



KOREAN CHURCH

ONE PLANET ACTION PLAN

PREPARED FOR:

windmill

OPL ENDORSED



**One
Planet
Living®**

Global
Leader 2025

Windmill honours all First Nations, Inuit, and Métis peoples and their valuable past and present contributions to this land. The traditional territory of the Algonquin Anishnaabe Nation is honoured in Ottawa.



This One Planet Action Plan was created by Urban Equation. Urban Equation is a leading strategic sustainability and development consultancy with a proven track record of delivering impact and innovation for award-winning sustainable development projects. For further information visit urbanequation.ca.

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KOREAN CHURCH AT A GLANCE

ZERO CARBON ENERGY



- The project is zero carbon and combustion free

ZERO WASTE



- 90% of waste diverted during demolition and construction

EQUITY AND ECONOMY



- Create jobs for equity seeking groups

TRAVEL AND TRANSPORT



- 25% of parking stalls with Level 2 EV chargers
- 3 low carbon mobility options provided
- 0.5 Parking ratio per unit

HEALTH AND HAPPINESS



- Walkscore or Bikescore of 80
- 95% of products meet LEED Volatile Organic Compounds (VOC) requirements





SUSTAINABLE WATER



- 50% of total potable water reduced

CULTURE AND COMMUNITY



- 1 Community Benefits Plan
- 1 Eco-concierge program implemented

LAND USE AND NATURE



- 30% of site covered by green, open and outdoor amenity spaces.

MATERIALS AND PRODUCTS



- 420 kgCO₂e/m² Embodied carbon intensity

LOCAL AND SUSTAINABLE FOOD



- At least one sustainable food initiative



SECTION 1 INTRODUCTION

Overview

Korean Church is a collaboration between Windmill Developments and the Ottawa Korean Community Church (OKCC).

Based in Ottawa's West Centretown neighbourhood, the OKCC has been serving the local community since its purchase of the 19th century Methodist Church in 2008, delivering religious services as well as a wide-reaching outreach program.

Having outgrown its current home, the OKCC is building a larger, more modern facility outside of the downtown area. The sale and redevelopment of the existing Church will ensure the OKCC can expand its community programming and support its growing congregation.

Humanity is at a crossroads.

In North America, we are consuming at a rate that far exceeds our planet's resources. We are consuming as if we have not **one** planet, but **five**.

As we enter what many call the defining decade to address our warming climate, the outlook remains bleak. If all the pledges made by global governments were fulfilled, we would still fall short of limiting warming to 1.5C. The heat waves, floods and wildfires we see on a yearly basis are a clear signal that action is needed to avoid a climate tipping point.

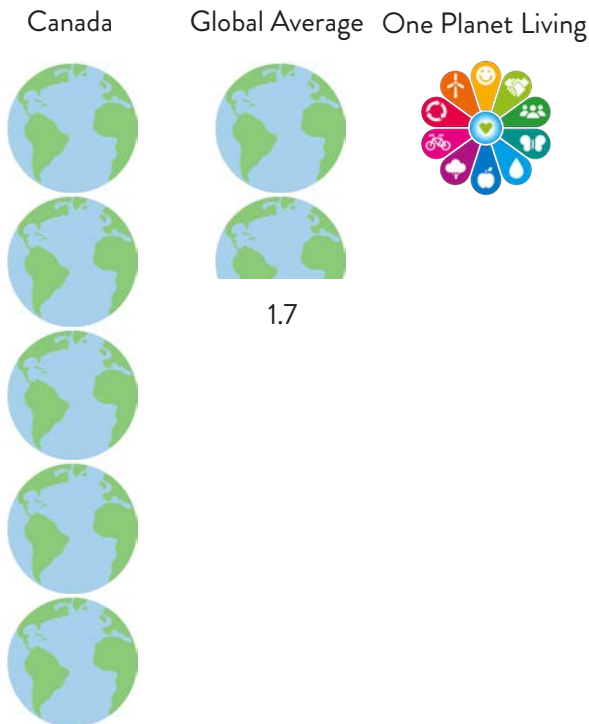
Moreover, we are under delivering on many of our social foundations, adding growing social discontent and widening inequality to our list of challenges. As a result, we are witnessing unprecedented upheaval in life as we know it.

A bold, new vision to ensure our future.

While Canada’s commitment to the Paris Accord is a good start, reducing our carbon emissions is no longer enough. We need to actively regenerate the living systems on which we depend, and for that we need a bold, new vision.

That vision is “one planet living”. At its heart, one planet living is a vision of a future where it is both attractive and affordable for people to live happy, healthy lives within the finite limits of our one planet’s resources. It is a world view that allows us not only to reconnect with and live in balance with nature but to actually regenerate nature. It also allows us to regenerate our relationships with one another.

One planet living is the type of bold vision we need to align universal principles of social and environmental sustainability with the way we design, build, and interact with our communities.



One Planet Living®:

A framework for sustainability.

As well as being a world view, one planet living—or One Planet Living®—is also a framework to help citizens, companies and governments create a sustainable future. At 384 Arlington, One Planet Living is being used to guide our approach to developing a complete and comprehensive plan that will tackle climate change, build resilient communities, and regenerate the living systems around us.

One Planet Living® is unique in that it is universal. Its 10 Guiding Principles cover all aspects of social, economic, and environmental sustainability. It addresses all phases of a project, from design to construction, through to operations, programming, and personal lifestyle choices. In this way, One Planet Living embeds sustainability into a projects’ DNA rather than making it a stand-alone topic.

It also reminds us that sustainability is a journey that doesn’t end when the doors to a new building open. As we get deeper into the decade that will define the legacy we leave future generations, it’s now more important than ever that we find ways to collaborate and walk this journey together.





SECTION 2 PROJECT CONTEXT

This One Planet Action Plan is a product of this projects' local context. Current site conditions, local policy, best practice, etc. have all influenced this project by acting as filters through which the Plan has been developed. In short, they have led to a customized response to sustainability that addresses the opportunities the project presents.

The Site

Korean Church.

The project is located at 384 Arlington Avenue, Ottawa. The site is currently owned and occupied by the Ottawa Korean Community Church (OKCC), a religious organization and place of worship.

The site has been owned by OKCC since 2008, before which it was under the ownership of United Church for over a century. The building is currently on the Ottawa Heritage Registry and was frequented by the City's "founding fathers", whose donation plaques still stand inside the building.

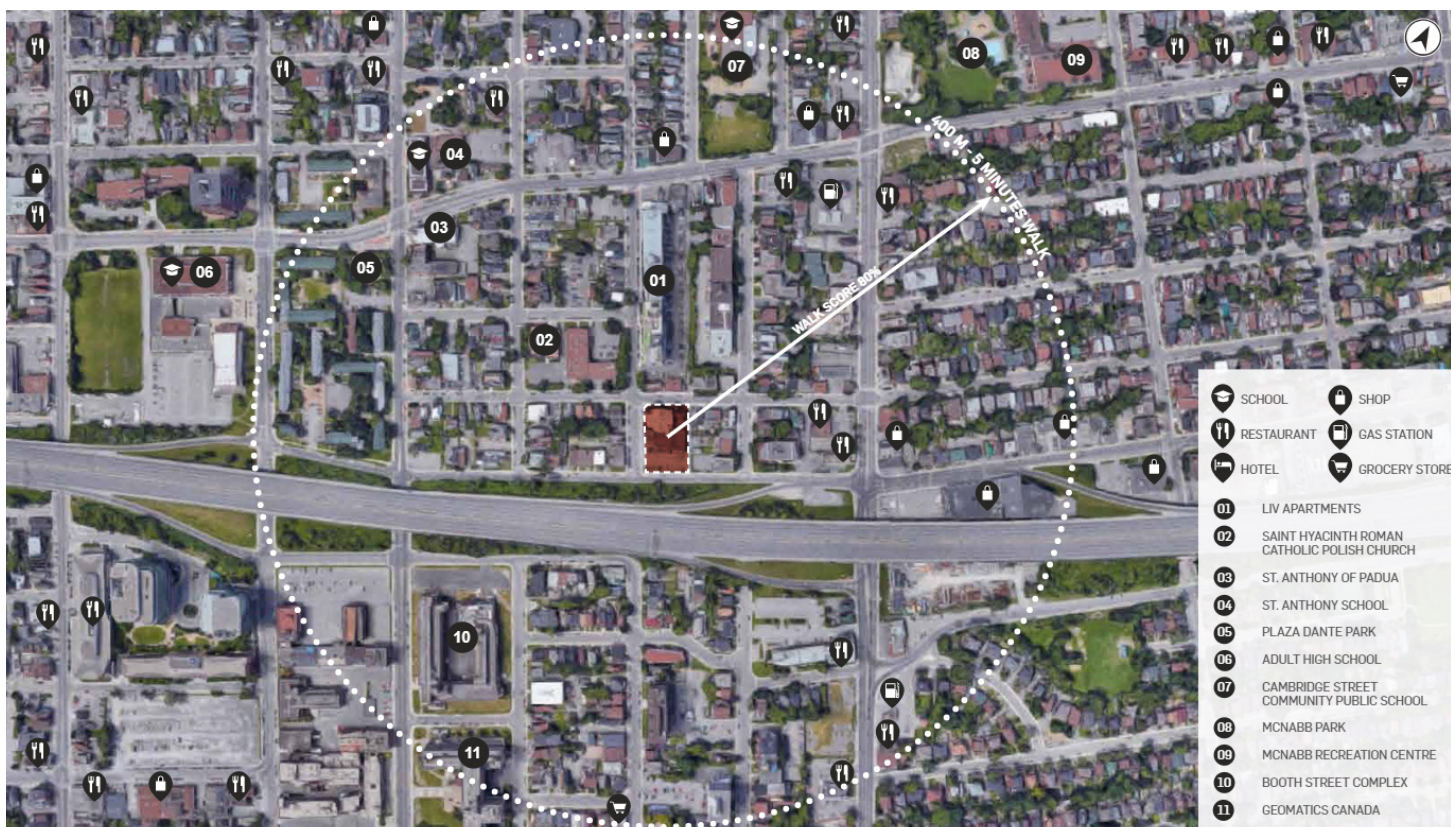
The late 19th century building is currently in disrepair and the OKCC is developing a new facility to continue and expand its services in a more accommodating space. The will ensure the OKCC has sufficient funds to develop its new facility and expand its outreach programs.

Design

The project consists of a 168,608 sq. ft. residential rental development, featuring 3 stories behind the existing Church facade, a 3-storey podium, a 6- storey mid-podium, and a 24 floor tower closer to the Queensway Highway. The terraced design of the building and the retention of the two facades of the existing church maintains the current site's heritage context and integrates with the neighbourhood scale.

The building's indoor amenity space will include a fitness area, lounge, and co-working space, as well as with outdoor garden-ing space on the 7th floor terrace and outdoor lounge space on the 4th floor.

The current design totals 296 residential units..



Community Context

Neighbourhoods and amenities.

Situated a short distance away from some of Ottawa's most popular and culturally significant neighbourhoods, such as Little Italy, Chinatown, The Glebe, and Hintonburg, Korean Church is at the doorstep of abundant local amenities. Just a 10 minute walk away from the site, Preston Street in particular features a variety of international restaurants, cafes, bars and entertainment.

Nature and recreation.

Korean Church is located within walking distance of a number of natural and recreational amenities, including:

- McNabb Park
- Glebe Memorial Park
- Dalhousie Community Centre Park
- Plouffe Park
- Dominion Arboretum
- Dow's Lake
- Ottawa River
- Fletcher Wildlife Garden
- The Plant Recreation Centre
- McNabb Recreation Centre
- Dow's Lake Pavilion

Local Paths and trail networks

The Korean Church redevelopment is located within a 5-minute walk from sixteen bus stops, with Bronson and Catherine and Raymond and Lebreton being the closest. The site is located 900m, or a 12-minute walk from the future Corso Italia LRT stop. According to walkscore.com, the site has a transit score of 70 ("Excellent Transit").

Korean Church is well connected to a robust network of bike-friendly roads and dedicated cycling paths, lending the site to a bike score of 91 ("Biker's Paradise"). Similarly, the site's central location allows for easy pedestrian travel, with the location having a walk score of 79 ("Very Walkable"). From the development, pedestrians or cyclists are able to travel South to Dow's Lake and the Rideau Canal, North to Little Italy, East toward The Glebe, and West toward Hintonburg.

Policy Context

Ottawa Official Plan.

In October 2021, the City of Ottawa approved a new Official Plan that will guide growth and redevelopment in Ottawa for the next 25 years. The Plan centers around five big moves, and is supported by several other plans that provide additional layers of detail around the City's ambitions.

1. Growth
2. Mobility
3. Urban Design
4. Resilience
5. Economy

Energy Evolution.

Energy Evolution is Ottawa's action plan toward reducing greenhouse gas emissions to zero by 2040 within the corporation, and by 2050 city-wide. Its vision is to transform Ottawa into a thriving city powered by clean, renewable energy.

Energy Evolution is one of eight priorities in the Climate Change Master Plan – the City's overarching framework to reduce greenhouse gas emissions and respond to climate change imperatives.

Ottawa High Performance Development Standard

Stemming from the Official Plan, the HPDS will set performance targets for new construction, every 4 years to become more stringent over time to ensure buildings are net-zero. A final draft version of the HPDS is currently awaiting approval by Council of City of Ottawa.



Demographic Context

Socioeconomic and demographic context.

Located in West Centretown, the project site is characterized by a notable low-income population.

According to the Ottawa Neighbourhood Study (2021):

- 28% of West Centretown residents are considered low income (vs. 13% in Ottawa)
- 71% of WC residents are renters (vs. 34% in Ottawa)
- 25% of tenants in West Centretown live in subsidized housing (vs. 16% in Ottawa)
- 40% of housing in West Centretown is considered unaffordable (vs. 24% in Ottawa)

Cultural Context

First Nations.

The site is located on unceded Algonquin Anishinaabe land.

A multicultural community.

Korean Church is situated in Ottawa's West Centretown neighbourhood - one of the city's most demographically diverse communities.

According to the Ottawa Neighbourhood Study (2021):

- 33% of the West Centretown population is racialized (vs. 26% in Ottawa)
- 32% of West Centretown residents are first generation immigrants (vs. 26% in Ottawa)
- 4% of West Centretown residents are newcomers (2011-2016) (vs. 3% in Ottawa)
- 8% of West Centretown residents are refugees (vs. 4% in Ottawa)

Development Context

While there are many factors that go into development, the following are notable for the impact they have had on shaping this Action Plan.

Climate Change.

The climate crisis is significantly shaping the way we talk about, and plan, our communities. Ottawa is increasingly experiencing warmer, wetter and more unpredictable weather, with more extreme heat, wind, rain and snow recorded in recent years. Under a high-emission scenario, the City is projected to experience four times as many days over 30 degrees Celsius by the 2050s – that's an increase to 43 days per year from the current 11 (The Climate Projections for the National Capital Region Study).

Transit-oriented development.

Phase 2 of Ottawa's Light Rail Transit (LRT) is currently being constructed, with a future station planned at Corso Italia (known as Gladstone during development). LRT is leading to densification across the City where stations are being planned or recently opened as part of Phase I.

Other development trends

- **Affordable Housing.** There are growing calls to action for equity, justice and anti-racism, including the provision of more affordable housing.
- **COVID Pandemic.** The global pandemic highlighted the need for good quality outdoor spaces and the importance of indoor air quality.



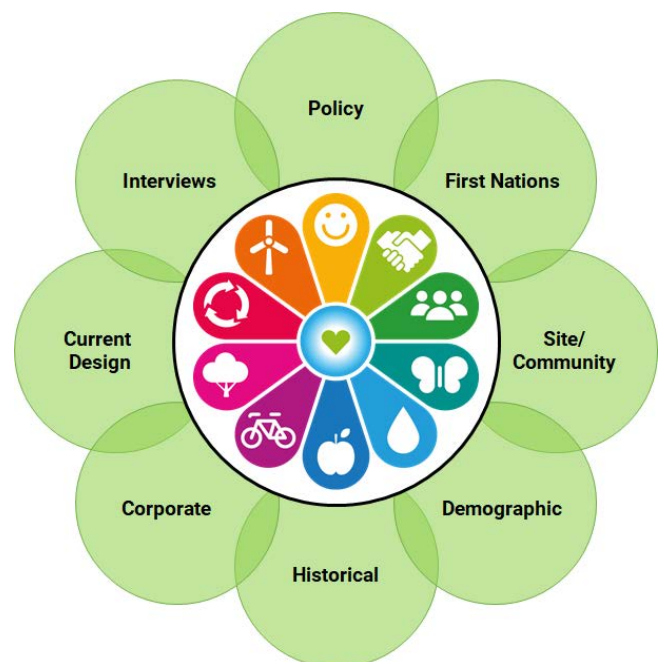
New Corso Italia Train Station

Windmill Development Group

Windmill was conceived from a belief that there must be a way to both inspire and exemplify the net positive eco-social impact possible by applying a holistic sustainability lens to development.

With a commitment to pursuing One Planet Living (OPL) endorsement across its projects and an internal 'impact standard' to guide its work, Windmill continues to lead the way in sustainable development.

Korean Church represents an opportunity for Windmill to continue its journey towards advancing better outcomes for the environment and our communities, and further differentiate itself as a leader in sustainable development.



Context Filters



SECTION 3

WHAT MAKES KOREAN CHURCH UNIQUE

Korean Church is not just an urban infill project. Its broader goal is to create a sustainable community that both compliments and integrates in to the community.

To guide our path to sustainability, we are using the One Planet Living (OPL) sustainability framework. One Planet Living ensures sustainability is considered from a triple bottom line perspective – **people, planet and prosperity**. One Planet Living helps create thriving, ecologically responsible communities through the development of an Action Plan.

Building on the site's context and dedicated to delivering on these opportunities, this preliminary One Planet Action Plan has been created to inspire the community, our stakeholders and the design team. It also establishes direction for the project.

One Planet Community

384 Arlington is pursuing international endorsement as a One Planet Living community. This Plan will eventually be submitted to Bioregional, the third-party verifier of One Planet Living community plans, who will evaluate the project's outcomes, indicators, targets and performance requirements.

When endorsed, Korean Church will be only the seventh One Planet Living community in Canada and the fifth in Ottawa.

Our Guiding Themes

While the ten One Planet Living Principles ensure a strong sustainable foundation for Korean, it is the Big Moves that will give it a unique identity. The Big Moves act as the project's north star, influencing how we design and build the project, how it should be operated, and how the project can influence the lifestyle choices and behaviour of future residents. The Big Moves are Innovative Mobility, Zero Carbon Living, and Flourishing Community.



Innovative Mobility

The project is situated in one of Ottawa's best-connected neighbourhoods. Building on existing and planned transit infrastructure, the new project will create a community that enjoys unparalleled access to transportation options. With a focus on active and innovative mobility solutions, the new community will improve health outcomes and reduce transportation related emissions for residents and visitors alike.

Under this Big Move, the project will explore:

- Transit subsidies for residents
- Low parking ratio
- E-bike/bicycle share program
- Car share program
- Minimum 1:1 bike parking to unit ratio

Zero Carbon Living

The project will develop and implement an ambitious zero carbon strategy that shows leadership in reducing greenhouse gas emissions over the life of the project – including embodied, operational, transportation, and lifestyle-related emissions.

Under this Big Move, the project will explore:

- On-site geothermal energy
- Air filtration reduction
- Lower emission concrete
- Bio-based materials
-

Flourishing Community

The project is part of a vibrant multicultural community with roots reaching back to the late 19th century. Steps away from Ottawa's historic Chinatown, Little Italy, Hintonburg and The Glebe, the project will preserve and enhance the site's unique character while delivering benefits to the community.

Under this Big Move, the project will explore:

- Restoring the existing church façade
- Rooftop gardens
- Supporting Korean Church's new construction
- Community space for residents

Our Approach

The Korean Church One Planet Action Plan is a living Plan. It will continue to evolve with new thinking, innovation, and local and global trends. In addition, ongoing collaboration with the design team and community leaders will continue to foster new ideas that will help us deliver a building we, and the community, can be proud of. In this way, Windmill will ensure the Plan stays meaningful, relevant, and impactful.

With that in mind, the Korean Church One Planet Action Plan is also grounded in several initiatives that create an unique foundation of sustainability for the project. These include a foundational commitment to carbon, community, sustainable living and innovation.



Carbon

The Korean Church project represents the first of many near-zero carbon residential projects. From the very inception of the development, Korean Church has embraced the commitment to 'Zero Carbon' aligning itself with global best practices.

As the construction industry increasingly focuses on environmentally responsible solutions, low carbon structures emerge as a promising avenue to address climate change concerns and create more sustainable and resilient built environment.

By choosing low carbon structures over traditional materials, the project will be able to reduce embodied carbon while promoting sustainable construction practices.

As part of incorporating low carbon structures, Windmill is exploring the use of alternative, low carbon pre-fabricated systems for the design of the project, to reduce both operational and embodied carbon.

Additionally, the incorporation of a geo-exchange systems, for space heating and domestic hot water and an all electric solution for heating and cooling further supports the decarbonization of the built environment.

In fact, the fully electric building will only use natural gas (a fossil fuel) for back up power when needed.

As a result, Korean Church will significantly reduce greenhouse gas that results from operating the building.

Community

Windmill is committed to creating communities that leave a positive impact. As leaders in the development industry, we have an obligation to learn from, and deliver benefits to each of the communities we build in.

Our corporate community benefits plan ensures we understand the communities in which we build, specifically the local culture, history and needs. This plan is tailored for every Windmill project, ensuring we provide social and economic benefits to the local community.

The Korean Church Benefits Plan includes social hiring requirements to provide opportunities to equity-seeking groups, promote diversity, equity and inclusion through social procurement, and support local workforce development.



One Planet Living

Individually, our lifestyles and day to day choices have a significant impact on both our communities and the environment. The way we get to work, how we dispose of waste, and even our diets - collectively have profound ecological and social impacts. At Korean Church our goal is to empower our residents to reduce these impacts.

Our approach to one planet living begins by paying attention to the role a home plays in our ecological footprint. At Korean Church, residents will be provided with a head start towards one planet living simply by moving into a near-zero carbon building.

To continue the journey, residents will be introduced to a new community committed to sustainable living. A walkable community rich in local amenities, supported by education and programming, lifestyle at Korean Church will strike a balance between modern comforts and eco-conscious choices. Together, a healthier planet is within reach.

Innovation

The project's use of prefabricated envelope systems contributes to a reduction in construction waste, further reducing ecological footprint of the development. Unlike conventional materials, the prefabricated system enables flexibility to meet market and housing demands while minimizing disruption to the surrounding neighborhood.

The sale of the existing Korean Church property will contribute to the construction of a new facility of the Korean Church, addressing the needs of their growing congregation and further fostering a sense of community.

Additionally, the project will enhance community connections through the integration of indigenous art. A custom "thunderbird" bike parking rack, symbolizing power, protection and strength, will be featured as both a functional and artistic element. Complementing this, a vibrant mural will be created to tell the story of the thunderbird's significance to the Ojibwe Peoples, enriching the cultural landscape and fostering a deeper connection with the community.



SECTION 4 OUR PLAN

One Planet Living is one of the most holistic sustainability frameworks available around the globe. By encouraging projects to consider sustainability from a triple bottom line perspective – people, planet and prosperity – and across all project phases – design, construction, operation, community living – One Planet Living helps create thriving, ecologically responsible communities.

As part of our effort toward achieving One Planet Living, Windmill Developments has prepared this preliminary One Planet Action Plan (OPAP). The OPAP delivers on our Big Moves, outlines the anticipated outcomes we aim to accomplish across the project, and highlights strategies that could be used to get us there.

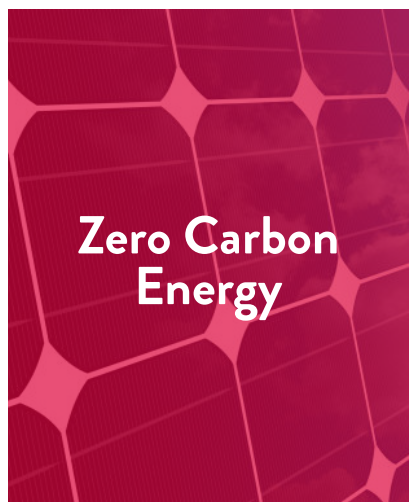
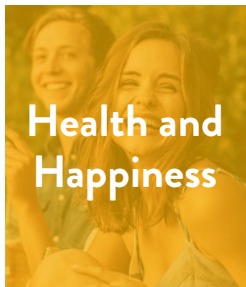
This is a living document that will evolve with planning and design. Eventually the OPAP will be updated to include strategies that address design, construction, operations, and community life. When complete, it will serve as the road map for the design team, ensuring sustainability is integrated in to planning, design and construction processes.

Furthermore, it will also ensure the project complies with Ottawa's new High Performance Development Standard, in addition to other standards such as One Planet Living and LEED.

Outcomes and Topic Areas

The One Planet Action Plan consists of suggested outcomes, targets, and performance requirements for each of the One Planet Living Principles. Although there is a clear separation of principle by color, the developed outcomes and topic areas are not as linear. Each of the principles and proposed strategies influence one another and are designed in cohesion to create a system that is connected and prosperous. This idea of coherent principles is represented through the multiple micro One Planet Living petals on each topic area.







HEALTH AND HAPPINESS

Encouraging active, social, meaningful lives to promote good health and well-being.

OUTCOMES

HH1

Residents are among the happiest in Canada

HH2

Residents are among the most physically active in Canada

HH3

Indoor and outdoor spaces are healthy, welcoming and comfortable

TOPIC AREAS



PHYSICAL HEALTH



SOCIAL WELLBEING



HEALTHY LIVING

Outcome ID	Key Performance Indicators	Baseline	Target
HH 1	% Positive responses on self-reported health and happiness survey	67%	75%
HH 2	Walkscore or Bikescore	61	>80
HH 2	Minutes per week of moderate to vigorous physical activity	150	180
HH 3	% Of products that meet LEED Low emitting material requirement	N/A	95%
HH 3	% Of residents that indicate common spaces are welcoming and comfortable	N/A	>75%



HEALTH AND HAPPINESS

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

STRATEGIES

HH1: Residents are among the happiest in Canada

- Administer occupant comfort survey to collect anonymous responses regarding building amenities, programming, lighting, thermal comfort, air quality etc.

HH2: Residents are among the most physically active in Canada

- Locate the project close to transit stations, walking and biking trails.

HH3: Indoor and Outdoor spaces are healthy, welcoming and comfortable

- Develop an indoor air quality strategy that addresses carbon monoxide; eliminated fireplaces, wood stoves or unvented combustion appliances; ensures high quality filtration; ensures low emitting products; and prohibits smoking before and after occupancy
- Develop and implement a construction indoor air quality management plan
- Capture dirt and other particulates at all regularly used entrances.





EQUITY AND LOCAL ECONOMY

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

OUTCOMES

EE1

Economic development opportunities are available to equity-seeking groups

EE2

The project delivers local economic benefits

TOPIC AREAS



JOB OPPORTUNITIES



LOCAL TRADES



UNIVERSAL DESIGN

Outcome ID	Key Performance Indicators	Baseline	Target
EE1	% Of construction jobs created for equity seeking groups	N/A	20%
EE2	# Of total jobs created	N/A	TBD
EE2	% of residents that regularly shop local	66%	>75%



EQUITY AND LOCAL ECONOMY

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

STRATEGIES

EE1: Economic development opportunities are available to equity-seeking groups

- Create jobs for equity seeking-groups

EE2: The project delivers local economic benefits

- Prioritize hiring of local workers
- Support local economy by promoting local businesses to residents





CULTURE AND COMMUNITY

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

OUTCOMES

CC1

There is a culture of sustainability that is rooted in indigenous knowledge and wisdom

CC2

All residents feel a sense of belonging, regardless of physical ability, ethnic identity, age or economic means

CC3

The design embodies local culture and/or history to reveal its narratives

TOPIC AREAS



EDUCATION AND AWARENESS



LAND ACKNOWLEDGMENT



PLACEMAKING

Outcome ID	Key Performance Indicators	Baseline	Target
CC1	# of Community Benefits Plan Implemented	N/A	1
CC2	Eco-Concierge program implemented	N/A	Yes
CC2	% of residents who know all or most of their neighbours	24%	75%
CC3	# of artistic expressions installed onsite	N/A	1
CC3	% of residents familiar with the history of the site	N/A	>75%



CULTURE AND COMMUNITY

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

STRATEGIES

CC1: There is a culture of sustainability that is rooted in indigenous knowledge and wisdom

- Create and implement a Community Benefit Agreement

CC2: All residents feel a sense of belonging, regardless of physical ability, ethnic identity, age or economic means

- Implement eco-concierge
- Actively engage with residents through an Eco-Concierge program to nurture a culture of sustainability that values environmental and social advocacy, participation and volunteerism.

CC3: The design embodies local culture and/or history to reveal its narratives

- Enhance the beauty of the site, and support local artists, by installing one or more artistic expressions.
- Provide educational materials to residents to explain the projects' sustainable features and local history.





LAND USE AND NATURE

Protecting and restoring land and marine systems for the benefit of people and wildlife.

OUTCOMES

LN1

The natural cycles and resource flows of the local ecosystems are respected and regenerated

LN2

Connections to the surrounding natural beauty and landscape create a love of nature

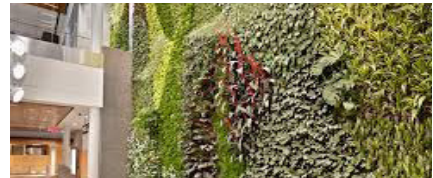
TOPIC AREAS



PROTECT AND RESTORE HABITAT



ACCESS TO NATURE



BIOPHILIC DESIGN

Outcome ID	Key Performance Indicators	Baseline	Target
LN1	Project specific biodiversity strategy	0	1
LN2	% of site covered by green, open and outdoor amenity spaces	N/A	30%
LN2	% of dwelling units with unobstructed, quality views to the outdoors	N/A	100%



LAND USE AND NATURE

Protecting and restoring land and marine systems for the benefit of people and wildlife.

STRATEGIES

LN1: The natural cycles and resource flows of the local ecosystems are respected and regenerated

- Plant trees along street frontages to encourage shade and enhance biodiversity on and around the site.
- Plant only native, adaptive or drought-tolerant vegetation and consider our pollinator friends and other species in our planting strategy.
- Reduce bird collisions utilizing bird friendly glazing and/or using visual markers on glass.
- Ensure exterior fixtures are dark sky compliant.
- Install green and/or cool roof surfaces across the entire available roof area.
- Treat the site's non-roof hardscape with high albedo paving materials and/ or open grid pavement systems.

LN2: Connections to the surrounding natural beauty and landscape create a love of nature

- Enable residents to connect with nature by providing outdoor amenity spaces.
- Design landscape encouraging 4 season interaction with nature
- Provide unobstructed view to the outdoors to enhance the health benefits associated with direct views of nature.
- Implement indoor biophilic design strategies.





SUSTAINABLE WATER

Using water efficiently, protecting local water resources, and reducing flooding and drought.

OUTCOMES

SW1

Residents use less potable water

SW2

Water is celebrated as the source of life

SW3

Groundwater and surface water are protected

TOPIC AREAS



INDOOR WATER USE



OUTDOOR WATER USE



RAINWATER CAPTURE

Outcome ID	Key Performance Indicators	Baseline	Target
SW1	Water consumption per resident (m ³ /year)	76	36
SW1	% reduction of indoor potable water	N/A	50%
SW2	# of water features	N/A	1
SW3	% of rainwater infiltrated on site	50%	50%



SUSTAINABLE WATER

Using water efficiently, protecting local water resources, and reducing flooding and drought.

STRATEGIES

SW1: Residents use less potable water

- Install industry leading low flow fixtures and fittings.
- Do not use potable water for irrigation.
- Provide meter and sub-meters in appropriate locations to measure the water consumption on the project, and educate used on consumption.

SW2: Water is celebrated as the source of life

- Implement at least one water feature

SW3: Groundwater and surface water are protected

- Retain rainwater on site through infiltration and other low impact development strategies.
- Protect water quality through the long-term removal of total suspended solids from run-off leaving the site.





LOCAL AND SUSTAINABLE FOOD

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

OUTCOMES

LF1

Residents have access to affordable, healthy, local food

LF2

The carbon footprint associated with food is minimized

TOPIC AREAS



FOOD SECURITY



COMPOSTING



COMMUNITY GARDEN

Outcome ID	Key Performance Indicators	Baseline	Target
LF1	# of sustainable food initiatives	N/A	1
LF2	% reduction in meat/ dairy consumption	N/A	25%



LOCAL AND SUSTAINABLE FOOD

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

STRATEGIES

LF1: Residents have access to affordable, healthy, local food

- Implement one of the sustainable food initiatives
 - CSA Baskets
 - Urban Agriculture
 - Food programs
 - Community gardens
 - Education programs

LF2: The carbon footprint associated with food is minimized

- Provide education materials to promote plant based diet, and reduce emissions associated with high-carbon diets.





TRAVEL AND TRANSPORT

Reduce the need to travel, and encourage walking, cycling and low carbon transport.

OUTCOMES

TT1

Low carbon transportation options are the primary means of transport for residents and visitors

TT2

Parking infrastructure is adaptable and flexible for future re-use and growth

TOPIC AREAS



EV'S



PUBLIC TRANSIT



CYCLING PATHWAY

Outcome ID	Key Performance Indicators	Baseline	Target
TT1	# of low carbon mobility options for residents	N/A	3
TT2	Parking ratio	0.5	0.5
TT2	% of parking spaces with Level 2 EV chargers	N/A	25%
TT2	% of parking spaces with EV Ready Infrastructure	N/A	100%



TRAVEL AND TRANSPORT

Reduce the need to travel, and encourage walking, cycling and low carbon transport.

STRATEGIES

TT1: Low carbon transportation options are the primary means of transport for residents and visitors

- Locate the project close to transit station(s).
- Provide at least 1 bike parking space for each residential unit.
- Provide bike parking facilities that can accommodate electric bikes.
- Design for future micro mobility options, such as scooters and bike share programs.
- Provide safe, direct, universally accessible pedestrian routes that connect to off-site pedestrian and bike networks,
- Reduce single occupancy vehicle trips by encouraging active mobility.

TT2: Parking infrastructure is adaptable and flexible for future re-use and growth

- Minimize the impacts associated with building on-site parking.
- Ensure all parking is electrified with no less than 25% of spaces installed with level 2 chargers.





MATERIALS AND PRODUCTS

Using materials from sustainable sources and promoting products which help people reduce consumption.

OUTCOMES

MP1

Embodied carbon is reduced

MP2

Building materials are culturally appropriate and provide a healthy indoor environment for all occupants

MP3

Materials for building construction and operations are selected to minimize their life cycle impact

TOPIC AREAS



CROSS-LAMINATED TIMBER



RESILIENT MATERIALS



SUSTAINABLE PRODUCT PURCHASE

Outcome ID

Key Performance Indicators

Baseline

Target

MP1	Embodied carbon intensity (kgCO ₂ /m ²)	N/A	420
MP2	No added urea formaldehyde products in the project	No	Yes
MP3	% of building occupants who report purchasing sustainable products and supplies	N/A	75%



MATERIALS AND PRODUCTS

Using materials from sustainable sources and promoting products which help people reduce consumption.

STRATEGIES

MP1: Embodied carbon is reduced

- Conduct a life cycle assessment and identify low carbon material alternatives.
- All wood in the building will be procured from sources that follows sustainable forestry practices, such as FSC certification.
- Where possible, procure local materials.
- Purchase materials that have an environmental product declarations (EPD's)
- Source responsible materials, such as those with extended product responsibility; include bio-based content; are reuse; include recycled content; and/or are within 800 km of the project site.

MP2: Building materials are culturally appropriate and provide a healthy indoor environment for all occupants

- Ensure no product has added urea formaldehyde
- Install moisture control measures in wet areas such as kitchen, bathrooms and laundry rooms

MP3: Materials for building construction and operations are selected to minimize their life cycle impact

- Educate residents on how to purchase sustainable products.





ZERO WASTE

Reducing consumption, reusing and recycling to achieve zero waste and zero pollution.

OUTCOMES

ZW1

Residents generate less waste

ZW2

The construction process generates less waste

ZW3

A sharing culture is developed and supported by building occupants

TOPIC AREAS



CONSTRUCTION WASTE



RECYCLING



COMMUNITY SHARING

Outcome ID	Key Performance Indicators	Baseline	Target
ZW1	% of units with organic and recyclable collection systems	N/A	100%
ZW1	Total residential waste generated (kg/person/year)	340	255
ZW2	% of waste diverted from landfill	N/A	90%
ZW3	# of initiatives for sharing, selling, gifting or refurbishing used durable goods	N/A	3



ZERO WASTE

Reducing consumption, reusing and recycling to achieve zero waste and zero pollution.

STRATEGIES

ZW1: Residents generate less waste

- Provide cabinet space in all kitchen to support the segregated collection of recyclables, organics and garbage.
- Provide a central waste collection and waste diversion facility on the ground floor for garbage, recycling and organics collection.
- Provide space for bulky items, and a separate area for hazardous waste collection.

ZW2: The construction process generate less waste

- Develop and implement a construction waste management plan to divert at least 90% of the total construction and demolition waste generated from landfill

ZW3: A sharing culture is developed and supported by building occupants

- Provide opportunities for residents to donate and/or swap household items, furniture, etc. in good conditions.





ZERO CARBON ENERGY

Making buildings energy efficient and supplying all energy with renewables.

OUTCOMES

ZC1

There are zero operational greenhouse gas emissions

ZC2

Building occupants enjoy superior indoor thermal comfort year-around

TOPIC AREAS



GEOHERMAL



ENERGY STORAGE



OPERATIONAL CARBON

Outcome ID	Key Performance Indicators	Baseline	Target
ZC1	The project is zero carbon and combustion free	N/A	Yes
ZC2	Thermal Energy Demand Intensity (TEDI)(kWh/m ² /year)	N/A	<33



ZERO CARBON ENERGY

Making buildings energy efficient and supplying all energy with renewables.

STRATEGIES

ZC1: There are zero operational greenhouse gas emissions

- Do not install any equipment that requires combustion.
- Develop a commissioning plan and complete commissioning process to ensure the efficient operations of the systems.
- Provide meter and sub-meters in appropriate locations to measure the energy consumption on the project, and educate the users on consumption
- Design the building such that the majority of annual energy consumption is drawn from a geo-exchange system

ZC2: Building occupants enjoy superior indoor thermal comfort year-around

- Meet ambitious targets for Total Energy Demand Intensity (TEDI) and Total Energy Use Intensity (TEUI) through passive design strategies such as, a lower window to wall ratio; a passive house level prefabricated envelope; a lower solar heat gain coefficient for glazing; and, an air tight envelope.



Our Commitments

This project is targeting the following sustainability commitments

OHPDS - Tier 2

LEED BD+C v4 – Platinum

One Planet Living - Global Leader



To achieve these ambitious goals, each project applies our Impact Standard. This internally developed standard outlines more than 100 detailed performance requirements that ensure we can deliver on the certification and endorsement commitments we have made. The Impact Standard is further supported by several other documents that provide the detail necessary to support those working on our projects (see the image below).

Underlying the technical requirements is a process that ensures sustainability is woven into the DNA of the project. A robust engagement plan ensures everyone working on our projects understands sustainability, including the challenges we’re trying to solve and how we work together to deliver. This engagement touches everyone, including planners, project managers, our design and construction teams (including trades), marketing and sales teams and future residents themselves.

IMPACT STANDARD - Performance Requirements

