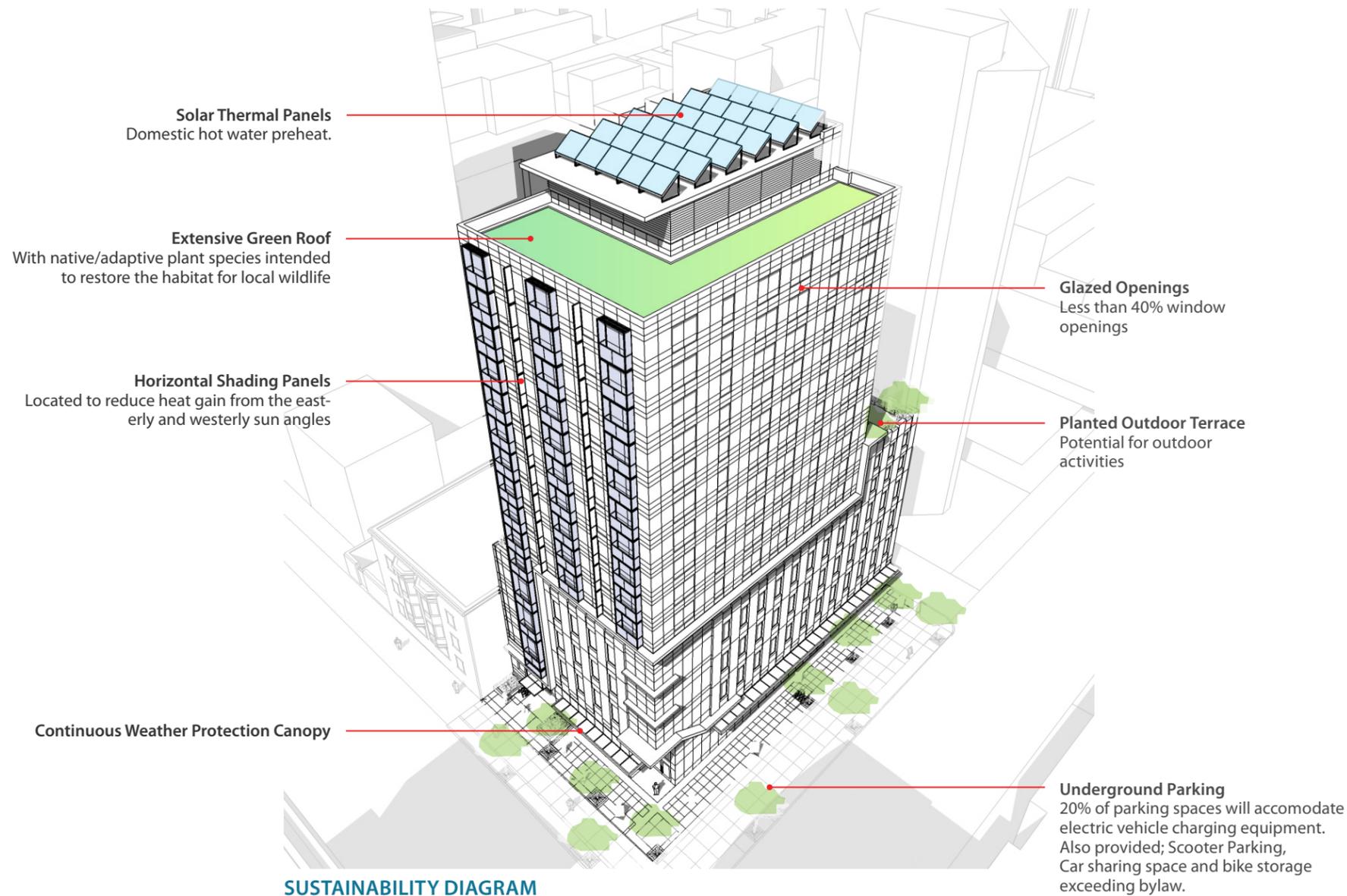


Sustainability Rationale



Project Sustainability and LEED Gold Targets

The following narrative describes the proposed sustainable design features for 1107 Seymour ("the Project"). The Project's sustainability goals are to provide a cost-effective, high value development that meets or exceeds the City of Vancouver's sustainability requirements as defined by the Rezoning Policy for Greener Buildings.

Rezoning Policies for Greener Buildings

Establishes minimum requirements for green buildings that must be met for projects undergoing re-zoning:

- LEED™ Gold equivalent
- 63 LEED™ points
- project registered with CaGBC
- 6 optimize energy performance points
- 1 water efficiency point
- 1 storm water point

Below is a summary of preliminary strategies that show how the developer and design team propose to achieve each prerequisite and 63 points within the LEED Canada-NC 2009 rating system, as outlined in the accompanying scorecard. While some credits may be dropped and others added over the course of design and construction, the team is committed to ensuring that the final building is LEED Gold certified.

Strategies are summarized below, grouped by LEED credit categories.

Sustainable Sites

The Project is located on a previously developed urban site, avoiding negative impacts on prime farmland, wetlands, parks, ecologically sensitive areas or habitats for threatened or endangered species. Because of the density of the Project and its surrounding neighbourhood, existing infrastructure can be utilized, protecting greenfields and preserving habitat and natural resources.

The intent of encouraging sustainable transportation is to reduce reliance on modes that consume excessive energy and contribute to poor air quality and GHG's, and encourage modes that meet mobility needs while minimizing environmental impacts. The Project is ideally located to encourage transit use, within a short walking distance to 9 public bus routes, including 3 night busses. It is also within 800m walking distance is the Yaletown skytrain station. Sustainable transportation will also be prioritized through provision bike storage areas for both residents and those who work and shop in the retail areas, enabling active, low-impact transportation for all who use the building. Anticipating the growth of electric vehicle use in the region and as required by the City of Vancouver, 20% of parking spaces shall include a receptacle to accommodate use by electric vehicle charging equipment. These requirements exceed the LEED criteria, which calls for EV charging infrastructure for 3% of parking capacity.

With at minimum of 50% of the roof an extensive green roof and 100% of parking underground, the Project will minimize the heat island effect, whereby dark surfaces create over-heated microclimates. The green roof with native/adaptive plant species will restore habitat for local wildlife.

The proposed site will be completely covered by roof surface, either tower or podium roof. There will be no opportunities for direct infiltration into native ground or connection to urban watercourses. Stormwater objectives for the proposed site design include incorporating sustainable stormwater management practices and achieving 1 stormwater LEED credit, per the City of Vancouver's Green Buildings Policy for Rezoning. The green roof reduces stormwater runoff through evapotranspiration and slows the rate of runoff by filtration through the soil medium. Filtration by the soil and vegetation also provide water quality benefits.

Light trespass from the building and site will be minimized, reducing sky-glow to increase sky access and improving night-time visibility through glare reduction.



Water Efficiency

With low flush toilets and low-flow faucets and showerheads, the building's plumbing fixtures are projected to reduce water use by at least 30%, compared with industry baselines. Efficient irrigation equipment will enable water used for landscape irrigation to be 50% below calculated baselines. Together, the significant savings in water used for plumbing and irrigation will reduce the burden on municipal water supply and wastewater systems.

Energy and Atmosphere

As the design is developed, architectural, mechanical and electrical systems will be fine-tuned to reduce modelled energy consumption by at least 22% below ASHRAE 90.1-2007 (or 33% below MNECB). Strategies under consideration include limited window-to-wall ratio, high performance envelope, efficient lighting and mechanical equipment, and low-flow plumbing fixtures. The project will incorporate solar thermal panels for domestic hot water. The building will be commissioned so that energy related systems are installed and



calibrated to perform according to their intended design.

To minimize the Project's contribution to global warming and ozone depletion, the base building's heating, ventilation, air-conditioning and refrigeration systems will use equipment which releases limited carbon dioxide and ozone-depleting substances, and which does not use CFC-based refrigerants. Fire suppression systems containing CFCs, HCFCs or Halons will not be used.

As an investment in renewable energy sources such as solar, water, wind, biomass and geothermal, the Project developer will put in place a contract to purchase EcoLogo-certified renewable energy certificates for at least 35% of the building's Projected electricity consumption over 2 years.

Materials and Resources

Material Selection:

Recycled content will account for at least 10%, by cost, of all building materials and products used on the Project (with pre-consumer content valued at half its percentage and fly-ash valued at double the percentage of cement it reduces). Materials and products which are regionally extracted and manufactured will account for at least 30%, by cost, of all building materials and products used on the Project.

Demolition/Construction activities:

An erosion and sedimentation control plan will be developed and implemented to reduce pollution from construction activities. Demolition on the project site will include the existing 2-storey commercial building and will target a diversion rate of at least 80%. Construction work will maintain the same diversion rate, which will be incorporated into project specifications, along with requirements for a detailed construction waste management plan. Given the local availability of diversion facilities, this is a highly achievable target. Overall, 80% of the waste generated on-site will be separated and hauled to facilities for recycling, reuse or other sustainable end-uses, thereby diverting it from landfills.

Operations:

Provision of adequate and convenient recycling storage facilities is an important first step in waste reduction. Design of the storage facilities will carefully balance user convenience, efficiency of space, and ease of collection. The design is likely to include a mix of centralized and de-centralized storage and collection points. The building will include recycling areas for both commercial and residential occupants, providing for centralized separation and removal of paper, corrugated cardboard, glass, plastics, metals and organics.



Indoor Environmental Quality

An Indoor Air Quality Management Plan will be developed and implemented for both the construction and pre-occupancy phases of the Project, to reduce indoor air quality problems resulting from construction. All interior adhesives, sealants, paints and coatings used on the Project will meet stringent standards limiting volatile organic compounds. All carpets and hard surface flooring systems will be selected based on 3rd party certifications which demonstrate superior indoor air quality. All composite wood products will have no added urea formaldehyde.

The Project will use a combination of mechanical and natural ventilation methods to meet the requirements of ASHRAE 62.1-2007, ensuring that all



occupied spaces have adequate fresh air for the comfort and well-being of occupants. The Project will be detailed and tested to demonstrate that residential suites are sealed from one another and maintain negative pressure in relation to adjacent spaces.

Innovation in Design

While specific innovation strategies have yet to be confirmed, the Project Team is confident that all 5 LEED points will be earned under IDc1. The Project may achieve Exemplary Performance in areas such as density, access to transit, and/or green power. Other innovation strategies may include green building education, green housekeeping, comprehensive waste management, integrated pest management and/or sustainable purchasing. The Project Team includes a LEED Accredited Professional who will advise and support the team on sustainability-related issues, assist with the interpretation and practical application of LEED guidelines, and help ensure that targets are being met during both design and construction of the Project.

Regional Priority

A building durability plan will be developed and implemented for the construction and preoccupancy phases of the building, to create a more long-lasting and easy-to-maintain building with components that are either very durable or easy to replace on a regular cycle. The Project Team is confident that all 3 LEED points will be earned under RPC2, based earning credits in the three areas identified by the City of Vancouver as being of regional importance: optimize energy performance, water efficiency and stormwater management.