

A modern office interior featuring a long wooden table in the foreground where two people are working. In the background, a meeting area with a table and chairs is visible through a glass partition. The office has a high ceiling with exposed ductwork and large windows.

Workplace Ecosystem

DESIGNING FOR HUMAN VITALITY

bnim

ABOUT BNIM

BNIM is an innovative leader in designing high performance environments. BNIM's instrumental development of the USGBC, LEED, and the Living Building concept, combined with projects, methods, and research, shaped the direction of the sustainable movement. Through this involvement, the firm has redefined design excellence to elevate human experience together with aesthetics and building performance. In practice, this multifaceted approach to design excellence has yielded national acclaim, including the AIA National Architecture Firm Award, and consistent design recognition nationally and internationally. BNIM is **Building Positive**, a notion that describes how our practice leverages its collective capacity for design thinking to solve issues at every scale in a way that is focused on building the positive attributes of community and the built environment. Through an integrated process of collaborative discovery, BNIM creates transformative, living designs that lead to vital and healthy organizations and communities.

Workplace Ecosystem

DESIGNING FOR HUMAN VITALITY

THE FUTURE OF WORKPLACE

In the United States, the average person now spends more than 90 percent of their life indoors — in workplace environments. As the spaces where we regularly communicate, share, and produce, workplaces can holistically shape how we live. They also represent significant opportunities to transform company culture and employee health.

The workplace of the future will enhance human vitality by connecting focused spaces and open-source program with natural systems. A generation of millennials, makers, and creative incubators will define the workplace of the future, drawing upon social and urban contexts to create laboratories for business experimentation and shared innovation. It will be an integrated environment that centers on human health and reflects values of openness, flexibility, and ideation.





WORKPLACE ECOSYSTEM

The Workplace Ecosystem explores the potential of workplaces through a body of research and designs created by BNIM. Taking into account the complex demands of our time, this study reflects ongoing investigations into how people work and the spaces that support their productivity.

Derived in the context of a radically changing workplace, these ideas track the evolution of office spaces, as well as trends that influence how we work across the world. Backed by our Human Purposed Integrated Design (HPid) approach, the Workplace Ecosystem explores identity, well-being, and community through six essential spatial types. Together, these needs are met by understanding and facilitating an ecosystem that connects built, natural, and social systems.

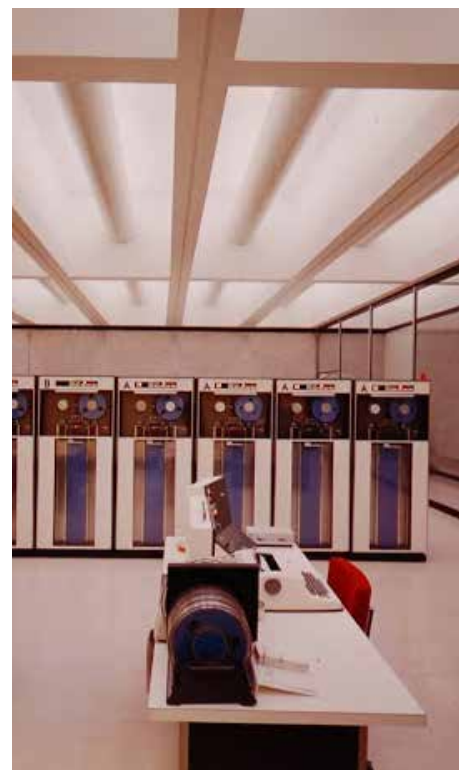
A History of Workplace

From cubicles to flexible modes of work

Workplace design has radically transformed over the last century. Rooted in a series of innovations, from the invention of telecommunications and the Modern Efficiency Desk to Robert Propst's modular panel system, where we work has constantly evolved. Exploring form, flexibility, and cost, new models of working reflected generational and technological change. Eventually, workspaces transformed through the adoption of the personal computer and the dot-com revolution in the 1990s. We began to move away from isolated and concentrated work models, and after the turn of the century, workplace design centered on open offices, collaboration, and co-working. Today, we are looking to the future of workplace design as we anticipate the trends shaping where and how we work.

Fundamentally, workplaces are grounded in human dimensions. As companies are increasingly focused on employee engagement, we are creating environments that support interaction, socialization, and mobility. The linear workspaces of the 19th century are being phased out and replaced by a horizontal hierarchy and the blended workforce. We are anticipating new modes of working through a holistic understanding of health and wellness, and we are designing workplaces that address new ideas on Office Compression.

BNIM has consistently engaged industry experts and the latest ideas on workplace to transform how we work. From our research into the Open Source Office to our work with the Salk Institute, we actively explore the operational, environmental, and social components of well-being. Through our history of workplace design, we realize functional, beautiful spaces that empower organizations and their greatest asset — **their people.**



Historic images from Life Magazine and Ezra Stoller of the American Enterprise Group Building in Des Moines, Iowa (1966)





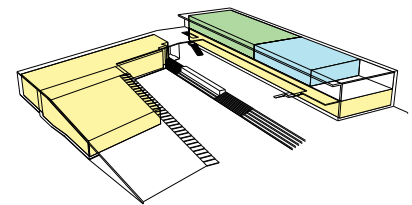
Office Compression

As companies look to remain competitive and attract talent, new workplaces are being designed as seamless environments that merge outdoor and indoor work areas. More programs and departments are being concentrated together, from areas where employees can exercise and eat to recreational spaces where team-building happens alongside work. Aiming to create a competitive amenities package, offices are focusing on attracting and retaining the best talent through diverse workstations, outdoor integration, and flexible meeting spaces. Increasingly, they are building space for activity-based work, allowing people to work collaboratively or independently as needed. The result is better problem solving, collaboration, and community development.

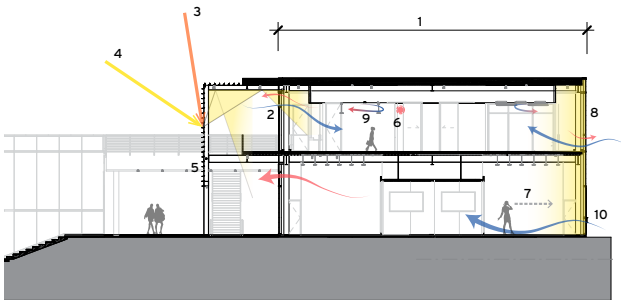


**Pacific Center Campus
Development - Amenities Building
San Diego, California**

This two building campus expansion adds 410,000 square feet of office, dry laboratory, catering/café, health center, fitness center, lecture hall, multi-purpose learning and conference space to the campus. Both buildings have received LEED gold certification. Both buildings were designed to optimize passive design strategies to achieve high-performance results and provide a high-quality interior workplace environment to boost employee productivity. The buildings' east/west solar orientation and narrow floor plates promote natural ventilation and daylighting, and a high-performance façade design controls heat gain and glare.

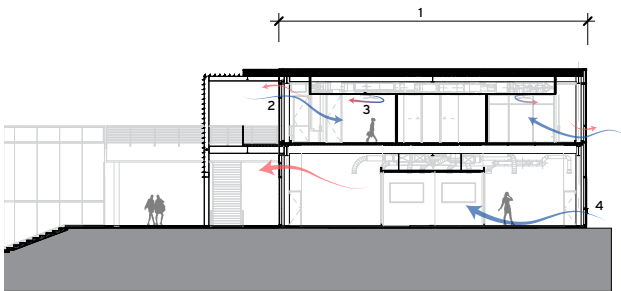


- office
- wellness center
- amenity



DAYLIGHT

- 1 narrow floor plate to maximize natural ventilation and daylight penetration.
- 2 full glazing to maximize diffused northern daylight.
- 3 angle of sun in the summer.
- 4 angle of sun in the winter.
- 5 horizontal louvers shade south daylight and reflect diffused light deep into the space.
- 6 light sensor
- 7 unobstructed views out
- 8 daylight responsive artificial lighting



NATURAL VENTILATION

- 1 narrow floor plate maximizes natural ventilation
- 2 operable windows facilitate natural ventilation
- 3 ceiling fans circulate air
- 4 cross natural ventilation







The integration of landscape and architecture is expressed throughout the design of the Amenities Building and its landscape. The central campus landscape transforms from an orchard to native canyon landscapes as it flows up onto the roof of the building, creating a reflective garden and activity terrace overlooking the campus. The dining center and conference center spaces bridge the inside and outside, creating beautiful and functional spaces that blur the lines between building and site, and increasing access to fresh air, natural light, and vegetation. The two-tiered central courtyard, cradled by the earth-form inspired shape of the building, creates a flexible space for large events and day-to-day uses highlighted by the sounds of a central fountain and an ever-changing digital art installation.

NOTHIN
LIKE
THE *Old School*





Mobility + Blended Work

In the past five years, the gig economy has become a major trend impacting the global workforce. A study exploring the gig economy found that 93 percent of companies already identify with the blended workforce, as they are seeing freelance workers teaming up with employees to collaborate on projects. In addition, the top reason why outperforming employers are benefiting from the blended workforce is "more flexible teaming." Multiple studies, from Intuit to The Freelancer's Union, predict that at least 40 percent of the workforce will be freelancers in the next few years. As more companies hire on-demand to solve key problems and cut costs, more freelancers and full-time workers will need to work together. With many freelancers working at remote offices, the ability to manage without borders is going to become a critical skill.





Westport Commons Kansas City, Missouri

Located in Midtown, a historic neighborhood in Kansas City, Missouri, Plexpod Westport Commons is the largest co-working facility in the world. Plexpod Westport Commons is the transformation of Westport Middle School and Westport High School into a community resource that immediately became a regional hub for innovation, collaboration, and entrepreneurship. The campus includes: unique coworking and coliving environments, an early learning center, health and wellness programs, a local healthy food system including urban agriculture, a restaurant, and a coffee gallery.



Horizontal Hierarchy

During the 1960s, the service economy exploded, along with the development of the computer business, ultimately changing the image of work. Spaces that were once strictly hierarchical and rigid became more open and increased employee engagement. This was the first step towards the creation of a work environment that fostered interaction amongst employees.

Today, more horizontal hierarchies exist. Organizations are flatter. Knowledge and service work dominate. The "corporate lattice" model suggests that as departments become more concentrated and integrated, distributed authority and broad information access are more common. This allows for the integration of career and life, making space for multidirectional career paths that are team and community driven.







BNIM Kansas City Office **Kansas City, Missouri**

The interior renovation of 2460 Pershing revitalized an iconic 1970s brutalist structure into a modern work environment that is a replicable model for transformative workplace design. Large windows expose views over Kansas City's Crown Center commercial complex and landscaped grounds.

Workspaces were designed with collaboration and creativity in mind. A total of 15 conference rooms provide spaces for all needs, from secluded areas to work individually to a makerspace for prototyping and testing models under a variety of lighting conditions.

Much of the renovation involved exposing the details and bones of the structure, integrating features of the building's past in its new, modern form. The ceilings are open, revealing the HVAC systems and beams, and a polished concrete floor minimizes the environmental impact of installing new materials. These strategies align with Crown Center's environmental commitment, including recent completion of 2015 goals achieving 39% energy reduction, 25% water reduction and 61% waste reduction.



Modernist Rehab

The reuse of old buildings is almost always more complex than new construction. Modernism projects demand integrated thinking and creativity, and sometimes a leap of faith. Structural integrity, embodied energy, embedded history, and other considerations compel owners and their designers to apply ingenuity to adapt such structures — capturing the best attributes and transforming them into both highly functional buildings and captivating neighborhood anchors.

Modernist buildings welcomed and integrated new technology, provided flexibility in programming with open floor plans, offered generous views to users in order to provide comfort and inspiration, and were economically feasible due to their use of modern materials. We can sustain and enhance these attributes through upgrades, and thoughtful and sensitive intervention.







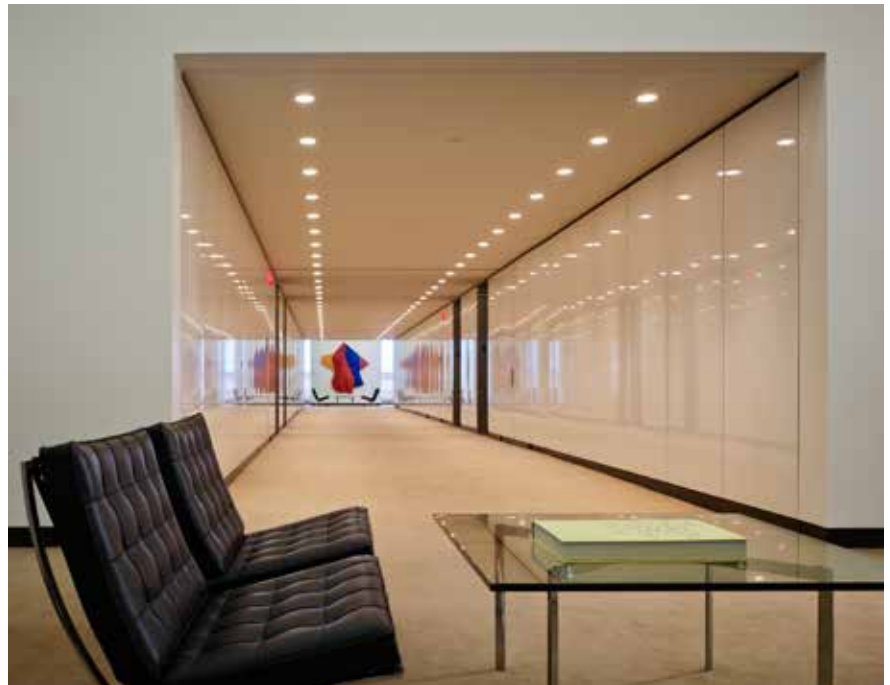
bnim expanding position





American Enterprise Group National Headquarters Des Moines, Iowa

The revitalization of the American Enterprise Group (AEG) National Headquarters is an "invisible rehabilitation." Since the building was completed in 1965, the owner had consciously respected its defining characteristics. However, over the next 50 years, a number of its finishes and materials deteriorated, and its systems were extremely problematic. BNIM completed a complex renovation of the concrete structure while maintaining the building's original integrity. The concepts that distinguished the building were preserved and augmented with energy efficient systems. Replacing these systems required substantial demolition of walls and finishes, including the exquisitely detailed executive suites, which were then meticulously reconstructed. Following the renovation, AEG's significant art collection remains an integral part of the experience.



8th Floor Lobby - Original condition (1966)
View page 9 for more before images of AEG





BNIM Des Moines Office Des Moines, Iowa

This collaborative office environment was designed to accommodate an expanding architectural practice in an existing street level urban office building located in the Central Business District of Des Moines, Iowa. While the work stations are relatively fixed, the organization of the spaces, the communal tack wall and open conferencing areas provide for flexibility and sharing of ideas and concepts. Designed initially to provide work areas for 14, the space can comfortably accommodate 18 work areas for future growth. Few walls subdivide the space providing a volumetric environment that can be adapted and changed as working methodologies change over time. direct the flow of storm water from the roofs through each courtyard. This space reflects BNIM's culture by being responsible in the use of materials and resources, maximizing the use of daylighting and providing a collaborative studio infrastructure that promotes creativity, excellence, teaching and learning.











Health and Wellness

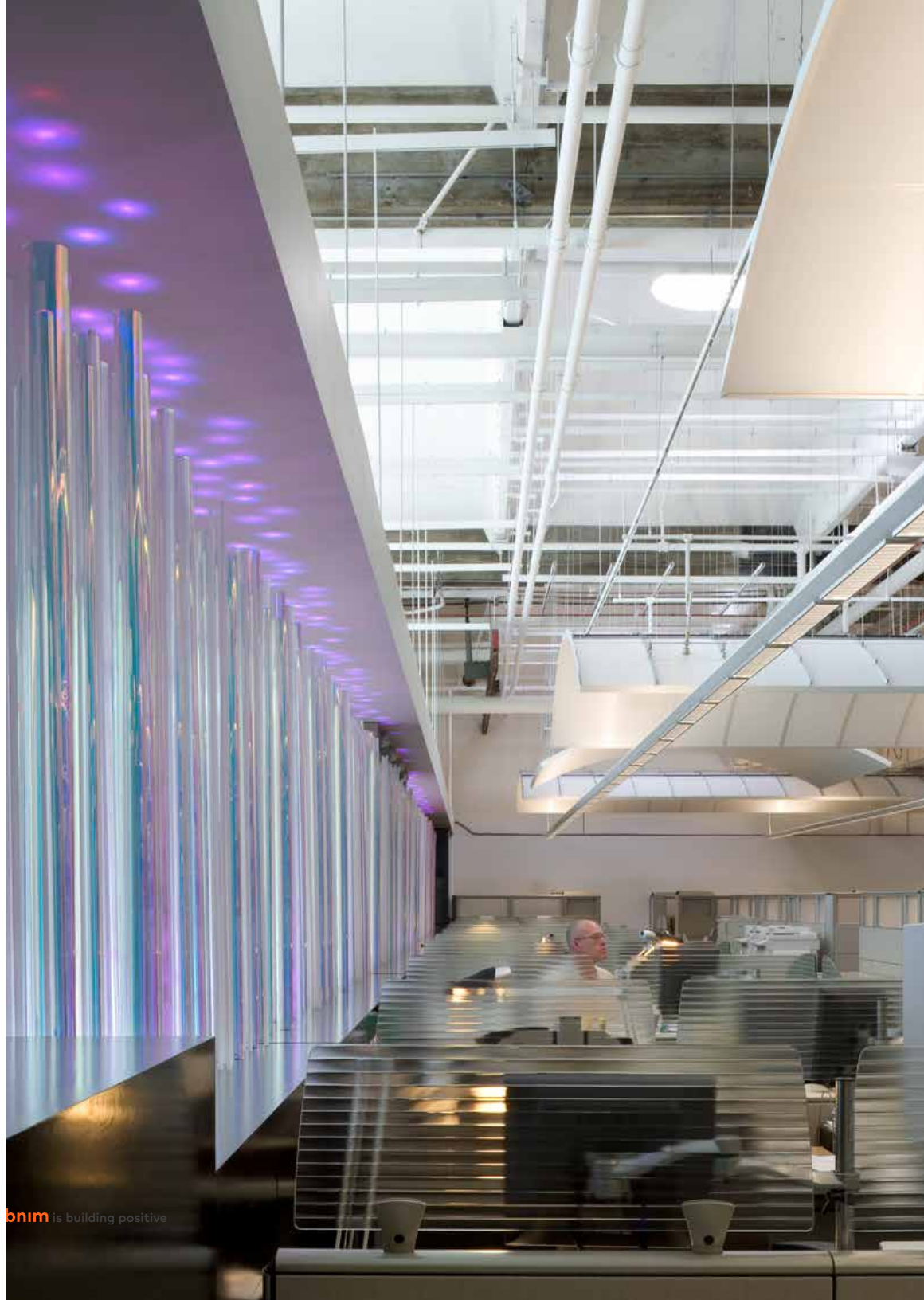
Companies are using wellness programs to lower absenteeism, attract talent, and save on healthcare costs, while employees have become more health conscious in the past several years. Fewer than half of American workers say that their company supports employee well-being and helps them maintain a healthy lifestyle. Compared to last year, health-related employee benefits have increased by 58 percent and wellness by 45 percent, which will continue into the future. Workplace stress is a significant health issue that employees face, so companies invest in creating a healthier and more relaxing environment.



Environmental Protection Agency Region 7 Headquarters Lenexa , Kansas

The EPA's vision for their new Region 7 headquarters, which is housed in a building originally designed by BNIM, was that the facility be innovative in concept and excellent in design. This required the building design to embody image and aesthetics; accommodate needs for flexibility, accessibility, and universality; and incorporate state-of-the-art technology and design solutions that foster communication, interaction, productivity, and sustainable design. The design incorporated sustainable and high performance strategies throughout the building and site. Registered with the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program, the project received both a LEED Gold certification for New Construction and LEED Platinum certification for Existing Building Operations and Maintenance. The new headquarters takes advantage of the existing building's design, responding to climatic conditions, natural daylight, views and highly efficient enclosure. Exterior courtyards extend the uses in each atrium to the outside. Runnels and rain gardens direct the flow of storm water from the roofs through each courtyard.





bnim is building positive





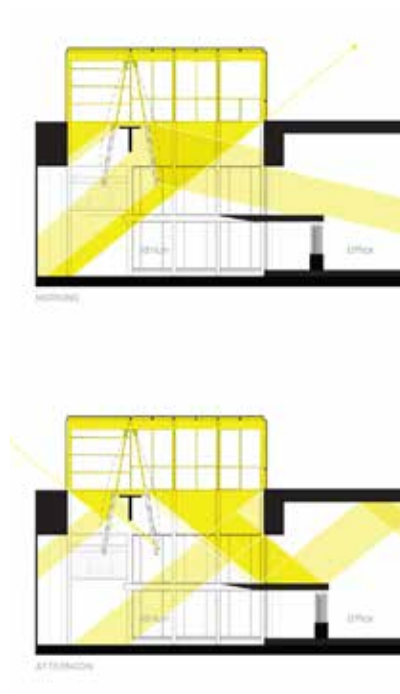
**Bannister Federal Complex
General Services Administration
Kansas City, Missouri**

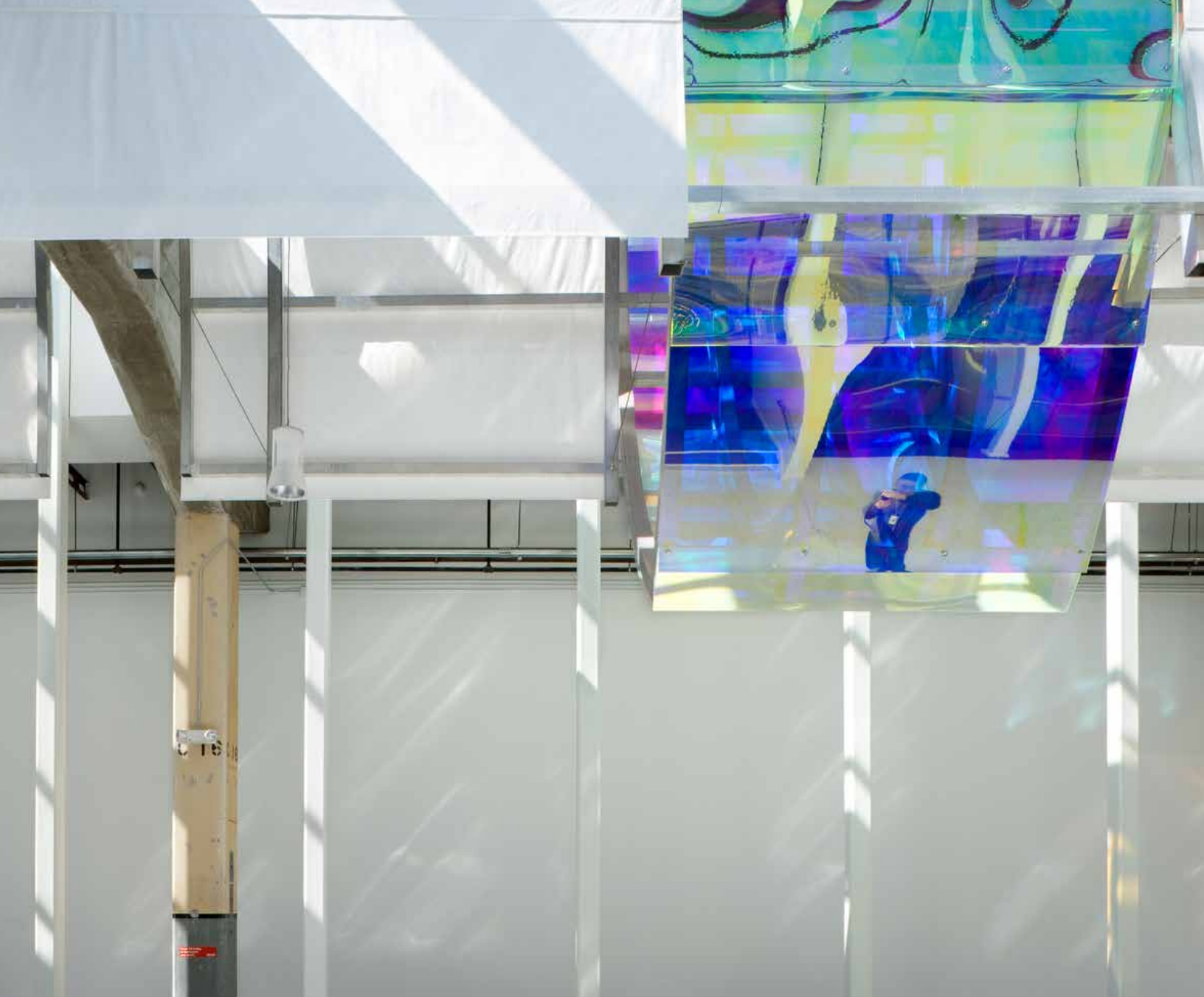
The renovation to the General Services Administration's Bannister Federal Complex was centered on improving the working environment within a converted warehouse, and includes a new atrium and revitalized office space. The solutions transcend the typical work environment using sustainable design principles and Workplace 2020 initiatives to enhance the life of the users with light, color, space and inspiration.

The first aspect of the renovation was introducing a new light well and sculptural element to guide natural daylight into the passageway below, providing a moment of space and light in an otherwise dark warehouse. Adjacent to the atrium, the Supply Service Regional Office space's design utilizes the benefits of natural daylight and openness from the atrium while maintaining a sense of needed privacy. Worker productivity has increased and absences have decreased since the space has been occupied.

The atrium skylight acts as a "Light Machine" that successfully lights the atrium and its adjacent spaces with natural daylight. As light enters the atrium, it is diffused, reflected and redirected through a series of screens, light shelves and colored glass. The resulting design transitions over time, changing throughout the day and seasons; introducing rhythm and movement to the previously listless space.

In the adjacent offices, a sculptural cabinet was built along the entire 90-foot entry facade between the office space and atrium. The cabinet acts in many capacities: a library, screen, seating area and identity for the office.





This is Every Building

Every aspect of a building's process and design can serve as a starting point for the design of any other building. A high-performance, integrated design (HPid) process brings all team members and disciplines together in the earliest stages of design. Through this process, each project will have its own innovations that can then be replicated, benefitting other projects. An HPID process strengthens the design and yields a building that is truly integrated in the way it facilitates performance and function.







**Iowa Utilities Board - Office of
Consumer Advocate
Des Moines, Iowa**

BNIM designed this energy efficient office building to house the Iowa Utilities Board (IUB) and the Office of the Consumer Advocate (OCA). An infill development on the State of Iowa Capitol Complex in downtown Des Moines, the project was developed on a challenging, awkwardly proportioned landfill site and serves to create a gateway to the complex at its southeast corner. The building serves as a testament to the sustainable stewardship of the State of Iowa. It is a model office building demonstrating proven, cost-effective energy efficiency measures for new construction.

The building is organized into two wings: the north wing comprises the IUB, while the south wing is comprised of the OCA on level two and common space on level one. The common space includes a hearing room, conference center and lounge space. Linking the two wings is a two-story lobby housing vertical circulation and service functions. An entrance courtyard sits between the wings and a plaza space is located off of the south wing.



The Human Ecosystem

How we work shapes who we are.

Moving beyond work-life balance to reflect new ideas on office culture and modern life, BNIM has continuously transformed how we conceptualize and design the workplace of the future. Exploring how work is increasingly aligned with personal identity, BNIM advances an understanding of professional and personal well-being that is rooted in a systems-based approach. We call this approach the Workplace Ecosystem. As a model for advancing new ways of working, the Workplace Ecosystem advocates that well-being arises from human interaction and integration.

By definition, an ecosystem is a group of interconnected elements, formed by the interaction of a community with their environment. At BNIM, architecture, landscape and interiors support and reinforce one another, an interdisciplinary approach that transforms workplaces to allow new interactions to emerge. The Workplace Ecosystem model focuses on six core concepts: nurture, meet, research, focus, nourish and grow. Established across years of research and design, these concepts illustrate the potential of interconnectivity that's born from human interaction.



The Six Modes of Working and their Impact

Our research into workplace revealed that there are six fundamental activities and spaces within an office. These activities reflect different work models and emerging ideas on office compression and horizontal hierarchy. The product of our work with the Open Source Office and a host of external collaborators, these six modes are regularly combined into clusters of intermixed individual and collaborative spaces for spontaneous discussion and innovation. Space allocation of the six work modes differs between the type of work industry. The constantly adapting human condition plays a large roll in planning a successful, collaborative office space that supports individual and organizational vitality.

The six core modes each support employees in different ways: they are spaces to focus, meet, nourish, grow, nurture, and research. Each mode can be tied to furniture, spatial organizations, and adjacencies. Different companies require different variations on the work modes to tailor to their own needs, and within this model we design powerful connections to landscape and community.

The result is spaces that are unexpected and inspiring. These are workplaces that support organization needs while activating the engagement of its workforce. Our designs enhance workplace culture to deliver creative and human-centered solutions.

Focus

An opportunity for an individual to pause and reflect on their work – or ignore it momentarily. Spaces that calm, inspire, recharge



Research

Opportunity to experiment, test and develop new ideas. Spaces to invent, test, experiment



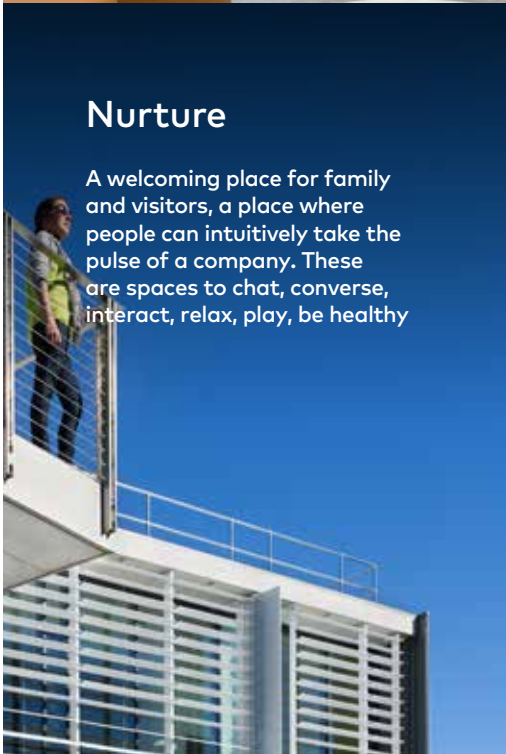
Grow

Areas to train and learn, workshop areas to gain knowledge or expand potential. Spaces for focused learning or knowledge-sharing



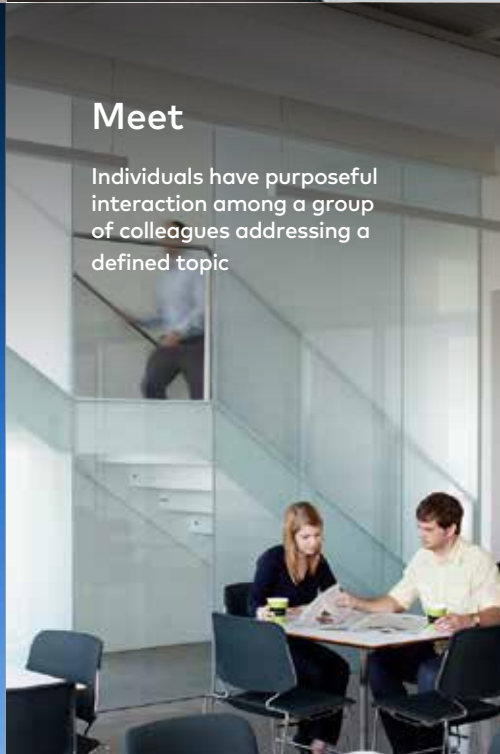
Nurture

A welcoming place for family and visitors, a place where people can intuitively take the pulse of a company. These are spaces to chat, converse, interact, relax, play, be healthy



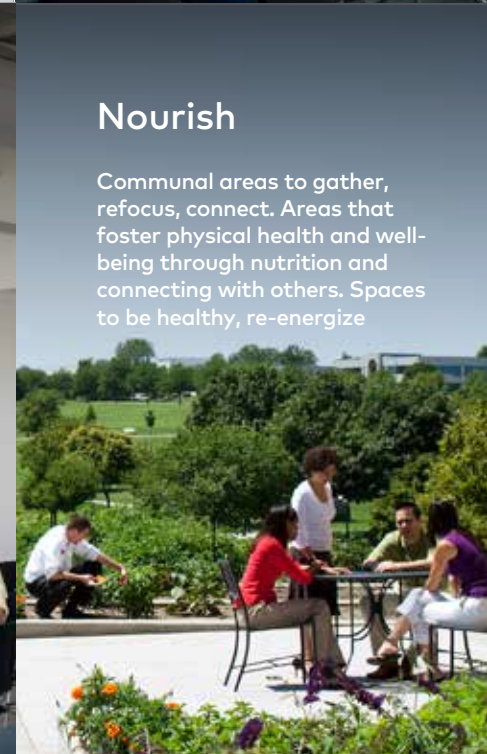
Meet

Individuals have purposeful interaction among a group of colleagues addressing a defined topic

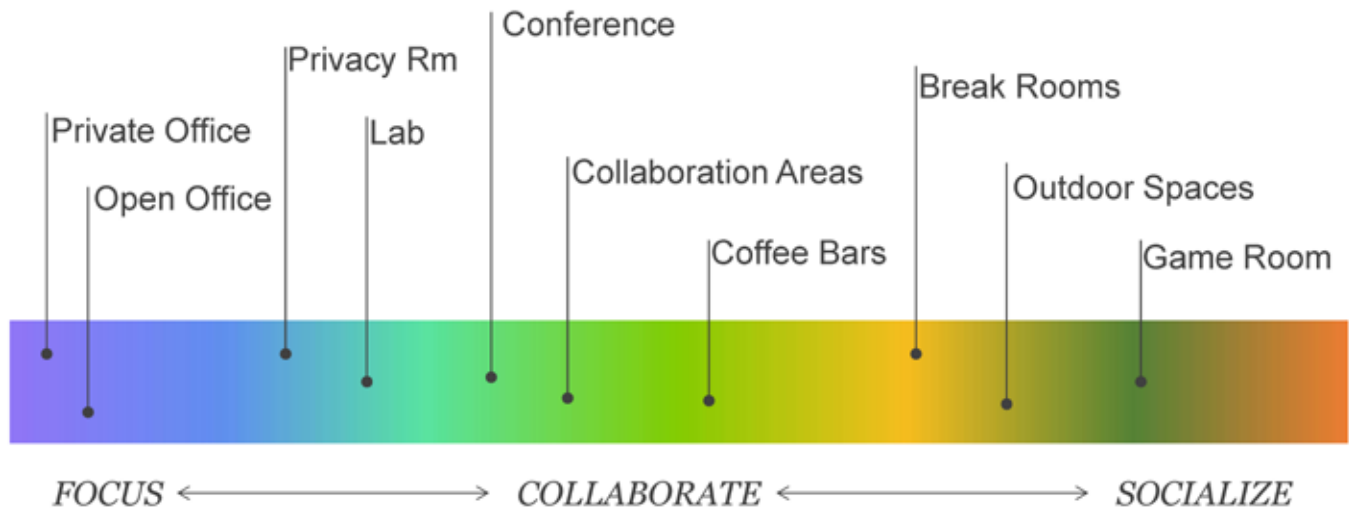


Nourish

Communal areas to gather, refocus, connect. Areas that foster physical health and well-being through nutrition and connecting with others. Spaces to be healthy, re-energize







Workplace Spectrum

Our research on the workplace spectrum revealed that different spatial types and working models are closely tied to color theory. In the workplace, employees prefer cooler colors for more focused work, and warmer tones for more social or active based work areas. The color of interiors closely correlates to employee engagement and productivity. Our designs explore the impact of color on identifying, supporting and encouraging different workstyles.



**Pacific Center Campus
Development - Research and
Development Building
San Diego, California**

The Research and Development (R&D) Building accommodates new office and laboratory spaces. Interior environments focus on enhancing employees' individual surroundings to be more comfortable, inspiring and healthier. Laboratories are centrally located with adjacent workplaces for teams to interact seamlessly with the research environment. Conference spaces are located at the building's central gathering space to foster interaction, collaboration, and innovation. The design approach for the R&D Building organizes each of these program components as distinct "species" that are optimized for each specific use to increase their individual performance and fully serve the needs of each user and the larger development.







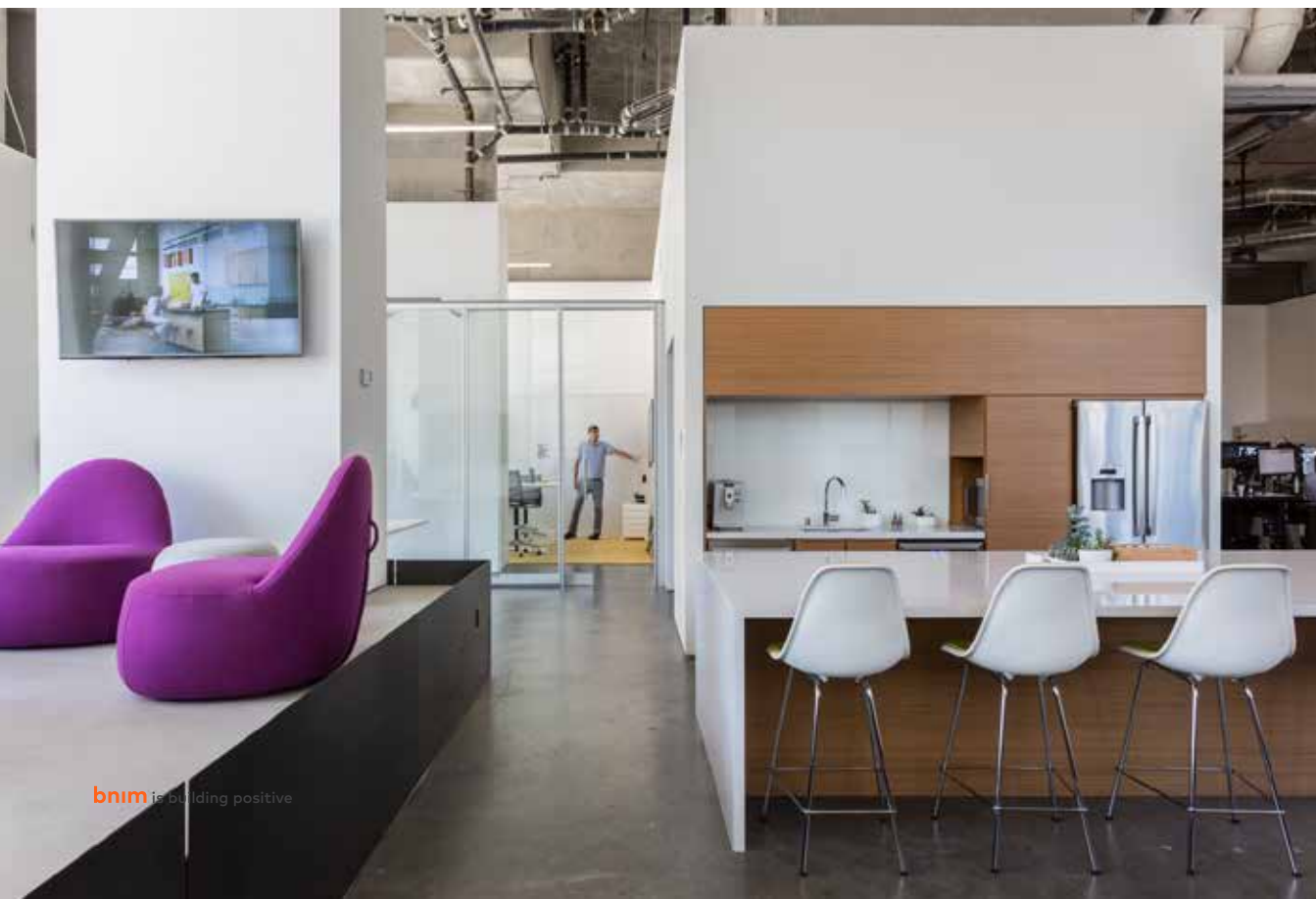
Crafting Workplace Identity

Workplaces reflect the rhythms of daily life. The ways by which we organize, assemble, and complete our work is significantly impacted by our environment. We realize how the effects of construction, organization, and assembly extend beyond a site's boundaries. We are inspired by the authenticity and integrity of materials, challenging convention to explore new ways of living.

BNIM San Diego Office **San Diego, California**

Located in San Diego's East Village, BNIM's new office space quadruples the firm's space and addresses its rapid growth and expansion in the San Diego region. The 4,900 SF office provides three zones: social gathering and event space with an open work café that is the heart of the space; collaborative space with six meeting areas, each one providing a different type of meeting environment; and focused space where employees, all on laptops, can work in a benching environment or smaller "focus" rooms.

BNIM sought to create a workplace that would act as a laboratory for testing principles related to the firm's expertise in human-purposed design and the design of resilient workplaces. After move-in, employees wore bracelets that sense the impact of daylight on their performance and vital signs. The results of this project are being evaluated as part of a research partnership with the Salk Institute to test the effects of daylight on human health and wellbeing.









Rivo Holdings San Diego, California

With more than 80% of their employees being millennials, Rivo Holdings, a financial services provider, was ready for a fresh approach for their workplace. The Union Bank building has 360-degree views of San Diego, including downtown, the Pacific Ocean, Balboa Park, the San Diego Bay, and the mountains to the east. These views and the abundance of natural daylight provided an ideal opportunity for BNIM to design a workplace with strong connections to nature.

At individual workstations, wellness was a key design element. A great amount of attention was paid to the integration of sit-to-stand desks and ergonomic monitor arms to provide the most flexibility for employees. Biophilia was also an important component of the space, with custom design planters were placed at the end of each row of workstations, replacing the traditional systems furniture end-panel. Finishes throughout the space is minimized to a minimal yet sophisticated palette. BNIM also partnered with multiple local artists to select and commission the artwork in the new space.





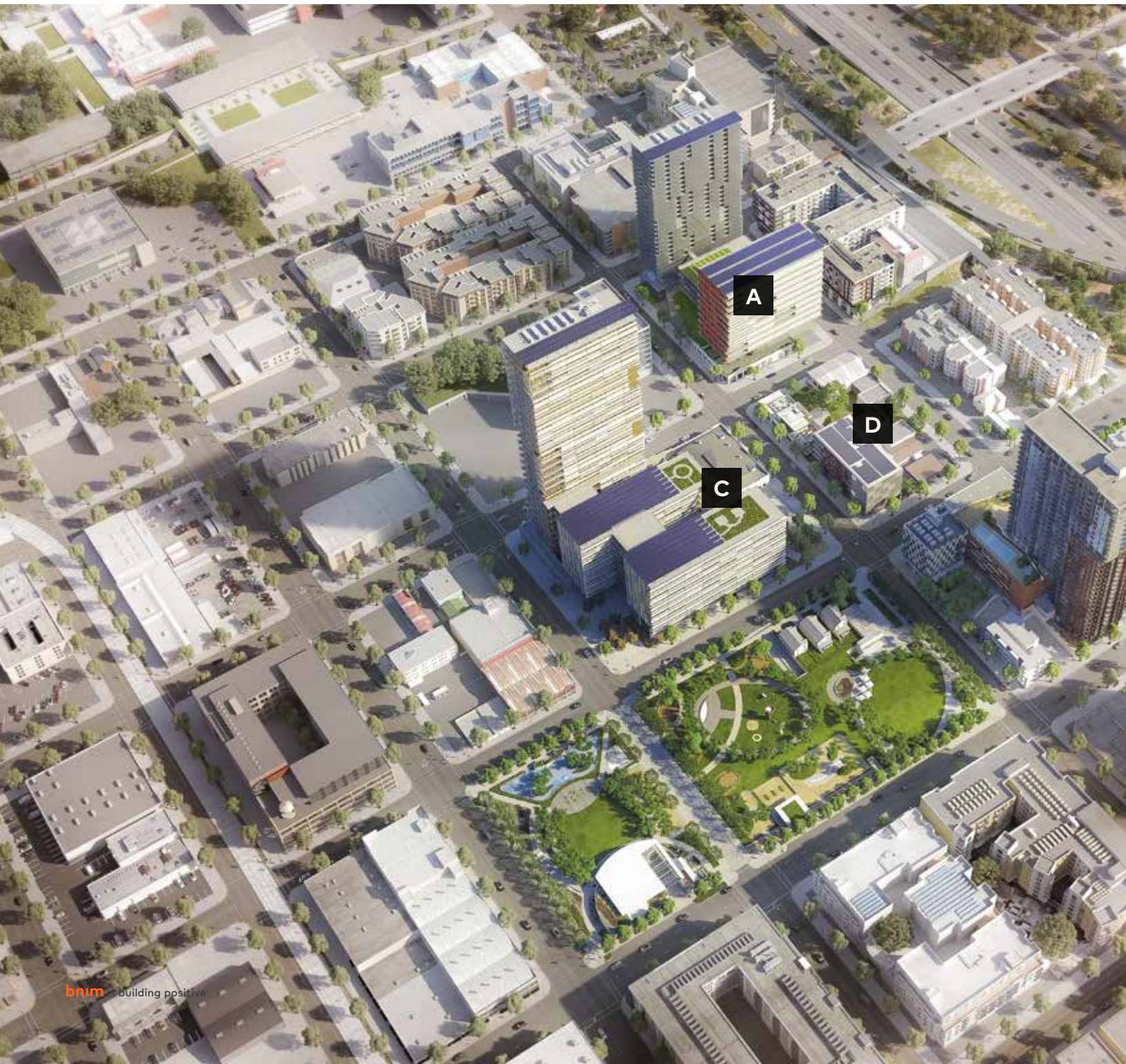
Building Experiences and Community

Human experience and connection guides our work. We understand practice and projects as collaborative endeavors, processes informed by people and their needs. We empower community by embracing the character of place. Through an interdisciplinary approach, our workplaces become seamless blends of program and nature, architecture and landscape. Our work centers on spaces with tactile and sensual qualities. By building embodied experiences, we design workplaces that uplift and inspire.



Makers Quarter - Block D







Makers Quarter Master Plan and Buildings San Diego, California

Makers Quarter™ is both a place and a collective ethos inspired by the Maker Movement, which provides a creative environment to inspire entrepreneurs and artists to challenge convention and achieve new heights in innovation. This five-block development in downtown San Diego will become a community with the conscious development of lifestyle, residential, and business properties, designed to reflect the artistic integrity of the neighborhood.

The Makers Quarter Master Plan is anchored by layers of open space and a set of key planning principles: Establish, enhance, and promote linkages; Create a new employment hub; Foster a walkable and healthy lifestyle; and Create an authentic, dense, and sustainable place. The overall development calls for more than 1 million square feet of office space, 700,000 square feet of residential space, and 250,000 square feet of retail space. It also allots more than 60,000 square feet of open, public space.

Following the Master Plan, BNIM is providing design services for Blocks A, C, and D, and is working on the renovation of the historic Coliseum. Block B is being designed by Joseph Wong Design Associates (JWDA) and Carrier Johnson + CULTURE is designing Block F. Block E, a park area, is a Civic San Diego project by the Office of James Burnett.







Block D is being designed as a collaborative office hub with retail and restaurant suites on the ground floor. The public spaces are designed to encourage interactions between the building occupants and the surrounding community with the use of open vertical circulation systems, open collaborative balcony spaces, and the entry courtyard with adjacent restaurant venues.

The highly flexible office suites utilize natural ventilation through the use of motorized windows and garage doors on each level. The high performance facade utilized two different types of active shading systems to enhance daylighting and promote user preferences in operating their individual tenant spaces. The exposed concrete frame integrates with the natural ventilation systems to utilize a night purge of thermal mass for passive cooling during the day.



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2



3



4



5

- 1 Richard Bolling Federal Building Plaza & Lobby - Kansas City, MO
- 2 Internal Revenue Service Kansas City Campus - Kansas City, MO
- 3 National Association of Insurance Commissioners - Kansas City, MO
- 4 Plaza Colonnade - Kansas City, MO
- 5 JE Dunn National Headquarters - Kansas City, MO



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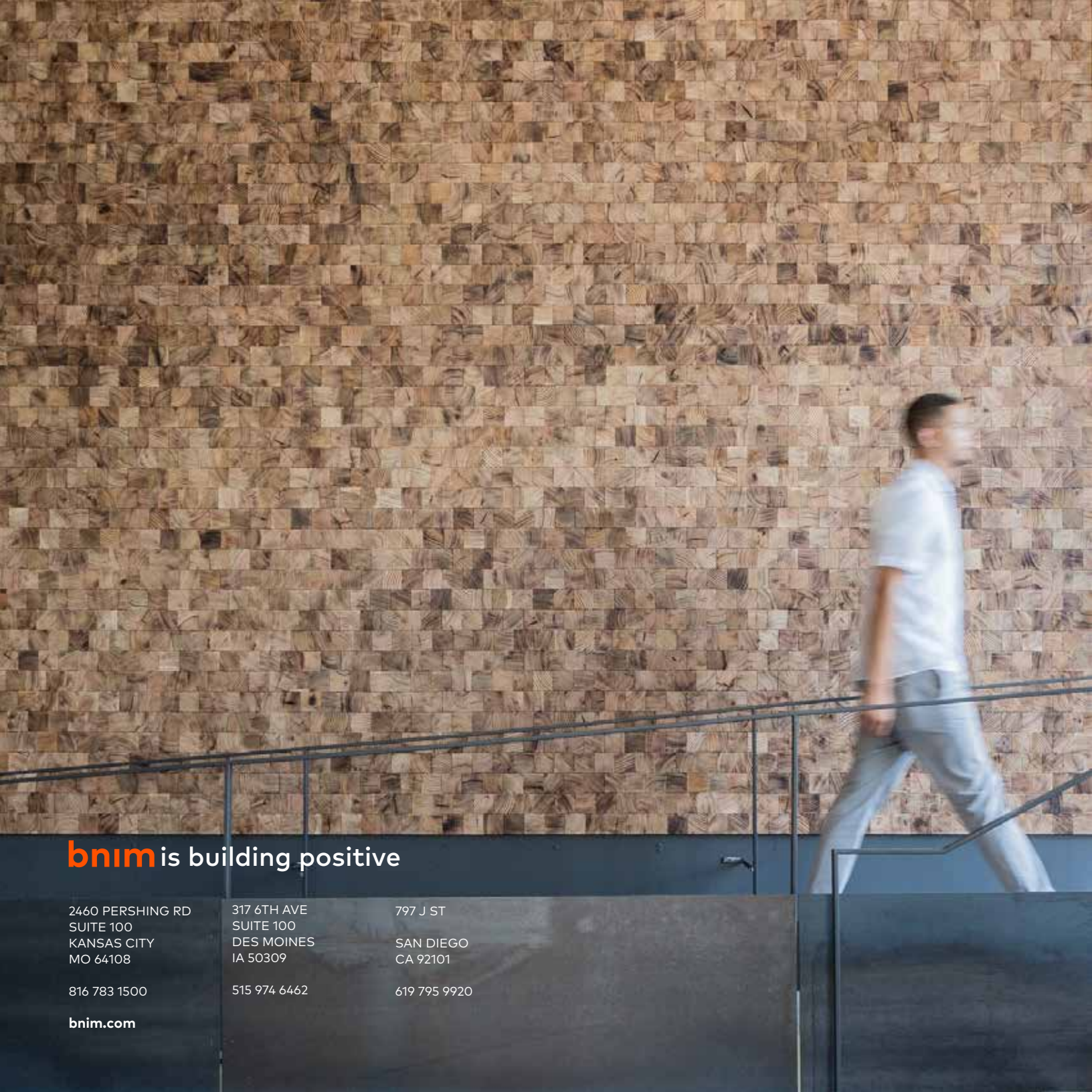


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10

- 6 Power and Light Building - Kansas City, MO
- 7 418 Grand Mixed-Use - Des Moines, IA
- 8 School of Nursing Offices, University of Texas Health Sciences Center, TX
- 9 Applebee's Support Center - Lenexa, KS
- 10 Building Positive: a Four-in-one Prototype - Kansas City, MO

A man in a light blue shirt and grey trousers is walking from right to left in the foreground. Behind him is a large wall composed of many small, square wooden blocks of various shades of brown, creating a textured, mosaic-like effect. A dark metal railing runs horizontally across the middle of the image, partially obscuring the wall and the man.

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