



# 2021 ONE PLANET REPORT



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# EXECUTIVE SUMMARY

In the past year, Zibi continued to navigate the global pandemic which included some reopenings, followed by the reinstatement of lockdown measures as variants of the virus came and went. While construction sites were not impacted by mandated closures, labour was as people fell ill. The most significant challenge stemming from the pandemic has been the increase in construction costs. Zibi has experienced in some instances an increase of 20-30% in construction costs and while market rates for housing have increased (which brings with it social challenges), the increase is not at par. As a result, Zibi is challenged in achieving some of the targets in its One Planet Action Plan. Pandemic aside, Zibi welcomed its first commercial tenant in 2021, Spaces, a coworking establishment whose values align nicely with those of Zibi. Followed by Interzip, Canada's only interprovincial zipline, which attracted tens of thousands of people in its first season. The completion of Pangishimo Park, Zibi's first park space, helped to transition the project from a construction site to a community. Work was completed on Block 211 and the office building was handed over to the Federal government for office fit up, we look forward to having the tenants join our community in 2022. Finally, Block 10 was named Aalto and it welcomed some of its first tenants in the last weeks of 2021 with full build out expected in 2022. Aalto is the first rental offering in Zibi's Affordable Housing Program and was made possible due to Canada Mortgage Housing Corporation. The building also hosts Zibi's District Thermal Energy Central Plant which was completed in 2021 allowing Zibi to achieve energy recovery from Kruger and provide zero carbon energy on the Gatineau side of the development.





# THE PROJECT

Located in both Ottawa and Gatineau, Zibi is a transformative project on a physical, environmental, and societal level. The only One Planet Living endorsed community in Canada, Zibi inhabits former contaminated industrial lands, and is transforming them into one of Canada's most sustainable communities. Incorporating public spaces and parks, as well as commercial, retail, and residential real estate, Zibi is poised to become a truly integrated mixed-use community, one that will reinvigorate both the Ottawa and Gatineau downtown core.

Zibi offers a place where residents, retailers, and the public will want to call home. Straddling both the Ottawa and the Gatineau waterfront, Zibi will include unrivaled access to public and active transit routes, Ottawa's brand new light rail train system, one of Canada's most extensive cycle network, public and park space, all while offering the most stunning vistas the region has to offer. Zibi is essentially a waterfront city, reimagined for the 21<sup>st</sup> century.

We are committed to transparency and environmental and social responsibility, from conception to completion. To guide and track this commitment we have adopted a One Planet Action Plan; a framework based on 10 guiding principles of sustainability which we can use to create holistic solutions. Endorsed by Bioregional, the founder of One Planet Living, our Action Plan is Zibi specific drawing on our regional characteristics and unique site history and is integrated into our municipal development permits. The following pages will walk you through Zibi's progress as a One Planet Community by highlighting accomplishments and experiences of 2021.



# SITE SPECIFICS

Uniquely situated on the Ottawa River in both the provinces of Québec and Ontario, Zibi redevelopment occupies Chaudière and Albert Islands and the north shore of the river in Gatineau.

Zibi, the Anishinabe word for River, is located on unceded Algonquin-Anishinabe territory; meaning that these lands, including all of the land in Eastern Ontario and Western Québec were never surrendered, or treated.

The site and the surrounding area have been central to historically significant activity in the region including: serving basic needs for First Nations people for millennia, a travel route for early European explorers, and industrial activity such as lumber, pulp and paper operations. Landmarked by 60 meter wide cascading cauldron shaped falls in the middle of the Ottawa River, as a result of industrial activity, the site has been inaccessible to the public for decades.

 Zibi site



# PROJECT PHASING

Site redevelopment includes the coordination of various land owners, demolition of the existing industrial buildings, servicing the site, environmental remediation of contaminated soil, rehabilitating heritage buildings and the natural environment, designing and building new buildings, creating public spaces, and the list goes on. Given this complexity, the community will be constructed over the course of 12-15 years in a phased approach. The end result will be a mixed-use community consisting of residential, retail and commercial space boasting purpose built public spaces and unique waterfront green spaces over 34 acres in the heart of the National Capital Region. We will welcome approximately 5000 residents and 6000 workers to our One Planet Community.



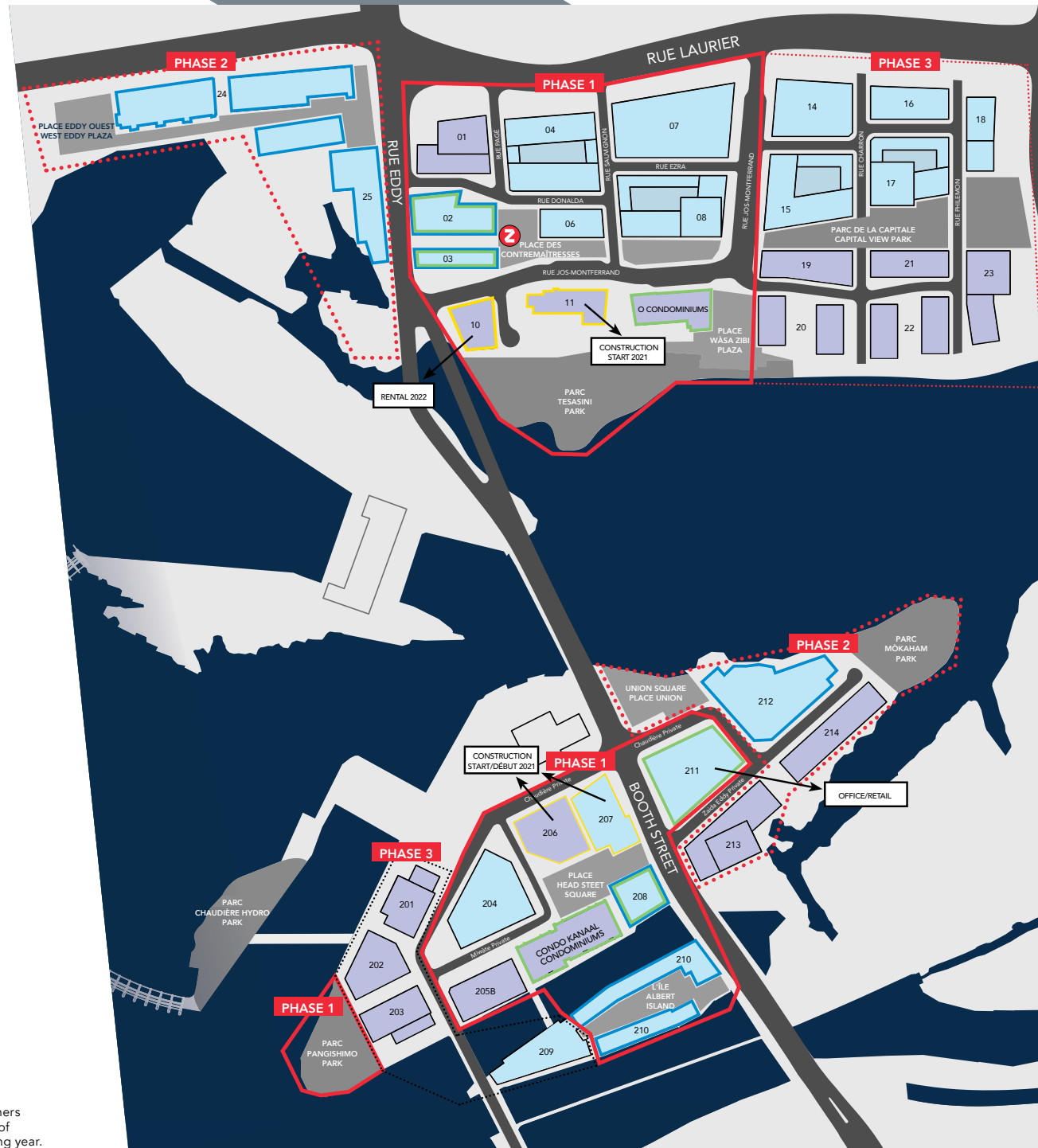
## Québec Construction phasing

Phase 1: Now – 2025, Phase 2: 2022 – 2025, Phase 3: 2023 – 2032

## Ontario Construction phasing

Phase 1: Now – 2024, Phase 2: 2023 – 2027, Phase 3: 2026 – 2031

These proposals are being considered by various levels of Government and are provided for informational purposes only. Dream Unlimited, Dream Hard Asset Alternatives Trust, Theia Partners Incorporated and each of their respective subsidiaries are not responsible for the development of these projects. Plans are subject to change and approval. Construction dates indicate the starting year. Specifications are subject to change. E. & O.E.





# THIS REPORT

This report is intended to satisfy annual reporting requirements with respect to Zibi's progress with its One Planet Action Plan and has been peer reviewed by Bioregional's panel of experts on sustainable development.

The front half of this report provides a summary of Zibi's progress on its One Planet Action Plan in 2021 by walking through each of the 10 principles. The appendices provide a detailed analysis of data collected to achieve targets and ultimately project outcomes defined in Zibi's One Planet Action Plan.





## HIGHLIGHTS OF THE YEAR

Facing ongoing pandemic restrictions, Zibi continued to adapt in 2021 and facilitated both in person and online workshops and events. The pandemic has prevented us from implementing programming intended to bring the community together and this is reflected in survey results from the community where only 33% feel involved in the community.

# HEALTH AND HAPPINESS

The creation of community green spaces and play areas will provide ample infrastructure for everyone to lead active lifestyles within the community. Coordinated community gatherings and initiatives will give residents the opportunity to be active in shaping and participating in their community.



## SUMMARY OF 2021 HEALTH AND HAPPINESS ACHIEVEMENTS

Refer to Appendix A for data. Refer to previous reports for 2018 status.

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2019 STATUS	2020 STATUS	2021 STATUS	2022 ACTION
HH1	Increase happiness for Zibi residents.	>75%	Percentage of residents that say they're 'happy' with their lives.	Average life satisfaction between 2009-2013 in Ottawa-Gatineau was rated at approximately 8 on a scale to 10 where 10 is "very satisfied" <sup>1</sup> . Average from residents surveyed is 3.75 of 4 where 4 is very happy.	Average from residents surveyed is 3.93 of 5 where 5 is very happy (79%).	Average from residents surveyed is 4 (80%) on a scale from 1-5, 5 where 5 is very happy.	According to our annual residents survey, on average, residents rate their happiness a 4 on a scale from 1-5, where 5 is very happy. 90% of respondents rated their happiness 4 or better (Table 1).	Zibi will share meaningful knowledge and tips related to health and happiness on our new dedicated online social platform, and engage with residents on a personal level when they participate in workshops and events.
HH2	Create opportunities for community involvement.	>70%	Percentage of residents that feel actively involved in their community.	Ottawa-Gatineau residents are less likely than the national average to report that they feel a sense of belonging in their community (58% for Ottawa-Gatineau vs. 65% for all of Canada) <sup>1</sup> .	47.7% of surveyed residents feel involved in the Zibi community. Throughout the year, Zibi hosted 7 activities, and 5 workshops (refer to Appendix A).	35.7% of 60 surveyed residents feel involved in the Zibi community. Throughout the year, Zibi has hosted 24 events and workshops, 14 of which were offered exclusively to community members.	The annual survey revealed that 33% of the 49 residents surveyed feel involved at Zibi (Table 1). The survey was distributed to approximately 140 residents, the level of response may also be an indication of the lower level of involvement.	Zibi is now on Mighty Networks, an online platform that gives community members a dedicated space to interact and share. The One Planet Ambassador will facilitate connections by posting conversation starters like pertinent articles, development updates, polls, etc., and encouraging others to do the same. There will also be opportunities to connect at community events and workshops as pandemic restrictions loosen.
HH3	Facilitate learning and creative expression opportunities for residents.	12	Number of events and/or classes held per year within community spaces.	There is currently no industry standard or best practice.	Zibi hosted a total of 12 workshops and events in 2019 (refer to Appendix A).	Despite the global pandemic, Zibi adapted, and offered a variety of virtual workshops and events throughout the year, for a total of 24 events and workshops, 14 of which were exclusive to community members.	Zibi hosted 18 events/workshops in 2021, 7 of which were exclusive to community members. In addition, we had a yoga program which was held weekly through the summer.	The One Planet Ambassador will deliver a full calendar of events in 2022 including activities such as a balcony gardening workshop, community yard sale, zero waste workshop, trivia night, etc. We will be able to refocus efforts on in-person events this year.

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IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2019 STATUS	2020 STATUS	2021 STATUS	2022 ACTION
HH4	Support better health outcomes for residents.	>85%	Percentage of residents that indicate an overall satisfaction with their health.	63.6% of Ottawa & Gatineau residents perceive their health as very good or excellent; 72.3% perceive their mental health as very good or excellent; Canadian average is 59.9% and 72.2% respectively.	Residents were surveyed on whether or not their health allows for them to meet their day-to-day needs. 93.3% of respondents indicated that yes, their health allows them to meet their daily needs.	Residents were surveyed on whether or not their health allows for them to meet their day-to-day needs. 100% of respondents indicated that yes, their health allows them to meet their daily needs.	All of the survey respondents indicated their health allows them to meet their daily needs (Table 1).	In the survey, many residents commented that more physical activity would improve their health, so, Zibi will plan/offer activities like outdoor skating, bike tours, trash walk, etc. We will also continue our weekly yoga program in the summer months.
HH5	Support better health outcomes for construction workers.	>85%	Percentage of workers that indicate an overall satisfaction with their health.	There is currently no industry standard or best practice.	2019 surveying comprising of both trade and office workers indicated that 28% claimed their overall health (mental and physical) was great, 52% was good, 14% average and 6% indicated that there is room for improvement.	The 2020 health and happiness average from trade and office workers surveyed is 3.5 on a scale from 1-5, 5 where 5 is very happy.	70% of staff rated their happiness 4 or better (5 being the best) and 100% say their health meets their daily needs (Table 2). 90% of trade workers rated their overall health a 4 or better (5 being the best) (Table 3).	Zibi will continue to host workshops and promote events that focus on health and happiness.
		>85%	Percentage of workers that indicate increased satisfaction working at Zibi as compared to other sites.	There is currently no industry standard or best practice.	We continue to struggle to track this outcome as there is significant worker turnover on site. As such we do not have a tangible result for 2019.	22% of construction workers surveyed indicated their increased satisfaction working on Zibi's site. We continue to struggle to track this outcome as there is significant worker turnover on site.	40% of trades workers say more can be done on construction sites in general to improve worker health; most have not noticed anything different at Zibi (Table 3).	Zibi will continue the Trade of the Month program, rewarding those that apply sustainable practices on site – past winners have displayed gratitude for the recognition. The One Planet Ambassador will increase OPL signage on site and improve onboarding and education initiatives and will work with the Construction Manager to encourage programs specifically targeting health.

<sup>1</sup>Statistics Canada Life Satisfaction Survey 2009-2013  
<https://www150.statcan.gc.ca/n1/pub/11-626-x/11-626-x2015046-eng.htm>



## HIGHLIGHTS OF THE YEAR

Zibi's first commercial tenant, Spaces, a sharing workspace, opened its doors in 2021 and the team on the ground has welcomed One Planet Living with open arms. Zibi also welcomed the first residents to Aalto, a rental building with an affordable component thanks to Canada Mortgage Housing Corporation. Interzip, Canada's first interprovincial zipline, opened at Zibi in 2021 welcoming tens of thousands of people to Zibi. We look forward to having them back in 2022.

# EQUITY AND LOCAL ECONOMY

A community for all, Zibi will incorporate a range of housing opportunities to ensure a diverse mix of owners and renters. The development includes commercial and retail spaces that are preferentially allocated to local and socially responsible business, creating jobs and giving opportunity to small, ethically run enterprises.



## SUMMARY OF 2021 EQUITY AND LOCAL ECONOMY ACHIEVEMENTS

Refer to Appendix B for data. Refer to previous reports for 2018 status.

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2019 STATUS	2020 STATUS	2021 STATUS	2022 ACTION
ELE1	Plan for 7% affordable housing.	7%	Percentage of affordable housing, measured by number of affordable units compared to the total number of units.	In 2011, on average those living in the Gatineau-Ottawa area spent 21% of their income on shelter. According to CMHC, in order for housing to be affordable, no more than 30% of income should be spent on shelter <sup>1</sup> .	Zibi negotiated a partnership with Ottawa Public Housing in Ottawa and applied for a loan through Canada Mortgage Housing Corporation targeted at affordable housing to support a project in Gatineau.	Zibi secured a loan through Canada Mortgage Housing Corporation to be applied to Block 10. Construction began on Block 10 in 2020.	Block 10, or Aalto Suites, a 162 unit rental apartment that was funded and financed through CMHC's RCFI program began leasing to renters in December 2021. This is Zibi's first affordable housing project and currently, 53% of the units available at Zibi fall within Zibi's affordable housing program. This stat will change as the project evolves, but the early adoption of the program demonstrates Zibi's commitment to this target (Table 1).	Construction will wrap up on Aalto in 2022, following that, Zibi expects an increase in building occupancy. Construction will continue on Block 206 which will also have an affordable housing component. Occupancy of this building is anticipated to be spring 2024.
ELE2	Promote and give precedence to smaller, local and/or ethically run enterprises.	50%	Percentage of retail space storefronts that contain small, local, and/or ethical businesses, compared to the total number of storefronts at Zibi.	There is currently no industry standard or best practice.	No leases were signed in 2019 however Zibi hosted a pop up beer market over the course of 12 weeks. Run by a local enterprise, La Terrasse Festibière featured a rotation of beers local to Québec.	Commercial space was leased to "Spaces" an office, coworking and meeting room provider. Spaces will occupy part of a commercial block in Gatineau, as well as in Ottawa. The Zibi team completed a One Planet Living Leasing Guide in 2020 which will be provided to future leases.	Due to the pandemic, no leases have been signed for retail storefronts, however Spaces, a coworking establishment whose forward thinking business values align with Zibi's, opened it's doors at Zibi in 2021.	Spaces will expand their operations at Zibi opening up a second coworking space. While the post pandemic future of commercial leasing remains a mystery, Zibi is confident that it will attract more commercial tenants.
ELE3	Engage Zibi residents in fair trade programs and products.	One fairtrade business will be in place by the time that 50% of retail storefronts are occupied.	Deploy fair trade guidelines in retail strategy.	There is currently no industry standard or best practice.	No leases have been signed. Leasing representatives are targeting a fair trade coffee shop for phase 1 of the project.	No leases have been signed for retail storefronts, however Leasing representatives continue to target a fair trade coffee shop in phase 1 of the project.	Due to the pandemic, no leases have been signed for retail storefronts, however Leasing representatives continue to target a fair trade coffee shop in phase 1 of the project.	Leasing representatives continue to work with this target as negotiations with prospective tenants progress.

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IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2019 STATUS	2020 STATUS	2021 STATUS	2022 ACTION
ELE4	Provide opportunities for all community members to democratically participate in governing and managing Zibi.	Set up association within 1 year of first occupancy.	Create a community wide residents' association with documented democratic governance procedures.	There is currently no industry standard or best practice.	A condo board was created at our first condominium O in December 2019. Building hand over was a long process involving requiring significant resident input, as such, it was not appropriate to develop a community association in 2019.	O's condo board celebrated its first year of existence in December 2020. Zibi will progress this target once Kanaal's condo board is established in early 2021.	Given that Zibi is still very much an active construction site with a very small community, there is currently no need for a Community Wide Residents Association. In lieu, Zibi is facilitating a Green Committee with members from both condo buildings to address issues around waste management and to plan community minded workshops and events.	In 2022 the Green Committee will expand it's membership and implement programming related to better waste management.
ELE5	Create a socially responsible tourist destination.	By year 5, have 1000 tourists per year visit Zibi.	Number of tourists per year.	There is currently no industry standard or best practice.	In 2019, Zibi furthered its mission of creating a new, vibrant waterfront community. Utilizing all available event venues on both sides of the river, we welcomed over 140,000 guests on site (refer to Appendix B).	Despite the global pandemic, Zibi adapted, and offered a variety of virtual workshops and events throughout the year, for a total of 24 events. Zibi welcomed over 12,000 guests on site in 2020, respecting physical distancing requirements.	Zibi offered a variety of workshops and events throughout the year, some virtual but mostly in person, for a total of 18 events, welcoming 17,667 visitors/ participants to the site (Table 2).	Pandemic allowing, Zibi plans to once again host world class events on site in 2022 including Festibière and Cirque du Soleil.

<sup>1</sup> [https://cmhc.beyond2020.com/HiCOMain\\_EN.html](https://cmhc.beyond2020.com/HiCOMain_EN.html)

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IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2019 STATUS	2020 STATUS	2021 STATUS	2022 ACTION
ELE6	Develop Zibi beneficially with and for the Algonquin Anishinabe nation and people.	At least 20 individuals are bridged from on-reserve work to off-reserve work experience, throughout the project life cycle.	Zibi will prioritize qualified Algonquin Anishinabe and Indigenous peoples for employment opportunities at the project. Indigenous workers are employed continuously throughout the construction phase, and/or as other service-providers to the project.	There is currently no industry standard or best practice.	In 2019, nine individuals were bridged from on-reserve work to off-reserve work experience at Zibi, for a total of 31 individuals over the years.	Zibi has created a position through the tender of the District Thermal plant, but has struggled to fill it with an Algonquin candidate, the barriers to Indigenous employment persist. Although, in 2020, 4 Algonquin individuals worked on site. Specifically, these individuals supported the COVID-19 Administration Program.	Zibi achieved this target in previous years thanks to the efforts of Decontie Construction. Zibi created an Indigenous Employment Working Group in 2021 with the goal of identifying areas where we can facilitate Indigenous Employment and to write a strategy. Approximately 8% of the staff on the administrative side of the project self identify as Indigenous.	In 2022, Zibi will finalize its Indigenous Employment Strategy and will continue to look for opportunities to include Indigenous People through procurement.
		At least 2 opportunities for long-term investment throughout project lifecycle.	Invite First Nations as preferential partners for long-term investment opportunities. Provide detailed information for these opportunities as soon as they are available and provide support as needed to ensure First Nations partners understand the opportunity and how it works.	There is currently no industry standard or best practice.	A First Nation partner was offered a stake in Zibi's district energy business and engaged a consultant to review the offer.	Given both an election and the pandemic, no progress was made on this target in 2020. Zibi is scheduled to reapproach the partner in early 2021. Our partner Modern Niagara, created a position for a Project Manager with the intent of filling it with an Algonquin worker. Unfortunately the reoccurring theme seems to be that there are systemic barriers that prevent Indigenous people from filling such positions.	A long term investment opportunity was presented to two Algonquin preferential partners in 2021. Both opportunities were declined. Zibi will present an additional investment opportunity to Algonquin partnering communities in a future phase of the project.	Zibi will not have a long term investment opportunity to present to First Nation preferential partners in 2022.
		Preferential pricing program details to be in place prior to launch of first residential project. Details of Indigenous inclusion to be included in formal affordable housing strategy.	Offer a preferential residential pricing program for Indigenous purchasers, and include Indigenous members as part of affordable housing strategy, to ensure that Indigenous culture is not only present at Zibi, but that Indigenous people truly live, work, and play at Zibi.	There is currently no industry standard or best practice.	A preferential pricing program is in place which provides a small discount to all First Nation, Inuit or Métis purchasers.	A preferential pricing program is in place which provides a small discount to all First Nation, Inuit or Métis purchasers.	A preferential pricing program is in place which provides a small discount to all First Nation, Inuit or Métis purchasers. While there have been inquiries into this opportunity, nothing has been signed under this program.	Zibi will continue to implement the pricing program.





## HIGHLIGHTS OF THE YEAR

In 2021, Zibi began to transform from construction site to a community which is an exciting cultural shift for the project. The completion of Pangishimo Park is a major contributor to this shift as it is the first green space on the project, as well as the completion of Head St Square which will be available for public events in 2022. Further, the park space was designed with Algonquin cultural elements brought forward by the Algonquin community and the Memengweshii Council as was always intended. Additionally, we saw the install of public art in the way of a mural and a bike rack in 2021 adding some flair and colour to the project. Finally, we saw the opening of a small but significant multi use pathway (MUP) connecting Zibi to a large MUP network in the region which also provides residents with easy access to adjacent green space.

# CULTURE AND COMMUNITY

Zibi will give the public unprecedented and long overdue access to a site of great cultural relevance. Through signage, architecture, art, and community programming, Zibi will make the rich history of the site legible to residents and visitors and establish a distinct cultural identity. Thanks to improved physical connection to neighbouring attractions and landmarks, Zibi will be integrated into the existing network of cultural destinations within the National Capital Region.

## SUMMARY OF 2021 CULTURE AND COMMUNITY ACHIEVEMENTS

Refer to Appendix C for data. Refer to previous reports for 2018 status.

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2019 STATUS	2020 STATUS	2021 STATUS	2022 ACTION
CC1	Create a cultural identity that reflects the history of the locale throughout the development.	Implement the municipally-endorsed Heritage Plan.	A heritage plan, endorsed by municipal heritage planners and First Nation partners, development and implemented at Zibi.	There is currently no industry standard or best practice.	Zibi continued to implement the principles of the Heritage Interpretive Plan through design for park and the public realm in 2019 by officially naming future park spaces in Algonquin language.	Zibi continued to implement the principles of the Heritage Interpretive Plan by working with cultural advisors on space activation and art selection, some of which will be implemented in 2021.	Pangishimo Park, Zibi's first park, was delivered in 2021 and includes specific elements from our Heritage Interpretive Plan including water, wood, habitat, transport and renewal.	Zibi will continue to implement themes identified in the Heritage Interpretive Plan in the construction of its second park in 2022.
CC2	Adapt and re-use at least four existing historic industrial buildings.	4 Buildings	Number of heritage buildings preserved.	There is currently no industry standard or best practice.	3 façades, plus 2 full buildings in phase 1 to be preserved and repurposed. In 2019, Zibi completed the restoration of Blocks 2/3 which will serve as incredible commercial space to be partially occupied in 2020.	In 2020, Zibi completed the restoration of Block 208 as a base building that will serve as a commercial space.	Zibi is on track to have 4 facades, plus 2 full buildings preserved and repurposed in phase 1. Preliminary retrofit design began on Block 201b in 2021.	In 2022, Zibi will make use of the facade of a historical building by incorporating it into Block 207 and will begin brick remediation on Block 210b.
CC3	Promote local art and support the local arts community.	50%	Percentage of art installations on site that are created by local artists.	There is currently no industry standard or best practice.	In 2019, Zibi commissioned 2 public art projects to be installed in 2020. Custom art benches by Amy Thompson (local), and customs art bike racks by Karl Chevrier (Algonquin).	In 2020, we held an online atelier program with 8 artists two of which were Indigenous. This program will help to showcase local and Indigenous art on site in the near future.	100% of the art installed at Zibi, either in the public realm or within buildings, has been created by Algonquin, Indigenous or artists local to eastern Canada (Table 1).	Delayed by the pandemic, 2022 will see the install of a public art piece by Algonquin artist Naomi Blondin, telling the story of the Waterwoman, and the install of art pieces in Aalto.
CC4	Create connectivity with the surrounding communities of the National Capital Region.	All network connections completed before 40% of the building area is complete.	A developed network of connected pedestrian and cycling pathways to and from adjacent communities.	There is currently no industry standard or best practice.	Due to unprecedented flooding in 2019 plans to connect to existing NCC infrastructure were put on hold until the NCC can rebuild infrastructure. Zibi did however make significant progress on its complete street on the Eddy/Booth St corridor which will provide modern and safe pedestrian and cycling infrastructure across the Ottawa River, connecting Gatineau and Ottawa.	Zibi completed the pedestrian and cycling infrastructure on the Eddy/Booth corridor in 2020. This is a significant milestone for active and sustainable transportation access in the region. While PSPC will complete their portion of the complete street at a later date, Zibi will unveil it's infrastructure in 2021.	A long awaited project by Hydro Ottawa – a connection from Zibi to a regional multi use pathway – opened in 2021. This small connector presents big opportunity to Zibi residents by providing easy access to an extensive MUP and vast green space.	Zibi has accomplished a major milestone with the Eddy/Booth corridor project and PSPC will begin their portion of this work in 2022 which will improve cycling and pedestrian connectivity for Zibi.

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2019 STATUS	2020 STATUS	2021 STATUS	2022 ACTION
CC5	Engage with Algonquins to ensure First Nations history, presence and culture are reflected throughout the development.	Mention traditional Algonquin territory in 100% of public speaking engagements, media events and published reports; 15% of place names will be in Algonquin . Visitors to Zibi know that Zibi is the Algonquin word for river, and Ottawa-Gatineau is within traditional Algonquin territory.	Raise public awareness that project lands are within unceded traditional Algonquin territory through public statements and acknowledgments, signage, wayfinding and place names.	There is currently no industry standard or best practice.	Zibi acknowledged the territory of the Algonquin in 100% of speaking engagements, media events and published reports. Algonquin words have officially been incorporated into the design of future public parks.	Zibi acknowledged the territory of the Algonquin in 100% of speaking engagements, media events and published reports. In 2020, Zibi worked with its cultural advisor to refine its acknowledgment statement to ensure that it is relevant and meaningful. The statement will be finalized in early 2021.	Zibi acknowledged the territory of the Algonquin in 100% of speaking engagements, media events and published reports. Zibi added a statement to its event contracts to ensure that vendors understand the importance of Zibi's First Nation partners to the project.	Zibi will carry this outcome forward in 2022 through the implementation of targets.
		Minimum of 2 advisory Council meetings per year.	Establish a standing advisory Council of Algonquin Anishinabe to continuously guide on project matters related to First Nations culture, history and language.	There is currently no industry standard or best practice.	The Council met 6 times in 2019. Refer to Appendix C for meeting dates.	The council met 7 times in 2020. The majority of these meetings were virtual. Refer to Appendix C for meeting dates.	The Memengweshii Council met 5 times in 2021, including one in person meeting (Table 2). Of note, the Council provided feedback on enhancing Algonquin culture on social media, made preliminary plans for a video describing the story of the Council and discussed the need for additional members to the Council.	Zibi will continue to meet and collaborate with the Memengweshii Council as well as our other Algonquin partners on a regular basis.
		Minimum of 2 youth engagements per year.	Indigenous youth engagement through internship opportunities, site tours, Zibi staff presentation, or other educational programming.	There is currently no industry standard or best practice.	Zibi retained an Algonquin summer student in 2019 who supported several teams throughout the intership including sustainability and marketing.	Zibi retained an Indigenous summer student, whose role was extended into an internship position in the fall and winter terms. The student supported the vertical development team and played a key role on the construction site.	Algonquin consultant Christina Ruddy facilitated a One Planet Living workshop with elementary school students at the school local to Pikwakanagan in spring 2021. Further, a young Algonquin artist shadowed an established artist who was commissioned by Heritage Canada to paint a mural located at Zibi.	Zibi will work with an Indigenous youth employment organization to fill two summer intern positions in 2022.

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IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2019 STATUS	2020 STATUS	2021 STATUS	2022 ACTION
CC6	Create a sense of belonging within Zibi.	>70%	Percentage of residents that 'know their neighbour'.	There is currently no industry standard or best practice.	100% of residents surveyed claim to know at least 1 neighbour, 78% of which claim to know between 2-5 neighbours.	100% of residents surveyed claim to know at least 1 neighbour, 70% of which claim to know multiple neighbours (ranging from 2 to 10+).	80% of residents surveyed know at least 1 neighbour; 40% know at least 4 (Table 3).	Zibi will continue to implement programming that will create a sense of belonging within the community. The Mighty Networks space will be a valuable tool to connect residents and workers alike.
CC7	Create a culture of sustainability throughout Zibi, from design to operations.	80% of all residents and workers will indicate that their awareness of sustainability issues and solutions has increased year-over-year.	A measurable difference in environmental and sustainability awareness among contractors, tenants and residents.	There is currently no industry standard or best practice.	50% of surveyed residents and Zibi office workers stated that their awareness on sustainability has developed or improved since living/working at Zibi. Within the trades, 50% of surveyed workers stated that they have a great or good awareness on the subject of sustainability, while 37% state that they have an average understanding of the issue, and 13% claim that there is some room for improvement on their knowledge of the issue.	47% of residents surveyed and Zibi office workers, stated that their awareness on sustainability has developed or improved since living/working at Zibi. Within the trades, 36% of surveyed workers stated that they have a great or good awareness on the subject of sustainability.	33% of residents say their awareness has improved (Table 3). 57% of staff say their awareness has improved (Table 4). 60% of trade workers feel their awareness is good, but only 50% were aware of our sustainability goals at Zibi (Table 5).	The One Planet Ambassador (OPA) will use the Mighty Networks space to share sustainability news and lifestyle tips. Zibi will be opening a One Planet Living Centre on site where community members and the public can visit to learn more about our goals. We will also be in a position to host in person workshops that will be sustainability focussed to help increase these numbers.
		80% of all residents and workers will indicate that their awareness of sustainability issues and solutions has increased year-over-year.	Implement a full-time One Planet Ambassador to develop programs and implement cultural norms around sustainability until the development reaches 30,000 sq. m of buildings, and then transfer the leadership over to the community associate/BIA.	There is currently no industry standard or best practice.	2019 saw a change in personnel in the One Planet Ambassador role in the fall. Significant progress was made in Q4 to switch online platforms and grow our online community. This change saw an increase in online engagement from residents. Further, strategies were developed on how to more actively engage the community in 2020.	2020 was the first full year with a full time One Planet Ambassador (OPA) developing and implementing programs to drive norms around sustainability on site. The OPA utilized the social platforms to engage residents in discussions, community activities like lunchtime yoga and vermicomposting workshops, as well as share lifestyle tips from things like low-carbon eating, gardening, sustainable shopping and exercising for health. With the help of her team, she developed guidelines to help future commercial tenants to understand the role that they play with respect to OPL.	The OPA used social media platforms to engage residents in discussions, organize community activities like lunchtime yoga and pollinator workshops (Zibeas), and share lifestyle tips on things like low-carbon eating, gardening, sustainable shopping and exercising for better health outcomes.	Zibi will open the One Planet Centre in early 2022 where the OPA will hold office hours, welcoming community members and other visitors to learn more about how One Planet Living has been incorporated throughout the community and offer everyone insight on how to adopt a more sustainable lifestyle. The OPA will also continue to engage the community through events/workshops and knowledge sharing.



## HIGHLIGHTS OF THE YEAR

Pangishimo Park, Zibi's first park was completed in 2021, marking an important milestone for the project. Pangishimo means sunset in Algonquin and the park situated on the Ottawa River, facing west boast the most incredible sunsets all while drawing on the natural features of the riverbed. The park was designed in collaboration with the Algonquin community and the Memengweshii Council and celebrates Algonquin culture through not only nameplacing but plant and art selection and it will soon feature an Algqonuin focussed audio element.

# LAND AND NATURE

Starting with the remediation of this former industrial site, Zibi will restore the area as a biologically diverse ecosystem. Carefully designed landscapes and greenspaces will provide micro-habitats for Indigenous species, thereby increasing biodiversity on the site.

## SUMMARY OF 2021 LAND AND NATURE ACHIEVEMENTS

Refer to Appendix D for data. Refer to previous reports for 2018 status.

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2019 STATUS	2020 STATUS	2021 STATUS	2022 ACTION
LN1	Remediate contaminated land and revitalize the area to maximize the benefit to natural ecosystems within the development.	100%	Percentage of the site area that meets provincial regulations after remediation.	There is currently no industry standard or best practice.	A total of 56,300 metric tons of soil was remediated from the site in 2019. Remediation meets provincial requirements.	A total of 13,937 metric tons of soil was remediated from site in 2020. Remediation meets provincial requirements.	A total of 13,500 metric tons of soil from site was remediated in 2021. Remediation meets provincial requirements.	It is unlikely that there will be any soil remediation in 2022.
LN2	Reintroduce native vegetation and increase biodiversity of plants and animals.	14%	Percentage of site area dedicated to park space.	There is currently no industry standard or best practice.	No park space was turned over in 2019 although Pangishimo Park design progressed to 66% complete.	Pangishimo Park design was completed, and 30% of the park was constructed. No parks were turned over in 2020.	Pangishimo Park and Head Street Square were turned over in 2021. They represent roughly 2,500 square meters of green park space and 1,600 square meters of hardscape plaza, respectively, which together represent 21% of the total park space to be incorporated into the community (Table 1).	Tesasini Park will be completed in 2022, with roughly 6100 sq. m. it will represent 31% of planned park space.
		400%	Increase biodiversity of plants and animals by 400%.	There is currently no industry standard or best practice.	A total of 17 native species were planted at Zibi Plaza, representing 27% of the original native biodiversity found on site.	No planting occurred in 2020. Refer to appendix D of 2019 report for plant list already on site.	Our baseline study found 131 species on site, where less than half (62) were native. Through remediation, our native plant biodiversity has dropped 31% (43 from 62), however, now 100% of species on site are native, 36 of which are new/reintroduced (Table 2).	Tesasini Park will be located on a flood plain, lending the opportunity to introduce new/ alternative flora options and providing habitat for aquatic animal species, which will contribute to increasing biodiversity on site.
		All parks will contain at least 1 plant of significance to First Nations people.	Reintroduce Indigenous plants of historic or cultural significance to First Nations people.	There is currently no industry standard or best practice.	Zibi Plaza features 11 plant species identified as being culturally significant to First Nations people.	No planting occurred in 2020. Refer to appendix D of 2019 report for plant list already on site.	With the new public spaces added in 2021, plus the Waza Plaza planting in 2019, Zibi now features 24 plant species identified as being culturally significant to First Nations people (Table 2).	Tesasini Park will further introduce different native plant species of significance to First Nations people.
LN3	Design lighting strategies to minimize the effects of light pollution.	Meet LEED requirements.	Meet uplight and light trespass specifications for exterior areas per the LEED v4 rating systems.	There is currently no industry standard or best practice.	This requirement has been integrated into design specifications.	This requirement has been integrated into design specifications.	This requirement has been integrated into design specifications.	Zibi will continue to implement this target through the use of design specifications.

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IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2019 STATUS	2020 STATUS	2021 STATUS	2022 ACTION
LN4	Foster a love for nature through education and by increasing opportunities to interact with the natural world.	50% of all residents will increase their time "in nature" comparing their personal baseline prior to Zibi to one year after living at Zibi.	Participation in nature programs.	There is currently no industry standard or best practice.	20% of surveyed residents living at Zibi for a year stated that their time in nature has increased since living at Zibi.	34.5% of residents surveyed stated that their time in nature has increased since living at Zibi. Given the pandemic, it was challenging to facilitate time outdoors for the community as outings in groups were not permitted through much of the pandemic.	Roughly 40% of residents surveyed said their time in nature has increased since living at Zibi. Many of those that indicated their time in nature has not increased commented that the completion of parks would help this. There were also several mentions of creating walking or biking groups (Table 3).	With the completion of Terasini Park, just over 50% of park spaces will be complete, giving the community over 10,000 sq. m of outside space to enjoy, including access to the shoreline. The OPA will facilitate walking and/or biking groups.



## HIGHLIGHTS OF THE YEAR

Zibi's Construction Manager demonstrated strong leadership in environmental protection in 2021 and made significant progress in empowering its employees to recognize the importance of construction best management practices and to take action to rectify any concerns. Zibi made some changes to its design specification in 2021 to ensure that water meters are installed in all new builds which will help to track water consumption.

# SUSTAINABLE WATER

As a whole, the development will reduce potable water consumption by 15% compared to the regional average of 163L of water per person per day. This is to be achieved through the use of super-efficient appliances and employing non-potable water for sewage conveyance and landscaping, where feasible. Zibi's landscaping will provide storm water remediation to prevent run-off pollution.

## SUMMARY OF 2021 SUSTAINABLE WATER ACHIEVEMENTS

Refer to Appendix E for data. Refer to previous reports for 2018 status.

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2019 STATUS	2020 STATUS	2021 STATUS	2022 ACTION
SW1	Reduce residential potable water use to 138 litres per person, per day.	138 litres	Potable water consumed per resident, per day (L).	Ontario households currently use 271 L/ day/person. Québec households currently use 386 L/ person/day.	Zibi's first residential building O continues to use low flow fixtures and a cistern (for 50% of toilets). Water consumption is metered but due to the global pandemic, Zibi is unable to obtain a meter reading. Zibi will report on all building water consumption in 2020.	Zibi's first residential building "O" continues to use low flow fixtures and a cistern (for 49% of toilets). O's water consumption has been metered since July 2020, averaging 99.3 L of potable water per resident per day.	Estimated potable water consumption by O residents is 121 L per day; Kanaal is 83 L (Table 1).	Zibi will continue to ensure that water meters are installed in all new builds and will educate on water conservation.
SW2	Reduce potable water use in landscaping by way of planning drought tolerant species and using non-potable means if permanent irrigation is required.	0%	Percentage of potable water used for permanent irrigation systems.	There is currently no industry standard or best practice.	No irrigation systems were installed in 2019. The project is situated on the Ottawa River and as such sediment and erosion control is integral. Zibi was forced to issue a couple of stop work orders to contractors who were not complying with standard construction practices. Zibi has zero tolerance for these behaviours.	No irrigation systems were installed for any public realm spaces in 2020.	No irrigation systems were installed for any public realm spaces in 2021. Drought tolerant species were planted in Pangishimo Park.	Zibi will continue to work with landscape architects and our infrastructure team to implement this outcome.
SW3	Utilize non-potable water for sewage conveyance in buildings where feasible in order to meet water consumption targets.	10%	Percentage of non-potable water used for sewage conveyance.	There is currently no industry standard or best practice.	Zibi's first building O has a cistern (capacity 47,147 L) collects rainwater from the roof of the building and distributes grey water to approximately 50% of residential toilets in the building. No additional buildings were operational in 2019.	Zibi's first building O has a cistern (capacity 47,147 L) collects rainwater from the roof of the building and distributes water to 49% of residential toilets in the building. The 48 toilets fed by non-potable water in the O building represent 19% of all toilet units in turned over buildings at Zibi.	Currently, the only infrastructure at Zibi that provides non-potable water for sewage conveyance is the cistern at O Condos, which services 48 toilets in the building. The entire Zibi site now has 331 toilets, 14.5% of which are conveyed with non-potable water using the cistern (Table 3).	Zibi will continue to identify opportunities to help to achieve this outcome.
SW4	Achieve near-zero export of pollutants via stormwater outflow.	Total suspended solids will be reduced by 80% prior to discharge.	Pollutant levels in stormwater outflow.	Ambient levels in the Ottawa River: Total suspended solids—6.0 mg/L and turbidity—4.2 NTU <sup>1</sup> .	Stormwater infrastructure was installed in 2019 but had no significant flow to the receiving environment.	Stormwater infrastructure was installed in 2020.	Stormwater infrastructure has been installed and Zibi began sampling stormwater. Sampling occurred during a significant rainfall event which would represent a worse case scenario for run off. Results were 2-3 mg/L higher than the local standard indicating that more work is required to prevent erosion and to control sediment (Table 2).	Zibi will continue to refine its stormwater monitoring program to collect data representative of normal conditions and increase the amount of data collected. It will continue to encourage the Construction Manager to improve housekeeping practices which have a direct impact on stormwater quality.

<sup>1</sup>Data collected between 1985 and 1990 at Carillon. Source Ottawa River Nomination Document, Chapter 3 prepared by Ottawa River Heritage Designation Committee.



# LOCAL AND SUSTAINABLE FOOD

Zibi will serve as a model for integrating agriculture into the urban landscape. Easy access to seasonal, local, and sustainably produced food will help residents enjoy healthier, fresher diets and support local farms and vendors, while reducing the carbon footprint of their diets by 50% as compared to a conventional one.

## HIGHLIGHTS OF THE YEAR

Regionally, CSA programs flourished in 2021 as consumers prioritized local food sources. At Zibi, 16% of survey respondents indicated that they participated in a farm to table program. Zibi would like to increase this number and can do so easily based on the reasons for not participating; not knowing about what was available and concerns that they would receive too much food. O's Community Garden had another fruitful season and the self governed committee has developed task lists to yield large crops all while sharing the workload.



## SUMMARY OF 2021 LOCAL AND SUSTAINABLE FOOD ACHIEVEMENTS

Refer to Appendix F for data. Refer to previous reports for 2018 status.

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2019 STATUS	2020 STATUS	2021 STATUS	2022 ACTION
LSF1	Provide access to modest garden spaces for 90% of households that want it.	1.4 Meter squared	Area of food-growing garden spaces onsite per household.	There is currently no industry standard or best practice.	Garden boxes were constructed for Zibi's first condominium but due to construction delays they were not made available to residents in time for gardening season. 66% of surveyed residents expressed some type of interest in having access to their garden spaces.	O Community Garden was created in early Spring 2020. 11 members were part of the self-governed committee and have succeeded in sowing various types of vegetables, harvesting enough to feed the entire group throughout the summer.	O Community Garden continued to be self run in 2021 and had a successful growing season. All garden boxes at O Condo are 1.4 m2 in size.	Gardening space will be made available to Aalto residents in 2022. Zibi will host a balcony gardening workshop in Spring of 2022.
		1:10	Ratio of food-growing garden spaces to households.	There is currently no industry standard or best practice.	3:14	There is a ratio of 5 food-growing garden spaces to 43 households on the Zibi site in 2020 (1:8.6 ratio). According to the survey results, 23 people expressed definite interest in having a garden space available to them out of 56 respondents. Each of the 15 garden boxes in O's Community Garden enclosure can house 2 gardeners, providing 100% of the interested people with a garden space.	Zibi is currently exceeding this ratio at 1:8.6.	Gardening space will be made available to Block 10 residents in 2022 on a shared terrace. The One Planet Ambassador will work with residents to create a community garden committee.

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IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2019 STATUS	2020 STATUS	2021 STATUS	2022 ACTION
LSF2	Create a community scale food distribution network to improve connections between food and farmers and increase access to local, fairly traded, and organic food.	>70%	Percentage of Zibi residential tenants that purchase at least 25% of their food (by value) that is organic, or local, or fair trade.	Organic food represents less than 1% of Canada's retail food sales.	1/3 of residents surveyed indicated that at least 25% of their food (by value) is organic, or local, or Fair Trade.	60% residents surveyed indicated that at least 25% of their food (by value) is organic, or local, or Fair Trade.	55% of residents surveyed indicated that at least 25% of their food is organic, local or Fair Trade (Table 1).	Zibi has partnered with Two Beets Farm for the 2022 growing season, which offers a personalized CSA program. With the help of the community, the OPA has created a shareable Google Map that will be updated regularly indicating shops within 5km of Zibi, allowing residents to find local grocery/produce from sustainable and/or local businesses. Programming, workshops and events surrounding the topic will also be prioritized by the OPA.
		5% in year 1, growing to 25% by year 5.	Percentage of Zibi residential tenants that participate in Zibi's various farm-to-table programs.	There is currently no industry standard or best practice.	13% of residents surveyed indicated that they participate in Zibi's CSA program with Roots and Shoots.	16% of surveyed residents indicated that they participate in Zibi's CSA program with Roots and Shoots.	16% of residents participated in CSA or farm-to-table programs. Many of the reasons for not participating were due to either not knowing about available programs or fearing getting too much food to consume in one week (many were single persons).	The Two Beets CSA program is unique in that it allows participants to select what produce they receive, how much, and how frequently, which addresses the issues some residents have had in the past. Coupled with increased programming and workshops, we hope to double participation and hit the 25% target by 2023.
LSF3	Engage residents in education programs to encourage a reduction in consumption of high-carbon foods.	50% of all residents will report a decrease in high-carbon food consumption year over year.	Percent reduction in the consumption of high-carbon foods.	There is currently no industry standard or best practice.	13% of residents surveyed indicated that they participate in Zibi's CSA program with Roots and Shoots.	37.5% of surveyed residents indicated that they consume at least 50% of their food that is either from local, Fairtrade or organic sources.	90% of residents surveyed indicated that at least 25% of their food is organic, or local or Fair Trade; up from 60% in 2020 and 33% in 2019. 16% of surveyed residents indicated that they participated in a CSA program (Table 1).	Zibi will be working with a new local and organic farm in 2022. The CSA program offered by this farm will give customers added flexibility and control over what they receive in their baskets.



## HIGHLIGHTS OF THE YEAR

In 2021, Zibi built parking lots at a ratio higher than our OPL target, the rationale for this is that we are building the majority of our parking infrastructure in Phase 1 of the project and will have little space available for parking in future phases, reducing our ratio in the long run. The major milestone of 2021 was the opening of a small section of a multi use pathway (MUP) that connects Zibi to a large regional MUP network providing more connectivity for the Zibi community.

# TRAVEL AND TRANSPORT

Sustainable transport is based on both reducing the need for energy reliant transportation by giving priority to bikes and pedestrians and, when energy reliant transport is needed, provide infrastructure for efficient and low-impact alternatives such as ride-share and electric cars.

## SUMMARY OF 2021 TRAVEL AND TRANSPORT ACHIEVEMENTS

Refer to Appendix G for data. Refer to previous reports for 2018 status.

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2019 STATUS	2020 STATUS	2021 STATUS	2022 ACTION
TT1	Reduce carbon dioxide (co2) emissions associated with local transportation of residents.	20%	Percentage of parking spaces with electric car charging stations.	Québec building code makes it mandatory that 240v infrastructure be installed in all new builds. Ontario building code requires that no less than 20% of parking spaces in a building be provided with EVSE.	No new parking space was operational in 2019.	There is empty conduit in place for every parking spot in Block 205A to receive a car charging station. For 301, there is 1 empty conduit for every 2 spaces to receive a car charge station, where a double unit could be installed thus allowing every parking stall in 301 to have access to a car charging station.	There is conduit in place for every parking spot in Block 205A to receive a car charging station. For 301, there is 1 empty conduit for every 2 spaces to receive a car charge station, where a double unit could be installed thus allowing every parking stall in 301 to have access to a car charging station. Block 211 will have conduit to 21% of parking stalls and 4 chargers will be installed by Zibi for occupancy.	Moving forward, Zibi will focus its efforts on installing conduit to 100% of parking stalls as we believe this is where value is added. This will ensure that Zibi buildings are future proofed and it will take the burden of post construction conduit install off of the plate of condo boards.
		0.7	Ratio of car parking spaces per household.	Car ownership is 1.3 vehicles per household <sup>1</sup> . Provincial average is 1.45 vehicles per household <sup>2</sup> .	No new parking space was operational in 2019.	The portion of the 301 underground parking garage dedicated to Kanaal's residential parking was designed with a 1:1 ratio.	To date residential parking is at a 1:1 ratio.	Zibi's parking ratio will begin to decline in 2022 with less parking being available for residents of Aalto and Block 11.
		Modify roadway to reduce car lanes from 4 to 2, implement new bus shelters and transit schedule improvements, sidewalks and bikeway in both directions.	Modify the Booth/Eddy Corridor Transformation to prioritize active methods of transportation and transit over personal automobile.	There is currently no industry standard or best practice.	The Eddy-Booth St Corridor project was 95% complete by end of 2019. Zibi worked with local cycling advocacy groups on design of the infrastructure.	Zibi has completed the City of Ottawa, the City of Gatineau, and its own portions of the works on the Booth/Eddy Corridor Transformation project. The Federal Government has introduced bike lanes for most of the crossing, but one critical section of widening remains. This marks a significant milestone for Zibi and for active and sustainable transportation in the area.	Zibi's portion of the Eddy-Booth St Transformation project was completed in 2020.	Public Services and Procurement Canada (PSPC) will begin their portion of the work on the Eddy Booth Corridor Transformation project in 2022. This is the last step in providing a complete street between the Gatineau and Ottawa sites of Zibi, and a significant milestone for the region.
		Auto driver: 25%, auto passenger: 10%, transit: 45%, non-motorized: 20%.	Achieve modal split targets to decrease personal vehicle trips.	There is currently no industry standard or best practice.	Zibi continued to progress this outcome through planning with regulatory authorities and through the construction of the Eddy-Booth St Corridor. Further, Ottawa's Light Rail Transit opened in Fall 2019. At only 800 meters from the site, this will have a significant impact on transit access.	Zibi's portion of the Eddy-Booth St Transformation project was completed in 2020. This marks a significant milestone for Zibi and for active and sustainable transportation in the area.	Zibi's portion of the Eddy-Booth St Transformation project was completed in 2020. According to resident survey data, most respondents are traveling 100 kms or more per week and most often with a gasoline vehicle; very few have electric or hybrid vehicles; many are also often biking or walking as a supplement to driving (Table 1).	Public Services and Procurement Canada (PSPC) will begin their portion of the work on the Eddy Booth Corridor Transformation project in 2022. This is the last step in providing a complete street between the Gatineau and Ottawa sites of Zibi, and a significant milestone for the region.
TT2	Reduce the travel distance for basic goods and services to within walking distance.	>90 at 50% build-out.	Community walkscore.	The region's walkscore is 54.	Zibi continued to progress this outcome with 2019 planning and construction.	Zibi continued to progress this outcome with 2020 planning and construction. The pandemic has forced us to put on hold the design of a block that could house some amenities.	We are several years away from 50% buildout however a multi use pathway connecting the Zibi community to an existing regional network opened in 2021 increasing the walkability of the site.	Public Services and Procurement Canada (PSPC) will begin their portion of the work on the Eddy Booth Corridor Transformation project in 2022. This is the last step in providing a complete street between the Gatineau and Ottawa sites of Zibi, and a significant milestone for the region.

<sup>1</sup> CMHC figures for Ottawa Centre.

<sup>2</sup> NRCAN 2009 vehicle survey.





## HIGHLIGHTS OF THE YEAR

Zibi worked with its consultant in 2021 to brainstorm on ways in which we can effectively calculate our embodied carbon and we look forward to refining this in 2022. Thanks to the efforts of our landscape architect CSW, nearly all of the wood used in projects in 2021 was either FSC or reclaimed wood.



# MATERIALS AND PRODUCTS

When considering the materials comprising the development, a life-cycle analysis approach will be implemented. This approach takes into consideration the environmental impacts of all materials over their respective lifetimes. New technologies and innovative construction solutions will minimize the environmental impact of assembly.

## SUMMARY OF 2021 MATERIALS AND PRODUCTS ACHIEVEMENTS

Refer to Appendix H for data. Refer to previous reports for 2018 status.

INDICATOR	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2019 STATUS	2020 STATUS	2021 STATUS	2022 ACTION
PM1	Retain and repurpose 50% of the existing buildings on-site (excluding the primary mill buildings).	50%	Percentage of existing building area retained and repurposed (excluding primary mill buildings).	There is currently no industry standard or best practice.	Zibi is exceeding this target as per the Master Plan. Refer to Appendix G for a summary of buildings being retained.	Zibi is exceeding this target as per the master plan. Refer to Appendix H for a summary of buildings being retained.	Zibi is exceeding this target as per the master plan. Refer to 2020 report for a summary of buildings being retained. Preliminary design began on Block 24, a building originally used as a match factory.	Zibi will begin the retrofit of Block 210b, a building historically used for paper storage during the pulp and paper era on site.
PM2	Repurpose or recycle 90% of all demolition materials (excluding hazardous materials), of which a minimum of 5% by volume should be reused.		1. Percentage of demolition materials that are recycled or repurposed (by weight). 2. Percentage of demolition materials that are reused on site (by weight).	There is currently no industry standard or best practice.	A total of 90% of demolition material was sorted and hauled to a local recycling facility for reuse purposes. No concrete (0%) generated from the demolition was reused on-site because of contamination; thus, it was hauled to landfill in accordance to applicable provincial requirements and regulations.	No demolition occurred in 2020. There is very little demolition left to do on site. Although, a significant amount of wood was saved for upcycling on future projects.	No demolition occurred in 2021. There is very little demolition left to do on site.	Processes are in place to track the materials left to demolish on site.
PM3	Reduce embodied carbon of buildings.	20%	1. Percentage of materials that contain recycled content. 2. Percentage of materials that are locally sourced or manufactured.	There is currently no industry standard or best practice.	The 2019 projects poured concrete and installed rebar with a combined total of 35.3% recycled content.	The 2020 projects poured concrete with a combined total of 53.34% recycled content.  Zibi continues to grow its list of locally sourced products that will help reduce embodied carbon. The sources of the raw materials used in the production of all concrete poured in 2020 projects meet the local requirements of the LEED certification program.	Of the products that were reported on for Block 211 (76 products), roughly 12% contained recycled content (Table 1).  Of the products that were reported on for Block 211 (76 products), roughly 35% contained locally sourced materials (Table 1).	Zibi will establish monthly meetings to refine data compilation efforts; establish list of materials to focus on as recommended by our embodied carbon consultant

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INDICATOR	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2019 STATUS	2020 STATUS	2021 STATUS	2022 ACTION
PM4	Reduce reliance on unsustainable wood sources. Instead, use wood products with a minimum of 80% FSC certified content, and/or are re-claimed, recycled or from locally managed supply chains.	80%	Proportion of timber or wood products reclaimed, reused or certified by FSC (by value).	There is currently no industry standard or best practice.	All wood used for the rendering of Zibi Plaza was FSC or reclaimed. Zibi met with local suppliers to discuss opportunities to provide the project with FSC or other sustainable wood products.	Block 208 did not have this as a requirement in the specifications when tendered to the rough carpentry, so no FSC wood was used. Although, some cabinetry and doors in 205A contain FSC wood products, the details of total FSC wood products used for the construction of block 205A will be reported on next year.	Zibi met this target in 2021 as all wood used in Head Street Square and almost all wood used in Pangishimo Park was FSC certified or reclaimed/ salvaged. Being a base-build commercial space, there was very little wood used in 211. What continues to remain a challenge is sourcing FSC wood for temporary works on site as the market demand for this type of FSC has changed, more work is to be done on this.	Zibi will expand its inventory of suppliers that can help us to continue to achieve this target and will continue to search for opportunities to include FSC wood for its temporary work.
PM5	Meet or exceed established best practice standards for indoor air quality.	Achieve LEED IEQ v4 indoor environmental quality: prerequisites 1 and 2, plus credit IEQc3, plus a minimum of 3 points from IEQc1 and/or ieqc3.	LEED v4 IEQ standards.	LEED v4 IEQ standards.	Zibi included this guidance in design and construction specifications for the first buildings.	Zibi included this guidance in design and construction specifications and parameters were verified in shop drawing reviews. 46% of all insulation materials used in 208 are GREENGUARD Gold Certified, CFC & HCFCs free, and have less than 100ppm product formaldehyde content. All paints, coatings, sealants and adhesives used in 208 are LEED certified for VOC content. All paints, coatings, sealants and adhesives used in 205A have 45 g/l VOC content or lower.	Zibi included this guidance in design and construction specifications and parameters were verified in shop drawing reviews.	Zibi will continue to include this target in our design and construction specifications and on site spot checks for compliance will occur in 2022.
PM6	Embed a culture of reducing and reusing within the development by providing opportunities to share resources.	1	Number of sharing centers and/or related web-based sites established at Zibi.	There is currently no industry standard or best practice.	Residents have been provided with an online forum that allow for them to share, buy and sell.	Residents have been provided with an online forum that allow for them to share, buy and sell.	Residents have been provided with an online forum that allow for them to share, buy and sell. The yard sale scheduled for 2021 was postponed due to changing covid restrictions.	Zibi will continue to encourage residents to share, buy and sell primarily through online tools. Zibi is hoping to host a community wide yard sale in Spring of 2022 to enable residents to sell/ trade unwanted items.



## HIGHLIGHTS OF THE YEAR

Survey respondents indicated a high level of recycling and composting at Zibi, however there is a small cohort of people who do neither and so Zibi has as a task to solve this to ensure that 100% of the community is doing as much as they can to divert their waste. Part of the solution will include visual waste audits to help us better understand what is being diverted. Zibi continues to meet its construction waste diversion target across the project.

# ZERO WASTE

Zibi will offer waste alternatives to increase waste diversion rates, including recycling and compost programs, to more than 70%. Establish a sharing culture by encouraging residents to share resources.



## SUMMARY OF 2021 ZERO WASTE ACHIEVEMENTS

Refer to Appendix I for data. Refer to previous reports for 2018 status.

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2019 STATUS	2020 STATUS	2021 STATUS	2022 ACTION
ZW1	Divert 70% of total annual residential and commercial waste from landfill.	>70%	Percentage of residential and commercial waste diverted from landfill.	In 2016, the city of Ottawa's residential diversion rate was 44% <sup>1</sup> . The Ville de Gatineau has a target of 45% diversion by 2020 <sup>2</sup> .	Full occupancy of O was only complete in Spring 2019. As such, Zibi will undertake a waste audit after a year of full occupancy.	Zibi explored financially feasible means of auditing waste in Gatineau as an audit comes at a minimum cost of \$1400/audit. Given that waste is collected by the municipality, there is no means of estimating diversion rates through the waste hauler. Attempts to conduct a visual waste audit were impacted by pandemic work from home orders.	Only 2% of those surveyed do not recycle; 2% do not compost and 18% only compost sometimes. 100% of staff recycle and 78% compost. These numbers suggest we should be hitting the 70% target, however waste audits are necessary to be sure and have not been possible to date (Table 1 & 2).	Zibi's One Planet Ambassador will continue with regular visual audits of residential and commercial waste and will educate according to results. Outreach in 2022 will include friendly competition between buildings.
ZW2	Reduce residential waste.	291 kg/person/year reduction compared to municipal average.	Weight of residential waste produced per person, per year.	Municipal average 349 kg/person/year.	Full occupancy of O was only complete in Spring 2019. As such, Zibi will undertake a waste audit after a year of full occupancy.	Zibi explored financially feasible means of auditing waste in Gatineau as an audit comes at a minimum cost of \$1400/audit. Given that waste is collected by the municipality, there is no means of estimating diversion rates through the waste hauler. Attempts to conduct a visual waste audit were impacted by pandemic work from home orders.	Given that waste is collected by the municipality, there is no means of estimating waste tonnage through the waste hauler. However Zibi's One Planet Ambassador developed a system for visual waste audits at the end of 2021 to be implemented in 2022.	Zibi's One Planet Ambassador will conduct regular visual audits for residential and commercial waste, taking note of bin sizes to be able to estimate and track the volume of waste from each stream. Outreach in 2022 will include friendly competition between buildings.

<sup>1</sup><https://Ottawa.ca/en/residents/garbage-and-recycling/solid-waste-data-and-reports>

<sup>2</sup>[http://www.Gatineau.ca/portail/default.aspx?p=la\\_ville/salle\\_medias/communiques/communiqu\\_2015&id=-117.580.8251](http://www.Gatineau.ca/portail/default.aspx?p=la_ville/salle_medias/communiques/communiqu_2015&id=-117.580.8251)

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2019 STATUS	2020 STATUS	2021 STATUS	2022 ACTION
ZW3	Reuse concrete demolition waste.	75% re-use on site, 20% re-use offsite, 5% clean fill.	Percent of concrete demolition waste that is crushed and reused as aggregate on site.	There is currently no industry standard or best practice.	Zibi made every effort to reuse demolition concrete. A small amount was used as backfill on Chaudière Island, but ultimately Zibi didn't have a need for it on site so the bulk of demolition concrete was hauled off-site. The clean concrete was used by the City of Ottawa as construction materials for trail roads, and the contaminated concrete was sent to landfill.	No concrete demolition occurred in 2020.	No demolition occurred in 2021. There is very little demo left to do.	Zibi will continue to maximize on concrete reuse opportunities with the small amount of demo work remaining.
ZW4	Divert 90% of construction waste from landfill.	90%	Percentage of construction waste diverted from landfill (by weight).	There is currently no industry standard or best practice.	99% site-wide waste was diverted from landfill. See Appendix H for details.	We have noticed an interesting difference between provincial construction sites waste diversion rates. With Québec diverting 98% of their waste, but Ontario having a much higher volume of waste, a weighted average showed a site-wide waste diversion rate of 83%. See Appendix I for details.	Ontario construction waste diversion was 78.2% while Quebec was 99.6%, making our total average roughly 90% (Table 3 & 4).	Covid restriction allowing, Zibi intends on visiting waste sorting facilities to ensure that waste is being diverted appropriately.



## HIGHLIGHTS OF THE YEAR

Due to rising construction costs, Zibi is currently struggling to meet its building energy demand target. Construction costs have increased by 20-30% during the pandemic and while rental and purchase prices have also increased, the difference between costs and revenue is becoming so lean that difficult decisions must be made in order for the Zibi development to obtain financing. Given that the thermal energy needs are being met by zero-carbon supply, higher energy consumption at the building became a necessary trade-off to maintain the overall project budgets in an escalating market. Zibi did however make significant progress on what is arguably the project's most important milestone in 2021 and that is that we completed work on our district energy Central Plant and achieved energy recovery, providing zero carbon energy to the Gatineau side of the project.

# ZERO CARBON ENERGY

Zibi's objective is to create a zero carbon community during operations. In addition to sustainable materials and sustainable transport, this will be achieved by creating a district energy system whose aim is to eliminate 100% of the community's reliance on GHG emitting energy sources by 2025.

## SUMMARY OF 2021 ZERO CARBON ENERGY ACHIEVEMENTS

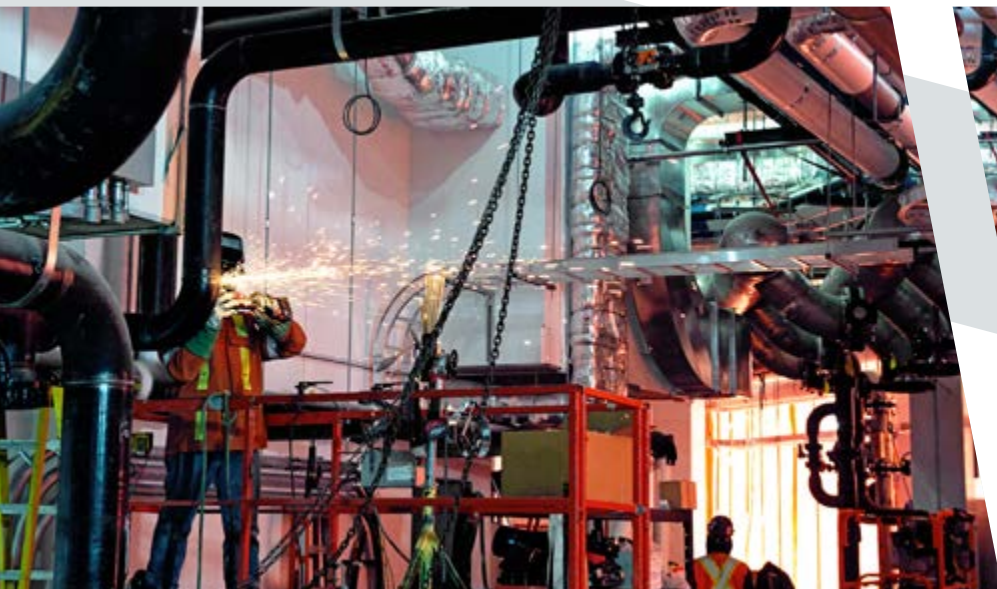
Refer to previous reports for 2018 status.

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2019 STATUS	2020 STATUS	2021 STATUS	2022 ACTION
ZC1	Ensure 100% of Zibi energy needs, including peak energy, are satisfied on a net zero carbon basis.	100%	Percentage of total building energy demand met through zero carbon sources.	There is currently no industry standard or best practice.	While not yet zero carbon, in 2019 Zibi Community Utility had its first customers, the occupants of O. Further, we installed district thermal energy system infrastructure in Ontario including our temporary plant.	Zibi obtained permits from federal and provincial regulatory authorities to construct and operate the district thermal energy system in 2020. Construction began on Zibi's district thermal energy central plant and much of the connection from the plant to the river was done this year. Finally, Zibi secured financing and a grant for its district thermal energy system.	Zibi Community Utility (ZCU) faced delays in opening due to delays with Public Services and Procurement Canada, the government department that was installing sections of pipe on behalf of ZCU. However, infrastructure required for heating of Zibi was installed in the fall of 2021.	ZCU is expecting its final permit from the Canada Energy Regulator which will allow for the operation of the district thermal system in early February. Zibi will no longer require the use of fossil fuels in 2022, this marks one of the most significant milestones for the project.
ZC2	Decrease building energy demand by 30%.	30%	Percent reduction in building energy demand during operations.	A code-compliant baseline building.	The final energy modeling report for Condominium O reported a performance rate of 31.6% relative to ASHRAE 90.1.	The final energy modeling report for Kanaal reported a performance rate of 25.4% relative to ASHRAE 90.1.	Block 211 will perform 18% better than a code compliant building.	Zibi will continue to prioritize this target as it navigates the cost of construction and market rental and condo rates. Our intent is to achieve this target throughout the course of the project.
ZC3	Decrease construction emissions by processing excavated rock on site into aggregates for use in the development.	50% on site use; 50% off site use	Volume of excavated rock processed on site for reuse as aggregate on site, off site in the city's core.	There is currently no industry standard or best practice.	Opportunities to reuse rock on site were maximized: 87% of all blast rock was crushed and reused or kept in stockpiled on-site. Zibi worked to supply local contractors working in the downtown core with crushed aggregate from our site.	Opportunities to reuse rock on site were maximized: 71% of all blast rock was crushed and reused or kept in stockpiles on-site.	There was no opportunity for reuse at Zibi in 2021 as there were no roads to build or excavations requiring filling.	Zibi will continue to crush rock on-site when possible. Rock is reused as much as possible and practical on site for each project. Excess rock is reused on other sites or for other projects.



# SPECIAL HIGHLIGHT

The year of 2021 was scheduled to be the year that Zibi would achieve its most significant milestone, and Zibi managed to provide zero carbon energy to the Gatineau side of the project. Given that the only thing stopping Zibi Community Utility (ZCU, the owner and operator of the system) from bringing thermal energy across the river to the Ottawa side of the project was one last federal permit, considerable hurdles were overcome and critical infrastructure was completed in 2021, that the milestone is worth celebrating. (For the record, the system was made fully functional in early 2022 once the permit was issued). In 2021, Natural Resources Canada and the Federation of Canadian Municipalities announced that the district thermal energy system would receive funding and financing for its innovative approach to green energy and the replicability of the project, garnering the attention of many politicians and the media. On the construction side, challenging work occurred in the depth of winter thanks to some brave divers and the persistence of the project management team. Construction on the Central Plant was completed in 2021, as was the tie in to the Kruger tissue paper plant, allowing us to begin energy recovery. Final construction details were impacted by delays in federal procurement processes and supply chain challenges in the midst of a pandemic. Despite all of the challenges, Zibi can now provide its community with a heating and cooling system that is fossil fuel free and is proud to be a model for other communities who wish to do the same. In short, it feels good to say **"we're off of gas"**!



# 2021 IN REVIEW



Rendering of Aalto



Connection of district thermal energy pipes



Interzip



Riverside Festival



Rendez vous des saveurs



Yoga at Zibi



# LOOKING AHEAD

The following year will be a very significant year for the project as Zibi's District Thermal Energy System will be operational, meaning that our community's heating and cooling needs will be met by post industrial waste energy and river water. Zibi is the first community in Canada of this size to be able to offer this and we hope to be a model for other projects. In 2022, Zibi's community population will double as we welcome more tenants to our first rental offering, Aalto. This will provide the sustainability team with plenty of opportunity to further develop the sense of community and grow its Resident Sustainability Committee. We will see the construction of Terasini Park (Flat Rock) in 2022 which will be the second of Zibi's three green spaces. This park, much like Pangishimo Park, will feature elements of Algonquin culture thanks to the collaborative efforts of the Algonquin community and the Memengweshii Council. As we are hopeful that we are emerging from the global pandemic, the status of commercial real estate remains unknown. During this next year, Zibi will open a sustainability showcase centre, with the intention of having this space as a tourist destination, we will highlight our commitments to and progress with One Planet Living. Construction will also begin on Blocks 11 and 206, both residential buildings. We enter 2022 with renewed enthusiasm to connect with our community and to inspire people to live more sustainably.



Rendering of Terasini Park



Cirque du Soleil



Zibi's One Planet Center



## 2021 ONE PLANET REPORT

**Zibi.ca**