

PRAIRIE ARCHITECTS OFFICE RENOVATION

PRAIRIE ARCHITECTS INC.
139 MARKET AVE., WINNIPEG, MB

^ Large street-level windows on Market Ave. fill the office with natural light and great views.

Prairie Architects Inc., having outgrown its previous office space, recently moved its offices into a main floor commercial condominium on Market Avenue, a heritage warehouse conversion in the heart of the Exchange District. Prairie carefully considered many options before relocating; concluding that remaining in the Exchange District was important to staff while giving new life to a heritage warehouse space embodied Prairie's passion and was paramount to its founding values.

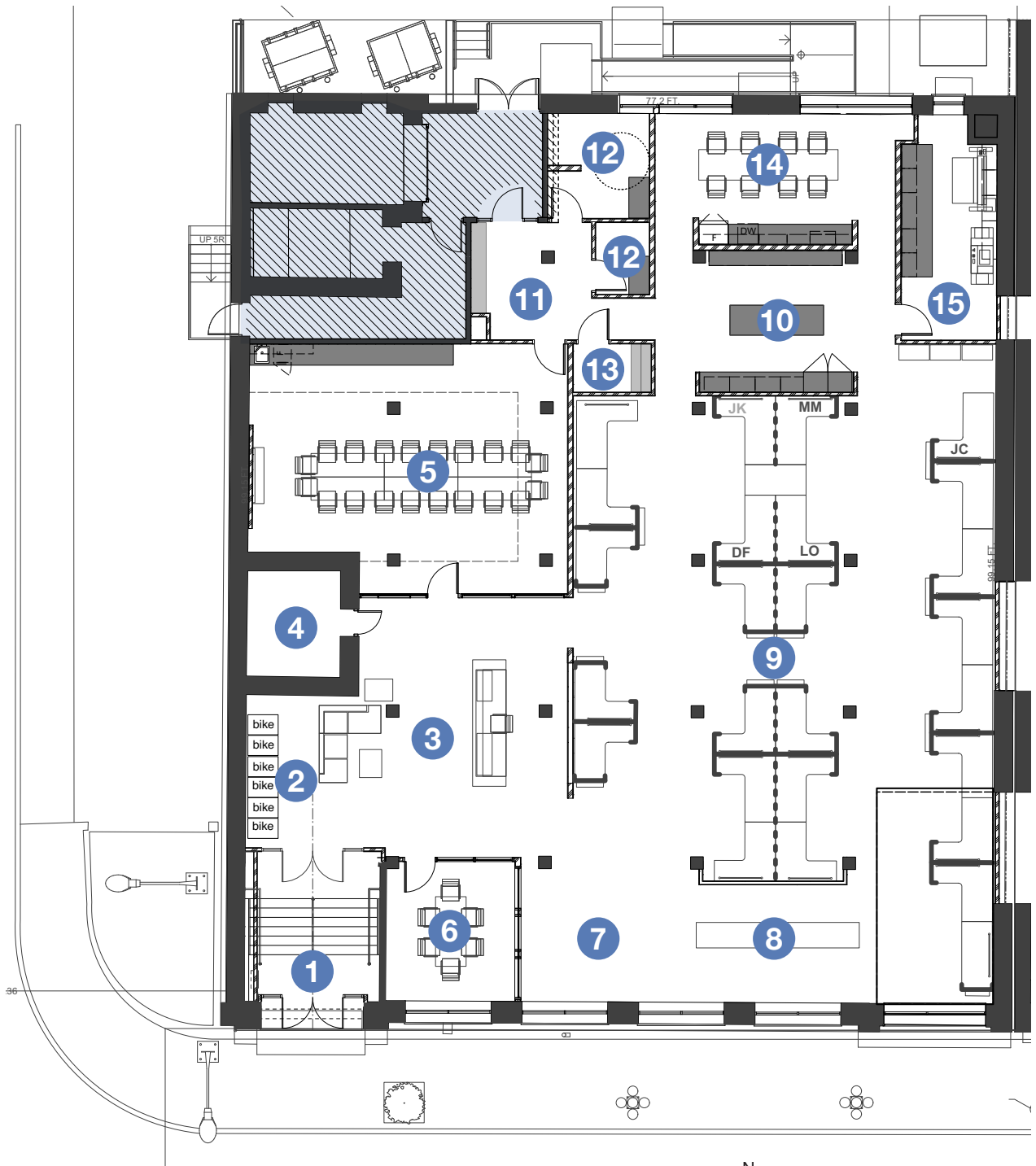
The office faces south with large windows filling the open workspace with natural daylight and views to the active street outside. The new main floor heritage warehouse space has its own dedicated entry off of Market Avenue. All office lighting is high efficiency programmable LED fixtures on occupancy sensors, which contributes to reducing the office power requirements. The HVAC system is a variable refrigerant flow systems (VRF) to provide heating and cooling throughout the space as well as heat recovery between zones with fan coils installed to provide adequate zoning for individual spaces in the

office. The new system requires 40.9% less energy than the base building NECB 2011. Prairie selected ultra-low flow faucets in the kitchen and washrooms to reduce water consumption by 42.74%. Prairie's staff walk, cycle, or take transit to work and as such, it was appropriate to celebrate active transportation with the addition of a shower and a secure bike storage in the front reception. Prairie re-used salvaged, refurbished, or recycled materials and furniture throughout the space, and chose new materials with high-recycled content and low VOC content & emissions. The existing warehouse maple floors were salvaged, repaired and refinished throughout with limited new flooring installed. However, the carpet is Interface's Silver Linings collection which utilizes 100% recycled content yarn and is comprised of 63% post-industrial recycled content and 9% post-consumer recycled content.

The 6,200 s.f. renovation was completed in May 2017 and has achieved LEED® Platinum certification under LEEDv4 ID+C: Commercial Interiors.

Condominium
Access / Amenities

Lily Street



Market Avenue



Main Floor Plan

1 Entrance & Vestibule

2 Bike Racks

3 Waiting / Reception

4 Servers / IT

5 Large Meeting Room

6 Small Meeting Room

7 Lounge

8 Drawing Layout Table

9 Open Office Space

10 Product/Sample Library

11 Coat Room

12 Washroom

13 "Phone Booth"

14 Lunch Room

15 Print Room



▲ Market Avenue Facade.



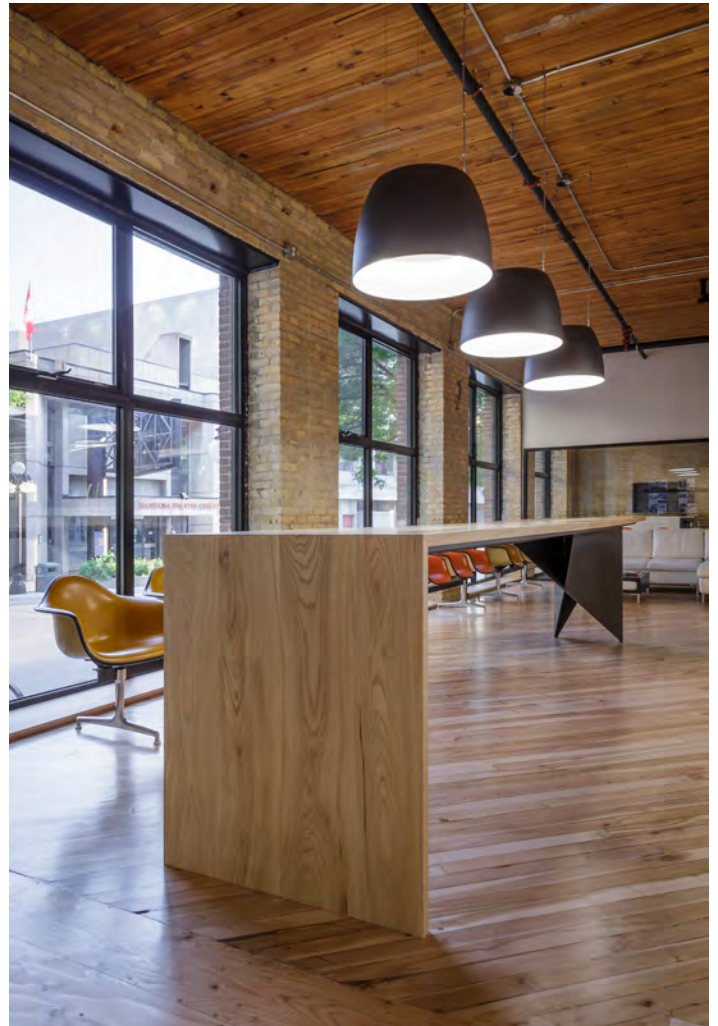
▲ Large Meeting Room.



▲ Product / Sample Library.



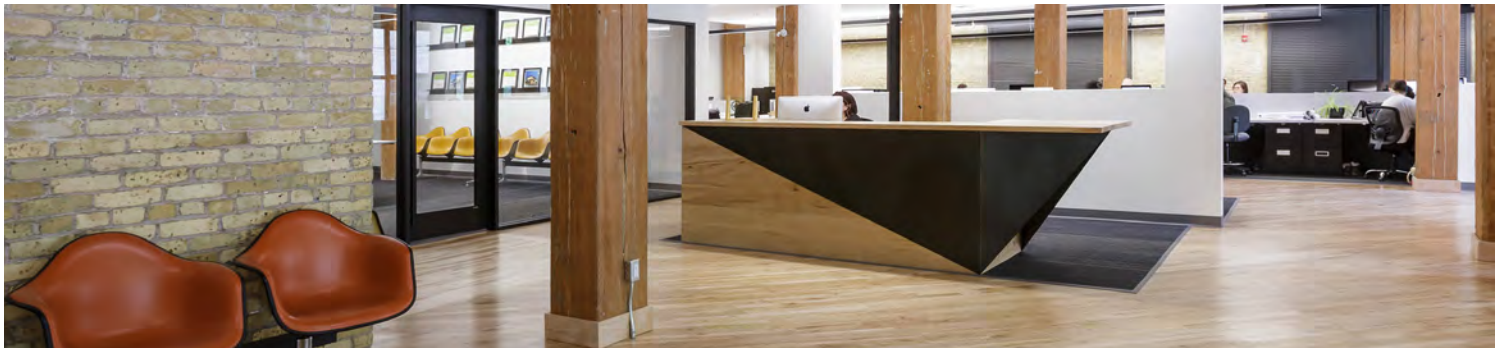
▲ View from Large Meeting Room into reception and waiting area.



▲ Standing table along Market Ave. facade for drawing layout & casual work.

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▲ Reception and Waiting Area.

Following is a summary of the health, performance and environmental features of the building based on LEEDv4 (Leadership in Energy and Environmental Design) criteria:

quick facts

LEED®:	LEEDv4 Platinum: Commercial Interiors
client:	Prairie Architects
location:	139 Market Ave., Winnipeg, MB
contractor:	StreetSide Development
consultants:	M&E/ SMS Engineering
area:	6,200 SF
status:	Opened 2017

Integrated Design Process

Prairie Architects Inc New Office has been designed using an Integrated Design Process and initiated an employee consultative design charrette to establish the design approach.

During the design process, the project team reviewed several options for HVAC systems and compared them among many criteria, such as: energy savings, capital cost, life-cycle cost, and Greenhouse Gas emissions. The team decided on a variable refrigerant flow system (VRF) making the largest impact on Greenhouse Gas emissions projected for the project.

Location + Transportation

68% of staff currently use alternative transportation to reduce SOV, resulting in approximately 5,656kg of CO2 avoided each year and over 500,000 calories collectively burned annually. The central location of the Prairie office was important in the decision to move, since so many staff walk, bike, or bus to work throughout the year. The new office also has access to a fully equipped gym within the building and is in walking distance of many amenities, including a river walk and park space. Additionally, the new large windows offer natural daylight and a glimpse of the tree lined bustling streetscape of Rorie and Market Ave, highly active in all seasons with festivals, movie shoots, and regular pedestrian activity.

Water Efficiency

Accomplishing just under 43% potable water use reduction, we incorporated low flow fixtures in the office, including new low flow shower, bathroom & kitchen sinks using 0.5gpm aerators, and a dishwasher that was both energy and water efficient. Water use is tracked monthly to see where we can look at improvements in our usage.

Energy & Atmosphere

All office lighting is high efficiency programmable LED with occupancy sensors, which contribute to reducing

the office power requirements. The HVAC system is a variable refrigerant flow systems (VRF) to provide heating and cooling throughout the space as well as heat recovery between zones with fan coils installed to provide adequate zoning for individual spaces in the office. It is anticipated that the system will require 40.9% less energy than the base building NECB 2011.

To ensure the mechanical system is functioning as the design team intended, a commissioning agent has been a part of the design process, acting as a third-party reviewer of the system design for the Owner. To minimize the impact of the building on the depletion of the ozone layer, all systems are CFC and HCFC free, and the fire suppression system contains no halons.

Prairie Architects Inc. has offset 300% of their total annual greenhouse gas emissions over fifteen years using Green-e® Climate Carbon Offsets, equalling 50 MT CO2e (megatonnes of carbon dioxide equivalent).

Regional Priority

Regional priority focuses on giving extra weighting to existing credits that are important to a particular region. Surrounding Density and Diverse Uses, Access to Quality Transit, Indoor Water Use Reduction, Enhanced Commissioning, Optimize Energy Performance and Thermal Comfort are all identified as important for urban Manitoba commercial interior sites.



▲ Lunch room and kitchen.



▲ Custom bike racks to encourage active transportation.



▲ Small meeting room.



▲ Open office space. Looking towards Market Avenue.

Materials + Resources

The primary goal for the project was to reuse as many materials from the existing office as possible. This included reusing all desks, chairs, partitions, board room tables, couches, televisions, TV cabinets, copiers, phones, lamps and more. While we wanted a new aesthetic, the intent was still met with reuse. We also purchased 40-year-old Eames chairs from another project to reuse for additional seating. While a small percentage of millwork was installed new in the kitchen, bathrooms, and layout room, over 60% of furniture was considered reused. Of that, nearly 20% (by cost) was furniture built from reclaimed diseased elm trees and grain elevators that would have been destroyed.

Renovating a heritage warehouse meant celebrating existing brick walls, wood floors & ceilings rather than covering them up, which resulted in 94% of interiors reused. It was important that any new products, while few, still met VOC requirements and had recycled content and/or sustainable harvesting practices. For example, the Interface carpet & Johnsonite flooring installed have take-back recycling programs and are made of recycled materials. The drywall, aluminum entrances, glazing,

metal ledgers and bike racks are all considered reusable or recyclable, which constituted as 65% of all non-structural materials installed in the project. 112% of materials contributed to leadership extraction practice, broken down as 61% material reuse value, 36% regional content weighting, 13% recycled content, and 3% extended producer responsibility. Many others held EPDs, HPDs, CSRs, and were Cradle to Cradle certified. Over and above the reuse strategies, 84% of construction waste was diverted from the landfill.

Indoor Environmental Quality

139 Market is a non-smoking building and has been designed with a 100% fresh air ventilation system to provide excellent indoor air quality for staff and visitors. Carpet, adhesives, sealants, paints and coatings used in the building were specifically chosen to have a low level of Volatile Organic Compounds (VOC) and GreenGuard Gold certified. All composite wood used, including plywood, MDF and particleboard, contains no added or ultra-low emitting urea-formaldehyde. Over 65% of furniture in the project was reused from the existing office space, which reduced the amount of new VOC emitting materials installed in the project. Reutilizing existing brick walls, exposed wood ceiling and existing hardwood

flooring also eliminated new VOC emitting product installation and use. An Indoor Air Quality Management Plan was created and during construction. It included measures such as covering ductwork openings, keeping a clean worksite and scheduling to protect the indoor air quality of the building. A building flush was done prior to occupancy to ensure VOC levels were minimal or zero in the space.

An occupant comfort survey was distributed approximately one-year post occupancy and adjustments were made to further improve areas of thermal comfort, indoor air quality, and lighting.

Innovation & Design Process

Exemplary performance was achievable for exceeding minimum credit thresholds in any of the following credits: Access to Quality Transit, Reduced Parking Footprint, Furniture Reuse, Construction Waste management, and Optimize Energy Performance. Additional points were achieved for Quality Views in Non-Regularly occupied spaces, an Occupant comfort survey, and locating the project in a High Priority Site.



▲ Open office space. Looking towards Market Avenue.

Entrance off of Market Avenue.



eco-facts

prairie
architects inc.



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LEED Platinum certified under
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Interiors

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