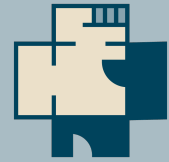


LEED Health Process

LEED and Health Credit Guide



Human health is a longstanding value of the green building movement. Green buildings protect health and well-being in the near term, while preserving resources and protecting the environment for human benefit in the long term. By intentionally deploying green strategies, building owners and industry professionals can simultaneously promote health at a variety of population scales. This translates into superior environments for occupants, safe and healthy sites for construction workers, reduced toxic exposure throughout the supply chain, improved health in surrounding communities and climate change mitigation that benefits global populations.

This LEED & Health Credit Guide highlights health-related credits within LEED for Building Design and Construction (BD+C) v4 and v4.1. This guidance tool is intended to help owners, Health Process Coordinators, health partners and design teams identify and utilize health and well-being-related credits in the LEED library during application of the [LEED Health Process](#).

While LEED contains strategies that impact health at multiple population scales, this guide focuses specifically on credits related to occupant and community health. Because health and environmental strategies are deeply intertwined, project teams can build upon the health co-benefits of sustainability, resilience, and green strategies while also driving a specific focus on occupant and community health. This guide also identifies gaps in the LEED credit library and suggests health and well-being strategies from other rating systems that may fill the gaps. For a full analysis on the best practices for using LEED green rating systems to promote population health, see the report titled [Using LEED Green Rating Systems to Promote Population Health](#) in the resources section.

LEED Credit Library: Health, Well-Being, and Equity

The following table organizes LEED credits by population health goals. Please note, this list is not exhaustive of health and well-being-related goals or credits in the LEED library. [LEED pilot credits are included in this list in light blue text](#). In some cases, credits listed here have a variety of achievement pathways, only some of which are associated with health benefits. Table 2 lists those credits and provides tips on how to achieve the relevant health benefit. Work with your health partner(s) for a more holistic understanding of how the application of LEED credits and certification may impact health. Workshop sessions with relevant stakeholders, like design teams, will help schools generate a plan for choosing the appropriate credits for their project.

These credits build on health benefits associated with the following prerequisites:

- SS: Construction Activity Pollution Prevention
- SS (Schools and Healthcare): Environmental Site Assessment
- IEQ: Minimum Indoor Air Quality Performance
- IEQ: Environmental Tobacco Smoke Control
- IEQ (Schools): Minimum Acoustic Performance

Table 1. Existing LEED BD+C Credits and Health Goals

Health Goals	LEED BD+C v4 and v4.1 Credits and Pilot Credits (Category: Description)
<p>Promoting Health</p>	<p>IP: Integrative Process for Health Promotion IP (Healthcare): Integrative Project Planning and Design</p> <hr/> <p>Impact on Occupant Health:</p> <ul style="list-style-type: none"> Engaging future occupants (when possible) and designing the project to address established occupant health goals. <p>Impact on Community Health:</p> <ul style="list-style-type: none"> Engaging members from the surrounding community and designing the project to address established community health goals.
<p>Social Equity</p>	<p>IP: Social Equity within the Project Team IP: Social Equity within the Community IP: Social Equity within the Supply Chain WE: All-Gender Restrooms MR: Legal Wood MR: Certified Multi-Attributable Products and Materials MR: Integrative Analysis of Building Materials MR: Material Ingredients Product Manufacturer Supply Chain Optimization MR: Timber Traceability IN: Inclusive Design</p> <hr/> <p>Impact on Occupant Health:</p> <ul style="list-style-type: none"> Providing spaces that “empower a diverse population by improving human performance, health, wellness, and social participation.” Providing restroom access for every building occupant. <p>Impact on Community Health:</p> <ul style="list-style-type: none"> Encouraging use of materials with environmentally and socially preferable life-cycle impacts. Creating more equitable and supportive environments during project construction. <p>Impact on Supply Chain Health:</p> <ul style="list-style-type: none"> Maintaining social equity along the supply chain and for the community. Reducing risk of illegally sourced, harvested, or traded materials.
<p>Safety</p>	<p>IP: Safety First, Cleaning and Disinfecting Your Space IP: Safety First, Managing Indoor Air Quality during COVID-19 IP: Safety First, Building Water System Recommissioning IP: Safety First, Re-Enter Your Workspace IP: Safety First, Design for Indoor Air Quality and Infection Control IP: Prevention through Design WE: Integrated Project Water Reuse Strategy MR: Building Material Human Hazard & Exposure Assessment EQ: Lead Risk Reduction EQ: Ergonomics Approach for Computer Users</p> <hr/> <p>Impact on Occupant Health:</p> <ul style="list-style-type: none"> Reducing occupant exposure to potentially hazardous air quality, water quality, and materials. Reducing the opportunity for transmission of COVID-19 virus. Educating occupants and visitors on disease control importance and procedures. <p>Impact on Community Health:</p> <ul style="list-style-type: none"> Reducing the opportunity for transmission of the COVID-19 virus in the community. Reducing hazard exposure for the community.

<p>Physical Activity</p>	<p>LT: High-Priority Site LT: Surrounding Density and Diverse Uses LT: Access to Quality Transit LT: Bicycle Facilities LT: Reduced Parking Footprint LT: Advanced Transportation Monitoring Systems SS: Open Space SS: Heat Island Reduction SS (Schools): Joint Use of Facilities SS: Walkable Project Site EQ: Design for Active Occupants SS: Heat Island Mitigation with Cool Walls</p> <hr/> <p>Impact on Occupant Health:</p> <ul style="list-style-type: none"> • Encouraging alternate methods of transportation. • New or converted spaces designated for physical activity. • Access to exterior open spaces. • Proximity to quality public transit. • Encouraging physical activity via: <ul style="list-style-type: none"> • Walkable commutes or monitoring transportation choices. • Interior design. <p>Impact on Community Health:</p> <ul style="list-style-type: none"> • Contribute to a more pedestrian-friendly community by: <ul style="list-style-type: none"> • Reducing motor vehicle usage. • Reducing impacts of excessive heat. • Increasing community green space.
<p>Clean Air</p>	<p>LT: High-Priority Site LT: Access to Quality Transit LT: Bicycle Facilities LT: Reduced Parking Footprint LT: Electric Vehicles LT: Advanced Transportation Monitoring Systems SS: Heat Island Reduction SS: Solar Access to Green Space SS: Heat Island Mitigation with Cool Walls SS: Clean Construction EA: Alternative Energy Performance Metric EA: Energy Performance Metering Path EA: Community Contaminant Prevention - Airborne Releases MR: Material Ingredients MR: Building Material Human Hazard & Exposure Assessment EQ: Enhanced Indoor Air Quality Strategies EQ: Low Emitting Materials EQ: Indoor Air Quality Assessment EQ: Performance-Based Indoor Air Quality Design and Assessment EQ: ETS Control for Projects in Japan and Airport Projects with Security Restrictions.</p> <hr/> <p>Impact on Occupant Health:</p> <ul style="list-style-type: none"> • Reducing exposure to combustion byproducts. • Reducing hazardous exposure to airborne toxicants. • Limiting environmental tobacco smoke. <p>Impact on Community Health</p> <ul style="list-style-type: none"> • Reducing project's contribution to localized air pollution. • Minimizing the obstruction of sunlight and air contamination in public parks and green spaces. • Minimize the effect of heat islands, putting community health at risk.

<p>Healthy Eating and Clean Water</p>	<p>SS: Local Food Production WE: Optimize Process Water Use WE: Water Leak Detection and Monitoring WE: Integrated Project Water Reuse Strategy</p> <hr/> <p>Impact on Occupant Health:</p> <ul style="list-style-type: none"> • Provides access to healthy, local foods. • Provides access to safe and reliable drinking water. <p>Impact on Community Health:</p> <ul style="list-style-type: none"> • Increasing community involvement in and education about food production. • Safe, efficient, and reliable access to water.
<p>Social Connection</p>	<p>LT: Surrounding Density and Diverse Uses SS: Open Space SS: Joint Use of Facilities SS: Walkable Project Site SS: Local Food Production EQ: Design for Active Occupants</p> <hr/> <p>Impact on Occupant Health:</p> <ul style="list-style-type: none"> • Site selection that encourages interaction with the surrounding community. • Providing spaces to encourage social interaction). • Encouraging social connection through physical activity and access to the outdoors. • Providing opportunity for connection through communal gardening. <p>Impact on Community Health:</p> <ul style="list-style-type: none"> • Providing community access to exterior green spaces. • Facilitating community usage of interior spaces such as auditoriums, gyms. • Connecting the community via local gardening and food production.
<p>Stress Mitigation and Comfort</p>	<p>IP: Passive Survivability and Back-Up Power During Disruptions IP: Assessment and Planning for Resilience IP: Design for Enhanced Resilience SS: Site Development - Protect or Restore Habitats SS: Open Sites SS: Light Pollution Reduction SS: Joint Use of Facilities SS: Bird Collision Deterrence SS (Healthcare): Places of Respite WE: All-Gender Restrooms EA: Enhanced Commissioning EQ: Interior Lighting EQ: Daylight EQ: Quality Views EQ: Acoustic Performance EQ: Daylight for Nordic Projects EQ: Learning Controls for Thermal Comfort EQ: Enhanced Acoustical Performance - Exterior Noise Control EQ: Quality Views in Non-Regularly Occupied Spaces EQ: Daylight in Non-Regularly Occupied Spaces EQ: Designing with Nature, Biophilic Design for the Indoor Environment</p> <hr/> <p>Impact on Occupant Health:</p> <ul style="list-style-type: none"> • Increasing access to nature for stress mitigation. • Designing for interior comfort. • Reducing stress by: <ul style="list-style-type: none"> • Maintaining comfortable IEQ conditions (light, noise control, temperature). • Ensuring safe conditions in the event of a natural disaster and power outages. • Helping occupants maintain circadian rhythms.

<p>Stress Mitigation and Comfort (cont.)</p>	<ul style="list-style-type: none"> • Helping occupants maintain circadian rhythms. • Minimizing outdoor distractions and preserving wildlife. • Connecting occupants to the outdoor environment. • Providing restroom access to every building occupant. <p>Impact on Community Health:</p> <ul style="list-style-type: none"> • Increasing community access to nature for stress mitigation. • Reducing disruption to circadian rhythms associated with light trespass. • Building with a proactive plan for resilience in the event of natural disaster. • Reducing impact of environmental noise from building for the community.
<p>Resilience</p>	<p>IP: Assessment and Planning for Resilience IP: Design for Enhanced Resilience IP: Passive Survivability and Back-up Power During Disruptions EA: Grid Harmonization EA: GridOptimal Building ACP</p> <p>Impact on Occupant Health:</p> <ul style="list-style-type: none"> • Building with a proactive plan for resilience in the event of natural disaster. <p>Impact on Community Health:</p> <ul style="list-style-type: none"> • Building with a proactive plan for community resilience in the event of natural disaster. • Increasing community resilience by enacting strategies that improve grid usage, flexibility, and resilience.

Note: Pilot credits included in light blue text.

Health and Social Equity Gaps in the LEED Credit Library

Though LEED credits may be used to target a variety of specific health goals - and impact health at the occupant, community, supply chain and waste stream and global scales - the pursuit of health-related LEED credits is not necessarily a comprehensive strategy to promote health and well-being. Blindspots exist within the LEED credit library that may be covered by other rating systems or additional strategies to promote health and social equity. School building project teams are encouraged to think holistically when considering the health of their communities - by integrating both health and equity concepts into green design, school districts can create a stronger community, demonstrate leadership among peers and create spaces in which students, staff and communities may thrive.

Below is a list of some additional health strategies that the LEED rating system does include in its credit and pilot credit library (as of the release of this guidance document). This chart shows other health-focused rating systems that may or may not have credits available to target these needs. It is important to remember that the way we interpret health and equity - and our most pressing health and equity needs - is changing constantly, and no list of health needs or goals is ever definitive. However, engaging members of the community and utilizing public health data and research strategies may help teams prioritize goals that are the most relevant to their community.

Table 2. Health + Equity Needs in Rating Systems

Health Need	LEED v4.1	Enterprise	WELL v2
Active Design	Pilot Credit	Yes	Yes
Biophilic Design	Yes	Not Specified	Yes
Drinking Water Quality	Yes	Yes	Yes
Healthy Nourishment	Not Specified	Yes	Yes
Family Support	Not Specified	Not Specified	Yes
Disease and/or Infection Control	Yes	Not Specified	Yes
Community Wealth Creation / Employment	Not Specified	Yes	Not Directly Specified
Construction Workplace and Construction Working Conditions	Pilot Credit	Not Specified	Not Specified
Indigenous Art + Culture	Not Specified	Not Directly Specified	Not Specified
Discouraging Displacement	Not Specified	Not Specified	Not Specified
School Safety + Security	Not Specified	Not Specified	Not Specified

Ever-changing health, well-being and equity needs also require ever-changing design strategies and solutions. The dynamic nature of health and equity highlights the benefits of a needs-based approach to planning design and construction. This is why engaging members of the community and amplifying voices that otherwise may go unheard is crucial for creating a healthy and equitable project.

Obtaining a LEED certification for school construction, renovation or modernization projects is an excellent way to showcase leadership for a project’s sustainability, health and equity goals. Certifications are encouraged for Health Process Coordinators and school projects that want guidance on the best ways to kick-start the implementation of healthy design features. Rating systems like WELL offer credits that target additional needs through a range of health-focused design strategies. True leaders in sustainability, health and equity may pursue both certifications to demonstrate their commitment to the environment and to the health and well-being of the people who interact with their spaces.

The LEED Health Process pilot credit, however, remains the only process-oriented approach to health and well-being promotion for the built environment. The pilot credit helps school building project teams understand that health promotion strategies are not “one size fits all,” that engaging the members of the school community is the only way fully to appreciate their health needs, and that aiming to improve health beyond the occupants of the school - to the supply chain, waste stream and global health - is the most inclusive health promotion strategy currently available.

Resources for LEED Credits and Health

[Using LEED Green Rating Systems to Promote Population Health](#). An analysis of the health and well-being strategies available within the LEED rating system. This research will help LEED practitioners identify, prioritize and implement credits most relevant to their health and well-being goals and further increase the utility of LEED as a health promotion tool.

[Research Anthology of Health-Promoting Building Strategies](#). Use this resource to identify health impacts of design choices and to justify design decisions based on desired health outcomes.

[USGBC Safety First COVID-19 Response Credit Guide](#). This guide from USGBC provides additional information on each of the LEED “Safety First” pilot credits and helps building teams create healthy spaces and safely re-enter occupants.

[Centering Health Equity Practice Tools and Resources](#). An assembly of frameworks, research and resources developed by equity-focused practitioners and organizations, BIPOC experts and others to help add an equity lens to project decision-making processes.

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