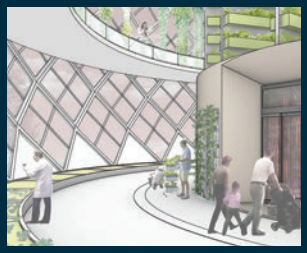
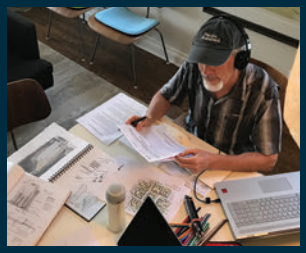
Shift 2021

Resiliency Architecture Challenge



The images on the cover have been submitted by the SHIFT Resiliency Architecture Challenge design teams. Please see individual sections for credit information.




OAA SHIFT 2021

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PRODUCTION
Canadian Architect magazine

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Adele Weder, MASA, Hon. MRAIC

DESIGN
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Published in September 2021

Shift 2021

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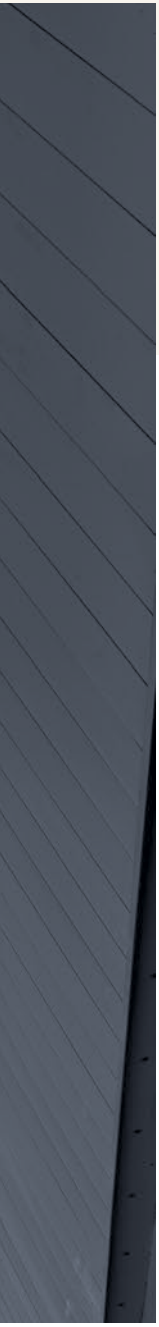
Project selections

A look at the solar panel pergola at the Ontario Association of Architects (OAA) Headquarters in Toronto. David Fujiwara Architect (retrofit), Ruth Cawker Architect (1991 original building).

Photo by Steven Evans



President's Message

ONTARIO ASSOCIATION OF ARCHITECTS

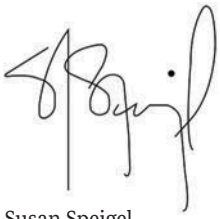
It's safe to say that Resiliency—the theme of this year's SHIFT Architecture Challenge—holds new importance in day-to-day life for so many. Over the last year, the effects of the climate crisis have been felt by us all, we continue to confront inequities and injustices past and present, and, of course, we have been scrambling in the face of the COVID-19 pandemic. For Ontario's architecture profession, we've endured our own particular forms of the disorientation, anxiety, frustration, and pressure to push beyond our usual limits that have come to characterize these times.

This year's SHIFT Challenge is itself a testament to resiliency. Despite the upheaval of the past year, the architecture profession across the province has dared to dream big and imagine a bright future—one that addresses the challenges of today and envisions innovative yet practical approaches.

The five projects highlighted in this publication were selected by an esteemed jury of industry experts who faced the mighty task of choosing from among many wonderful ideas received in response to this year's challenge. The submissions truly capture the call to advance design thinking and push the limits of what's possible to inspire positive social change. I would be delighted to see some of these projects come to life, and I hope the participants will continue to develop their brilliant concepts in the real world.

This publication delves into the ideas brought forward by five exceptional teams. The featured projects tackle well-known challenges, from urban densification to adaptive and sensitive reuse of sites. These are issues faced by communities across Ontario and around the world, and within these pages are thoughtful and realistic opportunities for change. I hope readers enjoy the detailed imagery and descriptions shared by the designers.

As President of the Ontario Association of Architects, I am heartened to know our Association is brimming with such talented, dedicated, and forward-thinking individuals. It fills me with great confidence that so many are working to uphold our vision for an Ontario in which architects' full contribution to society is recognized. As OAA members, we pride ourselves on creating a safe and healthy built environment that performs at the highest levels and elevates the human spirit. I would like to express my sincere thanks to everyone who participated in this year's challenge, and my heartfelt congratulations to the teams whose projects are honoured in this publication.



Susan Speigel
OAA, FRAIC
President

The SHIFT 2021 Architecture Challenge: Resiliency

INTRODUCTION

In a world facing increasingly urgent and complex challenges—a climate crisis, global pandemics, forced migration, poverty, an aging population, and beyond—the need for responsible, innovative, and inspiring architecture has never been greater. Fortunately, the architecture profession is ideally suited to propose creative responses that extend beyond traditional notions of the built environment.

The Ontario Association of Architects (OAA) regulates the province's architecture profession to serve the public interest. It includes the Architects and Licensed Technologists OAA who can practise in Ontario, as well as those on the path to licensure, such as Intern Architects and Student Associates. In 2019, the OAA created a new aspirational, biennial program to complement its existing Design Excellence Awards. This program, the SHIFT Architecture Challenge, invites Ontario's architectural professionals and their collaborative teams to respond to an identified area of concern using their skills and insights. The program showcases how "architectural thinking" permeates all aspects of life and can address key societal issues.

After a successful 2019 inaugural program on the theme of Infrastructure, we now offer you the results of our 2021 program, on the timely theme of Resiliency.

This theme of Resiliency was chosen two years ago, well before COVID-19 had made an impact on the world. Throughout 2020 and continuing to the present day, the topic has proven to be especially timely. From repercussions of the global epidemic and record-breaking heat waves, to the continuing search for equality and inclusion, to the Truth and Reconciliation movement, this theme signals hope for our collective future.

Whether in a literal or a figurative sense, resiliency can be seen as a type of flexibility, characterized by its inherent strength and elasticity. It is the quality that allows objects to hold or recover their shape; it is the ability within people to withstand or rebound quickly from adversity. In terms of the built environment, resiliency can apply to the physical, economic, environmental, cultural, social, virtual, and spiritual aspects of a structure.

A jury of experts (page 48-49), both from within architecture and outside the profession, convened virtually in February 2021 to review dozens of proposals submitted by both established and emerging design professionals. They discussed these ideas and concepts, and evaluated how well each project addressed the following questions:

Innovation
Does the project defy convention and push thinking forward in a creative and original fashion?

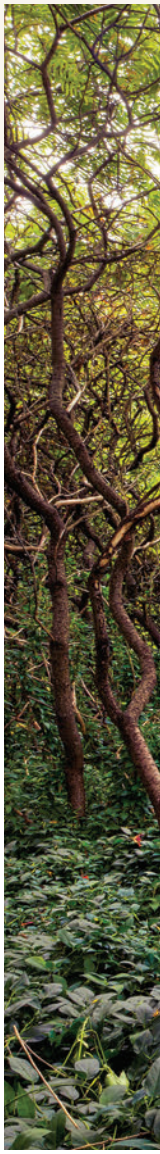
Social Responsibility
Does the project promote values of social responsibility, human rights, and sustainability?

Inspiration
Does the project spark new ideas and capture the public imagination, taking into consideration the quality of its visual materials and public-facing communication?

Inclusivity
Does the project promote a spirit of inclusiveness, situating architects as master collaborators?

Holistic Approach
Does the project represent a programmatic solution that goes beyond the built form, taking into consideration economic, sociological, and ecological factors as well?

The five conceptual projects highlighted in this publication share some common traits but also have significant differences in their approaches. Ultimately, they all represent new ways of architectural thinking which can have positive impacts on the landscape and people of Ontario. Each in its own way, they exemplify Resiliency at a time when so many need it most.



"Black Locust Tree Among the Sumacs, Sylvan Park, Toronto, 2013" from the book *An Enduring Wilderness: Toronto's Natural Parklands*, by Robert Burley, ECW Press, 2017.

K-Town: A Future

HOW ARCHITECTURE COULD ENERGIZE A COMMERCIAL STRIP

STEVEN FONG, **SUHAIB ARNAOOT**, **YUKUN BAI**, **KELTIE MCLAREN**, **DAKOTA WARES-TANI**, **HUITING YANG**, **SAFOURA ZAHEDI**

The commercial strips of Toronto's immigrant and cultural diaspora have struggled in recent years, even before the COVID-19 pandemic. The challenging trifecta of the retail apocalypse, digital Darwinism, and rising municipal taxes have beleaguered many of the small storefront businesses within these enclaves. Any top-down ameliorative initiative must include a bottom-up plan to address the viability of the basic unit: the small storefront building.

The many neighbourhoods where Toronto's diaspora live and work include Koreatown, the strip along Bloor Street West between Bathurst and Christie Street where Korean immigrants settled in the 1970s. Here, many once-thriving grocery stores, gift shops, restaurants, bakeries, and service agencies are struggling to stay profitable.

Photography and renderings by Steven Fong Architect

K-Town, a proposed mixed-use building on an infill site in Toronto's Koreatown, offers a viable option. With contemporary residential amenities, maximum leasable space, and a high degree of flexibility, this is a building that can be used in many ways, helping both property owner and tenant(s) adapt to ever-shifting socio-economic situations.

There has been a tendency to see diaspora commercial strips as places "left behind," or outlier clusters of down-at-the-heel low-rise storefront buildings, ripe for demolition and redevelopment. But a renewed societal determination that prioritizes cultural identity and diversity compels us to rethink this conventional narrative and to imagine a more resilient future for these urban areas.

This exploration asked new questions. How do we avoid cultural erasure? How do we engage with a frugal, down-to-earth community that traditionally has little need for architects? What constitutes a multi-cultural building, while avoiding obvious mimicry of the past or of other countries? Answering these questions opened a new world of architectural mixology. In the end, this project became an experiment about fusion—just like a nearby restaurant's soju sangrias and kimchi sours—combining genius for spatial intricacies and enthusiasm for value-conscious tectonics.

Its massing, siting, and context—a 169-square-metre building on a small footprint—comprises a transformation to a narrow, single-storey storefront building on a commercial strip. The existing building's conversion to a residential/office/retail/hospitality structure involves a complete renovation and addition, with the ground floor leasable for retail and hospitality, and two new upper storeys available for residential and co-working uses. The creation of new flexible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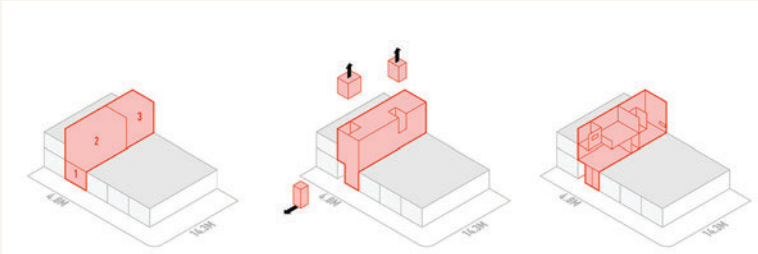
spaces addresses the needs of a new generation of “experience economy” consumers and offers much-needed neighbourhood housing.

The massing and height are as-of-right zoning and take cues from the scale and configuration of adjacent morphologies. The intent of the architectural presence is to both contextually align with what is already there and at the same time provide a new visual language for the community’s outward facing presence.

This protype is designed to be built with simple and readily accessible building materials and techniques. The framing design uses light-gauge metal studs with a structural steel moment frame across the front, and plywood-sheathed shear walls across the middle and back of the building. The middle shear wall coincides with demising between units. The building envelope has R20 batt-insulated walls with a R31 spray-foam insulated roof.

An on-demand boiler supplies both domestic water use and heating to radiators throughout the building. Fresh air exchange is achieved via energy recovery ventilators (ERVs) located in each of the three units. Summer air conditioning is achieved using ductless blowers in each unit with roof-mounted condensers. Each of the two upstairs units has a large sliding door opening to respective private balconies; it is anticipated that this will function as a passive system for cooling and air exchange during the temperate shoulder seasons.

This prototype building shows how small-scale incremental development can be done within this diasporic culture of self-reliance. It aligns architecture and space-making with strategies for environmentally sustainable buildings and resilient business models for diasporas.

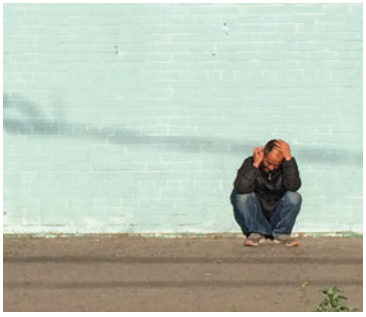


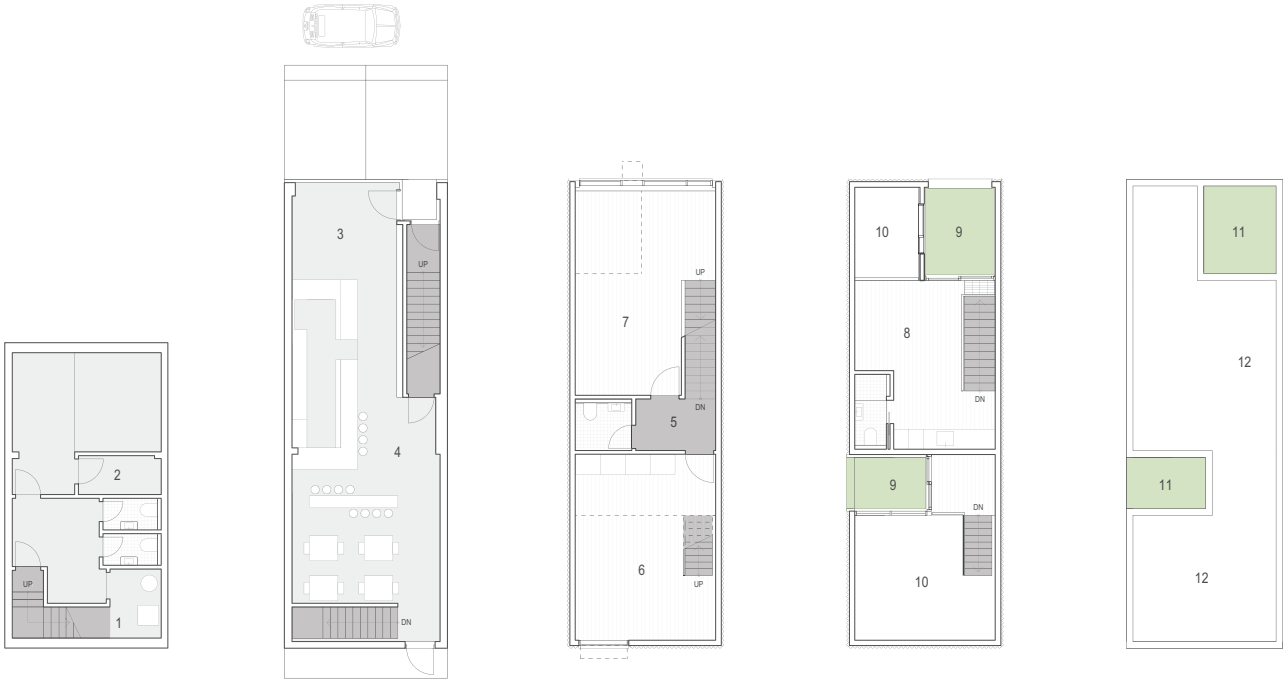
01 Program

02 Subtraction

03 Floor plates

The streets of Koreatown are animated by an eclectic mash-up of cultures.





Basement

1 Mechanical
2 Storage

Ground

3 Takeout
4 Jazz kisssaten

Second

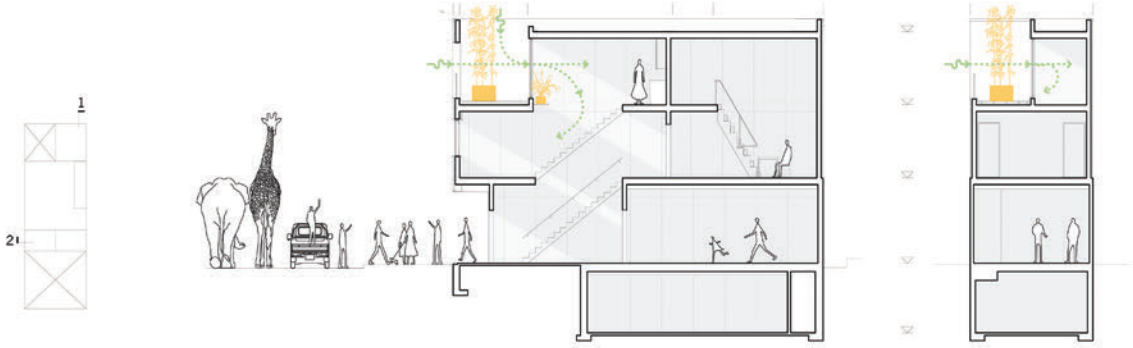
5 Vestibule
6 Studio
7 Work space

Mezzanine

8 Domestic space
9 Outdoor patio
10 Open to below (OTB)

Roof

11 Open to below
12 Green roof



JURY'S COMMENT:
"Traditionally ethnic enclaves along main streets have evolved to reflect a growing urban densification and diversity. This submission shows the potential of culturally responsible revitalization as a creative alternative to corporate gentrification."

Steven Fong

Dakota Wares-Tani

Suhaib Arnaoot

Huiting Yang

Safoura Zahedi

Keltie McLaren

Yukun Bai

Steven Fong with some members of his research team. (Image from video by Tala Alatassi)

TEAM PROFILE

Steven Fong Architect (SFA) / Office Make Good (OMG) is a combined studio working at the nexus of architecture, experiential marketing, and brand development. The blended skill sets of this alliance has attracted many visionaries who seek inspired design and out-of-the-box thinking for often unusual situations: difficult sites, unique circumstances, and unrecognized opportunities. Clients range from first-time entrepreneurs to accomplished developers. SFA/OMG is proud to have participated in kickstarting the vibrant cultural scene in Toronto's west end and King's entertainment district. Notable successes include the design of many of the city's lauded venues: Beverley Hotel, Plentea tea shop, Dog and Bear Pub, Hoxton club venue, Kiin Thai Kitchen and the first two Tokyo Smoke coffee shops.

The project team for K-town: A Future includes architect Steven Fong, architect Safoura Zahedi, intern architects Suhaib Arnaoot, Yukun Bai, Keltie McLaren, and Dakota Wares-Tani, as well as Huiting Yang.

The Mini-Mid-Rise

A MEASURED SOLUTION FOR DENSIFYING URBAN RESIDENTIAL NEIGHBOURHOODS

NAAMA BLONDER, **MISHA BEREZNYAK**,
IGOR SAMARDZIC, **SIBYLLA CONG**

Mid-rise buildings are common in compact and vibrant European cities; they provide urban housing for millions without the need to build tall. The City of Toronto envisioned and planned for these buildings, commissioning an ambitious 2010 report on the potential for mid-rise buildings along its major avenues as a way to grow and intensify the city. Additional mid-rise buildings could provide housing for 250,000 residents, according to that decade-old study. But since then, only a fraction of that goal has been reached, both in terms of the quantity of mid-rise buildings and number of households they accommodate. So why don't we see more of them?

In practice, it's hugely challenging for the City and the construction industry to implement this type of growth, for several reasons. To date, almost all mid-rise buildings in Toronto have been built on

Naama Blonder (left) and Misha Bereznyak, co-developers of the mini-mid-rise.

662

large individual sites that could accommodate them; otherwise, they would require negotiations among different stakeholders to assemble multiple individual properties. This traditional model creates challenges to procure enough land, and it makes the process long, complex, and expensive. At the same time, Toronto's mid-rise design guidelines limit the height of buildings to the width of rights-of-way and require various setbacks and stepbacks from the front and the rear, leaving many potential mid-rise projects financially unfeasible.

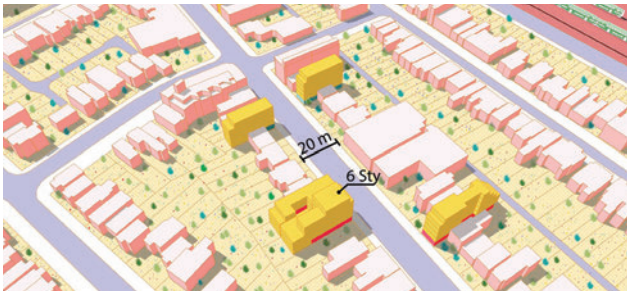
This proposal offers a new model of densification: the mini-mid-rise.

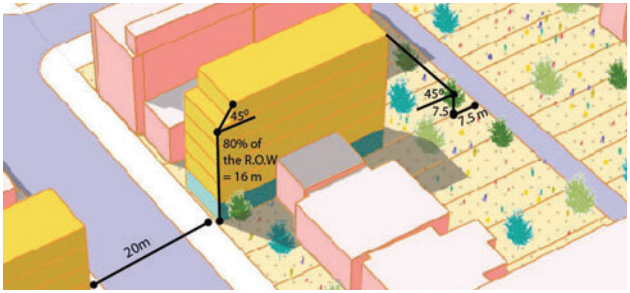
The mini-mid-rise follows the conventional mid-rise design guidelines, but can be developed on a single small property, which will eliminate many of the practical problems of large-lot development. Main streets like Bloor, Dundas, Queen, and College—with 20-metre rights-of-way—could see six-storey mid-rise buildings, and the Danforth, St. Clair, or Eglinton—with 24-metre rights-of-way in some portions—could see eight-storey mid-rise buildings. A relatively simple municipal approval process to allow for the extra few storeys would be the starting point.

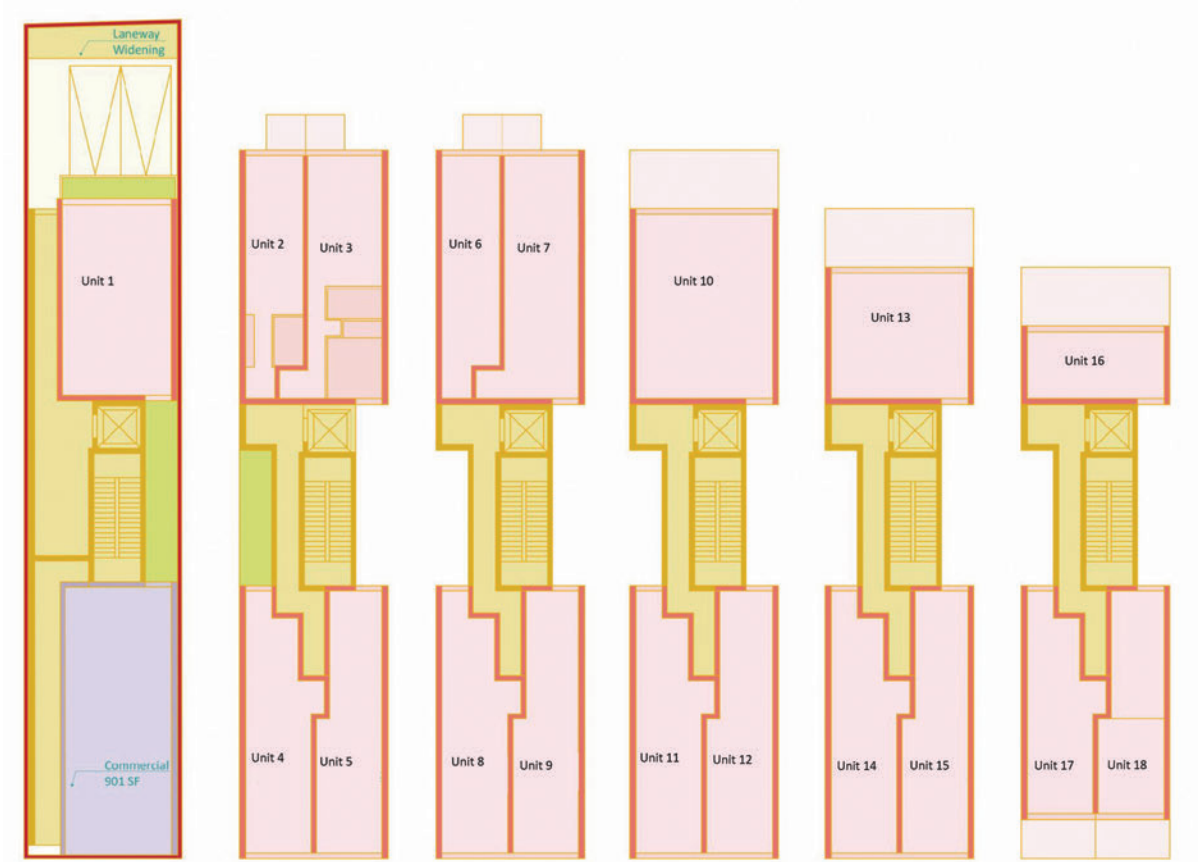
But the design itself must be smart, innovative, and sustainable, in order to make this new form a truly significant contributor to urban densification. The current building codes allow construction of up to six storeys in mass timber, which is more sustainable than concrete, making the mid-rise height an environmentally sound option. The mini-mid-rise does not offer car parking at all, but has bike racks, which encourages the use of active transportation.

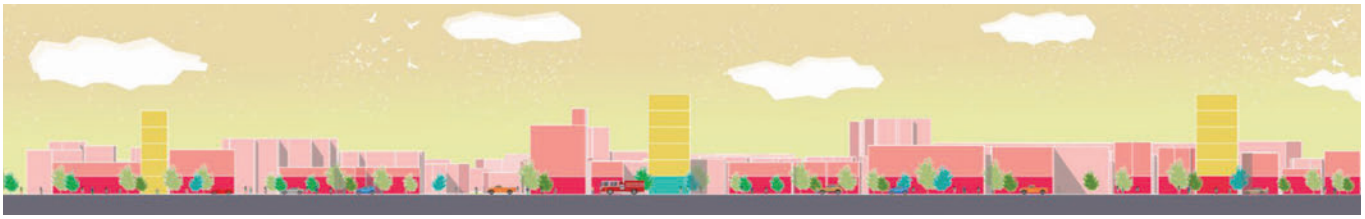
The building itself is designed strategically, with slender proportions. A narrow courtyard-like space in the centre of adjacent buildings forms a lightwell, bringing daylight into the core of each unit. The central circulation space provides efficient entry points to all units in the building.

In the area of a single-family home, the mini-mid-rise can accommodate 18 separate households, in sizes ranging from studios to three-bedrooms. Its development and ownership does not require the access to capital that larger-scale developments depend upon. As well as providing more housing for more people, this range of configurations will also accommodate a greater diversity of households and family types.









Renderings by Smart Density

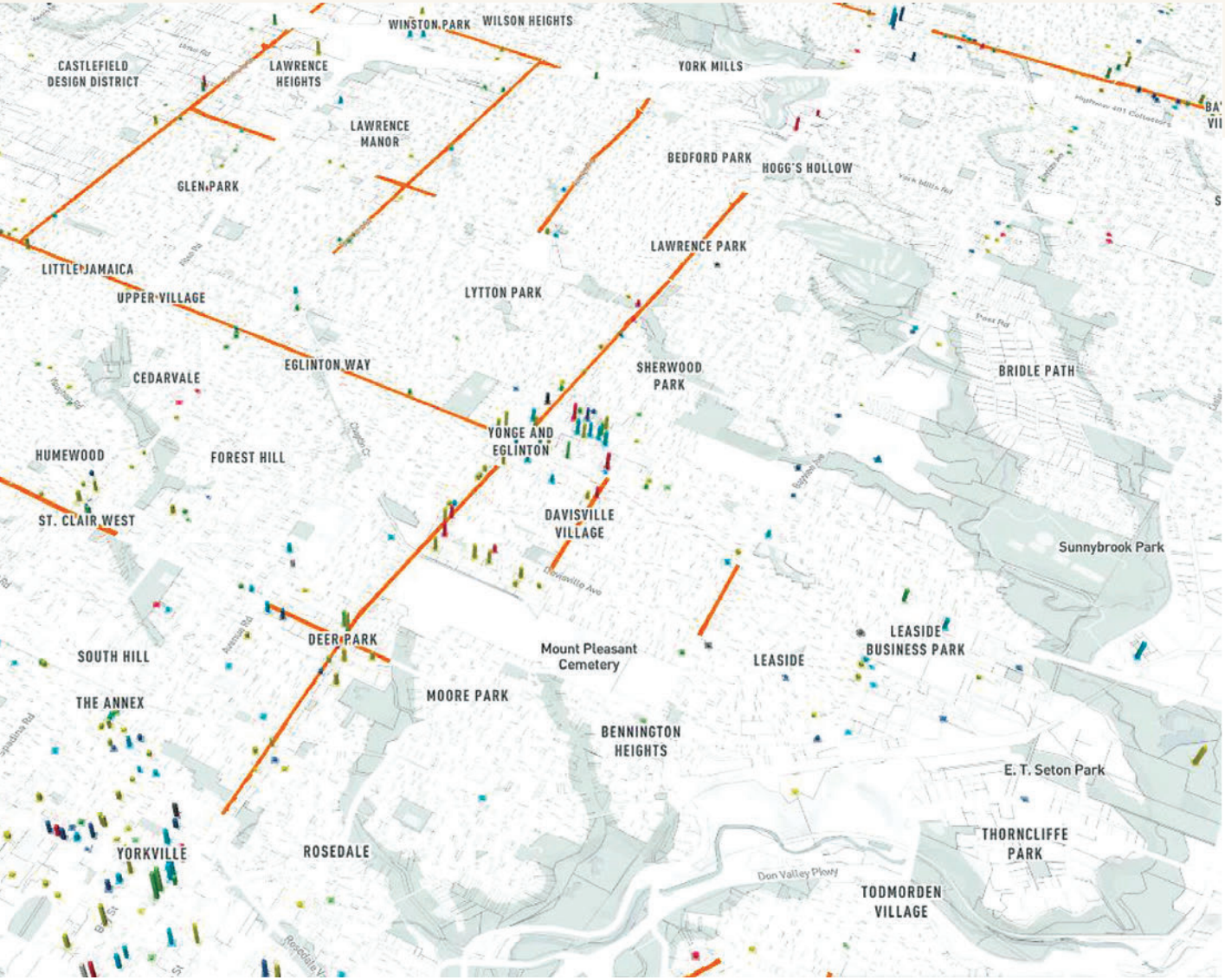
What about NIMBYism? Many Torontonians remain averse to even the most gentle interventions, protesting any change in the built environment of their neighbourhoods. However, the city must address its housing supply deficit and affordability challenges. Residents must accept an increased density to make better use of infrastructure project investments—for instance, public transit systems. Similarly, extra density is needed to ensure vibrant and complete communities, especially along Toronto's main streets.

In order to achieve this collective support of densification, there must be buy-in from all stakeholders. It is imperative that education and outreach be offered to neighbourhood residents as well as civic leaders, to explain the logic, advantage, and necessity of increased density and this proposed building form. The mini-mid-rise will spread the density along the avenues and not in specific hyper-density nodes, which creates a more balanced and stable growth overall. It also preserves the character of the main street, because it preserves the rhythm of the narrow properties.

In the area of a single-family home, the mini-mid-rise can accommodate 18 separate households, in sizes ranging from studios to three-bedrooms. Its development and ownership does not require the access to capital that larger-scale developments depend upon. As well as providing more housing for more people, this range of configurations will also accommodate a greater diversity of households and family types.

The mini-mid-rise could be the boost that main streets so desperately need after the COVID-19 pandemic. They stand to increase the housing supply with an incremental approach to intensification and, at the same time, they will bring more people to the city's main streets—helping to create a more inclusive Toronto.

Overlay of the "Avenues" and development activity in Toronto, showing the little alignment between the policy and actual development.



Renderings by RATIO.CITY

JURY'S COMMENT:
"This exemplary design respects the dominant character land use with with its simple, sleek, yet elegant presentation of contemporary in-fill. By challenging the convention of current development approaches, the submission posits that cities must evolve in thoughtful, creative ways."

Naama Blonder

Misha Bereznyak

Igor Samardzic

Sibylla Cong

TEAM PROFILE

Architects Naama Blonder and Misha Bereznyak founded Smart Density, an architecture and urban planning firm, in 2016. Smart Density has a wide-ranging portfolio, including small infills to tall buildings to master plans. The Smart Density team is driven by this vision and is passionate about finding creative and smart ways to increase density, especially in places like Toronto where so much of the city is dominated by single-family detached houses. It's this passion that has inspired designs like the mini-mid-rise that reimagine what density can look like in our cities.

Blonder and Bereznyak both studied at the Israel Institute of Technology and Bereznyak received a master's from the University of Toronto as well. Together, they have extensive educational and professional experience in architecture, urban planning, and urban design. Their diverse experiences provide Smart Density with the unique ability to understand many different facets of the planning, development, and design processes.

Igor Samardzic is an urban planner and evaluator for Smart Density, with expertise in urban planning, community development, accessibility planning, and stakeholder engagement.

Sibylla (Xinyue) Cong is an architectural and graphic designer with Smart Density.

Mining Scars of Single-Industry Communities: The Lakeshore Basin

AN ARCHITECTURAL RESPONSE

HOLLY SUTTON team leader **PATRICK HARROP** project advisor

The mine within a community is a double-edged sword. It provides jobs and economic benefits, but the community's reliance on a single and unsustainable resource leads many mining towns into boom-and-bust cycles. Designers can address the reality of shrinking industrial communities through a de-growth planning framework that acknowledges the fallout from mining activity. De-growth in this context does not necessarily require an end to development. Instead, it can be an approach of alternate developments that seek long-term sustainability rather than short-term exploitation.

For the community of Kirkland Lake, this project proposes the long-term remediation of an industrial site known as the Lakeshore Basin. Over four phases, this project outlines a series of architectural interventions that support its future use for gatherings, sports, education, recreation, and leisure, as the

A rehabilitated industrial landscape, as envisioned here, can be appealing to local users for sports and recreation, from dirt-biking and dog-walking in the summer to tobagganing and snow-shoeing in the winter. This project would enhance the site to be more supportive of this type of programming.

degraded physical landscape reverts into a thriving ecosystem.

Kirkland Lake sits on a geologic fault laced with gold, prompting the drainage of the Kirkland Lake into the empty basin that is now known as the Lakeshore Basin; the lake had to be emptied to allow for the construction of the network of mine shafts below. The town itself was originally planned around the lake and has since literally turned its back on it. The downtown buildings at the basin edge face away from the derelict site; their windows are either boarded up or entirely removed. The vast infrastructure of the mine beneath the town and drained lake still exists and is operational. Like an iceberg, the head-frames which connect this vein of gold at surface level are marginal to the network of shafts uniting them underground. This designed-and-built world is hidden from sight but always underfoot, quakes of trembling rock and blasting made real by the scars left on the landscape.

Groundwater accumulates in the underground shaft network and must be pumped out every season. This means that upon the mine's closure, the shafts, Lakeshore Basin, and surrounding mine cave-ins will begin to fill with water. The closure would allow an opportunity for a strategic transformation to support various fish species, amphibians, mammals, and birds. Vegetation planted throughout the site would absorb metal through their root systems and nourish

Right: The Lookout Tower, to be built in the second phase of the project, will allow the community to observe the landscape and its future transformations. Below: the existing mineshaft and the ruggedly beautiful vista of the Kirkland Lake region.

pollinating species, launching the regeneration of ecological habitats for other animals.

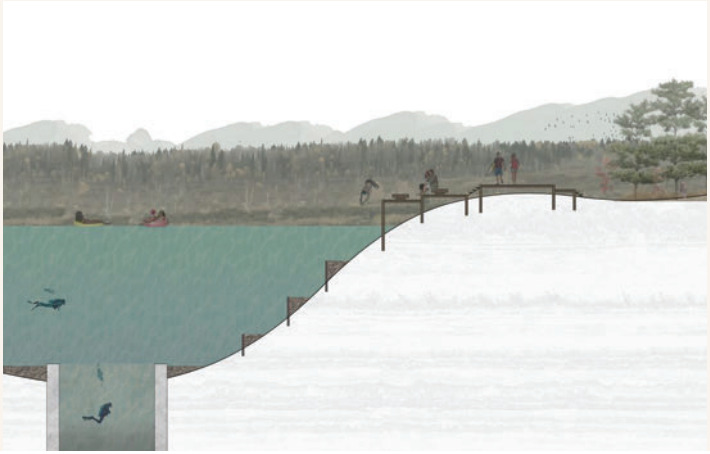
For the Massaca mine complex at Kirkland Lake, an existing structure (the Hoist Building) and No.5 Shaft can be transformed into a Monitoring and Research Facility, while the shaft can be the base of the future Lookout Tower. The mining company could partner with a local educational institution to implement a hands-on environmental-studies program in the building. A new Storage Shelter would be built to hold the mining company's monitoring equipment and off-road vehicles.

After the mine ceases operations, the Lakeshore Basin will begin to fill with water. The Lookout Tower will serve as a viewing platform for the community to observe the evolving landscape. As the lake reaches capacity and reconnects to local bodies of water, the surrounding area around the Lookout Tower will become a mecca for ice-fishing in wintertime, and the Tower can act as a Warming Station, using a geothermal heat-exchange system through the mine shaft above as its energy source.

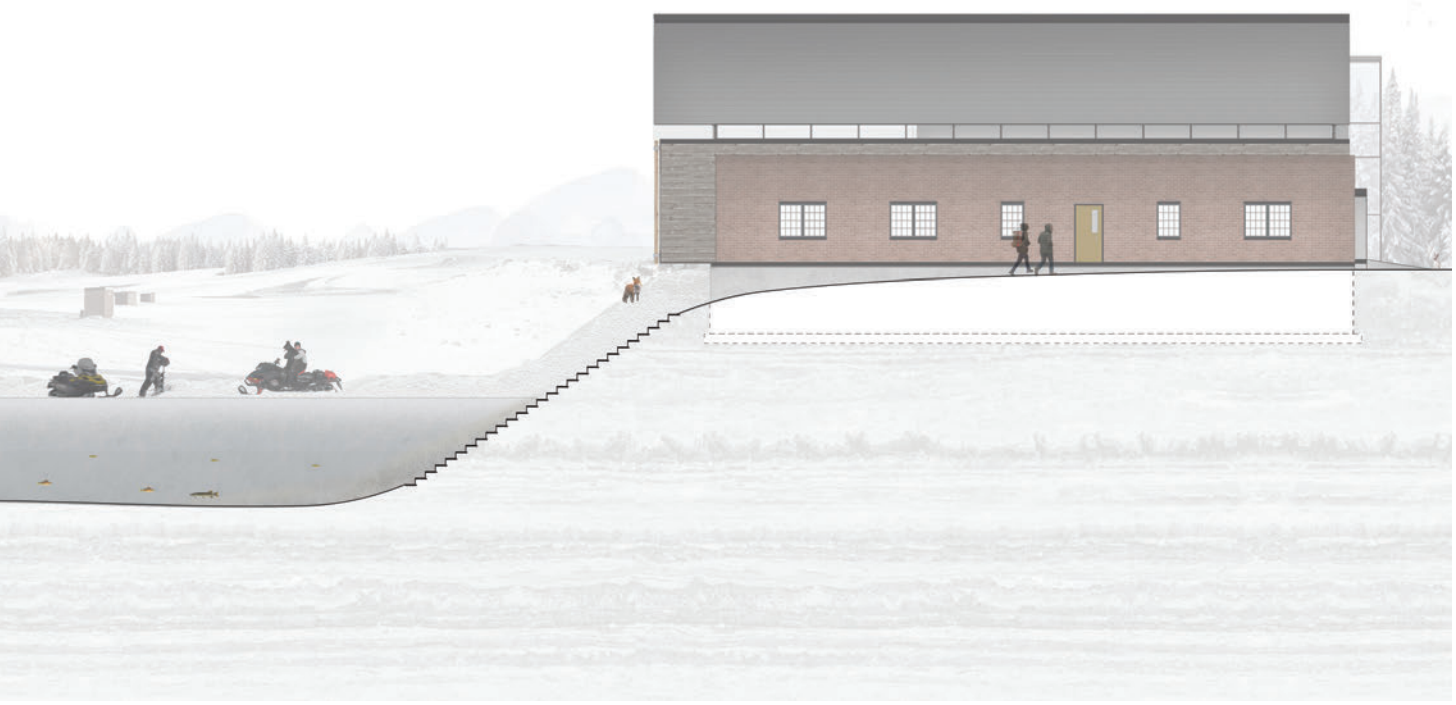
In due course, some fencing will be removed to allow community access, supported by a Winter Sports Centre and the mining company's now-decommissioned Storage Shelter, repurposed into rental equipment for skiing, skating, and snow-shoeing. Helical piles will elevate the structures from

In the final phase of this project, the Warming Station will be a communal gathering space in the winter months. The structure will be heated using a closed-loop geothermal heat exchange system through the mineshaft built above. The system will be relatively inexpensive to install, as there will be no drilling required.

While the mine is still in full operation, the Storage Shelter will be built as an open structural shell lifted from the ground. The structure should be constructed using helical piles to elevate the structure from the ground, as the water levels may fluctuate.



After the mine has ceased operating, some mineshafts will be blocked at a point that will allow water to fill into them. This intervention will allow scuba divers and swimmers to interact with these industrial artifacts underwater.



Renderings by Holly Sutton

JURY'S COMMENT:
"Environmental remediation coupled with interventions to strengthen the resilience of communities is something we need right across Canada. The bold and holistic approach advocated in this submission is a courageous way forward as we heal our land and our communities."

the ground, protecting it from the area's fluctuating water levels in the warmer months.

In the final phase, the buildings along the Lakeshore Basin will be repurposed into apartments for students of the environmental program at the Monitoring & Research Facility. By now, the network of caved-in mine shafts will be filled with water and safe for public access. Spiral platforms will allow visitors to walk around the open mine shafts; as the water level rises, they will be submerged, allowing snorkelers and scuba divers to observe these industrial artifacts underwater.

All of these interventions are designed with passive design principles, making use of existing industrial infrastructure and materials from the mine site. Its transformation for the benefit of hikers, cyclists, divers, bird watchers, students, and the community as a whole will provide future users with opportunities to interact with the region's heritage and evolving landscape.

Holly Sutton

Patrick Harrop

The Winter Sports Centre will hold rental equipment for cross country skiing, skating, and snowshoeing. The former Storage Shelter will act as a shell to the new construction, which will be built with local materials, such as cedar and recycled metal from the mine complex.

TEAM PROFILE

Holly Sutton was born and raised in the mining town of Kirkland Lake, Ontario, where she gleaned a uniquely informed perspective about the nature of such places. She received her bachelor and master's degrees in architecture at the McEwen School of Architecture in Sudbury, Ontario. The school's hands-on program offered her the opportunity to work with interesting remote communities. At that point, she began thinking about how architecture and design could contribute to these regions. Now, as an Intern Architect for J. L. Richards and Associates in Timmins, Ontario, she works with many different northern and remote populations.

Sutton's thesis on Mining Scars was essentially an end-of-life proposal for the local gold mine that dominates the Kirkland Lake landscape. Through her research, she brought together ideas and concepts from different local people to create a framework for her hometown's future.

Patrick Harrop, an Associate Professor of Architecture at McEwen, was her thesis advisor for this project. He encouraged her to embrace the quirky and chaotic aspects of this project and guided her through different research paths and trains of thought that have enriched the project. In the coming years, Sutton will be focusing on becoming an OAA-licensed architect. And further into the future, she hopes to see some of the ideas proposed in Mining Scars implemented in reality.

Ontario Place : On-to-our Next Adventure

RE-IMAGINING A LANDMARK PUBLIC SPACE FOR A NEW GENERATION

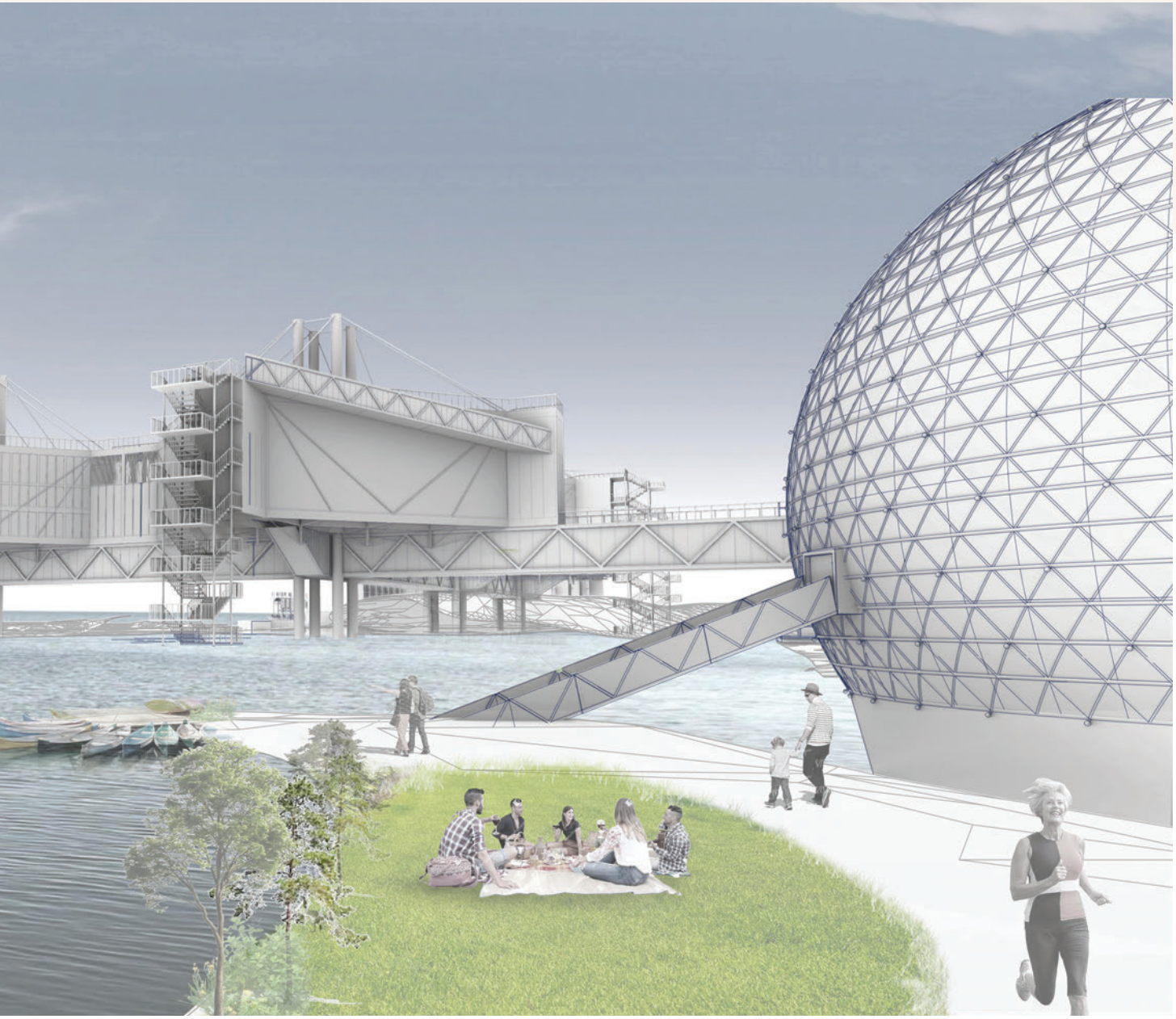
ERMAN AKYOL, VICTORIA CARDOSO, EUGENIA WONG

Upon its opening in 1971, Ontario Place instantly became part of the region's rich cultural and architectural history. Built on three artificial islands on Lake Ontario near the Toronto waterfront, it has been a fixture for 40 years. In 2012, the Government of Ontario announced that this much-loved event and entertainment park would close for future redevelopment. This proposal aims to retain its architectural essence and highlight what remains pertinent and viable, while transforming the site to reflect a new reality.

As part of the team's research, they explored the history of the land and considered what uses the complex can bring to all of us—not only in the present, but in the future as well.

The future Ontario Place should contribute to the livability and appeal of our multicultural, sustainable,

This proposal conserves and enhances this historic site, while allowing opportunities for growth. The five pods on the site will offer kids' fun eduction area, multipurpose event space, exhibition hall, cultural campus, and digital arts museum. Two major interventions for innovation are AeroFarms, for conducting research on sustainable food practices as producing food to sell, and on-site residences for staff and students at the research facilities of various Ontario college and university programs.



Renderings by Erman Akyol, Victoria Cardoso, and Eugenia Wong

and equitable province. The existing site suffers from poor management resulting in several architectural elements being demolished, a decrease in visitors, and degradation of a sense of community.

This proposal provides site-based policies that conserve and enhance this historic site, while pointing to opportunities for contextually appropriate growth. This concept emphasizes the role of Ontario Place as a symbol of change and adaptation. Its connection to nature provided opportunities for education and enjoyment. The experience and spirit should be preserved with new memories building on the old.

To access and use the site efficiently, several adjustments are needed. In the short-term, additional bus routes connecting to the site are necessary to attract visitors. The eco-friendly approach to this project would place an emphasis on electrical or human-powered vehicles. And in the long term, a driverless monorail could be implemented to provide faster and more direct transportation.

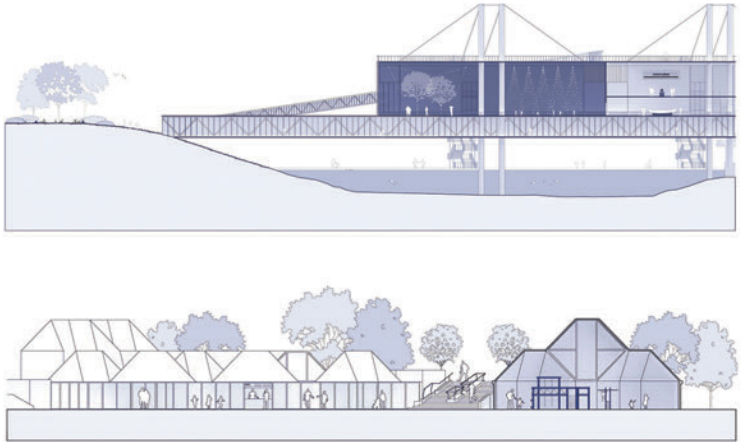
The proposed transportation include dedicated electric transit vehicles serving Ontario Place, relocating surface parking underground and supplying electric charging stations, adding a year-round bus line that stops at Remembrance Drive, a bus stop for express bus line 145 on Lake Shore Boulevard, and new bicycle paths. Water-based transit could also be used for recreational and commuter purposes.

Waterfront space is kept open and free to the public wherever possible. Programming here consists mainly of beach, boardwalk, and green-space interactions with the shoreline. Below: the visually welcoming main entrance to the re-imagined Ontario Place. A new bus stop and other enhancements re-establish the site's connectivity to public transit.

Featuring indoor and outdoor play space, Zone 1 designates a place that encourages fun and child-friendly recreation. By repurposing the larger existing buildings, new dynamic indoor spaces are created for children to enjoy year-round. The smaller spaces can offer food services and special vendor space to generate revenue and keep visitors on the island for the full day. Waterfront space is kept open and free to the public wherever possible to allow visitors to enjoy the most unique feature to the island: lake-front access. Programming here can be broad and readily open to adaptation. It consists mainly of beach, boardwalk, and greenspace interactions with the shoreline.

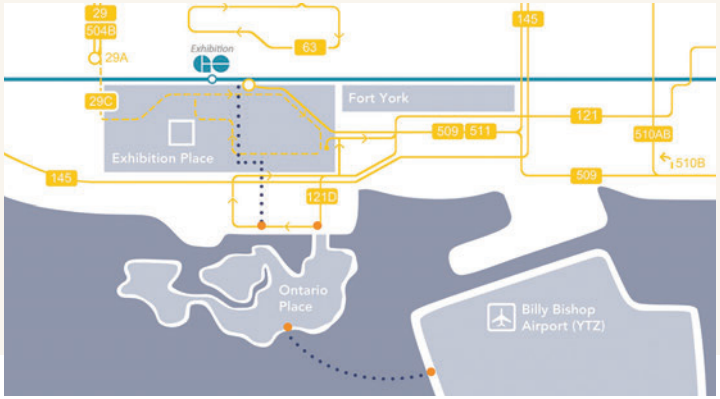
Zone 2 designates space for exhibition on themes pertaining to what is generated on the island and relevant to Ontario Place. Each pod has a designated program. Pod 1 is Kids Fun Education: a centre for collaborative learning on topics such as freshwater ecosystems. Pod 2 is a Multipurpose Event Space, available for rent and flexible to individual renters' event needs. Pod 3 is the Exhibition Hall, featuring temporary showcases and exhibitions related to art, design, or science. Pod 4 is the Cultural Campus, a space for Indigenous teachings and the history of Ontario Place. Pod 5 is the Digital Arts Museum, a multi-sensory, interactive exhibition space.

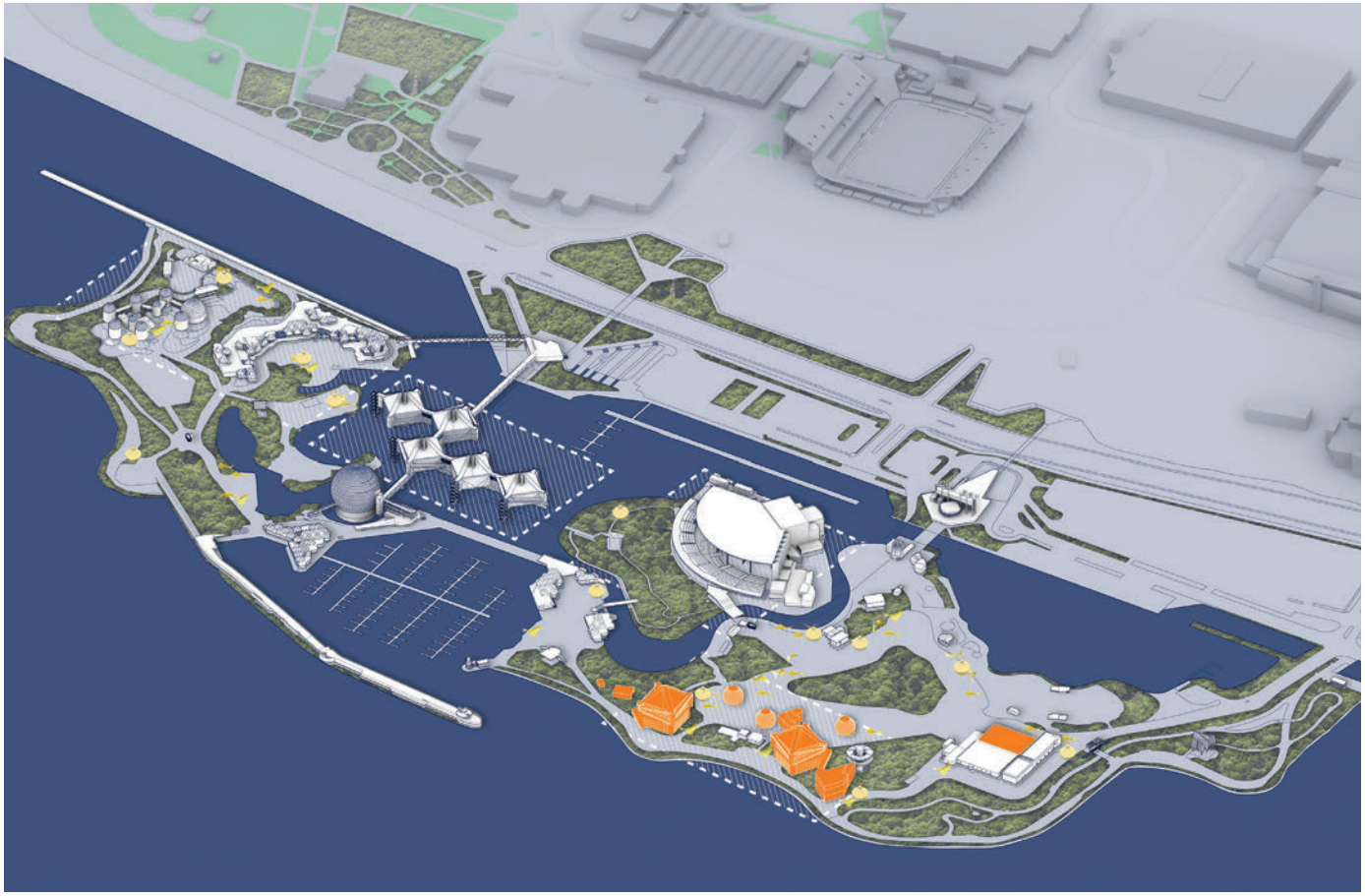
Two major interventions for innovation are proposed: AeroFarms and live-in residences. The AeroFarms serve as space to conduct research on sustainable food practices and also to produce food to sell locally. The live-in residences will accommodate staff at the science research facilities of various Ontario college and university programs such as Environment Biology, Aquatic Ecology, and Limnology. These residences will create space for students, researchers, artists, and other short-term



Top: section of the transformed main pod. Above: section of the children's play space and education pod. By repurposing existing buildings, dynamic indoor spaces are created for year-round use.

Accessibility to the future Ontario Place is improved by a new year-round bus line and express-bus stop, water-based transit for recreational and commuter purposes, electric transit vehicles, and car-charging stations. Surface parking would be moved underground and replaced with landscaping.





JURY'S COMMENT:
"This submission uses the site's rich social, cultural, and architectural history to build an innovation hub for diverse stakeholders and the public, bringing new life to a decaying infrastructure."

residents of the island to live while serving the many businesses and research programs offered.

To address the continued need for more green and recreational space, a designated recreation and sport facility would be included on the east island. This sport facility will provide year-round indoor recreation space, partnering with already existing sports programs in Toronto and giving them a space to run their lessons and tournaments. This indoor facility also works with the many outdoor recreation spaces proposed for the site such as kayaking, canoeing, skating, hockey, and summer field sports like soccer.

Architecture isn't always about building new things, but about revamping what is, shining light on abandoned structures, and creating something new. By implemental new spaces dedicated to innovation, Ontario Place can develop a new contemporary identity that evolves over time.

Live-in residency buildings provide onsite accommodation for researchers and students at nearby colleges. These residency buildings serve students in majors related to studies that can be done close to the lake, such as Freshwater Biology.

TEAM PROFILE

Eugenia Wong, Victoria Cardoso, and Erman Akyol met in their first year of study at the University of Toronto, where all three are currently pursuing master of architecture degrees. They combined their talents and interests to imagine a lively, welcoming, and economically viable place for Ontarians to gather.

Wong has worked at Hatch Architects and assisted the City of Toronto in the Helsinki Energy Challenge. She is an active member of the Toronto arts community, having served as a Hart House steward and a University of Toronto Art Museum advisory board member.

Cardoso has a special interest and experience in architectural and design history, as well as human and environmental geography. She is interested in designing for the community and creating vibrant public spaces. She is currently balancing her graduate studies with work at Wallman Architects.

Akyol studied industrial design as an undergraduate and received a master's degree from the inclusive design program at OCAD University. He also studied for three years at Chiba University in Japan and six months at HAWK, a school of applied arts in Germany.

All three team members hope that their vision helps inspire a future where Ontario Place is lively, welcoming, and economically viable for generations to come.

Victoria Cardoso

Erman Akyol

Eugenia Wong

Bedroom wings are paired with a communal amenity hub to create a comfortable "courtyard cottage" building block, each with its own food and flower gardens. Several of these blocks can grow into a neighbourhood, and in turn into a hamlet or village as needed.

Temporary Foreign Worker Communities

HEALTHY, HUMANE ACCOMMODATION FOR THE PEOPLE WHO HARVEST OUR FRUIT AND VEGETABLES

LYN STRATFORD, JORDAN LAMBIE, GORDON STRATFORD

This proposal focuses on design as a catalyst for achieving a healthy, nurturing, and adaptable home-away-from-home for vibrant foreign worker communities. This holistic approach enables creative consideration toward what temporary workers need as they make their way through their daily lives as individuals, members of farm teams, and citizens of their away-from-home community.

In the fall of 2020, the Government of Canada announced a call for consultation regarding the inadequate housing situation for temporary foreign workers. COVID-19 was a driving force leading to the announcement, due to the disproportionate outbreak of the virus among migrant workers engaged in Canada's agricultural industry. The dire situation has shone a light on the poor living conditions endured by the workers, including overcrowding and limited access to healthcare. Such conditions create a setting

Renderings by G.C. Stratford Architect

Above: An example of accommodation for temporary foreign workers in Ontario, with little resemblance to the vernacular architecture of the workers' homelands. Below: The courtyards, family compounds, and warm colours in Mexico; and the intricate porches, gardens, and vivid colours of Caribbean communities.

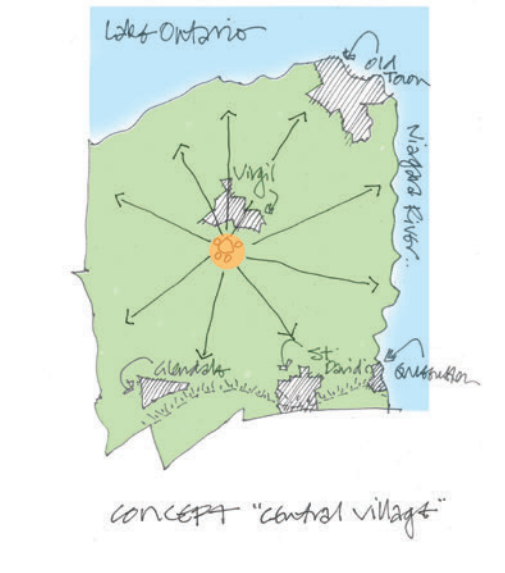
for the disease to thrive, putting workers' and others' lives at serious risk. This situation reflects badly on how we care for guests in Canada who help provide our daily sustenance.

This research project focused on the farming communities around Niagara-on-the-Lake as a case study, but its findings can be applied to temporary worker communities across the country. Part of the problem derives from the decentralized and inadequate worker accommodation. For greatest efficiency, farmers want their temporary workers to live close to the fields, vineyards, and orchards they tend, but that situation is not always supportive of physical or mental health. Worker accommodation often consists of poor-quality facilities with overcrowded conditions. Physically confined, the workers frequently lack the option of safe social distancing and are not close enough to healthcare and other external services offered in nearby municipalities. The scattered worker enclaves of trailers, modular units, and spare buildings are "ghost communities," existing in a parallel universe to the Ontario communities they serve.

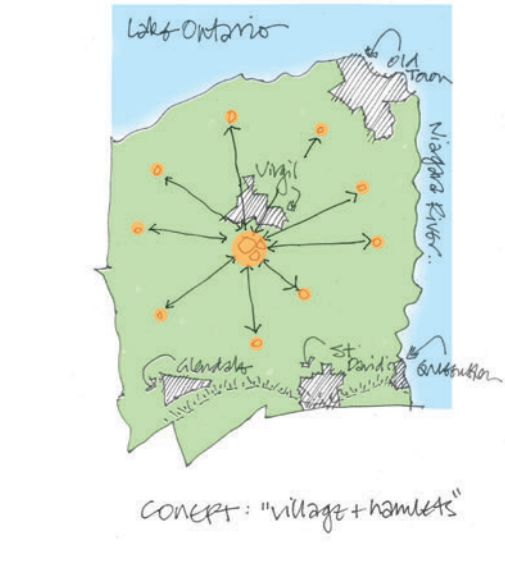
The Temporary Foreign Workers Community project addresses both location and architectural format, proposing a new model that prioritizes the mental, physical, and social health of migrant agricultural workers. After extensively researching the community demographics, the design team

Niagara on the Lake —mainly agricultural with small towns.

Niagara on the Lake—farm workers dispersed throughout area.



"Village" concept provides centralized farm worker community serving agricultural area.



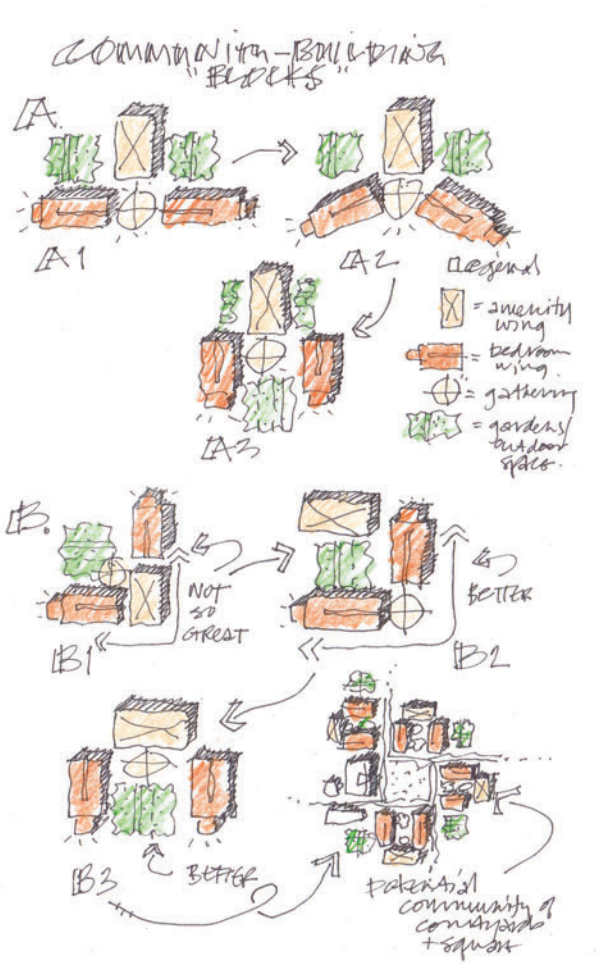
"Village" + "Hamlets" concept combines centralized community with dispersed settlements where needed.

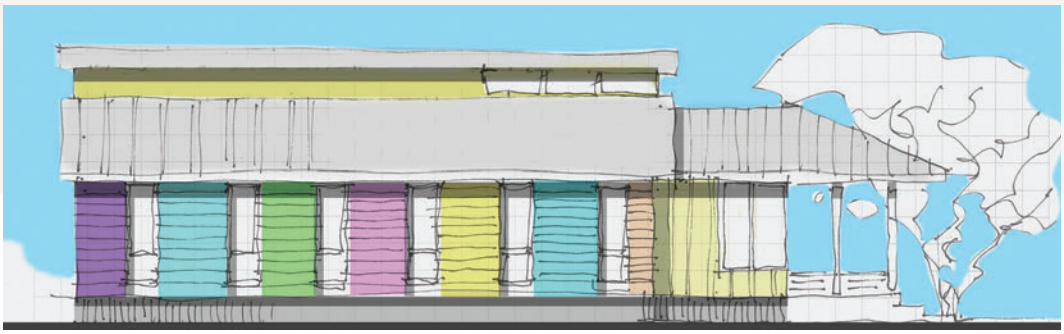
ascertained the value of embedding some of the design principals of the workers' home culture into their Canadian housing.

Many of the workers come from Mexico, where family compounds and vibrant colours create a sense of community and well-being. Others come from Caribbean nations, with intricate and eclectic vernacular architecture. The design solutions in this proposal are inspired by these exemplars, creating communities that are more closely connected to the countries that workers call home.

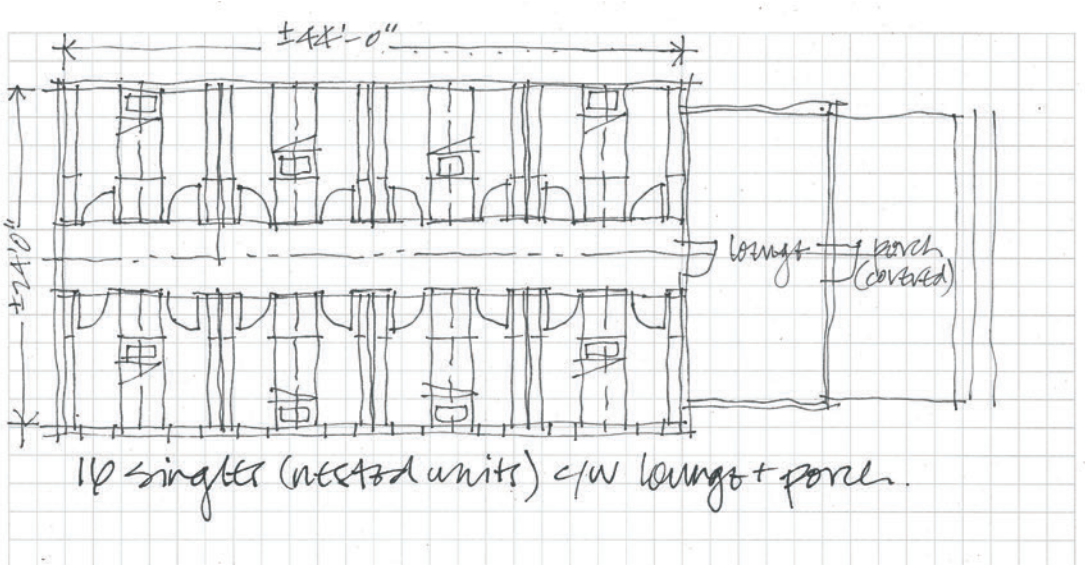
The individual buildings would be arranged in proximity to one another within a village-like setting, with a common gathering area at its core. The regional location of the housing would depend on proximity to the farms and orchards where the workers spend their days, with the village model, where viable, enabling the co-location of workers into a centralized community, complete with readily available support services. The hamlet model would provide communal living for smaller groups of workers, in close proximity to their place of work.

In this emerging pandemic-ready era, the existing conditions of temporary worker housing must change. The early designs that the team has developed to date come from seeking inspiration from state-of-the-market ideas and long-held traditions that already exist. Helping this community in need is really creating solutions for a "mosaic of communities," acknowledging through design the distinctive social and cultural needs of each group of workers. This project offers a case study in creating healthy communities for these workers, who deserve accommodation befitting the important service they provide.



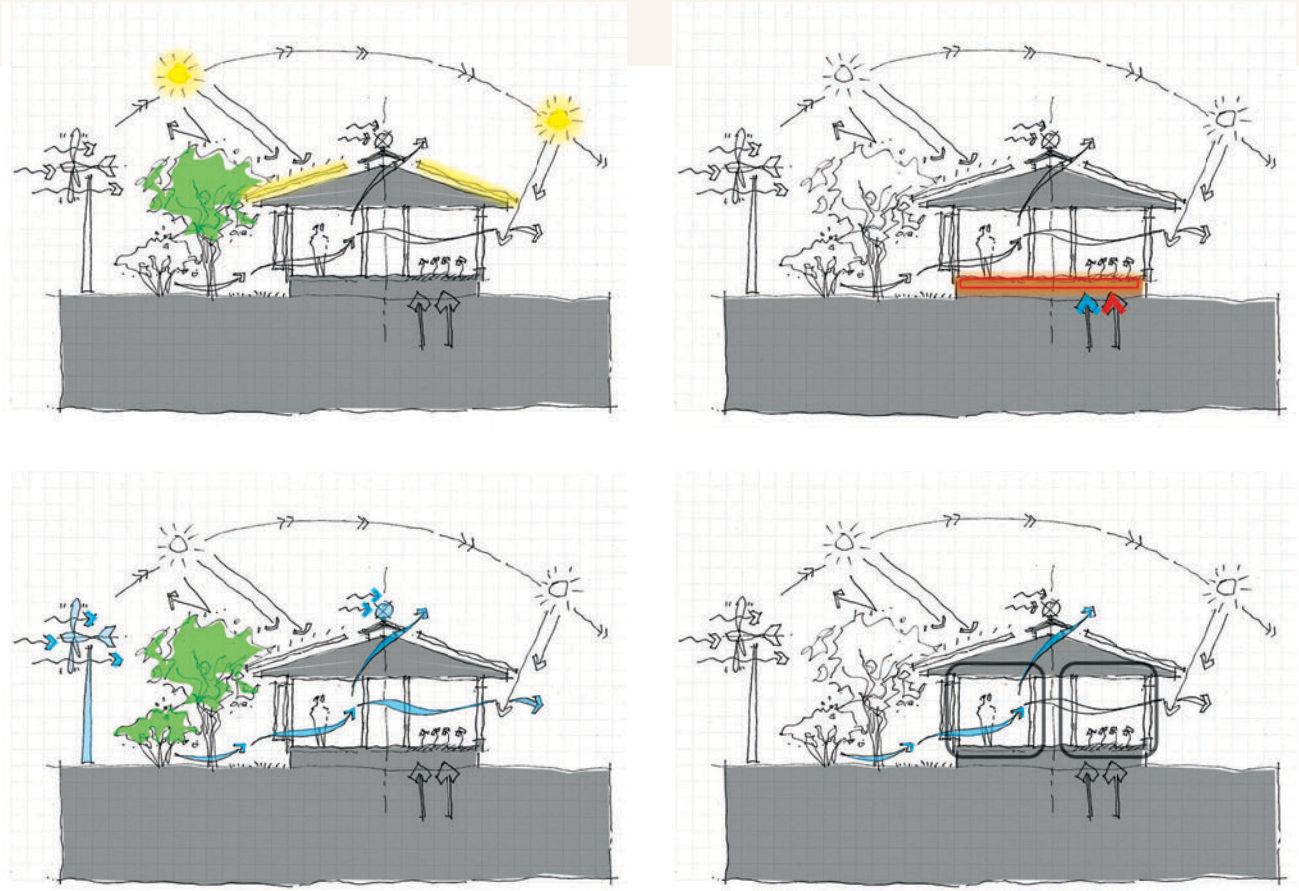


Accommodation includes personal bedrooms instead of stacked bunk bed dormitories.
The housing can be modified for further physical separation when the need arises.
A variety of impromptu gathering and alone-time spaces include covered porches and shaded courtyards, reminiscent of home.



JURY'S COMMENT:

"This project uncovers a sad truth of the living conditions and reality of our working underclass in Canada, amplified in the wake of the pandemic. Their submission is a bold example of how architectural thinking can become a catalyst for social justice, equity, and cultural resilience for some of Canada's most vulnerable people."



The design solutions of this project are inspired by the principles of passive sustainability, exemplified in the built-form traditions of Mexico and the Caribbean.

Lyn Stratford

Jordan Lambie

Gordon Stratford

TEAM PROFILE

This team puts a high priority on design research and creative problem-solving with a social heart. The trio's combined expertise includes urban design, architecture, interior design, and product design.

Lyn Stratford studied Technical Theatre at Niagara College and Interior Design at Ryerson University and focuses on ideation and research. Her observations of the Niagara Region agricultural industry's heavy reliance on foreign workers sparked this submission.

Gordon Stratford, OAA, FRAIC, is an architect, urban designer and product designer who studied at the University of Waterloo and McGill University.

Jordan Lambie studied Urban and Regional Planning at Ryerson University and is a Senior Urban Design Planner at the City of Barrie.

Their collective project experience includes new communities and neighbourhoods, healthcare, higher education, STEM research, hospitality and workplace design, and product creation. Among their many sources of inspiration are community volunteering, Lucienne and Robin Day, Ray and Charles Eames, and Rural Studio founder Samuel Mockbee.

JURY OBSERVATIONS

Photo by Steven Evans

By **TOON DREESSEN, OAA, FRAIC**

Although the pandemic obliged the 2021 SHIFT Architecture Challenge jury to convene virtually, we were thrilled to see touching, thoughtful submissions that embraced the goal of the SHIFT program. As the jury facilitator, I concur with the four adjudicators who saw the theme of Resiliency so deftly exemplified.

In a departure from our inaugural program two years ago, which recognized seven winning selections and four honourable mentions, the 2021 SHIFT pays tribute to just five selections. This is not because of a dearth of submissions—quite the contrary. The jurors saw an abundance of talent in the many teams who submitted, and they had to make hard choices to narrow down the selections. Given the complex nature of the Resiliency theme, it made sense to focus on a smaller number of projects but devote more space in this book to showcase each individual project and team.

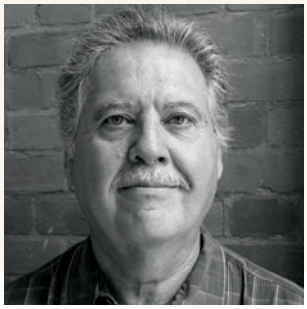
Considering how we imagine sustainability and built form, resiliency is natural to the field of architecture, which must respond to economics, globalization, cultural heritage, and densification needs. The jury saw how proposals like the mini-mid-rise and K-Town: A Future address all of these realms. Resiliency can be manifested in built form to reflect the needs and sense of identity of communities and individuals, from re-imagining Ontario Place in Toronto, to accommodating temporary foreign workers in the province's agricultural regions. These submissions show how the Ontario Association of Architects encourages a more equitable and healthier future by recognizing architecture as thought leadership.

The jury also appreciated the wide range of scale within the submissions. Architectural attention to vast landscapes, as found in Mining Scars, is as important as intimate infill developments like the K-Town proposal. Many submissions highlighted the potential of architecture to address decades of environmental degradation or the urgent need for new housing forms. This evolving role, the jury noted, is arguably more critical than creating iconic buildings or falling back on a well-established vernacular.

Resiliency is a much-discussed idea in public consciousness, and rethinking our surrounding cultural landscapes is as important as making headlines with high-profile projects. The jury's five selections show how our profession can reach higher levels of creative problem-solving.

Toon Dreessen is president of Architects DCA in Ottawa.

Jury members



Ted Kesik
PROFESSOR, UNIVERSITY OF TORONTO'S JOHN H. DANIELS FACULTY OF ARCHITECTURE, LANDSCAPE, AND DESIGN

Ted Kesik is a professor of building science in the John H. Daniels Faculty of Architecture, Landscape, and Design at the University of Toronto. He has several decades of broad experience in building- enclosure design, energy modelling, quality assurance, commissioning, performance verification, and building systems integration. Kesik is an active member of the Sustainable Built Environment Performance Assessment (SBEPA) research network at the University of Toronto. His current research focus involves the development of design guidelines for low-carbon buildings. A founding member of the Mass Timber Institute at the University of Toronto, he is leading the development of a Mass Timber Building Science Primer. He continues to practise as a consulting engineer to architectural offices, enterprises, and government agencies.

Sophie Mackey
INTERN ARCHITECT AND SHIFT2019 PARTICIPANT

Sophie Mackey is an Intern Architect at David Ellis Architect in her hometown of Sault Ste. Marie. She graduated in 2019 with a Master's in Architecture from the McEwen School of Architecture at Laurentian University. Mackey grew up in a household that served as a "Welcome house", a homestay for international students and refugees. Her early and longstanding exposure to the diversity of cultural perspectives helped shape her thinking about architecture and beauty, eventually informing her master's thesis at architecture school. "Immigrant Landscapes: Architecture in the Age of Migration," evolved from a thesis into her submission later that year for the inaugural 2019 SHIFT Architecture Challenge, and became one of the seven selected projects by the jury. She was recently honoured with Sault Ste. Marie's Young Professional Visionary Award for her work on Immigrant Landscapes.

Aylin Ozkan
ENVIRONMENTAL AND ARCHITECTURAL DESIGN CONSULTANT

Aylin Ozkan is an environmental and architectural design consultant, researcher, and lecturer. Ozkan has worked with Kearns Mancini Architects and Perkins+Will on a variety of projects, including Meadowbrook Lane Affordable Housing, Endymion House, IRTH Landscape Hotel and Spa, Oak Ridges Library, Northeast Scarborough Community Center, and several post-secondary buildings in Ontario. She holds a PhD in Building Science from Istanbul Technical University, a Master's degree in Environmental Building Design from the University of Pennsylvania, and a Bachelor of Architecture from Gazi University. She has taught simulation, data visualization, and resilient building design at the University of Toronto. Ozkan also worked on research projects such as the development of MURB Design Guide and Thermal Resilience Design Guidelines.

Jay Pitter
INTERNATIONAL PLACEMAKER, AUTHOR, AND URBAN PLANNING LECTURER

Jay Pitter is an author, urban planning lecturer, and international placemaker whose practice mitigates growing divides in cities across North America. She spearheads city-building projects specializing in public space design and policy, forgotten densities, mobility equity, gender-responsive design, inclusive public engagement, and the healing of fraught sites. Pitter has developed an equitable planning certificate course with the University of Detroit Mercy's School of Architecture and taught a urban planning course at Ryerson University, among others. Pitter is also the John Bousfield Distinguished Visitor in Planning, Emeritus, University of Toronto. She is the co-editor of *Subdivided: City-Building in an Age of Hyper-Diversity*, and her forthcoming books, *Black Public Joy* and *Where We Live*, will be published in 2022 by McClelland & Stewart/Penguin Random House Canada.

Shift
2021