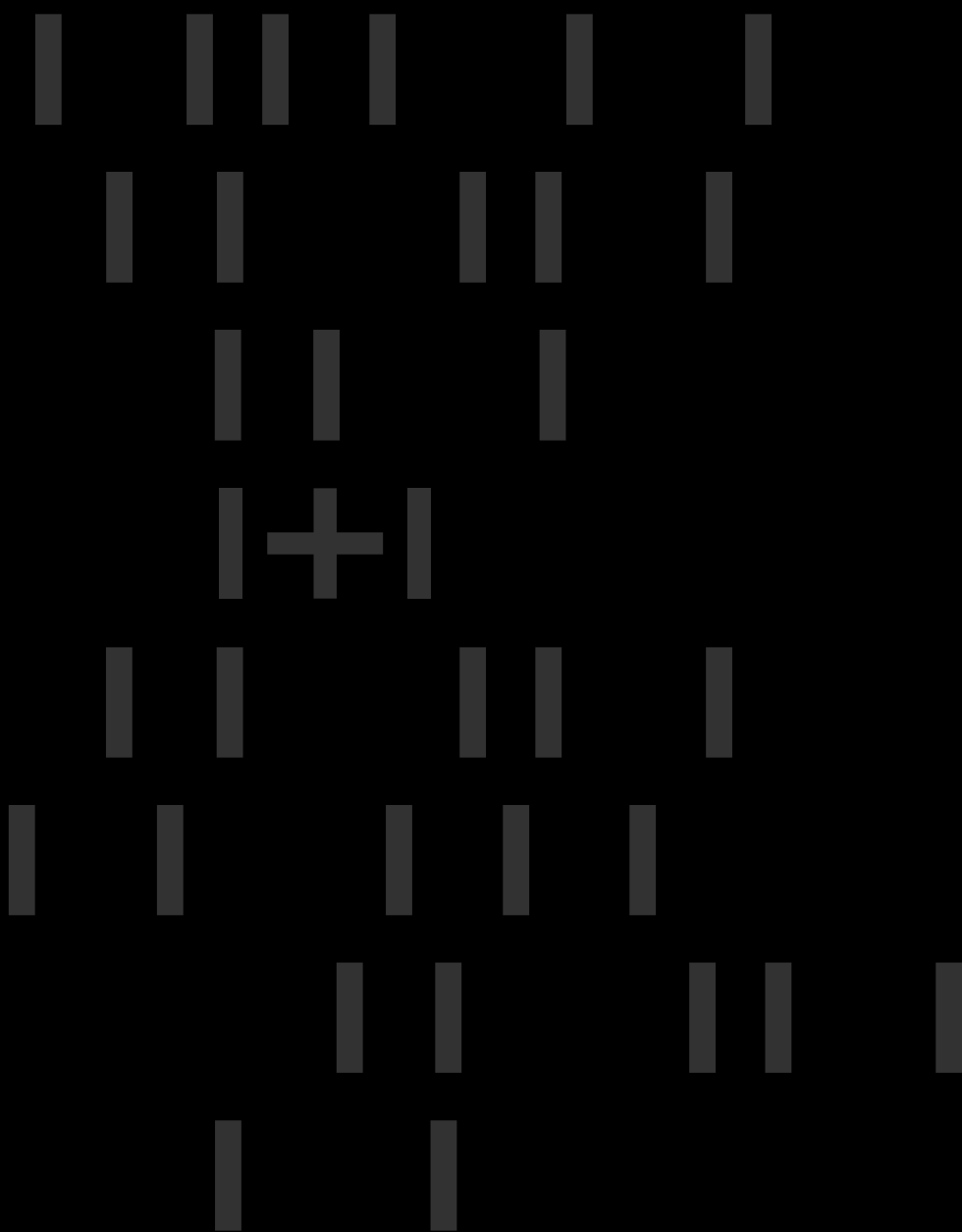


SCALING UP
TO MAXIMIZE
OUR IMPACT
2019



FOREWORD

In meeting today's environmental and climate challenges, Lemay has developed an ambitious, distinctive and replicable approach to create living environments that are more sustainable. This Net Positive approach now guides all stages of the projects we design.

In a move away from the status quo, and beyond standard ecological certifications, such as LEED or WELL, Lemay is making a difference in each of its projects. In putting Net Positive into practice, we aim to scale up the impact of our actions by deploying sustainable development in our projects through transdisciplinarity.

This first Net Positive report presents our progress in this direction, featuring the completion of the Phenix, our new office in Montreal, as a distinctive and exemplary project in terms of health, the environment and carbon.

Building on this Net Positive focus, we are more committed than ever to being creators of sustainable value for clients, users and the community.

Pleasant reading,

Louis T. Lemay

President and excellence facilitator





NET POSITIVE

Why scale up?

The scientific community is unanimous on the need to act quickly and effectively, because:

- the physical and social environment is of central importance to our **health**;^{*}
- the restoration of natural ecosystems is a priority for the **environment**;^{**}
- reducing **carbon** emissions is necessary to limit climate change.^{***}

Sources:

* Centers for Disease Control and Prevention (2014)

** Global Footprint Network

*** IPCC Intergovernmental Panel On Climate Change



NET POSI+IVE

NET POSITIVE

Focusing on **health**, the **environment** and **carbon emissions reduction**, we seize every opportunity to generate positive benefits for clients, users and the community.

NET POSITIVE

An approach that informs our practice and guides our decisions

Drawing on solid expertise in sustainability and experience in carrying out projects with high environmental ambitions, Lemay has developed a rigorous approach that allows it to reach a higher level in the integration of sustainable strategies into its projects.

NET POSITIVE GENERATES CONCRETE AND TANGIBLE INITIATIVES IN THREE AREAS:



HEALTH

As the human experience is at the heart of our mission, we design healthy living environments where everyone can flourish.



ENVIRONMENT

As the planet's balance is fragile, we use our expertise to protect all of its components.



CARBON

As the challenges related to climate change are particularly critical, we focus on the carbon footprint to assess both our concepts and the real impact of our projects.



BENEFITS

OUR NET POSITIVE APPROACH AIMS TO:

- **Reduce the ecological footprint of projects** - a collective responsibility and a key element for future generations;
- Achieve **better social acceptability** - facilitating the project's approval process;
- **Enhance the project's brand image** - potentially raising its overall status and attractiveness;
- Deliver the project at a **capital cost identical to a comparable traditional project** and with significant savings in operating costs;
- Provide a higher and long-term **return on investment** that translates into higher market value.

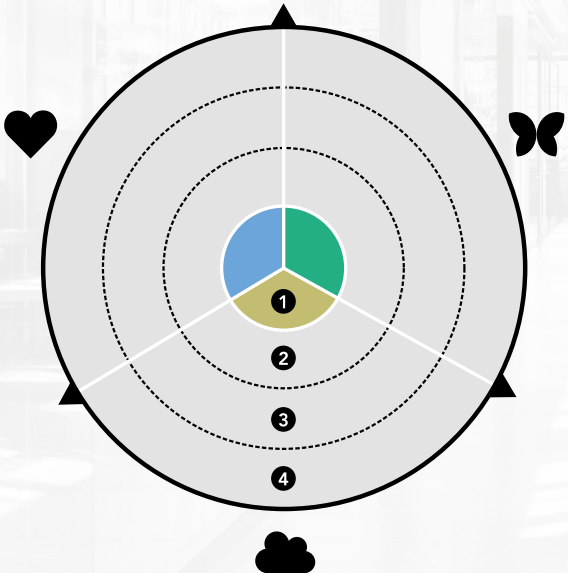
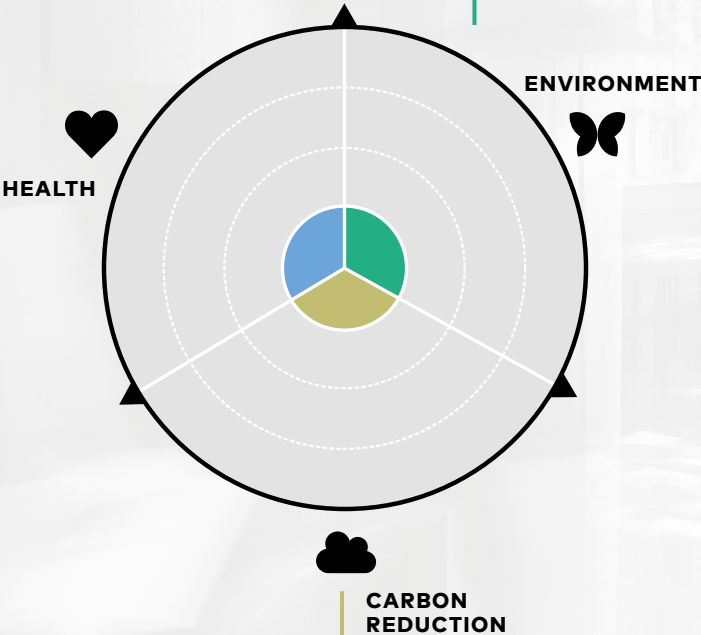
Performance measurement and visualization

LEMAY'S NET POSITIVE APPROACH ALSO AIMS TO SIMPLIFY THE VISUALIZATION OF PROJECT PERFORMANCE.

To do this, we propose a simple graphic representation that illustrates the relative performance of a project in our three Net Positive areas of focus.

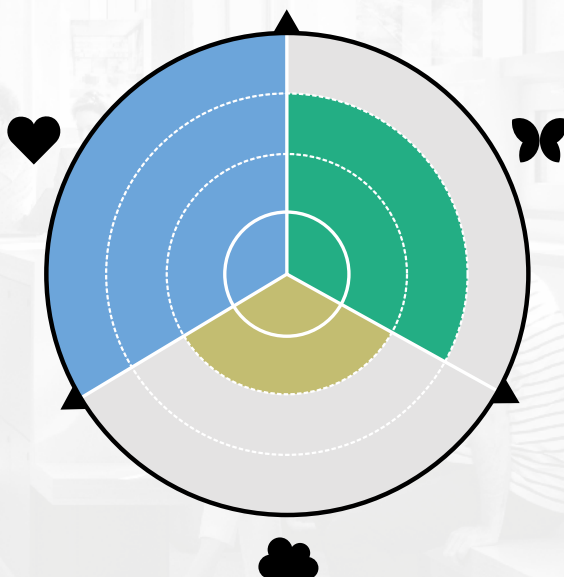
**PRINCIPLE 1:
3 AREAS OF PERFORMANCE**

**PRINCIPLE 2:
4 LEVELS OF PERFORMANCE**



This rating system is not intended to define the overall level of environmental performance of a project, but rather to provide a quick understanding of its strengths. It is aligned with established and recognized industry certification systems.

EXAMPLE OF NET POSITIVE VISUALIZATION FOR PROJECTS



Examples of **health**-related criteria:

- Eco-friendly materials
- Natural light
- Biophilic design
- ...



Examples of **environmental** criteria:

- Responsible stormwater management
- Reduction of heat islands
- Protection and development of biodiversity
- ...



Examples of **carbon**-related criteria:

- Carrying out a carbon assessment
- Reducing carbon footprint
- Adapting design to climate change
- ...

TRANSDISCIPLINARY COMMITTEE

NET POSITIVE

Giving ourselves
the means to succeed

**BY DEVELOPING ITS NET POSITIVE APPROACH, LEMAY HAS
GIVEN ITSELF THE MEANS TO CREATE SUSTAINABLE VALUE
IN ALL ASPECTS OF ITS PRACTICE.**

In support of this approach, Lemay has set up a transdisciplinary committee whose mission is to promote the spirit of Net Positive within the company and among its clients. Based on collaboration, the role of the Net Positive committee is to ensure the continuous development of the skills of our professionals so that our clients' projects can benefit from best practices in sustainable development.

Training, presentations and publications are all activities that contribute to raising the profile of the Net Positive approach and, consequently, the creation of more sustainable living environments.

Lemay's commitment is not limited to meeting regulatory standards and obtaining certification. Rather, we systematically apply the Net Positive approach to ensure that our actions, both on a daily basis and in the development of our projects, maximize positive benefits for our clients, users and the community.



An approach that has already been recognized

LEMAY'S NET POSITIVE TEAM WON A 2019 NOVAE AWARD FOR INNOVATION AND ORIGINALITY.

This competition rewards each year's 20 most innovative solutions that combine viability and environmental/societal benefits to support a socially responsible Quebec economy.



LEMAY NET POSITIVE WAS RECOGNIZED FOR THE FOLLOWING CRITERIA:

- The relevance of the environmental and societal issues to which it responds;
- Its originality and the degree of innovation that distinguish it from conventional approaches;
- Its potential to inspire as a model for sustainable business practices.

The Phenix, a case in point

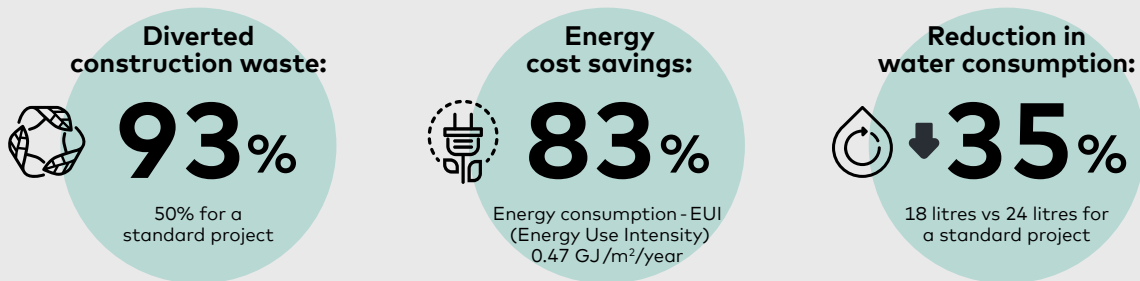
THE PHENIX, LEMAY'S MONTREAL OFFICE, IS A TRULY UNIQUE LABORATORY FOR THE FIRM'S INNOVATIONS IN SUSTAINABLE STRATEGIES AND COLLABORATIVE WORKSPACE DESIGN.

Instead of designing a new building, Lemay chose to transform an abandoned 1950s warehouse into offices for its transdisciplinary team, thereby reducing the firm's carbon footprint (construction and operation).

The project is a clear demonstration that it is possible to renovate an old building to the highest standards of sustainable development. It is a good example of adaptive reuse and how it can significantly reduce the environmental impacts of raw material extraction on a large scale.



12





CERTIFIED 3 OUT OF 3 STARS
(131 POINTS / 144)



LEED CERTIFICATION
PLATINUM LEVEL TARGETED



**ZERO CARBON
BUILDING STANDARD**
Canada Green Building Council

ZERO CARBON
CERTIFICATION TARGETED





The Phenix's innovations make it one of the most ambitiously sustainable buildings in Canada.







CERTIFIED 3 OUT OF 3 STARS
(131 POINTS / 144)



INTEGRATION OF
WORKS OF ART



MULTIFUNCTIONAL
RELAXATION AREAS



NET POSITIVE

HEALTH

USER COMFORT AND WELL-BEING ARE TWO VALUES THAT
SHAPED THE DESIGN OF THE PHENIX INTERIORS.

The proximity of the Parc du Premier-Chemin-de-Fer guided the biophilic approach for the project: the workspaces benefit from views of this linear park and the abundant vegetation surrounding the Phenix. The facilities have been designed to ensure thermal comfort as well as air quality and healthy living habits.

ABUNDANT NATURAL LIGHT



GLARE CONTROL (SOLAR SCREENS
FOR WINDOWS)



OPERABLE WINDOWS
(NATURAL VENTILATION)





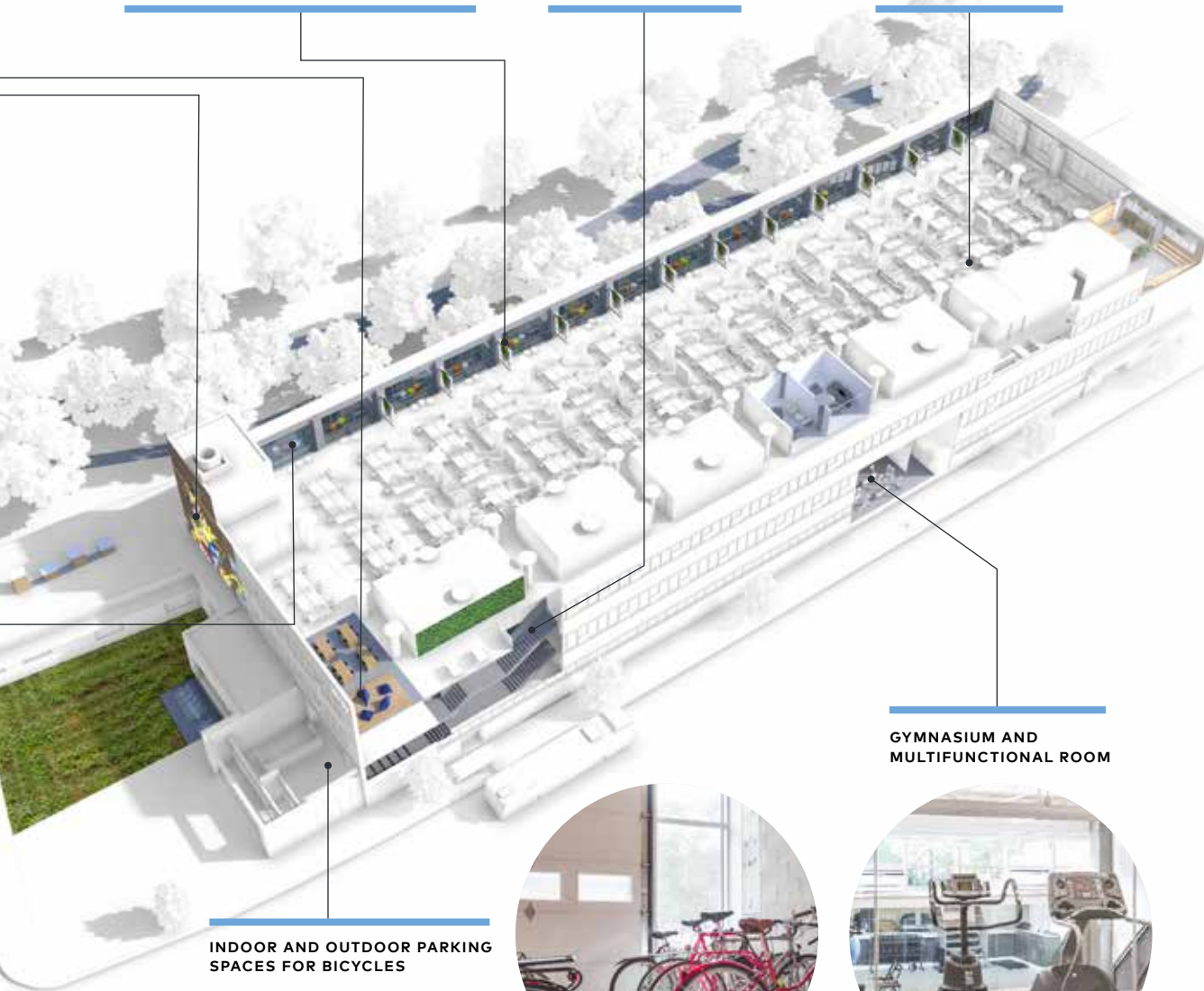
**VEGETATION, MATERIALS AND TEXTURES
INSPIRED BY NATURE (BIOPHILIA)**



**STAIRS THAT PROMOTE
PHYSICAL ACTIVITY**



**PROMOTING HEALTHY
EATING**



**INDOOR AND OUTDOOR PARKING
SPACES FOR BICYCLES**

**GYMNASIUM AND
MULTIFUNCTIONAL ROOM**





LEED CERTIFICATION
PLATINUM LEVEL TARGETED



REHABILITATION OF
CONTAMINATED SOIL



NET POSI+IVE

ENVIRONMENT

THE PHENIX PROJECT IS EXEMPLARY IN TERMS OF
NEIGHBOURHOOD REVITALIZATION.

As part of this transformation project, an abandoned building is now fully occupied, soils are decontaminated and vegetated areas provide respite from the surrounding heat islands. A white roof and deliberately limited parking further reduce the heat island effect.

REDUCTION IN THE
NUMBER OF PARKING
SPACES (22 INNER SPACES)



2 HYBRID CARS, AVAILABLE FOR
BUSINESS TRAVEL, AND 4 ELECTRICAL
RECHARGING STATIONS



60 BIKE RACKS





REUSE OF AN EXISTING BUILDING



PROMOTION OF BIODIVERSITY (BEEHIVES)



DENSE DISTRICT WITH DIVERSIFIED SERVICES



WASTE MANAGEMENT (RECYCLING AND COMPOSTING)



WATER-EFFICIENT APPLIANCES



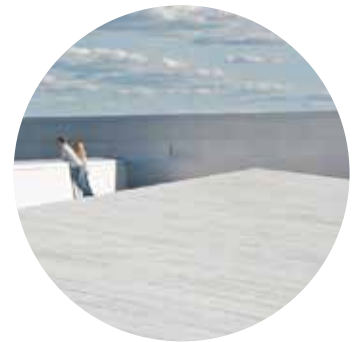


**ZERO CARBON
BUILDING STANDARD**
Canada Green Building Council

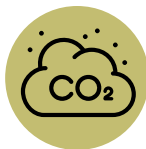
**ZERO CARBON
CERTIFICATION TARGETED**



PHOTOVOLTAIC PANELS



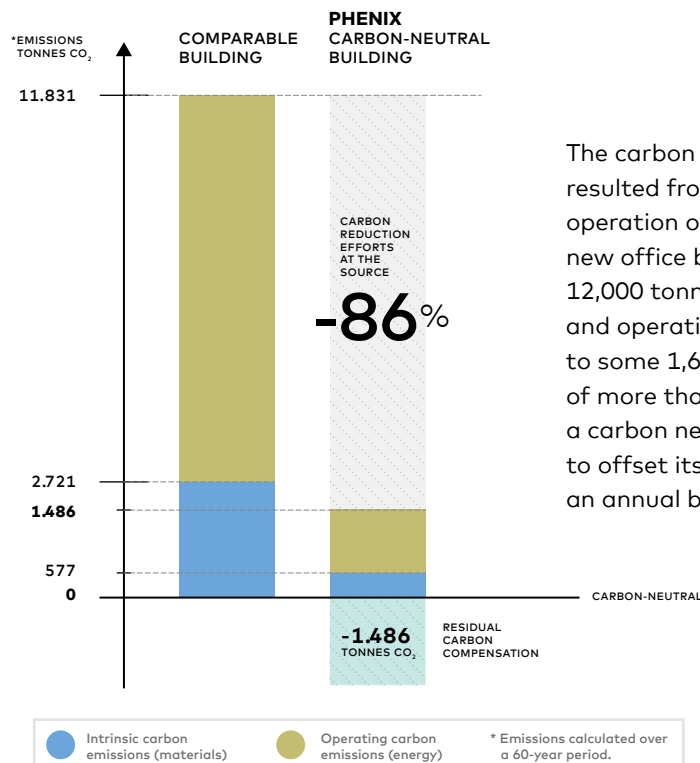
REINSULATED ROOF



NET POSITIVE

CARBON

**THE RENOVATION OF AN EXISTING BUILDING AND REUSE
OF AN EXISTING STRUCTURE AND BUILDING ENVELOPE
HAVE PREVENTED SIGNIFICANT CARBON EMISSIONS.**



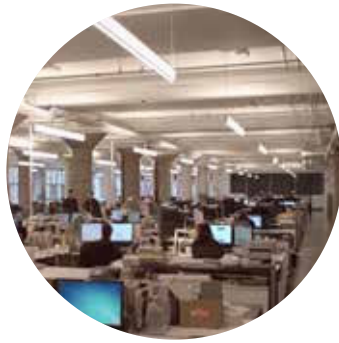
The carbon footprint that would have resulted from the construction and operation over 60 years of a comparable new office building equals to nearly 12,000 tonnes of CO₂, while renovation and operation over the same period equate to some 1,600 tonnes of CO₂: a reduction of more than 86%. In order to achieve a carbon neutral balance, Lemay plans to offset its carbon emissions on an annual basis.



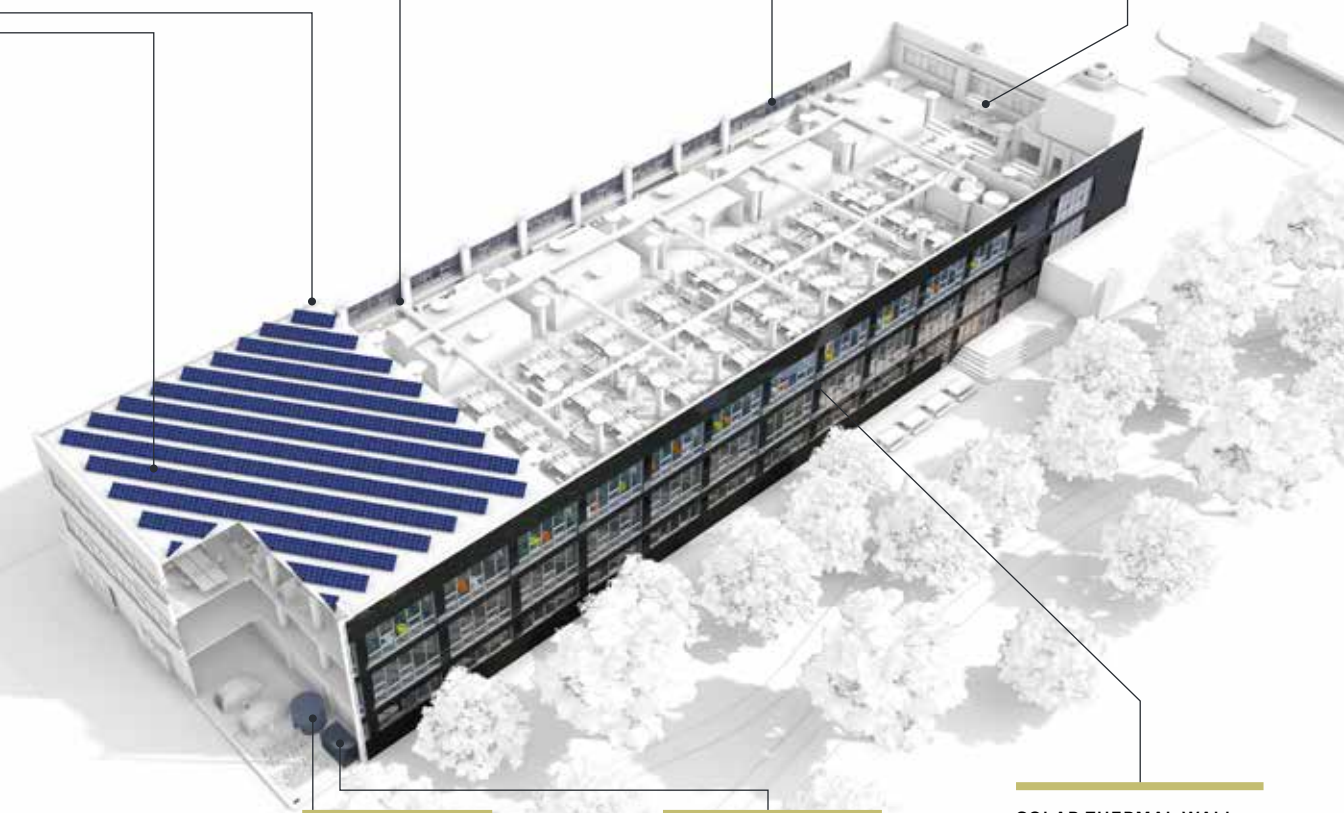
HYDRONIC RADIANT HEATING



TRIPLE GLAZING (NORTH SIDE)



ADVANCED CONTROL OF THE LED LIGHTING



THERMAL STORAGE

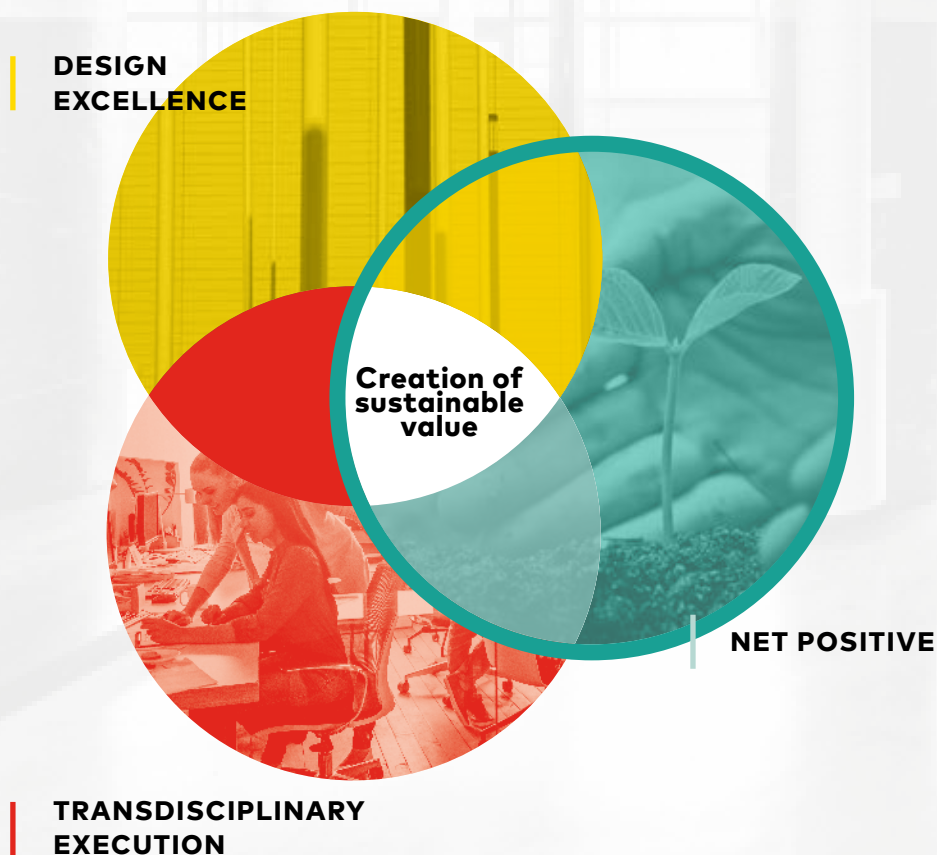
ELECTRICITY STORAGE

SOLAR THERMAL WALL (PREHEATED AIR SUPPLY)



Beyond the Phenix... how we live Net Positive

**NET POSITIVE IS ONE OF THE THREE PILLARS OF OUR DISTINCTIVE APPROACH,
WHILE SUSTAINABLE VALUE CREATION IS AT THE HEART OF EVERYTHING WE DO.**



22

IN OUR COMMITMENTS...

- Lemay is a signatory to the AIA 2030 charter, which seeks to deploy zero-carbon buildings.
- As a Fitwel Champion, Lemay is proactive in the development of healthy workspaces.
- Lemay is also actively involved in the Quebec initiative to promote the use of sustainable building materials (CBDCa-Qc).



IN HOW WE TREAT OUR PEOPLE...

- Flexible schedule that allows everyone to choose their arrival and departure times.
- Group insurance program adapted to the needs of each employee. Under this program, everyone has an annual amount that can be used to cover the cost of monthly public transit passes or membership fees for wellness activities.
- Organization of many sports and social activities, including those that support charities.
- Daily offering of meals prepared with fresh and local ingredients, vacuum-packed and frozen in order to maintain taste and quality.
- A variety of fresh fruit and coffee offered to employees every morning.
- On-site fitness centre and showers.
- Indoor and outdoor parking for bicycles.
- Casual dress code for style and comfort.



Local actions for a global impact

LOCALLY, LEMAY HAS TAKEN SEVERAL INITIATIVES TO CONTRIBUTE TO THE HEALTH AND WELL-BEING OF THE COMMUNITY.

Lemay renews its social involvement via:

- Involvement with charities
- Financing activities of various research funds
- Support for community projects
- Volunteering

BECAUSE LEMAY BELIEVES THAT REDUCING CLIMATE FOOTPRINT IS AN INTEGRAL PART OF ITS RESPONSIBILITIES AS A CORPORATE CITIZEN, IT CLOSELY MONITORS ITS GREENHOUSE GAS EMISSIONS.

Lemay offsets the amount of paper it uses as well as some of its air travel and long-distance transportation, based on the carbon emissions emitted by these activities, through a variety of initiatives. Its clients and partners have also included carbon offsetting in the cost of their projects.

As an example of these initiatives, Lemay contributes to the reforestation of Nicaragua through a partnership with the organization Enracine - Taking Root. Nicaragua has lost more than 50% of its forest cover since 1990, and this carbon footprint offsetting measure supports Nicaraguan farmers by helping to mitigate the impacts of climate change, improve their livelihoods and restore their ecosystems.





Highly qualified professionals

OUR TEAM RELIES ON THE EXPERTISE OF NUMEROUS SUSTAINABILITY-ACCREDITED PROFESSIONALS.



LEED (LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN)

Benchmark evaluation system for interior design, buildings and neighbourhoods. It is distinguished by its rigour, national and international recognition and holistic nature.

*AP : Accredited professional

26

 **1 FELLOW**
Honorary
Distinction

 **8 GA**
Green
Associate

 **15 BD+C**
Building
Design and
Construction

 **1 ND**
Neighbourhood
Development

 **1 HOMES**
Housing

 **1 O+M**
Operations
and
Maintenance

 **1 ID+C**
Commercial
Interior
Design and
Construction



WELL

Launched in 2014, WELL certification works as a complement to LEED ecological certifications, by targeting the health and well-being of the users in a built environment.

 **2 WELL AP**  **1 WELL FACULTY**

FITWEL

Certification aimed at encouraging the improvement of new or existing buildings by focusing on both built environment measures and healthy corporate policies.

 **6 FITWEL AMBASSADORS**

SITES RATING SYSTEM

Certification issued by Green Business Certification Inc (GBCI) which recognizes the sustainability of landscaping.

 **2 SITES AP**

ENVISION

Certification dedicated to the integration of sustainability strategies into infrastructure projects. It focuses on social acceptability and resilience as fundamental project values.

 **1 ENVISION SP**

BUILDING RESEARCH ESTABLISHMENT ENVIRONMENTAL ASSESSMENT METHOD (BREEAM)

The first and most widespread system for evaluating and certifying the environmental performance of buildings worldwide.

 **1 BREEAM AP**  **1 BREEAM ASSESSOR**

HAUTE QUALITÉ ENVIRONNEMENTALE (HQE)

Certification recognizing the environmental performance of projects for the sustainable design or renovation of buildings and the sustainability of territories.

 **1 HQE AP**  **1 HQE AUDITOR**





A large
certified area

— **1,873,897** m² —

| 28

— of projects certified or in the process of being certified —

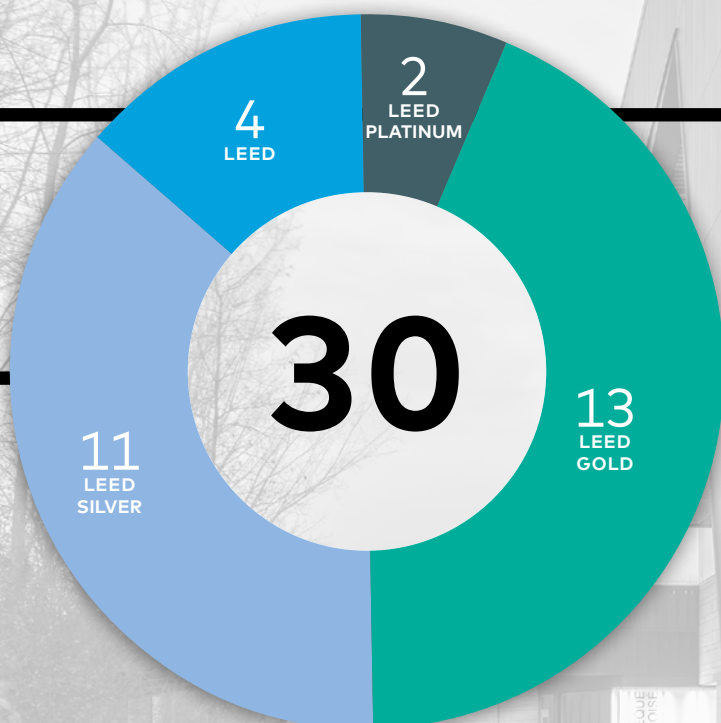
— the equivalent of approximately —

260 —

— football fields —

LEMAY INTENDS TO GENERATE AN EVEN MORE SIGNIFICANT NET POSITIVE
IMPACT FOR COLLECTIVE WELL-BEING.

63 projects in the process of certification



LEED-certified projects

Sustainable projects

PROJECTS PRESENTED HERE ALL HAVE ONE OR MORE TRULY EXEMPLARY SUSTAINABLE STRATEGIC CHARACTERISTICS.

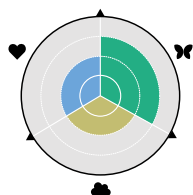
Beyond obtaining certification, they are distinguished by the use of local materials, the reduction of their carbon footprint and their approach focused on the health and well-being of users.



CAMPUS MIL AND ITS SURROUNDINGS, Montreal

CERTIFICATION

LEED certification
for Neighbourhood
Development (LEED ND)
Gold level targeted

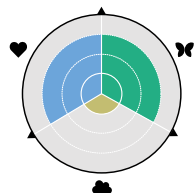


New scientific campus of the Université de Montréal

- First sustainable urban development flagship project in the City of Montreal
- Greening, responsible stormwater management, walkable streets giving priority to pedestrians and active modes of transportation

NET POSITIVE

H RESORT BEAU VALLON BEACH, Seychelles



Oasis of freshness on a lush green site

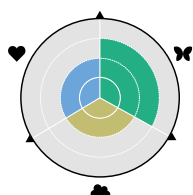
- Exceptional landscape integration
- Use of natural materials and local plants



CASABLANCA OCEANFRONT PROMENADE, Morocco

Development of the Hassan II Mosque new Maritime Promenade and revitalization of Casablanca's corniche Ain Diab, along a Moroccan coastline totalling five kilometres.

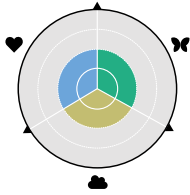
- Multifunctional trails, sports and relaxation areas in an urban framework
- Use of local materials and plants
- Revitalization of natural environments



Modernity, sustainability, innovation



POMERLEAU OFFICES, Lévis



An exceptional work environment for Pomerleau employees

- Commercial building with wooden structure
- Optimized energy performance
- Abundant light and comfortable spaces
- Integration with existing woodland

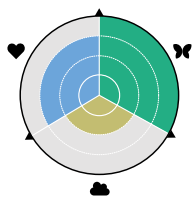


BIBLIOTHÈQUE DU BOISÉ, Montreal

Cultural, technological and creative core of the community



- Use of low-emissions materials with regional and recycled content
- Water recovery and wetland recharge system
- Energy-saving measures, including a geothermal system
- Sustainable landscaping
- Biophilic approach: abundant natural lighting, use of wood and views on the park



CERTIFICATION
LEED PLATINUM
certification





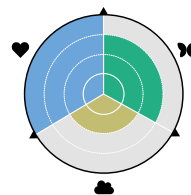
HUMANITI COMPLEX, Montreal

First smart vertical
community
(5 occupancy types)

- First project registered for WELL certification in Quebec for its residential rental component

CERTIFICATION

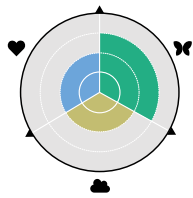
LEED SILVER certification
targeted



BASSINS DU HAVRE, Montreal

CERTIFICATION

LEED GOLD certification
for Neighbourhood
Development

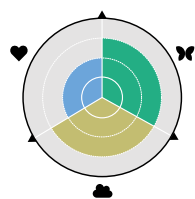


An exemplary residential development project at the cutting edge of sustainable development

- Rehabilitation of a highly contaminated industrial site
- Densification of an area close to downtown



SOPREMA PLANT, Woodstock



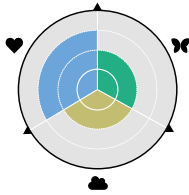
Warehouse, office space, support spaces and production line equipped with state-of-the-art technology.

CERTIFICATION
LEED v4 certification targeted

- Industrial building with natural light and landscaped site



BDO NATIONAL OFFICE, Toronto



This new workspace is adapted to the firm's multi-generational needs and the preferences of different professionals, particularly in terms of flexibility and mobility.



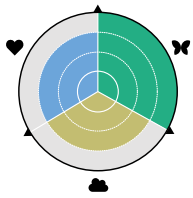
BIOPHILIA IS

the innate need to connect with nature. Biophilic design is an innovative way to exploit this tendency and create natural environments in which we can live, work and operate.

SOURCE: INTERFACE.COM

This project is outstanding for its advanced biophilic approach





CERTIFICATION

Envision certification for the entire City Program

LEED certification and Net Zero ready for the YUL transit space and terminal's facade

MONTREAL-TRUDEAU AIRPORT, Montreal

City Program: nature meets the airport

- Improvement of public transport access with the integration of the REM station
- Improvement of the quality of life of users and neighbourhood residents by creating a green space accessible to the public
- Reduction of heat islands and improvement of biodiversity and stormwater management
- Renewable energy production: geothermal energy and photovoltaic panels

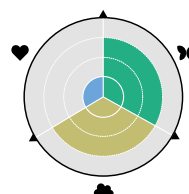


Parking garage P4



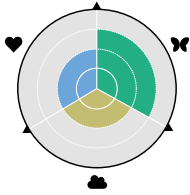
In consortium with Jodoin Lamarre Pratte Architects

- Heat island reduction and stormwater management
- Landscaping
- 24% reduction in carbon emissions' impact compared to similar projects



CERTIFICATION

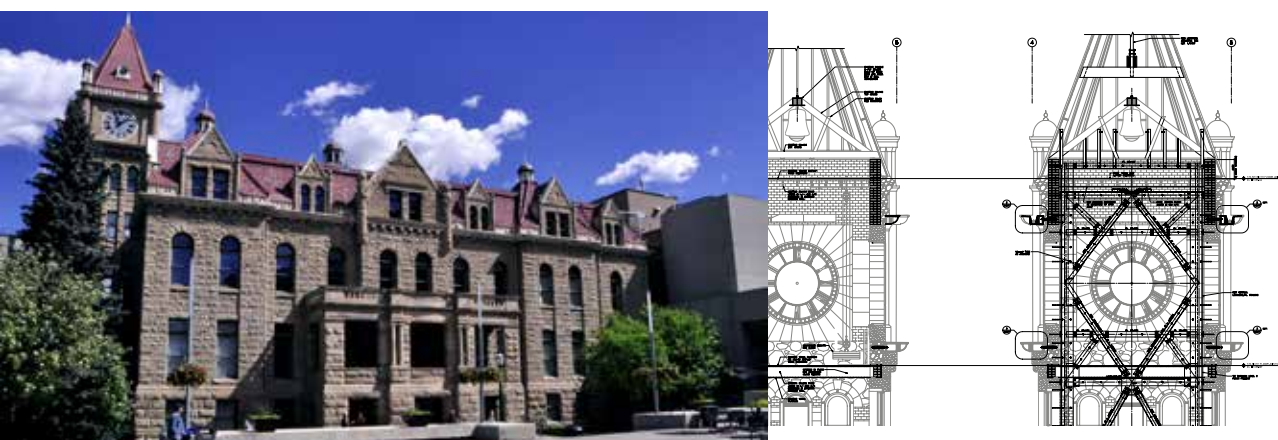
SILVER level Envision certification targeted



CITY HALL, Calgary

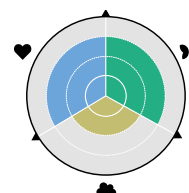
One of the most significant heritage projects currently underway in Canada

- High-profile heritage preservation and restoration
- Holistic approach to landscape design
- Revival of a valued community space
- Promotion of local expertise
- Use of lifecycle costing model to project long-term maintenance costs, with a view to avoiding equipment and facilities replacement



SUSTAINABLE DEVELOPMENT EVALUATION SYSTEM, Brossard

Analysis grid and points system to objectively evaluate projects submitted to the City of Brossard for their contribution to sustainable development objectives in terms of land-use planning.



NET POSITIVE

Next steps

- Accelerate the **deployment of the Net Positive approach** in our projects.
- Measure the **positive impacts** of our approach on **health, the environment** and **carbon emission reduction** in each project.
- Continue to **promote professionals' sustainability accreditation** in each of Lemay's disciplines.
- Become a **carbon-neutral practice** in the short term.





PCF



**CREATIVE
THINKING.
COLLECTIVE
VALUE.**