

# 2023 ONE PLANET REPORT



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## EXECUTIVE SUMMARY

The community grew in 2023 with Aalto II coming on board, a rental building offering 41 new affordable units and 148 units in total, Zibi is starting to really feel like a community. While fewer residents report feeling involved in the community compared to last year, awareness of sustainability issues is on the rise, with the same being true among workers, suggesting there may be an openness for more education and engagement. Zibi continued to struggle with total suspended solids (TSS) in stormwater runoff and called upon the larger team to address this. An action plan was put into place and TSS levels improved drastically although some remain slightly higher than the limit. Chaudière Bridge work is almost complete, increasing pathway connections to Zibi, with completion expected in 2024. Achieving our waste diversion targets continues to be a struggle, which is certainly not unique to Zibi. That being said, construction made it difficult to collect accurate data in 2023 but this will be resolved for 2024. Energy demand data suggests we may be able to lower electricity consumption with some promotion and education, as we can see that non-thermal loads are higher than expected but most thermal loads are on par or below expected. Finally, we made some progress on embodied carbon in Block 11 with the help of our Construction Manager, Ed Brunet. Zlbi is in a position to transfer procurement tips from Block 11 to Block 204 which will undoubtedly help with our goal around embodied carbon.



# 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 networks, and 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 21st 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 2023.



## 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 treatied.

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 - 2028, Phase 2: 2024 - 2028, Phase 3: 2025 - 2031

#### **Ontario Construction Phasing**

Phase 1: 2018 - 2028, Phase 2: 2026 - 2029, Phase 3: 2024 - 2028

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. 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 2023 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.







Residents reported a higher average happiness than last year, but there is a lower feeling of involvement within the community. The survey response rate nearly doubled, suggesting people are at least more engaged. With two rental buildings on board, the Zibi community is somewhat transient, however, we will continue to put concerted effort into creating a sense of community in 2024. The Zibi community is hitting its targets across the board for overall health satisfaction. Most workers on site find working at Zibi similar or better than other places and we look forward to improving on this in 2024 with the new Construction Manager for Block 204.

# 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 2023 HEALTH AND HAPPINESS ACHIEVEMENTS**

Refer to Appendix A for data. Refer to previous reports for earlier statuses.

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2022 STATUS	2023 STATUS	2024 ACTION
НН1	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."	According to our annual residents survey, on average, residents rate their happiness a 3.8 on a scale from 1-5, where 5 is very happy. 68% of respondents rated their happiness 4 or better (Table 1).	According to our annual survey, on average, residents rate their happiness a 4 out of 5; 78% of respondents rated their happiness a 4 or better (Figure 1).	Much of the feedback as to what could improve happiness tends to be about the construction and lack of retail and restaurants on site. This target is expected to improve as the project advances.
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).1	The annual survey revealed that 58% of residents surveyed feel involved at Zibi (Table 1). The survey was open to approximately 360 residents, with only 38 respondents, indicative of the low engagement within the community.	According to the annual survey, 45% of residents feel involved at Zibi (Figure 2). While this result is lower than 2022, the survey response rate improved compared to last year with 71 respondents out of roughly 375 possible.	The higher response rate suggests our reach is growing which could translate into more engaged residents moving forward. Zibi's One Planet Ambassador (OPA) will maintain an engagement plan for Mighty Networks (MN) content and explore ways to connect with those who aren't online, such as with newsletters and events.
НН3	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 16 events/workshops in 2022, 9 of which were exclusive to community members. We offered yoga again in the summer but it wasn't popular enough to keep it going.	Zibi hosted 24 events/workshops in 2023, 7 of which were exclusive to community members.	The Resident Sustainability Committee (RSC) is planning to host some second-annual events and workshops that have worked well in the past and the Zibi events team has been marketing vacant commercial spaces to host a variety of activations.

<sup>&</sup>lt;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

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IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2022 STATUS	2023 STATUS	2024 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.	100% of the survey respondents indicated their health allows them to meet their daily needs (Table 1).	86% of survey respondents rated their health a 4 out of 5 or better (Figure 3).	Zibi will continue to advocate for a healthy, sustainable lifestyle and organize physical outdoor activities where possible.
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.	On average, staff rated their happiness a 4.4 out of 5 and 92% say their health meets their daily needs (Table 2). 75% of trade workers surveyed (only 9 total) rated their overall health a 4 or better (Table 3).	79% of staff and 92% of trade workers (86% average) rated their overall satisfaction with their health at 4 out of 5, or better (Figures 4 & 5, respectively).	Zibi HR promotes programs targeted at employee wellbeing, such as virtual Health and Wellness sessions and discounts for gym memberships. Zibi's OPA will connect with the new Construction Manager (CM) for Block 204 to ensure workers are aware of resources available to them.
		>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.	60% of trade workers surveyed say more can be done on construction sites in general to improve worker health; 4 had positive reviews of working at Zibi, 2 suggested improvements, and 3 had no comment (Table 3).	73% of staff reported working at Zibi is better compared to other places of employment, none reported that it is worse (Figure 6). Most trade workers reported that working at Zibi is similar to other sites, 28% say it's better and only 4% say it's worse (Figure 7).	Zibi's OPA will discuss with the greater team about ways to improve the workplace, introduce Green Machines at Block 204 and collaborate with project leads that know more about challenges on the construction site.

<sup>&</sup>lt;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





Aalto II began occupancy in 2023, increasing the number of affordable rental units at Zibi. The Resident Sustainability Committee met regularly in 2023, welcomed new members and hosted several events tied to sustainability and community engagement, we are grateful for the volunteer work of these keen residents. Zibi continues to work with the Algonquin community on capacity building by sharing job opportunities and forging relationships with employment organizations, as a result, we were fortunate to have a young member of the Algonquin community contribute to the project as an intern.

# 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 2023 EQUITY AND LOCAL ECONOMY ACHIEVEMENTS**

Refer to Appendix B for data. Refer to previous reports for earlier statuses.

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2022 STATUS	2023 STATUS	2024 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.	Currently, 53% of the finished units at Zibi fall within Zibi's affordable housing program as no new residential buildings have come online since 2021 (Table 1). This statistic will change as the project evolves, but the early adoption of the program demonstrates Zibi's commitment to this target.	With Aalto II online at Zibi, 45% of the total number of units in the community are affordable (Table 1). This number will decrease over the years, but Zibi is currently responding to market needs and leveraging on government financing programs.	Occupancy of Block 206 will begin in 2024 which will feature affordable units thanks to the Canada Mortgage and Housing Corporation's Rental Construction Financing initiative and a partnership with Ottawa Community Housing.
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.	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.	Zibi's commercial leasing program continues to be affected by the longterm impacts of the pandemic, and as such welcomed no new commercial tenants in 2023.	The OPA is standing by for opportunities to share OPL goals with prospective commercial tenants.
ELE3	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.	Deploy fair trade guidelines in retail strategy.	There is currently no industry standard or best practice.	No leases have been signed for retail storefronts and Zibi is not close to 50% occupation.	No leases have been signed for retail storefronts and Zibi is not close to 50% occupation.	Leasing representatives continue to target Fair-Trade businesses. In the meantime, the OPA will share local businesses in the surrounding area that offer Fair-Trade products with the community.
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.	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 continued regular monthly meetings in 2023. Membership shifted slightly but generally remained at 5 dedicated residents. In addition, a social committee was formed at Kanaal condos.	The RSC will explore how to collaborate meaningfully with the Kanaal Social Committee, which will be a sort of pilot for growing branches into all residential buildings. The RSC will continue to put out callouts for more members, targeting the rental properties and O Condos as they are currently only represented by one member each on the committee.

<sup>&</sup>lt;sup>1</sup> Canadian Housing Observer, 2011, https://assets.cmhc-schl.gc.ca/sf/project/archive/publications/canadian\_housing\_observer/2011\_67508.pdf

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IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2022 STATUS	2023 STATUS	2024 ACTION
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.	Zibi hosted 16 events/workshops, welcoming nearly 10,500 visitors/ participants on site (Table 2). 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 also lead several tours for groups (schools, professionals, public servants, etc.) who were interested in learning more about sustainability initiatives.	Zibi had 24 activations on site in the form of events, festivals, workshops and tours, welcoming over 14,000 visitors (Table 2). Interzip also attracted an additional 6,500 thrill-seekers.	Cirque du Soleil will return to Zibi bringing thousands of visitors along with it. Otherwise, the events team has a full calendar of events planned. Zibi continues to have support from the Dream Community Foundation for community based events.
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.	Zibi achieved this target in previous years working with Decontie Construction, an Algonquin-Anishinabe owned business. In their time working with Zibi, Decontie identified certain barriers to bridging work, such as long registration wait times with the Quebec Construction Commission, and successfully corrected them making it easier now for on-reserve workers to move off-reserve with Decontie. Other potential barriers that Zibi faces with regards to attracting workers from target Algonquin partner communities include the small populations on the reserves and the 2-hour commute required to get to site from the reserves.	Zibi achieved this target in previous years but continues to promote employment opportunities in Algonquin communities and within the broader Indigenous community. In 2023, a labourer from Decontie Construction worked on Block 11 and a young Algonquin woman joined Zibi as an intern.	Zibi will continue to promote opportunities within Algonquin communities and will collaborate with Indigenous employment organizations as opportunities arise.
		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.	To date, all investment opportunities have been declined by Algonquin preferential partners.	To date, one investment opportunity has been presented to Pikwakanagan First Nation and the Algonquins of Ontario. Both respectfully declined the opportunity.	There are no investment opportunities forecasted for 2024.
		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. While there have been inquiries into this opportunity, nothing has been signed under this program.	A preferential pricing program is in place for Indigenous purchasers. A pre-leasing program for Block 206 was also offered to the Algonquin community. Given that there are currently no condos for sale at Zibi, internal discussions have begun on leasing incentives for Indigenous People.	Zibi will finalize future leasing incentives for Indigenous People.





Despite survey results, Zibi is observing an increase in engagement on sustainability issues. We observed a significant increase in membership on our online sustainability focused platform, and Zibi's One Planet Ambassador met many new faces at community events throughout the year. We've observed an increase in sustainability awareness amongst residents and workers but the result is lower than the target. The transient nature of Zibi's rental buildings may contribute to this, as well as limited human resources on the sustainability team in 2023. That being said, Zibi's One Planet Ambassador has prepared a holistic outreach campaign to address this in 2024.

# CULTURE AND COMMUNITY

The re-development of the area will give citizens the opportunity to access a site of great cultural relevance. The re-development, through signage, architecture, and art will educate the public on the rich history of the site. Designing visual and physical connectivity to neighbouring attractions and landmarks will integrate the site into the existing destination networks.

#### **SUMMARY OF 2023 CULTURE AND COMMUNITY ACHIEVEMENTS**

Refer to Appendix C for data. Refer to previous reports for earlier statuses.

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2022 STATUS	2023 STATUS	2024 ACTION
CC1	Create a cultural identity that reflects the history of the locale throughout the development.	Implement the municipaly-endorsed Heritage Plan.	A heritage plan, endorsed by municipal heritage planners and First Nation partners, developed and implemented at Zibi.	There is currently no industry standard or best practice.	The Heritage Interpretive Plan continues to be implemented at Zibi and was incorporated at length into the design of Tesasini Park.	The Heritage Interpretive Plan (HIP) continues to be implemented at Zibi.	The HIP guided the design of Tesasini Park which will be officially opened in 2024.
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.	To date, Zibi has retrofitted 3 existing buildings and is on track to meet this target by the end of phase 1 of the project (see Project Phasing page).	To date, Zibi has retrofitted 3 existing buildings and is on track to meet this target by the end of phase 1 of the project (see Project Phasing page).	The next retrofit is dependent on leasing opportunities and is not anticipated to begin in 2024.
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.	100% of the art installed at Zibi, in both the public realm and within buildings, was produced by Algonquin and/or local artists from eastern Canada (Table 1).	100% of the art installed at Zibi, in both the public realm and within buildings, was produced by Indigenous and/or local artists (Table 1).	Zibi will continue to promote Indigenous and local art as the project purchases art for Block 206.
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.	Most connections have been or will be finished in phase 1 of the project; depending on block development selection, a few minor stretches on the North end may be delayed past the 40% completion mark.	Zibi is currently around 25% complete and most connections are completed. This target should be met by 40% completion although, depending on block development, a few minor stretches on the North end of the project may be delayed.	The Federal government's rehabilitation of Chaudière Bridge will be completed, providing stronger connectivity to Zibi and for the Zibi community.

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IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2022 STATUS	2023 STATUS	2024 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 and continues to look for opportunities to include Algonquin heritage and language in place names.	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.	Zibi will work with a cultural committee to find an appropriate and permanent location(s) for land acknowledgment on site.
		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 Memengweshii Council met at least 2 times. Of note, the Council worked on updating their video, organized a 13 Moons art project to be installed in Tesasini Park, and explored ways to increase membership.	In 2023, the members of the Memengweshii Council made the decision to sunset the Council. Zibi is extremely grateful to all of the members who sat on the Council over the years. Their contributions were critical in ensuring cultural integrity and in supporting Zibi on the path toward reconciliation.	Zibi will work with community members to establish a cultural committee to ensure cultural integrity on the project.
		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 had a summer student, an intern, and a full time staff member in 2022 who all self-identified as Indigenous.	A First Nations youth worked with Zibi in 2023 as an intern to the project.	Zibi will focus efforts on outreach in schools located close to Pikwakanagan in 2024.
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.	79% of residents surveyed know at least 1 neighbour; 47% know at least 4 (Table 2).	87% of residents surveyed know at least 1 neighbour; 43% know at least 4 (Figure 1).	Zibi will continue to host events that lend an opportunity for community members to meet, as well as promote the online community portal and encourage more participation on the platform.

<sup>▼</sup> Chart continued on next page

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2022 STATUS	2023 STATUS	2024 ACTION
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.	37% of residents say their awareness has improved, 51% were already aware of environmental issues and haven't learned more (Table 2). 77% of staff say their awareness has improved (Table 3). 67% of trade workers feel their awareness is good, but only 56% knew what OPL is (Table 4).	56% of residents said their awareness has improved (Figure 2). 83% of staff said their awareness has improved (Figure 3). 64% of trade workers knew about Zibi's sustainability commitments and 64% said sustainability is important to them (Figures 4 & 5).	The OPA has OPL education campaigns planned to keep community members engaged and will work with the RSC to offer workshops pertaining to sustainable lifestyle, making sure all events have a message about at least one OPL principle. A new construction crew will start work on Block 204 so OPA will ensure they are set up to successfully apply OPL principles on site.
			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 association/BIA.	There is currently no industry standard or best practice.	The One Planet Ambassador (OPA) used Zibi's new community portal on Mighty Networks to promote sustainable living, share events and project updates, and begin to create a sense of community among residents. 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.	Zibi Community on Mighty Networks (MN) climbed from 91 to 175 members where the OPA continues to share sustainability content. Trade of the Month also continued on both construction sites, and over 50 workers participated in a grand prize competition that required workers to correctly answer all questions on an OPL themed quiz.	Zibi's OPA will continue to grow and engage the online audience while looking for opportunities to reach those less inclined to interact virtually, for example, creating a quarterly newsletter or lobby installations. Workshops for gardening, biking, pollinator awareness and more will take place, as well as social events like a harvest BBQ and holiday social. The new construction site for Block 204 will be adorned with OPL content to keep up awareness and the OPL onboarding video will be updated.





Compared to last year, more residents have reported an increased amount of time in nature since living at Zibi and we expect this to increase with the opening of Tesasini Park in 2024. As expected, species abundance has increased with several new species of flora introduced at Tesasini park including several from the list of culturally significant plants.

# 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 2023 LAND AND NATURE ACHIEVEMENTS**

Refer to Appendix D for data. Refer to previous reports for earlier statuses.

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2022 STATUS	2023 STATUS	2024 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.	There was no remediation work in 2022. All remediation work to date has met provincial requirements.	3,700 MT of soil was removed from a parcel of land to be developed in phase 3. This and all remediation work to date has met provincial requirements.	Further remediation work is contingent on Block development.
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.	Work on Tesasini Park started in 2022 which will offer an additional 6,100 square meters of river-front park space at Zibi upon completion, bringing Zibi half way to the 14% goal (Table 1).	Tesasini Park was substantially completed in 2023 and will open to the public in 2024. Zibi remains at the half-way mark for park space with certainty that 14% will be achieved (Table 1).	Zibi looks forward to celebrating the official opening of Tesasini Park, and Mokaham Park will undergo design review by the National Capital Commission.
		400%	Increase biodiversity of plants and animals by 400%.	There is currently no industry standard or best practice.	All 49 species of flora at Zibi are native, 39 of which have been reintroduced to the site (Table 2). While species richness has declined as we remediated the land and removed invasive, species abundance will continue to rise as we develop dedicated natural spaces at Zibi.	Biodiversity at Zibi is at 103% compared to the baseline study (64 species now vs. 62 then), with 49 species having been reintroduced to the site (Table 2). This does not include the various plants in the vegetable gardens nor any of the fauna present on site.	Zibi will explore the use of citizen science programs to gather data on biodiversity.
		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.	There are 28 culturally significant plants on site that can be found in the parks, plazas, and streetscapes at Zibi (Table 2).	There are 34 culturally significant plants on site that can be found in the parks, plazas and streetscapes at Zibi (Table 2).	This will be incorporated into Mokaham Park design.
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.	Zibi will continue to specify this in design requirements.
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.	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 (Table 3).	49% of residents said their time in nature has increased since living at Zibi (Figure 1). Feedback from residents suggests more park space and less construction disrupting Zibi grounds will help improve this target.	The opening of Tesasini Park will offer some long-awaited access to park space.





Water consumption at Zibi has gone up slightly compared to last year, sitting at roughly 167L/person/day, which is higher than the target but still below the baseline. Zibi has continued to avoid irrigation systems and must identify opportunities to incorporate non-potable water sewage systems into future builds. Efforts to lower the amount of sediment in stormwater runoff were successful but some outflows are still exceeding the allowable limit, this will continue to be a priority in 2024.

# 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 employ 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 2023 SUSTAINABLE WATER ACHIEVEMENTS**

Refer to Appendix E for data. Refer to previous reports for earlier statuses.

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2022 STATUS	2023 STATUS	2024 ACTION
SW1	Reduce residential potable water use to 138 litres per person, per day.	138L	Potable water consumed per resident, per day (L).	Ontario households currently use 271 L/ day/person. Québec households currently use 386 L/ person/day.	Estimated potable water consumption by O residents is 122 L per day; Kanaal is 129 L; occupation at Aalto varied greatly month to month, therefore unable to get an accurate reading (Table 1).	Average potable water consumption site-wide was roughly 165 L/person/day (Table 1). Zibi is well below the baseline but not hitting the target.	The OPA will share consumption data with residents and open conversations about water conservation tactics.
SW2	Reduce potable water use in landscaping by way of planting 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 2022.	No permanent irrigation systems were installed in 2023.	The sustainability team will investigate the feasibility of a rain barrel at Block 11 for garden watering.
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.	Zlbi now has 560 toilets on site, with the rainwater cistern at O Condos servicing 48 of those toilets, the percentage of nonpotable water used for sewage conveyance is 8.6% (Table 2).	With the addition of Block 11, Zibi now has 780 toilets on site, with the rainwater cistern at O Condos servicing 48 toilets, the percentage of non-potable water used for sewage conveyance is down to 6% (Table 2).	There are no opportunities identified for this target in 2024.
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>	Sampling from one significant rain event in late fall revealed that total suspended solids were higher than the allowable limit (Table 3). All required sediment control best practices are being applied on site, however, better care will need to be taken to ensure they are functioning properly.	Stormwater sampling at the beginning of the year indicated high levels of suspended solids. Sediment catch basins in the storm systems were cleaned in the spring and subsequent sampling revealed much lower levels, although 3 out of 4 outfalls were still over the allowable limit (Table 3). Construction Managers on the Zibi site continued to adhere to best practices, but the trades restoring Chaudière Bridge are staged at Zibi and their activities will directly impact stormwater quality as well.	Regular cleanings of catch basins are now scheduled - every 6 months during heavy construction periods or once annually otherwise. While Zibi's Construction Manager has taken many steps to improve sediment control, this will be a top priority as construction on Block 204 kicks off in 2024. Additional sampling will be done to track improvement.

<sup>&</sup>lt;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.



# C

#### HIGHLIGHTS OF THE YEAR

Zibi had a successful second-annual balcony gardening workshop where residents shared knowledge on gardening in small spaces. Residents also came together for a Harvest Fest at the end of the growing season, sharing veggies and supporting a local Food Centre. The CSA program was popular in 2023 but not enough to meet the targets for local and organic food consumption, the capacity of farms limits this offering. Zibi continues to struggle to meet the low-carbon foods target, we expect to have more success with this target when there are grocery options within proximity of the project, and a commercial kitchen facility where we can host food related events.

# 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 60% as compared to a conventional one.

#### SUMMARY OF 2023 LOCAL AND SUSTAINABLE FOOD ACHIEVEMENTS

Refer to Appendix F for data. Refer to previous reports for earlier statuses.

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2022 STATUS	2023 STATUS	2024 ACTION
LSF1	Provide access to modest garden spaces for 90% of households that want it.	1.4 m²	Area of food-growing garden spaces onsite per household (m²).	There is currently no industry standard or best practice.	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.	The terrace at Block 11 has 25.75 m <sup>2</sup> of gardening space, enough for 12% of households (Table 1).	Zibi's OPA will work with residents at Blocks 10 and 11 to establish garden committees. The RSC will plan a third- annual balcony gardening workshop.
		1:10	Ratio of food- growing garden spaces to households.	There is currently no industry standard or best practice.	Zibi remains on target with a ratio of 1:9.7 (Table 1).	Zibi remains on target with a new sitewide ratio of 1:9.1 (Table 1).	Occupancy at Block 206 will be staggered and as such, there may not be much opportunity to create a garden committee during the growing season but the OPA will work with willing residents.
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.	39% of residents surveyed indicated at least 25% of their food is local and 34% indicated that at least 25% is organic or Fair-Trade. "I don't know" was added to this year's survey and, in both cases, 21% selected this, indicating perhaps more education on this principle should be programmed (Table 2).	45% of residents surveyed indicated at least 25% of their food is local and 32% indicated that at least 25% is organic or Fair-Trade; many people still do not know or selected 0% (Figures 1 & 2).	Zibi's OPA will use Mighty Networks to keep residents informed of what's in season and encourage recipe sharing using locally available ingredients. The OPA will explore interest in a local farm visit as an opportunity to reconnect with where our food comes from.
		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.	18% of residents surveyed participated in CSA or farm-to-table programs (Table 2).	The CSA dropbox at Zibi had roughly 20 subscribers, or 6% of residents. While this number may seem low, local farms have limited capacity and this level of participation met their target.	Zibi will have to source a new CSA program for 2024; there may be opportunity for a mini market with the new provider which will make farm to table more accessible for residents.
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.	37% of residents surveyed consume little- (once or twice a week) to-no (vegetarian or vegan) meat and/or animal products and 39% indicated at least 25% of their food is from local sources.	27% of residents are eating a moderate (around 7 to 13) to high (14 plus) amount of plant-based meals per week (Figure 3). 24% say they are eating more plant-based meals compared to last year, while 69% say their diet hasn't changed and 7% say they are eating less plant-based meals (Figure 4).	Zibi's OPA will use Mighty Networks to share knowledge about the carbon intensity of certain foods and encourage recipe sharing for delicious alternatives. Zibi will also work to identify buildings with lower results to focus programming/events on these buildings in 2024.





Chaudière Bridge opened to all modes of transport for the second half 2023, making connections to pathway networks more accessible but still difficult for active transportation with ongoing construction. The Walkscore is slowly increasing and Zibi is considered a "biker's paradise," this will continue to change for the better as more amenities are available within the proximity of the project. Most residents are choosing active transport for small trips, up to 5km, but choose their vehicle most often otherwise. Less than a quarter of survey respondents reported owning and EV or hybrid vehicle, unfortunately these options continue to be cost prohibitive in Canada.

# 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 2023 TRAVEL AND TRANSPORT ACHIEVEMENTS**

Refer to Appendix G for data. Refer to previous reports for earlier statuses.

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2022 STATUS	2023 STATUS	2024 ACTION
π1	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.	Zibi has installed 11 EV chargers to date, covering 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 (Table 1).	Zibi Block 11 qualified for a federal grant program (ZEVIP) which will fund half the cost of the 24 chargers installed. To date, 7% of permanent parking spaces at Zibi have EV chargers; 64% have conduit easily accessible for future connections (Table 1).	Block 206 will receive chargers. Zibi's OPA will share information on government incentives that exist to make EVs more affordable.
		0.7	Ratio of car parking spaces per household.	Car ownership is 1.3 vehicles per household.¹ Provincial average is 1.45 vehicles per household.²	Residential parking is at a 1:1 ratio, this will change as the development evolves.	Current resident parking ratio is 0.7 spaces per household (Table 1).	Zibi will continue to apply this ratio in future designs.
		Modify roadway to reduce car lanes from 4 to 2, implement new bus shelters and transit schedule improvements, sidewalks and bike-way 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.	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 on the Eddy Booth Corridor transformation project in 2022. A new bus shelter was installed with anticipated service to start once the bridge is complete.	While Zibi has completed its portion of the work required to facilitate this, the federal government's work on Chaudiere Bridge continued throughout 2023. Despite this, service to new bus stops within the corridor began in 2023.	The corridor should be fully accessible in its new format in 2024.
		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.	42% of residents surveyed are using gas-powered 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 (Table 2).	Most residents are choosing active transport for trips of 5 kms or less but then most choose their car for over 5 kms (Figure 1). Almost half of survey respondents are traveling at least 100 kms per week (Figure 2). 64% of residents have a gasoline/diesel vehicle, 23% have an EV or hybrid and 13% have no vehicle (Figure 3).	The Zibi site is becoming more accessible for public and active transport. Zibi's OPA will promote sustainable modes of transportation to get to and from Zibi. Zibi will be a sponsor for Let's bike Month in June.

<sup>&</sup>lt;sup>1</sup>CMHC figures for Ottawa Centre. <sup>2</sup>NRCAN 2009 vehicle survey.

▼ Chart continued on next page

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2022 STATUS	2023 STATUS	2024 ACTION
Π2	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.	We are 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.	Zibi is still several years away from 50% buildout (currently at 25%). Block 205A has Walkscore of 61 (somewhat walkable), Blocks 10, 11, and 13 share a Walkscore of 79 (very walkable). All properties have "excellent transit" and are a "biker's paradise" according to walkscore.com.	Zibi's Leasing team will continue to seek a variety of tenants for commercial spaces to ensure Zibi residents have nearby access to all necessities.





Construction of Block 11 concluded at the end of 2023 and targets for embodied carbon were exceeded and indoor air quality is compliant with all recommendations. Furthermore, analysis by a third party consultant found that Block 11 concrete mixes had up to 25% lower embodied carbon than industry averages and insulation materials had up to 5 times lower levels. Zibi looks forward to working with a new Construction Manager that has ample experience with LEED projects and thus a good understanding of OPL objectives.

# 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.

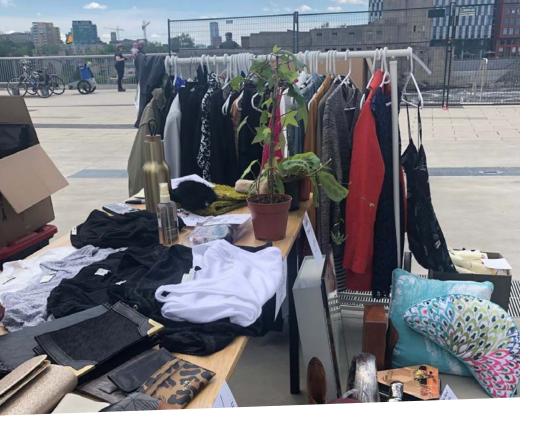
#### **SUMMARY OF 2023 MATERIALS AND PRODUCTS ACHIEVEMENTS**

Refer to Appendix H for data. Refer to previous reports for earlier statuses.

INDICATOR	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2022 STATUS	2023 STATUS	2024 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 the Project Phasing page for a summary of buildings being retained.	Zibi is exceeding this target as per the Master Plan; refer to the Project Phasing page for a summary of buildings being retained.	Block 207 will be complete, featuring a retained facade.
PM2	Repurpose or recycle 90% of all demolition materials (excluding hazardous materials), of which a minimum of 5% by volume should be reused.	90%	Percentage of demolition materials that are recycled or repurposed (by weight).	There is currently no industry standard or best practice	There was no demolition in 2022, however, wood beams from old mills on site were salvaged, which will 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.	There was no demolition in 2023. Trusses salvaged from a previously demolished building were installed in Head Street Square.	Should demolition of Block 24 take place, Zibi will look for opportunities to repurpose materials.
		5%	Percentage of demolition materials that are reused on site (by weight).	-			
PM3	Reduce embodied carbon of buildings.	20%	Percentage of materials that contain recycled content.	There is currently no industry standard or best practice	For Block 10, 1,346 m³ of concrete was supplied, consisting of 58% recycled content.	Block 11 used recycled materials contributing to 25.7% of the total cost of materials.	Zibi will implement new guidelines for material tracking with the intent of streamlining the process to collect more fulsome data.
		20%	Percentage of materials that are locally sourced or manufactured.	There is currently no industry standard or best practice	At least 29 products were locally sourced for Block 10.	Block 11 procured locally manufactured materials contributing to 36.2% of the total cost of materials.	Zibi will be transferring knowledge gained from Block 11 to the procurement team responsible for Block 204.

<sup>▼</sup> Chart continued on next page

INDICATOR	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2022 STATUS	2023 STATUS	2024 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.	Although Zibi is confident the correct materials were specified, the process to verify that they were used 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 actively participating in the program.	For Block 11, 75.6% of the total wood used is certified by the Forest Stewardship Council.	Zibi will implement new guidelines for material tracking with the intent of streamlining the process to collect more fulsome data.
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 and parameters were verified in shop drawing reviews.	Block 11 was compliant with all IAQ recommendations as per professional testing (Table 1).	Block 206 and every building hereafter will have similar IAQ testing.
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.	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.	The community "Marketplace" hasn't had any sales but is gaining traction.	Zibi's OPA will continue to promote the platform.





Kanaal Condos is maintaining their waste diversion rate, sitting at roughly 56% and creating about 30% less waste than the regional average. Construction made it challenging to get accurate audit results from other buildings and as such, data is lacking for 2023. The diversion rate for commercial spaces is low, sitting at 33%. The Ontario construction site is struggling to meet the 90% diversion rate on paper but has been successfully diverting materials from the construction site in creative ways that were documented anecdotally. Waste diversion continues to be one of the greatest challenges of the project, especially with targets far exceeding municipal diversion rates. In 2024, Zibi will find means of having more accurate documentation of diversion and is launching a large signage and education program in buildings and commercial spaces.

## ZERO WASTE

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 2023 ZERO WASTE ACHIEVEMENTS**

Refer to Appendix I for data. Refer to previous reports for earlier statuses.

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2022 STATUS	2023 STATUS	2024 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%.¹ The Ville de Gatineau has a target of 45% diversion by 2022.²	According to visual (by volume) audits and estimated weight conversions, Kanaal Condos is diverting 57% of waste (Table 1) and O Condos is diverting 50% (Table 2). Due to set backs with the tri-sorter at Aalto, accurate waste audits were not possible in 2022. Commercial spaces on average diverted 43% of waste (Table 3).	The diversion rate at Kanaal Condos was estimated at 56% based on visual audits and respective estimated weight conversions (Table 1). It was not possible to get regular, accurate audits done at Blocks 10 and 13 due to collection interruptions caused by construction activity. However, most (97%) residents recycle, many (73%) compost and the majority (96%) are confident about their waste sorting knowledge (Figures 1, 2, & 3). Commercial spaces on average diverted 33% of waste, most of which was organics (Figures 4 & 5).	Zibi will explore opportunities to work with the City of Gatineau to have waste audits done at the QC residential properties. Waste sorting signage will be improved site-wide. Zibi's OPA will increase engagement with office/commercial spaces.
ZW2	Reduce residential waste.	291 kg/person/ year, a 20% reduction compared to municipal average.	Weight of residential waste produced per person, per year.	Municipal average 349 kg/person/year.	Based on the estimated averages from the visual audits, Kanaal residents produced roughly 25,427 kg of waste in 2022, with 98 residents, that's roughly 259 kg per person. O Condos produced roughly 24,797 kg, with 103 residents, that's roughly 241 kg per person.	Based on the estimated averages from the visual audits, Kanaal residents produced roughly 23,241 kg of waste in 2023, with around 98 residents, that's roughly 237 kg per person.	The RSC will organize zero waste workshops. Zibi will sponsor and host two repair cafes put on by the Ottawa Tool Library.
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.	There was no demolition in 2022.	There was no demolition in 2023.	Pending permits, there is potential for the demolition of a dilapidated building. Zibi will retain and reuse concrete as opportunities exist.
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.	Between the Quebec site and the Ontario site we appear to be reaching our target of 90% diversion (Tables 5 & 6). A visit to each of the facilities revealed that in ON, almost all construction material waste is in fact being recycled, the "residuals" are most often personal trash that is sent to another facility for landfill. In QC, all construction material waste is also being recycled but since the facility does not process personal trash they do not include it in their audit, so "residuals" are almost non-existent, making their percentages appear much better.	According to audit reports from the respective waste collectors, Block 206/7 in Ontario diverted 73% of construction waste and Block 11 in Quebec diverted 100% (Tables 2 & 3). Note that Block 11 data continues to miss the residual waste amounts. Also note that several materials destined for the waste bin were reclaimed by workers/trades for use/reuse, which would increase the diversion rate but there are currently no methods of tracking these creative diversions.	The sustainability team will work with construction and project managers to determine how to better document diversion by re-use on site. The team will also review previous waste data against construction phases to generate a waste generation profile in hopes of identifying targeted recycling opportunities.

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

 $<sup>^2</sup> http://www. Gatineau. ca/portail/default. aspx? p=la_ville/salle\_medias/communiques/communique\_2015\&id=-117.580.8251$ 





ZCU saved 665 tonnes of carbon emissions by producing clean heating and cooling energy for the whole site. Zibi has not hit 100% carbon savings yet as delays in connecting the domestic hot water lines in Ontario continued through 2023. With "actual" energy consumption data, it becomes evident that most buildings are using more non-thermal energy than expected. While an investigation into the reason behind the energy discrepancies is ongoing, it may simply indicate a need for more promotion and education about energy conservation.

# 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 for building operations on GHG emitting energy sources by 2025.

#### **SUMMARY OF 2023 ZERO CARBON ENERGY ACHIEVEMENTS**

Refer to Appendix J for data. Refer to previous reports for earlier statuses.

IDENTIFIER	PROJECT OUTCOME	TARGET	INDICATOR	BASELINE	2022 STATUS	2023 STATUS	2024 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.	All buildings are connected to the district energy system (ZCU). Due to delays on the bridge, gas was burned to make domestic hot water (DHW) all year and for heat in January and February. In addition, there were some ongoing commissioning issues that required gas to be burned for short periods in the later part of the year. In total, 5,014 MWhrs of energy was provided to the buildings at Zibi by ZCU, producing roughly 415 tonnes of CO2e, with 97% of CO2e coming from the natural gas energy inputs (Table 1 & 2). This represents a 38% savings compared to business-as-usual. Given the significant gas energy consumed during the commissioning process, this is a favourable outcome.	Delays in connecting domestic hot water (DHW) continued through 2023, so more gas was burned than anticipated. In total, 6,626 MWh of energy were provided to the buildings by ZCU, producing roughly 188 tonnes of CO2e (Table 1 & 2). This represents a 78% savings compared to business as usual. Most of the CO2 was due to incomplete DHW connection.	With ZCU completely online by summer 2024, Zibi expects to meet this target from moving forward.
ZC2	Decrease building energy demand by 30%.	30%	Percent reduction in building energy demand during operations.	A code-compliant baseline building.	Zibi reduced this goal for the moment to 25% because the improved building code has made 30% out of reach. That said, Block 10 was modeled at 24% better than a code compliant building (Table 3). Zibi continues to struggle with the cost of envelope leaving this target continuously out of reach, though the development team is working hard to find economical solutions to make the target viable.	According to actual energy demand data, all buildings are currently below the 30% target (Table 3). Few are performing better than modeled. For those that are doing worse, it's largely due to excessive non-thermal energy demand, aside from Block 211 which is an anomaly due to commissioning issues (Figure 1).	Elements such as prefab wall systems will be implemented in future builds which are designed to meet energy demand targets. Zibi's OPA to share current energy demand data with residents as well as practical energy conservation practices in the home and/or office to encourage lower consumption.
ZC3	Decrease construction emissions by processing excavated rock on site into aggregates for use in the development.	50% on site, 50% off site.	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.	Zibi had an opportunity to reuse 10,867 m3 (41%) of excavated material from the foundation of block 11 as backfill for the road running behind it, with the remaining 15,831 m3 (59%) sent to another fill project in Gatineau.	There was very little opportunity for reuse on site, only some around a ZCU pump station.	Block 204 will be excavated in 2024 and Zibi will use as much as practical and track the rest.

## SPECIAL HIGHLIGHT

Founded in 2021, the Resident Sustainability Committee (RSC) was formed as a prequel to a Community Association. The members of the RSC live in the Zibi community and have taken on the responsibility of setting the tone for our new neighbourhood. The role of the Committee is to assist in advancing Zibi's sustainability goals outlined in our One Planet Action Plan. The last two years have been filled with learning experiences and good times as we determine how to meaningfully engage the community in sustainability, all while having fun. Zibi is grateful to these keen members of the community who volunteer their time and energy to make our little community a bit greener.

It is a privilege to serve this new and growing community, to help set the tone for the neighbourhood as it grows. We have fun, but also have tough conversations and deal with challenges together. I am continually inspired by this team, and am grateful for everyone's efforts and enthusiasm. We don't simply accept the way things are - we challenge the status quo and hold ourselves and others accountable to make this community the best it can be.

- Angela Bernhartd, Kanaal Condos



# 2023 IN REVIEW







rance night in Head Street Square hosted by the Ottawa Fred Astaire Dance Studio

Grand prize Trade of the Month winner.



Breweries by Bike group ride



Repair Cafe hosted by the Ottawa Tool Library



Harvest table at the first annual Harvest Fest

## LOOKING AHEAD

The OPL team at Zibi is in full force, allowing for a strong focus on engagement and activations on site that will support commitments to sustainability while simultaneously providing support to project managers to ensure we can reach our targets. Zibi looks forward to hosting more Repair Cafes, an event that brings in people from all over the region and which last year helped to divert over 120 broken items from landfill. The RSC will host another gardening workshop and try their luck at organizing a seedling swap, too. Up to three garden committees will come together in 2024 as Blocks 11 and 206 begin to occupy and Block 10 terrace boxes are installed. Zibi's OPA is ready to welcome a new CM and trade workers for the Block 204 build and share OPL knowledge from the ground up. We will continue to work toward better waste diversion with a strong signage and education program in buildings and will develop methods to document creative waste diversion that is happening on the construction site. Zibi will work with the Algonquin community to establish a cultural committee which will continue to bring cultural integrity to the project. Finally, the district thermal energy system will be fully operational, meaning that domestic hot water, the last piece of the puzzle will be heated by the plant, making Zibi a zero carbon community.



Ottawa Tool Library

Gardeners at Kanaal Condos



Tesasini Park with ZCU pipes going to Ontario



 $\begin{array}{c} 2023 \text{ ONE PLANET} \\ \text{REPORT} \end{array}$ 

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