



community resilience

folks helping each other through opportunities + challenges



balance + mindfulness

the time, space + ability to enjoy life



spontaneous play

Play anyway, anytime + anywhere



physical activity + nutrition

finding your passion, setting goals + making it a habit



social connections

caring for relationships in your life



nature + the outdoors

learning from + connecting to your surroundings

VIVO DESIGN DRIVERS

Never content to rest on our laurels, Vivo is continuing our commitment to environmental stewardship in our new expansion. Our original building was one of the first in Calgary to be certified LEED Gold. Our new facility will be certified to the most recent version of LEED Gold, version 4, and meet rigorous green building standards.

Our community asked us to consider people's wellbeing and to offer outdoor space for activities. The new Vivo responds to these requests with indoor and outdoor spaces that enhance wellbeing and provide connections to nature.

Behind the new expansion are Vivo's design drivers, City of Calgary sustainability goals and what community members told us was important to them.

Building Performance

Design for the new facility meets the following objectives:

- Make Vivo as accessible as possible for people with differing needs and mobility
- Commission the building to track energy and water use reductions and determine if it's performing as designed
- Ensure the expansion lowers greenhouse gas reductions by 40% compared to a baseline building in the National Energy Code for Buildings 2011
- Attract a broader range of members through accessibility measures
- Develop new partnerships with other organizations equally concerned with community wellbeing and inclusive design

We want everyone to be comfortable in the new building and to feel they belong. We'll be tracking our success in meeting these objectives.

Your Part

Every Vivo member can make decisions to benefit their own wellbeing and contribute to the environment we all share. Whether you recycle, compost or commute by public transit, you can make a difference.





- 1 366 solar photovoltaic panels will power 164.7kWh of electricity
- 2 A high performance building envelope to better insulate against the fluctuations of the Alberta climate
- 3 Biodiversity and local plant species to weather drought

Project Facts

27%

of the building's energy will be provided by solar energy, reducing Vivo's carbon footprint

36,000

tonnes of CO2 saved over an 80 year lifespan

COMMUNITY RESILIENCE

Canadians get reminders of the climate emergency almost daily. As leaders in our community, we set out to make the Vivo expansion resilient to climate change impacts and exemplary in reducing its carbon footprint.

We are one of the first recreation centres in Canada to address climate change:

- The structure and building façade are designed to address climate change events like high winds, driving rainstorms and wildfire smoke
- The building meets stringent federal requirements for resilient design
- On days when the air quality is poor, the indoor park provides a safe play environment

Vivo's operations and policies are being updated to ensure we can respond in a timely way to whatever Mother Nature brings us.

Building Performance

The expansion reduces Vivo's carbon footprint by:

- Harnessing solar energy, which provides 27% of energy in the building
- Reducing heat loss and promoting comfort with a highly-insulated building façade and roof

Our climate resilience assessment revealed that over an 80 year lifespan, the extension will save more than 36,000 tonnes of carbon dioxide (CO2). That's the equivalent of taking 7,800 passenger vehicles off the road for one year.

7,800 

Passenger vehicles off the road for one year

Your Part

If you own your home, you can improve its energy performance by replacing existing windows with triple pane units, adding insulation to walls and roof, and weatherproofing doors. And even if you don't own your place of residence, you can still set the thermostat a little lower in winter and get active!

NATURE CONNECTIONS



- 1 Curvilinear forms like those found in nature weave through the indoor park
- 2 Full height wood and glass curtain wall strengthens the connection between the interior and exterior of the building
- 3 Textures and varying rhythms of movement provide contrast and delight in experience
- 4 Skylights provide a connection to the outdoors and a view of the Alberta sky

Did you know?

Exposure to and interaction with nature can improve our emotional and psychological wellbeing.

What is Biophilia?

Biophilia is the innate psychological tendency for humans to be attracted to other forms of life and the natural environment.

Our community told us nature and a connection to outdoors are important. Studies confirm that connecting with nature improves people's wellbeing. We also wanted the building to be beautiful because people feel good in spaces that delight the senses.

Our healthy living drivers formed the basis of a design strategy inside and outside the building to replicate a natural environment. We worked with the design team to meet a pioneering LEED v4 credit for biophilia, which puts Vivo on the leading edge of design in North America in promoting nature connections.

Building Performance

You can count the ways we introduced nature connections:

- We selected plants for their ability to attract birds and bees, enhancing the diversity of plants and wildlife at the site
- Material selections factored in colour, texture, touch and sound to bring natural experiences indoors
- Dozens of drought-tolerant plants were specified to reduce irrigation needs and create a natural Prairie environment



All about bees. <https://www.calgary.ca/csps/parks/planning-and-operations/all-about-bees.html> Accessed 2021/08/10

Your Part

Spend more time in nature - it's good for your physical and emotional wellbeing. Plant native plants to attract bees and birds & other wildlife. Surround yourself with plants indoors and experience the serenity that comes from being close to nature.

Feel the sun on your face, experience the warmth of wood, be serene floating in the pool or feel the breeze in the Indoor Park.

WATER GOOD STEWARDSHIP



- 1 Our choice of plants is drought tolerant and requires less irrigation to keep plants healthy
- 2 We are using less potable or treated City water by installing an irrigation system that reduces water use while maintaining plant health
- 3 New pool uses regenerative water filters to reduce pool water use by over 95%
- 4 Onsite green stormwater systems retain most of the rainwater on the Vivo site instead of sending it to the City's stormwater infrastructure

Recreation buildings have reputations for using a lot of water, but not the Vivo expansion. We made water conservation a key theme, indoors and out.

Efficient rainwater management helps divert rainwater from the City's stormwater system. Our pool uses a fraction of the amount of water most pools do, and indoor water fixtures conserve water.

Building Performance

Vivo's design measures to conserve water include:

- 95% reduction in pool water use thanks to regenerative filtration system
- 37% reduction from LEED v4 baseline* in indoor water use due to low flow fixtures
- "Green" stormwater system treats rainwater on site
- 84% reduction from LEED v4 baseline* for outdoor water use thanks to drought tolerant plants and efficient irrigation system
- Smart, low-water irrigation system conserves drinking water

*LEED v4 baseline: compared to other facilities of same size and use

Your Part

Fix your leaky faucets. Use rain barrels at home to capture rainwater for watering your yard. Use low flow fixtures when you replace existing toilets and faucets.



Be YardSmart. <http://calgary.ca/yardsmart> Accessed 2021/08/10

MATERIALS

GOOD STEWARDSHIP

We made informed choices to conserve material use in the building and to choose the most environmentally friendly options. Our goal is to reduce the environmental impact of materials in the expansion and provide a healthy interior for our members

We used four ways to diminish our impact:

- Material conservation, only using as much material as required
- Choosing materials with recycled content and recycling material offcuts from the construction site
- Selecting materials for low-embodied energy, a measure of the total energy expenditure per kilogram it takes to produce a material and transport it to site
- Selecting materials for health, and avoiding materials that off gas volatile organic compounds or undermine indoor air quality

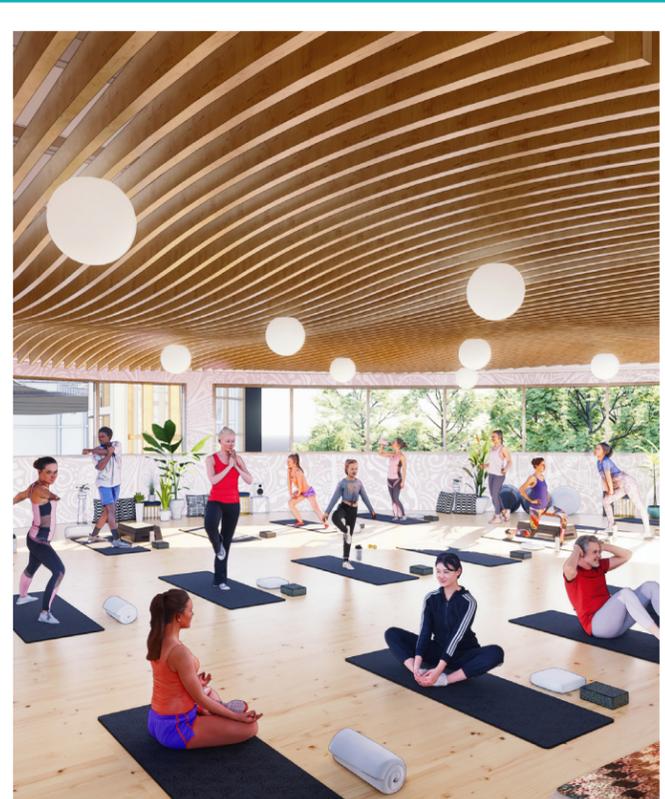
Building Performance

Here's how we know our approach to the building's materials diminishes their environmental impact:

- Construction crews will divert over 75% of demolition waste and offcuts from new materials
- Mechanical refrigeration does not use any substances of high concern, to avoid damaging the Earth's ozone layer
- A study of the energy in the building materials showed a 10% carbon footprint reduction from a typical recreational building

Your Part

Whenever possible, buy materials sourced and produced locally. It cuts down on transportation from distant locations and supports local business.



ENERGY

GOOD STEWARDSHIP

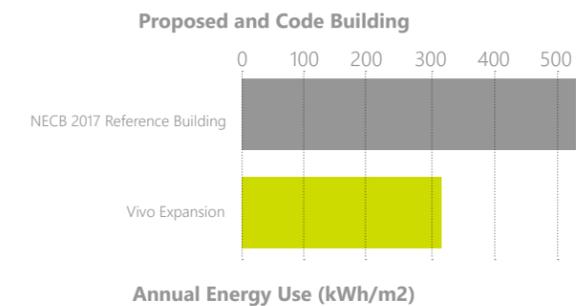
We're cutting back on our carbon footprint with renewable energy and harnessing the power of the sun. Energy efficiency measures mean we're not only reducing our consumption... we're saving money.

In comparison to a baseline building in the 2017 National Energy Code for Buildings, Vivo uses substantially less energy, as the following illustration shows.

Building Performance

A well-insulated and detailed building envelope, energy efficiency measures and clean energy all add up:

- The building energy performance is 40% better than the current building code
- 366 solar panels power 27% of the building's electricity use, a total of 164.7 megawatt hours per year (MWh): the equivalent of powering a Tesla Model S vehicle to go around the Earth 30 times!
- Several electrical vehicle charging stations provide clean energy for Vivo members' vehicles
- LED lighting means the building uses less energy and generates less heat from lighting systems



Your Part

Take advantage of rebate programs to insulate your home: keep it cool in summer and warm in winter. Turn the lights off when you leave a room. Cut back on your use of fossil fuels by wearing a sweater at home in winter and save money monthly on utilities.



366

solar panels generate enough power each year to drive a Tesla Model S around the earth 30 times

ACCESSIBILITY

WELLBEING

Vivo designed the new expansion to be welcoming for all, regardless of ability. Our goal is to make it easy for every visitor to navigate through the building.

We participate in the Calgary Adaptive Hub Project, which exists to make sport and recreation more inclusive for children, youth, and families living with disabilities (physical, intellectual, sensory, developmental, or otherwise). Vivo is committed to promoting accessibility and inclusivity for our members.

Building Performance

There are several ways the expansion facilitates persons with disabilities:

- Signage is easy to understand, including Braille or visual and audio signals
- Assistive technology includes height adjustable desks
- Wide paths and doors make it easy for wheelchair users
- Washrooms and change rooms are easily accessible for people of all abilities
- Restrooms are all-gender or family oriented
- Fitness spaces have accessible and inclusive activities and equipment

Your Part

How each of us speaks about inclusivity has an impact. Use language that shows respect. For instance, when describing washrooms that are accessible to everyone, refer to the spatial characteristics rather than the person's disability. "Barrier free stalls" is a good example of thoughtful language.



SUSTAINABLE COMMUTING

WELLBEING

Vivo supports sustainable commuting and active lifestyles by encouraging members to use public transportation networks and the bike path network, both of which connect directly to our site. We believe it's possible to live well without a car.

There are a number of ways Vivo members and guests can practice sustainable commuting: using an electric or "green" vehicle, taking public transit, walking to local shops and bicycling.

Building Performance

Look at the ways we make sustainable commuting a reality for our members:

- There are 118 bicycle stalls around the building to encourage low footprint, active commute to Vivo
- We are close to a major public transit hub, with access to routes throughout the city
- Several electrical vehicle charging stations provide clean energy for Vivo members' vehicles
- New bicycle and pedestrian paths help keep everyone safe & connected to existing networks

Your Part

You don't need to wait for someone else to take you to Vivo – you can bike! Get your warm up before you arrive and be ready to play. It is more sustainable and cheaper in long run.



Cycling in Calgary. <https://www.calgary.ca/categories/subcategory-cycling.html>
Accessed 2021/08/10

HEALTHY INTERIORS

WELLBEING



When members visit Vivo, they can rest easy knowing finishes on the building interior were selected for the ability to contribute to clean air. We chose materials through a lens of sustainability, durability, beauty and cost.

Recreation buildings are not usually noted for being beautiful and sustainable, but Vivo made these priorities for the expansion.

Building Performance

We prioritized the use of low or zero volatile organic compounds (VOC) paints and sealants: these materials will not off gas harmful chemicals into the space.

We conducted an exhaustive search to find materials that met our healthy materials goal.

Your Part

When you do your next “Do It Yourself” project at home, choose low VOC paints to keep the air fresh and healthy.

Choose natural, inherently non-emitting materials for finishes and furniture in your home, such as untreated wood, stone, brick, concrete, ceramic, glass, or metal.

vivo