



# ONE PLANET ACTION PLAN



# ZIBI, COMMITTED.

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'll reinvigorate both the Ottawa and Gatineau downtown core.

Which is why we're committed to transparency and environmental responsibility, from conception to completion. Zibi offers a place where residents, retailers, and the public will want to call home. Straddling both the Ottawa and the Gatineau waterfront, Zibi will include unrivaled access to public and active transit routes, Ottawa's brand new Light Rail Train System, one of Canada's most extensive cycle network, public and park space, all while offering the most stunning vistas the region has to offer. Zibi is essentially a waterfront city, reimagined for the 21st century.



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# ONE PLANET LIVING

A framework by Bioregional.

We only have one Planet Earth, but as a global society we're living as if we have several planets and consuming in ways which cannot be sustained. One Planet Living is our vision of the world where everyone, everywhere can live happy, healthy lives within the limits of the planet, leaving space for wildlife and wilderness. Backed by science and hands-on experience from decades of sustainability projects, it's a flexible sustainability framework that's helping provide a clear and practical path to creating a sustainability action plan that can engage hearts as well as minds.

One Planet Living sets out to make this transition. It is an initiative which grew out of the experience of developing the pioneering BedZED eco-village in south London, UK in the early 2000s. Today there are One Planet Communities and Destinations in Europe, North America, Africa and Australia.

It is a simple framework which enables everyone – from the general public to professionals – to collaborate on a sustainability strategy drawing on everyone's insights, skills and experience. It is based on ten guiding principles of sustainability which we can use to create holistic solutions.



Health & Happiness

Encouraging active, social, meaningful lives to promote good health and wellbeing.



Equity & Local Economy

Creating safe, equitable places to live and work which support local prosperity and international fair trade.



Culture & Community

Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living.



Land & 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 & Sustainable Food

Promoting sustainable humane farming and healthy diets high in local, seasonal organic food and vegetable protein.



Travel & Transport

Reducing the need to travel, encouraging walking, cycling and low carbon transport.



Materials & 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.

# UNDERSTANDING THIS DOCUMENT

Zibi's vision was to create one of the world's most sustainable and environmentally conscious communities on the planet. To accomplish this, Zibi follows an ambitious One Planet Action Plan, which is a model based on ten Principles to make sustainable living easy and affordable for all. This document outlines Zibi's One Planet Action Plan that draws on regional characteristics and site specific history.

Within each of the ten Principles in the plan you will find specific Goals, Outcomes, Indicators and Target Rates, these terms are as defined below:

## GOAL

The Goals listed in the Action Plan outline the desired outcomes that Zibi is striving toward in order to become a One Planet Company.

## OUTCOMES

The project Outcomes listed in the Action Plan are the projected results produced by successfully attaining Zibi's sustainability goals.

## INDICATORS

Are measures of performance which Zibi will track. Indicators can be monitored quantitatively (eg energy consumption) or qualitatively (eg images).

## TARGETS

Are measures of progress to be achieved in specific time and linked to an Indicator.



# HEALTH & HAPPINESS

Zibi will foster Health & Happiness. The creation of community green spaces and play areas will provide ample infrastructure to encourage and facilitate active lifestyles within the community. Zibi's built environment and site programming efforts will stimulate both physical and social activity. Coordinated community gatherings and initiatives will give residents the opportunity to be active in shaping and participating in their community.

## PROJECT OUTCOMES

- ✓ Increase happiness for Zibi residents
- ✓ Create opportunities for community involvement
- ✓ Facilitate learning and creative expression opportunities for residents
- ✓ Support better health outcomes for residents
- ✓ Support better health outcomes for construction workers

## INDICATOR

## TARGET RATE

Percentage of residents that say they're 'happy' with their lives	Greater than 75%
Percentage of residents that feel actively involved in their community	Greater than 70%
Number of events and/or classes held per year within community spaces	12 community gathering opportunities
Percentage of residents that indicate an overall satisfaction with their health	Greater than 85%
Percentage of workers that indicate increased satisfaction working at Zibi as compared to other sites	Greater than 85%



## PROJECT OUTCOMES

- ✓ Offer 7% affordable housing
- ✓ Promote and give precedence to smaller, local and/or ethically run enterprises
- ✓ Engage Zibi residents in Fair Trade programs and products
- ✓ Provide opportunities for all community members to democratically participate in governing and managing Zibi
- ✓ Create a socially responsible tourist destination
- ✓ Develop Zibi beneficially with and for the Algonquin Anishinabe Nation and people

# EQUITY & LOCAL ECONOMY

Zibi will be a community for all. Incorporating a range of housing opportunities, Zibi will ensure a diverse mix of owners and renters. Zibi's commercial and retail spaces will be preferentially allocated to local and socially responsible business, creating jobs and giving opportunity to small, ethically run enterprises, while offering residents increased opportunity to invest in their local community. Zibi will be developed in friendship and collaboration with the Algonquin Anishinabe Nation, offering preferential employment and investment opportunities, as well as a visible cultural presence in fabric of the community.

## INDICATOR

## TARGET RATE

Percentage of affordable housing, measured by the number of affordable units compared to the total number of units	7%
Percentage of retail space storefronts that contain small, local, and/or ethical businesses, compared to the total number of storefronts at Zibi	50%
Fair-Trade business at Zibi	at least one Fair-Trade business by the time 50% retail occupancy has been reached
Community wide Residents' Association with documented democratic governance procedures	established within first year of occupancy
Number of tourists per year	1000 visitors per year, by year 5
Qualified Algonquin Anishinabe and Indigenous peoples benefitting from employment opportunities at Zibi, employed continuously throughout the construction phase, and/or as other service-providers to the project	at least 20 individuals bridged from on-reserve work to off-reserve work experience throughout the project life-cycle
First Nations preferential partners for long-term investment opportunities	at least 2 opportunities for long-term investment thought the project lifecycle
Preferential residential pricing program for Indigenous purchasers	Pricing program in place
Indigenous members included as part of affordable housing strategy, ensuring that Indigenous culture is not only present at Zibi, but that Indigenous people truly live, work and play at Zibi	Details to be included in formal affordable housing strategy



# CULTURE & COMMUNITY

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

## PROJECT OUTCOMES

- ✓ Create a cultural identity that reflects the history of the Zibi site
- ✓ Adapt and re-use at least four existing historic industrial buildings
- ✓ Promote local art and support the local arts community
- ✓ Create connectivity with the surrounding communities of the National Capital Region
- ✓ Ensure the First Nations history, presence, and culture are reflected throughout the development
- ✓ Create a sense of belonging within Zibi
- ✓ Create a culture of sustainability throughout Zibi, from design to operations



## INDICATOR

## TARGET RATE

A Heritage Interpretive Plan, endorsed by Municipal Heritage Planners and the First Nations, developed and implemented at Zibi

implemented throughout development of all public spaces site-wide

Number of heritage buildings preserved

4 buildings

Percentage of art installations on site that are created by local artists

50%

A developed network of connected pedestrian and cycling pathways to and from adjacent communities

completed before 40% of building area is completed

Increased public awareness that the project lands and Ottawa-Gatineau are within unceded traditional Algonquin territory

included in 100% of public statements, media events, and published reports

Increased public awareness of traditional and contemporary Algonquin Anishinabe presence at Zibi

15% of signage, wayfinding, and place names in Algonquin Anishinabe language and public knowledge that the project name, Zibi, is the Algonquin Anishinabe word for "river"

Established standing advisory council of Algonquin Anishinabe to continuously guide on project matters related to First Nations culture, history and language

minimum 2 Advisory Council meetings per year

Percentage of residents that "know their neighbour"

greater than 70%

Measurable difference in environmental and sustainability awareness among contractors, tenants and residents

80% of all residents and workers report increased awareness of sustainability issues year-to-year

Implemented full time One Planet Ambassador to develop programs and establish cultural norms regarding sustainability until Zibi reaches 30,000 SQ.M. of buildings, at which point leadership will be transferred to to the community association and business improvement association

80% of all residents and workers report increased awareness of sustainability issues year-to-year



# LAND & NATURE

Starting with the remediation of the contaminated, 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 at Zibi.

## PROJECT OUTCOMES

- ✓ Remediate contaminated land and maximize the benefit to natural ecosystems within the development
- ✓ Reintroduce native vegetation and increase biodiversity of plants and animals
- ✓ Design lighting strategies to minimize the effects of light pollution
- ✓ Foster a love of nature through education and increased opportunities to interact with the natural world

## INDICATOR

## TARGET RATE

Percentage of site area that meets provincial regulations after remediation	100%
Percentage of site area dedicated to park space	14%
Increased biodiversity of plants and animals	400%
Reintroduced Indigenous plants of historic or cultural significance to First Nations people	all parks will feature at least one plant of significance to First Nations peoples
Uplight and Light Trespass Specifications for Exterior areas	will meet the LEED v4 Rating Systems
Participation in nature programs	by their first year, 50% of residents will report increased time "in nature" compared to their personal baseline prior to living at Zibi



# SUSTAINABLE WATER

Zibi will reduce potable water consumption by 15% compared to the regional average of 163L of water per person per day. Super-efficient appliances will be used throughout the project and non-potable water will be employed for sewage conveyance and landscaping, where feasible. Zibi's landscaping will require reduced irrigation by including drought tolerant species, and provide storm water remediation to prevent run-off pollution.

## PROJECT OUTCOMES

- ✓ Reduce residential potable water use to 138 litres per person, per day
- ✓ Reduce potable water use in landscaping by way of planning drought tolerant species and using non-potable means if permanent irrigation is required
- ✓ Utilize non-potable water for sewage conveyance in buildings, where feasible, in order to meet water consumption targets
- ✓ Achieve near-zero export of pollutants via storm water outflow

## INDICATOR

## TARGET RATE

Potable water consumed per resident, per day	138 litres
Percentage of potable water used for permanent irrigation systems	0%
Percentage of non-potable water used for sewage conveyance	10%
Percentage of reduced pollutant levels in storm water outflow	total suspended solids reduced by 80% prior to discharge



# LOCAL & 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 Zibi resident's diets by 60%, as compared to a conventional diet.

## PROJECT OUTCOMES

- ✓ Provide access to modest garden spaces for 90% of interested households
- ✓ Create a community-scale food distribution network to improve connections between food and farmers, and increase access to local, fairly traded, and organic food
- ✓ Engage residents in education program to encourage a reduction in consumption of high-carbon foods

## INDICATOR

## TARGET RATE

Area of food-growing garden spaces onsite per household	1.4 square metres
Ratio of food-growing garden spaces to households	1:10
Percentage of Zibi residents that purchase at least 25% of their food (by value) that is organic, or local, or Fair Trade	greater than 70%
Percentage of Zibi residents that participate in Zibi's various farm-to-table programs	5% in year 1, growing to 25% by year 5
Percent reduction in the consumption of high-carbon foods	50% of Zibi residents will report a decrease in high-carbon food consumption year-to-year



## PROJECT OUTCOMES

- ✓ Reduce carbon dioxide (CO2) emissions associated with local transportation of residents
- ✓ Reduce the travel distance for basic goods and services to within walking distance

# TRAVEL & TRANSPORT

Zibi will encourage sustainable transport to both reduce 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.

## INDICATOR

## TARGET RATE

Percentage of parking spaces with electric car charging stations	20%
Ratio of car parking spaces per household	0.7
Modified Eddy-Booth corridor to prioritize active methods of transportation and transit over personal automobile	reduced roadway from 4 car lanes to 2, introduced new bus shelters and transit schedule improvements, created sidewalks and bike lanes in both directions
Achieve modal split targets to decrease personal vehicle trips	vehicle driver: 25%, vehicle passenger: 10%, transit: 45%, non-motorized: 20%
Community Walkscore	greater than 90 by 50% project completion



# MATERIALS & PRODUCTS

Zibi will implement a life-cycle analysis approach when considering the materials & products comprising the development. This approach takes into consideration the environmental impacts of all materials over their respective lifetimes, reducing reliance on unsustainable materials and repurposing materials already found in abundance on-site. New technologies and innovative construction solutions will minimize the environmental impact of Zibi's development.

## PROJECT OUTCOMES

- ✓ Retain and repurpose 50% of the existing buildings on-site (excluding the primary mill buildings)
- ✓ Repurpose or recycle 90% of all demolition materials (excluding hazardous materials), of which a minimum of 5% by volume will be reused
- ✓ Reduce the embodied carbon of buildings
- ✓ Reduce reliance on unsustainable wood sources by using wood products with a minimum of 80% FSC certified content, and/or wood sourced from re-claimed, recycled or locally-managed supply chains.
- ✓ Meet or exceed established best practice standards for indoor air quality
- ✓ Embed a culture of reducing and reusing within the development by providing opportunities to share resources

## INDICATOR

## TARGET RATE

Percentage of existing building area retained and repurposed (excluding primary mill buildings)	50%
Percentage of demolition materials that are recycled or repurposed (by weight)	90%
Percentage of demolition materials that are reused on site (by weight)	5%
Percentage of materials that contain recycled content	20%
Percentage of materials that are locally sourced or manufactured	20%
Proportion of timber or wood products reclaimed, reused or certified by FSC (by value)	80%
Met or exceeded established best practices standard for indoor air quality	LEED v4 Indoor Environmental Quality standards
Number of sharing centres and/or related web-based sites established at Zibi	1 or more



# ZERO WASTE

Zibi will increase the rate of waste diversion from landfills to more than 70% by offering waste management alternatives, including recycling and compost programs. Establishing a sharing culture among residents, Zibi will reduce the amount of waste produced through education and community engagement. Zibi will also employ innovative waste reduction and diversion strategies throughout construction.

## PROJECT OUTCOMES

- ✓ Divert 70% of total annual residential and commercial waste from landfill
- ✓ Reduce residential waste
- ✓ Reuse concrete demolition waste
- ✓ Divert 90% of construction waste from landfill

## INDICATOR

## TARGET RATE

Percentage of residential and commercial waste diverted from landfill	greater than 70%
Weight of residential waste produced per person, per year	291 kg/person/year, a 20% reduction compared to municipal average
Percent of concrete demolition waste re-used as aggregate	75% re-use on site, 20% re-use off site
Percentage construction waste diverted from landfill (by weight)	90%



# ZERO CARBON ENERGY

Zibi will rely entirely on zero carbon energy sources for community operations. This will be achieved by creating a district energy system whose aim is to ensure all Zibi energy needs are satisfied on a net-zero carbon basis. Innovative development strategies, best-in-class property management practices, and sustainability focused community building will contribute to reduce energy demand and boost energy efficiency at all stages of the Zibi lifecycle. Zibi will also eliminate 100% of the community's reliance on GHG emitting energy sources for building operations by 2025.

## PROJECT OUTCOMES

- ✓ Ensure 100% of Zibi energy needs, including peak energy, are satisfied on a net zero carbon basis
- ✓ Decrease building energy demand by 30%
- ✓ Decrease construction emissions by processing excavated rock on site into aggregates for use in the development

## INDICATOR

## TARGET RATE

Percentage of total building energy demand met through zero carbon sources	100%
Percent reduction in operational building energy demand, compared with a code-compliant baseline building	30%
Volume of excavated rock processed on site for re-use as aggregate on site, off site in the city's core	50% on site, 50% off site



May 2018

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