

## Occupant Health and Wellness Is Just Around the Corner

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Although the outward impact of buildings on local and global environments has been investigated and popularized for many years, the inward impact of buildings on their occupants is quickly becoming just as important. As a result, new building certification systems were developed, such as WELL and Fitwel. EQ has been exploring these programs and analyzing how the existing green building stock would be capable of meeting emerging building certification requirements. This article introduces Fitwel certification and sheds light on opportunities and challenges of its implementation through two case studies in Downtown Toronto and one in a rural setting. The conclusions presented in this article support pursuing Fitwel if the project team has a strong interest in improving occupant health and wellness. These interests will be the drivers to overcome challenges in obtaining a Fitwel certification that require design decisions or financial support. Although projects pursuing LEED or WELL might be capable of achieving substantial points in the Fitwel strategies, the stakeholder buy-in would be the game changer in determining the level of certification.

### What is Fitwel?

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Fitwel was developed by the US Center for Disease Control and Prevention (CDC) and the General Services Administration (GSA) with the intent to support the wellbeing of building occupants and surrounding communities. Later, Fitwel was turned into a certification system administered by the Centre for Active Design (CfAD).<sup>1</sup>



As soon as Fitwel was launched, it was analyzed and compared to LEED and WELL standards. This article will focus solely on Fitwel with a few selective comparisons to LEED and WELL certifications to clarify how they overlap or to highlight the differences between the programs that could affect the building certification process. Fitwel has similarities to the WELL standard, but **focuses more on the surrounding context of the building** rather than the interior of the building, and with significantly reduced certification cost and effort. When compared to LEED, Fitwel has relatively similar requirements for quality of the indoor environment and more stringent requirements for transportation and location categories. Unlike LEED/WELL, Fitwel does not have any prerequisite/precondition requirements.

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*Fitwel was developed with the intent to support the wellbeing of building occupants and surrounding communities.*

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<sup>1</sup> Centre for Active Design Inc. (2018). Reference Guide for the Fitwel Certification System (Ver. 2). Retrieved from: <https://fitwel.org/resources>

Fitwel identifies seven health impact categories which are shown in Figure 1. Fitwel strategies were developed in correlation to these health impacts which are referenced throughout the Fitwel reference guide.

Fitwel is a point-based system where each Fitwel strategy is associated with unique point allocations determined by the scientific advisory group of public health researchers assembled by the CDC.<sup>1</sup> The irregular point allocations for the Fitwel strategies are based on both the impact of the strategy on human health as well as the strength of the scientific evidence supporting the strategy.<sup>1</sup>

Since its first launch for public use in February 2017, the standard has been refined to four distinct project types under two certification programs: **single-tenant buildings**, **multi-tenant buildings**, **commercial interior spaces** (all three related to commercial workspaces) and **multi-family residential buildings**.<sup>1</sup>

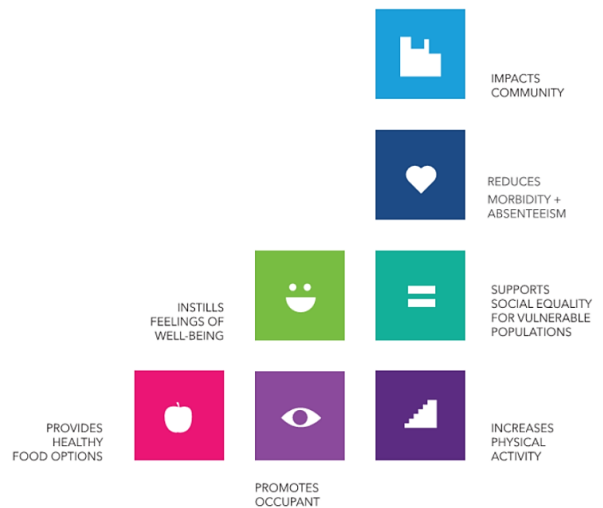


Figure 1 - Fitwel Health Impact Categories

Projects may receive **1 Star**, **2 Star** or **3 Star Certification**, with the following point thresholds.



Figure 2 – Fitwel Certification Levels

*Fitwel includes four building types and can be applied to new or existing buildings. The certification process is done on an **online portal** to reduce the review time and track progress.*

The Fitwel certification process is done through an online portal. All documentation and project registration is done using the portal which helps benchmark projects, and track progress of different portfolios. The Fitwel certification review process takes around 10 weeks and consists of two submissions.<sup>1</sup>

Fitwel focuses on the relationship between the condition of the environment, both exterior and interior, and occupant health.

This is achieved through the utilization of building features to encourage **healthy practices** of building users. This includes encouraging healthy eating habits, as well as providing means for exercise, meditation, and social interactions. The advocacy for the desired practices is linked to the provision/availability of services within the building as well as proximity to the building. The increase of occupants’ awareness would also be achieved through the use of visual advertising to ensure effective utilization of such services. Throughout the Fitwel reference guide, benefits resulting from each strategy in relation to healthy practices is represented through highlighting corresponding health impacts icons similar to the ones shown in Figure 1.

## Why Fitwel?

The launch of Fitwel is timely, as it ties in with the growing awareness of health and wellness along with the increased time the average person spends indoors. Communities are now more aware than ever of the benefits of optimizing day-to-day habits to improve both physical and mental health. The introduction of Fitwel intends to elevate our healthful lifestyle practices while challenging the conflict of spending 90% of our average day indoors<sup>2</sup>.

*Fitwel encourages healthy practices through the utilization of **building features** as well as adjacent services. Its launching is timely with the growing awareness of **how daily habits affect wellness**.*

Fitwel can be applied in different urban settings. The case studies provided in this article analyze the applications of Fitwel for multi-family housing as well as office space in both a downtown location and a rural urban area.

## Case Study A - MURB

Our first case study is a proposed multi-storey residential rental building with a retail grocery store at grade.

*A TGS Tier 2 V2 project, located in Downtown Toronto, with 300 suites and a retail grocery store. The total points anticipated are **86.5**, and the possible points to be achieved are **25.07**.*

The following graph in Figure 3 summarizes the Fitwel Scorecard upon reviewing and identifying all strategy requirements.

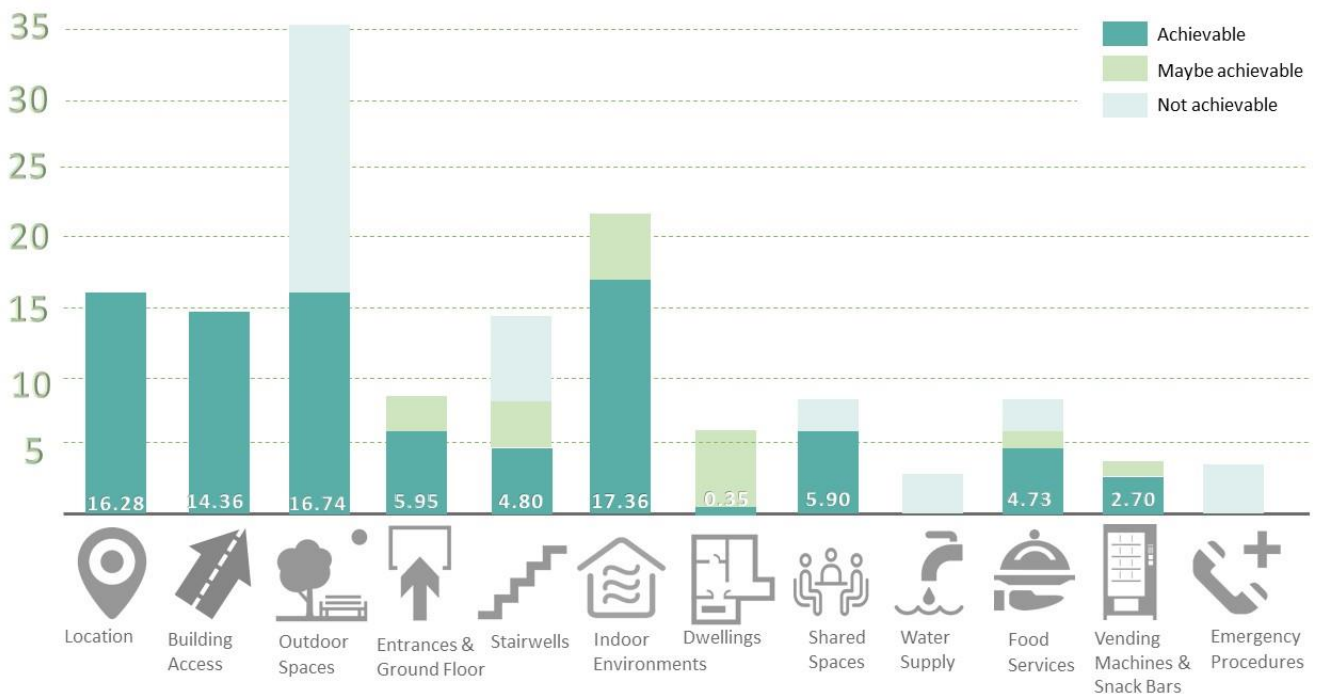


Figure 3 – Case Study A: Fitwel Scorecard Breakdown

<sup>2</sup> Klepeis, N. E. and others. (2001). The National Human Activity Pattern Survey (NHAPS): A Resource for Assessing Exposure to Environmental Pollutants. Berkeley, CA: Lawrence Berkeley National Laboratory. Retrieved from: <https://indoor.lbl.gov/sites/all/files/lbnl-47713.pdf>

Based on the initial review, Case Study A could achieve **1 Star Certification** with minor design changes or purchasing of compliant equipment/materials. It is even possible for the project to achieve 2 Star Certification if the client wishes to invest more in the project to obtain a higher certification level. The total points anticipated are **86.5**, and the possible additional points to be achieved are **25.07**.

## Case Study B - Office

Our second case study is a proposed multi-tenant office building. It is targeting LEED Core and Shell Platinum.

*A project targeting LEED Platinum, located in Downtown Toronto. The total points anticipated are 79.59, and the possible points to be achieved are 35.17.*

Results are shown in Figure 4 below.

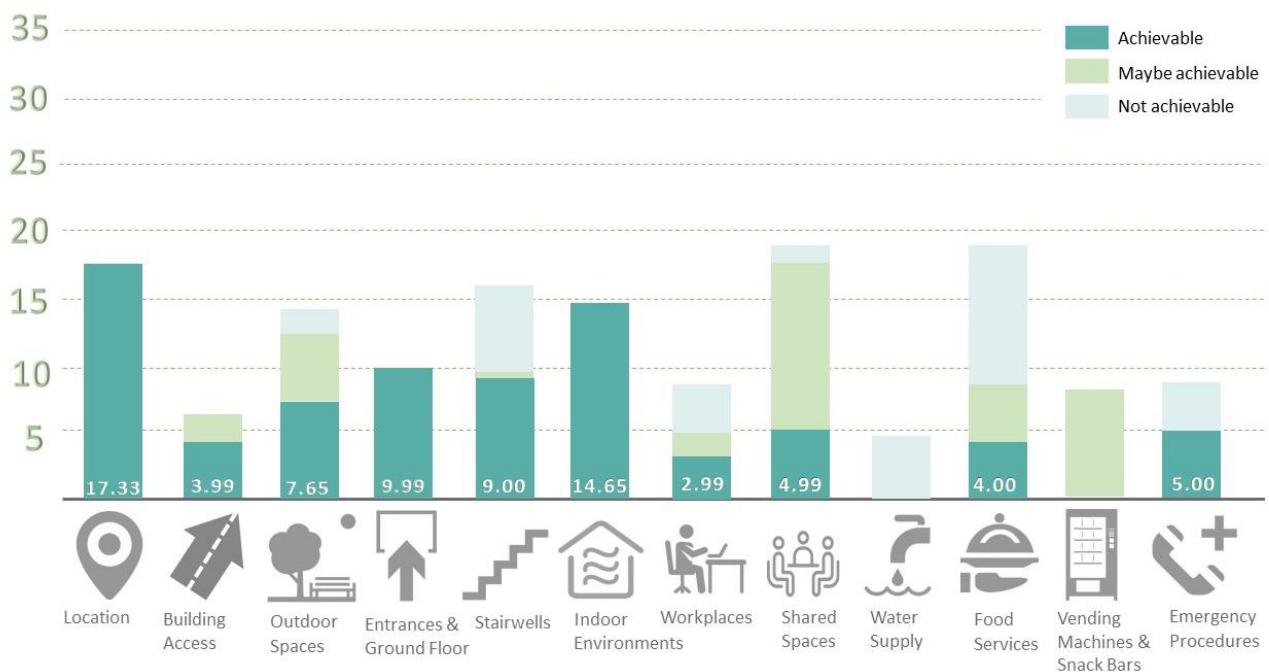


Figure 4 – Case Study B: Fitwel Scorecard Breakdown

Based on the initial review, Case Study B could not meet the Fitwel **1 Star Certification** Level. A majority of the credits would be influenced by the owner, as briefly discussed later in this article. The total points anticipated to be achieved are **79.59**, with the possibility of earning an additional **35.17** points.

## Case Study C- MURB

Our third case study is a multi-residential building for Seniors. It is only planning to go for Fitwel certification. The project is located near a small town in rural Ontario. Figure 5 shows the preliminary assesment of the project.

*A multi-family residence for Seniors located in rural Ontario. The total points anticipated to be achieved are 82.43, and the possible points to be achieved are 22.13.*

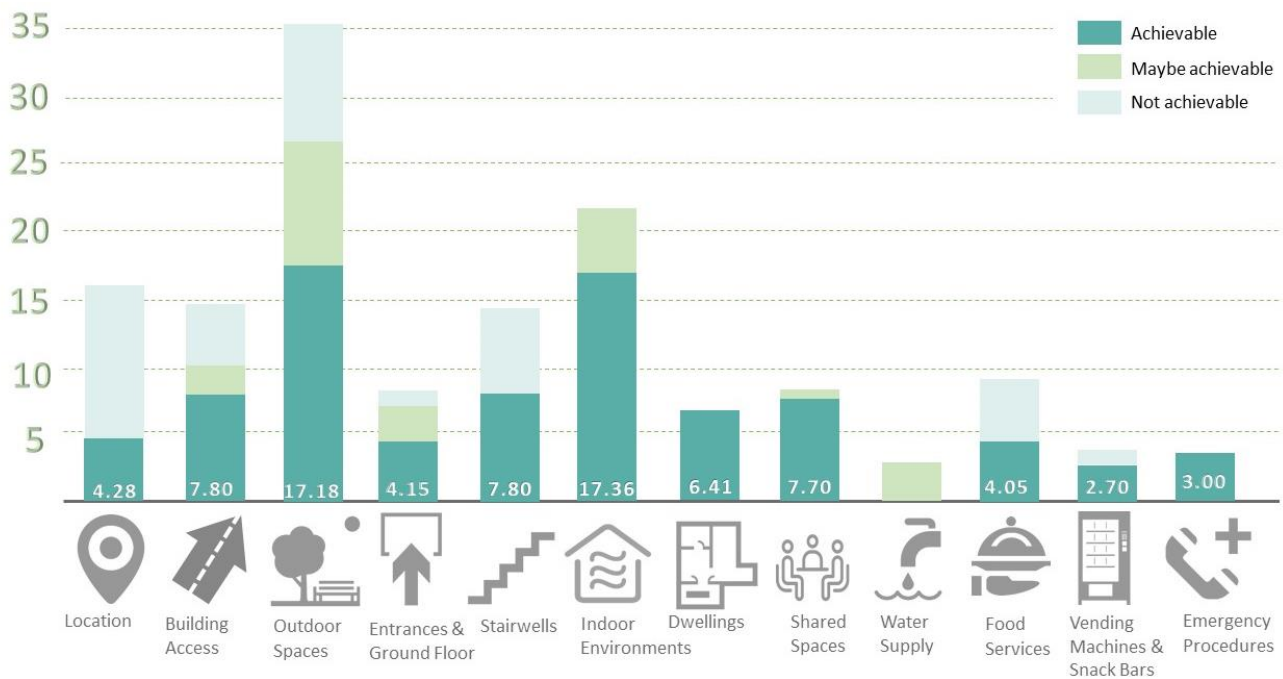


Figure 5 – Case Study C: Fitwel Scorecard Breakdown

Based on the initial review, Case Study C came close to achieving **1 Star Certification**. A majority of the credits would be influenced by the owner’s decisions, especially in the categories of Outdoor Spaces and Entrance & Ground Floor. A group of the credits were easily achieved due to the surrounding greenery of the building as well as the smaller building footprint; which allowed for better views to greenery and more area to locate outdoor amenities. The total points anticipated to be achieved are **82.43**, and the possible additional points to achieve are **22.13**.

## Opportunities and Challenges



**Location Driven** – Projects that are located within walking distance of public transit, farmers markets, parks, and other common amenities and that are easily accessible have greater potential to achieve Fitwel. Buildings in rural areas might be challenged with the availability of services and street infrastructure, but would benefit from the larger site areas and surrounding greenery.



**Advocate for Utilizing Stairs** – Fitwel puts a strong focus on the use of stairs. Some of the stairs-related strategies require providing stairs at central locations and promoting the use of stairs as a more preferable choice over elevators to building occupants. This might pose a challenge in multi-storey residential and commercial buildings. Also, it might not fit some building functions such as senior residences.



**Compatibility with LEED/WELL** – Fitwel aligns with some of the LEED and WELL prerequisite and credit requirements. As mentioned earlier, LEED credits under the Sustainable Sites and Indoor Environmental Quality categories are most relevant in Fitwel. WELL and Fitwel are more similar in that they both focus on health and wellness as the ultimate objectives. Both LEED and WELL require significantly more testing and verification to be done on site, which includes but is not limited to air quality testing, water testing, equipment testing, etc. As a result, the associated costs and time commitment for achieving LEED and WELL certifications are higher than for Fitwel. This could indicate more stringent and robust requirements under LEED and WELL that could result in higher building performance. However, it might be less encouraging for the market to pursue certifications with such high costs; Fitwel fills this gap.

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*WELL and LEED certification processes require significantly more testing and verification than Fitwel, which translates directly to comparatively lower certification costs for Fitwel.*

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**Healthy Food and Water** – Fitwel is similar to WELL as it includes water and food as essential factors in healthy living. Fitwel encourages making water available for all occupants, whether through water bottle refill stations or in cafeterias and restaurants. Fitwel also advocates for the provision of affordable healthy food options on site. A downtown location would influence the achievability of healthy food points through the proximity of healthy food options. Some credits in the workplace certification could be deemed challenging as they require approval of the building owner on the food service providers within the building.



**Views to Greenery** – Similar to LEED and WELL, Fitwel values the quality of views provided to the building occupants while indoors. Points are awarded for providing views to vegetation or green roofs neighbouring the building. This encourages developers and building owners to provide better views for building occupants and thereby promote biodiversity, sustainability, human health, and wellness. Despite the challenge of providing such views in a downtown location surrounded by building structures, innovative solutions utilising design and structures with greenery or vegetation could help in achieving the credit requirements. Buildings in rural areas can easily achieve such requirements..



**The Buy-In** – Achieving Fitwel relies heavily on the intention of providing better spaces and services for occupants to enhance their lifestyle. A large portion of the credits in the **outdoor space, workplaces or dwellings, and shared spaces sections** are highly dependent on the perks or incentives involved in making the required changes to meet the credit requirements. In the outdoor space section, this would include providing a plant growing space, outdoor fitness equipment, a restorative garden, and scheduling a weekly farmers market on site. In the workplace program; providing active workstations along with offering quiet rooms, dedicated lactation rooms, a multipurpose wellness room, and a free of charge exercise room would reflect a genuine interest in improving the occupant experience throughout the building. The previously mentioned services would positively contribute to advancing the quality of life for occupants, and work as facilitators to help improve work-life balance.



**Emergency Procedures** – Fitwel focuses on the emergency procedures on site to ensure a better response for issues related to the health of occupants. Such ideas are not covered in LEED or other green buildings certifications.

## The Future Buildings and Fitwel

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The emergence of Fitwel creates an opportunity for the development industry, including owners, architects, consultants, engineers and green building professionals, to analyze the health and wellbeing of building occupants. Fitwel's promotion of the utilization of stairs, close proximity to amenities, parks and exercise areas, healthier food choices, improved indoor air quality and views to greenery contribute towards a healthier and more well-balanced society. In light of what was discussed in the Challenges and Opportunities section, the investment in such features early on during design would not only make implementation easier but would make a building more attractive to potential owners and tenants. Existing buildings also have the opportunity to apply the Fitwel system and to identify opportunities to improve the occupant experience. As with any rating system, Fitwel is a marketable product and its success depends not only on the science behind it but on buy-in from stakeholders and investors who believe in the importance of healthy living and who want to promote health and wellness.

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*The case studies analyzed show that Fitwel is applicable to different building types in various settings, if the intention to improve **health and wellness** exists. Fitwel could be viewed as a key method to make buildings **more future ready**, as the interest in healthy practices and wellness is on the rise.*

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