

NK PRESENTS

Adaptive Reuse for Healthcare

How Health Systems Can
Capitalize on Changing
Trends in Real Estate



Healthcare providers need more space — not necessarily **new** space.

Changing consumer demands, accelerated by the COVID-19 pandemic, have profoundly altered real estate. Retail spaces lie fallow. Entire commercial buildings may become obsolete. This presents an opportunity for healthcare providers in search of expanded clinical, office and laboratory space, but adaptive reuse presents new challenges too.

NK Architects recently convened a panel of healthcare and real estate leaders to discuss the future of adaptive reuse in healthcare. They addressed the macroeconomic trends shaping healthcare and real estate, the architectural and engineering implications of adapting buildings for healthcare, the ways healthcare providers and real estate developers can partner to realize population health goals, and the environmental benefits of conserving buildings for a new generation.

Panelists



Facilitator

Elizabeth Sullivan, Assoc. AIA, LEED GA, EDAC
AVP, Architecture, Northwell Health

Elizabeth has extensive management and medical planning experience. As a healthcare planner, she specializes in medical master planning, small-and large-scale facilities, and complex multi-phased projects. She manages and coordinates with leadership, reconciling key stakeholder and user requirements with applicable codes and guidelines to achieve design solutions that not only meet programmatic needs but also translate into cohesive planning concepts. Additionally, Elizabeth worked as both a Project Manager and later as a Director of Facilities and Real Estate Planning for Montefiore Health System in New York. She has unique inside experience working as the client and understands the entire project process from the owner's perspective.



Siu-Wan Elsie Low, LEED AP, CHC

Senior Director of Design and Construction,
Montefiore Medical Center

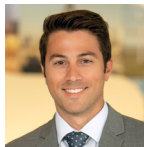
Ms. Low is the Senior Director of Design + Construction at Montefiore Medical Center in the Bronx. She is a LEED AP as well as a American Hospital Association (AHA) Certified Healthcare Constructor.



Charles S. Maggio, AIA, ASHE, NCARB

Managing Director, Northeast, CBRE Healthcare

Charles has over 30 years of experience working as an architect, hospital facilities executive, project manager and consultant. He leads CBRE Healthcare's northeast team providing hospitals and health systems with project delivery solutions using an integrated platform of services. He is also a steering committee member of the Facility Guidelines Institute (FGI).



Matt Pirolli, LEED AP

Senior Development Director, Anchor Health Properties

Matthew Pirolli brings more than 15 years of expertise in real estate development and construction within the healthcare, life sciences, commercial office and multi-family sectors. In his role, he leads the development process, including market analysis, site selection, conceptual planning, design, and construction.



Christopher Prochner, PE, LEED AP, CEA

Partner, Jaros, Baum & Bolles

Christopher Prochner has been a Partner at JB&B since 2005 and has led the firm's healthcare division for the past 12 years. An HVAC Systems Engineer, he is also in charge of the firm's plumbing/fire protection and BIM groups. Mr. Prochner has worked with some of New York's most renowned medical centers and research facilities.

What can adaptive reuse do for healthcare?

Many health systems are expanding outpatient services to free up critical care on their main campuses. Dispersed into the communities they serve, outpatient centers improve patients' access to care, at a lower cost for both construction and operations.

Adaptive reuse, then, can help providers quickly bring new outpatient services to market, because the facility is already partially built. It also helps to access new markets where undeveloped land is scarce or where the cost of ground-up construction is too high.



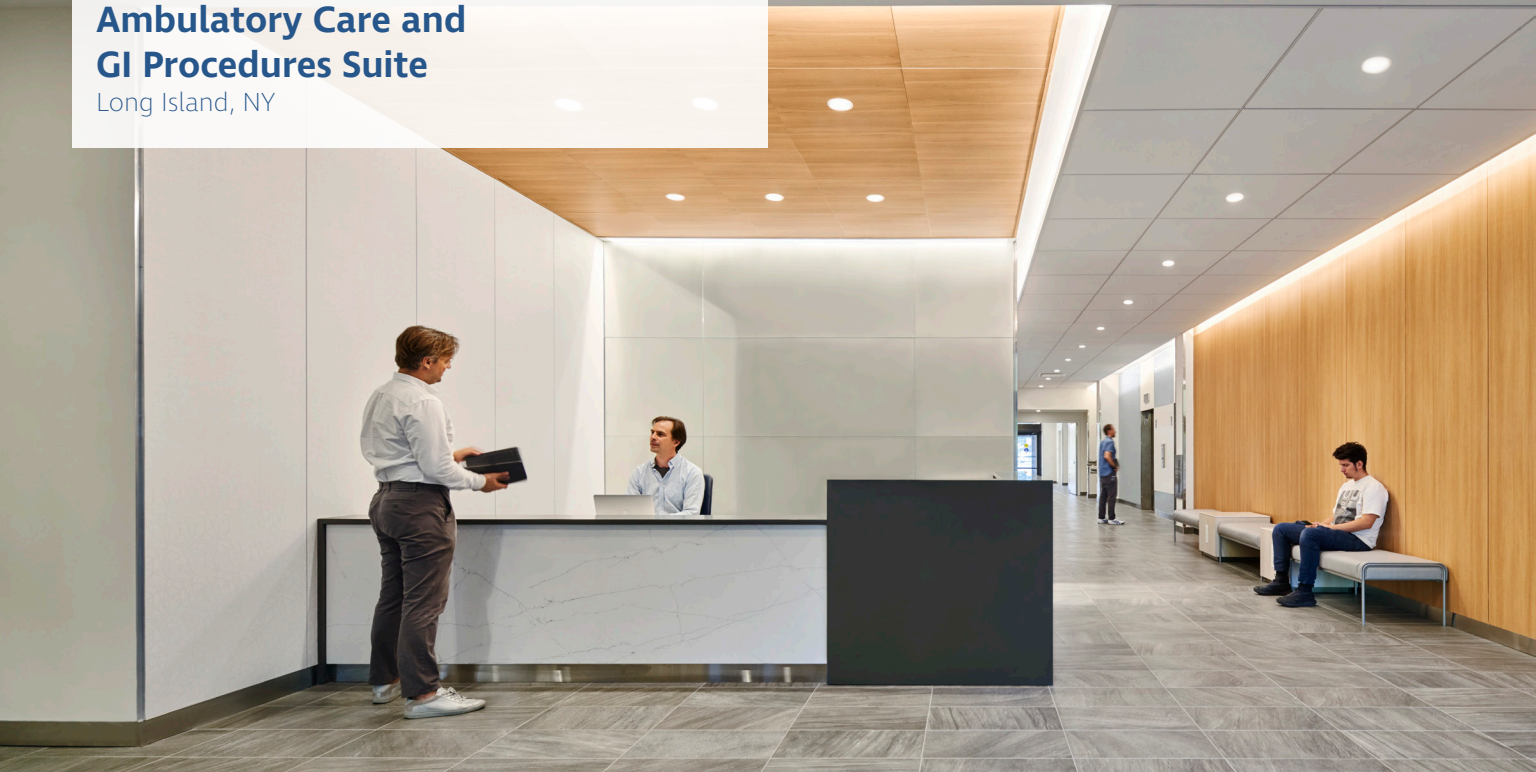
Adaptive reuse is the process of modifying a building to serve an entirely new purpose. Famously, the Musée d'Orsay in Paris was built in 1900 as a train station, then hosted wildly diverse uses until its conversion into an art museum in 1986.

"By taking an existing property and converting it, you can get to market fastest, and you can get right into locations where you might not otherwise."

- Matt Pirolli, LEED AP
Senior Development Director, Anchor Health Properties

Ambulatory Care and GI Procedures Suite

Long Island, NY



Ambulatory Care and GI Procedures Suite





Long Island, NY

By adaptively reusing a 1970s corporate headquarters, this New York healthcare provider expanded services and consolidated five formerly scattered practices — cardiology (with nuclear medicine), pulmonary, X-ray, family practice and internal medicine — into one location to provide greater convenience for patients, while minimizing the cost, schedule and risk of construction.



What is available for reuse?

Shifting trends in real estate offer opportunities for health systems searching for space, but some building types are better suited to healthcare than others.

| Building Type | Market Trends | Suitability for Healthcare | Project Example |
|---------------|---|--|--|
| Retail | Retail sales are up, but only because of ecommerce, which is expected to grow to 30 percent of all retail sales by 2030. 100,000 restaurants closed in 2020. |  | One NK Architects feasibility study is helping to evaluate locations for a new primary care clinic. Among the sites under consideration: a former big-box retail building, with an open floor plan and wide column spacing suitable for healthcare. |
| Office | Office occupancy in early 2021 was down 10 to 20 percent from its peak. Building owners expect a 10 percent decline in asking rents through the end of 2022. |  | In a historic 1930s commercial building near Hudson Yards, NK Architects is helping a major New York healthcare provider create a outpatient facility filled with daylight, made possible by the existing structure's high ceilings and oversized windows. |
| Hospitality | As a result of COVID, demand for hotel rooms fell 37 percent, to the industry's worst annual occupancy rate since the Great Depression. Demand is not projected to fully recover until 2024 or 2025. |  <small>* Some hotels may be well suited for behavioral health.</small> | The Retreat & Recovery at Ramapo Valley offers behavioral health services within a serene landscape once used as a religious retreat. The first phase provides outpatient addition treatment in a restored carriage house. |
| Industrial | Industrial real estate was the first sector to recover from COVID, due to ecommerce growth and restructured supply chains. Vacant industrial space may be hard to come by, but it could support healthcare-adjacent uses like research. |  | BioBAT is a not-for-profit life sciences research center inside the redeveloped Brooklyn Army Terminal. NK Architects is designing a modular lab prototype with pre-installed infrastructure that can be deployed more quickly than traditional construction. |

Retail

The Brooklyn Hospital Center, Myrtle Dialysis Center

Brooklyn, NY

When a supermarket vacated the basement of 218 Myrtle Avenue, the Brooklyn Hospital Center saw an opportunity to upgrade its nearby dialysis center. High ceilings and simulated daylight enhance the experience of patients and staff, while MEP upgrades brought the retail space into compliance with all Article 28 regulations.



Office

SUNY College of Optometry, Pediatric Optometry Suite

New York, NY

Since 2000, SUNY College of Optometry has occupied the former Aeolian Piano Company headquarters on 42nd Street. To create onstage/offstage clinical flows within the narrow, early-1900s floor plate, the pediatric suite staggers exam rooms around a central staff area, freeing secondary waiting areas around the perimeter.



Hospitality

SUN Behavioral Health, Inpatient Psychiatric Center

Columbus, OH

To expand mental health services in a community that greatly needed them, SUN Behavioral Health converted a five-story hotel into a 144-bed inpatient psychiatric facility. The hotel's former restaurant became a dining hall; the swimming pool, an indoor recreation center.





Industrial

New York Blood Center

Queens, NY

The award-winning New York Blood Center adapted a warehouse into a blood research, processing and educational center. Infrastructure upgrades included prefabricated skylights to improve the work environment, coordination with Con Edison to install new below-grade transformers, and exterior recladding to give the organization more public presence.

What features matter?

When evaluating a property for adaptive reuse, many factors — from “soft” infrastructure like the site and architecture, to “hard” infrastructure like mechanical, electrical and plumbing (MEP) systems — determine its suitability for healthcare. Here are just a dozen ...

“When it comes to MEP, adaptive reuse is pretty much going to be a gut renovation, because healthcare is a big shift in infrastructure. So I would say, first, make sure your building has good bones.”

- Christopher Prochner, PE, LEED AP, CEA
Partner, Jaros, Baum & Bolles

Location, Location, Location

The right building for adaptive reuse is in an accessible, visible location, with a good nearby tenant mix and market demand for the services intended.

Parking

Some office buildings or urban sites may have insufficient parking. Big-box retail and mall locations may have parking that must be shared with neighbors.

Local Utilities

Water, sewer, power, gas and data lines must be sized to accommodate the additional load of a healthcare facility.

Building Condition

Properties that have been vacant too long may require substantial and costly repairs to become suitable for healthcare.

Entrance

To put patients at ease, a building should have a welcoming sense of arrival, sheltered from the elements, with clear way-finding to point the way, and potentially a separate, private entrance in facilities shared with other tenants.

Accessibility

Because ADA access is of extra importance in healthcare, ramps, auto-operating doors and other accessibility requirements should be considered.

Floor-to-Floor Heights

Ceilings must be high enough to accommodate the additional ductwork, plumbing and electrical and data runs required for healthcare.

Structure

Where heavy medical equipment or additional HVAC units are planned, the building's structure must be robust enough to support them.

Column Spacing

The space between columns must be wide enough to efficiently lay out standard, right-sized spaces like exam rooms.

Backup Power

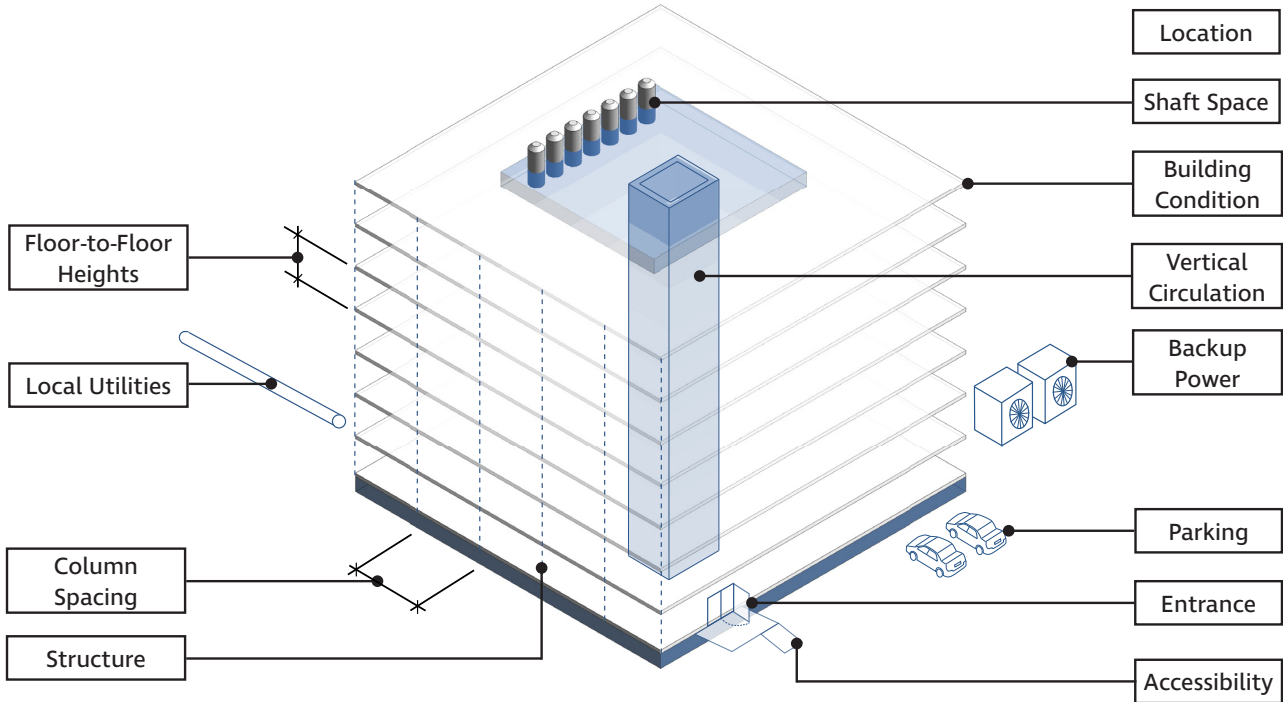
Healthcare needs a reliable source of power even during an outage, so space must be available for backup generators.

Shaft Space

In buildings not originally designed for healthcare, the mechanical, electrical and plumbing shafts may be insufficient, and floor area may need to be reserved for additional penetrations.

Vertical Circulation

Multi-story facilities need a sufficient number of elevators for patients, and they must be large enough for gurneys.



How can partners help?

Health systems often lack in-house development expertise, which is secondary to their primary mission of providing care. As a result, many systems partner with developers who specialize in constructing new and adaptive-reuse healthcare facilities.

For health systems, partnering with a developer can reduce risk and up-front costs, ensure speed-to-market, grant access to prime developer-controlled locations, or offer flexibility for short-term occupancy.

How to Partner Successfully

Be Transparent

An open-books policy minimizes disagreement by ensuring that all parties understand the true costs of development.

Right-size the Program

Most likely, adaptive reuse is for outpatient care or medical offices, which require very little hospital-grade space. Plan the most efficient space to maximize operations.

Select a Decision-maker

To right-size facilities and keep the schedule on track, a single decision maker within the healthcare system should have authority over all user-group input.

Establish a Basis of Design

A basis of design helps to avoid costly mistakes by defining the spatial requirements for delivering care. Where developers and health systems have competing standards, resolve them early.

"Often times a health system is unable to come up with the 'first cost' to build out a site, but if a developer can come up with that, it's an ideal situation: we'll pay for it over time as part of the lease agreement, and that way we can get something done instead of working with financing."

- Siu-Wan Elsie Low, LEED AP, CHC
Senior Director of Design & Construction, Montefiore Medical Center



Boriken Neighborhood Health Center

New York, NY

Financed in part by a \$15M Affordable Care Act grant, the East Harlem Council for Human Services renovated a former school building at Third Avenue and 123rd Street to provide comprehensive outpatient care as well as social services, daycare and a nutrition center.



What can adaptive reuse do for the environment?

Construction and demolition are inherently carbon-intensive processes. Adaptive reuse, on the other hand, is inherently sustainable because it maintains buildings that already exist.

Reduced Emissions

Construction accounts for roughly 10 percent of all carbon emissions. Adaptive reuse not only locks away the embodied carbon already present in a building, but also prevents further emissions from new construction.



Increased Density

By distributing healthcare services into the community, closer to the people it serves, adaptive reuse — and outpatient care in general — can reduce carbon emissions from vehicular travel.



Diverted Waste

Approximately one-quarter of all landfill debris is construction waste, — of which 90 percent comes from demolition. Adaptive reuse reduces this waste stream.



Improved Performance

Replacing outdated infrastructure and “leaky” enclosures makes buildings more energy-efficient.



Civic Pride

The most sustainable buildings are the ones people don't want to knock down. When historic landmarks are adaptively reused, they help foster a sense of community that ensures they endure for subsequent generations.



“I once read that 25% of all landfill debris comes from construction, whether demolition debris or construction waste. That’s the value of adaptive reuse — the greenest building is the one that’s already built.”

- Charles Maggio, AIA, ASHE, NCARB
Managing Director, Northeast, CBRE | Healthcare



Jersey City Medical Center, Women's Health Center

Jersey City, NJ

In a historic, three-story commercial building at the heart of bustling Newark Avenue, Jersey City Medical Center brings women's health services to where its patients live, work and play. An expansion adds new mammography and ultrasound suites, increases the number of changing rooms and improves patient privacy.





Zufall Health Center

Dover, NJ

The National Union Bank building in downtown Dover, NJ, built in 1929, was restored for the not-for-profit, federally qualified health center (FQHC) Zufall Health, which now provides more efficient general, women's, pediatric, geriatric and behavioral health care in a modernized community landmark.



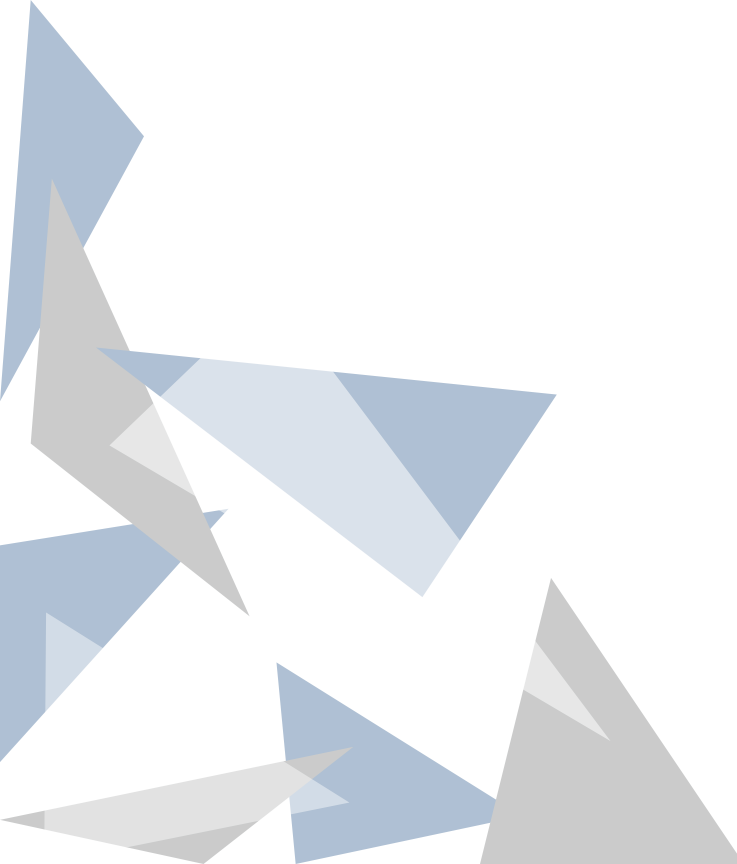


Northwell Health System, Physician Practice Suite

New York, NY

Restoring medical care to residents of Greenwich Village following the closure of historic St. Vincent's Hospital and the subsequent adaptive reuse of its campus, Northwell Health occupied the first three floors of a new mixed-use residential building with multispecialty physician offices.





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