

**THINK
BIG**



**LIVE
LITTLE**





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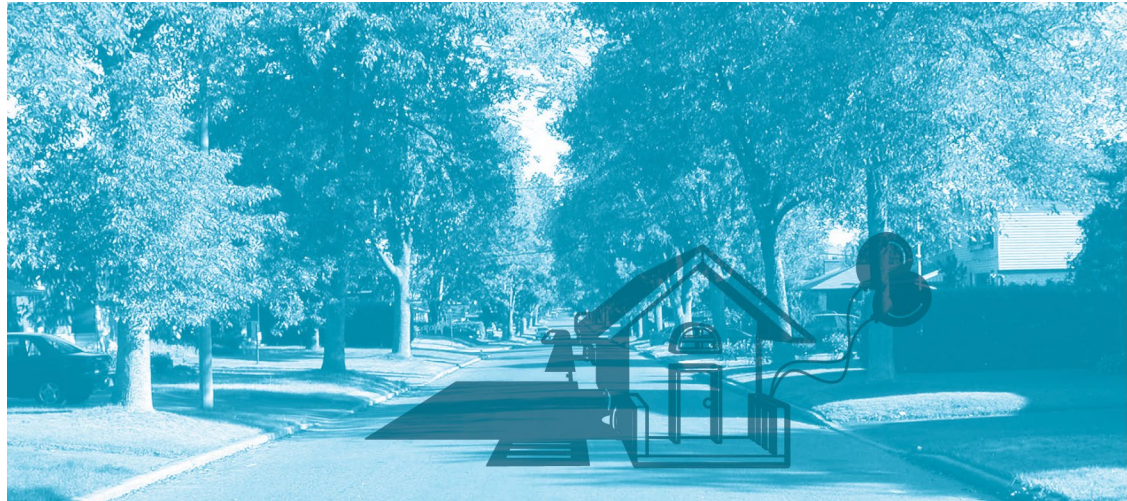
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CHALLENGE

The unaffordable housing crisis in Vancouver, and cities across Canada, is leaving low to middle incomers out of the homeownership equation.

SOLUTION

Think Big Live Little seeks to increase homeownership opportunities among marginalized communities* by promoting tiny houses as an affordable housing model through:

- (1) **city and provincial engagement,**
- (2) **an incentive challenge (design and build contest),** and
- (3) **the sale of economical and sustainable tiny house build kits** using salvaged and recycled building materials and home décor items.

* For the purpose of this proposal, marginalized communities refers to low to middle income earners that, due to rising housing prices, high monthly mortgage payments, necessary down payments and/or income barriers, remain outside the traditional homeownership model. Such communities may include, but are not limited to, artists, self-employed, students, pensioners, lone parents, singles and couples, and Aboriginal youth and elders. This project series is not, however, geared as a solution to homelessness which is a much more dynamic and multi-faceted issue than this proposal hopes to explore.



02

SOLUTION
AT A GLANCE
ASSUMPTIONS

SOLUTION AT A GLANCE

ASSUMPTIONS

Affordable housing

- > Collecting salvaged and recycled building materials and home décor items from small renovation sites, industry/scrap yards, movie sets, community donors, craigslist and other potential avenues will significantly decrease the barriers to custom homebuilding and homeownership by reducing the cost of building materials*
- > A decrease in the cost of building materials will inspire a new wave of potential homeowners to enter the housing market
- > Knowledge and skill sharing opportunities during the incentive challenge's build may assist in lowering labour costs associated with custom tiny homebuilding, thus increasing opportunities for first-time homeownership and new forms of entrepreneurship (rental suites)

* The typical material to labour ratio in homebuilding is 3 to 2 respectively. Still, final cost will depend heavily on the quality of materials and skill of labour used, as well as geography and source of materials. (Sources: John Campbell, project manager, Alair Homes; John McFarlane, architect and tiny house builder, Camera Buildings.)

City and provincial engagement

- > Dialogue, sustainable design showcases and community outreach will encourage Canadian cities, towns and provinces to review their current zoning requirements and affordable housing strategies and contemplate adopting tiny homes as a legitimate housing model for non-market and market renters and homeowners

Incentive challenge (design and build contest)

- > Tiny homes built from 70–80% salvaged and recycled building materials and home décor can be structurally sound (built to code) and thoughtfully designed (functional and appealing)
- > Tiny homes can be designed sustainably, with pre-selected salvaged and recycled building materials and home décor items to include in their construction
- > Tiny homes will serve well as full-time homes, artist residences, cabins, secondary suites or as rentals



03

SOLUTION
AT A GLANCE

ASSUMPTIONS

+

ADDED
BENEFITS

- > The incentive challenge's build will act as a case study on which future tiny house build kits and workshops can be modeled
- > Approved contest designs* can be used as plans (based on same-sourced building materials) for future builds, and made available to the public in an e-book format

* *Approved contest designs are designs that the contest jurors and its professional advisor have identified as buildable; these plans are to code, commended for their design principles and can be made to scale and to specifications with ease.*

ADDED BENEFITS

- > Addresses environmental targets related to deconstruction initiatives in the City of Vancouver's *Greenest City 2020 Action Plan*
- > Promotes sustainable home design using salvaged and recycled building materials and home décor items
- > Diverts construction materials from our landfills, promoting a closed-loop economy
- > Promotes alternative energy sources, and with their use, helps lower our carbon footprint
- > Promotes Canada as a leader in affordable and sustainable home designs and models
- > Showcases Canadian talent in architecture and design
- > Inspires new generations to pursue careers in the trades, green sectors, homebuilding, design and architecture
- > Increased confidence and pride for new homeowners
- > Provides supplementary income for new homeowners

TINY HOUSES

Tiny homes range from 100 to 400 square feet, and can be placed on a foundation or a flat deck, for greater mobility. While small in scale, they've gained popularity across North America and Europe. Television shows, like FYI Network's *Tiny House Nation* and HGTV's *Extreme Small Spaces* and *Tiny House Hunters*, boast their unique designs and functions to wide audiences—and cities are taking notice. Along the western USA, tiny house communities are all the rage in California, Oregon and Washington. Even the regional district of Terrace has one.

So what's all the hype about? Tiny homes are affordable, sustainable and eco-friendly. Typically, a 200 to 300 square foot tiny home costs \$30,000 to \$60,000 to build (taking into consideration final size, quality of materials, labour and any extra features). The cost to build, however, is drastically reduced when using salvaged and recycled building materials and home décor items, and

with you as the builder. (Some mobile tiny homes have been built and fully outfitted for around \$10,000, with a refurbished flat deck.) In the end, it's all about resourcefulness and putting in the extra effort.

Tiny homes are inexpensive to furnish, cost less to heat and don't require a big paycheck to maintain.

Why a tiny house and not an RV?

Tiny homes are customizable and use natural products in their construction, rather than plastics and prefabrications. They are focused on sustainable home design, with many models going off-grid completely. Moreover, tiny houses are meant for full-time living on any size lot.

So why go tiny at all? The answer is different for everyone. Some want a simplified life and choose to downsize. Others gravitate to the minimalist lifestyle and decide small square footage is right for them, and surprisingly, their growing families. Many love the freedom of less space and see nature as an extension of their tiny living room, or live small in order to reduce their carbon footprint through sustainable practices. Not to mention, tiny homes are inexpensive to furnish, cost less to heat and don't require a big paycheck to maintain. With rents on the rise, and mortgage payments even higher, a tiny home may be many things to many people, but above all, it's economical, sustainable and better for the environment.



05

THINK BIG
LIVE LITTLE
CITY +
PROVINCIAL
ENGAGEMENT

+

INCENTIVE
CHALLENGE
(DESIGN +
BUILD CONTEST)

THINK BIG LIVE LITTLE

Think Big Live Little is a radical, timely and simple project series with the following goal in mind: to create affordable, easily replicated and sustainable home designs. Here are some of its components and objectives:

CITY + PROVINCIAL ENGAGEMENT

First off, reach out to local municipalities and start the conversation around affordable housing and tiny living. Encourage planners to use infill sites or irregular vacant lots for tiny homes; promote tiny homes as secondary suite alternatives to costly laneway or carriage homes. Currently, two tiny homes sites have been proposed in North Vancouver. The City of New Westminster is amending its zoning and is open to the conversation, as are the cities of Pitt Meadows and Coquitlam. Still, more needs to be done.

The Ontario provincial government passed legislation requiring municipalities to explore ways of incorporating tiny homes into intensification strategies, multi-generational housing models and affordable home options; Ottawa is now seeking community input on how to regulate tiny homes in its city as secondary suites. A national engagement series is proposed, whereby tiny homes are promoted as a viable, affordable and safe housing option for non-market and market renters and homeowners to all Canadian cities, towns and provinces.

INCENTIVE CHALLENGE (DESIGN + BUILD CONTEST)

The incentive challenge is a mobile tiny home design and build contest. The contest is open to all Canadian thinkers, creators, builders, architects and designers. The challenge is to create aesthetically pleasing designs that are affordable, livable and sustainable in 300 square feet or less, for up to two people. Designers must create a layout to scale (24-feet long, 13.5-feet tall, 8.5-feet wide and on a flat deck) while using pre-selected salvaged and recycled building materials and home décor items and new products for the build. (Approximately 70–80% of all total materials used will be reclaimed; all reclaimed and new materials that will be used in the final build will be outlined at the onset of the contest with their appropriate dimensions and lot sizes—think windows, doors, cabinetry, tiles, appliances etc. Every pre-selected item must be incorporated into each submitted design entry and to scale.)

Entrants will provide one design per entry (\$100–250 per application). The contest will run from April to August 2016, with a winner selected in August. In September, the winner will build his/her home in Vancouver over the course of approximately four weeks with a slew of volunteer builders and skilled tradespersons. The build will be in a highly public area, to create buzz and further interest into the challenge itself; it will also be live-streamed to encourage global engagement. The build-portion of the challenge will act a case study, exploring the highs and lows of building using reclaimed materials, and help



06

THINK BIG
LIVE LITTLE
INCENTIVE
CHALLENGE
(DESIGN +
BUILD CONTEST)

+

TINY HOUSE
BUILD KIT

develop our tiny house build kits. The final home will be exhibited locally for a time, and then relocated to the winner's town of choice.

The winner will be given everything needed to construct and furnish his/her own tiny house from the ground up. This includes: framing materials, roofing, tiles, flooring, flat deck, doors, windows, stove, fridge, washer/dryer combo, toilet, tub/shower, water tanks (clean and grey water), solar panels, heater, furniture, décor pieces and so forth. There is the potential for second and third place winners to receive their own tiny house build kits, and all other materials/products needed, so they may build their homes on their own time (and dime) as well.

This incentive challenge is the first of its kind—going beyond concept to include a physical build, whereby the winner gets to construct and take his/her new home, home.

TINY HOUSE BUILD KIT

A tiny house build kit is a basic homebuilding material kit*. Using broken-down palettes (as lumber), salvaged cabinetry, countertops, doors, windows, sinks and faucets, tiles, flooring, lighting fixtures, plumbing parts, outlets and the like—it will provide the barebone materials to build your own 24-foot long mobile tiny home frame (and use any approved contest design plans as desired). New insulation will be included in the kit; it will be acquired through sponsorship or in-kind donation, as will any wiring, sealants, nails, screws and other materials needed to construct a basic house skeleton. The kit will not include: storage units, furniture, toilets (compostable or otherwise), showers or tubs, heaters, appliances (stove, fridge), alternative energy models (solar panels), clean/grey water tanks, any pre-drilled holes or easy-to-build instructions.

All products supplied in these kits, salvaged or new, will be eco-friendly. The cost of the build kit could be anywhere from \$1000 to \$3000; however, final pricing requires further consideration. Each kit will come with an e-book of all contest designs from the incentive challenge, including those which are *approved* for building.

Above all, the build kit must be affordable and easily accessible by marginalized communities.

* This is not a pre-built or quick-assemble kit, but a kit with all the necessary building materials to construct a basic tiny house frame. Items will be collected from small renovation sites, industry/scrap yards, movie sets, community donors, craigslist and other potential avenues. Each kit will be standardized (same overall items) but unique, due to available sourced materials and their varying styles and dimensions—think windows, doors, cabinetry etc.; however, only good quality and well-maintained materials will be included in each kit. Note: A list of the items to include in each kit still needs to be determined; further review needed.



07

THINK BIG
LIVE LITTLE
ADDITIONAL
FEATURES

ADDITIONAL FEATURES

- > **Charity fundraiser:** a portion (10–20%) of all sponsorship dollars raised will be donated to Habitat for Humanity Canada, an official partner.
- > **Talk series:** five monthly panel discussions in Vancouver, held during the course of the incentive challenge, to encourage community engagement and municipal/provincial involvement on topics such as affordable housing, zoning/bylaw and insurance requirements, deconstruction practices, modern design and sustainability (energy uses), and tiny living; also a tool to promote the incentive challenge (increase design entries) and the home build (recruit volunteers and skilled tradespeople).
- > **Workshops (optional):** provide intensive one- to two-month tiny home-building workshops, whereby participants will purchase a tiny house build kit, use approved design plans, and create their own tiny house; workshops could be offered to a limited cohort for free or at a cost per student. (Could explore supplying refurbished flat decks as well.) Number of applications received for the workshops can further showcase demand for tiny living.
- > **Documentary film:** document cross-Canada trip, discussing affordable housing with various cities, towns and provinces from west to east coast, in an attempt to promote tiny houses as a viable and affordable housing alternative. Also a platform to further promote the incentive challenge nation-wide; potential to collaborate with a national media partner.

“Small rooms or dwellings discipline the mind, large ones weaken it.”

—LEONARDO DA VINCI



08

THINK BIG
LIVE LITTLE
**POTENTIAL
COLLABORATORS**

POTENTIAL COLLABORATORS

In the initial stages of outreach, there has been a great outpour of interest in this project series and incentive challenge. Other potential sponsors and partners to approach include: housing developers, Vancouver’s deconstruction initiative partners, tool-lending libraries, national news media, Canadian universities, innovation hubs and entities interested in exploring new affordable housing models that are equally sustainable and eco-friendly in design.

Currently, interested collaborators include:

TYPE	COMMUNITY PARTNERS
GOVERNMENT/ MUNICIPAL	Industry Training Authority MOSAIC Vancouver Economic Commission WorkBC
UNIVERSITIES/ VOCATIONAL SCHOOLS	BCIT’s School of Construction and the Environment Emily Carr University of Art + Design Kwantlen Polytechnic University Simon Fraser University UBC’s School of Architecture and Landscape Architecture
ARTS & SCIENCES	BC Technology Industry Association Maker Labs Science World
ARCHITECTS, BUILDERS & CREATORS	Amy Adams, architect technician Charles Tsai, founder of Tiny House School Erick Villagomez, architect John Campbell, project manager, Alair Homes John McFarlane, architect/tiny house builder, Camera Buildings Architectural Institute of British Columbia Sean Ruthen of VIA Architecture, founder of reTHINK housing incentive challenge Tiny Community Centre Tiny Houses Canada
NON-PROFIT & OTHER	Habitat for Humanity Canada and its ReStores (<i>OFFICIAL PARTNER</i>) Small Housing BC Squamish Nation Vancouver School Board
MEDIA & PRESS	<i>Spacing</i> magazine Still Creek Press (<i>OFFICIAL PARTNER</i>)



09

UNAFFORDABLE
HOUSING CRISIS
AT A GLANCE

UNAFFORDABLE HOUSING CRISIS AT A GLANCE

In 2013, the average cost of a home in Canada was \$382,576 (*New Homes 2015*, National Association of Home Builders). According to the *Canadian Housing Observer 2014*, Canadians in our largest cities are spending well above the national 24% income to shelter cost ratio (Canadian Mortgage and Housing Corporation). A 2014 survey conducted by the City of Vancouver (as part of the mayor's final task force), found that 22% of respondents spent more than 40% on housing costs. To make matters worse, Royal LePage's house price survey in April 2015 identified that the average bungalow in Vancouver, North Vancouver and West Vancouver sells for \$1.175 million dollars. Great for home sellers, but for first-time home buyers, how is this feasible? Intensification models are being explored. In the City of Vancouver, qualifying homeowners can have secondary suites (laneway houses) built in their backyards to rent; however, they cost \$250,000 to \$300,000 to build.

With housing prices on the rise, residents are being driven out of our cities and settling in low density municipalities. Still, the question remains. For city dwellers that want to or must stay (for work or family reasons) in our urban centres, is affordable housing a thing of the past?

There is no one-size-fits-all solution to the challenges facing our cities or to the housing crisis, but the two issues need to be considered together. From an urban design and planning point of view, the well-connected open city is a powerful paradigm and an engine for integration and inclusivity."

—RICHARD ROGERS, ARCHITECT



10

FORESEEABLE
CHALLENGES
+ SOLUTIONS

+

CONCLUSION

+

CONTACT

FORESEEABLE CHALLENGES + SOLUTIONS

CHALLENGE	SOLUTION
Incorporate tiny homes into urban centres as an affordable and viable housing model	Start the conversation. Reach out to provincial legislators and municipalities across Canada. Explore opportunities to use tiny homes on infill sites, irregular lots or as part of intensification strategies as secondary suites.
<i>Not in our backyard</i> , public opposition to tiny homes as secondary suites or otherwise	Start the conversation. Engage cities to seek input from their communities on how to regulate the use of secondary suites in urban, suburban and rural neighbourhoods through public forums, surveys and panel discussions.
Meet energy needs of a tiny house, when on city-owned or private land	Develop hybrid tiny homes that can use both conventional energy hookups and off-grid energy capacities (such as solar panels). Connect with Canadian universities and BC startups developing alternative renewable energy sources and explore new ways forward. Reach out to municipalities across Canada and further examine the challenges that lie ahead; find creative solutions.
Incorporate compostable toilets in tiny house builds as an alternative to conventional sewage management practices	Start the conversation. Educate municipalities on the environmental benefits, safety and uses of compostable toilets. Examine ways for future inclusion in zoning bylaws.
Bank loans and insurance for tiny homebuilders and owners	Start the conversation. Meet with local credit unions, banks and insurers. Examine the challenges and limitations; offer new ways forward.

CONCLUSION

Think Big Live Little is an innovative project series that challenges Canadian cities, towns and provinces to reexamine their affordable housing strategies. It advocates for creative solutions in home design—encouraging our builders, tinkers, architects and designers to think outside the box when creating affordable, sustainable and well crafted homes using second-hand materials. And lastly, it encourages a new wave of homebuilders and homeowners to build and live tiny.

CONTACT

Questions? Contact Anastasia Koutalios, concept designer and **Think Big Live Little** producer, at info@nadatodo.com or (604) 992-9024.