### AN OVERVIEW ON THE

# WELL BUILDING STANDARD

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Understand how the WELL Building Standard is structured so you can begin to analyze how it can fit in design and project management process.

Learn the 7 Concepts of WELL and why those concepts are important to measure in the built environment for health and wellness.

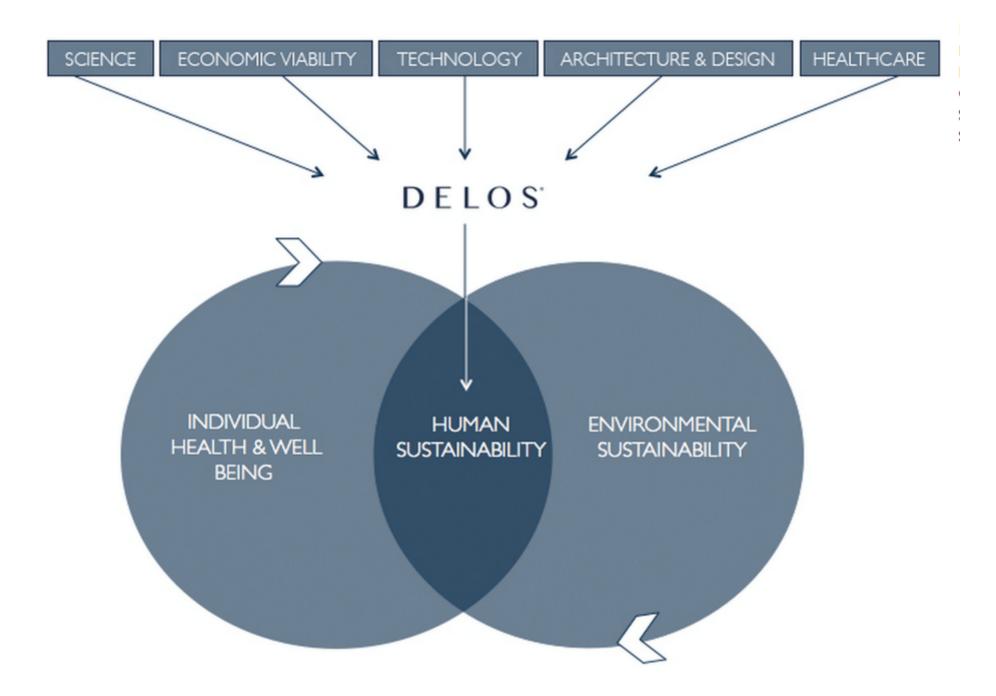
dentify common health hazards that can be avoided using the WELL Building Standard.

Develop a strategy for introducing WELL to clients.

















Ensuring that certification for **WELL** and **LEED** works seamlessly.



# Seven Concepts



### Cardiovascular System

The cardiovascular system consists of the heart, vessels and blood. Its primary function is to supply nutrients and remove waste from the body tissues. However, stress, unhealthy diets and lifestyle choices, and exposure to environmental pollutants can negatively impact cardiovascular health and lead to the development of chronic conditions that reduce quality of life.

The WELL Building Standard addresses factors that play a vital role in cardiovascular health: stress, nutrition, fitness and environmental pollutants. Comfort features mitigate stress and help to maintain hormonal balance in the body. Healthy diets and active lifestyles control body weight and strengthen the muscles of the heart. Elimination of environmental pollutants in air, such as tobacco and VOCs - which directly harm the heart and vessels also contribute towards good cardiovascular health.



The digestive system consists of the mouth, esophagus, stomach, small and large intestines, and the auxiliary organs - liver and pancreas - that produce digestive hormones and enzymes. This complex system is responsible for nutrient breakdown, absorption and assimilation. In addition, the gut is the largest reservoir of bacteria, which assist in digestion and play a role in immune health. These critical functions can be compromised by poor dietary habits and stress, as well as by microbes and environmental pollutants in the foods we eat and the surfaces that we touch.

The features of WELL support interventions that reduce factors that negatively impact digestive health. Comfort features mitigate stress, which affects the health and function of the microbiome. Proper diets help to limit the consumption of foods and substances that cause digestive discomfort and allergic reactions. Treatment of surfaces ensures that microbes and toxins do not enter our digestive system via our foods. Together, the features of WELL contribute towards maintaining optimal digestive and overall health.

#### Endocrine System

The endocrine system is made up of hormone-secreting glands. Hormones are chemical compounds that regulate many important processes including growth, immunity, metabolism, reproduction, mood and digestion. Unfortunately, stress, environmental pollutants and many of today's foods and products contain chemicals that disrupt the function of the endocrine system and can cause a variety of health problems.



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The features of the WELL Building Standard aim to mitigate or eliminate exposure to potentially harmful endocrine system disruptors. Comfort features help to reduce stress that can lead to chronic health conditions. Nourishment features limit the ingestion of compounds that mimic hormones and disrupt proper endocrine regulation. Elimination of environmental pollutants prevents the exposure to toxins and compounds that interfere with the endocrine regulation of many of the body's functions.



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WELL Building Standard v1

Introduction

# CONCEPT ==> FEATURE ==> PARTS

AIR

**PRECONDITIONS** 

REQUIREMENTS

WATER

OPTIMIZATIONS

NOURISHMENT

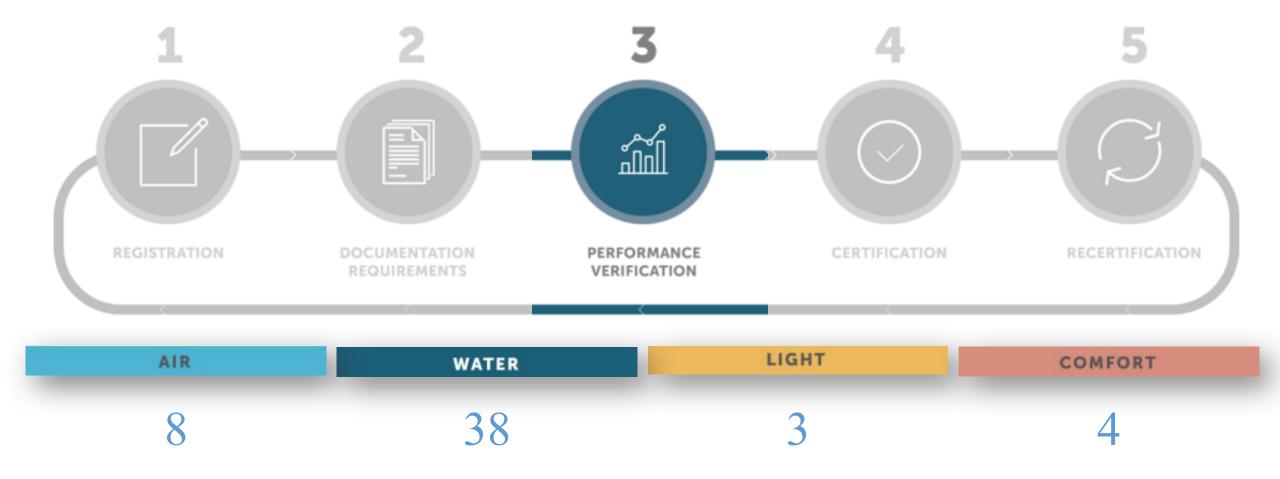
LIGHT

FITNESS

COMFORT

MIND







# NEW & EXISTING BUILDINGS

# NEW & EXISTING INTERIORS

# CORE & SHELL







# MULTIFAMILY RESIDENTIAL

# **EDUCATIONAL FACILITIES**

RETAIL

RESTAURANT

**COMMERCIAL KITCHEN** 

BUILDING STANDARD
EXERCISE
FACILITIES

**PUBLIC ASSEMBLY** 

HEALTHCARE

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### **Registration Fees**

Fees are paid at the time of project registration, and range from \$1,500 to \$10,000 depending on the project typology and size.

| Project Typology   | Project Size of<br>50,000 sq ft or less | Project Size above 50k and up to 500,000 sq ft | Projects Size Exceeding 500,000 sq ft |
|--|---|--|---------------------------------------|
| New and Existing Buildings (formerly known as New<br>Construction & Major Renovations) | \$2,500                                 | \$6,500  | \$10,000                              |
| New and Existing Interiors (formerly known as Tenant Improvement)                      | \$1,800                                 | \$5,500  | \$9,000                               |
| New and Existing Interiors in Core and Shell Compliant<br>Building                     | \$1,800                                 | \$5,500  | \$9,000                               |
| Core and Shell Compliance  | \$1,500                                 | \$4,000  | \$6,500                               |
| Pilots   | \$1,800                                 | \$5,500  | \$9,000                               |

| Building Design and Construction Fees | ORGANIZATIONAL<br>LEVEL OR<br>NON-MEMBERS | SILVER,<br>GOLD AND<br>PLATINUM<br>LEVEL<br>MEMBERS | MEMBER<br>SAVINGS |
|---------------------------------------|---|---|-------------------|
| REGISTRATION                          | \$1,200                                   | \$900   | \$300             |

### **Performance Verification Fees**

The minimum cost for Performance Verification is approximately \$9,000 and ranges from about \$0.15 to \$0.35 per square foot, depending on the typology and size of the project. Volume pricing is available for projects that exceed one million square feet.

### **Certification Fees**

Certification costs begin at \$4,000 and range from \$0.08 to \$0.23 per square foot, depending on project typology and size. Certification is valid for three years, to ensure the space is continuing to perform to WELL's performance requirements. Volume pricing is available for projects that exceed one million square feet.

| Project Typology   | Project Size Equal to or<br>Less than 50,000 sq ft | Project Size Equal to or<br>Less than 500,000 sq ft | Incremental Fee per sq ft Applied<br>between 500k and 1 million sq ft |
|--|--|---|---|
| New and Existing Buildings (formerly known as<br>New Construction & Major Renovations) | \$7,500  | \$0.23/sq ft  | \$0.18/sq ft  |
| New and Existing Interiors (formerly known as<br>Tenant Improvement)                   | \$6,500  | \$0.21/sq ft  | \$0.17/sq ft  |
| New and Existing Interiors in Core and Shell<br>Compliant Building                     | \$5,000  | \$0.17/sq ft  | \$0.12/sq ft  |
| Core and Shell Compliance  | \$4,000  | \$0.12/sq ft  | \$0.08/sq ft  |
| Pilots   | \$6,500  | \$0.21/sq ft  | \$0.17/sq ft  |
| Drojects Eveneding 1 million on ft   |  |   |   |

### Projects Exceeding 1 million sq ft

Volume pricing is available for projects over one million square feet, for multi-building campuses, and for multi-branding corporate commitments. Please contact IWBI.

| COMBINED REVIEW: DESIGN & CO   | NSTRUCTION |            |            |
|--|------------|------------|------------|
| Project gross floor area (excluding parking): less than 50,000 sq ft                                 | \$2,750    | \$2,250    | \$500      |
| Project gross floor area (excluding parking): 50,000-500,000 sq ft                                   | \$0.055/sf | \$0.045/sf | \$0.01/sf  |
| Project gross floor area (excluding parking): more than 500,000 sq ft                                | \$27,500   | \$22,500   | \$5,000    |
| Expedited review (reduce from 20-25 business days to 10-12, available                                | + \$10,00  | 00         |            |
| based on GBCI review capacity)   |            |            |            |
| SPLIT REVIEW: DESIGN   |            |            |            |
| Project gross floor area (excluding parking): less than 50,000 sq ft                                 | \$2,250    | \$2,000    | \$250      |
| Project gross floor area (excluding parking): 50,000-500,000 sq ft                                   | \$0.045/sf | \$0.04/sf  | \$0.005/sf |
| Project gross floor area (excluding parking): more than 500,000 sq ft                                | \$22,500   | \$20,000   | \$2,500    |
| Expedited review (reduce from 20-25 business days to 10-12, available based on GBCI review capacity) | \$5,000    |            |            |
| SPLIT REVIEW: CONSTRUCTION   |            |            |            |
| Project gross floor area (excluding parking): less than 50,000 sq ft                                 | \$750      | \$500      | \$250      |
| Project gross floor area (excluding parking): 50,000-500,000 sq ft                                   | \$0.015/sf | \$0.01/sf  | \$0.005/sf |
| Project gross floor area (excluding parking): more than 500,000 sq ft                                | \$7,500    | \$5,000    | \$2,500    |
| Expedited review (reduce from 20-25 business days to 10-12, available                                | \$5,000    |            |            |

based on GBCI review capacity)

### **Recertification Fees**

Recertification fees begin at \$1,450 and range from \$0.03 to \$0.07 per square foot depending on project typology and size. Volume pricing is available for projects that exceed 1 million square feet. At the time of recertification, WELL Re-Commissioning of performance measures will be required, with costs beginning at \$3,625 and ranging from \$0.06 to \$0.10 per square foot, depending on project size and typology. During recertification, projects may submit additional WELL Features to improve their score or achieve a higher level of certification.

Recertification is not available for WELL Core and Shell Compliance because WELL Core and Shell Compliance is a one-time determination that, as of the date of the award, a project has achieved all applicable requirements of the WELL Building Standard as applied to the core and shell of a building.

| Project Typology   | Project Size Equal to or<br>Less than 50,000 sq ft | Project Size Equal to or<br>Less than 500,000 sq ft | Incremental Fee per sq ft Applied<br>between 500k and 1 million sq ft |
|--|--|---|---|
| New and Existing Buildings (formerly known as<br>New Construction & Major Renovations) | \$2,175  | \$0.07/sq ft  | \$0.05/sq ft  |
| New and Existing Interiors (formerly known as<br>Tenant Improvement)                   | \$1,885  | \$0.06/sq ft  | \$0.05/sq ft  |
| New and Existing Interiors in Core and Shell<br>Compliant Building                     | \$1,450  | \$0.05/sq ft  | \$0.03/sq ft  |
| Core and Shell Compliance  | N/A  | N/A   | N/A   |

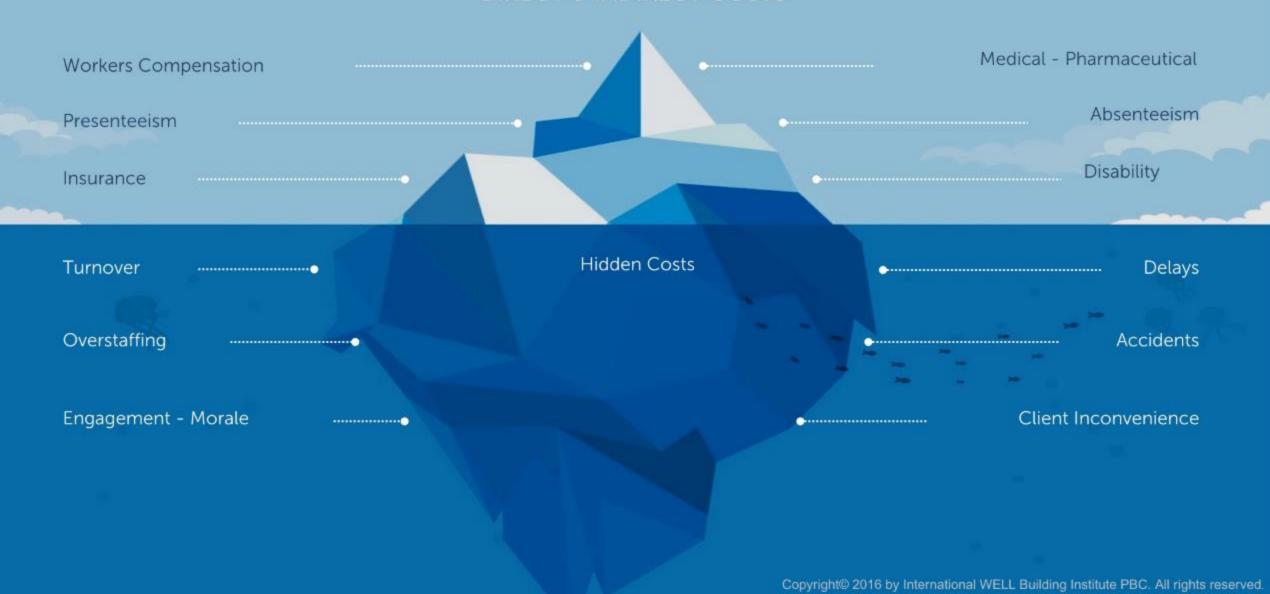
### Projects Exceeding 1 million sq ft

Volume pricing is available for projects over one million square feet, for multi-building campuses, and for multi-branding corporate commitments. Please contact IWBI.

| Operations and<br>Maintenance<br>Fees   | ORGANIZATIONAL<br>LEVEL OR NON-<br>MEMBERS | SILVER, GOLD<br>AND PLATINUM<br>LEVEL<br>MEMBERS | MEMBER<br>SAVINGS |
|---|--|--|-------------------|
| REGISTRATION  | \$1,200                                    | \$900  | \$300             |
| Recertification registration<br>(recertification is required within<br>five years of LEED O+M<br>certification) | Fre  | e  |                   |
| INITIAL REVIEW  |  |  |                   |
| Project gross floor area<br>(excluding parking): less than<br>50,000 sq ft                                      | \$2,000                                    | \$1,500  | \$500             |
| Project gross floor area<br>(excluding parking): 50,000-<br>500,000 sq ft                                       | \$0.04/sf                                  | \$0.03/sf  | \$0.01/sf         |
| Project gross floor area<br>(excluding parking): more than<br>500,000 sq ft                                     | \$20,000                                   | \$15,000   | \$5,000           |
| Expedited review (reduce from 20-<br>25 business days to 10-12,<br>available based on GBCI review<br>capacity)  | \$10,0                                     |  |                   |
| RECERTIFICATION REVIEW  |  |  |                   |
| Project gross floor area<br>(excluding parking): less than<br>50,000 sq ft                                      | \$2,000                                    | \$1,500  | \$500             |
| Project gross floor area<br>(excluding parking): 50,000-<br>500,000 sq ft                                       | \$0.04/sf                                  | \$0.03/sf  | \$0.01/sf         |
| Project gross floor area<br>(excluding parking): more than<br>500,000 sq ft                                     | \$20,000                                   | \$15,000   | \$5,000           |
| Expedited review (reduce from 20-<br>25 business days to 10-12,<br>available based on GBCI review<br>capacity)  | \$10,000                                   |  |                   |

# COSTS OF POOR WELL-BEING

### **DIRECT & INDIRECT COSTS**



# Occupant health outcomes:

The physical office factors influence the health of occupiers (health outcome) which can be measured or evaluated.

### Health:

- Headaches
- Eye strain/damage
- Skin irritation
- Infections
- Fatique
- Season Affective Disorder
- Asthma & breathing disorders
- Stress & depression
- Other physical complaints, e.g. back ache
- Other serious disorders, including cardio vascular etc.

# Occupant well-being and perception outcomes:

Health is an important element of well-being, but an occupant's sense of well-being is also comprised of their perception of numerous factors, including how productive they think they are:

- Perceived physical health
- Perceived psychological health
- Perceived productivity
- Perceived office environment
- Perceived organizational culture

# Organizational or financial outcomes:

The office environment can have a direct impact on occupant productivity, in which health and well-being is often a compounding factor. This 'outcome' for the organization can be measured or evaluated in the following ways (not exhaustive), all of which have financial implications for the employer.

### Productivity:

- Absenteeism
- Presenteeism
- Staff turnover/retention
- Revenue
- Medical costs
- · Medical complaints
- · Physical complaints
- Task efficiency & deadlines met

| COMPLIANCE |                                | PRECONDITION PRECONDITION | OPTIMIZATION OPTIMIZATION | Core and<br>Shell | New and Existing<br>Interiors | New and Existing<br>Buildings |
|------------|--------------------------------|---------------------------|---------------------------|-------------------|-------------------------------|-------------------------------|
|            |                                | PRECONDITION              | OFTIMIZATION              | 511011            | IIIteriois                    | Dullulligs                    |
| 38         | shment<br>Fruits and ve        | antables.                 |                           |                   | Р                             |                               |
| 39         | Processed fo                   |                           |                           | Р                 | P                             |                               |
| 40         | Food allergi                   |                           |                           | Р                 | P                             |                               |
| 41         | Hand washir                    |                           |                           |                   | P                             |                               |
| 42         | Food contar                    |                           |                           |                   | P                             |                               |
| 43         | ficial ingredi                 |                           |                           | 0                 | P                             |                               |
| 44         | Nutritional in                 |                           |                           |                   | P                             |                               |
| 45         | Food advert                    |                           |                           |                   | P                             |                               |
| 46         |                                | eparation materials       |                           |                   | O                             | Ó                             |
| 47         |                                |                           | 5                         |                   |                               |                               |
|            | Serving sizes<br>Special diets |                           |                           |                   |                               |                               |
| 48<br>49   |                                |                           |                           |                   |                               |                               |
| 50         |                                | food production           |                           |                   |                               |                               |
| 51         | Food storag                    |                           |                           |                   |                               |                               |
| 52         | Food produ                     |                           |                           |                   |                               |                               |
|            | Mindful eati                   | ng                        |                           |                   |                               |                               |
| Light      | M. Connect Hambard             | and a store               |                           |                   | Р                             | Р                             |
| 53         | Visual lightin                 |                           |                           |                   | P                             |                               |
| 54         |                                | hting design              |                           | Р                 | P                             |                               |
| 55         | Solar glare o                  | glare control             |                           | 0                 | P                             |                               |
| 56         |                                |                           |                           | 0                 |                               | o                             |
| 57         |                                | orkstation design         |                           |                   |                               |                               |
| 58         | Color quality                  |                           |                           |                   |                               |                               |
| 59         | Surface desi                   | -                         |                           |                   |                               |                               |
| 60         |                                | shading and dimmi         | ng controls               |                   |                               |                               |
| 61         | Right to ligh                  |                           |                           |                   |                               |                               |
| 62         | Daylight mo                    |                           |                           |                   |                               |                               |
| 63         | Daylighting                    | fenestration              |                           |                   |                               |                               |
| Fitnes     |                                |                           |                           |                   |                               |                               |
| 64         |                                | ss circulation            |                           | Р                 | 0                             |                               |
| 65         |                                | ntive programs            |                           |                   | Р                             | Р                             |
| 66         |                                | tness opportunities       |                           |                   |                               |                               |
| 67         | Exterior activ                 |                           |                           |                   |                               |                               |
| 68         | Physical acti                  |                           |                           |                   |                               |                               |
| 69         | Active transp                  | portation support         |                           |                   |                               |                               |
| 70         | Fitness equi                   |                           |                           | 0                 |                               |                               |
| 71         | Active furnis                  | hings                     |                           |                   | 0                             |                               |
| Comf       |                                |                           |                           |                   |                               |                               |
| 72         |                                | ble design standar        |                           | P                 | Р                             |                               |
| 73         |                                | : visual and physica      |                           |                   | Р                             |                               |
| 74         | Exterior nois                  |                           |                           | P                 | 0                             |                               |
| 75         |                                | nerated noise             |                           | 0                 | P                             |                               |
| 76         | Thermal con                    |                           |                           | P                 | Р                             | Р                             |
| 77         | Olfactory co                   |                           |                           |                   |                               |                               |
| 78         | Reverberation                  |                           |                           |                   |                               |                               |
| 79         | Sound mask                     |                           |                           |                   |                               |                               |
| 80         |                                | cing surfaces             |                           |                   |                               |                               |
| 81         | Sound barrie                   |                           |                           |                   |                               |                               |
| 82         | Individual th                  | ermal control             |                           |                   | 0                             |                               |
| 83         | Radiant ther                   | mal comfort               |                           |                   |                               |                               |







| STANDARD VERSION        | LEVEL OF<br>ACHIEVEMENT      | PRECONDITIONS THAT MUST BE ACHIEVED | OPTIMIZATIONS THAT<br>MUST BE ACHIEVED |
|-------------------------|------------------------------|-------------------------------------|--|
|                         | Core and Shell<br>Compliance | All applicable                      | One Optimization from<br>each concept  |
| WELL Building           | Silver Certification         | All applicable                      | None                                   |
| Standard <sup>®</sup>   | Gold Certification           | All applicable                      | 40% of applicable                      |
|                         | Platinum Certification       | All applicable                      | 80% of applicable                      |
|                         | Silver Certification         | All applicable                      | 20% of applicable                      |
| WELL Pilot<br>Standards | Gold Certification           | All applicable                      | 40% of applicable                      |
|                         | Platinum Certification       | All applicable                      | 80% of applicable                      |

## air

Create optimal indoor air quality to support the health and well-being of building occupants.



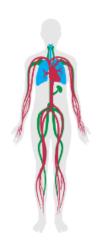
material selection · ventilation · filtration · moisture control · maintenance & operations · source of concern protection · construction processes

### 08

### **HEALTHY ENTRANCE**

Occupants often track harmful contaminants indoors, including bacteria, heavy metals, lawn and agricultural pesticides, among other toxins. In addition, as occupants walk through entry doors, potentially polluted air can enter the building. Both of these modes of introducing outdoor pollutants to the indoor environment highlight the need for measures that minimize or prevent the introduction of potentially harmful substances to indoor spaces.

This feature requires methods to help prevent pollutants from entering a building. Requirements include floor systems that capture pollutants from shoes and strategies to reduce airflow from the outside to occupied indoor spaces.



Cardiovascular Immune Respiratory

| Core and | New and Existing | New and Existing |
|----------|------------------|------------------|
| Shell    | Interiors        | Buildings        |
| Р        |                  | Р                |

### PART 1: PERMANENT ENTRYWAY WALK-OFF SYSTEMS

To capture particulates from occupant shoes at all regularly used entrances to the project, one of the following is installed and is maintained on a weekly basis:

- a.¹ Permanent entryway system comprised of grilles, grates or slots, which allow for easy cleaning underneath, at least the width of the entrance and 3 m [10 ft] long in the primary direction of travel.
- b.1 Rollout mats, at least the width of the entrance and 3 m [10 ft] long in the primary direction of travel.
- c.¹ Material manufactured as an entryway walk-off system, at least the width of the entrance and 3 m [10 ft] long in the primary direction of travel.

### PART 2: ENTRYWAY AIR SEAL



One of the following is in place to slow the movement of air from outdoors to indoors at the main building entrance:

- Building entry vestibule with two normally-closed doorways.
- Revolving entrance doors.
- c. At least 3 normally-shut doors that separate occupied space from the outdoors. For example, a space on the fifth-floor could be separated by the exterior building doors, the first-floor elevator doors and the fifth-floor elevator doors. This option is applicable only for buildings whose entrance lobby is not a regularly occupied space.





### water

Promote safe and clean water through proper filtration and other methods, and require the appropriate quality of water for various uses.



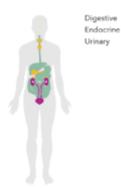
performance testing · treatment · maintenance & operations · hydration promotion

### 37

### DRINKING WATER PROMOTION

Access to clear, good-tasting water helps to promote proper hydration throughout the day. Many otherwise healthy people unknowingly suffer from mild dehydration, a condition where there is less water and fluids in the body than there should be, which results in avoidable symptoms such as muscle cramps, dry skin and headaches. Drinking plenty of water, especially when exercising and at higher temperatures is essential to ensure good hydration. Improving the taste and appearance of tap water encourages increased water consumption and reduces reliance on bottled water.

This feature sets limits for dissolved minerals that can compromise the taste and appearance of water, and requires that drinking water is easily accessible throughout the building.



| Core and<br>Shell | New and Existing<br>Interiors | New and Existing<br>Buildings |
|-------------------|-------------------------------|-------------------------------|
|                   |                               |                               |

#### PART 1: DRINKING WATER TASTE PROPERTIES

All water being delivered to the project area for human consumption:

- a.54 Aluminum less than 0.2 mg/L.
- b.54 Chloride less than 250 mg/L.
- c.34 Manganese less than 0.05 mg/L.
- d.47 Sodium less than 270 mg/L.
- e. 50 Sulfate less than 250 mg/L.
- f.34 Iron less than 0.3 mg/L.
- g.54 Zinc less than 5 mg/L.
- h.54 Total Dissolved Solids less than 500 mg/L.

### PART 2: DRINKING WATER ACCESS

To encourage water consumption, the following is met:

 At least one dispenser is located within 30 m [100 ft] of all parts of regularly occupied floor space (minimum one per floor).

|                                     | Core and | New and Existing | New and Existing |
|-------------------------------------|----------|------------------|------------------|
|                                     | Shell    | Interiors        | Buildings        |
| PART 3: WATER DISPENSER MAINTENANCE |          | 0                | 0                |

The components of dispensers that provide water for human consumption are cleaned with at least the following regularity:

- a. Daily, for mouthpieces, protective guards and collective basins, to prevent lime and calcium buildup.
- b.48 Quarterly, for outlet screens and aerators, to remove debris and sediment.





## nourishment

Require the availability of fresh, wholesome foods, limit unhealthy ingredients and encourage better eating habits and food culture.

healthy portions · mindful eating · food production access to healthy foods · food preparation allergies & alternatives · transparency environmental cues & influencers



### 45

### FOOD ADVERTISING

Every year, food companies spend billions of dollars marketing and advertising unhealthy foods to children and adults, contributing to the creation of an obesogenic (obesitypromoting) environment. Over a billion dollars are spent annually on marketing breakfast cereals, carbonated beverages and restaurant food to youth alone. However, access to nutrition information can help individuals learn about and develop better eating habits. Further, limiting advertising cues for unhealthy foods can help individuals make better food selections and mitigate suboptimal nutritional choices.

This feature eliminates the advertising of unhealthy foods, while promoting the advertising of better food choices such as fresh fruits and vegetables and whole food meals.



Cardiovascular Digestive Endocrine Immune Integumentary Skeletal

| Core and | New and Existing | New and Existing |
|----------|------------------|------------------|
| Shell    | Interiors        | Buildings        |
| 0        | P                |                  |

#### PART 1: ADVERTISING AND ENVIRONMENTAL CUES

The following requirement is met:

a. Advertisements for any food or beverage items that do not conform to the requirements set forth in the Processed Foods Feature are not displayed on the premises.

#### PART 2: NUTRITIONAL MESSAGING

Using prominent displays such as educational posters, brochures or other visual media, designated eating areas or common areas contain a total of at least 3 instances of messaging intended to achieve each of the following

- a.77 Encourage the consumption of whole, natural foods and cuisines.
- b.77 Discourage the consumption of sugary or processed foods, beverages and snacks.





# NOURISHMENT

# light

Provide illumination guidelines to minimize disruption to the body's circadian system, enhance productivity and provide appropriate visual acuity. Require specialized lighting systems designed to increase alertness, enhance occupant experience and promote sleep.

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circadian design · daylighting · glare control · color quality · activity-based lighting levels · visual acuity

### CIRCADIAN LIGHTING DESIGN

Light is one of the main drivers of the circadian system, which starts in the brain and regulates physiological rhythms throughout the body's tissues and organs, affecting hormone levels and the sleep-wake cycle. Circadian rhythms are kept in sync by various cues, including light which the body responds to in a way facilitated by intrinsically photosensitive retinal ganglion cells (ipRGCs): the eyes' non-imageforming photoreceptors. Through ipRGCs, lights of high frequency and intensity promote alertness, while the lack of this stimulus signals the body to reduce energy expenditure and prepare for rest.

This feature promotes lighting environments for circadian health. The biological effects of light on humans can be measured in Equivalent Melanopic Lux (EML), a proposed alternate metric that is weighted to the ipRGCs instead of to the cones, which is the case with traditional lux. Tables L1 and L2 in Appendix C show how to calculate the EML of individual lamps and larger spaces.



Cardiovascular Digestive Endocrine Immune Muscular Nervous

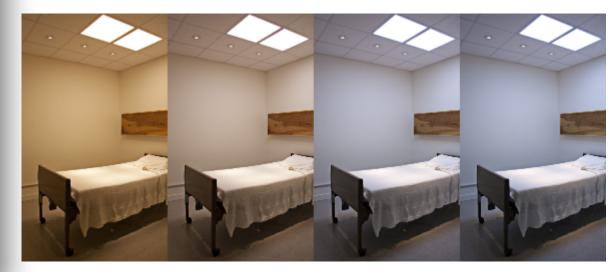
Core and Shell New and Existing New and Existing Buildings

### PART 1: MELANOPIC LIGHT INTENSITY FOR WORK AREAS

At least one of the following requirements is met:

- a. Light models or light calculations (which may incorporate daylight) show that at least 250 equivalent melanopic lux is present at 75% or more of workstations, measured on the vertical plane facing forward, 1.2 m [4 ft] above finished floor (to simulate the view of the occupant). This light level is present for at least 4 hours per day for every day of the year.
- a.<sup>174</sup> Electric lights provide maintained illuminance on the vertical plane of equivalent melanopic lux, greater than or equal to the lux recommendations in the Vertical (Ev) Targets for the 25-65 category in Table B1 of IES-ANSI RP-1-12. For example, Reception Desks are provided with 150 equivalent melanopic lux from the electric lights.







## fitness

Allow for the seamless integration of exercise and fitness into everyday life by providing the physical features and components to support an active and healthy lifestyle.

exterior active design · interior active design · activity-based working · physical activity spaces · awareness and habits · physical activity programs



### 64

### INTERIOR FITNESS CIRCULATION

The integration of interior pathways and stairs within the built environment can provide a convenient way to incorporate short periods of physical activity into the workday, thus reducing sedentary tendencies. Stair climbing is a low-impact, moderate-to-vigorous intensity physical activity that burns calories and has been associated with improved cardiorespiratory fitness and a lower risk of stroke. To encourage greater use, pathways and stairs should be aesthetically pleasing and easily accessible from high-traffic routes.

This feature employs prominent designs and appealing aesthetics to promote the use of stairs and walking paths and to discourage reliance on elevators.



Cardiovascular Muscular Skeletal

| Core and | New and Existing | New and Existing |
|----------|------------------|------------------|
| Shell    | Interiors        | Buildings        |
| P        | 0                | P                |

#### PART 1: STAIR ACCESSIBILITY

The following requirements are met:

- a.<sup>27</sup> Stairs are accessible to regular building occupants during all regular business hours.
- b. 87 Wayfinding signage and point-of-decision prompts are present to encourage stair use (at least one sign per elevator bank).

#### PART 2: STAIR PROMOTION

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0

P

In projects of 2 to 4 floors, at least one staircase meets the following requirements:

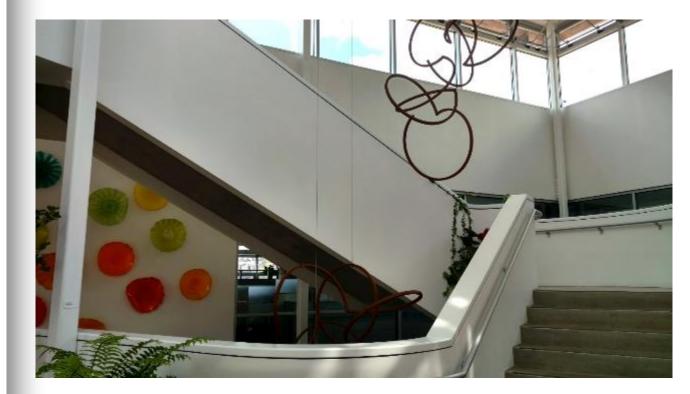
- a.27 Located within 7.5 m [25 ft] of the entrance to the building or the edge of its lobby.
- b.<sup>27</sup> Clearly visible from the main entrance to the project, or located visually before any elevators present upon entering from the main entrance.
- c. 87 Stair width set at a minimum of 1.4 m [56 in] between handrails.

### PART 3: FACILITATIVE AESTHETICS

P O P

Both stairs and paths of frequent travel display elements of aesthetic appeal by incorporating at least 2 of the following:

- a.87 Artwork, including decorative painting.
- b.87 Music.
- c.  $^{27}$  Daylighting using windows or skylights of at least 1 m $^2$  [10.8 ft $^2$ ] in size.
- d.87 View windows to the outdoors or building interior.
- e. Light levels of at least 215 lux [20 fc] when the stairs are in use.



# FITNESS

Image Source: The WELL Building Standard

# comfort

Establish requirements to create a distraction-free, productive and comfortable indoor environment.



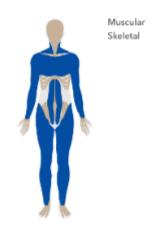
ergonomic · acoustics · thermal olfactory · accessibility

### 73

### **ERGONOMICS: VISUAL AND PHYSICAL**

Overuse of the same muscles and ligaments while trying to adjust to static furniture or equipment over time can cause discomfort and strain the body, especially in occupational environments that require repetitive tasks. Under such conditions, the effects of even slight visual or physical discomfort are compounded, leading to decreased occupant comfort and focus.

This feature ensures that occupants are free to adopt a variety of comfortable sitting and standing positions.



| Core and | New and Existing | New and Existing |
|----------|------------------|------------------|
| Shell    | Interiors        | Buildings        |
|          | P                | P                |

PART 1: VISUAL ERGONOMICS

The following requirement is met:

a. 83 All computer screens are adjustable in terms of height and distance from the user.

### PART 2: DESK HEIGHT FLEXIBILITY

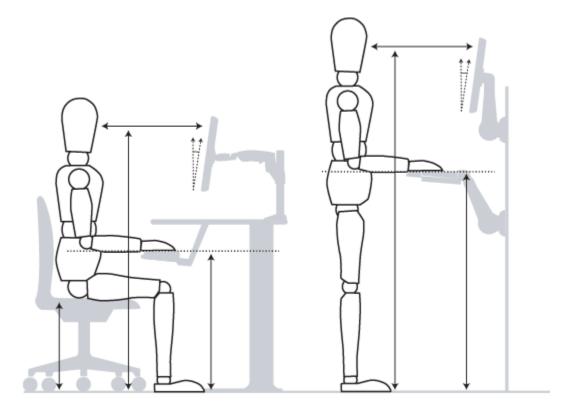
At least 30% of workstations have the ability to alternate between sitting and standing positions through one of the following:

- Adjustable height standing desks.
- Desk-top height adjustment stands.
- Pairs of fixed-height desks of standing and seated heights (which need not be located adjacent to each other).

### PART 3: SEAT FLEXIBILITY – P

Employee furnishings are adjustable in the following ways:

- a. 178 Workstation chair height adjustability is compliant with the HFES 100 standard or BIFMA G1 guidelines.
- b. 178 Workstation seat depth adjustability is compliant with the HFES 100 standard or BIFMA G1 guidelines.



# **COMFORT**

Image Sources: The WELL Building Standard, http://www.ergotron.com/tabid/305/default.aspx

# mind

Require design, technology and treatment strategies to provide a physical environment that optimizes cognitive and emotional health.



stakeholder engagement · transparency · wellness awareness & protocols · connection to nature · adaptable spaces · altruism

### BEAUTY AND DESIGN I

A physical space in which design principles align with an organization's core cultural values can positively impact employees' mood and morale. Integrating aesthetically pleasing elements into a space can help building occupants derive a measure of comfort or joy from their surroundings. The incorporation of design elements and artwork to a space can create a calming environment able to improve occupant mood.

This feature is derived from the Beauty and Spirit Imperative of the Living Building Challenge and strives to construct thoughtfully designed environments that positively impact the mood and comfort level of occupants.

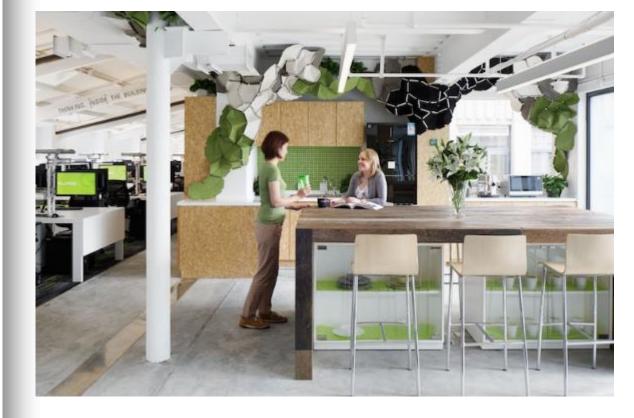


| Core and | New and Existing | New and Existing |
|----------|------------------|------------------|
| Shell    | Interiors        | Buildings        |
| -        | P                | P                |

### PART 1: BEAUTY AND MINDFUL DESIGN

The project contains features intended for all of the following:

- a.<sup>13</sup> Human delight.
- b.13 Celebration of culture.
- c. 13 Celebration of spirit.
- d.13 Celebration of place.
- e. 13 Meaningful integration of public art.



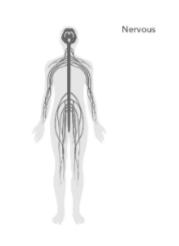


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### **BIOPHILIA I - QUALITATIVE**

Until relatively recently in human history, people had constant interaction with living things and their natural surroundings. Biophilia, or the idea that humans have an affinity towards the natural world, is an emerging field that aims to address our psychological need to be around life and life-like processes. Exposure to views and images of nature can help to speed up healing and recovery time, boost positive feelings and reduce negative ones. Interior environments that are cold, sterile and devoid of life, on the other hand, can diminish our experience, mood and happiness.

This feature recognizes the importance of creating an interior environment that nurtures the innate human-nature connection. Modeled after the Living Building Challenge, the biophilia requirements involve conducting historical, cultural, ecological and climatic studies to inform biophilic elements and creating a biophilic framework that tracks biophilia at each design phase of the project.



| Core and | New and Existing | New and Existing |
|----------|------------------|------------------|
| Shell    | Interiors        | Buildings        |
| 0        | P                | P                |

### PART 1: NATURE INCORPORATION

A biophilia plan is developed that includes a description of how the project incorporates nature through the following:

- a.<sup>13</sup> Environmental elements.
- b.13 Lighting.
- c. 3 Space layout.

#### PART 2: PATTERN INCORPORATION

A biophilia plan is developed that includes a description of how the project incorporates the following:

A biophilia plan is developed that includes a description of how the project incorporates the following

a. 13 Nature's patterns throughout the design.

### PART 3: NATURE INTERACTION

A biophilia plan is developed that provides sufficient opportunities for human-nature interactions:

- a. 13 Within the building.
- b.13 Within the project boundary, external to the building.





# **Discover WELL Projects**



| 580+ projects | 169 U.S. |

83% Feel more productive.

87% Said the new environment helped them generate business.

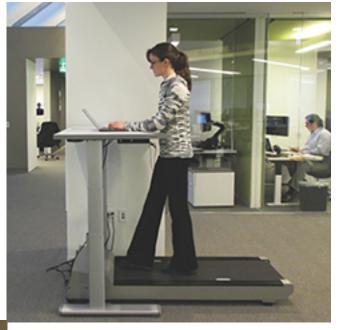
100% Agree that clients are interested in their new way of working.

92% Said the new space has **created a positive effect** on the health and well-being.

94% Said the new space has a positive impact on their **business performance**.

93% Said that they are able to more **easily collaborate** with others.





# CBRE GLOBAL



# WELL LIVING LAB

- + Vitamin C Infused Shower
- + Air Purifier
- Water Purification System
- + Warm White Room Lighting
- + Energizing Light Therapy
- + Dawn Simulator
- + Circadian Dimmable Bedside Lighting
- + Long Wave Night Lighting
- + Black-Out Shades
- + Healthy Mattress
- + WELL Shield
- + Healthy In-Room Menu

### STAY WELL® at the MGM Grand





### User Review:

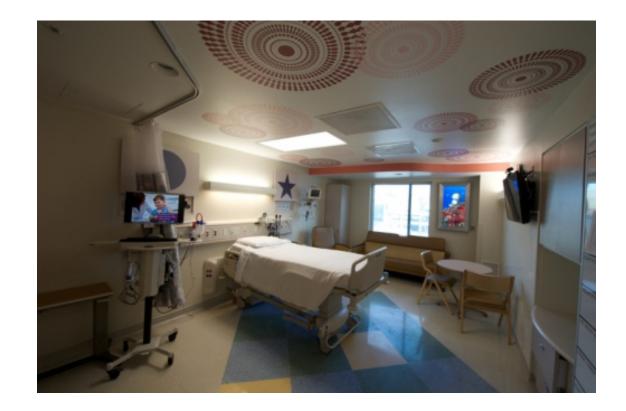
"When I found out the Stay Well Rooms existed, I knew I had to check it out ... My verdict? Definitely one of the coolest hotel experiences I've had. ... **This is where I want to stay every time** I go to Vegas!"\_\_\_\_







- + Circadian Lighting System
- + Air Purifier
- + Water Purification System
- + Biophilic Windows and Ceiling Paintings
- + Self-Cleaning, Photocatalytic Coatings on Surfaces
- + Play-Based Physical Therapy



# Owner Perspective:

"Patients who have undergone bone marrow transplants have very compromised immune systems so anything we can do to help reduce the risk of infection and improve their quality of life is worth exploring," said Dr. Jeff Hord, medical director of the Showers Family Center for Childhood Cancer and Blood Disorders."

# AKRON CHILDREN'S HOSPITAL



# PHIPPS CONSERVATORY



# PHIPPS CONSERVATORY

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