. global trade flows

$33.7 BILLION per year primarily with Canada, Mexico, Germany

Chemicals, computer + electronic products, machinery

1. Regional highway + interstate network
2. Top airports for real estate investment
3. High-speed railway possibilities
4. Leverage our airports
5. Capitalize on our regional rail

Connectivity Without Borders

Amtrak Routes/Passengers
- Amtrak stations
- Amtrak other services (bus)
OUR IMPACT

regional HOK's impact 2016-2017

- re-invest in our civic assets
- re-connect our region
- re-position our economy
- re-inhabit our city

Wichita

Omaha

Kansas City

Des Moines

Chicago

St Louis

Madison

Milwaukee

Grand Rapids

Detroit

Toledo

Cleveland

Columbus

Dayton

Indianapolis

Bloomington

Cincinnati

Louisville

Fort Wayne

Kalamazoo

Topeka

Minneapolis

Des Moines

Omaha

Kansas City

St Louis

Madison

Milwaukee

Grand Rapids

Detroit

Toledo

Cleveland

Columbus

Dayton

Indianapolis

Bloomington

Cincinnati

Louisville

Fort Wayne

Kalamazoo

Topeka

Minneapolis
The design creates a tower structure that addresses multiple scales, from silhouette to surface, similar to the nearby Sydney Opera House.

At the macro scale, the team designed the 844-foot-tall tower to be the tallest building in Sydney, with a distinct profile on the skyline. At the micro scale, the tower is situated within an active pedestrian zone in the city center. It complements and promotes the busy pedestrian laneway network while touching the ground as lightly as possible, despite the building’s size. Both scales help create a city landmark and welcoming destination for residents and visitors to work, eat, shop, and pass through.

To maximize space on the ground plane, the design pushes the tower bulk to the reeling of the buildable envelope, lifting the first full floor plate 80 feet above the lobby. This gesture creates a porous, multilevel ground plane and lobby, accommodating grade changes on site. More importantly, it encourages pedestrian movement through the site and draws natural light into otherwise cavernous laneway spaces.

To create a flexible office plan, the design creates an offset core to the south of the building, preserving coveted harbor and Sydney Opera House views to the north.

An external structural shell supports office flexibility through a 39-foot, column-free band on the north side of the floor plan. The exterior structure also supports the octagonal focus from direct solar exposure. The design team, which included HOK’s in-house structural engineers, developed a highly efficient, hybrid structural precast column system with tensioned steel diagonals.
Splitting the tower plan into two slender lobes and expressing the 13-foot slot in the building silhouette creates zones for both catching daylight and providing natural ventilation.

The project brief requested that all teams work with artists on their proposals. HOK elected to collaborate with James Carpenter Design Associates to integrate art within the architecture. The design designates plazas as public event spaces rather than just places for sculpture.
1. site alignment + views

2. view south from rugby place
3. pedestrian marketplace
4. office lobby floor

A. laneway
B. plaza
C. retail
D. bike storage
E. lobby
F. elevated laneway
FACADE

1. sketch of precast facade elements
2. detail of 1:500 model
1. multi-level office space

2. typical high-rise office floor

3. roof terrace

A. open office
B. atrium space
C. roof terrace

PLAN
“The icons of Sydney—the Harbour Bridge and Opera House—are defined by their strong silhouette on the skyline, each with a distinct structural expression.”

- Peter Ruggiero, AIA, Design Principal
Two ideas framed the design of Bentall Kennedy’s Toronto office.

First, this leading commercial real estate firm expressed a strong interest in creating an active hub for employees and clients—the kind of place where one would linger for focused work, collaboration or social engagement.

To create a less formal and more welcoming environment, cues from residential architecture informed the layout, furniture and finishes. Collectively, the hub, a large café and smaller decentralized coffee stations facilitate spontaneous interaction and foster community.

Secondly, inspiration for the material and furniture palette comes from traditional men’s suit tailoring, in which the understated quality of a garment is juxtaposed against the occasional flourish from a lining or pocket square. The domestically sourced material palette of steel, oak and glass that pervades Bentall Kennedy’s space is contrasted against vibrantly striped phone rooms and signature furniture pieces.

The team designed the office to meet WELL and LEED standards. With 30 percent fewer enclosed offices than in the firm’s previous space, the open floor plan maximizes access to light and air, lines the building’s window walls with accessible corridors and gives prominence to a large central stairwell that connects its two floors. All of these elements help enhance health and wellness.
“We wanted to pay homage to traditional business practice while acknowledging the changes taking place in a modern workforce. A rich material palette creates a formal base to support a newly agile work environment. Accents of color, a warm residential influence and heavy metallic accessories help balance and define the relationship of traditional to modern.”

- Caitlin Turner, NCIDQ, Design Principal
1. café
2. stair detail
3. interconnecting stair + conference area
This amenities building is designed to fit seamlessly into an existing corporate campus serving more than 2,000 employees. The new facility adds to the design vocabulary while clearly expressing the company’s culture, which has evolved substantially since the campus was built. Early in the process, the client and design team collaborated to define the project drivers that would guide the design process. Themes included cohesiveness, modernization, redefinition, outdoor experience, wayfinding and value. The new building creates a gateway to welcome visitors and employees. Located in the middle of the campus, the organic form blends into its natural environment, helping to unify the surrounding structures. At the heart of the complex is a two-story breezeway that acts as the “town center” and links three program wings. The exterior engages with the existing mature plantings and a new landscaped environment. A waterfront dining terrace overlooks an adjacent lake, while outdoor seating areas connect to nearby fields and gardens. The masonry facade reinforces a bond to the earth while signifying craftsmanship. The interior is connected to the site with a transparent ground floor that draws natural light and blends with the landscape. The second-story mass accentuates this connection and creates a datum that links the three functional components. Surrounding amenities include a soccer field, tennis court and an outdoor wellness terrace.
"The amenities building celebrates the employees located on this campus. Our goal is to improve the workplace, social interaction and functionality while creating an inspiring visitor experience showcasing the innovative work produced here."
- Roger Soto, AIA, Design Principal
1. entry bridge
2. brick texture studies
3. brick texture signage
1. Fitness center from north campus
2. Dining room
3. Lobby
4. Fitness center
The planning process for the new headquarters of the Dairy Farmers of America (DFA), the country’s largest milk marketing cooperative, drew input from more than 75 percent of the organization’s staff. The result is a modern, healthy, amenity-rich workplace designed to attract and retain the best and brightest people.

The design of the three-story building pays tribute to the dairy farmers that the organization serves while reflecting the cooperative’s global reach. The space juxtaposes organic materials, including concrete, raw steel and reclaimed wood, with sleek applications of white, subtly reflecting the milk and dairy products produced.

Located in the emerging Village West growth corridor of Wyandotte County in Kansas, the space is a highly flexible workplace that houses 400 employees. The open-plan environment, which includes informal seating, encourages employee collaboration and communication. Meeting rooms and workstations are easily changed or moved to support future growth, while sit-stand desks and ergonomic seating promote wellness.

An efficient steel structural system supports the flexible open floor plates. Easy access to floor and underfloor HVAC gives DFA’s staff control over the environment. The plan orients the building on the site to enable DFA to easily add a wing or construct a new building in the future if desired.

Unique employee amenities include outdoor conference rooms, a full-service café, a visitor business center and a multipurpose room that opens to a courtyard and can expand to accommodate all of DFA’s employees. Fitness and recreation facilities include basketball and bocce ball courts, a walking trail and a fire pit.
INFORMATION
CLIENT: Dairy Farmers of America
DESIGN PRINCIPAL: Peter Sloan, AIA

110,000 sq. ft. / 10,220 sq. m.
annual EUI: 67.33
62.6% below ASHRAE 2007

CONCEPT
1. building form diagrams:
   A. standard suburban office building
   B. bent form to create private courtyard
   C. form pulled apart to focus views + create entry lobby
   D. agrarian base references farmers
   E. glass upper floors reference global reach
   F. core carved out to create public space

“The inspiration of the project was driven by the desire to celebrate the story of milk from farm to table. Clean, modern elements are juxtaposed alongside reclaimed materials to reflect and communicate DFA’s global reach while honoring the local dairy farmer.”
- Peter Sloan, AIA, Design Principal
1. exterior courtyard

2. movable wall system connecting work café to building courtyard
boardroom in open configuration, maximizing space flexibility to host events
1. second-floor living room overlooking main lobby
2. open, family-style meeting room is located at each floor's stair landing
3. open workspace includes demountable private offices
4. open workspace
Dentsu Aegis Network’s new West Coast office is designed with flexibility to accommodate the expansion and contraction of the global media group’s operating companies.

The design and construction team collaborated to address the challenges, including ceiling height limitations and the HVAC system, of converting a parking garage into a modern workplace.

The office features a classic, mid-century modern design aesthetic. A beaded curtain acts as a space and visual divider between the reception area and café/work zone. Composed of natural walnut and painted beads of varying sizes, the curtain is strung on a tension cable extending from floor to ceiling in the double-story space. This curtain motif continues throughout the space—from the light fixtures to the accent wall coverings.

Drawing inspiration from nature, the neutral material palette is complemented by wood ceiling baffles, accent walls, pantry millwork and furniture.

The lower floor houses an unassigned work area with café-style seating including benches, powered picnic tables and adjacent conference rooms.

The upper floor features traditional workstations, with breakout furniture accommodating impromptu meetings. The main pantry opens to a terrace to host staff meetings and client events. A drop-down projector screen and audiovisual equipment are integrated into the space.
“The beaded curtain and communicating stair emphasize connectivity between the two floors and create a sense of energy flowing through the space.”
- Kristi Zoref, NCIDQ, Design Principal
1. feature stair
2. reception
3. ground-floor pantry
Polsinelli has partnered with HOK on 24 office projects in 18 cities over the past six years. These projects have played an integral role in establishing the law firm’s workplace design standards and creating a consistent brand experience across its U.S. offices. By visually communicating the firm’s brand and culture, these offices serve as recruiting, marketing, and community engagement tools.

Dallas Office

The design of Polsinelli’s Dallas office fosters a progressive culture through the creation of a relaxed, collaborative, and hospitality-focused workplace.

A grand staircase at the center of the lobby offers views of the city skyline and seamlessly connects the two-level conferencing center. Conference rooms are pulled back from the windows, creating a gallery hall that offers more dramatic views of the city and serves as an event space connected to a rooftop terrace. A hospitality lounge provides casual client breakout space with coffee, lounge chairs, serving bars, a coffee bar, and an open café. Each floor is arranged to maximize efficiency while offering natural light. Designers coordinated overhead equipment to maximize ceiling heights and open areas. Vertical wood elements increase the volumetric feeling of the space, which is enhanced by natural light flooding through the expansive glass, high ceilings, and office sidelights.

A refined palette of neutral whites and grays offsets the firm’s collection of colorful artwork, with yellow used as an accent color to symbolize the warm Texas sun.

Denver Office

Located on the top four floors of a new downtown office tower, the design of Polsinelli’s Denver office features a modern mountain aesthetic that capitalizes on panoramic views of the Rockies.
As clients and visitors navigate the office, they follow a path inspired by a mountain hike. The dark walls of the elevator lobby lead to the reception area, which features a motif of warm wood and rock. Visitors must break through the fog, mimicked in the etched glass accent wall, to reach the open mountain vistas beyond.

Dark and light woods echo the forest, with charcoal-stained oak symbolizing the deeper tones of the forest floor. The use of color reinforces the contrast between darkness and light, creating a dynamic visual experience. Various shades of green, yellow, and blue simulate the colors found in evergreens, aspen leaves, and the sky.

Generous corridors feature social spaces, work islands, coffee bars and conversation nooks to increase collaboration and spontaneous connections among attorneys. Designed as a series of window boxes, conference rooms are strategically named to correspond to the mountain peaks they frame.

A dynamic sculptural stair links all four floors, creating visual, physical and social connections. Glass partitions and doors around the stair create a line of security between public and office spaces during an event, while preserving visual connections and openness.

The project team collaborated with the shell building architect to create a 1,250-square-foot rooftop terrace and lounge used as an indoor/outdoor event space.
conference rooms were pulled inboard to connect hospitality spaces to an outdoor terrace with views of Dallas's skyline.
1. central stair + reception/lobby
2. work café
3. central stair with adjoining caucus rooms
4. client hospitality area with views of downtown Dallas
“Our design approach builds on Polsinelli’s national brand to create spaces that are both uniquely modern and hospitality-centered to encourage social engagement with clients and communities.”

- Peter Sloan, AIA, Design Principal
1. lobby outside multipurpose rooms
2. central stair section
3. central stair
1. client hospitality lounge
2. main reception
3. boardroom
4. custom feature wall in collaboration with Amy Ellingson
The design of leading international law firm White & Case’s new office encourages collaboration, mentoring and networking among attorneys and legal professionals in a sophisticated, modern workplace.

After interviewing more than 80 White & Case partners and associates about their workplace needs, the design team created a highly efficient plan and contemporary design to communicate the firm’s culture.

To maximize flexibility and streamline the workflow, the team created a modular plan and kit-of-parts design. Two office sizes accommodate partners and associates, and every workspace has a sit-to-stand option. Open and closed collaboration spaces offer views of Manhattan and abundant natural light. A knowledge center and genius bar supports research, shared work and education.

Design of the amenity space draws on White & Case’s brand to enhance the experience for visitors and employees. A warm, balanced and natural palette conveys a sophisticated interior ambience punctuated by dramatic light and textured materials. The two-story reception space brings in light and welcomes guests with stone-and-leather-wrapped acoustic walls.

Linking the reception area to a coffee bar is a dramatic glass and smoked steel stairway. The “first-class” conference center was designed with hospitality in mind. Generous multipurpose and breakout spaces can be transformed for entertaining and town hall meetings.

The workplace integrates emerging technologies that support the increasing need for mobility, group workspaces and virtual collaboration. Restaurant-style dining, a full-service fitness facility and a wellness center promote work-life balance. A robust art program includes pieces from renowned international artists on display at key locations throughout the office.

HOK led the design of the amenity floors and HYLA Architecture designed the office practice floors. Pentagram collaborated on the creation of environmental graphics.
CLIENT: White & Case

DESIGN PRINCIPAL: Tom Polucci, AIA, IIDA

INFORMATION:
440,500 sq. ft. / 40,925 sq. m.
3 x/1 LPD / 12% LPD reduction

PLAN:
1. Level 50
   A. Multipurpose rooms
   B. Reception below
   C. Knowledge center
   D. Fitness center
   E. Wellness center
   F. Lounge / wine bar
   G. Casual dining
   H. Servery
   I. Display kitchen

2. Reception looking east to concierge desk + to the knowledge center
1. typical practice floor office pantry

2. typical practice floor open collaboration
As a leading international law firm, White & Case wanted a first-class executive conference center that fosters social and professional networking. Building on that idea, we enhanced the visitor and staff experience by connecting the top two floors and creating a dramatic reception. We also developed a diverse amenity program. The space is a beautiful balance of natural textures and polish, reflecting light throughout the day and night.”

- Tom Polucci, AIA, IDA, Design Principal
1. lounge + wine bar doubles as small event space
2. casual dining area with end grain wood flooring + large oak pivot doors open to the lounge
The design of the Al Fozan Mosque creates a memorable, striking form that supports the needs of worshippers while celebrating the culture of Saudi Arabia’s Eastern Province.

With its patterned and dynamic facade, the appearance of the buildings sculptural form changes depending on time of day and the season. A graceful curve unifies the program elements, which include worship spaces, offices for the Abdullatif Al Fozan Award for Mosque Architectural program, and apartments for the mosque’s imam and muezzin.

The curvilinear form creates a sheltered inner courtyard. Accessed via bridges that cross over the reflecting pools and portals under the building, this space integrates the landscape with the architecture. The entry sequence into the central plaza allows worshippers to symbolically cross from the profane to the sacred realm, where they can access the prayer areas.

Just off the central plaza is the polished, monolithic form of the daily prayer hall. The main prayer hall accommodates 1,500 worshippers, with room for 1,200 men on the ground level and 300 women in the mezzanine above.

Highly controlled use of light is fundamental in creating a sacred space. The tall yet intimate prayer hall receives dappled light from the building’s base, with reflections of sunlight emanating from the surrounding reflecting pools. Natural light enters the space through the patterned fenestration, creating an interplay of light and shadow.

As the terminus to the entry road of a planned residential community, the mosque will become a new city landmark. Visible from all directions, it will provide a clear reference point for the new neighborhood.
CLIENT  Abdullatif & Mohammed Al Fozan Co.

DESIGN PRINCIPAL  Roger Schwabacher, AIA

INFORMATION  60,710 sq. ft. / 5,640 sq. m.

CONCEPT
1. early massing model
2. design inspiration
DRAWING

1. level 0
   A. main worship hall
   B. entry hall
   C. daily prayer
   D. ablution
   E. imam's residence
   F. office lobby

2. section through daily prayer

3. level 1
   G. women's worship
   H. ablution
   I. mosque
   J. al Fozan offices
   K. imam's residence

4. section through main worship hall
1. The patterned facade glows at night, creating a beacon in the landscape.

2. An iconic landmark in a residential neighborhood.

3. Shafts of light penetrate the interior of the main worship hall, creating ever-changing patterns throughout the day.

"The nautilus form pays homage to the site’s adjacency to the sea. It is referential to forms found in nature, with a spiraling geometry that indicates a center point from which all movement radiates out. The form also references the crescent moon of Islam, connecting the architecture to the function and culture.”

- Roger Schwabacher, AIA, Design Principal

4. Detail of the facade concept.
This new development will help remedy a Kansas City food desert and promote urban farming and sustainable living on the city’s impoverished East Side.

The project will expand the food production capacity of Nile Valley Aquaponics, a community center that offers year-round access to locally grown vegetables and mercury-free fish. The organization also provides low-income youth with opportunities to learn about aquaponics through lessons, field trips and mentoring.

Aquaponics is a gardening technique in which fish and plants grow and thrive together. Modeled after the natural ecosystem, this symbiotic technique uses 90 percent less water than traditional methods of growing food crops in soil. Waste from the fish feeds the plants while nutrients from the plants filter into the water and return to the fish tank. This closed-loop system produces healthy, organic food by avoiding the use of any chemical fertilizers, pesticides or mercury.

Adding two new greenhouses on the existing site will double the annual harvest to 50,000 pounds of fish and 70,000 pounds of vegetables. Designed as a modern kit of parts, the new greenhouses will be constructed with economical, sustainable and easily procurable materials to promote the use of this model in other cities. The new facility also incorporates a marketplace, a chicken coop, beehives, rainwater collection cisterns, a wind turbine and raised garden beds. Community gathering spaces, including an event area, harvest tables and a shaded protected terrace, provide neighbors and visitors with opportunities to relax and learn.

To increase the visibility of Nile Valley Aquaponics in the community, the design incorporates high-impact graphics that showcase the organization’s mission and educate visitors on the value of creating a community around healthy, environmentally friendly food. The facility will also serve as a sustainable economic development model for similar sites nationwide.
INFORMATION
CLIENT  Nile Valley Aquaponics
DESIGN PRINCIPAL  Chris DeVolder, AIA

0.7 acres / 0.28 hectares

CONCEPT
1. sketch massing axon
2. sketch diagrams
The design embodies the mission of Nile Valley Aquaponics: to build community around food. Through open spaces and a visitor-friendly experience, the facility supports healthy lifestyles, celebrates and educates the community, and gives them the tools they need to share in the harvest.

- Chris DeVolder, AIA, Design Principal
The Central Bank of Kuwait’s new headquarters building is a symbol of the country’s significant economic power in the 21st century. Located in the Sharq commercial and financial district, it is a new landmark on Kuwait City’s skyline.

The office building is formed by a triangular, truncated pyramid tower intersected by a podium that houses reception and banking halls, conference facilities, dining and banquet rooms, and a museum.

The building’s geometric forms echo the geometry and order of Kuwaiti architecture. The two walls facing the sun are predominantly stone, while the northern elevation is glass. The stone elevations face the city, communicating the bank’s solidity and security. The stone absorbs the heat of the sun, harnessing it to ward off the chill of desert nights. Horizontal slots with recessed window openings minimize solar gain. At night, the all-glass viewing platform at the top of the building glows like a lighthouse.

The transparent north-facing wall offers occupants panoramic views of the Gulf, serving as a constant reminder of the sea’s important role in the region’s commerce and trading history.

Visitors enter the building through an expansive lobby. The wall opposite the reception desk and adjacent to the escalators features full-height, backlit onyx pleated panels.

A retail bank branch on the ground floor provides banking services to staff and the community. On the second level, a 240-400-seat conference facility accommodates corporate events and can be subdivided for smaller gatherings. Overlooking the Gulf, a 330-person auditorium is cantilevered beyond the line of the angled eastern elevation.

A two-story juice bar at the opposite end offers views west toward the city.

The design creates a modern, comfortable work environment for bank staff.

"Viewed from the city, the stone facades block the intense desert sun and reflect the solidity and permanence of the Central Bank. In contrast, the transparent north elevation looks out across the Gulf, expressing Kuwait’s historic openness to commerce and trade with the Gulf region and the world."

-Larry Malcic, AIA, Design Principal
INFORMATION

CLIENT  Central Bank of Kuwait

DESIGN PRINCIPAL  Larry Malcic, AIA

807,300 sq. ft. / 75,000 sq. m.

728 ft. / 222 m tall
41 floors

1. northeast elevation

2. main entrance
1. main entrance reception
2. reception waiting area
3. auditorium
This center for academic medicine represents an architecture effort to provide disparate research disciplines with a common, collaborative environment. HOK’s integrated design services included architecture, landscape architecture, sustainability consulting, interior design, strategic planning, structural engineering and MEP engineering.

The location’s mild Mediterranean climate and an adjacent nature preserve inspired the team to develop a master plan for the three buildings to act as an extension of the arboretum experience by featuring connected outdoor spaces.

The narrow wings envelop a courtyard providing diverse settings for collaboration near the woods and in plazas, balconies, walkways, porches and terraces. Internally, the workplace promotes interaction between medical specialists and the outdoor environment.
INFORMATION

CLIENT Confidential

DESIGN PRINCIPAL Paul Woolford, AIA

600,000 sq. ft. / 55,740 sq. m.

annual EUI: 45 kBtu/sf/yr
57% below ASHRAE 2007
Like the Gates of Janus in ancient Rome, the center for academic medicine acts as a gateway with multiple functions: from past to future, from historic campus to new medical school campus, and from university grounds to the arboretum.

The courtyard allows the arboretum to flow through the buildings toward the medical school hospitals. The narrow architectural forms grant efficient access to daylight and natural ventilation, serving as a connection to nature.

A pinwheel rotation introduced to the wings embraces the dynamic site conditions. This provides directional hierarchy and opportunities for diverse outdoor spaces. Small gaps and extensions to the wings produce and project the pinwheel effect along the vertical organization. The implicit ground-level rotation is slightly different than the rotation at upper levels, increasing the sense of movement.

The entrance lobby creates a gateway in four directions: north-south and east-west. A south-facing balcony overlooks the main campus and frames the grand entry porch. These elements will become aspirational icons and landmarks for the expanding medical school campus.

The building’s access and collaborative zones occur at the corners and ends of the wings. The main entrance lobby and principal collaborative spaces are stacked along the southwest corner closest to the historic campus. Conceived as a large hall overlooking the campus, this space will function as a central collaborative destination for the medical faculty.
1. design for workplace
2. passive ventilation
3. response to climate
4. building performance diagrams

SUSTAINABILITY

- low
- med
- high

- solar + daylight
- wind + ventilation
- view + open space
Built above a parking structure, the courtyard is accessed from under the great hovering west volume—a porch-like space that will host a range of functions and frame a generous opening to the courtyard and arboretum. The courtyard features a large ovoid lawn bound by a meandering path to the arboretum. Flanked by trees and shrubs of local species, this path extends the arboretum plants into the courtyard.

The courtyard, which can be accessed from both the west and south, is surrounded by activity. Faculty, students and staff from the more public north wing will be drawn to the space and its restaurant, auditorium and gymnasium. The walkways overlook the courtyard and allow for outdoor access while bridges traverse its edges. Completely open to the arboretum, the courtyard is a visual and experiential vestibule to nature.
An enveloping strategy eases the horizontal proportions, directionality and implicit rotation of the building’s volumes. Large sequences of repetitive vertical elements are carefully adapted to the facade’s specific condition. The subtle, rotating architecture hovers above ground—except at the northwest corner, where it is rooted in the earth in a wide, terra-cotta plinth.

The long, hovering limestone volumes open to the landscape as balconies and terraces. The stone volumes are expressed as planes with vertical proportioned cutouts that expose an inner layer of glass. The west bar articulates an expanded version of the layered facades. An additional layer of aluminum blades provides shading. A longer overhang recalls the pattern of articulated rooftops on the existing campus.

The diaphanous facades along the courtyard are more detailed and take advantage of the climate and outdoor amenities. On the south facade, a landscaped walkway provides solar shading.
“The design is inspired by the ancient, multi-sided Janus Gate in Rome. Like the gate, the center is the portal between the past and future. It looks toward the historic arboretum on one side and the future of medicine on the other.”

- Paul Woolford, AIA, Design Principal
Ng Teng Fong General Hospital in Singapore is Singapore’s first medical campus with an outpatient clinic, community hospital and acute care general hospital. The team designed the campus as a prototype for the Singapore Ministry of Health’s effort to provide high-quality, affordable care to all.

Sustainable design strategies create a facility that functions like a vertical healing garden and oasis in the dense city of Singapore.

The sawtooth-inspired plan revolutionizes the traditional healthcare model by providing every patient with a window. The team designed the patient bed towers to optimize access to natural light to enhance the patient experience. The fluid, dynamic design directly responds to the position of the sun and prevailing breezes.

Seventy percent of the facility and 82 percent of patient beds are primarily passively cooled and naturally ventilated; only 30 percent of the facility is air conditioned. Thermal mass, ceiling fans, cross ventilation and exterior shading ensure that the temperature remains comfortable throughout the day, with typical ventilation rates that are higher than in a standard U.S. patient room.

Operating suites, imaging, isolation rooms and other critical areas are mechanically ventilated. Dense vegetation covering low roofs and much of the site form healing gardens, staff respite areas and community park space. Vegetation also grows vertically up the building, both in planter boxes and along wires linking floors.

Rated Platinum under Singapore’s Green Mark, the project also includes solar thermal hot water heating and a large photovoltaic array.

The team used detailed computational fluid dynamics models, shading analysis, climate analysis, daylight modeling and energy modeling to develop the design to optimize energy efficiency and the patient experience.
The AIA Committee on the Environment (COTE) honored Ng Teng Fong General Hospital with a 2017 Top Ten Green Project award as one of the year’s best examples of sustainable design excellence. “This project is an extraordinary model for hospitals to behave as healing environments, not seen in the United States,” stated the AIA COTE jury. “The passive strategies demonstrated here are a model for hospitals around the world.”

The facility, which includes Jurong Community Hospital, provides seamless integration of care on a single site. Close management ensures integration of the hospital’s infrastructure, administrative and clinical levels. The campus is designed to share service areas like digital imaging, pharmacy, catering, medical records, storage and training areas.

As the design and medical planning consultant, HOK collaborated with the Singapore Ministry of Health and a team that included CPG Corporation (prime architect and architect of record) and Studio 505 (design collaborator focusing on building facade development).
integrated sustainable strategies
A. vertical planting
B. staff respite
C. connector bridge
D. patient wards
E. link garden
F. sky gardens
G. therapeutic garden
H. respite garden

hospital greening strategy
1. inner courtyard
2. bed tower care
“The team’s approach included strategic placement of clinical programs and correlated building massing so that the main patient tower forms one of the focal points on Jurong’s townscape. We also developed an urban design strategy using the hospital campus as part of a new greenway connecting two existing green corridors and weaving hospital in access to the transportation networks.”

- Henry Chao, AIA, Design Principal
Fogo de Chão's new San Francisco location is a tenant improvement to an existing ground floor space of an office tower. The site is located across from the W Hotel, Moscone Center and the newly expanded Museum of Modern Art.

The design recreates the Brazilian churrascaria experience in the heart of San Francisco, where Fogo de Chão's service and hospitality stand out in a busy city center. The design includes indoor dining, kitchen space (with a section for open-display cooking) and outdoor dining.

The character of the interior recalls the owner's first restaurant in the Brazilian countryside and fuses rural materials and cooking techniques with local design inspiration. The entry experience highlights a statue of O Laçador, a Fogo de Chão tradition, along with a three-sided fireplace to create an immediate warm, relaxing ambiance that draws guests to the culinary experience.

The simple material palette reinforces this atmosphere with a focus on wood, bronze and stone. The entrance features a 25-foot rope wall designed and executed by local artist Windy Chien. Four private dining areas include working wine display walls accommodating 1,000 bottles. A large market table and view into the churrasco grill is inspired by the layout of the popular restaurant’s original location.

An outdoor area is set apart from an active pedestrian arcade by a 12-foot-high custom metal screen constructed from stainless steel. A large metal worker creates a sculptural hill of San Francisco.

The resulting space invites visitors to experience the churrasco grilling tradition in a modern, sophisticated environment.
INFORMATION

CLIENT: Fogo de Chao Brazilian Steakhouse

DESIGN PRINCIPAL: Daniel Herriott, IIDA

CONCEPT

1. Dining patio concept sketch
2. Floor plan concept sketch
3. Large private dining room
1. dining room
2. rope wall
3. bar
“The interior character pays homage to the owner’s first restaurant experience in the Brazilian countryside and fuses rustic Brazilian materials and cooking techniques with local design inspiration.”

- Daniel Herriott, IIDA, Design Principal
The expansion of the Jacob K. Javits Center celebrates the design of the original “Crystal Palace” completed in 1853 while creating a modern New York City convention and exposition center experience. This design competition plan includes a 90,000-square-foot expansion to the exposition floor with new entry, lobby, atrium and prefunction spaces. It also adds more than 100,000 square feet of ballroom and meeting spaces.

Crystalized cube forms along the buildings south side establish a relationship with the original Crystal Palace at Javits Center. The facets and angles of these new, multistory glass cubes shimmer in the sunlight, creating dynamic shadow patterns along the facades that change at different times of the day and year. At night, the crystalized cubes glow like paper lanterns, inviting visitors to explore the renovated convention center.

To enhance the user experience and the operational efficiency of the center, the design team paid careful attention to transparency and the volumes of the spaces enclosing the meeting rooms, ballrooms and back-of-house facilities. As guests enter the addition and move through the atrium, they experience breathtaking views of New York City to the east and south and the Hudson River to the west. Breakout spaces on stairway landings offer more opportunities to experience the dramatic city skyline. At the highest level of the ballroom, an open-air terrace provides visitors with city vistas from an entirely different perspective, under a structural cube.

From the south, the building’s uniform textured cladding and simplified geometry create an elegant backdrop to the crystal cubes. On the north side, the truck-marshalling building is clad in glass fiber reinforced concrete panels. Varied openings in those panels enhance natural ventilation and create a texture that mimics the glazing and metal panels on the existing structure. Directly across the street and adjacent to the ballroom, a garden terrace that accommodates special events and that provides spectacular views of the Hudson River to the west and Manhattan’s skyline to the east.

HOK and Skanska USA partnered as a design-build team for the competition.
CLIENT Empire State Development / New York Convention Center Development Corporation

DESIGN PRINCIPAL Kenneth Drucker, FAIA

INFORMATION
1.1 million sq. ft. / 102,195 sq. m.
annual EUI: 70.5 kBtu/sf/yr
13.5% below ASHRAE 2007

1. section with flow diagram

A. ballroom
B. meeting rooms
C. exposition hall
1. View corridors from green roof

2. Section through massing concept one

3. Massing concepts

- Expo space
- Prefunction
- Existing building
- Marshalling
- Back of house
- Pavilion
CONCEPT
1. context model of 11th ave elevation
2. original massing reinterpreted
3. shifted for program + views
4. massing elements
   A. entry plaza
   B. event terrace
   C. illuminated graphic display cube
5. massing elements
   D. prefunction space
   E. ballroom
   F. illuminated graphic display cube
3. Southwest Solar Radiation Studies

Impact of solar radiation must also allow for natural daylight and views. It's important to note that the facade design must reduce incident solar radiation on the facade. In addition to the design, the use of high-performance glazing and ceramic frit pattern further enhances the performance of the facade.

**Solar Radiation Mitigation:**

Through the glazed facade.

Indirect solar radiation, we are able to reduce the actual solar transmission.

All of these areas combined still comprise of only about 30% of glazed area of the total facade area. Furthermore, using high-performance glazing and facade design strategies that mitigate the impact of direct and in-direct solar radiation, we are able to reduce the actual solar transmission.

Natural Daylight & Views:

- The Javits expansion structure has limited glazed areas on its facade.
- Mainly due to the program requirements of the building.
- The program provides for a deep inset glazing with over 10 feet of overhang and vertical wing walls which significantly reduce incident solar radiation on the south-facing glazed areas.
- The pre-function spaces at both meeting rooms and ballroom levels facing south and the large west-facing window.
- Areas with glazed facade include the main entry and atrium spaces.
- From the meeting room and ballroom spaces.
- In addition, smaller areas.
- And the large west-facing window for the ballroom and meeting room areas. Our proposed design provides for a faceted surface that by virtue of its angles and self-shading reduces incident solar radiation on the glazed surface.
- The south-facing glazed areas employ hang and vertical wing walls which significantly reduce incident solar radiation on the glazed surface.
- The south-facing glazed areas employ hang and vertical wing walls which significantly reduce incident solar radiation on the facade. In addition to the design, the use of high-performance glazing and facade design strategies that mitigate the impact of direct and in-direct solar radiation, we are able to reduce the actual solar transmission.

Natural Daylight & Views:

- The south-facing glazed areas employ hang and vertical wing walls which significantly reduce incident solar radiation on the facade. In addition to the design, the use of high-performance glazing and ceramic frit pattern further enhance the performance of the facade.

A major concern for solar radiation transmission was the west-facing window for the ballroom and meeting room areas. Our proposed design provides for a deep inset glazing with over 10 feet of overhang and vertical wing walls which significantly reduce incident solar radiation on the glazed surface. The south-facing glazed areas employ hang and vertical wing walls which significantly reduce incident solar radiation on the glazed surface.
"The design of the massing and facades for the proposed expansion of the Javits Center was derived from an adaption of the original Javits curtain wall design. The original Pei Cobb Freed convention center celebrated the latest in glass curtain wall technology available in 1986—similar to London’s Crystal Palace of 1850. Our proposal adapts the current massing and facades from the original 1986 structure—three decades later—while reimagining a glass building using today’s glass technologies. This creates a new dynamic entry and integrates the expansion with the adjacent Hudson Yards development."

- Kenneth Drucker, FAIA, Design Principal
1. green roof + new marshalling garage
2. ballroom
3. circulation in lobby atrium
4. view of circulation from meeting rooms
The new Davidson County Metro Criminal Justice Center in the heart of downtown Nashville completes a civic campus that includes the city's historic City Hall and Courthouse. Visitors enter the Justice Center through a glass lobby that emphasizes the open relationship between the county government and the community it serves. The building will house Davidson County Sheriff's Office staff and up to 1,000 inmates, with a 64-bed mental health wing to address the emotional and psychological needs of prisoners.

Because zoning requirements limited the height of the new Justice Center to five stories, the design team made the massing longer and wider to accommodate space requirements. The form and width align with the taller neighboring buildings, creating a comparable volume. Similar colors and building materials on the exterior blend harmoniously within the historic campus while providing the new Justice Center a thoroughly modern composition.

The extended civic plaza outside the building and a new public garden featuring trees and fountains emphasize Nashville's commitment to community and downtown development. The plaza links the historic courthouse and City Hall and becomes a new gathering place for public activities.

Design strategies such as green roofs, stormwater mitigation, and photovoltaic systems demonstrate the city's dedication to sustainability. The facility replaces the existing Justice Center constructed in 1982.
INFORMATION

CLIENT Metropolitan Government of Nashville and Davidson County

DESIGN PRINCIPAL Peter Ruggiero, AIA

405,000 sq. ft. / 37,625 sq. m.

annual EUI: 698.3 kBtu/sf/yr
59% below ASHRAE 2007

ELEVATION

1. north elevation of main entry + public plaza
2. open visitor lobby looking out to civic plaza

3. typical housing unit promotes rehabilitation

PLAN

1. civic plaza - level 2
   A. plaza
   B. entry lobby
   C. visitation
   D. work-release
   E. lockers + gym
   F. dayrooms
   G. outdoor recreation yard

2.
1. west facade articulation from 3rd avenue

2. view into public rain gardens
A civic plaza engages the community.

“The success of the design for the Davidson Justice Center lies in the resolution of contemporary attitudes of detention with the demands and expectations of significant civic urban buildings.”

- Peter Ruggiero, AIA, Design Principal
HOK Product Design approached Kewaunee Scientific Corporation, a global leader in laboratory, healthcare and technical furniture products, with a concept for improving the workplace in research labs.

Conceived as a series of enhancements to improve service management, lighting and collaboration in the lab, the project evolved into the creation of a cohesive architectural furniture system. The system features an oval structural extrusion that supplies gas, power and network connectivity throughout labs while isolating wet and dry services. Work stations can be configured in conjunction with glass shelving and suspended cabinets. To reduce the number of table legs, the monolithic extrusion can span two workstations. Each frame can feature a cantilevered end table for collaboration. The resulting large technical harvest table, or research pod, optimizes multidisciplinary research, interaction and movement around the perimeter.

The product line also includes sit-to-stand heavy instrument tables, lightweight and reconfigurable write-up desks, mobile cabinets and a flexible panel system. LED task lighting is integrated into shelving supports, and upper beams can be configured with linear LED modules that provide indirect adaptive lighting. Services exiting the ceiling lay directly into the upper beams for efficient configuration and expansion.

Kewaunee Scientific will introduce the new product line in 2018 with support from HOK Product Design. Additional components are in development.
INFORMATION

CLIENT: Kewaunee Scientific Corporation

DESIGN PRINCIPAL: Matthew Herr

CONCEPT

The original “Enhance” concept won the 2015 HOK Product Design Competition, and was submitted by Gordon Stratford, Ami Shah and Virginia Byers. The design concept explored improving user experiences and enriching collaboration in research environments. The design offered new, more efficient ways of managing overhead services and helping groups share results and improve team culture.

1. Top view: Based on 5-foot modules, islands are made up of four shared workstations and teaming tables for collaboration.

2. Perspective: The design intent is to reduce intrusions, seams and boundaries—allowing for openness between stations and promoting interaction among researchers.
“The clean aesthetics and scale of the architectural structure foster interaction and innovation to create open, engaging lab environments.”

- Matthew Hern, Design Principal
The lower aluminum casting adds characteristically expressive form and stability, supporting the vertical columns and cantilevered work surfaces. Services run horizontally and vertically throughout the system, and both task and indirect lighting are provided. End tables accommodate project updates, personalization and teamwork.
This design concept for a mixed-use residential tower introduces a contemporary co-living concept to the growing Printer’s Row neighborhood south of downtown Chicago. Advancing urban living and coworking trends, the 25-story tower pairs minimal living units with generous shared amenities to draw residents into the building’s common spaces. Compact en-suite bedrooms provide private living space, while common areas offer a sense of community rarely found in traditional residential tower models.

The tower’s efficient design is influenced by the constrained site, parking requirements and adjacency to elevated train tracks. A sky lobby embedded within the parking podium acts as a gateway to the building. It provides a central public space above the sightline of the train tracks. By inserting amenities into the garage podium, common gathering spaces for tenants and guests can be maximized.

Flexible spaces surrounding the street entrance can be used for events, pop-up retail spaces or food vendors. These activities enhance the urban experience and attract foot traffic, maximizing revenue for the building owner.
INFORMATION

CLIENT Confidential

DESIGN PRINCIPAL Peter Ruggiero, AIA

225,000 sq ft / 20,905 sq m

290 ft / 87 m tall
25 floors

SECTION

1. elevated amenity space

A. entrance
B. parking
C. amenity
D. residential
CONCEPT

1. northwest view of elevated amenity space

2. southwest view of elevated amenity space

“The design investigates a new paradigm for urban housing and a redefined utility of the urban elevated garage typically found in the podium of residential towers.”

- Peter Ruggiero, AIA, Design Principal
PLAN

1. typical residential floor on levels 8-24
   A. 4-bedroom unit
   B. 2-bedroom unit
   C. 3-bedroom unit
   D. studio unit

2. level 0
   E. main entrance
   F. bike room
   G. parking garage entrance
   H. lobby

3. level 4
   I. coworking space
   J. bar
   K. outdoor lounge
   L. flex + event space
   M. parking

4. level 25 roof
   N. 4-bedroom unit
   O. 2-bedroom unit
   P. 3-bedroom unit
   Q. water feature
   R. terrace
Sutton Place is a quiet enclave in Manhattan located south of the Ed Koch Queensboro Bridge and north of the Midtown East neighborhood. The highly visible East River site creates a significant opportunity for 430 East 58th Street to become an urban expression of Sutton Place on the Manhattan skyline.

The new development visually anchors the neighborhood with an elegant tower featuring a terra-cotta frame, punched openings and a laut cotta wall. The top of the high-rise culminates with an oculus facing south to honor the United Nations Headquarters.

Terra-cotta reinforces the neighborhood palette, while the four-story frame openings relate to the scale of adjacent townhouses. Stacked floor openings staggered formations prove a sense of movement and form a continuous statement that creates a dialogue with surrounding buildings.

Crafted as a contextual “townhouse,” the building’s base includes the resident entrance and amenity floors. Vertical terra-cotta elements are tied with bronze channels and limestone to create a double-height cantilevered entry canopy with a welcoming street presence. A private rear garden reinforces Sutton Place’s small park environment.

The conceptual design provides floor plan options for both a central core and a north side core without altering the exterior design. The central core option provides 360-degree views and more daylight penetration on all four sides. The north side core offers a more efficient option that allows for improved layouts and better views to the south.

Representing a new generation of Sutton Place residents, the timeless design celebrates the unique scale, charming character and breathtaking views that draw people to the neighborhood.
INFORMATION

CLIENT Lehrer, LLC

DESIGN PRINCIPAL Kenneth Drucker, FAIA

305,000 sq ft / 28,335 sq m

750 ft / 228.6 m tall
60 floors

CONCEPT

1. podium elevation study

2. model/photo
"The new development visually anchors the neighborhood with an elegant tower featuring a terra-cotta frame, punched openings and a taut curtain wall."

- Kenneth Drucker, FAIA, Design Principal
2. typical floor with center core

A. entry hall of full floor unit
B. master suite
C. living room
D. dining room
E. eat-in kitchen

3. typical floor with side core

F. entry hall of full floor unit
G. eat-in kitchen
H. dining room
I. living room
J. master suite
view from east river looking south
This addition to an existing university building mediates between past and future, work and play, and building and site. The iconic structure completes the overall campus master plan.

The building brings together the arts, science and rapid prototyping of various scales. The team conceived the design based on balanced concepts of gateway, heart and pathways.

Situated along a natural canyon and next to a future light-rail stop, the center engages the landscape and connects to the light-rail line, forming a new eastern gateway to the campus.

Envisioned as a circular hub of activity anchored in the landscape, the heart of the project sits opposite a high-bay workspace fronting the street and future light-rail edge.

Passengers arriving at the station will exit onto a ramp that proceeds down between the two anchor points and under the cantilevered mass. This reinforces the gateway concept and provides visibility for the different activities taking place inside. It also begins a series of pathways connecting to the building and existing campus.

Two levels of the addition float above this space and act as a wrapper that extends from the existing building and sweeps around to create a dramatic overhang at the canyon’s edge.
1. The central spiral activates the interior space and connects the building heart to the exterior landscape plaza.

“The design team set out to demonstrate our process and ability to harness cross-disciplinary thinking. Our process adapted the university’s research philosophy of thinking, observing, making and testing. The proposal embodies dualities of seriousness and play, connectivity and placemaking.”

- Ernest Cirangle, FAIA, Design Principal

**CONCEPT**

1. The central spiral activates the interior space and connects the building heart to the exterior landscape plaza.
1. Site concepts
2. Building concepts
3. Gateway + Heart
4. Pathways
1. design model
2. view across canyon
3. view from the light rail
4. heart of the campus
5. a new campus heart
1. Interior activity hub

2. Typical studio work space

3. Building section through heart
The Francis Crick Institute was founded by seven major leading institutions focused on biomedical research in the United Kingdom. The partnership included the Medical Research Council and its National Institute for Medical Research, Cancer Research UK, University College London, Imperial College London, King’s College London and the Wellcome Trust, a major philanthropic institution funding medical research. Initially seen as a way to provide much-needed new research space for these institutions, it soon became apparent that the building also would provide an opportunity to create an innovative model for research.

The Crick departs from traditional research models. The focus is on attracting the best talent and then letting these researchers follow their instincts. There are no departments or specific research directions and almost no idea is off limits. There also is no tenure, with researchers allowed to stay at the Crick for a maximum of 12 years. The intent is to keep the thinking fresh while providing a source of talent for other UK institutions and creating opportunities for collaboration among institutions. There is only limited protection of intellectual property. Discoveries are shared openly with the rest of the world and partnerships with industry are encouraged.

To promote this innovative approach, the design is highly flexible and adaptable to meet the ever-changing needs of existing and new researchers. It was especially important for every aspect of the design to encourage the interactions and collaborations that generate so many breakthrough ideas. Concepts of visibility and spontaneous encounters are central to the design.

The building is composed of four blocks separated by a main east-west atrium and a smaller north-south transverse atrium. The intersection is an informal meeting, break and support area. An adjacent central stair connects all floors. The linear arrangement of lab neighborhoods optimizes visual permeability, offering views across the atrium into the write-up areas and through the primary labs.
The building site is in the heart of central London’s growing scientific community. This location provides easy rail links to Cambridge, Oxford and the rest of the EU for connections with other researchers. Its proximity to many London hospitals offers opportunities for the type of interactions between researchers and clinicians that fuel collaboration and innovation.

The significant technical challenges of building on this urban site required design measures that prevented vibration and electromagnetic interference from local rail, subway and truck traffic.

HOK served as architect and lead designer responsible for the project’s overall design concept, master design, lab planning and landscape architecture. PLP collaborated with HOK in shaping the building’s distinctive form and striking architectural roof expression.

The building was certified BREEAM Excellent for environmental sustainability.
CONCEPT

1. massing strategy

A. maximum volume by zoning + right to light
B. center atrium opened for light, views + internal visibility
C. cross atrium opened for light, views + to create a center
D. internal circulation along atriums for visibility
E. four lab neighborhoods with central support, break + informal meeting areas
SECTION

1. Longitudinal section through atrium

A. Labs
B. Mechanical
C. Atrium
D. Entrance
E. Auditorium
F. Loading bay

2. Glazing to transverse atrium

3. Ground floor central collaboration space

4. Cross-atrium bridges provide opportunities for informal meetings
ATRIUM

1. open stair connecting the central collaboration space at each level

2. main reception + auditorium entrance

3. central stair from above

4. elevator bank + call station
LABORATORY

1. primary lab with shared support + write-up beyond

2. perimeter circulation route with offices + write-ups

3. openable white walls create collaboration pods that encourage spontaneous discussions + interaction

4. view from a write-up area with primary lab, shared support + mirrored tenant beyond
Science is constantly evolving and therefore requires a highly collaborative environment to facilitate scientific breakthroughs. We are delighted that our holistic design solutions will aid in these new discoveries and keep London at the forefront of innovative medical research.

- Larry Malcic, AIA, Design Principal
The design transformed a 1960s-era office building into a modern, light-filled research workplace to advance medical science at one of the world’s premier universities.

The facility houses high-performance biomedical research laboratories that accommodate a wide variety of collaborative research teams. Specialized spaces include core facilities, shared workspaces and related infrastructure to support each team.

Skylights welcome daylight deep into two-story gathering and circulation spaces. Glass walls with simple, origami-like folds replaced outdated glass window walls at the north and south ends of the existing building. This floor-to-ceiling glass floats above a wide-planked boardwalk along the edge of the outdoor gardens, blurring the lines between interior and exterior environments.

The design team collaborated with the client to identify the specific needs of each type of researcher. This informed the size and configuration of open and closed labs, infrastructure, support facilities and collaboration areas.

Parametric design tools enabled the team to test the long-term flexibility and viability of three different concepts to find the best solution. The analysis revealed that approximately 20 percent of the research space needed to be flexible to adapt to changing research programs and future technologies.

This project has enabled the university to implement, test and refine new standards for planning interdisciplinary research space.
"Engaging the building plan and section into a synchronous design of simple folding planes of glass and vibrant colors, we reimagined how a 1960s office building made up of opaque, cast concrete and stone panels could be transformed into a contemporary, light-filled research environment. All interior spaces have views out to the natural world."

- Paul Woolford, AIA, Design Principal
The team incorporated three of the school’s five faculty phenotype models into the research building. Investigating a wide variety of planning scenarios enabled the team to create the optimal quantity and mix of wet and dry benches and desks.
1. south facade garden terrace
2. north building entry at boardwalk
The Morsani School of Medicine will create a new downtown Tampa campus for the University of South Florida and establish the school's presence on the city's skyline. The building will serve as an anchor for a new 53-acre multiuse development to create a more walkable and sustainable environment for downtown residents, workers, students and visitors.

To attract top-tier students and cardiovascular researchers, the university challenged the design team to create a signature, urban facility for its new medical school and heart institute.

A rigorous design process resulted in the creation of a prismatic element both in form and effect. Much like a prism refracts light, the building form refracts from the ground to the sky to accommodate and express a diverse mixture of programmatic elements.

Subtle, faceted gestures make up the facade and reveal specific moments of public gathering space such as the main lobby, cafes, library and prefunction areas.

Large, multistory atria were created to internally weave together the different programs. These spaces give volumetric relief along the western and southern edges while enhancing internal connectivity and providing direct, unobstructed views to the plaza and surrounding Tampa Bay.

HOK is collaborating with Skanska on the design-build project.
INFORMATION

CLIENT  University of South Florida

DESIGN PRINCIPAL  Roger Soto, AIA

340,000 sq. ft / 31,590 sq. m.

265 ft / 80 m tall
15 floors

CONCEPT

1. concept sketches

2. early conceptual building section
1. Diagram illustrating programmatic stacking
   - A. Main lobby
   - B. Retail space
   - C. Elevator lobby
   - D. Back of house
   - E. Loading dock

2. Diagram illustrating atria connectivity

3. Level 0
   - A. Main lobby
   - B. Retail space
   - C. Elevator lobby
   - D. Back of house
   - E. Loading dock

4. Level 1
   - F. Cafeteria
   - G. Prefunction
   - H. Auditorium

5. Level 2
   - I. Student commons
   - J. Learning community
   - K. Classrooms
   - L. Experimental learning lab

- *Medical college of medicine (mcom)*

Mechanical

Vivarium

Shell

Shell

Office

Labs

Mcom*

Mcom*

Mcom*

Public space
“The design provides the university with a setting for a new way of learning and for engaging with the city of Tampa.”

- Roger Soto, AIA, Design Principal
The design for this proposed Major League Soccer (MLS) stadium provides the region with a top-tier venue for sporting, music and cultural events.

The 20,000-seat stadium offers spectacular views of downtown St. Louis while creating a new landmark for visitors approaching from the west. Its open design to the north and east creates a strong visual connection to the surrounding district and downtown core while an elegant raised canopy along the west protects spectators from the setting sun.

Both the canopy and the tightly enclosed stadium bowl structure are designed to maximize noise and excitement during games and events. Upper-level seating is flexible to accommodate an expansion to a stadium capacity of 28,500 seats.

The site is adjacent to St. Louis Union Station, a National Historic Landmark currently undergoing a renovation, and within one mile of the Gateway Arch, Busch Stadium, St. Louis Ballpark Village, Scottrade Center and Peabody Opera House. The design connects the stadium to this walkable sports, culture and entertainment corridor, which is accessible via three MetroLink light-rail stations.

Entry points at all four corners provide visitors with easy access to the stadium from the surrounding site. A linear green space to the east creates a pedestrian area linking the stadium to the urban landscape and the adjacent Memorial Plaza. This park was envisioned to encourage year-round activity on the site and create a venue to host a variety of festivals and events.
INFORMATION

CLIENT: MLS2STL

DESIGN PRINCIPAL: Eli Hoisington, AIA

450,000 sq. ft / 41,800 sq. m.

CONCEPT

1. concept diagram

2. site plan

A. 27,000-seat stadium
B. game-day parking
C. training + facilities
D. entry plaza
E. game-day plaza
F. St. Louis Union Station
G. Union Station improvements

- Technical specs on ALAS.com
- Contact Hank Knoke, Senior VP
- Commercial & Design: Space - Shiner
- Junior Director: E.etal - Unit
1. aerial perspective looking east

2. seating views looking downtown

3. street-level approach
This project hearkened back to the original sports venues and how they were sited by using the natural topography and folding the stadium’s natural bowl shape into an existing landscape. Unlike the ancients, however, who found hills and natural forms to work with, our team discovered that repurposing the site of a highway interchange created the opportunity for a natural bowl. By fitting the stadium into the local context and removing acres of barriers in the old highway network, we were able to connect the fabric of the city with this new development. The final move is a gentle tilt to the east, shading the bowl and honoring views to the Gateway Arch.”

- Eli Hoisington, AIA, Design Principal
The modernization of Hard Rock Stadium offers Miami Dolphins fans a world-class experience that is authentic to South Florida and provides the city with a venue for marquee events.

HOK collaborated with the NFL’s Miami Dolphins to develop a comprehensive design solution for the $500-million modernization of the team’s existing stadium. To ensure that the Dolphins would not miss any home games, the extensive renovations were completed in three phases.

In 2015 every seat in the facility was replaced and innovative seating products were introduced. Seating options at a variety of price points now accommodate all fans, from corporate clients to families and millennials. Updates to the 100 and 300 level concourses included contemporary food service offerings and amenities. The renovations added a Field Club, North Sideline Club and corner terraces.

Creative new living-room boxes meld the home viewing and game-day experiences. Each of the 32 boxes include four individual recliners, up to four programmable high-definition TVs and access to the 72 Club, a unique indoor lounge.

The design reinforces Miami’s culture and heritage by incorporating murals by local artists, comprehensive wayfinding and branding, local materials and experiential design components. Each club, suite, social gathering and dining space provides fans with a splash of South Florida.
In 2016 a new open-air canopy became the stadium’s signature architectural element. The elegant canopy provides weather protection and sun shading while still allowing ample sunlight to reach the natural grass field. The canopy also captures and amplifies crowd noise, enhancing the game-day experience. Other improvements included 22,400 square feet of new high-definition video boards, a new audio system and fiber-optic Wi-Fi.

Renovations for 2017 included comprehensive updates to all existing premium spaces on the 200 Club and 200 Mezzanine Suite levels and distinct new designs for the sideline and end zone suites. Club interiors, designed in collaboration with Rockwell Group, were refreshed to support the Dolphins’ approach to the fan experience.
1. structural drawing of mast

- A. upper node
- B. tension support cable
- C. the mast
- D. etfe membrane
- E. roof steel
- F. lower node
- G. tension bracing
- H. concrete support column
- I. upper concourse

2. mast
The original stadium lacked identity and an architectural presence. We addressed this by creating an expansive and iconic shade structure. This elegant open-air canopy, which was erected in just seven months, includes more than 17,000 tons of steel and covers more than 600,000 square feet of space.

- George Heinlein, AIA, Design Principal
DESIGN TEAMS

LA GUARDIA AIRPORT CENTRAL TERMINAL B NEW YORK, NEW YORK, USA

Peter Ruggiero (Design Principal)
Marie Achalabun
Roosevelt Alexandre
Zahra Ali
Marcus Allen
Abdulaziz Almobarak
Robert Asselin
Paul Augustine
Cindy Bang
Tom Bayer
Stephen Blanchard
Matthew Breidenthal
Jose Briones
Ashlee Broaddus
Jack Brocato
Bart Butler
Yuhong Cao
Jeremy Charmchizadeh
Dany Chehade
Robert Chicas
Ilya Chistiakov
James Christerson
Mario Claussnitzer
Leesa Cofer
Peter Costanzo
Ashley Craig
Steven Danielpour
Benjamin Denker
Devki Desai

Eunil Kim
Joon Young Kim
Vieun Kohl
Kamal Kotsal
Aman Krishan
Gary Kuzma
Dichong Kwon
Joanna Lam
Lamar Lane
Jillian Lawcon
Edward Ledoux
Kanikorn (Noon) Leelardchareon
Zilin Lu
Christopher Lodge
Eugene Lund
Shawn Lutcz
Al Lyons
H (Aru) Mahendra
Donald Marman
Marissa Montefora
Glenn McClure
Charles McGraw
Katharine McPhillips
Francesca Meola
Michael Miller
Ontsegebepem Nanna
Alexander Nash
Sergio Navarro
John Neary
Edgar Nurney
Anastasios Papadopoulos

LaGuardia Airport Central Terminal B New York, New York, USA

Gerard DeSarno
Khaleda Dihiwayo
Saad Dimakhiel
Gregory Dierienze
Kinray Dixon
George Daifz
Julie Donevan
Madeleine French
Carl Gaddo
Yu Gao
Cid Garcia
Hyongin Gao
Areev Goyal
Raul Guerrero
Pavel Gurdak
Meredith Hall
Nancy Hamilton
Lawson Hanna
Mark Hendel
Brian Henkel
Adriana Hernandez
Julia Heutel
Eli Heslington
Alyssa Hinn
Kyle Inger
Julie James
Nathan Janicek
Justin Jennings
Nasim Kattowitz
Hiroyuki Kawakami

Joo Young Park
Jack Parker
Amy Patel
Nisheal Patel
George Paslovski
Jennifer Pittenger
Mark Pritchard
Courtney Robinson
Alejandro Rodriguez
Rene Ruiz
Roberto Saldaninha
Adriana Sangeorzan
John Sarno
Mako Sato
Gregory Selesnower
Darla Setlik
Jeanette Segal
Mohammed Shuaib
Simen Shym
Sami Shomurma
Francesco Sillio
Michael Smith
Julie Sommerbja
Erika Grorud
Jacquey Suzzi
Amer Taebraki
Joeson Yuan
Giacomo Tinari
Mark Tocaci
Enrico Tomasselli
Diana Ton
Abbeylane Ton

Steve Cesarino
Alex Church
Nikhil Chudasama
Jinkyeong Cho
Jean-Christophe Chazalon
Zifan Liu
Christopher Lodge
Eugene Lund
Shawn Lutcz
Al Lyons
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Donald Marman
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Ontsegebepem Nanna
Alexander Nash
Sergio Navarro
John Neary
Edgar Nurney
Anastasios Papadopoulos

Abbeylane To
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<tr>
<td>John Tran</td>
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<tr>
<td>Aaron Ricardo Vazquez</td>
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<td>New LaGuardia Airport Master Plan</td>
<td>Gregory Cranford, James Mallory, Matt Breidenthal, Javier Buzaglo-Pesquera, Kenneth Drucker, Anne Fletcher, Ely Fretz, Carl Galindo, Lucy Grass, Marc Grass, William Jenkinson, Keesha Jiang, Nicolas Libeyre</td>
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<td>Zhenhuan Xu, Junke Yokumaki, Scott Yocon, Deborah Young, Vincent Yu, Bashar Zivari, Christopher Zoep</td>
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<td>Bill Hellmuth, Emiliano Stokes, Esther Wang, Joe Winters</td>
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<tr>
<td>The Allen Mixed-Use Development Houston, Texas, USA</td>
<td>Roger Soto (Design Principal)</td>
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<td>Raul Guerrero</td>
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<td>Zach Christensen</td>
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<td>Ghirardelli Square Plaza San Francisco, California, USA</td>
<td>Brian Jencek (Design Principal)</td>
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<tr>
<td>Ghirardelli Square Plaza San Francisco, California, USA</td>
<td>Xue Ling</td>
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<td>Ghirardelli Square Plaza San Francisco, California, USA</td>
<td>Ben Kuchiński</td>
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<td>Roger Soto (Design Principal)</td>
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<td>Jiasi Tan</td>
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<td>Roger Soto (Design Principal)</td>
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<td>Mark Hendel</td>
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<td>Kyle Trigger</td>
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<td>Ami Khanna</td>
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<td>Colin Turner (Design Principal)</td>
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<tr>
<td>Bentall Kennedy Office Toronto, Ontario, Canada</td>
<td>Sally Shi</td>
</tr>
<tr>
<td>Bentall Kennedy Office Toronto, Ontario, Canada</td>
<td>Sharon Turner</td>
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Jurong, Singapore

Henry Chao (Design Principal)
Shelva Mendez
William Roger
Paul Woolford

**HOSPITALITY**

Fogo de Chao Brazilian Steakhouse
San Francisco, California, USA

Daniel Hemiot (Design Principal)
Anne Pradenas
Tambra Thorson

Jacob K. Javits Convention Center Design Competition
New York, New York, USA

Kenneth Drucker (Design Principal)
Nathan Hoornagle
Varun Kohli
Marina Mazz
Marie-Paule Petitjean
Mira Salcet
Harsha Sharma

**JUSTICE**

Davidson County Criminal Justice Center
Nashville, Tennessee, USA

Peter Ruggiero (Design Principal)
Sue Kim
Nareg Kurjian
Jourden Miller
Cory Murner
Lou Oswald
George Pavlovski
Cacek Renner
Bob Schwartz
Patrick Vokaty

**PRODUCT DESIGN**

Scientific Lab Furniture System

Matthew Hem (Design Principal)
Gyana Byers
Susan Grossinger

**RESIDENTIAL**

639 S. LaSalle Street Tower
Chicago, Illinois, USA

Peter Ruggiero (Design Principal)
Allison Burrell
Javier Buscaglia-Pesquera
Ashley Craig

Sutton Place Design Competition
New York, New York, USA

Kenneth Drucker (Design Principal)
Anne Fletcher
Kooho Jung

SCIENCE + TECHNOLOGY

Education Building for Confidential Client
California, USA

Ernest Cirangle (Design Principal)
Brian Jencek
Ashley Craig
Rober Cull
Jessica Grinther

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Brian Jencek
Ashley Craig
Rober Cull
Jessica Grinther
The Francis Crick Institute
London, UK
Larry Malcic (Design Principal)
David King (Design Team Leader)
Bill Odei (S+T Leader)
Mujib Ahsan
Adrienne Bohan
Joyce Chan
Andrew Childs
Claire Cohen
Christopher Colosimo
Francesco Cortese
David Cutmore
Mark Drew
Paul Duggleby
James Eggleston
Jeongpu Eun
Ian Fleetwood
Quarit Goni
Robert Gordon
Mark Kennedy

Medical Research Building for Confidential Client
California, USA
Paul Woolford (Design Principal)
Tom Fortier
Emily Fowlkes
Daniel Herrnott
Michele Hutchinson
Brian Jancek
Randy Kray

Gethin Hemmings
Angus Kennedy
Yuan Liang
Tom Leung
Liam McSweeney
Amy McGarry
Beate Mellwig
Mark O’Brien
Filip Oroszyna
Nilesh Patel
Adam Rigby
Shen Sasidharan
Judith Sayers
Jeff Strohmeyer
Robert Studd
Sarah Swordbridge
Jennie Taylor
Alejandra Anguil Vanier
Andy Warner Lacey

University of South Florida Morsani School of Medicine
Tampa, Florida, USA
Roger Soto (Design Principal)
Melissa Collazo
Amelia Cubbage
Jamie Inskip
Eddie Pabon

Major League Soccer Stadium
St. Louis, Missouri, USA
Eli Hoisington (Design Principal)
Chris DeVelde

Miami Dolphins Hard Rock Stadium
Miami, Florida, USA
George Herlan (Design Principal)
Scott Bond
Tyler Clark
Jeremy Crabb
Jeff Davis
Michael Day
Ewa Glebocka
Jeff Goode
Harrah Gramman
Greg Green
Sarah Hunter
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