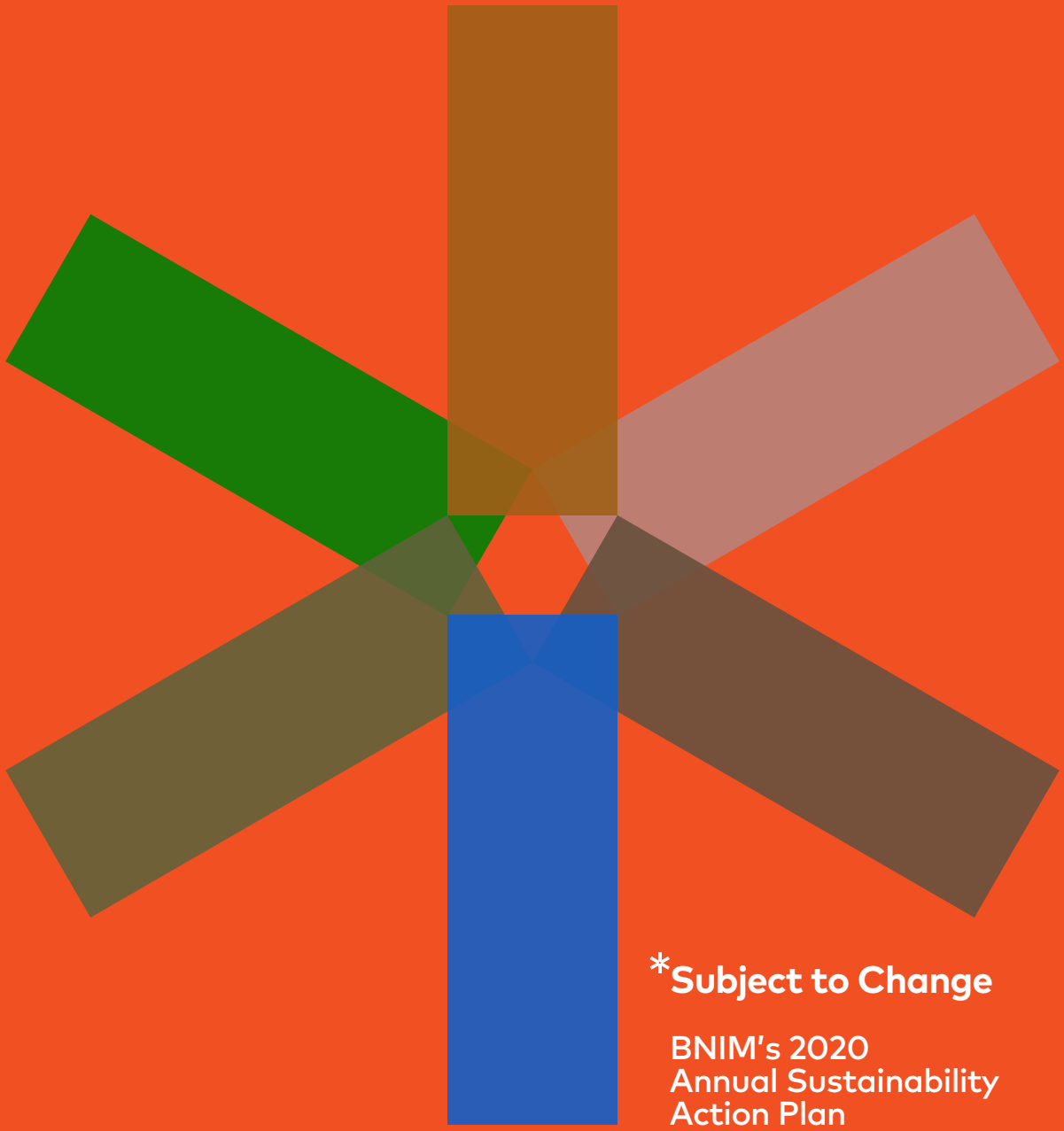

*Subject to Change

BNIM's 2020 Annual Sustainability Action Plan

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 green building 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, the built environment, and natural environment. Through an integrated process of collaborative discovery, BNIM creates transformative, living designs that lead to vital and healthy organizations and communities.

*Subject to Change

BNIM's 2020 Annual Sustainability Action Plan

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bnim


JUST
DO
IT

Introduction

Climate Justice is important to us and the work we do. As designers who shape the built environment, we are complicit in the unintended consequences of our work. We believe it is important to consider how our actions impact those who are often denied power and reaffirm our commitment to making change. To go beyond good intentions, we focus on what we can do.

Mary Robinson, former President of Ireland and United Nations High Commissioner for Human Rights, argues that the climate justice movement "insists on a shift from a discourse on greenhouse gases and melting ice caps into a civil rights movement with the people and communities most vulnerable to climate impacts at its heart." This is because climate change will most severely impact historically marginalized or underserved communities due to systems of oppression.

BNIM believes that climate justice must center on people, human dignity, and equity. Design plays an important role in addressing these issues. We seek to expand our understanding and experience within this wider discourse, which includes areas like racial justice, shared prosperity, accessibility as well as a restoring of a sustainable, inclusive, and safe public realm. And still, in a world of interlocking crises, we are actively addressing and seeking how we can further respond to climate justice at different scales in our communities and around the globe.

This year's **Subject to Change* re-examines the ways we are addressing climate justice and areas of improvement through practice, projects and advocacy. It also includes transparent reporting for all projects initiated in 2019 or later as well as firm-wide progress towards goals based on 18 metrics. The sustainability group worked with over 60 designers and staff members spread across our three offices during the spring of 2021 to gather and assess this information.

2020 was a year of working through disruption for every level of society. At BNIM, while we shifted to working from home, we continued to engage project teams in implementation of the Sustainability Action Plan, continuing to measure 18 firm-wide metrics across six categories:

Energy, Water, Ecology, Wellness, Equity, and **Resources.**

While we struggled to get teams to fully engage in the day-to-day work of establishing, updating, and reporting project sustainability goals, the framework resulted in many successes and uncovered new opportunities in almost every project we touched in 2020. There were key successes that came out of our first year of reporting and project integration that we want to highlight:

- **Deepened baseline knowledge about sustainability metrics and emerging topics.** We continued to empower teams with new resources and strategies that were incorporated into ongoing project goals and dialogue with owners, contractors, and consultants.
- **Improved our impacts in almost every category of firm-wide goals.** We met our firm-wide goals in 12 of our 18 approach metrics, which remains the same as our 2019 "year zero" reporting. However, we increased our project averages in all approach metrics except for two, Spatial Daylight Autonomy and Native Plantings. This tells us that we are successfully making incremental improvements, and that we have more work to do for Energy, Wellness, and Equity improvements - including adjustment to the specific measures for more meaningful project impacts.
- **Developed broad but meaningful conversations around equity and justice in our practice.** This included a firm-wide dialogue series around equitable practice, development of the Address Initiative, and commitment by the firm to complete our first JUST label.
- **Grew our understanding of embodied carbon.** Last year, we made a bold commitment to reducing the embodied carbon dioxide emissions across all projects. Through continued industry dialogue, project goal setting, modeling, sharing, and learning from our colleagues, we have begun to integrate strategies for reduction across our design practice. Through updates to our material specifications, encouraging performance improvements, we leveraged project bids as a form of industry advocacy.

While we did not make substantial changes to the approach metrics, we did refine the methods and modeling strategies to help teams gain better data to use for comparison and decision-making. We realized that the broad modeling and software knowledge needed for analysis was creating a barrier for implementation and set about finding ways to consolidate the sources of data into a more manageable approach. We also worked to integrate the established goals into our BIM standards and company data consolidation efforts.


Joyce
Raybuck


Jeremy
Knoll


Kaylee
Drexel


Jeremy
Nelson


Katie
Nichols


Dana
Sorensen

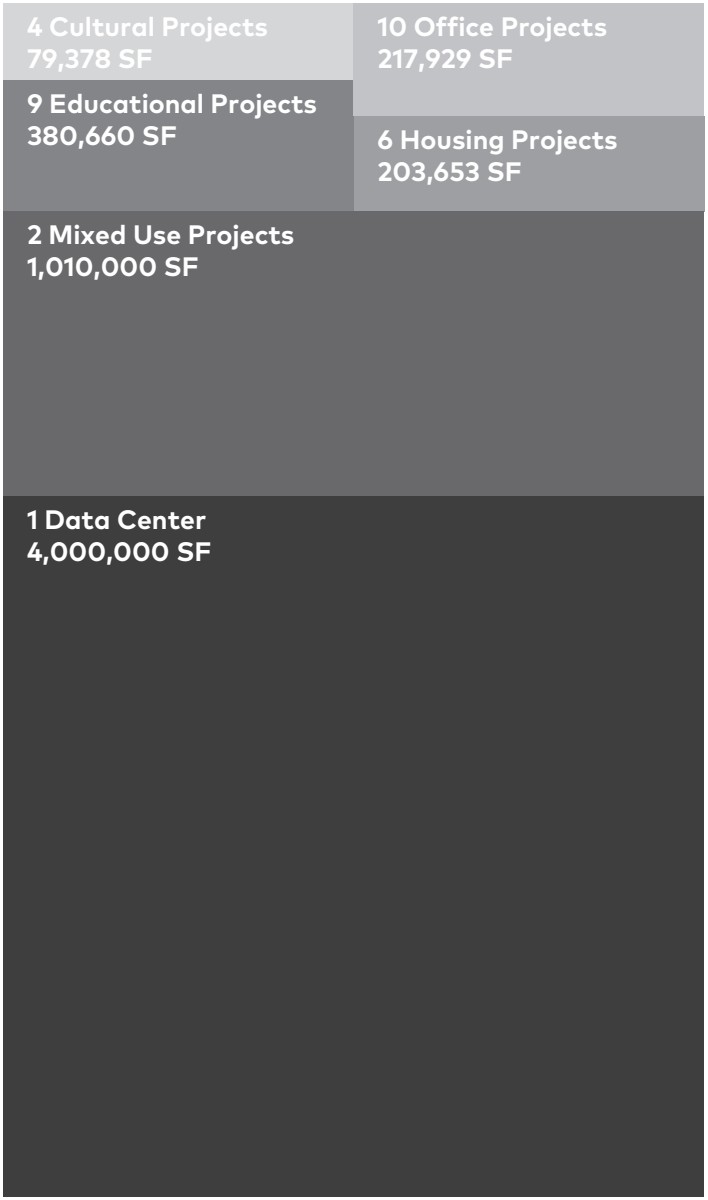

Tina
Wehrman


Adam
Wiechman


Ryan
McCabe

2020 In Numbers

32
Reported Projects



5.9 Million
SF of Space Designed

12/18
Firm-wide Goals Met

		AVERAGE	GOAL MET GOAL
ENERGY	Energy Reduction	66%	80%
	Carbon Reduction	62%	80%
	LPD Reduction	56%	50%
	Energy Model	59%	50%*
WATER	Potable Water Reduction	47%	40%
	Stormwater Managed On-Site	66%	35%
ECOLOGY	Site Analysis	52%	25%*
	Vegetated Site Area	46%	25%
	Native Planting	58%	60%
WELLNESS	Spatial Daylight Autonomy	53%	65%
	Annual Sunlight Exposure	18%	<20%
	Quality Views	76%	75%
EQUITY	Walkability	63	60
	Community Engagement	9%	10%*
	Community Health Assessment	45%	10%*
RESOURCES	Embodied Carbon Reduction	38%	40%
	Life Cycle Assessment	41%	10%*
	Passive Survivability	26%	10%*

*percentage of projects that reached the firmwide goal

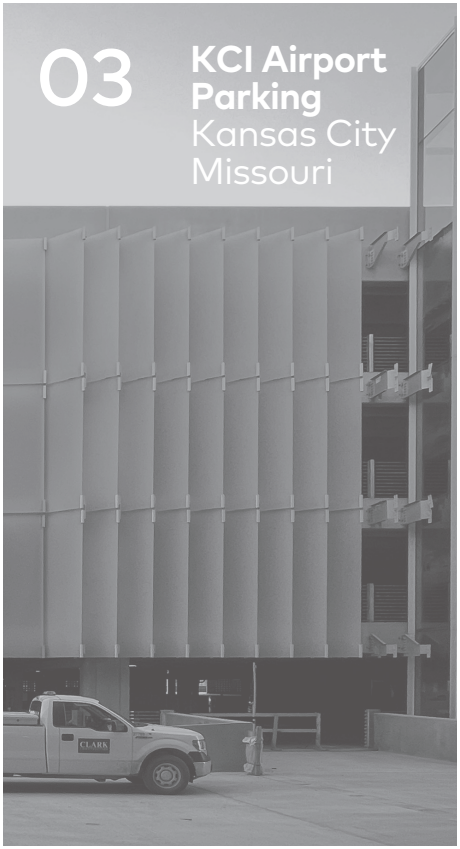
Project Case Studies

The following are three project examples of how teams are re-examining the ways we are addressing climate justice in our practice, centering on people, human dignity, and equity.

Each of the following case studies were begun prior to the development of the firm's 2019 adoption of the Sustainable Action Plan, and were not required to set goals using the metrics we now incorporate into all projects. However, each example offers a new strategy, metric, or approach to design that has impacted how we measure progress on other projects. The lessons from these projects can guide the further development and refinement of the way we measure our work, reminding us that truly holistic sustainable and regenerative design requires a dynamic approach. We must use new strategies and ideas, discovered through practice and research, to amplify our success and drive the evolution of the design and construction industry. The following projects have provided new insights for our practice specific to the two action plan categories which we identified as needing the most development in our "year zero" **Subject To Change* 2019 reporting: Equity and Resources.

01 **Tom and Ruth Harkin Center**
Des Moines
Iowa

02 **Ivy Senior Apartments**
San Diego
California



03 **KCI Airport Parking**
Kansas City
Missouri

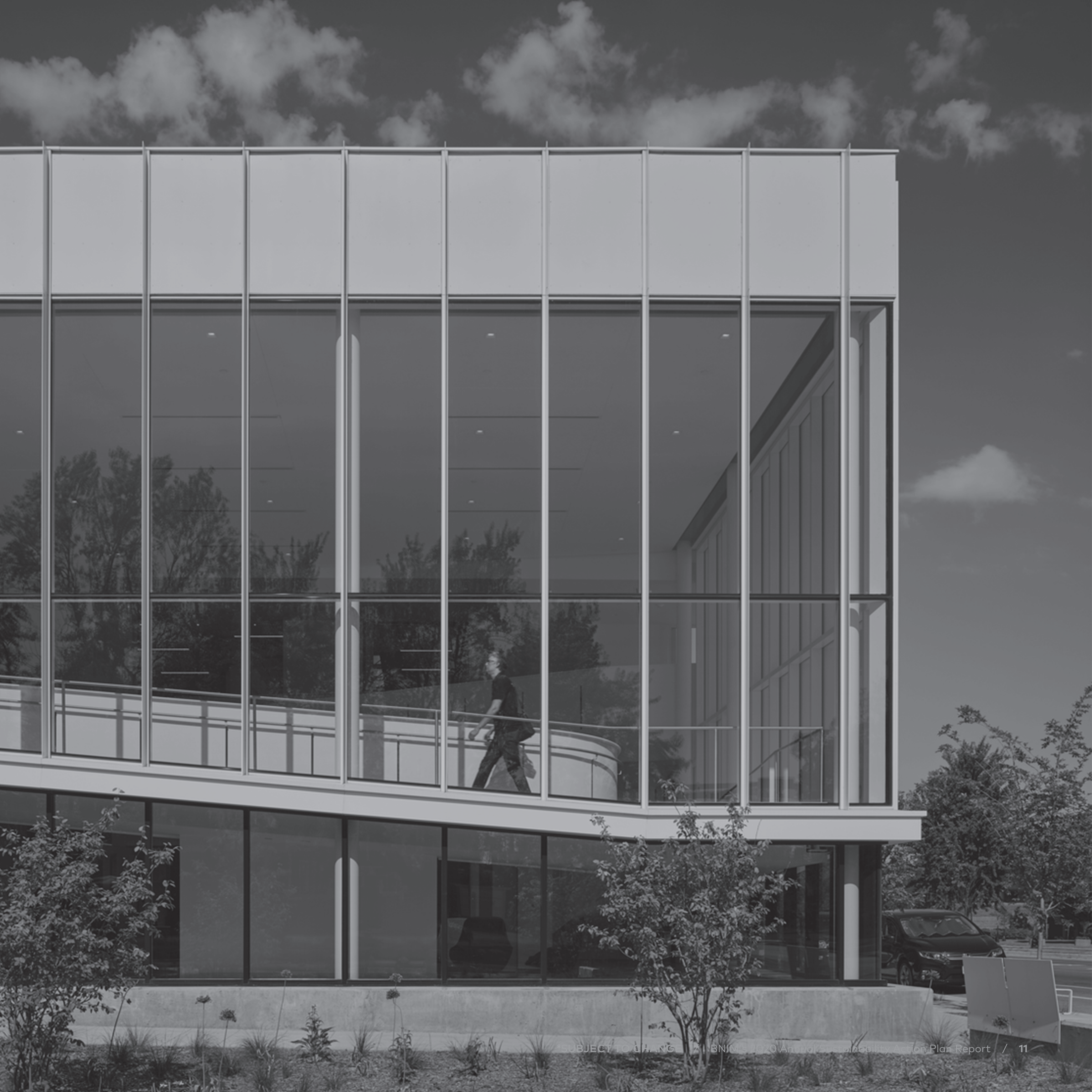
Case Study 01

Tom and Ruth Harkin Center

LOCATION	Drake University Des Moines, IA 50311
PROJECT TYPE	New Construction
DESIGN PHASE	Compete
TOTAL BUILDING AREA	16,768 GSF
SITE AREA	55,500 SF

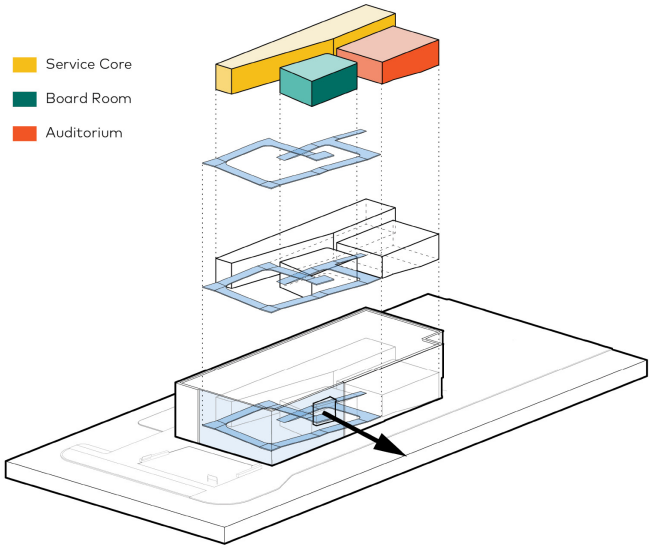
The Tom and Ruth Harkin Center at Drake University was designed to elevate standards for inclusive design. The facility is home to the Harkin Institute for Public Policy and Citizen Engagement, which promotes issues that defined retired Senator Tom Harkin's career, including the historic legislation, the Americans with Disabilities Act (ADA). The strategies for inclusive design developed in this project provide a model for architects and designers to create buildings and landscapes that are guided by a spirit of empathy and inclusivity.

BNIM worked closely with the Harkin Institute and their core disability advisory committee to understand needs that were not being met in the built environment by posing a key question— "What barriers still exist today?" The answers that emerged from these discussions, design meetings, and research provided deeper insight into the challenges and barriers faced by the disability community. Emerging from this work is *A Guidebook of Strategies for Inclusive Design*, currently being developed that will help create a unified approach to inclusive design in the architectural and design profession. The Guidebook exceeds current ADA requirements by recognizing the broad spectrum of human needs, both physical and emotional, rooted in inclusion, empathy, and equity.

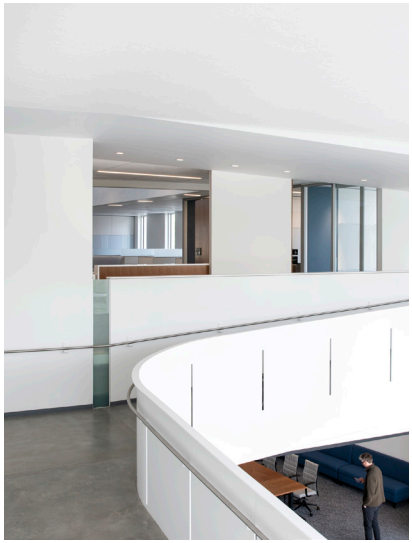


Project Metrics

ENERGY	ENERGY REDUCTION	72%
	CARBON REDUCTION	58%
	LPD REDUCTION	60%
	ENERGY MODEL	YES
WATER	POTABLE WATER REDUCTION	82%
	STORMWATER MANAGED ON-SITE	45%
ECOLOGY	SITE ANALYSIS	NO
	VEGETATED SITE AREA	40%
	NATIVE PLANTING	70%
WELLNESS	SPATIAL DAYLIGHT AUTONOMY	41%
	ANNUAL SUNLIGHT EXPOSURE	15%
	QUALITY VIEWS	83%
EQUITY	WALKABILITY	79
	COMMUNITY ENGAGEMENT	5
	COMMUNITY HEALTH ASSESSMENT	YES
RESOURCES	EMBODIED CARBON REDUCTION	36%
	LIFE CYCLE ASSESSMENT	NO
	PASSIVE SURVIVABILITY	0



Ramp and program woven together with vies to the campus.



Also coming out of this project, was a vision for a consulting service as a joint venture between BNIM and The Harkin Institute to expand access across the US. This idea became evident through organizations reaching out, inquiring how to go beyond the ADA. Our goal is to expand access for everyone by identifying and convening stakeholder groups for projects, facilitating inclusive design discussions, sharing what we have learned, and illustrating how strategies could be implemented on projects of all types.

The intentions of the 17,000 sf project included creating a gracious and inclusive setting embodying the values of the Institute through a spectrum of spaces. The two-story building is organized with a gallery, board room, and auditorium on the first level. These spaces function as an engaging social setting for public workshops, presentations, and other social events. The upper floor provides for various staff work settings in a healthy, daylighted environment.

The main organizing element of the design is the ramped circulation that functions not only as the physical connection, but also as the freeing device for those with disabilities.

Generous circulation spaces support sign-language conversations and multiple wheelchair-users. Lighting strategies within the building follow the principle of creating a clear path for individuals. High-contrast and textural cues; color control; gradual illumination levels; creation of a glare-free, shadow-free environment; and lighting design concepts create a supportive environment for low-vision and low-hearing individuals. Similar to advocating for accessible parking, the project team also pushed for policy and code adjustments to allow for single user restrooms throughout the facility that would better support mobility of users and be gender inclusive. Conference spaces are set up in formations that allow hearing impaired individuals to follow conversation by enhancing sightlines to the faces of participants and content displays. The facility is also equipped with dedicated Wellness rooms that support individual empowerment through quiet spaces for stress recovery, migraine relief, meditation, or remote doctor consultation.

Claudia L. Gordon, the first deaf Black female attorney in the U.S., leading a discussion about the goals of the new building for the BNIM-designed Harkin institute at Drake University, founded by Senator Harkin who was instrumental in the passing of the American for Disabilities Act.

Inclusive Design Principles

Case Study 02

Ivy Senior Apartments

LOCATION	5858 Mt Alifan Dr. San Diego, CA 92111
PROJECT TYPE	New Construction
DESIGN PHASE	Complete
TOTAL BUILDING AREA	30,040 GSF
SITE AREA	48,526 GSF

Located in San Diego's Clairemont neighborhood, the new Ivy Senior Apartments create 52 supportive homes, plus one manager's unit, for seniors with chronic medical needs who have experienced homelessness. In a model known as "Housing First," Ivy Senior Apartments aim to provide individuals with permanent housing first, which is then coupled with robust supportive services and resources from PATH, St. Paul's PACE, and Alpha Project Home Finder. These organizations help individuals in California and nationwide through permanent housing, home health, and supportive resources to create opportunities for residents to live more stable, independent lives.

The Housing First model, which includes the approach of Permanent Supportive Housing, has been proven as an effective solution for reducing chronic homelessness, helping some U.S. communities reduce chronic homelessness by 90 percent. Wakeland Housing and Development Corporation has equipped residents' new homes with furniture and appliances, and St. Paul's PACE and Allgire General Contractors provided houseware and supplies. Residents will also continue to receive support from programs on-site including health and wellness care, skill building, advocacy, and other services.


5858
IVY

Project Metrics

		poor	good	better	high-performing	BASELINE	TARGET	STRATEGIES
ENERGY	ENERGY REDUCTION		55%			30.3 EUI (kbtu/SF)	13.7 EUI (kbtu/SF)	• On site solar PV and SHW • LED Lights
	CARBON REDUCTION		54%			56.2 MT C02e/y	25.4 MT C02e/y	
	LPD REDUCTION		50%			0.7 W/sf	0.35 W/sf	
	ENERGY MODEL		YES					
WATER	POTABLE WATER REDUCTION				87%			• Water efficient fixtures • 2 On site bioretention basins • Native planting
	STORMWATER MANAGED ON-SITE				100%			
ECOLOGY	SITE ANALYSIS		YES					• Native vegetation throughout • Community garden
	VEGETATED SITE AREA		47%			site area 48,526 SF	site vegetated 10,316 SF	
	NATIVE PLANTING		72%			site vegetated 10,316 SF	natives area 7,428 SF	
WELLNESS	SPATIAL DAYLIGHT AUTONOMY	45%						• Views into native landscaping • Quality views from regularly occupied spaces
	ANNUAL SUNLIGHT EXPOSURE	33%						
	QUALITY VIEWS		83%					
EQUITY	WALKABILITY				85			• Encouraging walkability and public transportation by providing limited on site parking near bus stop
	COMMUNITY ENGAGEMENT	1						
	COMMUNITY HEALTH ASSESSMENT	NO						
RESOURCES	EMBODIED CARBON REDUCTION	9%						
	LIFE CYCLE ASSESSMENT		YES			TALLY		
	PASSIVE SURVIVABILITY	1				1 = Building has passive survival technology (shelter in place, etc.)		

Ivy Senior Apartments demonstrate that human-purposed and high-quality design can and should be accessible to all. The project aims to address the high rate of homelessness in the San Diego area and specifically respond to the challenges unhoused senior citizens can face while navigating permanent housing, careers, and support services by providing beautiful, supportive, and high-performance homes.

This project focused on implementing trauma-informed design strategies to support residents' transition from past living situations to permanent and stable housing. This was important to the project's design parti which emphasized creating transparency and clear site lines for residents through the open-air central courtyard and providing a sense of safety and calmness. The spatial layout and programing were also pertinent to the project in order to establish important connections to nature and strengthen opportunities for community interaction, as each supportive apartment unit opens onto the courtyard. Ivy features gathering spaces, a community garden, lounges, and multi-purpose space for trainings and classes which convene around the courtyard on the ground level. Another design feature that drove the project was the incorporation of color, specifically green, along the inner courtyard facing walls that would contribute to establishing feelings of calmness and connection to green space.

Early in design, the project team looked at daylighting and views for the apartment units to evaluate how best to provide access to natural daylighting. This aided in the decision to incorporate eight-foot glass windows on the exterior wall and large glass lites in the unit doors. Specific to signage and interior colors, the design team conducted color research studies focused on resident well-being and enhanced wayfinding for individuals with color-blindness as they navigate the facility. The design balances this open and inviting environment with safety and security technologies to ensure the site remains secure for residents.

An openness of the main courtyard and other interior spaces, daylighting, access to nature and views, and a natural color palette contribute to the clarity of the project and greet residents with a welcoming and comfortable home environment.

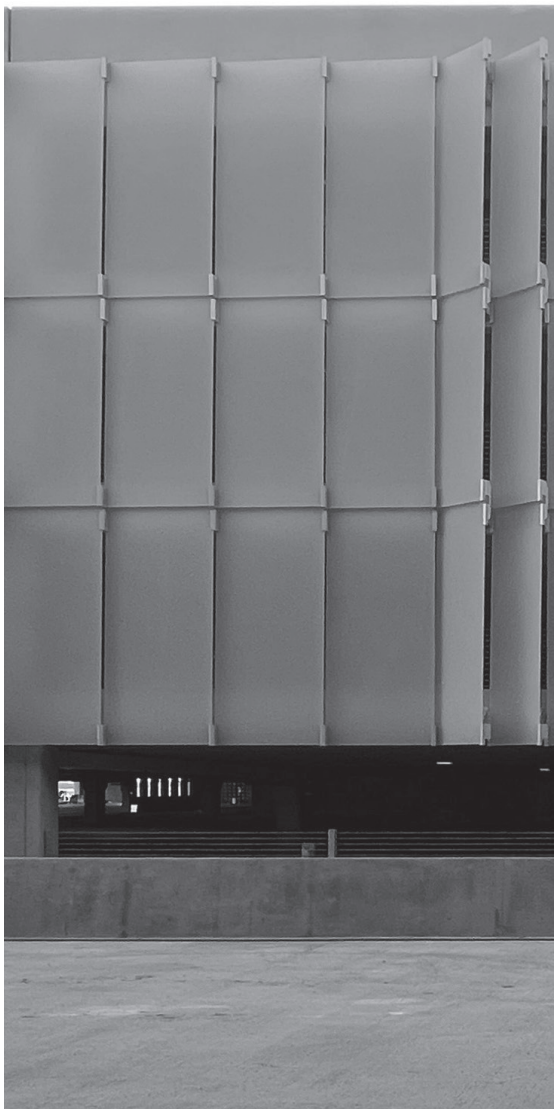
Case Study 03

KCI Airport Parking

LOCATION	Kansas City International Airport Kansas City, MO
PROJECT TYPE	Parking Garage
DESIGN PHASE	Construction
TOTAL BUILDING AREA	2,308,320 SF
SITE AREA	340,200 SF

BNIM is leading the design of a new structured parking facility for the much-anticipated Kansas City International Airport (KCI) terminal. Following the research begun for BNIM's Sustainable Action Plan, an emphasis was put on reducing the embodied carbon on this project due to the scale and materials necessary for a project of this type. There were many efforts to partner with engineers, precast suppliers, ready-mix suppliers, and the general contractor to better understand the current possibilities in our market to reduce the embodied carbon in concrete.

This is primarily an advocacy success story, as these efforts led to regional industry changes that will reduce embodied carbon produced by local trades across all future projects, however many of these changes were not realized until after construction for this project was underway. The project team used Tally to perform simple life cycle analysis and design option comparison for carbon reduction objectives. BNIM's use of Tally and other tools to identify embodied carbon to inform our decisions continues to grow and inform our conversations with our clients and collaborators. Going forward, we will are integrating Tally and EC3 into our practice, and actively engaging consultants and clients on this topic. We are embedding carbon information into our project templates, specifications, and common language.



"BNIM commits to reducing the embodied carbon dioxide emissions across all projects by 65% by 2030, 100% by 2040, and 20% net positive by 2050."

**Subject to Change* 2019

Project Information

Early in the design of the KCI garage, we realized there would be approximately the same volume of concrete underground in footings and foundations as there was above ground in the precast and primary/secondary structure (see diagram below, right). This knowledge guided our approach as we reviewed reduction strategies with our civil and structural engineers, contractors and subcontractors, and material suppliers.

Within BNIM's practice, the KCI garage resulted in updates to the firm's standard specifications to include enhanced options for cement reduction and/or carbon injection (among other technologies) - allowing suppliers to include new technologies rather than using traditional formulas. At the guidance of Walter P. Moore and regional contractors and suppliers, we are also moving towards a performance specification for all concrete mixes to allow ready-mix suppliers flexibility in how they achieve carbon reduction targets and other performance criteria.

As the garage and airport take shape, we recognize we still have important work to do – to reach precast manufacturers, further reduce our carbon footprint across our portfolio, advocate for adaptive reuse, mass timber, and life cycle analysis on all our work, and continue to collaborate openly in our industry to raise the common level of knowledge and advocate for more cities, states, and businesses to adopt a carbon reduction mindset and the tools used to achieve it including code adoption and enforcement, measurement, and product transparency.

KCI Parking Structure Impacts
Cement Replacement and Reductions by Concrete Type:

- Precast Structure
  No cement replacement
- Foundations
  50% replacement/reduction
- Auger Piles
  30% replacement/reduction

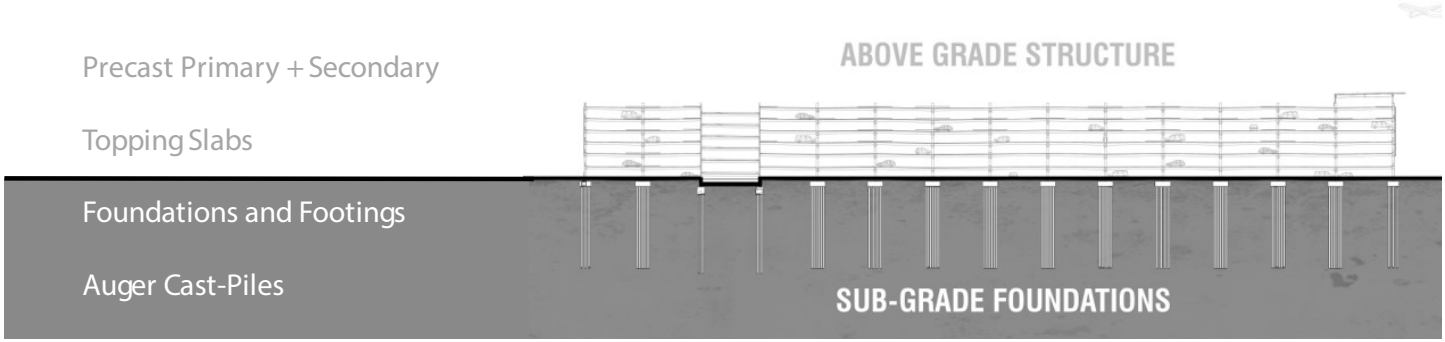
Beyond the direct reductions accomplished on this project, the result of asking the hard questions of our team and suppliers leveraged the economic impact of a large project like this one to demonstrate market-readiness for carbon reduction technologies in the region. A few of these industry and market changes include:

Regional Precast

- New Supplementary Cementing Materials (SCM) hoppers added (up to 40% CO2 reduction)
- CO2 injection technology installed (up to 12% CO2 reduction)
- New mix designs being tested now

Regional Batch Plants

- Expanding SCM and CO2 injection
- Elimination of Type I/II Cement, replaced with Portland Limestone Cement (PLC) Type II (10% CO2 reduction, typ.)

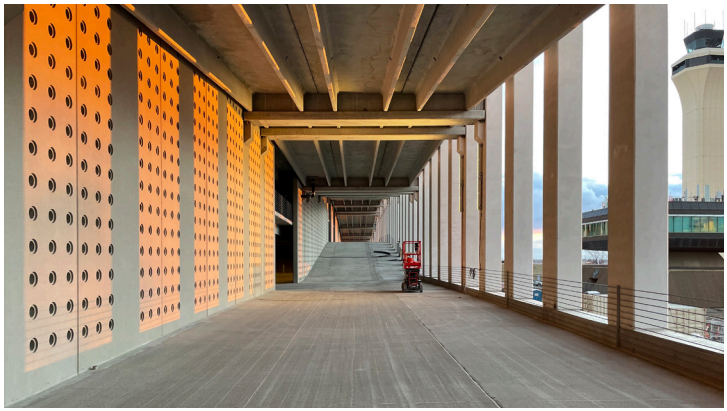


Kansas City Concrete Round Table Discussions

The engagement begun for the KCI garage led to larger industry conversations with the Kansas City Concrete Promotional Group, and resulted in the development of a series of regional "round table" conversations and education events around this issue. These meetings brought together designers and contractors, industry groups, manufacturers, politicians, and planners to build understanding and advocacy for change towards reduced-carbon concrete for buildings and other infrastructure. These sessions were highly collaborative with open dialogue between all parties to identify the barriers and scaleable opportunities. Attendees discussed ready-mix testing and production processes, the importance of performance specifications, cement replacement mix types for different structural uses, regulatory hurdles for changing city and state roadway mix designs, and carbon capture and carbonation methods for cast-in-place concrete. BNIM, Walter P. Moore, McCownGordon, and Carbon Cure developed the "Embodied Carbon in Practice" AIA presentation to amplify this issue and the solutions to a broader national audience.

Key takeaways from the round table conversations include:

- Design and Construction teams should connect structural and civil engineers to concrete subs and suppliers early in design, so realistic strategies can be incorporated into specifications.
- Performance Specifications provide for more flexible solutions.
- Incorporate test piles into geotechnical reports, so actual field measurements can be incorporated into the analysis and recommendations of these reports.
- Prioritize specific strength and cure time requirements based on the location of concrete being used. Using 28-day cure requirements for everything can result in increased cement.
- Most municipalities refer to the State DOT standards for local infrastructure requirements. Targeted advocacy is needed.
- Concrete mix Environmental Product Declarations (EPDs) are extremely sparse in our region. This needs further advocacy.
- Carbon reduction strategies can mostly be combined: CO2 injection, aggregate quality improvements, and SCMs can work in concert without impacting strength.



II

Complete Annual Reporting

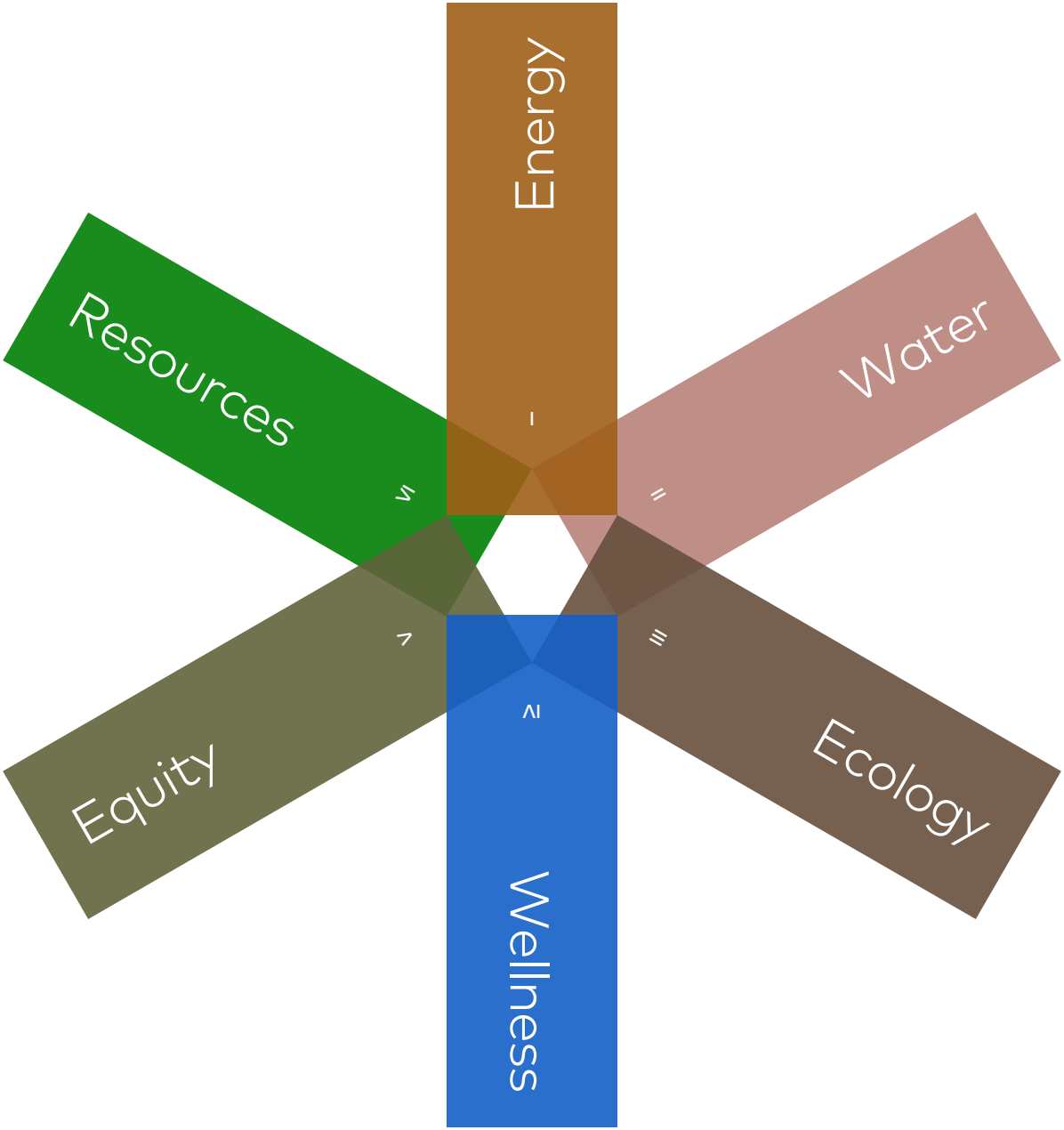
2020 Projects

Annual Reporting

Our Sustainability Action Plan asks that all projects, including those without specific sustainable guidelines set forth by the client, set goals (with the client) and track metrics in six categories:

Energy, Water, Ecology, Wellness, Equity, and **Resources.**

We have identified a series of metrics to be tracked firm-wide within each category. This allows us to see a broader picture across our portfolio and to identify areas for continuous improvement. The information that follows is our first year of tracking efforts on projects that began in 2019 or later. The following project metrics were reported in March - April 2021 and are a snapshot in time of our project portfolio. Project teams, with guidance from the Sustainability Group, set project goals and tracked progress. We made our best efforts to use a consistent method of reporting, but we recognize that we still have some work to do in order to improve this methodology.


Energy
Water
Ecology
Wellness
Equity
Resources

Energy

We design to the AIA 2030 Commitment. To address this trajectory, we seek to decrease the total energy use and carbon footprint of each project.

IF YOU COULD ONLY DO A FEW THINGS

- Benchmark (EUI, LPD)
- Establish design targets (pEUI, LPD, window wall ratio, carbon reduction target)
- Optimize building envelope for climate
- Passive strategies
- Energy modeling
- Track results
- Operational carbon calculations
- Behavioral patterns
- Building commissioning

RESOURCES

AIA COTE Top Ten Toolkit - Measure 6: Design for Energy
AIA COTE Top Ten Toolkit - Measure 1: Design for Integration
Living Building Challenge - Energy Petal Handbook - Design Performance Modeling Guidelines
AIAU + 2030 Series
Climate Consultant
Architecture 2030 Zero Tool
ASHRAE Advanced Energy Design Guides
AIA Architect's Guide to Integrating Energy Modeling
Sefaira Best Practices
PV Watts Calculator

QUESTIONS FOR ENGAGEMENT

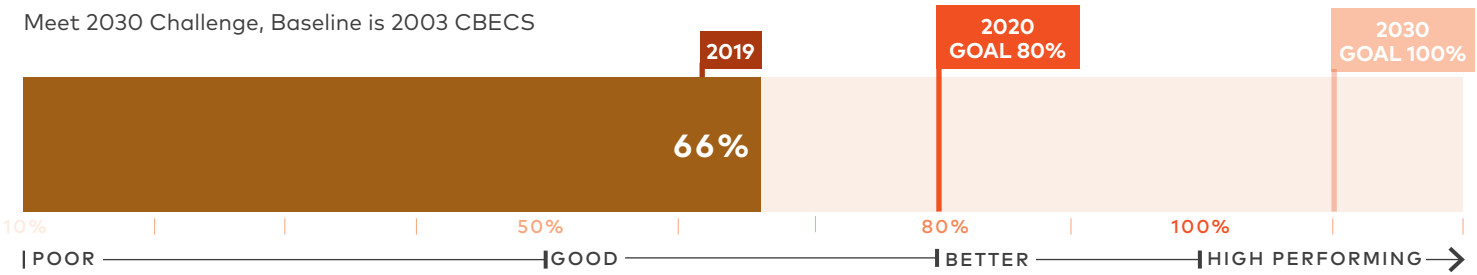
- In what ways does the local climate inform the design challenges + opportunities?
- What are the energy challenges associated with the building type, intensity of use, or hours of operation? How can the design respond to these challenges?
- In what ways can the design reduce energy loads for heating, cooling, lighting, and water heating?
- What is the energy efficient design intent, including passive design strategies and active systems/technologies? In what ways are these strategies evident in the design and not just applied systems?
- What are the opportunities for on-site renewable and alternative energy systems?
- Is it possible to not use combustion for energy generation?
- What steps should be taken to ensure that the building performs the way that it is designed?

2020 Firm-Wide Report

2020 PROJECTS' AVERAGE | 2020 FIRM-WIDE GOAL | RANGE | 2019 PROJECT AVERAGE

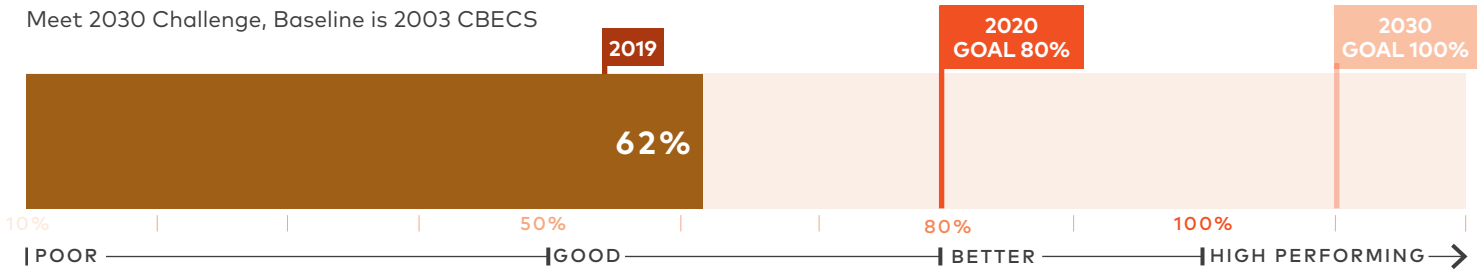
ENERGY REDUCTION GOALS

Meet 2030 Challenge, Baseline is 2003 CBECS



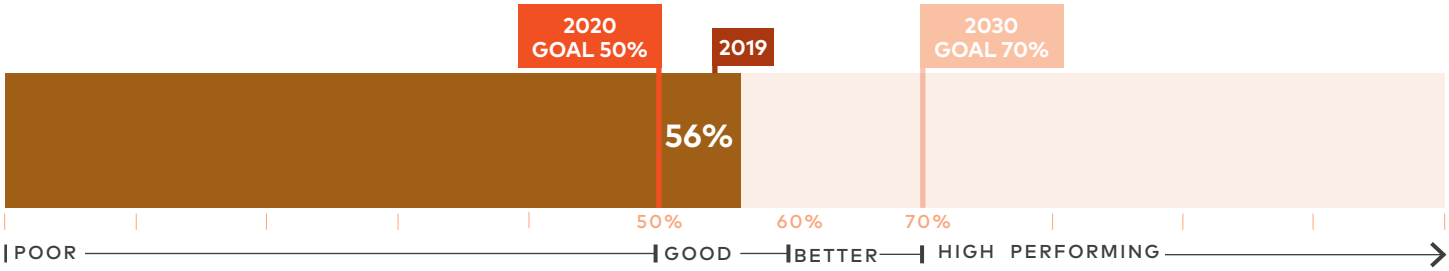
OPERATIONAL CARBON REDUCTION GOALS

Meet 2030 Challenge, Baseline is 2003 CBECS



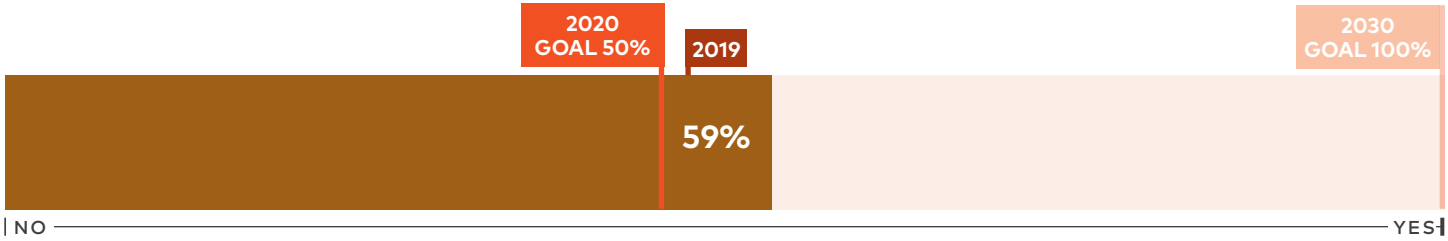
LIGHT POWER DENSITY REDUCTION GOALS

Baseline is IECC 2015



ENERGY MODEL

Proportion of all projects developing a simple (S), iterative (I), or engineered (E) energy model



2020 BNIM Projects

Energy Reduction (From baseline CBECS 2003)

POOR

2020 FIRM AVERAGE (BY PROJECT COUNT)

INTERIOR RENOVATION

MidAm Energy Ruan 8th Floor	N/A
Crossroads Prep Academy Int. Lighting Replacement	N/A
IDS Lobby Renovations	N/A
GEHA Landmark Thrive Studio Renovation	N/A
County of SD - SBRC Law Lib Renovation on	N/A
H&R Block Foundation - Office Int. Renovation	N/A
GEHA 310 Reception Renovation	N/A

ADAPTIVE REUSE

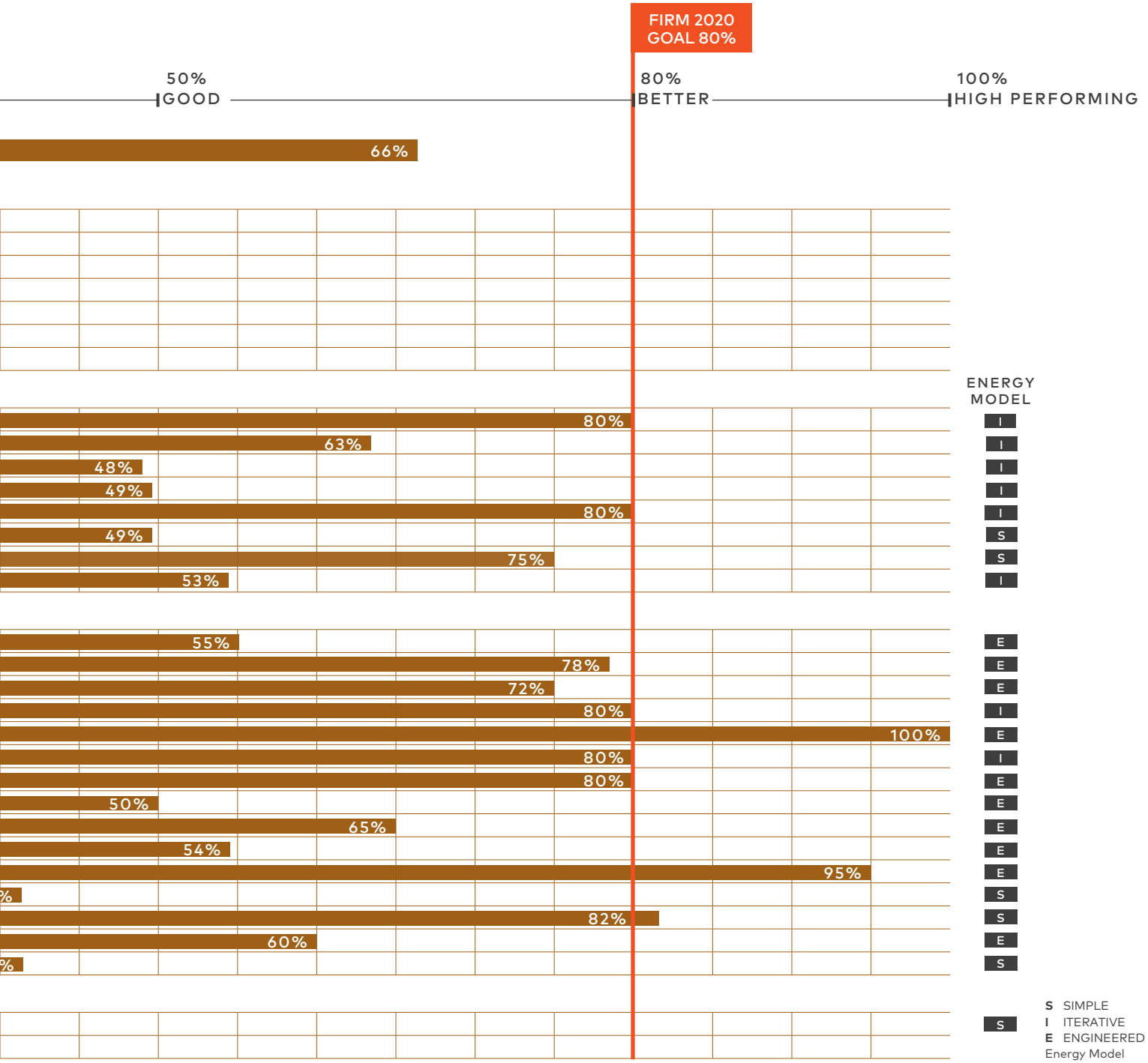
Nouakchott Housing Renovation + Addition	
Tunis Housing Adaptive Reuse	
Habitat KC Office	
401 E. Court	
Charity Hospital Core & Shell	
KSU McCain Auditorium Renovation	
Zhou B Arts Center	
CHES Inc. GLUE Business Incubator	

NEW CONSTRUCTION

Ivy Senior Apartments	
JCNI Multifamily Housing Project	
Lower Sioux Intergenerational Cultural Center	
Crossroads Charter School Community Center & Gym	
Technology Park Data Center	
2700 Grand	
MCC Blue River East	
Missouri S & T Student Success Center	
Marquette College of Business Adminisration	
Vesterheim Museum	
USC Viterbi Concept Design	
Reardon Center	42%
Kemin Industries PAD Building	
IEDA HP Prototype Home Plan	
1301 Clouet Street	42%

OTHER PROJECTS

Freetown Re-Cladding Project	40%
UI College of Nursing - Landscape	N/A


FIRM 2020
GOAL 80%
50%
GOOD
80%
BETTER
100%
HIGH PERFORMING
66%
ENERGY
MODEL
80%
I
63%
I
48%
I
49%
I
80%
I
49%
S
75%
S
53%
I
55%
E
78%
E
72%
E
80%
I
100%
E
80%
I
80%
E
50%
E
65%
E
54%
E
95%
E
%
S
82%
S
60%
E
%
S
S SIMPLE
I ITERATIVE
E ENGINEERED
Energy Model

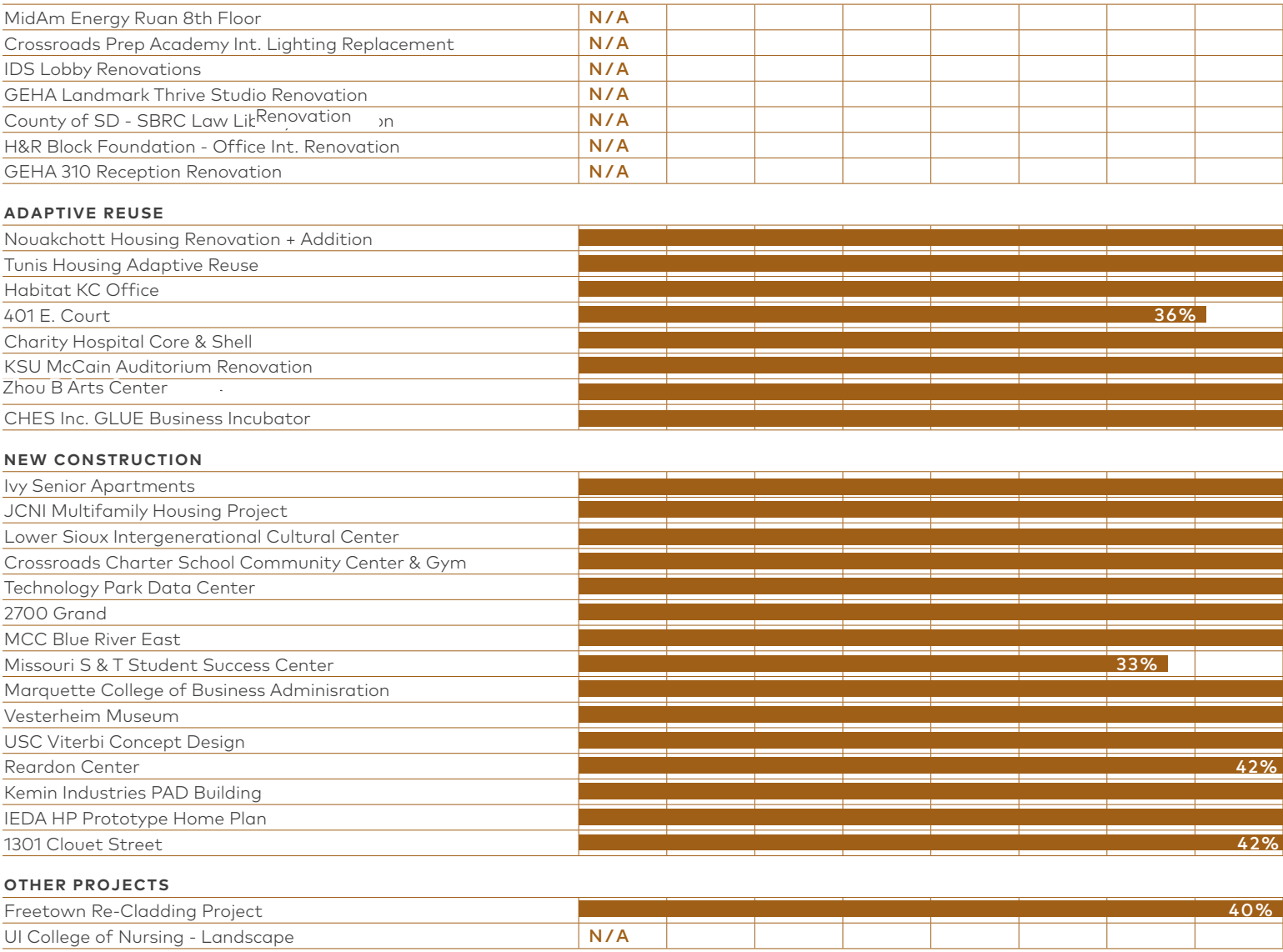
2020 BNIM Projects

Operational Carbon Reduction

(From baseline CBECS 2003)

POOR

2020 FIRM AVERAGE (BY PROJECT COUNT)




FIRM 2020
GOAL 80%
50%
GOOD
80%
BETTER
100%
HIGH PERFORMING
62%
80%
63%
44%
70%
49%
75%
52%
54%
87%
43%
81%
100%
68%
79%
65%
54%
98%
82%
60%

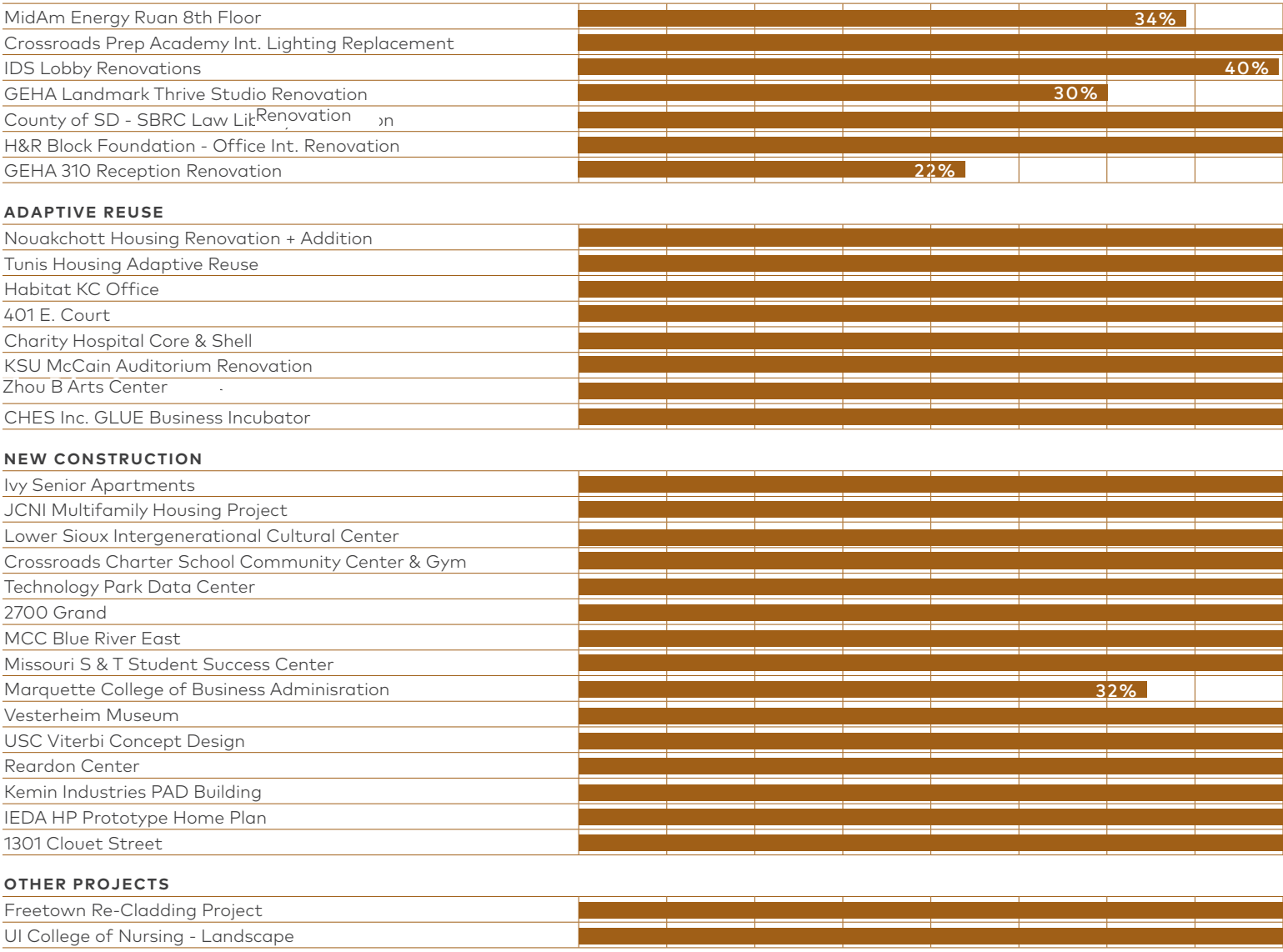
2020 BNIM Projects

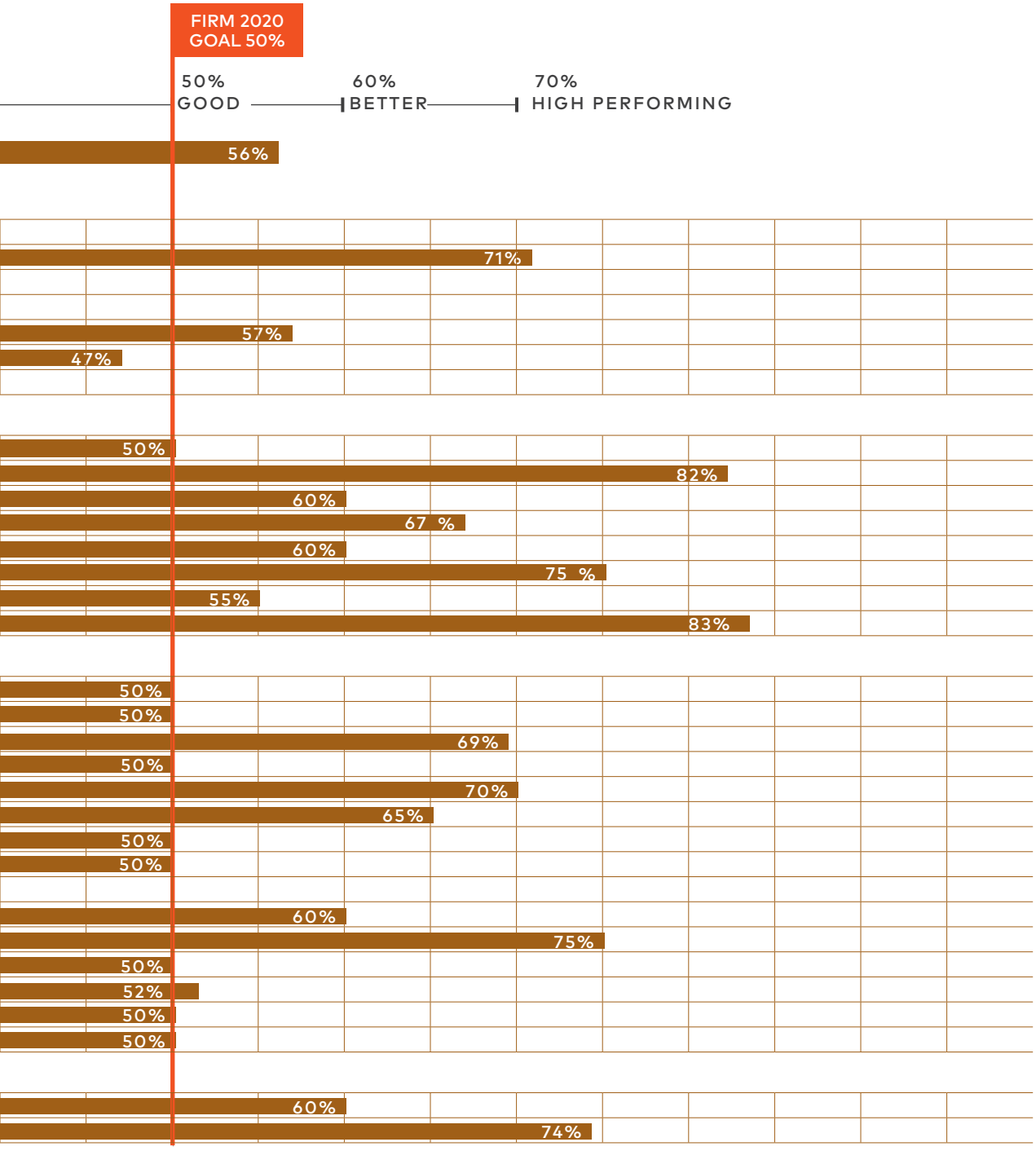
Light Power Density Reduction

(From baseline IECC 2015)

POOR

2020 FIRM AVERAGE (BY PROJECT COUNT)




FIRM 2020
GOAL 50%
50%
GOOD
60%
BETTER
70%
HIGH PERFORMING
56%
71%
57%
47%
50%
82%
60%
67 %
60%
75 %
55%
83%
50%
50%
69%
50%
70%
65%
50%
50%
60%
75%
50%
52%
50%
50%
60%
74%

II Water

We design to conserve potable water and manage storm water in a responsible way.

IF YOU COULD ONLY DO A FEW THINGS

- Benchmark indoor water use and compare to anticipated use
- Establish design targets
- Use low-flow fixtures
- Reduce or eliminate outdoor water use (Irrigation Reduction/Elimination)
- Manage stormwater runoff with the goals of increasing on-site infiltration and improving water quality down stream
- Capture and reuse rainwater onsite
- Track Results

RESOURCES

AIA COTE Top Ten Toolkit - Measure 4: Design for Water,
AIA COTE Top Ten Toolkit - Measure 1: Design for Integration
AIA COTE Super Spreadsheet Water Calculator
Living Building Challenge - Water Petal Handbook
Water Sense
LEED v4 Water Use Calculator
Building Green: Net-Zero Water and More: Moving Beyond "Low Flow"
Water Reuse Practice Guide
EPA Water Efficient Mechanical Systems Guide
Greenvalues Stormwater Calculator

QUESTIONS FOR ENGAGEMENT

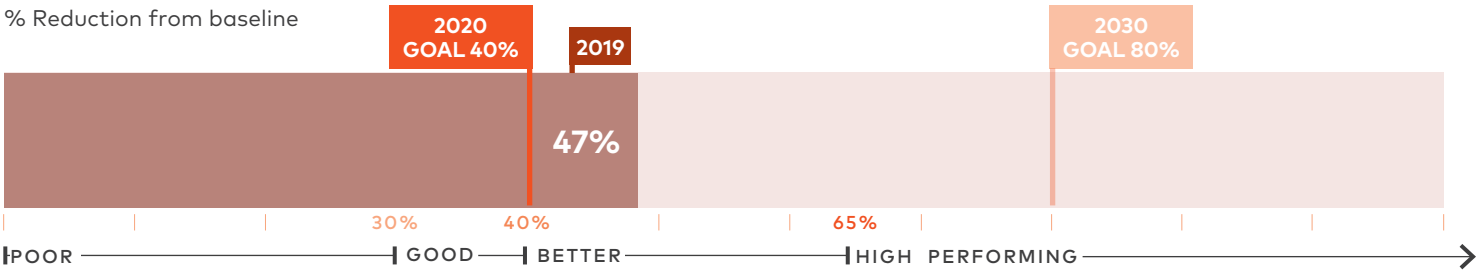
- In what ways can the project use water wisely and handle rainfall responsibly?
- How do various water streams flow through the building and site, including major water conservation and stormwater management strategies?
- How does the project relate to the regional watershed?
- In what ways is the project innovative in the way that it uses and treats water?
- Could the project recapture or re-use water including the use of rainwater, graywater, and wastewater?
- Is it possible to reduce reliance on municipal water sources?
- In what ways does water reveal itself on the project and contribute to the design narrative?
- How does the mechanical system selection impact project water use? Can condensate be used for greywater on the project?

2020 Firm-Wide Report

2020 PROJECTS' AVERAGE | 2020 FIRM-WIDE GOAL | RANGE | 2019 PROJECT AVERAGE

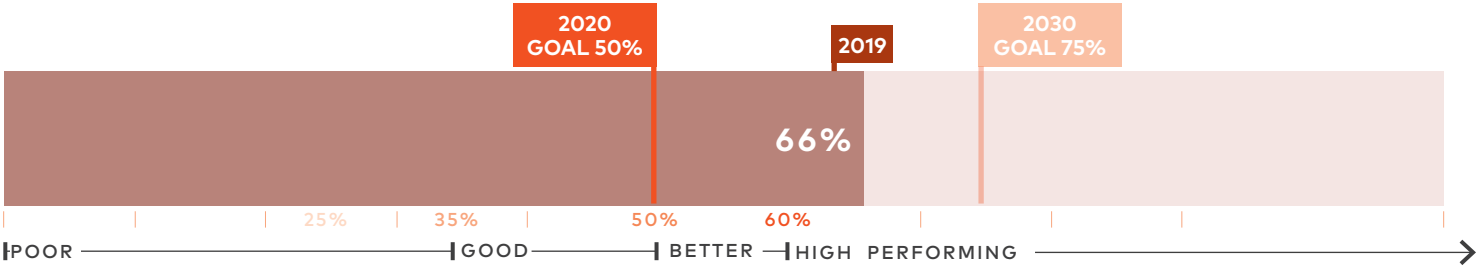
POTABLE WATER REDUCTION

% Reduction from baseline



STORMWATER MANAGED ON-SITE

% Managed for 2 year, 24 hour storm event



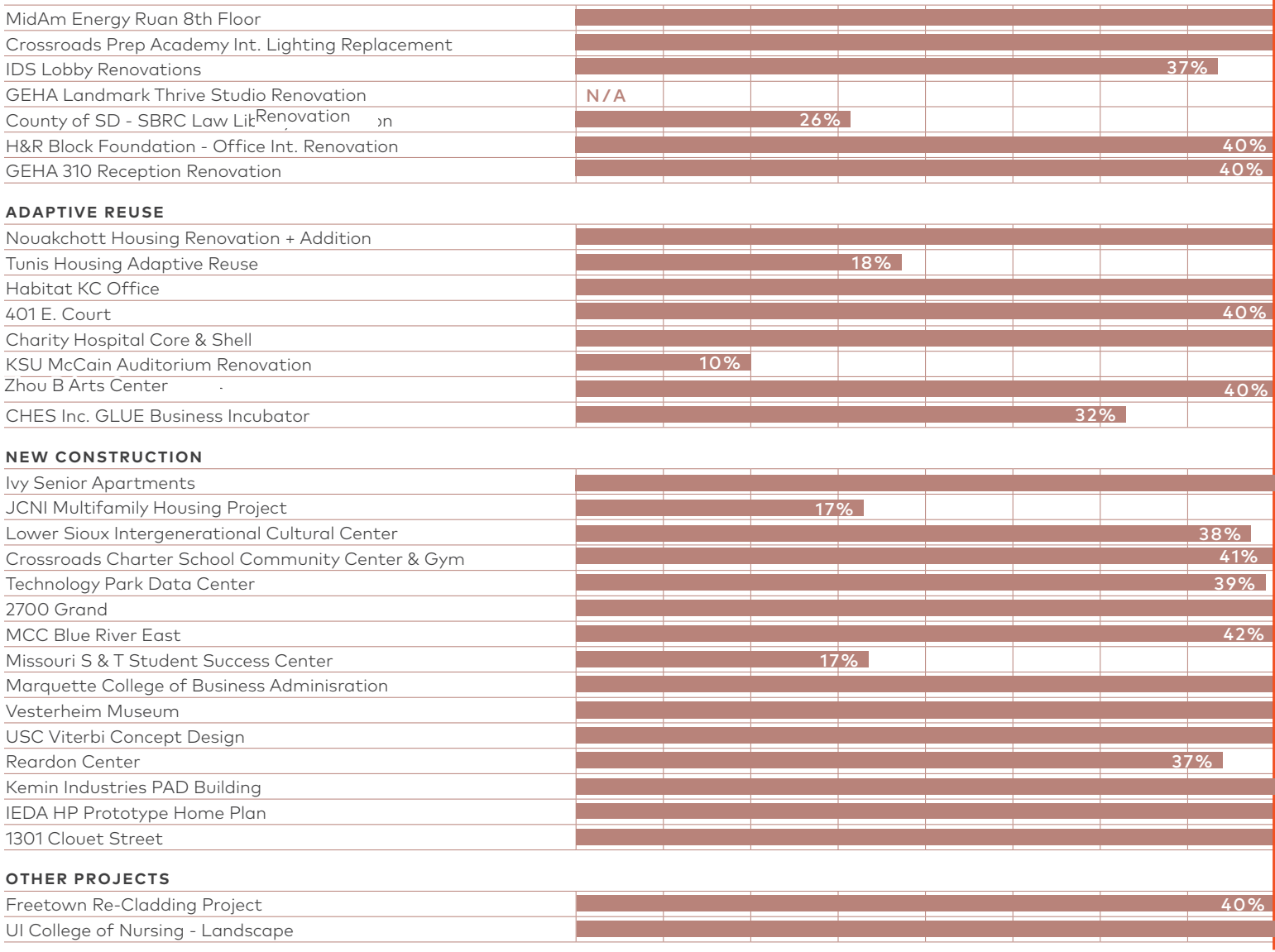
2020 BNIM Projects

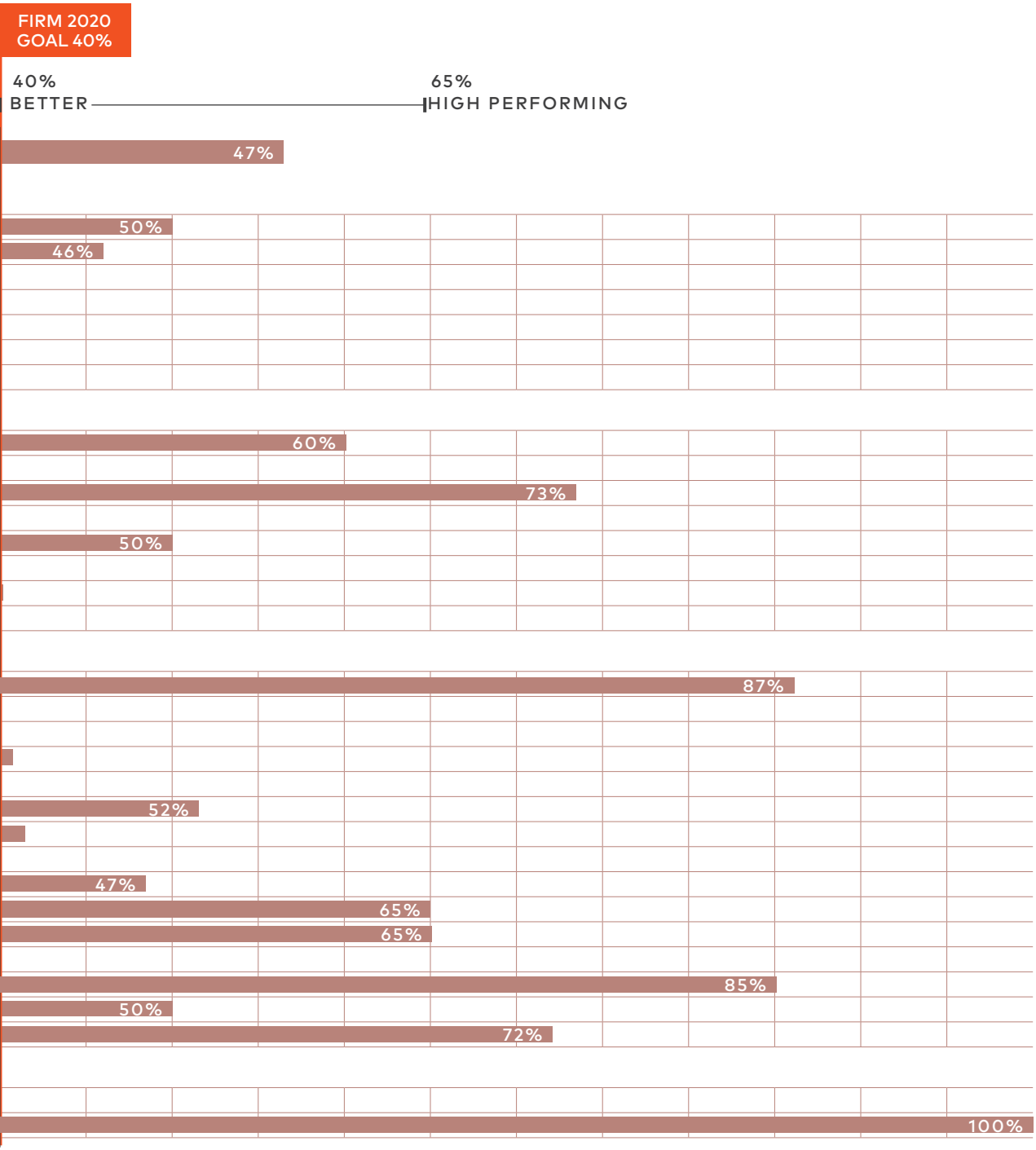
Potable Water Reduction

(indoor + outdoor % reduction from baseline)

POOR — 30% GOOD

2020 FIRM AVERAGE (BY PROJECT COUNT)

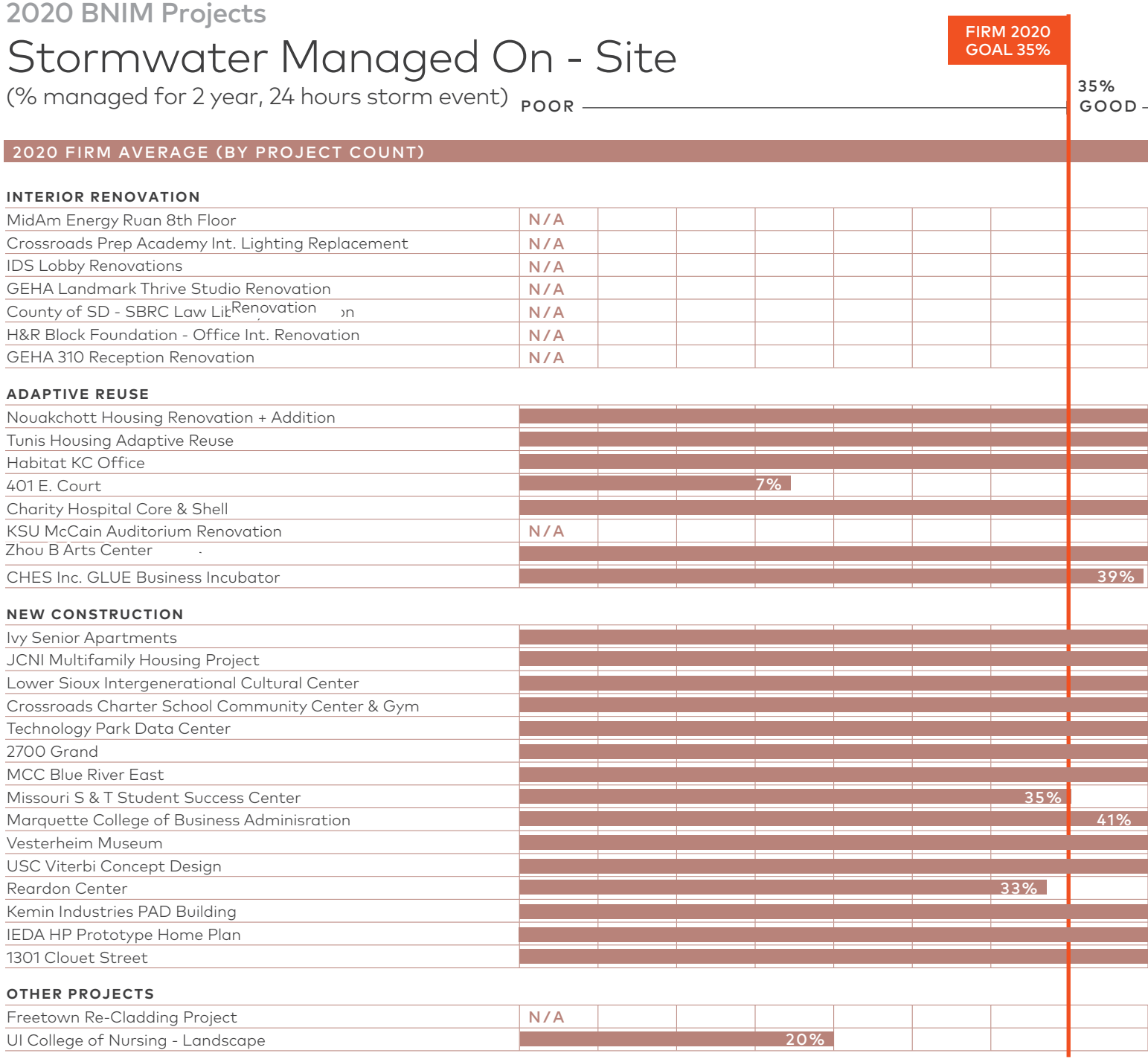


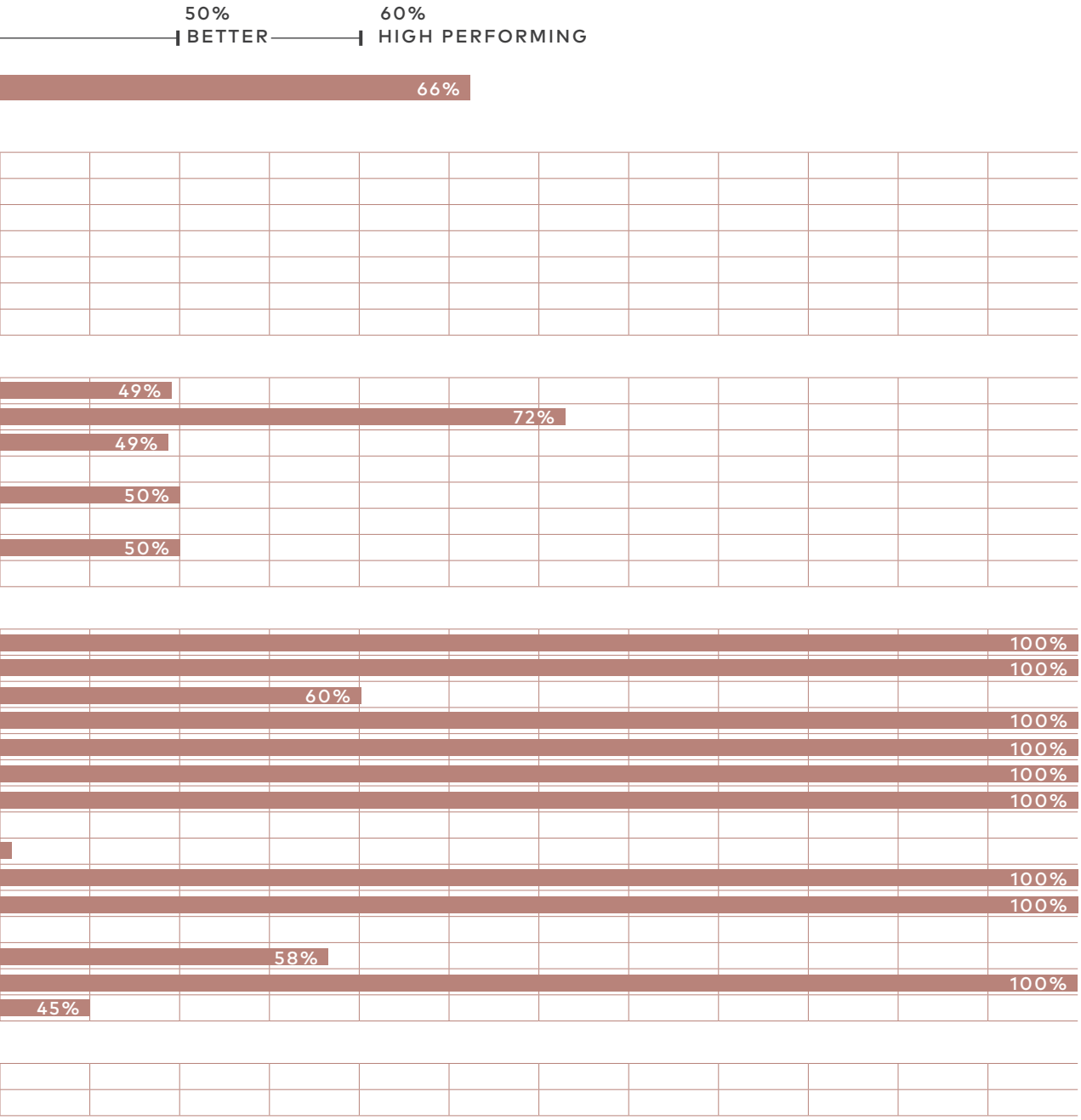

FIRM 2020
GOAL 40%
40%
BETTER
65%
HIGH PERFORMING
47%
50%
46%
60%
73%
50%
87%
52%
47%
65%
65%
85%
50%
72%
100%

2020 BNIM Projects

Stormwater Managed On - Site

(% managed for 2 year, 24 hours storm event)




50%
BETTER
60%
HIGH PERFORMING
66%
49%
72%
49%
50%
50%
100%
100%
60%
100%
100%
100%
100%
100%
100%
58%
100%
45%

III Ecology

We design to protect and benefit site ecology in the presence of human development. We consider the macro and micro scale of the site and consider not only the anthropocentric world but also the rest of biodiversity.

IF YOU COULD ONLY DO A FEW THINGS

- Design a project that responds to its site and ecological context.
- Design landscaping that is comprised of 100% native plantings, especially species that attract pollinators. Avoid all decorative turf grass.
- Preserve mature trees on site.
- Create a night time habitat by eliminating artificial light and sounds while no humans are present.
- "Vision Zero" for bird strikes: design to eliminate all building-related bird deaths

RESOURCES

AIA COTE Top Ten Toolkit - Measure 3: Design for Ecology
Living Building Challenge - Place Petal Handbook
The Sustainable SITES Initiative
Ecology and the Architectural Imagination
Landscape Architectural Foundation, Performance Series
Seven Principles of Xeriscaping
Guidelines for Good Exterior Lighting Plans
International Dark-Sky Association
The Bird-Friendly Building Design

QUESTIONS FOR ENGAGEMENT

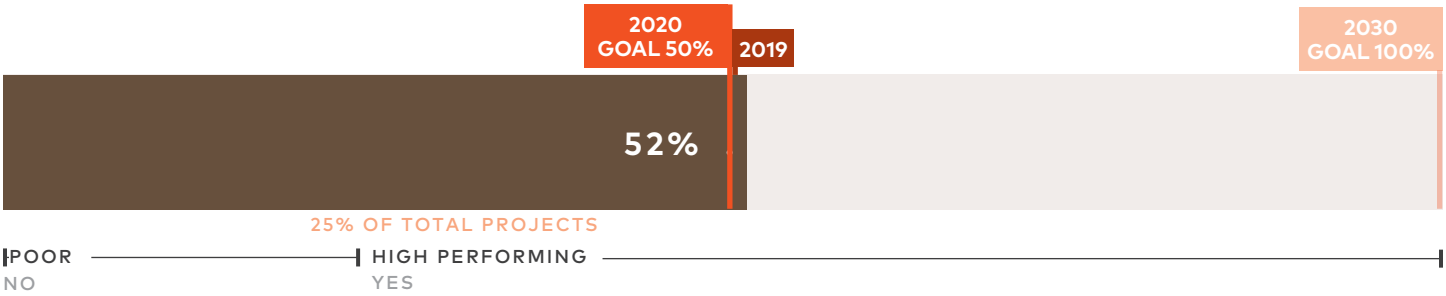
- What is the regional ecosystem (climate, soils, plant and animal systems) in which the project is sited?
- How does the development of the site respond to its ecological context, including the watershed, and air and water quality at different scales from local to regional level?
- How might the project protect and benefit these natural ecosystems and habitat?
- How much rainfall is expected to fall on this site, and how much can I store in a tanks and in the soil/landscape?
- What is the health of the existing soil? Is it possible to improve these soils and increase storm water holding capacity and plant health?
- What are the native, migratory, and endangered animals and insects to this area?
- How does the context inform the exterior lighting approach? Can the lighting color temp, timed controls, and fixture cutoffs be adjusted to accomodate a dark sky approach?
- How does the building mitigate bird-strikes?
- In what ways does the project contribute to biodiversity and the preservation or restoration of habitats and ecosystem services?
- How does the design encourage local food networks?

2020 Firm-Wide Report

2020 PROJECTS' AVERAGE | 2020 FIRM-WIDE GOAL | RANGE | 2019 PROJECT AVERAGE

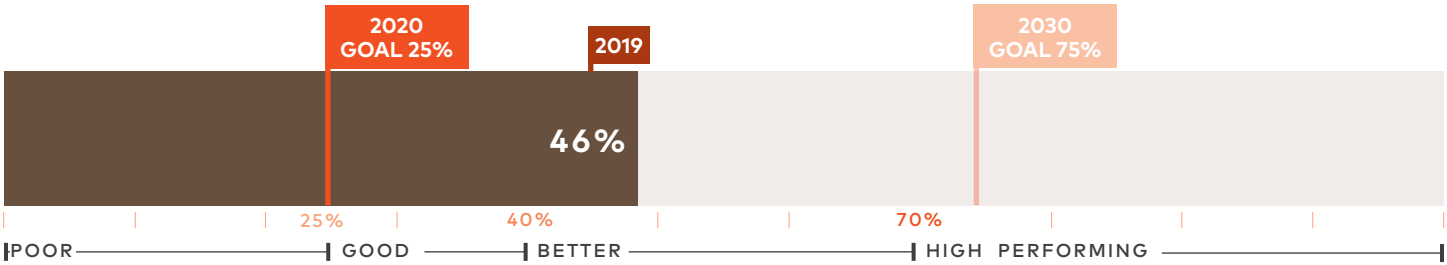
SITE INVENTORY & ANALYSIS

Investigation of site and ecological context to inform design



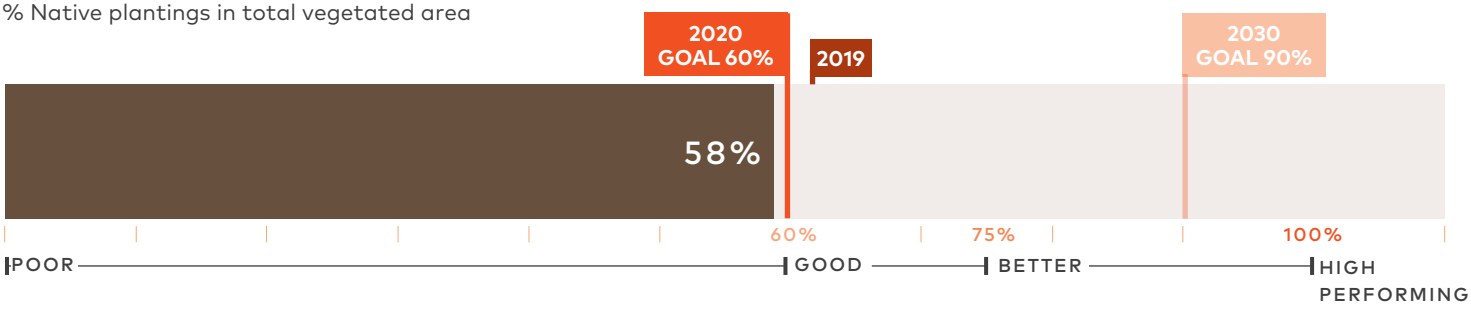
VEGETATED SITE AREA

% Vegetated site area post development (including green roofs)



NATIVE PLANTINGS

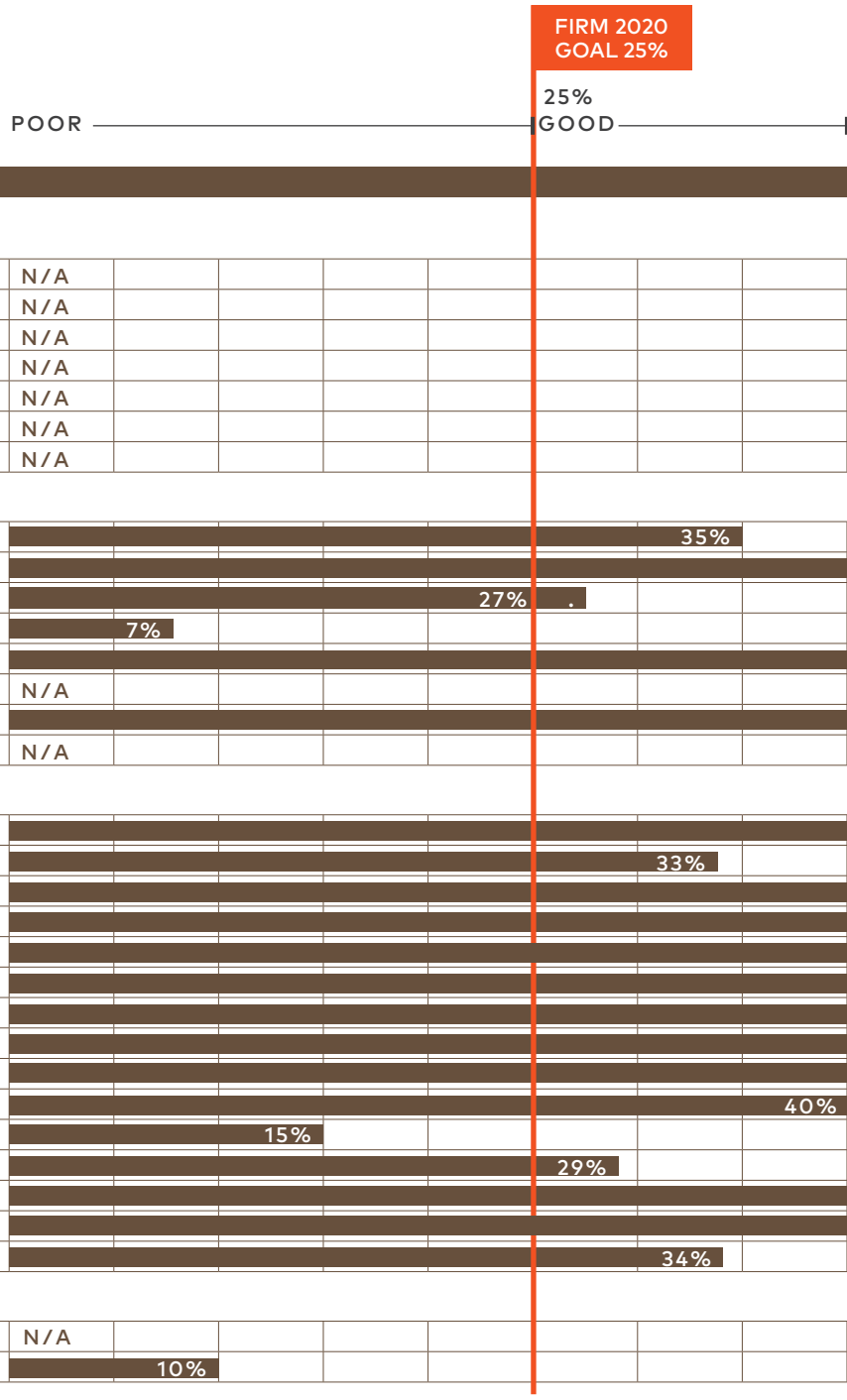
% Native plantings in total vegetated area



2020 BNIM Projects

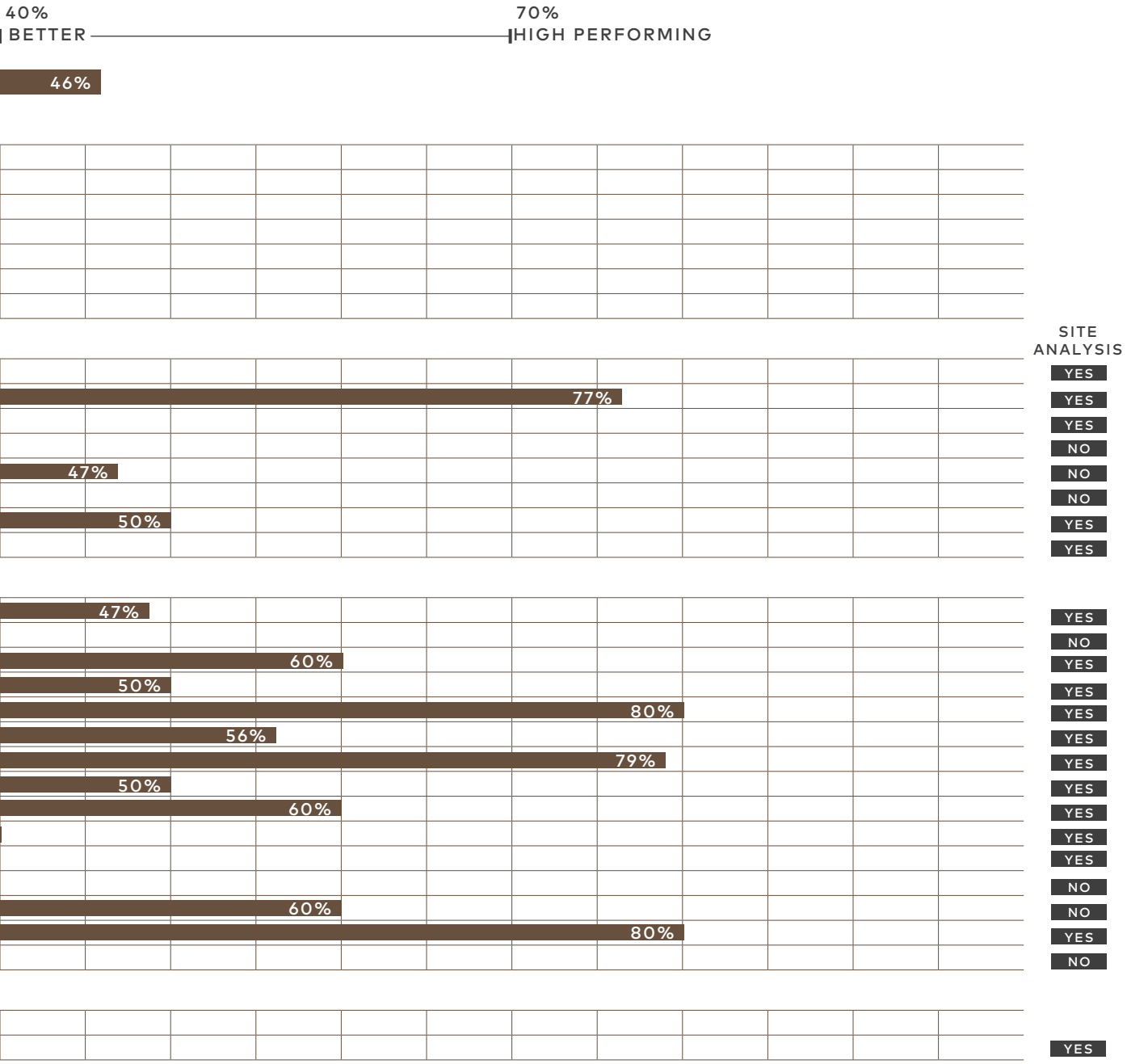
Vegetated Site Area

(% of vegetated site area post development)



2020 FIRM AVERAGE (BY PROJECT COUNT)

INTERIOR RENOVATION	
MidAm Energy Ruan 8th Floor	N/A
Crossroads Prep Academy Int. Lighting Replacement	N/A
IDS Lobby Renovations	N/A
GEHA Landmark Thrive Studio Renovation	N/A
County of SD - SBRC Law Lib Renovation on	N/A
H&R Block Foundation - Office Int. Renovation	N/A
GEHA 310 Reception Renovation	N/A
ADAPTIVE REUSE	
Nouakchott Housing Renovation + Addition	35%
Tunis Housing Adaptive Reuse	
Habitat KC Office	27%
401 E. Court	7%
Charity Hospital Core & Shell	
KSU McCain Auditorium Renovation	N/A
Zhou B Arts Center	
CHES Inc. GLUE Business Incubator	N/A
NEW CONSTRUCTION	
Ivy Senior Apartments	
JCNI Multifamily Housing Project	33%
Lower Sioux Intergenerational Cultural Center	
Crossroads Charter School Community Center & Gym	
Technology Park Data Center	
2700 Grand	
MCC Blue River East	
Missouri S & T Student Success Center	
Marquette College of Business Adminisration	
Vesterheim Museum	40%
USC Viterbi Concept Design	15%
Reardon Center	29%
Kemin Industries PAD Building	
IEDA HP Prototype Home Plan	
1301 Clouet Street	34%
OTHER PROJECTS	
Freetown Re-Cladding Project	N/A
UI College of Nursing - Landscape	10%


40%
BETTER
70%
HIGH PERFORMING
46%
77%
47%
50%
47%
60%
50%
80%
56%
79%
50%
60%
60%
80%
SITE ANALYSIS
YES
YES
YES
NO
NO
NO
YES
YES
YES
NO
YES
YES
YES
NO
NO
YES
NO
YES

2020 BNIM Projects

Native Plantings

(% of native plating in total vegetated area)

POOR

2020 FIRM AVERAGE (BY PROJECT COUNT)

INTERIOR RENOVATION

MidAm Energy Ruan 8th Floor	N/A
Crossroads Prep Academy Int. Lighting Replacement	N/A
IDS Lobby Renovations	N/A
GEHA Landmark Thrive Studio Renovation	N/A
County of SD - SBRC Law Lib Renovation on	N/A
H&R Block Foundation - Office Int. Renovation	N/A
GEHA 310 Reception Renovation	N/A

ADAPTIVE REUSE

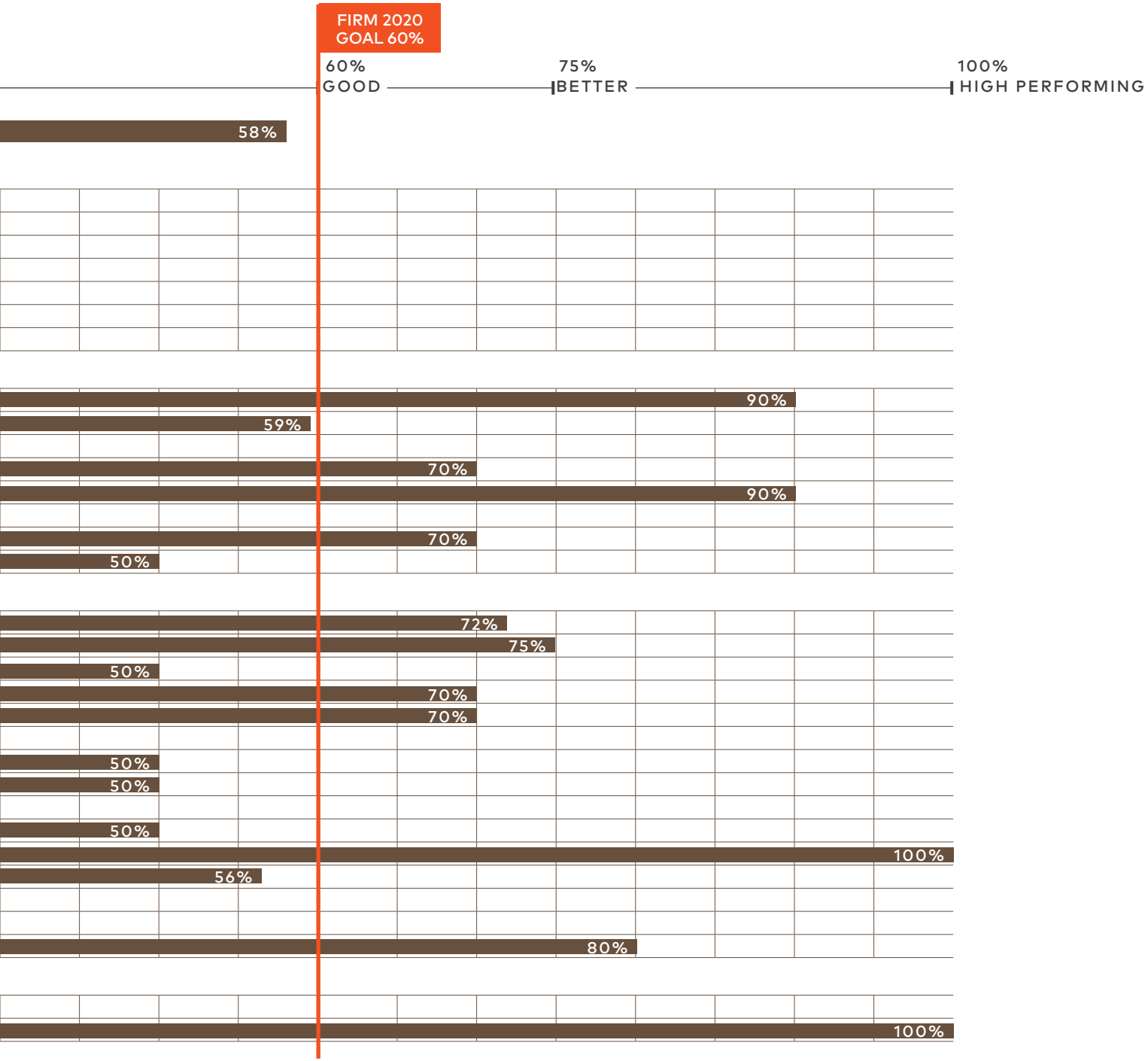
Nouakchott Housing Renovation + Addition	
Tunis Housing Adaptive Reuse	
Habitat KC Office	19%
401 E. Court	
Charity Hospital Core & Shell	
KSU McCain Auditorium Renovation	N/A
Zhou B Arts Center	
CHES Inc. GLUE Business Incubator	

NEW CONSTRUCTION

Ivy Senior Apartments	
JCNI Multifamily Housing Project	
Lower Sioux Intergenerational Cultural Center	
Crossroads Charter School Community Center & Gym	
Technology Park Data Center	
2700 Grand	31%
MCC Blue River East	
Missouri S & T Student Success Center	
Marquette College of Business Adminisration	9%
Vesterheim Museum	
USC Viterbi Concept Design	
Reardon Center	
Kemin Industries PAD Building	5%
IEDA HP Prototype Home Plan	25%
1301 Clouet Street	

OTHER PROJECTS

Freetown Re-Cladding Project	N/A
UI College of Nursing - Landscape	


FIRM 2020
GOAL 60%
60%
GOOD
75%
BETTER
100%
HIGH PERFORMING
58%
90%
59%
70%
90%
70%
50%
72%
75%
50%
70%
70%
50%
50%
50%
100%
56%
80%
100%

IV Wellness

A project is only sustainable if people enjoy being in it. We design projects to promote beauty, comfort, health, and wellness.

IF YOU COULD ONLY DO A FEW THINGS

- Consider operable windows
- Give all occupants individual control over their immediate environment
- Allow occupants to experience natural, biophilic elements through a variety of senses
- Pre & Post Occupancy Evaluations
- Request and track building products used on the project that can provide material transparency documentation and give priority to manufacturers who provide this documentation
- Air quality testing (post occupancy) CO2 constant and VOC annual
- Consider programming exterior spaces

QUESTIONS FOR ENGAGEMENT

- In what ways does the project optimize daylight, indoor air quality, connections to the outdoors and thermal, visual, and acoustical comfort for occupants and others inside and outside the building?
- How does the design promote the health of the occupants?
- What passive and active systems could be used that would promote thermal comfort?
- In what ways can the design reduce indoor pollutants?
- Could you eliminate the use of Red List Materials from the project, such as vinyl?

RESOURCES

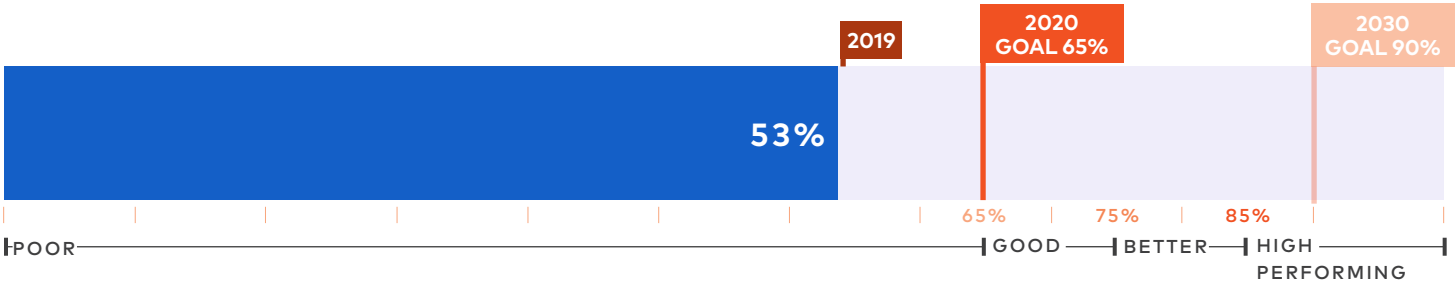
AIA COTE Top Ten Toolkit - Measure 7: Design for Wellness
Living Building Challenge - Health & Happiness Petal Handbook
Living Building Challenge - Materials Petal Handbook
WELL Building Standard
Perkins + Will Precautionary List
Daylight Pattern Guide
Biophilic Design Exploration Guidebook
Economics of Biophilia
CBE Thermal Comfort Tool
Glazing and Winter Comfort Tool (Payette developed)
Indoor Air Quality: EPA
Environmental Product Declarations (EPD)
Health Product Declarations (HPD)
Mindful Materials
Health Data - Institute for Health Metrics and Evaluation

2020 Firm-Wide Report

2020 PROJECTS' AVERAGE | 2020 FIRM-WIDE GOAL | RANGE | 2019 PROJECT AVERAGE

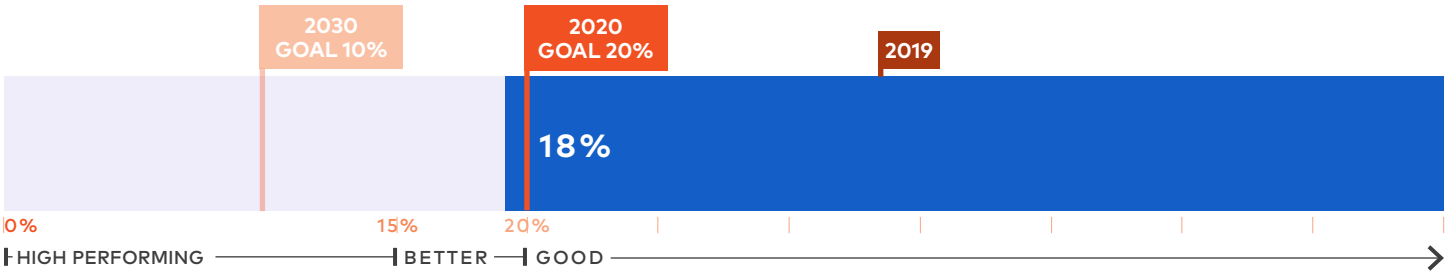
SPATIAL DAYLIGHT AUTONOMY

% Occupied floor area that receives a min. of 300 lux for at least 50% of occupied areas



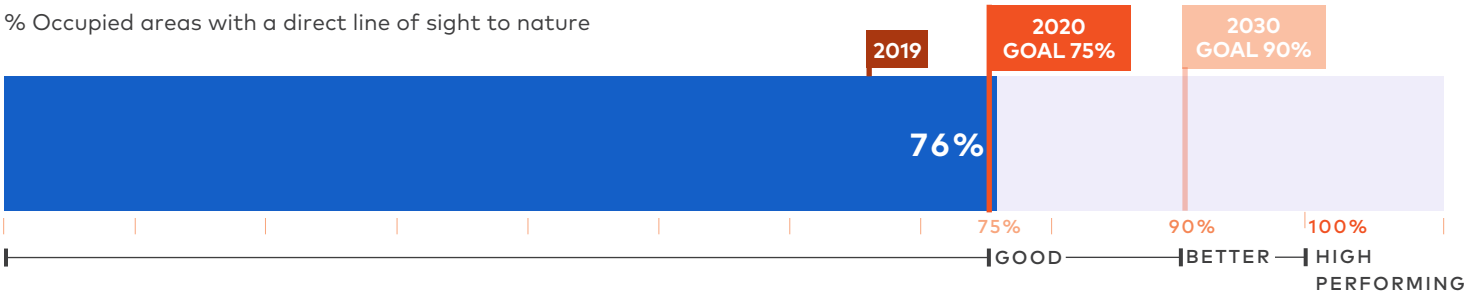
ANNUAL SUN EXPOSURE (ASE)

% Floor area that receives at least 1000 lux for at least 250 occupied hours per year (glare factor)



QUALITY VIEWS

% Occupied areas with a direct line of sight to nature



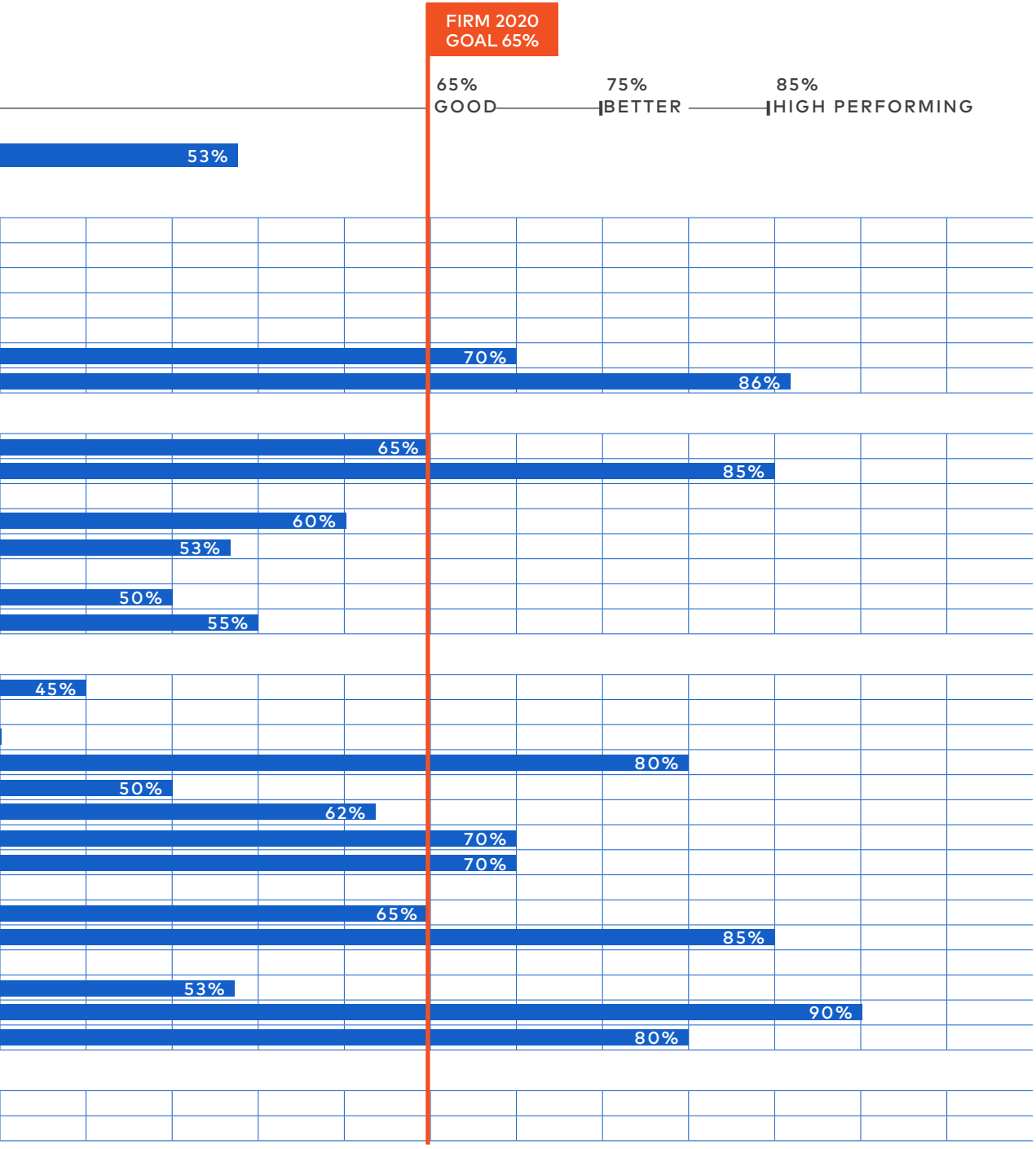
2020 BNIM Projects

Spatial Daylight Autonomy

(% R.O. Area receiving 300 lux 50% of the day) **POOR**

2020 FIRM AVERAGE (BY PROJECT COUNT)

INTERIOR RENOVATION	
MidAm Energy Ruan 8th Floor	10%
Crossroads Prep Academy Int. Lighting Replacement	12%
IDS Lobby Renovations	NOT CALCULATED
GEHA Landmark Thrive Studio Renovation	N/A
County of SD - SBRC Law Lib Renovation on	3%
H&R Block Foundation - Office Int. Renovation	
GEHA 310 Reception Renovation	
ADAPTIVE REUSE	
Nouakchott Housing Renovation + Addition	
Tunis Housing Adaptive Reuse	
Habitat KC Office	19%
401 E. Court	
Charity Hospital Core & Shell	
KSU McCain Auditorium Renovation	33%
Zhou B Arts Center	
CHES Inc. GLUE Business Incubator	
NEW CONSTRUCTION	
Ivy Senior Apartments	
JCNI Multifamily Housing Project	39%
Lower Sioux Intergenerational Cultural Center	40%
Crossroads Charter School Community Center & Gym	
Technology Park Data Center	
2700 Grand	
MCC Blue River East	
Missouri S & T Student Success Center	
Marquette College of Business Adminisration	33%
Vesterheim Museum	
USC Viterbi Concept Design	
Reardon Center	34%
Kemin Industries PAD Building	
IEDA HP Prototype Home Plan	
1301 Clouet Street	
OTHER PROJECTS	
Freetown Re-Cladding Project	20%
UI College of Nursing - Landscape	N/A


FIRM 2020
GOAL 65%
65%
GOOD
75%
BETTER
85%
HIGH PERFORMING
53%
70%
86%
65%
85%
60%
53%
50%
55%
45%
80%
50%
62%
70%
70%
65%
85%
53%
90%
80%

2020 BNIM Projects

Annual Sunlight Exposure (Glare)

(% R.O. Area receiving 1000 lux 250 h/y)

2020 FIRM AVERAGE (BY PROJECT COUNT)	18%
INTERIOR RENOVATION	
MidAm Energy Ruan 8th Floor	10%
Crossroads Prep Academy Int. Lighting Replacement	4%
IDS Lobby Renovations	NOT CALCULATED
GEHA Landmark Thrive Studio Renovation	N/A
County of SD - SBRC Law Lib Renovation on	3%
H&R Block Foundation - Office Int. Renovation	15%
GEHA 310 Reception Renovation	15%
ADAPTIVE REUSE	
Nouakchott Housing Renovation + Addition	20%
Tunis Housing Adaptive Reuse	9%
Habitat KC Office	9%
401 E. Court	30%
Charity Hospital Core & Shell	10%
KSU McCain Auditorium Renovation	26%
Zhou B Arts Center	30%
CHES Inc. GLUE Business Incubator	10%
NEW CONSTRUCTION	
Ivy Senior Apartments	33%
JCNI Multifamily Housing Project	17%
Lower Sioux Intergenerational Cultural Center	20%
Crossroads Charter School Community Center & Gym	10%
Technology Park Data Center	2%
2700 Grand	30%
MCC Blue River East	15%
Missouri S & T Student Success Center	30%
Marquette College of Business Adminisration	21%
Vesterheim Museum	20%
USC Viterbi Concept Design	15%
Reardon Center	22%
Kemin Industries PAD Building	37%
IEDA HP Prototype Home Plan	20%
1301 Clouet Street	30%
OTHER PROJECTS	
Freetown Re-Cladding Project	10%
UI College of Nursing - Landscape	N/A

POOR

2020 BNIM Projects

Quality Views (% of occupied areas with a direct line of sight to nature)

POOR

2020 FIRM AVERAGE (BY PROJECT COUNT)

INTERIOR RENOVATION	
MidAm Energy Ruan 8th Floor	
Crossroads Prep Academy Int. Lighting Replacement	
IDS Lobby Renovations	NOT CALCULATED
GEHA Landmark Thrive Studio Renovation	
County of SD - SBRC Law Lib Renovation on	21%
H&R Block Foundation - Office Int. Renovation	
GEHA 310 Reception Renovation	
ADAPTIVE REUSE	
Nouakchott Housing Renovation + Addition	
Tunis Housing Adaptive Reuse	
Habitat KC Office	
401 E. Court	
Charity Hospital Core & Shell	
KSU McCain Auditorium Renovation	
Zhou B Arts Center	
CHES Inc. GLUE Business Incubator	
NEW CONSTRUCTION	
Ivy Senior Apartments	
JCNI Multifamily Housing Project	
Lower Sioux Intergenerational Cultural Center	
Crossroads Charter School Community Center & Gym	
Technology Park Data Center	
2700 Grand	
MCC Blue River East	
Missouri S & T Student Success Center	
Marquette College of Business Adminisration	
Vesterheim Museum	
USC Viterbi Concept Design	
Reardon Center	
Kemin Industries PAD Building	
IEDA HP Prototype Home Plan	
1301 Clouet Street	
OTHER PROJECTS	
Freetown Re-Cladding Project	20%
UI College of Nursing - Landscape	N/A


FIRM 2020
GOAL 75%
75%
GOOD
90%
BETTER
100%
HIGH PERFORMING
76%
90%
80%
67%
90%
100%
90%
85%
74%
60%
75%
67%
70%
100%
83%
62%
70%
90%
50%
90%
75%
50%
95%
90%
100%
93%
71%
100%
80%

v Equity

We design to enhance human, social, economic and environmental wellness in our communities. Listening, inclusion and collaboration are fundamental to promoting equity, in the built environment.

IF YOU COULD ONLY DO A FEW THINGS

- Establish an inclusive design approach (open to multiple perspectives, include all design disciplines)
- Engage community in design process
- Develop inclusive design strategies for people with a range of capabilities (Ex. blind, deaf, sensory sensitive, and other groups)
- Provide a Mothers' / Wellness Room for 1% (1 per 100) of the FT Female Population
- Design human scaled, humane places and provide universal access to nature and place
- Provide amenities for pedestrians, bicyclists and transit users; advocate for expanded public transit and reduce parking on site

RESOURCES

AIA COTE Top Ten Toolkit - Measure 2 - Design for Community
Living Building Challenge - Equity Petal
Inclusive Design Research Center;
Designing with People - Range of Capability Overview
Center for Excellence in Universal Design - Design Guide;
Creating DeafSpace; Designing for the Blind
Walkability Assessment Tool
EDR Community Engagement Toolkit
Community Commons Community Indicator Report Tool
CDC Community Assessment Tools
Streetwyze - People Powered Place Making

QUESTIONS FOR ENGAGEMENT

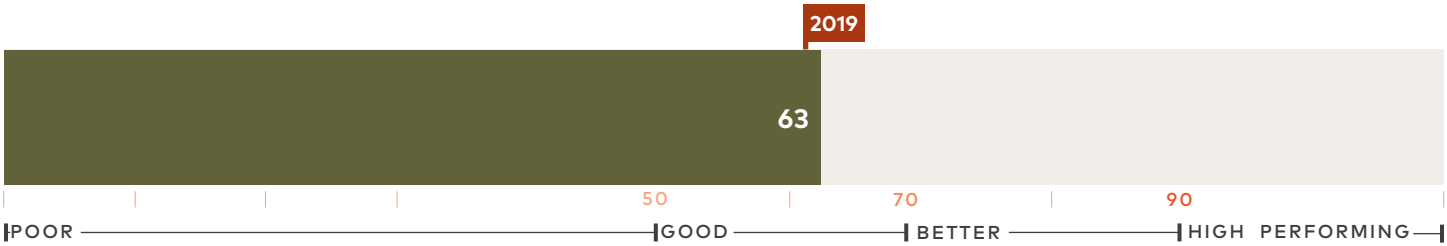
- In what ways do community members, inside and outside the building benefit from the project?
- How will the project ensure inclusive access to people with varying levels of capabilities?
- How will the project support sensory friendly experiences?
- How will the design process ensure an inclusive design process both internally and externally?
- How will a community engagement strategy enhance project outcomes? What don't we understand about the community our project serves?
- Who are the project stakeholders? Which groups may be under-represented or missing from the decision making?
- What metrics will best demonstrate healthy community outcomes? How will we measure?
- How will the project create or strengthen walkable human scaled place?
- What are the existing relationships of interdependence and suffering for the project population and place?
- What systems can be reinforced and strengthened through design intervention, what liabilities can be reduced?

2020 Firm-Wide Report

2020 PROJECTS' AVERAGE | 2020 FIRM-WIDE GOAL | RANGE | 2019 PROJECT AVERAGE

WALKABILITY

Calculate Walk Score (average score across all projects) - no firm-wide goal, but all projects must report

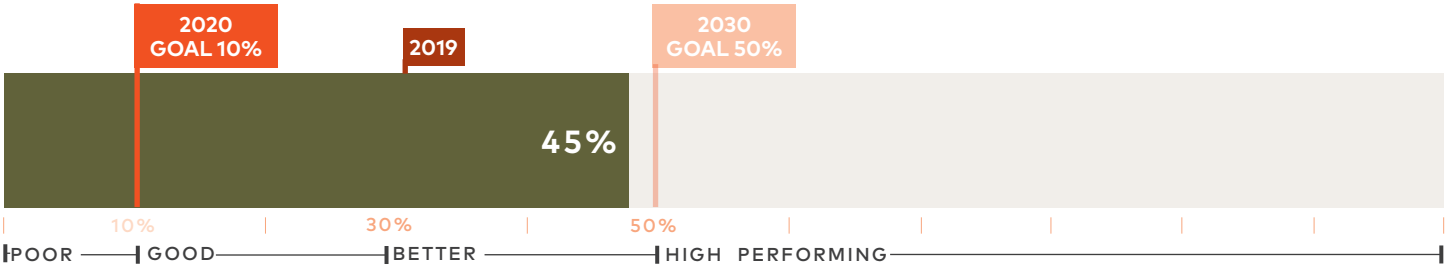


COMMUNITY ENGAGEMENT

% of projects engaging at a level 6 or Higher utilizing Arnstein's Ladder of Citizen Participation.

COMMUNITY HEALTH ASSESSMENT

Indicator report which gathers data to understand how the social determinants of health (poverty, housing, access to education, food security) are shaping equity in a neighborhood or community. % of projects that completed an assessment.



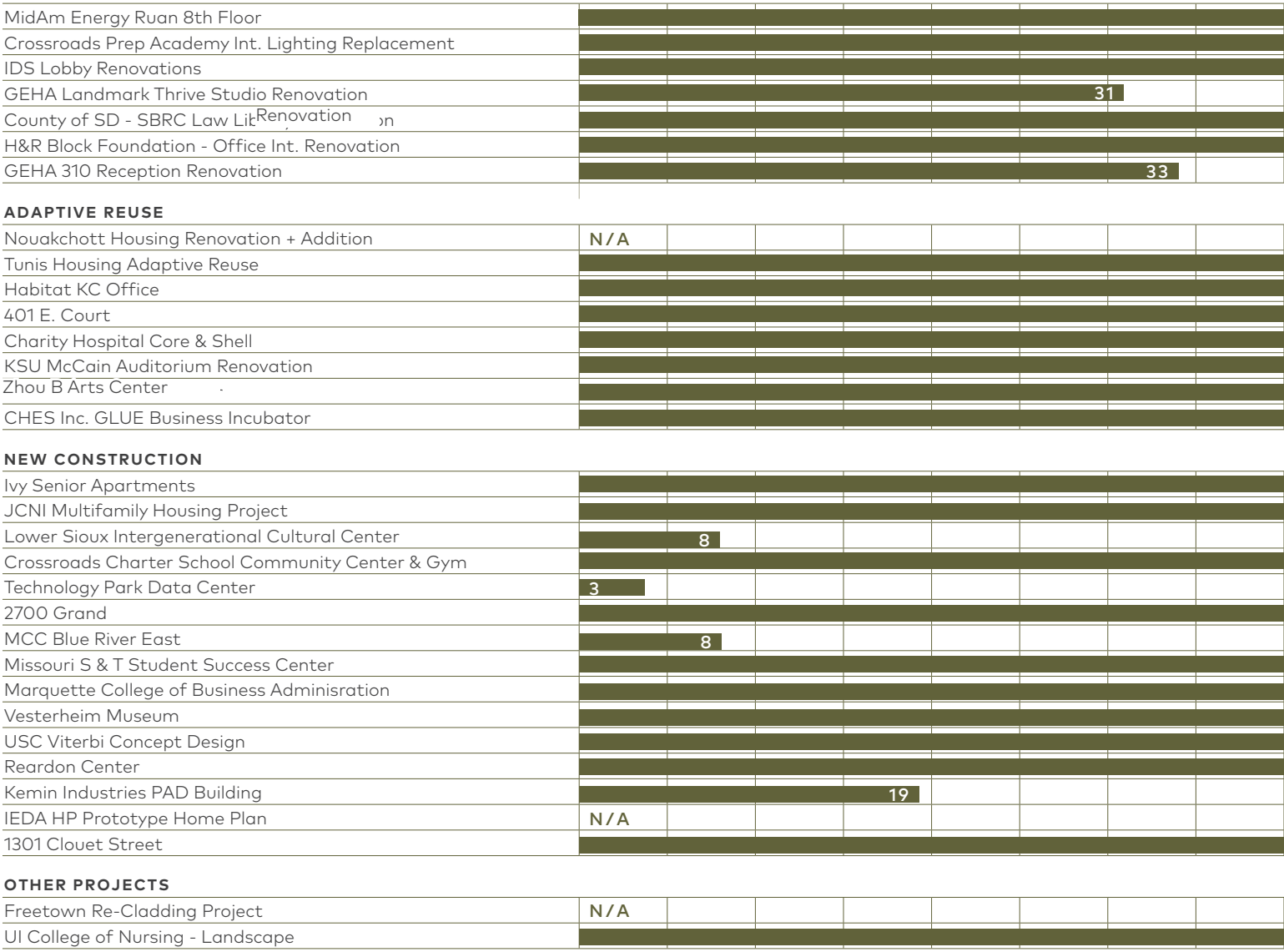
2020 BNIM Projects

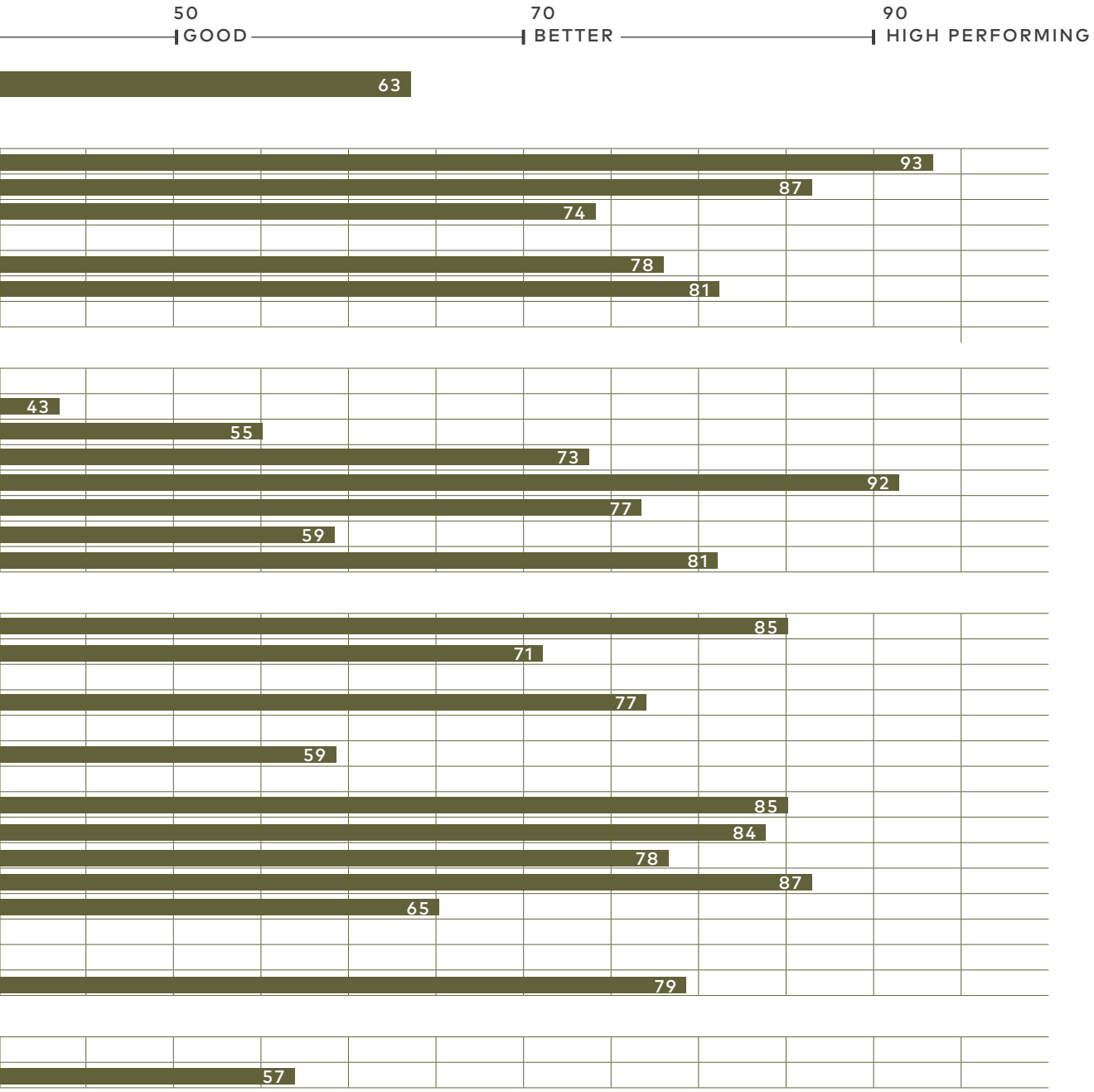
Walk Score

(Walkability score per walkscore.com)

POOR

2020 FIRM AVERAGE SCORE (BY PROJECT COUNT)




50
GOOD
70
BETTER
90
HIGH PERFORMING
63
93
87
74
78
81
43
55
73
92
77
59
81
85
71
77
59
85
84
78
87
65
79
57

2020 BNIM Projects

Community Engagement

(% Projects Scoring 6+ using Arnstein's Ladder) POOR — 3+ GOOD

2020 % OF PROJECTS SCORING 6+

INTERIOR RENOVATION	
MidAm Energy Ruan 8th Floor	N/A
Crossroads Prep Academy Int. Lighting Replacement	
IDS Lobby Renovations	N/A
GEHA Landmark Thrive Studio Renovation	4
County of SD - SBRC Law Lib Renovation on	N/A
H&R Block Foundation - Office Int. Renovation	N/A
GEHA 310 Reception Renovation	N/A
ADAPTIVE REUSE	
Nouakchott Housing Renovation + Addition	N/A
Tunis Housing Adaptive Reuse	N/A
Habitat KC Office	
401 E. Court	2
Charity Hospital Core & Shell	4
KSU McCain Auditorium Renovation	4
Zhou B Arts Center	3
CHES Inc. GLUE Business Incubator	
NEW CONSTRUCTION	
Ivy Senior Apartments	1
JCNI Multifamily Housing Project	3
Lower Sioux Intergenerational Cultural Center	
Crossroads Charter School Community Center & Gym	4
Technology Park Data Center	2
2700 Grand	3
MCC Blue River East	3
Missouri S & T Student Success Center	3
Marquette College of Business Adminisration	
Vesterheim Museum	4
USC Viterbi Concept Design	
Reardon Center	N/A
Kemin Industries PAD Building	N/A
IEDA HP Prototype Home Plan	
1301 Clouet Street	4
OTHER PROJECTS	
Freetown Re-Cladding Project	3
UI College of Nursing - Landscape	


FIRM 2020 GOAL
10% SCORE 6+
6+
BETTER
8
HIGH PERFORMING
9%
COMMUNITY HEALTH ASSESSMENT
7
YES
5
NO
NO
YES
NO
YES
5
YES
YES
NO
8
NO
YES
NO
NO
NO
NO
6
YES
YES
6
YES
NO
NO
6
YES
NO
5

VI Resources

We seek to design environments that positively shape the lives of people by analyzing the embodied energy, regional climate hazards, life cycle material costs, and source streams of our projects.

IF YOU COULD ONLY DO A FEW THINGS

- Design adaptive environments for a changing and regional climate
- Re-use an existing building; right size the program
- Reduce or replace cement in concrete mix
- Design for long life and loose fit; select materials that consider building design lifespan
- Track raw materials and prioritize responsible sourcing
- Minimize the construction and demolition waste stream from your project

QUESTIONS FOR ENGAGEMENT

- What is the criteria by which you are selecting materials? Considerations might include optimizing health, durability, maintenance, and energy use reducing the impacts of extraction, manufacturing, and transportation?
- What regional resources are available and prevelant?
- What efforts might be made to reduce the amount of material waste and environmental impact of materials over their lifetime?
- How might you reduce construction waste and promote recycling during occupancy?
- How can the project be designed to promote long-term flexibility, adaptability, and resilience?

RESOURCES

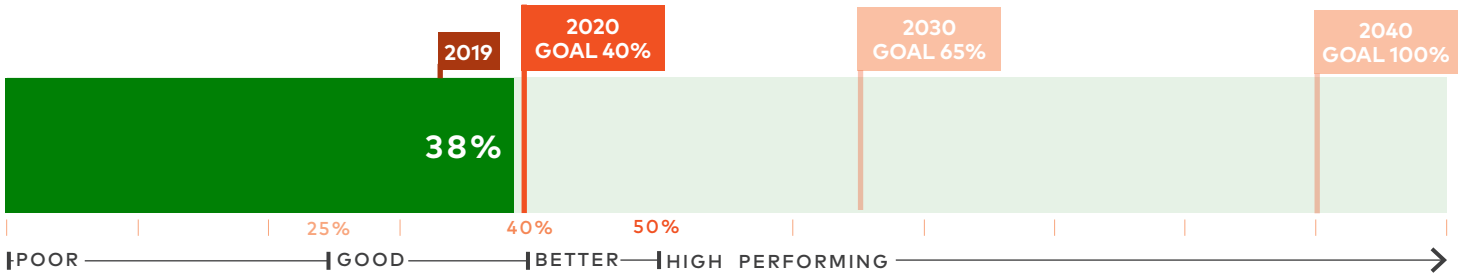
AIA COTE Top Ten Toolkit - Measure 5: Design for Economy
AIA COTE Top Ten Toolkit - Measure 8: Design for Resources
AIA COTE Top Ten Toolkit - Measure 9: Design for Change
Living Building Challenge - Materials Petal Handbook
AIA Guide to Life Cycle Assessment in Practice
Tally - Life Cycle Assessment Tool
AIA Materials Transparency and Risks for Architects
Origin - Materials Search Engine
DECLARE - Material Transparency
Resilience - RELi, US Resiliency Council, PEER
True Zero Waste
Design for Disassembly (DfD)

2020 Firm-Wide Report

2020 PROJECTS' AVERAGE | 2020 FIRM-WIDE GOAL | RANGE | 2019 PROJECT AVERAGE

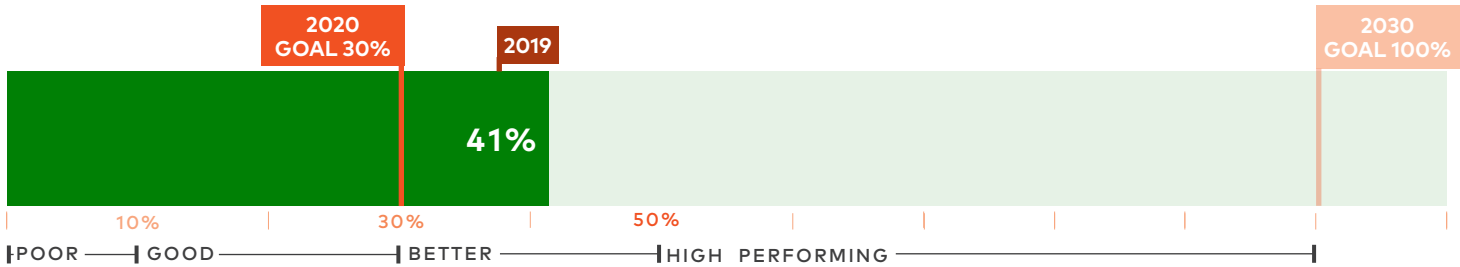
EMBODIED CARBON

% Reducton from baseline utilizing AIA SuperSpreadsheet, Tally, EC3



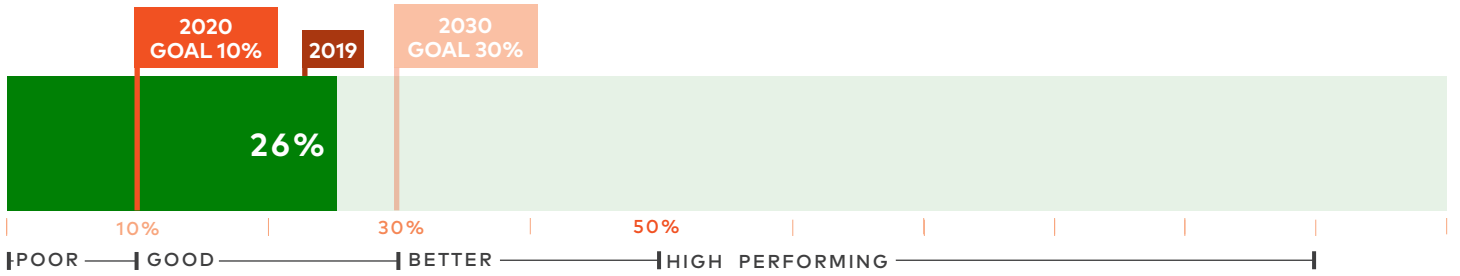
LIFE CYCLE ASSESSMENT

Meet requirements of LEED v4.1 credit MRc1 (historic, abandoned, blighted re-use or LCA) % of projects completing an assessment.



PASSIVE SURVIVABILITY

Design to achieve passive functionality to COTE standards 1, 2, or 3, % projects setting a goal of 2 or higher.



2020 BNIM Projects

Embodied Carbon Reduction

(% reduction from baseline)

FIRM AVERAGE (BY PROJECT COUNT)	38%
INTERIOR RENOVATION	
MidAm Energy Ruan 8th Floor	27%
Crossroads Prep Academy Int. Lighting Replacement	
IDS Lobby Renovations	N/A
GEHA Landmark Thrive Studio Renovation	N/A
County of SD - SBRC Law Lib Renovation on	3%
H&R Block Foundation - Office Int. Renovation	42
GEHA 310 Reception Renovation	
ADAPTIVE REUSE	
Nouakchott Housing Renovation + Addition	
Tunis Housing Adaptive Reuse	
Habitat KC Office	
401 E. Court	40%
Charity Hospital Core & Shell	40%
KSU McCain Auditorium Renovation	
Zhou B Arts Center	
CHES Inc. GLUE Business Incubator	
NEW CONSTRUCTION	
Ivy Senior Apartments	9%
JCNI Multifamily Housing Project	9%
Lower Sioux Intergenerational Cultural Center	15%
Crossroads Charter School Community Center & Gym	17%
Technology Park Data Center	
2700 Grand	25%
MCC Blue River East	32%
Missouri S & T Student Success Center	31%
Marquette College of Business Adminisration	30%
Vesterheim Museum	
USC Viterbi Concept Design	
Reardon Center	18%
Kemin Industries PAD Building	N/A
IEDA HP Prototype Home Plan	30%
1301 Clouet Street	
OTHER PROJECTS	
Freetown Re-Cladding Project	
UI College of Nursing - Landscape	N/A


FIRM 2020
GOAL 40%
40%
BETTER
50%
HIGH PERFORMING
LIFE CYCLE
ASSESSMENT
75%
%
58%
47%
61%
60%
74%
69%
79%
50%
46%
52%
80%
70%
NO
YES

2020 BNIM Projects

Passive Survivability

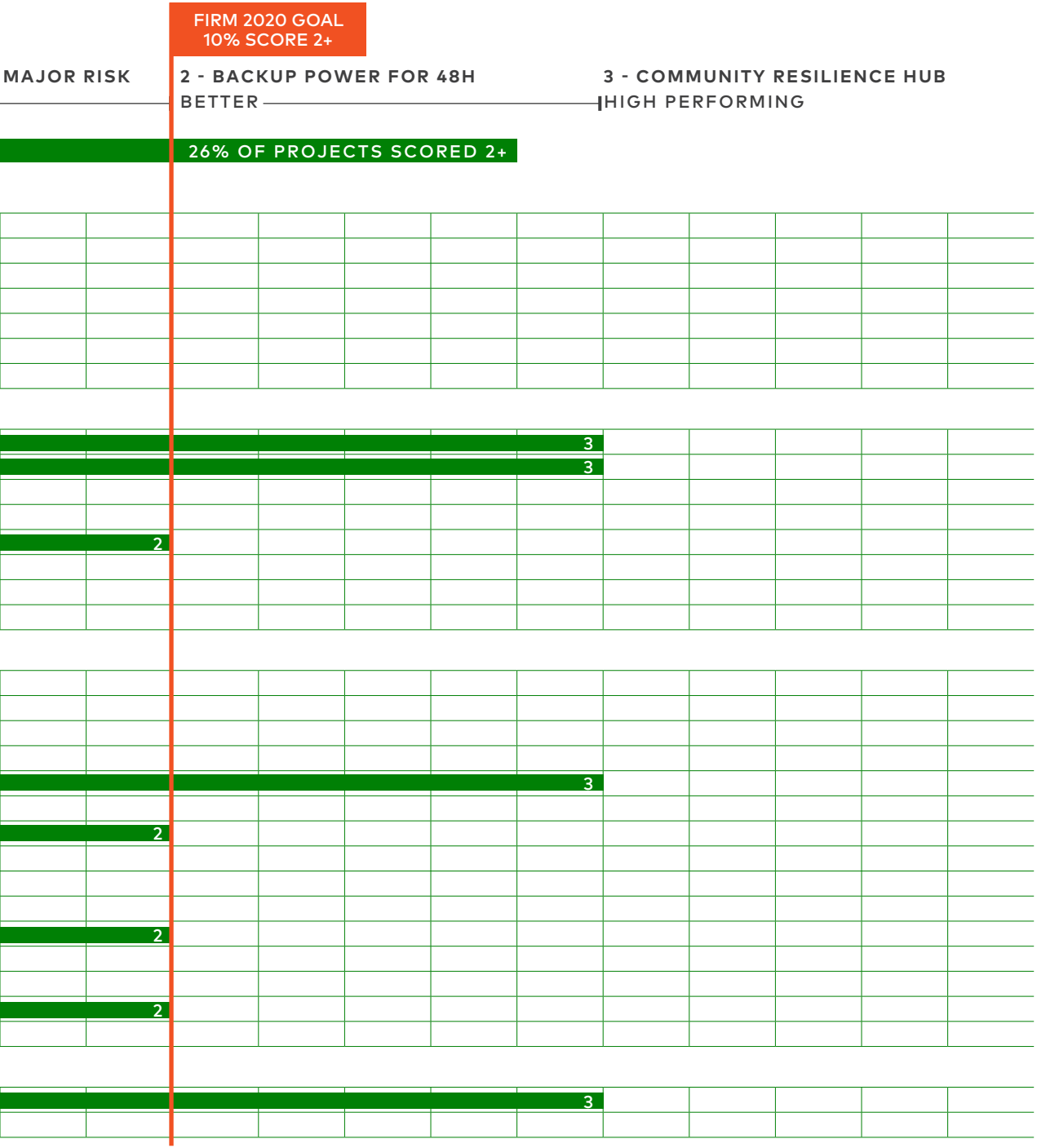
(RELi v1.0 Score % of Reporting Projects)

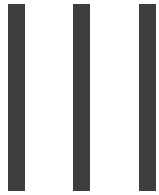
0 - NOT HABITABLE WITHOUT POWER — **POOR**

1 - ABILITY TO SURVIVE — **GOOD**

2020 % PROJECTS SCORING 2+

INTERIOR RENOVATION	
MidAm Energy Ruan 8th Floor	1
Crossroads Prep Academy Int. Lighting Replacement	1
IDS Lobby Renovations	0
GEHA Landmark Thrive Studio Renovation	N/A
County of SD - SBRC Law Lib Renovation on	0
H&R Block Foundation - Office Int. Renovation	0
GEHA 310 Reception Renovation	1
ADAPTIVE REUSE	
Nouakchott Housing Renovation + Addition	
Tunis Housing Adaptive Reuse	
Habitat KC Office	1
401 E. Court	1
Charity Hospital Core & Shell	
KSU McCain Auditorium Renovation	1
Zhou B Arts Center	1
CHES Inc. GLUE Business Incubator	0
NEW CONSTRUCTION	
Ivy Senior Apartments	1
JCNI Multifamily Housing Project	1
Lower Sioux Intergenerational Cultural Center	1
Crossroads Charter School Community Center & Gym	1
Technology Park Data Center	
2700 Grand	0
MCC Blue River East	
Missouri S & T Student Success Center	1
Marquette College of Business Adminisration	1
Vesterheim Museum	1
USC Viterbi Concept Design	
Reardon Center	0
Kemin Industries PAD Building	0
IEDA HP Prototype Home Plan	
1301 Clouet Street	1
OTHER PROJECTS	
Freetown Re-Cladding Project	
UI College of Nursing - Landscape	N/A


FIRM 2020 GOAL
10% SCORE 2+
MAJOR RISK
2 - BACKUP POWER FOR 48H
BETTER
3 - COMMUNITY RESILIENCE HUB
HIGH PERFORMING
26% OF PROJECTS SCORED 2+
3
3
2
3
2
2
2
3



Conclusion

Conclusion

2021 Goals and Beyond

This publication was titled "*Subject To Change,*" knowing that the future we seek to build is a moving target, subject to shifting priorities and pressures. 2020 drove this point home with global disruptions to nearly every aspect of human culture, and to the way we interact with each other. The impacts from these changes also underscored that our understanding of social and environmental justice has a long way to go, and will require more consistant dialogue, reflection, and action - especially by those with privilege and power. The future holds more disruptions, as climate change accelerates and amplifies the disparities in our cultures. But, if we learned anything from this pivitol year, it is that humans are capable of rapid behavioral and cultural change. Both BNIM and our clients have learned from direct experience how to communicate in new ways, to operate with a mobile workforce, and to make to decisions based on complex and evolving data.

Build a Culture of Discovery

An increasing number of our projects are establishing and regularly discussing sustainability goals, and are incorporating human and building performance measures into the places and spaces we create. Staff feel increasingly empowered to start a conversation about sustainability with clients, colleagues, and partners. It takes time and practice to learn a new language though, and we recognize there is more work to be done to engage with our Studios and individual staff. The Sustainable Action Team will work to identify and incorporate new ways to streamline our resources and tools, not to water-down our process, but to further enable each person within the firm to have a clear understanding of where to begin, and confidence to speak up. Our charge over the coming year(s) will be to build a firm-wide culture of discovery and curiosity, allowing this goal-setting framework to simply serve as an armature for people and projects to grow into as a guide and not as the end in itself.

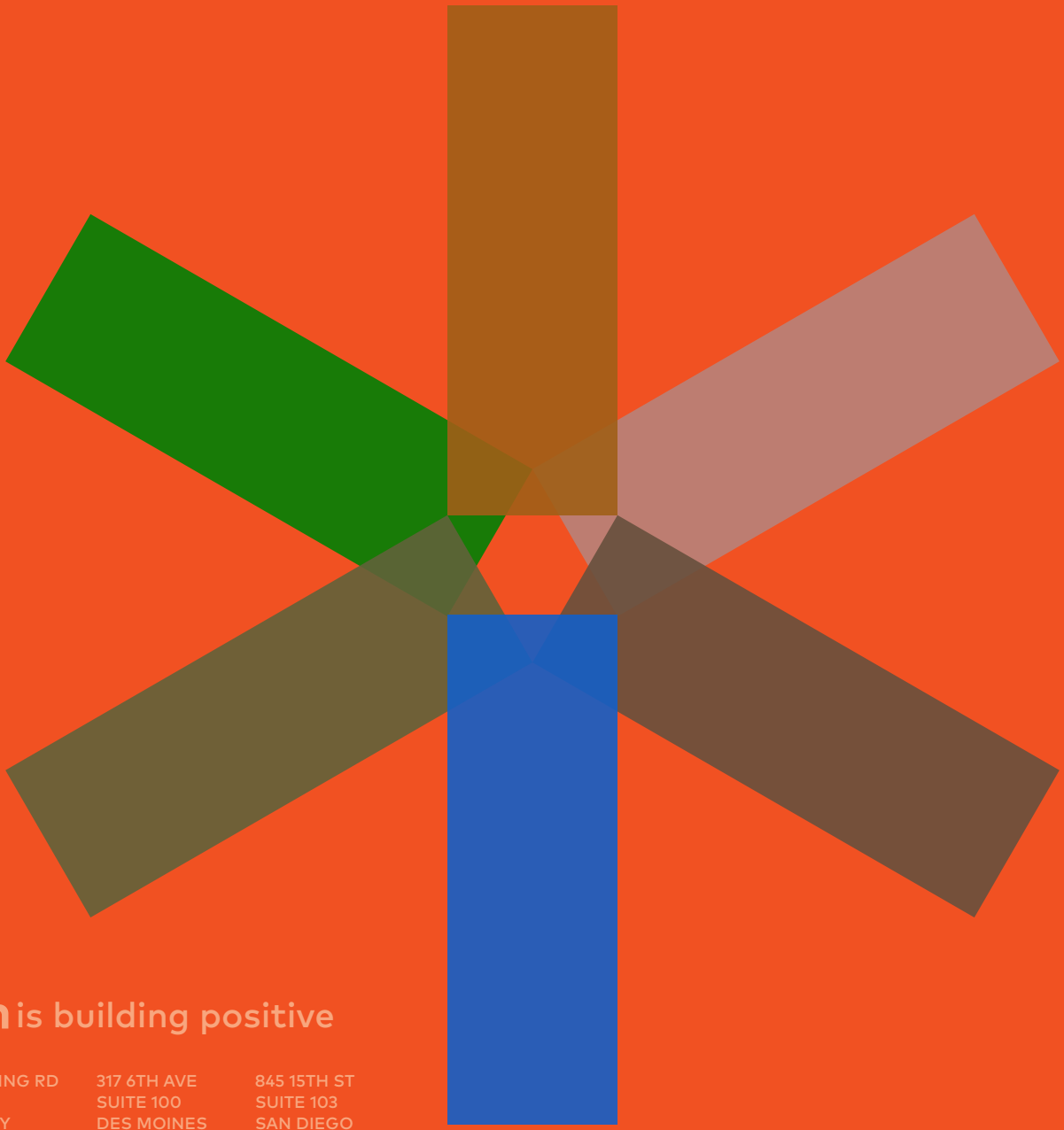
Focus on Equity

Climate and Social Justice is important to us and the work we do. As designers who shape the built environment, we cannot remain complicit in the unintended consequences of our work. We believe it is important to consider how our actions impact those who are often denied power and reaffirm our commitment to making change. BNIM believes that climate and social justice must center on people, human dignity, and equity. Design plays an important role in addressing these issues. We understand and have experience within this wider discourse, which includes areas like racial justice, shared prosperity, accessibility as well as a restoring of a sustainable, inclusive, and safe public realm. And still, in a world of interlocking crises, we are actively addressing and seeking how we can further respond to climate justice at different scales in our communities and around the globe. We are actively transforming these words into action in the following ways:

Equity in Practice
BNIM is commited to documenting and submitting our firm-wide information to establish our baseline JUST label in 2021. This program of the International Living Future Initiative is a voluntary disclosure tool for organizations, requiring reporting on a range of work and employee related indicators such as equity, employee health, benefits, stewardship, purchasing and supply chains. It is a valuable tool for our firm which we are using as a framework to assess equity and social justice in our practice as well as evaluate progress.

Equity in Projects
Design offers the opportunity to be transformative, to address the human experience of climate justice. We aspire to work with communities to reveal these inequities and develop tactics for intervention. While we are not always successful at implementing and measuring components of climate justice in our projects, sometimes equitable outcomes are revealed unintentionally, demonstrating the significant power of design, people, and place. We will host a series of firm-wide dialogues focused on ways we can adapt our Sustainability Indicators to give more meaningful and impactful guidance to every project we touch.

Equity through Advocacy
Our staff consistently provide advocacy for equity within the communities we serve through a wide range of individual and firm efforts. We utilize our knowledge and influence to impact structural change that contributes positively to our local communities and challenge us toward better outcomes. Advocating for and participating in broad coalitions focused on social and climate justice is an ongoing goal at BNIM.



bnim is building positive

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