



Zibi



One Planet Living® action plan progress review
April 2023



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Project overview

Report overview

Organisation:

Zibi

Project type:

Real estate

Description:

Zibi is a 34-acre redevelopment project by Theia Partners and Dream Unlimited Corp, overlooking the Ottawa River and straddling the cities of Gatineau and Ottawa, Canada. Zibi will be home to over 5,000 people and over 6,000 jobs, with commercial space, riverside retail and nearly 8 acres of riverfront green spaces.

Reviewer:

Nicole Lazarus

Sign-off and quality review:

Ronan Leyden

Date of review:

April 2023



Pangishimo Park © Zibi

Leadership status:



One Planet
Living®

Global
Leader 2023

Current status of Zibi

Current status of Zibi

Complete or mostly complete:

- The 70 units of O Condominium, (block 13) occupied since 2018.
- 71 units of Kanaal (block 205a), occupied since 2020.
- La Ruelle (block 2/3), a restoration of an industrial brick building completed in 2019, currently one tenant: Spaces, a shared office concept.
- Block 208 is a commercial building with a retained façade, completed at the end of 2020. It was occupied in 2021 by Spaces, then Zibi offices moved in in May 2022.
- Block 301, a public underground carpark in Ontario completed in 2019.
- Block 211, an office building leased to the Federal government, with occupancy starting in 2022.
- Aalto (block 10), a predominantly affordable 162-unit rental building in Quebec, with plenty of amenity space, completed and occupied since 2021.

Under construction:

- Block 206, shared rental accommodation with an affordable housing element. Construction to started in 2021.
- Block 207, a commercial building. Construction to started in 2021.
- Block 11, rental building. Construction started in 2021.

In design:

- Block 7, space that could accommodate a grocery store and commercial office space on hold due to Covid and consequent lack of interest from grocers.
- Block 204, a 22-storey rental building on the Ontario side, construction set to begin fall 2023.

Parks, plazas and public spaces are also a critical component of the Zibi redevelopment:

- The One Planet Living Centre opened in 2022, showcasing all 10 of the One Planet Living (OPL) principles, hosting visits and community meetings.
- Pangishimo (sunset) park was completed and opened in 2021.
- Head St Square opened in 2021 and held many public open-air events during 2022.
- Terasini park, which was significantly impacted by flooding in 2019, will remain as a floodplain, but will open as a park in 2023.
- Mokaham (sunrise) park is in design.
- Wasa Zibi Plaza was completed in 2020.
- The Zibi zip-line, allowing you to ride a highwire from Ontario to Quebec, again welcomed thousands of visitors in 2022, its second year.

Bioregional and One Planet Living

Bioregional and One Planet Living

About Bioregional

Bioregional is a purpose-led sustainability consultancy. It has worked in over 20 countries on sustainable development, working with local communities, cities, and companies.

Bioregional devised the One Planet Living framework, based on our experiences creating the multi-award-winning BedZED in South London, the UK's first large-scale sustainable community. One Planet Living has guided the development of real estate across the world, shaping exemplar communities that enable sustainable living.

About One Planet Living

One Planet Living® is a vision of a world where it is easy and attractive to live happy, healthy lives within the limits of our Earth's resources.

We need this vision because if everyone lived as we do in Western Europe, we would need almost three planets to support us. The measure of this is called 'ecological footprinting'. Meanwhile, many lack what they need for a good life, and wildlife is being pushed out to make room for our demands.

The One Planet Living framework consists of 10 principles which cover the activities that drive resource consumption, and the elements that form the basis of a good life for everyone. The principles are used to identify the needs in a local area, to relate these to the planetary bottom-line, and then to structure responses to those needs.

	Health and happiness	Encouraging active, social, meaningful lives to promote good health and wellbeing
	Equity and local economy	Creating safe, equitable places to live and work which support local prosperity and international fair trade
	Culture and community	Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living
	Land and nature	Protecting and restoring land for the benefit of people and wildlife
	Sustainable water	Using water efficiently, protecting local water resources and reducing flooding and drought
	Local and sustainable food	Promoting sustainable humane farming and healthy diets high in local, seasonal organic food and vegetable protein
	Travel and transport	Reducing the need to travel, encouraging walking, cycling and low carbon transport
	Materials and products	Using materials from sustainable sources and promoting products which help people reduce consumption.
	Zero waste	Reducing consumption, re-using and recycling to achieve zero waste and zero pollution
	Zero carbon energy	Making buildings and manufacturing energy efficient and supplying all energy with renewables

One Planet Living Action Plan

Zibi's One Planet Living Action Plan

The Zibi One Planet Living Action Plan was developed in April 2015. The One Planet Living principles have now been embedded into the by-laws of the project, in both the Gatineau and the Ottawa municipalities.

The One Planet Living Action Plan was then updated in December 2017, following changes in the development site.

This Annual Review looks at progress in delivering the 2017 action plan during 2022-23.






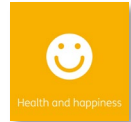
One Planet Living Centre © Zibi

Review summary and highlights

Overview of progress in 2022-23

Since last year's review, there has been significant progress against many One Planet Living principles, with several already having a high degree of certainty over their deliverability. Progress is shown below using the following traffic light system.

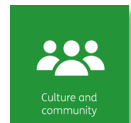
-  Well addressed
-  Adequately addressed
-  Not fully addressed



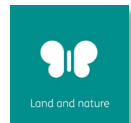
This year, Zibi started to become the true community it was designed to be. The Resident Sustainability Committee met regularly, running events and programmes with good results. The resident survey showed a big increase in those who feel involved. Like everywhere post-pandemic, the survey suggests lower happiness scores, so Zibi is already taking steps to help address this amongst both workers and residents.



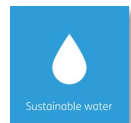
Zibi's commercial tenant, Spaces, opened its second shared workspace this year. Affordable housing currently represents 53% of units delivered. Zibi's plans to be a socially responsible tourist destination are a tremendous success with all targets exceeded, successful sustainability tours and world class cultural events. Preferential pricing offers for indigenous property buyers will be reviewed this year due to lack of take up so far.



Zibi's unique cultural identity, celebrating sustainability, celebrating indigenous heritage, creating a connected new community, is all going really well. The Memengweshii Council updated its Shared Values video and organised a 13 Moons art project to be installed in Terasini Park. The OPA has also inspired a range of activities to promote sustainability culture amongst construction staff.



Terasini Park is the latest addition to Zibi's outdoor spaces, currently being created on the shores of the Ottawa River, featuring flood-resistant and exposed bedrock shelves, retained mature trees and newly planted native species. Residents continue to report an increase in their time in nature. Biodiversity gain is being tracked as number of native plant species, which continue to rise although still short of the very ambitious target.






Zibi continues to exceed its potable water reduction targets. Drought tolerant plants mean no potable water is needed for irrigation. Unfortunately, stormwater monitoring is still showing suspended solids pollution, despite good site practices but Zibi has a plan to address this and to keep it closely under review.



Overview of progress in 2022-23

Since last year's review, there has been significant progress against many One Planet Living principles, with several already having a high degree of certainty over their deliverability. Progress is shown below using the following traffic light system.

-  Well addressed
-  Adequately addressed
-  Not fully addressed



Food growing on site at Zibi continued to flourish in 2022 whilst the new Two Beets community supported agriculture offer was also a success. Growing numbers of surveyed residents report significant use of local, organic and fair-trade food. The OPA is planning a seedling swap and another balcony gardening workshop for residents.



In 2022, the municipal works on the Chaudière Bridge corridor are ongoing, preventing certain journeys by active travel and public transport. EV take up is still slow in Ottawa with Zibi EV ownership still <4%. Despite these challenges, the resident survey suggests a big shift in modal share towards sustainable travel modes. The Walk Score is rising nicely as new facilities and new connectivity become available.



Zibi is still on track for retaining existing buildings and facades and for creative reuse of demolition materials. The construction team continue to maximise recycled content and local sourcing. Auditing of embodied carbon and timber provenance has been challenging this year so a specialist contractor has been appointed to address both from 2023. Zibi's yard sale was a success and will become an annual event and a Repair Café will be trialled this year too.



Zibi introduced a successful new system of monthly visual waste audits this year. Results show excellent % recycling levels for both condo units and commercial tenants, both exceeding local baselines. Absolute waste quantities are also low, exceeding targets in the action plan. Construction waste also exceeded the 90% diversion target with one outstanding issue around personal waste from site staff needing to be addressed.



2022 was the first year of district energy operation and the first year of post-occupancy site-wide energy consumption reporting. Delays beyond Zibi's control means Ontario blocks do not yet receive domestic water heating from the plant. Zibi delivered a 38% CO2 saving on thermal demand compared to business-as-usual, resulting in 415tCO2e of which half was due to one-off commissioning activity. The fabric performance target remains challenging and Zibi continues to explore new partnerships to deliver new cost-effective modular product solutions.



Highlights of 2022-23

1. Data monitoring:

Processes for gathering monitoring data are the best ever this year, with new waste monitoring in place for the first time along with newly available site-wide energy consumption data. Zibi is exceeding almost all its targets on waste and on potable water consumption. Transport and sustainable food indicators have both leapt forward towards ambitious targets and with the zero-carbon thermal energy network now operational, Zibi is on track to deliver zero-carbon heating, hot water and cooling as soon as municipal works on the bridge are complete.

2. Unique cultural identity:

Zibi's unique cultural identity, celebrating sustainability, celebrating indigenous heritage, creating a connected new community, is all going well. The Memengweshii Council updated its Shared Values video and organised a 13 Moons art project to be installed in Terasini Park.

The One Planet Ambassador (OPA) inspired a fun range of sustainability activities amongst construction staff this year and most notably, Zibi creates opportunities to showcase its identity by welcoming thousands of visitors to its successful public events. In 2022, 10,000 people descended on Zibi for Festibière when, for 10 days, the Place des Festivals hosted a giant Ferris wheel, a massive pool with a pedal-boat bar, food trucks and live music. 2,000 people helped to celebrate Canada's birthday at the Fête du Canada in July and Cirque du Soleil returned to amaze audiences totalling 75,000. There was the return of the popular Interzip experience and Zibi welcomed 1,000 food and wine enthusiasts at the Salon des Assoiffés tasting experience in the beautiful La Ruelle venue.



'We Are Seeds' artwork by Claudia Gutierrez © Zibi

Highlights of 2022-23

3. One Planet Living Centre:

The One Planet Living Centre opened this year, showcasing all things sustainability. Zibi's One Planet Ambassador works there during office hours so visitors can learn first-hand about Zibi's One Planet Living Action Plan. They can learn all about the district thermal energy system from the interactive information station and they can book tours of the state-of-the-art energy plant located conveniently in the same building.

The centre has clever reuse of materials built in, like reclaimed brick walls, lights, desk and other furniture, a rotating local business feature, zero waste DIY example projects, low carbon food recipes, and more. In its first six months, the centre welcomed high school and university students, residents and a variety of business professionals to explore how Zibi is applying OPL. Employee onboarding sessions now take place at the centre instead of online, inspiring more interest in new employees.

4. Strong social community:

The social networks and governance needed for a strong and social community took some significant steps forward this year with the Residents Sustainability Committee (RSC) becoming far more established, meeting regularly, running community events and engagement programmes. The online Mighty Networks community portal is now up and running with space for discussion, sharing of items, events noticeboard. There is a walking group established and a cycling group planned.



Christmas market in La Ruelle © Zibi

Review summary

Comment from Brittany Poisson, Sustainability Project Manager at Zibi



As the population of Zibi continues to grow, we are seeing bigger turnouts at community events and many residents reported that they know at least one neighbour, so a sense of community is developing. The new Resident Sustainability Committee has played a big role in making events and initiatives possible. We were able to get some good baseline waste data this year and found that we are not quite at our target diversion rate but doing better than the regional average, which is a positive and encouraging note to start on. Time in nature has been increasing and should continue to do so as the much-anticipated Texasini park opens in 2023.

Zibi's carbon footprint was lowered in 2022 thanks to the district thermal energy system coming online. This year, Zibi's carbon emissions were 38% lower compared to business as usual and we will reach our net-zero carbon target once the final pipes are installed in 2023. The new One Planet Living Centre on site has provided more opportunities to engage with community members and visitors alike on sustainability initiatives and we look forward to inspiring wider audiences in the years to come.

Comment from Leadership Reviewer, Nicole Lazarus at Bioregional



As the construction of Zibi advances, so does the delivery of an ambitious vision of One Planet Living in Ottawa. This year, Zibi has introduced new community programmes, an amazing programme of events, new monitoring processes are in place showing progress towards the stretching targets in the action plan. Where challenges have come up, the team have already put new measures in place for the coming year. We look forward to hearing news of key milestones and progress next year.

Comment from Bioregional – Sue Riddlestone, CEO of Bioregional



Zibi continues to be one of the most inspiring One Planet Living communities in the world, showing leadership in delivery and in how they communicate an exciting, positive sustainable future in the heart of Canada's capital city.

Key plans for 2023-24

1. Completing works on the Chaudière Bridge:

Completion of municipal works on the Chaudière Bridge will allow full use of the zero-carbon thermal energy network, delivering 100% zero-carbon energy to Zibi. This milestone will also allow greater connectivity for active travel and bus services.

2. Opening Texasini Park:

Zibi looks forward to the opening of Texasini Park, giving access to an iconic piece of shoreline that has been inaccessible for decades and represents 31% of planned park space.

3. Carbon analysis:

The new specialist contractor will conduct embodied carbon analyses on all buildings in design or under construction, finally providing a tool for tracking and minimising embodied carbon. They will provide more comprehensive audit data on timber provenance and other sustainable construction material targets.

4. Indigenous Participation Plan:

A new Indigenous Participation Plan is due to be produced in 2023 and meanwhile, Zibi will continue supporting the Native Women's Association of Canada's National Apprenticeships Program, which helps Indigenous workers connect with wider employment opportunities.

5. Resident engagement:

The OPA will continue to work with the Residents Sustainability Committee to promote ever more engagement and participation, through events and the online portal. In 2023, Zibi will have sponsorship support from the Dream Community Foundation, enabling it to invite charities or businesses on site to conduct workshops.



Chaudière Bridge © Zibi

Suggestions from the reviewer

Bioregional and the Zibi team have discussed suggestions for further action in 2023-24:

1. In-use thermal energy demand:

Bioregional suggests that Zibi reports in-use thermal energy demand in kWh/m² of floor area for each block next year, separated into space heating, cooling and hot water demands.

2. Electricity consumption:

Electricity consumption is also an important sustainability indicator, even when supplied from Quebec Hydro's clean grid. Electrical energy efficiency and demand reduction is an important OPL goal. Acknowledging the barriers to accessing data from individual household meters, perhaps the team can explore metering site wide electricity consumption or even better, whole block by block electricity consumption.

3. Resident survey response rate:

The resident survey's response rate of 10% represents normal good practice and is often what is expected, but it would be great to achieve an even better response rate. Perhaps the RSC can help to promote it, or a prize draw can be offered for responders?

4. Biodiversity improvement:

Zibi set itself the ambitious aspiration to achieve a 400% improvement in biodiversity for the site. The team currently use species numbers to track this, but we suggest seeking some ecological advice and perhaps adding additional indicators. These might be species-specific or habitat-specific measures particularly suited to the Zibi site, that might provide inspiring stories and points of engagement. Perhaps there are key bird or insect species inhabiting the riverscape that will benefit from the Terasini rock slabs? Zibi could consider doing a citizen science project counting birds or insects. It would be good to enrich the measure by which biodiversity improvement is being judged at Zibi.

Detailed progress review



Health and happiness

Headline outcome:

Zibi is working to enhance the mental and physical health of its residents and employees

Outcomes	Indicators	Baseline	Progress in 2022	Plans for 2023
Increase happiness for Zibi residents	> 75 % of residents 'happy' with their lives	Ottawa-Gatineau: 8/10 2018: 3.75/4	Survey: average response 3.8 (down from 4.0). 68% of respondents rated 4 or better (down from 90%).	Zibi will market the online Mighty Networks community portal and the community mailing list better to gain more followers in hopes of reaching more community members. The Resident Sustainability Committee (RSC) will also share meeting minutes to spark interest in community planning.
Create opportunities for community involvement, learning and creative expression	> 70% of residents feel actively involved in their community > 12 events / classes held per year within community spaces	58% for Ottawa-Gatineau, (O&G) 65% for all of Canada	58% feel engaged, up from 33% in 2021. Zibi hosted 16 events/workshops in 2022, 9 of which were exclusive to community members. Yoga was offered again in the summer but it wasn't popular enough to keep it going.	Zibi's One Planet Ambassador (OPA) has a 2023 event wish list and a keen RSC to help coordinate events/workshops. With a wide range of different activities, Zibi hopes to attract community members who may not have participated in the past.
Support better health outcomes	> 85% of residents/workers indicate overall satisfaction with their health >85% of workers indicate increased satisfaction working at Zibi as compared to other sites	63.6% of O&G residents perceive their health as very good; and 72.3% perceive for their mental health. Canadian average is 59.9% and 72.2% respectively	Survey: 100% of residents and staff feel their health allows them to meet their daily needs 75% of trade workers rate themselves in good health (down from 90%)	Zibi will continue to advocate for a healthy, sustainable lifestyle and organise physical outdoor activities where possible.

Key achievements and challenges

Zibi hosted several events and workshops for community members in 2022 and saw a spike in attendance compared to previous years. This could be due to a slow return to normalcy combined with the fact that Zibi's population doubled with the opening of Aalto. Nevertheless, 58% of residents indicated that they feel involved in the community, which is not yet at the target but improved from last year. Zibi now has a walking group and there are plans to start a cycling group in 2023 as well.

The survey was open to 360 residents, with only 38 respondents, representing >10%. This is fairly typical for any resident survey, but Zibi would like to achieve greater engagement and a greater response rate.

Mental health and general happiness responses do seem to be down compared to a year ago. This is consistent with reports in multiple countries and contexts as a residual effect from the pandemic.

To address this, the Zibi office started a monthly luncheon to encourage stepping away from computers and socializing. A desire to improve mental health came up in both staff and worker survey results, so Zibi will explore ways to assist in getting services to help with that.

Zibi will bring the Green Machines team together again for quarterly meetings to explore ways to improve worker health outcomes and welcome the new Construction Manager for Block 204 into these conversations. The OPA will explore hosting a mental health lunch and learn in cooperation with the construction managers.



Sunflowers © Zibi



Yoga © Zibi



Equity and
local economy

Headline outcome:

Zibi aims to support a vibrant, equitable local economy for all its residents, businesses, and the wider community

Outcomes	Targets / indicators	Progress in 2022	Plans for 2023
Plan for 7% affordable housing	7% of total units social housing	With the completion and occupation of Aalto, 53% of the finished units at Zibi fall within Zibi's affordable housing program. This % will fall as more market units get built out, but the early delivery of affordable units demonstrates Zibi's commitment to this target.	Block 206 will start welcoming tenants, which will have 2 floors of affordable housing units as well as 7 co-living floors, offering a variety of more affordable options.
Promote and give precedence to smaller, local and/or ethically run enterprises	50% of retail space storefronts that contain small, local, and / or ethical businesses, as a % of total Zibi storefronts	Spaces, a coworking establishment that opened a location on the Gatineau side in 2021, has opened a second location at Zibi on the Ontario side. The two offices are currently the only commercial tenants; their business values align well with Zibi's.	As Zibi waits to welcome new commercial tenants, the sustainability team is developing and refining OPL guides for different types of businesses to ensure any new tenants have the tools and information necessary to operate sustainably from the very beginning.
Engage Zibi residents in Fair Trade programs and products	One fair-trade business will be in place by the time that 50% of retail storefronts are occupied	No leases for retail are yet in place.	Leasing representatives continue to target Fair Trade coffee shops. In the meantime, the OPA will share local businesses in the surrounding area that offer Fair Trade products.
Provide opportunities for all community members to democratically participate in governing and managing Zibi	Set up association within 1 year of first occupancy	The Resident Sustainability Committee (RSC) met roughly once a month to plan events and discuss ways to promote sustainable living among residents at Zibi. A preliminary Charter has been drafted outlining the structure, roles and responsibilities of the RSC. The intention is that the RSC evolves into a Residents' Association when the community is ready for such a thing.	The RSC will continue to meet once a month, giving public access to meetings and minutes, encouraging participation from any and all residents, but particularly aiming to recruit Block 10 residents as none have engaged so far.

Continued overleaf



Equity and
local economy

Headline outcome:

Zibi aims to support a vibrant, equitable local economy for all its residents, businesses, and the wider community

Outcomes	Targets / indicators	Progress in 2022	Plans for 2023
Create a socially responsible tourist destination	By year 5, have 1,000 tourists per year visit Zibi	Zibi hosted 16 events/workshops, welcoming nearly 10,500 visitors/participants on site. Cirque du Soleil was on site again, welcoming an additional 75,000 guests and Interzip welcomed over 9,500 zipliners for their second year in business. Zibi is also leading several tours for groups (schools, professionals, public servants, etc.) who were interested in learning more about sustainability initiatives.	Zibi will have support from the Dream Community Foundation (DCF) for events. The DCF is a not-for-profit dedicated to improving the well-being of individuals, families, and neighbourhoods across Canada. With their support, Zibi is in a position to offer more sponsorships and invite charitable organisations to conduct workshops or other business on site.
Develop Zibi beneficially with and for the Algonquin Anishinabe Nation and people - to ensure Indigenous culture is not only present at Zibi, but that Indigenous people truly live, work and play at Zibi	<p>At least 20 First Nations individuals are bridged from on-reserve work to off-reserve work experience</p> <p>At least 2 opportunities for long-term investment throughout project lifecycle</p> <p>Offer a preferential residential pricing program for Indigenous purchasers</p>	<p>Zibi achieved the work experience target in previous years.</p> <p>To date, all investment opportunities have been declined by Algonquin preferential partners.</p> <p>A preferential pricing program is in place which provides a small discount to all First Nation, Inuit or Métis purchasers. While there have been enquiries into this opportunity, nothing has yet been signed.</p>	<p>Zibi will support the Native Women's Association of Canada's National Apprenticeships Program.</p> <p>Zibi will introduce a new clause in the bidding process to prompt construction companies to indicate how they plan to create positions for Indigenous workers, with preference given to those that provide such a plan.</p> <p>Zibi will continue to offer investment opportunities as they arise and to implement the pricing program. A review of both these initiatives will take place to determine if they can be modified to be more attractive or feasible for Indigenous partners.</p>

Key achievements and challenges

Spaces, a workspace sharing centre, opened a second location at Zibi on the Ontario side. There are no other commercial tenants yet, but the One Planet Living Centre has begun featuring local businesses as an interactive station for visitors.

Aalto, a 162-unit rental building, reached 90% occupancy by the end of 2022, all of which fall under affordable housing thanks to the Canada Mortgage Housing Corporation.

Resident governance has come on a lot in the form of the RSC which meets regularly, plans events and has drawn up a charter. It's still too early for a formal governance organisation.

Neither of the investment opportunities nor the preferential pricing for indigenous people have so far been taken up. So, whilst Zibi will continue to offer the preferential pricing, there will also be a review of both programmes to consider how to construct future investment offers and perhaps how to adjust the preferential pricing to improve take up.

Zibi will support the Native Women's Association of Canada's National Apprenticeships Program, which may not necessarily lead to employment opportunities at Zibi but helps Indigenous workers connect with the greater community, nonetheless.



Rotating local business feature at the One Planet Living Centre
© Zibi



Culture and community

Headline outcome:

Zibi is nurturing a sustainable, cultural identity that reflects the history of the site and the First Nations community

Outcomes	Targets / indicators	Progress in 2022	Plans for 2023
Create a cultural identity that reflects the history of the locale	A Heritage Plan, endorsed by Municipal Heritage Planners and regional Algonquin communities, developed and implemented	The Heritage Interpretive Plan continues to be implemented at Zibi and was incorporated at length into the design of Terasini Park.	Indigenous culture will be expressed through signage and wayfinding this year and some more new art installations will commence in 2023.
Engage with Algonquins to ensure First Nations history, presence and culture are reflected throughout the development	<p>Mention traditional Algonquin territory in all media events</p> <p>15% of place names will be in Algonquin</p> <p>Establish an advisory council of Algonquin Anishinabe to guide on cultural matters</p> <p>Minimum of 2 youth engagements per year</p>	<p>Zibi acknowledged the territory of the Algonquin in 100% of speaking engagements, media events and published reports and continues to look for opportunities to include Algonquin heritage and language in place names.</p> <p>The Memengweshii Council met twice this year, updating the Shared Values video and organising a 13 Moons art project to be installed in Terasini Park.</p> <p>Zibi had a summer student, an intern, and a full time staff member in 2022 who all self-identified as Indigenous.</p>	<p>Zibi will continue to acknowledge Algonquin territory and to meet and collaborate with the Memengweshii council as well as other Algonquin partners.</p> <p>Zibi and the Memengweshii Council will present at a job fair in Pikwakanagan in the spring with a goal of offering three internship positions. The new 'Shared Values 2.0' video will launch and the Zibi website will be updated to contain more culturally significant/appropriate material regarding Algonquin history and presence on site.</p> <p>Zibi will develop a new Indigenous Participation Plan, a framework that will guide engagement commitments, planning and annual reporting on the subject.</p>

Continued overleaf



Culture and
community

Headline outcome:

Zibi is nurturing a sustainable, cultural identity that reflects the history of the site and the First Nations community

Outcomes	Targets / indicators	Progress in 2022	Plans for 2023
Create a sense of belonging through a culture of sustainability	<p>70% of residents know their neighbour</p> <p>80% of all residents and workers indicate their awareness of sustainability has increased</p>	<p>79% know >1 neighbour</p> <p>47% know >4 neighbours (up from 40% in 2021)</p> <p>37% of residents, 77% of staff and 67% of trade workers surveyed report increased or good awareness of sustainability (all up from 2021)</p>	<p>Zibi will continue to host community events and to promote the new Mighty Networks online community portal. The OPA will use comments from the resident survey to initiate conversations about sustainability issues on the portal.</p> <p>Zibi is releasing a new OPL onboarding video for trades and continuing a 'Did you know' poster campaign on the construction site.</p> <p>The OPA will continue to welcome guests at the One Planet Living Centre to share Zibi's sustainability goals, successes and lessons learned with residents, workers and visitors.</p>

Key achievements and challenges

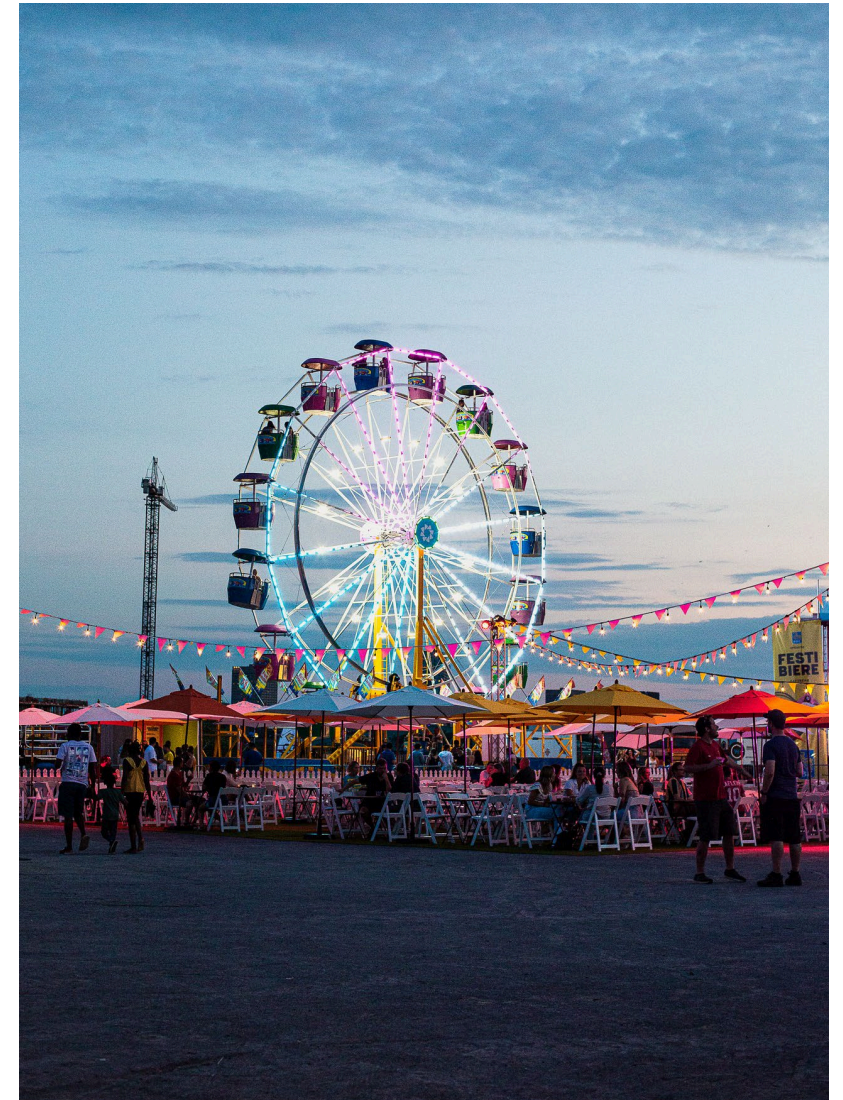
A major milestone occurred this year with the opening of the One Planet Living Centre. The OPA is based there during office hours so visitors can learn first-hand all about Zibi's One Planet Living Action Plan. The centre has an interactive station where visitors can explore the details of the district thermal energy system and book a tour of the state-of-the-art plant located in same building.

The centre showcases examples of all 10 OPL principles at work, with clever reuse of materials built in, like reclaimed brick walls, lights, desk and other furniture, a rotating local business feature, zero waste DIY example projects, low carbon food recipes, and more. In its first six months, the centre welcomed high school and university students, residents and a variety of business professionals to explore how Zibi is applying OPL. Employee onboarding sessions now take place at the centre instead of online, inspiring interest in new employees. Zibi held events in the centre, and it doubles as a meeting room space for the Resident Sustainability Committee.

Awareness of OPL at Zibi is increasing and a sense of community is forming with almost 80% of surveyed residents saying they know at least one neighbour.

Zibi continues to curate local and indigenous art, having installed a stunning mosaic on a stretch of the shoreline break wall, as well as many new pieces throughout Aalto. Zibi continues to consult with the Memengweshii council, which helped to organise an art installation for Texasini Park and finished its new 'Shared Values' video to be published in early 2023.

The OPA used Zibi's new community portal on Mighty Networks to promote sustainable living, share events and project updates. On the construction site, infographics were posted to inform workers of One Planet Living and related goals at Zibi, and a Trade of the Month program has been implemented site-wide to reward those who respect or exceed OPL expectations.



Festibière 2022 © Zibi



Land and nature

Headline outcome:

Zibi is making space for nature so it can flourish, and residents can interact with the natural world

Outcomes	Targets	Baseline	Progress in 2022	Plans for 2023
Remediate contaminated land and revitalise the area to maximise the benefit to natural ecosystems	<p>100% of the site area to meet provincial regulations after remediation</p> <p>14% of site to be parks</p> <p>400% increase in biodiversity with all to contain at least one plant of significance to First Nations people</p>	Contaminated land	<p>No new remediation work in 2022.</p> <p>Work on Terasini Park started in 2022 which will offer an additional 6,100 square meters of river-front park space upon completion, bringing Zibi half way to the 14% goal.</p> <p>Native plant species have increased from 43 to 49 this year, 39 of which have been reintroduced. Of these, 28 are culturally significant to First Nations people, up from 24 last year.</p>	<p>The ground for Block 204 will be remediated before construction begins; plans are complete and abide by provincial regulations.</p> <p>Zibi will welcome visitors at the new Terasini Park. A new audio experience at Pangishimo park will be installed.</p> <p>Terasini park brings the opportunity to introduce more plants to site and of different varieties that are particularly flood tolerant.</p>
Foster a love for nature through education and enhanced opportunities to interact with the natural world	<p>50% of all residents will increase their time in nature</p>		<p>42% of residents surveyed said their time in nature has increased since living at Zibi. Many indicated that more green spaces would be beneficial, which will come in time.</p>	<p>Several residents have given feedback that they would be interested in educational walks, for example, to learn about the history of the site, development progress, plantings, etc., so something like this will be programmed.</p>

Key achievements and challenges

Residents continue to report an increase in their time in nature, up 2% from last year and nearing our 50% target.

Members of the Resident Sustainability Committee reported noticing an uptick in foot traffic as residents and the wider community take advantage of Pangishimo Park. Zibi is pleased to see these lands being enjoyed after years of inaccessibility.

All the species planted on site are native, they are well chosen for drought tolerance and over half have cultural or historical significance to First Nations people. The diversity of species continues to grow but there is not yet a convincing narrative to demonstrate an increase in biodiversity compared with the baseline.



Render of Terasini Park © Zibi



Beekeeping © Zibi



Sustainable water

Headline outcome:

Zibi is supporting its residents to reduce their water consumption

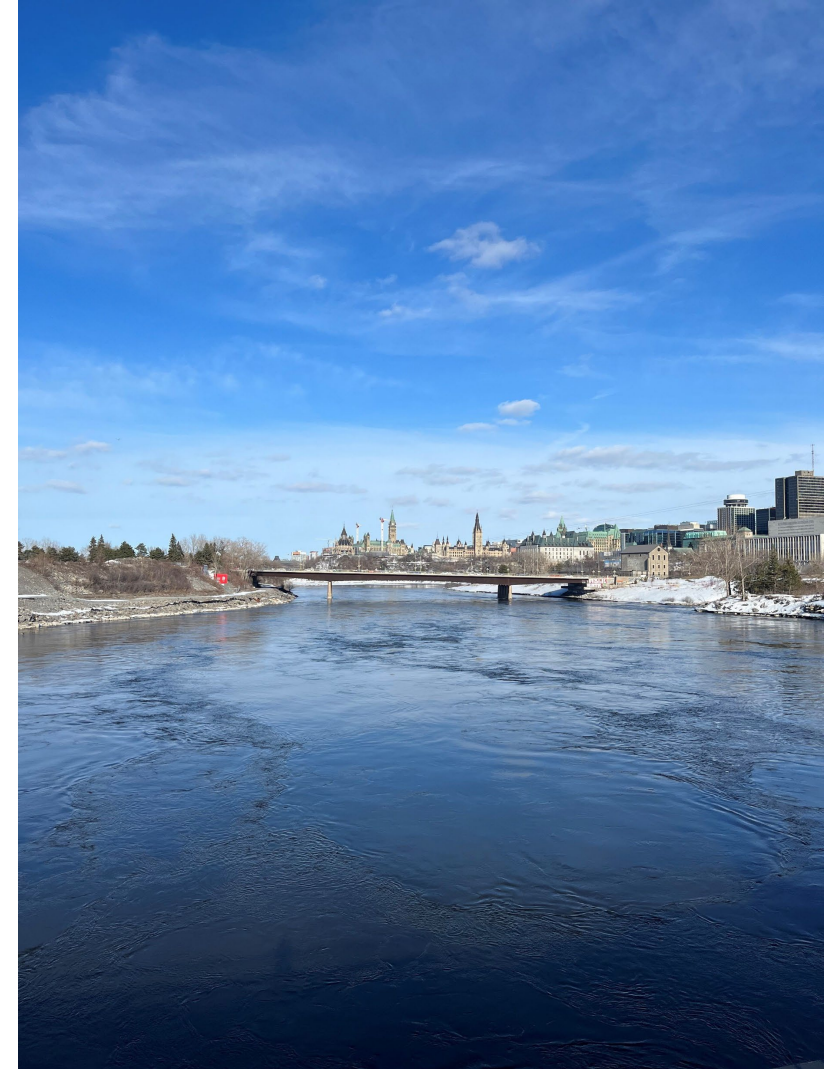
Outcomes	Targets	Baseline	Progress in 2022	Plans for 2023
Reduce potable water use for residents and irrigation	<p>138L Potable water consumed per resident, per day</p> <p>0% of potable water used for permanent irrigation systems</p> <p>10% toilet flushing with non-potable water</p>	163L	<p>All water fittings meet LEED platinum standard.</p> <p>Potable water consumption has risen quite a lot but still exceeds the target; Kanaal 129l/p/d (up from 83 in 2021); O Condominium at 122l/p/d. Data from Aalto block was not sufficiently robust.</p> <p>No irrigation was installed for public realm. Instead drought tolerant species were used.</p> <p>Zibi now has 560 toilets on site, of which only 48 (at O Condos) use non-potable water. So Zibi has dropped slightly below target at 8.6%.</p>	<p>Water meters and low flow fixtures will be installed in new builds as per design specifications.</p> <p>Block 11 will have a rainwater collection cistern for irrigation needs. Zibi will continue to plant drought tolerant species.</p> <p>Zibi will look for opportunities to incorporate non-potable toilet flushing in order to get back on track with this target.</p>
Achieve near-zero export of pollutants via stormwater outflow	<p>Total Suspended Solids will be reduced by 80% prior to discharge</p>		<p>All required sediment control best practices are being applied on site but despite this, sampling from a significant rain event in late autumn showed suspended solids above the allowable limit.</p>	<p>Zibi will enhance its water sampling plan and storm sewer sediment traps will be cleaned regularly.</p> <p>Environmental control plans will be reviewed and updated with most recent guidelines before the new Construction Manager for Block 204 starts work.</p>

Key achievements and challenges

Zibi continues to exceed its potable water consumption target. Residents are consuming up to 40% less water than the national average. Even so, specifications for water fixtures have been updated to be more stringent, in line with new flow rate standards.

With three buildings under construction, it has been difficult to control sediment from truck traffic, but application of best practices is being strictly enforced on bi-weekly environmental site walks.

With targets still being exceeded on occasion, Zibi will put an even more robust sampling plan in place and storm sewer sediment traps will be cleaned regularly. Construction and Property Managers will be immediately notified of any excessive TSS discovered in discharge and be required to act swiftly to remedy the situation.



Ottawa River © Zibi



Local and sustainable food

Headline outcome:

Zibi is making it easier for residents to access healthy, local, and lower-carbon produce

Outcomes	Targets	Progress in 2022	Plans for 2023
Provide access to modest garden spaces for 90% of households that want it	<p>1.4 m2 Area of food-growing garden spaces onsite per household (m2)</p> <p>1:10 Ratio of food-growing garden spaces to households</p>	<p>The second-floor terrace at Aalto received garden boxes at the end of the year, with 1.4 m2 of gardening space for up to 10% of units.</p> <p>Zibi remains on target with a ratio of 1:9.7.</p>	<p>Aalto residents will have their first growing season. Zibi will host another balcony gardening workshop paired with a community seedling sharing exercise.</p> <p>Lessons learned to be documented for knowledge sharing with future blocks.</p> <p>Block 206 and Block 11 will have terrace garden boxes in time for the 2024 growing season.</p>
Create a community-scale food distribution network to increase access to local, fairly traded and organic food	<p>5% in year 1, growing to 25% by year 5 of Zibi residents participating in 'farm-to-table' schemes</p>	<p>18% of residents surveyed participated in CSA or farm-to-table programmes.</p>	<p>Zibi will have a CSA drop box from Two Beets Farm again and will work on marketing to try and gain more participation in the program.</p>
Engage residents to reduce their consumption of high-carbon foods	<p>50% of all residents will report a decrease in high-carbon food consumption year over year</p>	<p>39% of residents surveyed indicated at least 25% of their food is local. 34% indicated that at least 25% is organic or Fairtrade.</p> <p>21% ticked the new 'I don't know' category.</p>	<p>Zibi's OPA will use Mighty Networks to keep residents informed of what's in season and encourage recipe sharing using local, in season ingredients. The OPA will explore interest in a local farm visit as an opportunity to reconnect with where our food comes from. Zibi's local business map will also be reviewed and updated.</p>

Key achievements and challenges

Zibi had a new Community Supported Agriculture partner, Two Beets Farm, which allowed shareholders to choose the veggies they like with weekly deliveries to a secure drop box on site. Take up has been good and the OPA will continue to promote the scheme next year to increase participation further.

A facilitator from a local gardening non-profit, Just Food, came to Zibi to teach residents how to grow plants on balconies.

Gardening space was not originally designed into the Kanaal Condo building but a few determined residents transformed a small plot within the building's footprint into a vegetable garden.

The annual resident survey suggests some education around local and low-carbon diets could be beneficial.



Growing chillis © Zibi



Locally grown food from the O Garden © Zibi



Travel and transport

Headline outcome: Zibi is reducing residents' transport-related emissions

Outcomes	Targets	Baseline / 2017	Progress in 2022	Plans for 2023
Reduce carbon emissions associated with local transportation of residents	20% of parking spaces with electric car charging stations	Ontario: >20%	Zibi has installed 11 EV chargers to date, covering just 4% of parking spaces, however residents have installed more (exact quantity unknown). 35% of parking stalls have readily available conduit to facilitate future expansion of EV charging stations	Parking for Block 10/11 will have 24 chargers installed by Zibi and conduit readily available to the majority of remaining stalls. Block 206 will have conduit available at all stalls with 6 chargers installed for occupancy.
	0.7 household car parking ratio	Car ownership in O&G >1.45 per household	To date residential parking is at a 1:1 ratio.	Zibi's parking ratio will reduce as more blocks are completed
	Modify roadway reducing lanes from 4 to 2	Planned	Zibi's portion of the Eddy-Booth Street transformation project was completed in 2020. Public Services and Procurement Canada (PSPC) began their portion of the work in 2022. A new bus shelter was installed with anticipated service to start once the bridge is complete.	Work on the bridge should be completed in 2023, allowing full use of the transformed corridor.
	Targeted commuter transport split: Auto Driver: 25%, Auto Passenger: 10%, Transit: 45%, Non-motorised: 20%	n/a	42% of residents surveyed are using petrol vehicles most often for their transportation needs, 37% are choosing active transportation (walking or biking) most often, 16% are using public transit most often, and very few are carpooling.	Zibi will work with local NGOs to offer workshops and/or information sharing and explore ways to incorporate friendly competitions on site to encourage even more active transport.

Continued overleaf



Travel and transport

Headline outcome: Zibi is reducing residents' transport-related emissions

Outcomes	Targets	Baseline / 2017	Progress in 2022	Plans for 2023
Reduce the travel distance for basic goods and services to within walking distance	Community Walk Score >90 at 50% build-out	Gatineau 92, Ottawa 44, (O&G region 54)	Zibi is several years away from 50% buildout, however as of 2021, Zibi is connected to a multi-use pathway which has increased the walkability of the site. Currently, Block 13 has a Walk Score of 71 and Block 205A has a Walk Score of 57, which will undoubtedly improve as the community expands.	Leasing will continue to seek a variety of tenants for commercial spaces to ensure Zibi residents have nearby access to all necessities. The opening of the Eddy Booth corridor will improve the Walk Score for Zibi.

Key achievements and challenges

There has been marked improvement against the modal share targets. 37% of surveyed residents indicated they are choosing active transport (biking or walking) most often while just 42% use their personal vehicle for most transportation needs.

Zibi's Walk Score is coming on nicely and will continue to increase when the Eddy Booth corridor opens and as more and more facilities open.

While some EV chargers have been installed on site as per the target, EV take up is still very low so Zibi is pivoting to ensuring conduit is available instead, so when more residents have EVs, the most up-to-date charger models can be easily installed.



Biking © Zibi



Makwa bike racks © Zibi



Materials and products

Headline outcome:

Zibi is minimising the impact of construction and helping to embed a reduce and reuse culture amongst its residents

Outcomes	Targets	Progress in 2022	Plans for 2023
Reduce the impact of construction	50% of existing building area retained	Zibi is exceeding this target, as per the master plan. Refer to 2020 report for a summary of buildings being retained.	The Block 210B redesign/retrofit will commence should an interested tenant come along.
	90% of demolition materials recycled	No demolition during 2022 but many salvaged materials were creatively reused.	
	5% of demolition materials reused		
	20% of materials contain recycled content	For Block 10, 1,346 m3 of concrete was supplied, consisting of 58% recycled content.	Zibi will continue to spec these targets and a consultant will track trade submittals for all materials and products purchased to confirm compliance so we can better report on this.
	20% materials locally sourced/manufactured	At least 29 products were locally sourced for Block 10.	
	80% of timber or wood products reclaimed, reused or certified by FSC	Although Zibi is confident the correct materials were specified, the verification process was flawed for Block 10. FSC certified products continue to be a challenge in this region as many producers in the supply chain have stopped participating in the FSC program.	For future blocks, Zibi has outsourced data compilation for products and materials to a consulting firm in order to collect more dependable/accurate results.

Continued overleaf



Materials and products

Headline outcome:

Zibi is minimising the impact of construction and helping to embed a reduce and reuse culture amongst its residents

Outcomes	Targets	Progress in 2022	Plans for 2023
Meet or exceed best practice standards for indoor air quality	Achieve relevant LEED credits	Set in specifications in all buildings. Shop drawings are checked for compliance.	Introducing on site spot checks for compliance in 2023.
Embed a culture of reducing and reusing within the development	At least one sharing centres and/or related web-based sites established at Zibi	The Mighty Networks community portal now has a 'Marketplace' board, launched late in 2022. Zibi had a first annual Yard Sale in late spring where several residents brought items to sell.	Zibi will have a second-annual yard sale in 2023 and more promotion for the online community marketplace. Zibi will also sponsor Repair Cafes on site through a local non-profit organisation.

Key achievements and challenges

Zibi has been designed to retain 50% of the existing buildings and facades. The team has successfully recycled and reused demolition materials, ensuring that the project is well on track in these areas. There was no demolition in 2022, but timber beams salvaged from old mills were milled to produce 6,600 board feet of reclaimed lumber. Many other salvaged materials also found a new life in the new OPL Centre, such as old factory lights, bricks, wood, a workbench, and some pipes that became a decorative feature.

Zibi is keen to award a special mention to an inspired site superintendent who has collected over 300 metric tons of scrap materials and either transformed them into new items or sold them for profit that was donated to a local food bank. His ingenuity has been contagious as several other workers are following his example.

The key challenge during 2022 was tracking data on construction materials used and capturing their credentials, whether that be FSC certification, recycled content or embodied carbon.

Zibi has identified the solution to this and has appointed a material tracking sub-contractor to gather this data for all future blocks, including those currently under construction. It will gather FSC certification data and carry out embodied carbon assessments for every block.



Log milling © Zibi



Zero waste

Headline outcome:

Zibi is committed to diverting commercial and residential waste from landfill

Outcomes	Targets	Baseline / 2017	Progress in 2022	Plans for 2023
Divert 70% of total annual residential and commercial waste from landfill	>70% of residential and commercial waste diverted from landfill	Regional average for multi-residential blocks is 17% Ottawa's kerbside average is 49%	Visual waste audits suggest recycling rates for condo blocks >50% For commercial blocks, recycling rates average >40%	One Planet Ambassador will continue with regular visual audits of residential and commercial waste and will engage and educate according to results. Outreach in 2023 will include friendly competition between buildings.
Reduce residential waste	291 kg/person/year, a 20% reduction compared to municipal average	365 kg/ person/year	Based on the estimated averages from visual audits, Kanaal and O Condos residents produced around 250kg per person.	
Divert 90% of construction waste from landfill	90% construction waste diverted from landfill Concrete: 75% re-use on site, 20% re-use off-site, 5% clean fill	98%	Construction waste diversion >90% No demolition in 2022	

Key achievements and challenges

This is the first year that visual weekly waste audits have been carried out, so this is a major achievement. The methodology is to carry audits each month to assess weekly waste. The audits consist of a visual estimate of waste volume followed by an estimated weight conversion.

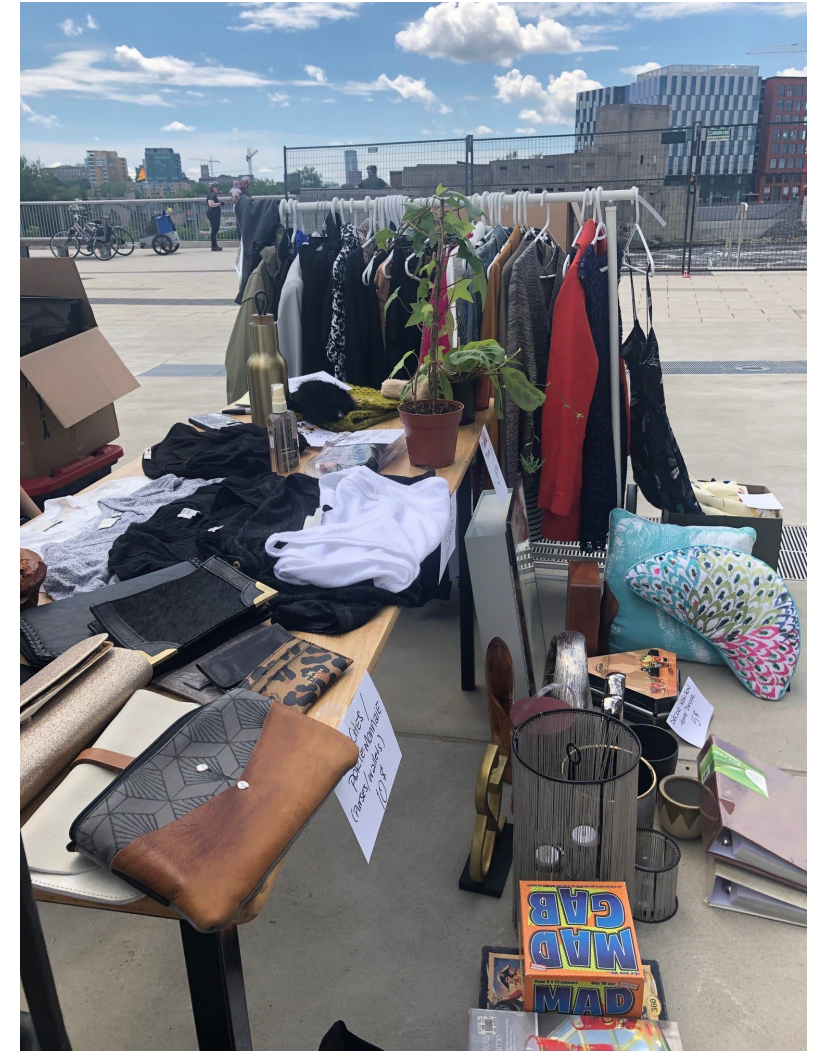
These audits have found that Kanaal Condo block is diverting 57% of waste and O Condo block is diverting 50%. Due to setbacks with the tri-sorter at Aalto, accurate waste audits were not possible in 2022. So Zibi residents are diverting on average some 53% of household waste, which is much better than the regional average for multi-residential buildings (17%), slightly better than Ottawa's overall curbside waste diversion rate (49%), and a good start to hitting the 70% target. Commercial spaces on average diverted 43% of waste.

Zibi's OPA will share this data with residents to get them excited about diverting more waste to hit the 70% target. The RSC will work on a waste management education campaign and promote the special waste collection and bottle drives that will be available in the condo buildings. Waste audits will begin at Aalto for 2023 too.

Zibi's OPA plans to share tips for repurposing household items and explore ways to initiate a zero-waste challenge. Zibi will also host a first-annual Repair Cafe where residents, and the greater community, can bring broken items to be fixed.

The residents survey revealed that a fair number of community members do not compost so more promotion to encourage this will be programmed.

The OPA will connect with the commercial tenants to ensure they have the proper waste sorting resources as the data suggests many of them don't seem to have food waste segregation and often don't have recycling facilities.



Yard sale © Zibi

Key achievements and challenges (continued)

On the construction site, a visit to the waste treatment facilities confirmed that almost all of construction waste is being recycled but personal rubbish cannot be processed and so it is this category that represents the bulk of construction stage landfilled materials.

Zibi will explore having separate containers on the construction site for personal trash in order to be able to account for this type of waste leaving Zibi. A 'pack in, pack out' initiative where workers take their personal trash home will also be explored for future blocks.



Ahead Repair Café © Ottawa Tool Library



Headline outcome:

Zibi aims to be powered solely by renewables and decrease energy demand

Outcomes	Targets	Progress in 2022	Plans for 2023
Ensure 100% of Zibi energy needs met from renewable energy	100% of total building energy demand met through zero carbon sources	<p>All of Zibi's grid electricity, from Quebec Hydro, is 100% zero carbon.</p> <p>41% of space heating and hot water demand was also met from renewable sources. This delivered a 38% CO2 saving on thermal demand compared to business-as-usual.</p> <p>In total, Zibi buildings consumed 5,014MWh of thermal/cooling energy, resulting in 415tCO2e of which approximately half was due to one-off commissioning activity.</p>	<p>PSPC are due to finish work on the bridge by Q3 2023, allowing all space heating and hot water energy to come from Kruger's waste heat rather than gas.</p> <p>Plans to automate and isolate the regulatory testing of backup generators will reduce the residual gas demand still further.</p>
Decrease building energy demand by 30%	30% reduction in building energy demand during operations, compared with a code-compliant baseline building	<p>Modelled reduction has varied for each block, ranging from 11-34%.</p> <p>Data for actual reductions in use are not yet available.</p> <p>Data on non-thermal electricity consumption is not available.</p>	<p>Zibi will work diligently to reach 30% demand reductions on future blocks.</p> <p>Zibi will be in a position to provide data on actual thermal energy used in the next report.</p>

Key achievements and challenges

100% renewable energy

2022-23 was the first year of operation of the district energy system, two years ahead of schedule. All buildings are now connected to it. However, Public Services and Procurement Canada (PSPC) has faced delays to work on the Chaudière bridge. This has delayed the district heating connection to Zibi's Quebec side, meaning most heating for January and February plus the full year of domestic hot water was still heated with natural gas. PSPC plan to finish the bridge by Q3 2023, henceforth allowing all hot water to come from Kruger's waste heat rather than gas.

While a few commissioning challenges remained in the latter part of 2022, cooling is functioning well and Zibi Community Utility (ZCU) is aiming to improve the efficiency of heat exchange at Kruger even further.

Electricity is all zero-carbon and sourced from Quebec Hydro. So once the district heating is fully operational, Zibi will no longer require the use of greenhouse gases. This will mark one of the most significant milestones for the project.

The success of ZCU Central Plant triggered significant media interest and resulted in hundreds of people touring the plant and learning about the zero-carbon initiative.



Tour of the ZCU Central Plant © Zibi

Key achievements and challenges (continued)

Decrease building energy demand by 30%

There have been challenges to the fabric specification due to rising costs of construction materials. Improvements to the mandatory building code have moved the goal posts and made the 30% improvement target even harder to reach. So Zibi reduced this goal for the moment to 25%.

That said, previous years have modelled a 30% saving at O Condominium and 24% on Block 10. Zibi continues to work hard to find economical solutions to make the target viable. Dream is actively partnering with a large window-wall company to develop a triple glazed, high performance modular system that could be within budget for future blocks.



Tour of the ZCU Central Plant © Zibi

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