


**August 2016**

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Light House's Kaitlyn Gillis published in Canadian Architect Magazine.

Light House Project Manager Kaitlyn Gillis recently co-authored an article in [Canadian Architect Magazine](#) with [Dak Kopeck](#), Director of the Master of Design in Design for Human Health program at Boston Architectural College. The article explores the field of environmental psychology and how it informs the design of healthy space. [Find the article online here](#)

You can have your say in shaping Canada's National Housing Strategy!

**Local Comotion**

**City of Vancouver's Zero Emissions Building Plan Promises 10 Years Of Dramatic Change**

On July 12, 2016, Vancouver's City Council approved staff's ambitious [Zero Emissions Building Plan](#), which requires all new residential buildings to step down to zero (0) greenhouse gas intensity (GHGI) by 2025, significantly lower their thermal energy demand intensity (TEDI) and transition to electrical-based renewable energy sources, in line with the City's 100% Renewable by 2050 target ([Renewable City Strategy](#) approved in November 2015).



The Plan promises to be a game-changer for the local real estate and manufacturing sectors, and sets up Vancouver as a clear leader in the push towards national GHG reductions. Immediate actions include updates to the Green Buildings Policy for

Rezoning and Vancouver's Building Bylaw in the Fall of 2016, and incorporation of Passive House standards into Vancouver Affordable Housing Agency (VAHA)'s and City-owned buildings RFP process.

Staff has also recommended the establishment of a Centre of Zero Emissions Building Excellence, a 3 year, \$1.625 million Zero Emissions Home Program for detached and row houses, and investigation into targets for the reduced embodied energy of construction materials.

With the latter half of 2016 promising significant changes in regulations, watch this space for updates and let us know what you think @Light\_HouseSBC or email us at [Katherine@lhsbc.com](mailto:Katherine@lhsbc.com)

**Innovation Station**

**Mushrooms, the Future of Building Materials**

To some, mushrooms are a pizza topping, to others, fungi represent a source of inspiration on which to base innovative solutions. The most reputable mycologist in this region is undoubtedly Paul Stamets and if you doubt the amazing biomimicry applications we continue to glean from mushrooms, I urge you to view his fascinating [Ted Talk](#).

Paul Stamets is not the only person to have embraced the power of fungi, there is a slow adoption of mycelium use to grow building materials. Mycelium is the vegetative part of fungus, that grows rapidly and weaves its way through organic substrates creating a dense and rigid material. See below for current examples of practical mushrooms applications:

Canada is currently the only G7 country that does not have a national housing strategy and the federal government is targeting the end of 2016 for this new strategy to be in place. With Vancouver's housing prices soaring, to the point that some students and families are priced out of the market, we can all have our say in shaping what matters to all Canadians. Have your say by October 21, 2016 and help shape the future of housing in Canada.



The Living Tower

UBC Benches

Ecovative Mycoboard

1. The Living, winner of the 2014 Young Architects Program, grew bricks to create a 13 metre tall tower, which were composted after the exhibit.
2. UBC School of Architecture and Landscape Architecture have used oyster mushrooms to create the base for benches outside the bookstore.
3. Companies like Ecovative have taken the concept to the next level, with the development of products from foam packaging, to furniture components and interior finishes.

What's next when it comes to mushrooms? We are no experts but we are dreaming of a life where genetically modified trees light the streets using bioluminescent traits of fungi and many other species in existence today.

Click the many links in this article to learn more, and let us know what you think @Light\_HouseSBC!

### MIT's Climate Colab Shines Light on Local Vancouver Business.

Vancouver business and follow AMP Vancouver AMPEER was recently awarded two prizes from MIT's Climate Colab. Judged by a panel and online votes, Climate Smart's Business Energy and Emissions Profile (BEEP) Dashboard was awarded the Judges' Choice and Popular Choice at Large awards in the Smart Zero Carbon Cities competition. Huge congratulations to Climate Smart!

### BC Tiny House Collective Launches Stakeholder Engagement.

On Monday, August 8th, Light House participated in Tiny Talks, hosted by the Think Big Live Little think tank, and the BC Tiny House Collective at CityStudio, with the aim of pinpointing the barriers to building tiny homes in the Lower Mainland. A who's who of municipal leaders, organizations and industry weighed in, identifying the knowledge gaps related to four key barriers: why tiny homes?, regulatory & policy, financing and NIMBYism. Key participants included Vancouver City Councillor Andrea Reimer, City of Vancouver Building Bylaw and Sustainability Group staff, District of West Vancouver and City of North Vancouver urban planners, the Real Estate Foundation, Habitat for Humanity, Aboriginal Housing

## Around the World Solar Power

### Solar-Powered Swedish Homes



Source: <http://inhabitat.com/>

Street Monkey Architects, a Swedish-based architecture studio, designed modular row houses that are prefabricated and incorporate a combination of passive and active solar design strategies. The results are good looking, minimalistic and energy efficient homes. The home is equipped with twenty south-facing solar panels that produce as much

energy as the home consumes.

### World's First Solar Bike Path



Source: [www.greenlivingpedia.com](http://www.greenlivingpedia.com)

One of the most bike-friendly countries in the world, The Netherlands, has paved their bike paths using solar panels. This technology is known as SolaRoad, advanced by Dutch research institute TNO. The technology consists of embedded crystalline silicon cells in concrete slab, covered with 1/2 inch thick tempered glass.

At the end of 2014, 70 meters of bike path in Krommenie were covered with solar panels, increasing to 100 m by the end of 2016. The energy generated can power 3 houses. This is a great Dutch example we should consider for our Canadian bike paths.

### Solar Decathlon



The Solar Decathlon is a competition that challenges teams of students to design, build and operate solar-powered homes. The competition aims to accelerate the incorporation of energy-efficient products in the architectural design.

The competition started in 2002 in the United States with 130 teams from

Management Association, tiny home builders and designers, and tiny home advocates.

different universities. Nowadays, it has expanded to Europe, Latin America, Asia, and the Middle East with more than 20,000 teams participating. The next Solar Decathlon will take place in Denver Colorado in 2017; we will be following the results closely.

## In the Community Light House Inspiration Session

Light House Sustainable Building Centre recently hosted our second Inspiration Session of 2016, *Let's Move! Creating Active Cities through Design*, held July 21 at the Roundhouse.



The stage was set by Light House's Veronica Owens and this session continued with an interdisciplinary group of speakers discussing how the built environment can help us move more, and why this matters. Through presentations and a panel discussion, speakers covered topics ranging from how designers encourage movement, to what municipalities do to reduce sedentary lifestyles.

Thanks to our participants Meghan Winters (SFU), Kimberly Baba (Perkins + Will), Michael Epp (City of North Vancouver) for the insightful presentations, and to our generous sponsors Steelcase and Heritage Office Furnishings. We would also like to acknowledge Amy Hoare (Karma Yoga Teachers) for our office-appropriate stretch session and our wonderful photographer Sunny Jhooty.

Stay tuned for more details on our next inspiration session, November 2016, which will narrow in on the residential environment.

## Upcoming Industry Events Green Energy Doors Open

**Green Energy Doors Open** is a campaign and showcase of individual, community, and commercial sustainable energy projects. It was originally organized by the Ontario Sustainable Energy Association, and now takes place across Southern Ontario and in Calgary. The initiative aims to showcase advancements in the sector, demonstrating how Provinces are on the path to building a 100% clean, sustainable energy system.

**The BCSEA is excited to bring Green Energy Doors Open to BC!**



The showcase will take place over three days from **Friday, September 9th to Sunday, September 11th**, simultaneous with the events in Alberta and Ontario. Each day there will be green buildings, sustainable communities and energy projects to tour in-person. All events are free to participate in as a host or attendee.

Anyone in BC can submit a building, energy facility or community area for a walking tour or open house. Each event will be listed on the BCSEA's Green Energy Doors Open website, where guests can browse, select and register for a tour of their choice.

Get in touch with Jessica McIlroy at the BCSEA to learn more about how to host or attend an event. [jessica.mcilroy@bcsea.org](mailto:jessica.mcilroy@bcsea.org).



**Additional events can be found on the [Light House Calendar](#)**

Light House Sustainable Building Centre is a not-for-profit company dedicated to advancing green building and the sustainable infrastructure and economic systems into which green buildings are intrinsically integrated. [www.lhsbc.com](http://www.lhsbc.com)