

CONTENTS

- 3 Introduction
- 4 LEED: Leadership in Energy and Environmental Design
- 9 WELL
- 12 Fitwel
- 15 LBC: Living Building Challenge
- 21 Phius: Passive House
- 24 Choosing a Building Certification System
- 25 Sustainable Design at Neumann Monson



INTRODUCTION

The built environment has a significant environmental impact, accounting for nearly 40% of global greenhouse gas emissions. Sustainable design practices help minimize these negative impacts while reducing operating costs and improving occupant well-being.

One of the most effective paths toward sustainability within the built environment is using a green building certification system. While many products and organizations claim to be sustainable, not all can substantiate their claims. Building certification systems provide third-party proof that a building was designed as intended.

Although there are many building certification systems, the most popular in the US include:

- Leadership in Energy and Environmental Design (LEED)
- WELL

- Fitwel
- Living Building Challenge (LBC)
- Passive House (Phius)

At Neumann Monson, our team includes professionals accredited in LEED, WELL, LBC, and Passive House. While some systems are more holistic, others focus on specific components of sustainable design, like occupant well-being or energy consumption.

Before starting a building project, we recommend evaluating each option and determining which system aligns with your project's goals. This guide will help you and your project stakeholders with your decision by reviewing all five systems and their requirements.

LEED LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN



Overseen by the US Green Building Council (USGBC), <u>Leadership in Energy and Environmental Design</u> (LEED) is the most widely used building certification system.

Over 120,000 projects have participated in the program since its start in the 1990s, with new practices evolving every few years to keep up with industry priorities.

Due to its longevity and popularity, most in the Architecture, Engineering, and Construction (AEC) industry are familiar with LEED. Often, municipalities view LEED as a best practice for development and specify its standards for Tax Increment Financing (TIF) and other financial incentives.

The program is flexible and holistic, fitting a range of project types and covering many aspects of sustainable design. Although it can add complexity to a project, it provides a return on investment through reduced operational costs and improved occupant well-being.

LEED CERTIFICATION PATHWAYS

LEED is designed to fit any project type or scale-from single-family homes to neighborhood developments. **Its**

six certification pathways address different project typologies.

BUILDING DESIGN AND CONSTRUCTION

The Building Design and Construction certification pathway fits new, larger-scale developments like healthcare facilities, schools, and commercial buildings. It also covers major renovations.

INTERIOR DESIGN AND CONSTRUCTION

The Interior Design and Construction pathway covers smaller interior fit-out projects. Retail, hospitality, and smaller commercial projects fall under its umbrella. For example, an office renovation may use this pathway.

BUILDING OPERATIONS AND MAINTENANCE

The Building Operations and Maintenance pathway covers



Market One-an adaptive reuse project in Des Moines-achieved LEED Platinum with over 80 points.

existing buildings. Buildings can earn points for managing building and site conditions and creating long-term plans that improve efficiency. For example, buildings can earn points for retro-commissioning.

NEIGHBORHOOD DEVELOPMENT

The Neighborhood Development pathway addresses neighborhood developments and redevelopments. It fits district planning projects, including residential, industrial, mixed-use, and commercial developments.

HOMES

The Homes pathway addresses single-family homes and low-rise/mid-rise multifamily developments. Larger multifamily projects fall under the New Design and Construction pathway

CITIES

The Cities pathway covers cities or sections of a city. It measures water consumption, energy use, and waste management strategies, as well as transportation and human experience.

LEED POINTS AND CATEGORIES

LEED uses a point system to award certifications. To achieve a certification, projects must adhere to LEED's prerequisite requirements. Additional points can be achieved by fulfilling non-required strategies outlined in LEED's nine categories.

Depending on the number of points achieved, projects can earn one of four certifications:

- Certified (40-49 points)
- Silver (50-59 points)
- Gold (60-79 points)
- Platinum (80+ points)

LEED's nine categories address everything from site development to energy consumption and occupant wellbeing. Below, we'll discuss each category in greater detail.

INTEGRATED PROCESS

LEED awards points for projects using an integrated project delivery method. The most successful projects occur when architects, engineers, contractors, and building owners work together toward the same goal. **LEED encourages** all parties to join the process early to align goals and expectations.



The Location and Transportation category offers points for developments near amenities and public transportation. Project: Voxman School of Music, 2016.

LOCATION AND TRANSPORTATION

The Location and Transportation category encourages development in existing areas near amenities and public transportation.

Projects can earn points for selecting a site in a dense area, reducing surface parking, and providing bicycle storage. These strategies help reduce the carbon emissions associated with gas-powered vehicles while protecting farmlands, natural habitats, and other vulnerable areas.

SUSTAINABLE SITES

The Sustainable Sites category focuses on building site development and management. As a prerequisite, projects must reduce construction activity pollution.

Projects can earn additional points for protecting and restoring natural habitats, managing stormwater responsibly, reducing urban heat islands, and providing green space for occupants.

WATER EFFICIENCY

The Water Efficiency category covers outdoor and indoor water use. It encourages water use reduction, rainwater management, and appropriate uses of non-potable

water sources. Its prerequisites include indoor water use reduction, outdoor water use reduction, and building-level water metering.

ENERGY AND ATMOSPHERE

The Energy and Atmosphere category focuses on building performance and operational carbon emissions. Prerequisites include minimum energy performance requirements, building-level energy metering, fundamental refrigerant management, and commissioning and verification.

Projects can earn additional points for optimizing performance, exceeding minimum requirements, and using renewable energy. As the most weighted LEED category, it offers the greatest number of points.

MATERIALS AND RESOURCES

The Materials and Resources category addresses waste management and material sourcing. As a prerequisite, projects must manage construction waste and collect recyclables.

Projects can earn additional points for using materials with Environmental Product Declarations and sourcing raw materials responsibly.



INDOOR ENVIRONMENTAL QUALITY

The Indoor Environmental Quality category focuses on human health and well-being. It sets minimum requirements for air quality performance and tobacco smoke control.

Projects can also earn points for daylighting strategies, Volatile Organic Compound (VOC) reduction, and thermal comfort and acoustic performance optimization

INNOVATION

LEED recognizes that projects can go above and beyond and incorporate strategies not outlined in the current framework. The Innovation category awards points for unique approaches to sustainable design and construction.

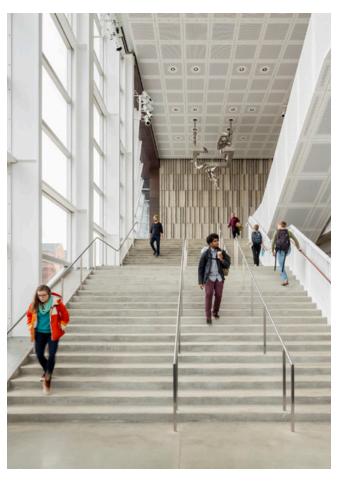
REGIONAL PRIORITY

Sustainable design should respond to local conditions. The final category, Regional Priority, encourages projects to address geographically specific environmental priorities.

Priorities are based on zip code and set by USGBC members. In our home state of Iowa, rainwater management is a priority.

IS LEED RIGHT FOR YOUR PROJECT?

LEED is a holistic approach to sustainable design and offers many benefits.



First, it can help owners reduce their energy consumption and carbon footprint. Beyond energy, it helps protect natural resources, reduce water consumption, and minimize indoor pollutants. For owners, these benefits result in lower operational costs.

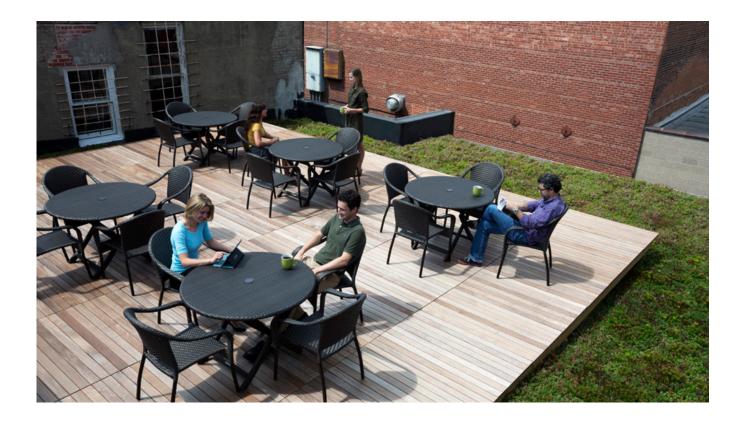
Its strategies are also known to improve occupant health. Studies have linked LEED to improved productivity in workplaces, enhanced focus in schools, and faster recovery times in healthcare settings.

Although LEED offers many benefits, it can add a layer of complexity to a project. Additional research into materials and site conditions may be necessary, and your contractor will need to implement waste management strategies. It helps to select a team that is experienced with LEED's standards.

LEED can also increase initial budgets. In addition to certification fees, you can expect to invest in commissioning services to ensure the building is operating as intended.

Often, these extra costs have a quick payback period. Owners are likely to see a return on investment through lower-than-average energy costs and improved occupant well-being.

WELL



<u>WELL</u> is a third-party certification system that focuses on human health.

Backed by decades of research, it provides a framework for encouraging movement, facilitating social connection, and improving air, water, and light quality.

Although WELL is designed to fit any building type, it has become a popular choice for commercial buildings in competitive markets. Since the COVID-19 pandemic, people have become more aware of the connection between the built environment and human health.

WELL can help developers stand out from the competition and business owners attract and retain employees.

WELL POINTS AND CONCEPTS

The WELL framework is based on ten categories known as concepts. Like LEED, projects can earn points for the outcomes achieved in each concept.

Depending on the number of points achieved, projects can earn one of our certifications:

- Bronze
- Silver
- Gold
- Platinum

Its ten concepts provide a rigorous framework for addressing occupant health, spanning from design

strategies to administrative policies. Below, we'll discuss these concepts in greater detail.

AIR

The Air concept helps owners achieve high levels of indoor air quality across a building's lifetime. It sets standards for HVAC design and promotes strategies that eliminate or reduce pollutants.

WATER

The Water concept covers the quality, distribution, and control of water in a building. It seeks to increase water availability, decrease contaminants, and mitigate water damage and other environmental issues through maintenance.

NOURISHMENT

Nourishment is one WELL concept that focuses more on administrative policies than building design. It seeks to increase the availability of fresh fruits, vegetables, and other healthy foods. In environments that provide dining options, the healthiest choice should be the easiest choice.

LIGHT

The Light concept aims to create environments that promote visual, mental, and biological health. It promotes standards for daylighting and views and encourages circadian rhythm in lighting in areas without daylight access or situations where employees work overnight.

MOVEMENT

The Movement concept focuses on one of the primary drivers of human health–physical activity. It promotes design strategies, policies, and programs that integrate movement opportunities into buildings and communities.

THERMAL COMFORT

The Thermal Comfort concept aims to provide the maximum level of thermal comfort among all building users. It sets standards for HVAC design and promotes practices that give users more control over their environment.

SOUND

The Sound concept seeks to improve occupant health through acoustics. It promotes design standards that minimize distractions and increase privacy.

MATERIALS

The Materials concept aims to reduce exposure to chemicals that impact human health. It requires project teams to assess the presence of dangerous chemicals in construction materials, furnishings, and other products introduced into the interior environment.

MIND

The Mind concept focuses on occupants' mental health and promotes design strategies and administrative policies that improve well-being. It encourages employers to offer equitable access to mental health services and take measures to reduce stress, prevent burnout, and allow employees to reset during non-work hours.

COMMUNITY

The Community concept is the most comprehensive component of the WELL standard. It aims to support access to essential healthcare and build a culture that accommodates diverse population needs.

IS WELL RIGHT FOR YOUR PROJECT?

WELL is an investment in your most valuable asset—your people. Its framework is backed by decades of research from public health professionals, medical doctors, and building



WELL sets standards for daylighting and electric light use.

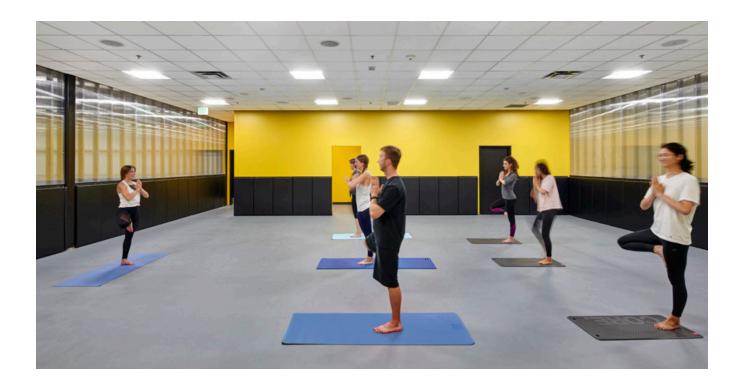
designers, providing a comprehensive approach to improving health within the built environment.

In workplaces, WELL is known to improve productivity, reduce absenteeism, and improve retention rates. A healthy and productive work environment can help your organization stand out in an increasingly competitive labor market.

Like any rating system, WELL can add additional upfront costs to your project. It requires certification and registration fees, and projects must reapply annually to maintain certification.

At the same time, WELL requires a commitment to administrative policies related to medical leave, healthcare coverage, healthy cleaning protocols, and healthy meal options. It extends beyond building design, and owners must be ready to commit to these policies.

FITWEL



Fitwel is another certification system focused on human health and well-being.

It was developed by the Center for Disease Control (CDC) and Prevention and General Services Administration (GSA) and is now overseen by the Center for Active Design. Since its start, Fitwel has become one of the most popular building certification systems, with over 23 million buildings certified to date.

Like WELL, Fitwel is popular in the corporate sector, and companies like MetLife, Principal, and LinkedIn have participated in the program. Its strategies are known to positively impact occupants and provide owners with a return on investment through reduced absenteeism and improved productivity.

FITWEL POINTS AND STAR RATINGS

Fitwel developed its standards from over 7000 academic studies on public health and building design. This research led to seven overarching principles—called Impact Categories—that improve human health within the built environment, including:

- 1. Community Health
- 2. Reducing Morbidity and Absenteeism
- 3. Social Equity for Vulnerable Populations
- 4. Feelings of Well-Being
- 5. Access to Healthy Foods

- 6. Occupant Safety
- 7. Physical Activity

Although Fitwel's recommended strategies differ across building types, it seeks to fulfill these overarching goals. For example, Fitwel recommends development in dense, walkable neighborhoods to promote physical activity and improve community health.

Unlike other building certification systems, Fitwel does not have prerequisites or requirements. The program uses a point system and evaluates projects against its standards, assessing how projects stack up against the recommended strategies.

Depending on the number of points achieved, projects can earn one of three ratings:

- One Star (90-104 points)
- Two Star (105-124 points)
- Three Star (125-144 points)

Any building or interior project can seek certification, and Fitwel offers different pathways for new construction, existing buildings, and projects in development. With its existing building pathway, Fitwel is a good option for owners wanting to assess their current space and make improvements.

FITWEL SCORECARDS

Instead of applying an overarching standard to all buildings, Fitwel has scorecards for different project types. This approach leads to strategies tailored to the building's function and occupants.

Its scorecards include:

- Senior Housing: This scorecard focuses on properties providing housing and services to aging residents, including independent living facilities, assisted living facilities, and memory care facilities.
- Multi-Tenant Base Building: This scorecard applies to commercial buildings occupied by multiple tenants and impacts the spaces controlled by the owner/manager.
- Multi-Tenant Whole Building: This scorecard also focuses on commercial buildings with multiple tenants but applies to all tenant spaces and common areas.
- Single Tenant Building: This scorecard applies to commercial buildings with floors and common areas occupied by a single tenant.
- Commercial Interior Space: This scorecard applies to spaces within a commercial building occupied by a single tenant, such as leased offices.
- Retail: This scorecard focuses on retail complexes occupied by multiple tenants or spaces within a building occupied by a single retail tenant.
- Multifamily Residential Building: This scorecard applies to residential buildings with multiple units.

In addition to buildings, Fitwel offers scorecards for site development. These scorecards include:

- Community: This scorecard addresses publicly owned/managed sites that incorporate at least one residential building. It impacts all common areas.
- Commercial and Industrial Site: This scorecard applies to sites owned and managed by a single entity and applies to commercial buildings only.

Although each scorecard evaluates similar metrics, strategies differ. Each scorecard is tailored to the project's unique function, helping owners implement best practices.

FITWEL CERTIFICATION PROCESS

Fitwel works with a group of consultants experienced in healthy building practices to evaluate projects. These consultants evaluate project documentation through a "double-blind review" in which two independent reviewers assess the project and confirm a numerical score without seeing the other reviewers' responses.

Typically, reviews take 12-16 weeks. Fitwel will review project



documentation and provide comments, and project teams will resubmit for a final review and rating.

A Fitwel certification lasts three years, after which projects must reapply to maintain a rating. Like all building certification systems, Fitwel is always evolving to reflect new research and practices. Projects reapplying for certification are assessed against the updated system to ensure the building continues following best practices.

IS FITWEL RIGHT FOR YOU?

Although Fitwel is popular with corporate projects, its scorecards are tailored to various typologies. Projects from leased office spaces to multifamily housing developments can find a path toward improving occupant health.

The program is unique in that it lacks prerequisites. **Projects** are evaluated against Fitwel's standards and assessed on how well they meet the recommended strategies.

As such, Fitwel works well for owners of existing buildings who want to make improvements. It also works well for projects in development looking for a verifiable way to measure success.

Like all certification systems, Fitwel has certification fees based on the project's square footage. However, its pricing tends to be lower than other popular systems, making it an affordable option.

Like WELL, Fitwel is more niche than other certification systems, and it may not align with owners wanting a more holistic approach to sustainability. However, its strategies are known to improve occupant health, and following the system is a great way for organizations to demonstrate their commitment to employee satisfaction.

LIVING BUILDING CHALLENGE



The <u>Living Building Challenge</u> (LBC) is the most rigorous approach to sustainability in the built environment.

Created and overseen by the International Living Future Institute (ILFI), the LBC promotes regenerative design that has a positive impact on local communities and the environment.

The LBC is more than a certification system. It is also a philosophy and an advocacy tool that seeks to restore the relationship between nature and people and transform how we think about buildings.

Unlike other systems, the LBC is performance-based. Certifications are based on actual rather than expected performance and occur after a 12-month performance period.

LBC PETAL FRAMEWORK

The LBC is divided into seven categories known as "Petals."

Like a flower, the Living Building gets its energy from the sun, water from the sky, and nutrients from the earth-all while supporting the surrounding ecosystem.

The seven Petals address different aspects of sustainable design—from energy consumption to material usage to occupant health. **Each Petal is divided into separate requirements known as imperatives.** The required imperatives depend on the certification pathway.

PLACE

The Place Petal focuses on a building's location, its engagement with the local community and culture, and its support of urban agriculture. It outlines acceptable construction sites and explains how to restore and protect a site after development.



Following the LBC, The Stanley Center for Peace and Security in Muscatine, lowa produces over 100% of its energy through on-site renewables.

When selecting sites, project teams should avoid green fields, farmland, and wildlife habitats. Building sites should include an urban agriculture component and enhance the streetscape with native plantings and pedestrian-oriented design strategies.

WATER

The Water Petal addresses how we transport, purify, and treat water, as well as its downstream impacts on human health and the environment.

Fully certified projects should use a closed-loop system where the building's water needs are met on-site. Projects should also treat water as a precious resource and use less than baseline regional standards.

ENERGY

The Energy Petal focuses on operational energy, and projects must reduce their net total energy consumption compared to existing buildings.

Reduction requirements differ across building types.

While new buildings must achieve a 70% reduction from an equivalent building standard, an existing building must achieve a 50% reduction. Projects must also demonstrate a reduction in embodied carbon—the emissions





associated with building materials.

Fully certified projects must supply 105% of their annual energy needs through on-site renewables and develop resiliency strategies to ensure a portion of the building remains habitable during an emergency.

HEALTH AND HAPPINESS

The Health and Happiness Petal focuses on building occupants and their physical and mental health. It seeks to create healthy buildings that connect occupants to nature through fresh air, daylight, and views. To achieve this goal, the Petal sets requirements for air quality, daylighting, operable windows, and thermal comfort controls.

MATERIALS

The Materials petal aims to create a non-toxic, transparent, and ecologically restorative materials economy. It seeks to remove materials known to harm human health and push the industry toward more responsible practices.

One of its imperatives is avoiding Red List materials. The Red List outlines materials that are known to harm human health, such as Chromium and PVC.

Fully certified projects must avoid these chemicals in at least 90% of the project's specified products. When

compliant products are unavailable, project teams should contact manufacturers and advocate for safer practices.

The Petal also sets standards for sourcing. At least 20% of the project's materials must come from within 500km of the project site.

EQUITY

The goal of the Equity Petal is to foster a just and inclusive community that allows everyone to participate and prosper. It focuses on participation in the design and construction process and access to the completed building.

Projects should comply with Universal Design principles to ensure the building can be accessed, understood, and used to the greatest extent possible by all people. **Project teams should also participate in the <u>JUST program</u>, a "nutrition label" that assesses organizations and their operations.**

BEAUTY

Lastly, the Beauty Petal recognizes that beauty and a connection to nature are prerequisites for preserving and restoring the natural environment. Living Buildings should reflect their culture, climate, and community.

Although beauty is hard to define, the Petal sets a few imperatives. Project teams should complete an all-



day <u>Biophilic Exploration</u> and explore ways to connect the project to the community, its history, and its culture. Additionally, completed projects should host an open house and create publicly accessible materials to educate others on sustainable design.

LBC CERTIFICATION PATHWAYS

The LBC is designed to fit any building type in any environment. **Projects can choose between five certification pathways.** While some pathways focus on energy use, others are more comprehensive.

ZERO CARBON CERTIFICATION

The Zero Carbon Certification is for projects focused on addressing climate change through energy and materials. Projects must offset 100% of their operational carbon through on or off-site renewable energy. It also requires a targeted energy efficiency level and an embodied carbon reduction through the project's primary materials.

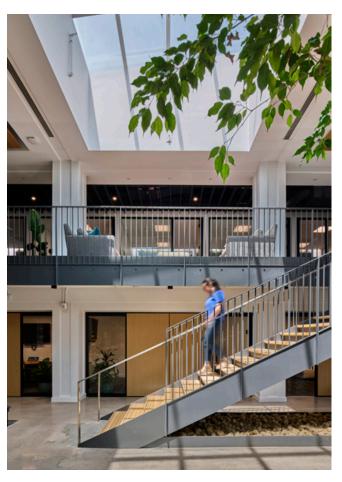
ZERO ENERGY CERTIFICATION

The Zero Energy Certification is for projects that achieve zero energy use through on-site energy production.

Certified projects must meet 100% of their net annual energy needs through on-site renewable energy, like solar or wind power.

CORE GREEN BUILDING CERTIFICATION

The Core Green Building Certification is for projects seeking a verifiable, holistic, and readily available approach to



sustainable design. Certified projects must meet the LBC's ten core imperatives in the Petal Framework and verify water and energy performance over 12 months.

This pathway works well for interior renovation projects in commercial buildings. For example, our <u>lowa City studio</u> follows this pathway.

PETAL CERTIFICATION

The Petal Certification is for projects that dive deeper into one area of the LBC. Certified projects must meet all ten core imperatives and fulfill each imperative in either the Water, Energy, or Materials Petal.

LIVING CERTIFICATION

The Living Certification is the highest Living Building Challenge certification. **Under this pathway, projects must achieve all 20 imperatives outlined in the Petal Framework.**

Requirements differ depending on the project's typology. While new construction must meet all 20 imperatives, approaches differ for renovations, interior projects, and infrastructure projects.



Fully certified LBC projects include an urban agriculture component. At the Stanley Center, a community garden produces fresh herbs and vegetables for a neighboring foodbank.

IS THE LIVING BUILDING CHALLENGE RIGHT FOR YOU?

The LBC is the most rigorous approach to sustainable design. It results in a self-sufficient building that provides a net benefit to its community.

This approach is known as regenerative design. While most certification systems focus on "doing less harm," the LBC seeks to create a positive impact, improving the resiliency of the community and environment.

At the same time, the LBC presents an opportunity to deepen your community connections. Its Biophilia Exploration, for example, should include people from outside your organization to learn how the project can align with the community's goals.

However, as the name suggests, the LBC is challenging. Its strategies—especially those related to water and materials—are novel and uncommon. **Project teams should allow for flexibility within the schedule to account for research, advocacy, and jurisdictional approvals.**

Although its strategies can result in long-term cost savings, it can add to an initial construction budget. In addition to certification fees, owners may need to pay a premium for some systems and materials, since low-cost alternatives are not always available under the sourcing requirements. Advocating for more responsible practices is a core component of the LBC, and each completed project sets future projects up for success.

The LBC requires an inclusive process that engages building occupants and community members. You should be prepared for a longer <u>Pre-Design</u> process to account for workshops and community input. When complete, community engagement should continue with publicly available educational materials and an open house.

With its inclusive process, LBC projects benefit from an integrated project delivery method. It helps to have a contractor join earlier in the project to collaborate with you and your design team. A negotiated contract or a method involving a Construction Manager may be a better fit than public bidding.

Taking on the LBC is a way to demonstrate your values, and Living Buildings can claim to be some of the greenest in the world. As such, the program aligns well with organizations committed to sustainability who want to position themselves as leaders.

PHIUS PASSIVE HOUSE



Passive House is a building certification system focusing on energy performance.

Its standards can help owners achieve a highly efficient, long-lasting building with consistent interior temperatures and low operating costs.

Although Passive House techniques were developed in the US during the 1970s energy crisis, they later gained popularity in Europe. **Today, Passive House operates in the US under the name PHIUS** (Passive House Institute of the US).

While this certification system is associated with singlefamily homes, its principles can be applied to multifamily developments and commercial projects, making it a viable option for most building owners.

PASSIVE HOUSE STANDARDS AND CERTIFICATION PATHWAYS

Passive House promotes several principles to improve efficiency and reduce operating costs, including:

- A highly insulated building envelope
- High-performance window glazing
- Minimal thermal bridging (heat escaping through the thermal barrier)
- Balanced mechanical system for superior air quality

The goal is to create airtight buildings that utilize daylight and shading techniques to maintain consistent interior temperatures through winter and summer



If a regular building is like a plastic cup, a passive building is a thermos.

seasonal changes. In addition to improving performance, these techniques provide enhanced thermal comfort.

Projects can either pursue a traditional Passive CORE certification or the PHIUS ZERO certification pathway. With PHIUS ZERO, projects must achieve a net source energy target of zero. Once the project reaches conservation targets, on- or off-site renewable energy can offset the remaining energy demand.

For a more in-depth understanding of Passive House strategies and its certification pathways, <u>review this</u> quidebook created by PHIUS.

PASSIVE HOUSE VERIFICATION

Like all certification systems, Passive House involves a verification process to ensure the building meets its standards. Your design team will submit plans to a PHIUS professional who will review the design, determine the project's viability, and work with your team to improve performance, meet compliance, and certify the project.

During the initial and subsequent reviews, the design team will use <u>energy modeling</u> to ensure the project meets Passive House standards.

During construction, a PHIUS representative will visit the site and complete various tests, including a blower-door air tightness test, to ensure the building is congruent with the energy modeling and design drawings generated during the design process.

IS PASSIVE HOUSE RIGHT FOR YOU?

Energy savings are perhaps the greatest benefit of Passive House. According to PHIUS, **passive building techniques**

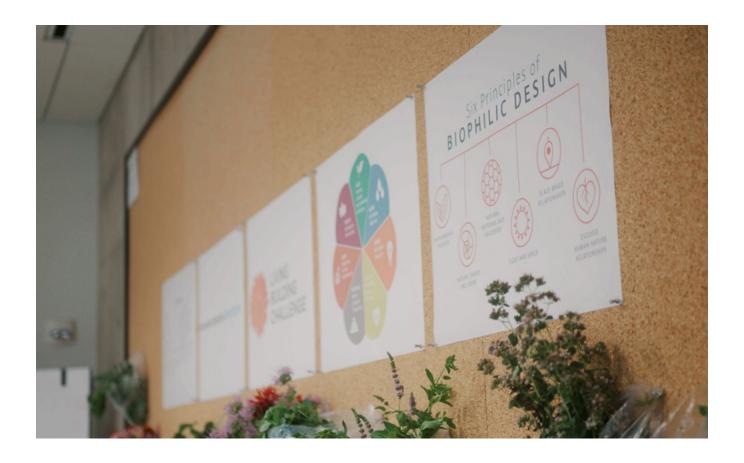


can reduce energy needs by 80% in a single-family home. Its techniques can help you get closer to Net-Zero energy, making the switch to renewable power more viable.

Passive buildings are also designed for longevity and resiliency. In a power outage, these buildings can maintain interior temperatures for much longer than a traditional building. If a regular building is a plastic cup, a passive building is a thermos.

The certification system fits a range of building types beyond single-family homes, including schools, offices, houses of worship, and multifamily developments. A PHIUS representative and your architect can help determine the project's viability.

Like all certification systems, Passive House involves fees that can add to a project's initial budget. Its strategies can also increase construction costs. Although initial costs may be higher, owners are likely to see a quick return on investment through energy savings.



CHOOSING A BUILDING CERTIFICATION SYSTEM

Using a third-party building certification system offers many benefits. The most obvious is improved performance and reduced energy costs. Buildings certified through LEED, LBC, and Passive House are likely to achieve lower energy costs than national averages, protecting your operational budget.

These systems also benefit occupants. Each system emphasizes daylighting, thermal comfort, and air quality, leading to healthier, more productive environments. Over 30 years, personnel costs are the largest expense an owner will encounter. Investing in healthy design strategies can help reduce the cost of productivity losses, turnover, and talent attraction.

Together, environmental consciousness and occupant well-being create a powerful marketing tool. Whether you are talking with a Board of Directors, your employees, or the public, a certified green building becomes a tangible representation of your organization's values.

WHICH SYSTEM IS RIGHT FOR YOU?

The right system for your project depends on your project goals. While LEED and LBC are more holistic, WELL, Fitwel, and Passive House have a narrower focus. You should also

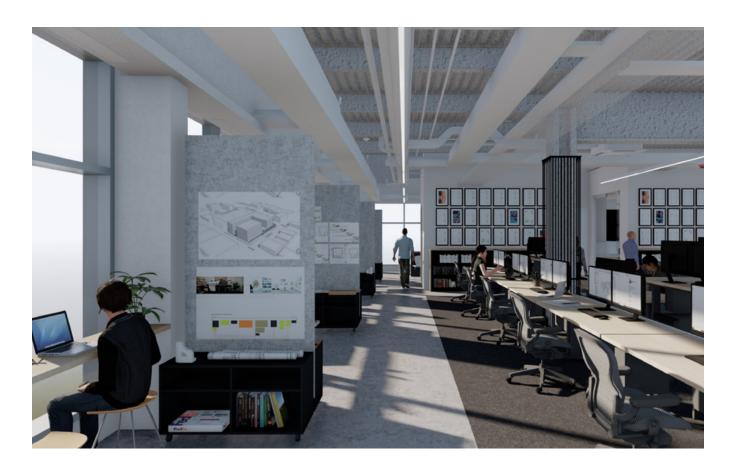
consider the cost and complexity of each system, balancing your decision with your budget and schedule.

Certification fees vary depending on the system and the project size. **Most systems base fees on the project's square footage.** To get a better idea of the cost, review each system's fee structure:

- LEED fees
- WELL fees
- <u>Fitwel fees</u>
- LBC fees
- Phius fees

In addition to certification fees, owners may need to invest in supplemental services like performance modeling, <u>life-cycle cost research</u>, energy consulting, and <u>commissioning</u>. Your architect can walk you through your options and help you weigh the pros and cons.

They can also help you find ways to offset these initial investments. For example, your project may be eligible for federal incentives like the 179D tax deduction, and depending on your location, you may receive rebates from your utility provider. Your architect can research your options and guide you through these programs, making the investment in a building certification system more feasible.



SUSTAINABLE DESIGN AT NEUMANN MONSON

At Neumann Monson, sustainability is central to our mission and design process. We believe a sustainable building is one that not only conserves natural resources and reduces energy consumption but is a flexible and beloved space for occupants.

Throughout our firm's history, our passion for sustainable design has led to many lowa firsts, including:

- First LEED School (Van Allen Elementary, Iowa City, 2005)
- First LEED Municipal Building (Davenport Policy Facility, 2008)
- First LEED Data Center (ACT, Iowa City, 2009)
- First LEED Building at the University of Iowa (Beckwith Boathouse, Iowa City, 2009)
- First Fully Certified Living Building in Iowa (Stanley Center for Peace and Security, 2023)
- First LBC CORE certified office in Iowa (Neumann Monson Iowa City Studio, 2023)

We have also received two national American Institute of Architects (AIA) Committee on the Environment (COTE) awards, the highest recognition for sustainable design excellence.

Today, our team consists of accredited professionals

in each major building certification system, including LEED, WELL, LBC, and Passive House. We continue to push ourselves to develop a more rigorous approach to sustainability and have joined the <u>AIA 2030 Commitment</u>, helping the industry reach carbon neutrality by 2030. Projects like <u>Market One</u> in Des Moines and <u>Unitarian Universalist</u> in Coralville showcase our commitment to netzero design.

We believe every project is an opportunity to improve lives, strengthen communities, and create a more resilient future—and a collaborative architect-client relationship is the best way to achieve this outcome. Our approach starts by learning about your organization's appetite for sustainability and how you define it.

Using our knowledge of sustainable design and construction, we help you find solutions within your budget and project constraints. Every project is different, and we work with you to develop an approach that works for your organization and goals.

Learn more by <u>exploring our work</u> and reading about the types of projects we undertake. If you think we may be the right fit, <u>meet with one of our team members</u> to discuss your project and goals.