

# Building Excellence Awards

## Prairie Loft Apartments

<b>Project Name:</b>	Prairie Loft Apartments
<b>Category:</b>	Multifamily
<b>High Performance:</b>	No
<b>Manufacturer:</b>	
<b>Submitted By:</b>	Terry Dieken

### Project

120 W Hatting St  
Luverne, MN 56156  
United States

### Builder

Green Smith Builders  
Aaron Smith  
1410 E 100th St  
Minneapolis, MN 55425  
United States  
Phone: 561-674-0001

## Design Professional

### Design Professional

Green Smith Builders  
Aaron Smith  
1410 E 100th St  
Minneapolis, MN 55465  
United States  
Phone: 561-674-0001

### Building End Use:

Prairie Lofts Apartments are attainable and sustainable workforce housing built with leading-edge smart and green technology to lower utility costs. There are a total of 54 units.

### Describe the end use of the building:

The sheer constructability of SIPs helped us get this job. Since this was a large project, the builder was interested in the increased building speeds of SIPs and the convenience provided by Extreme's off-site manufacturing process. The builder also appreciated the air-tight factor of SIPs construction to control sound, energy, and indoor air quality as this is an apartment building, and the cost of utilities for end-users was heavily considered during the construction process.

### SIP wall thickness and core material:

4 1/2"

**SIP roof thickness and core material:**

6 1/2"

**Describe the benefits of using SIPs on this project. Did SIPs help save time, labor, construction costs, or energy?**

Continuous insulation and air-tight quality of SIPs created an energy-efficient, quiet project that enables electrification and decarbonization with less effort. This allowed the builder to save on time and associated labor costs without compromising structural integrity. The construction costs as well as the energy savings were massive. There was also notably less on-site waste and environmental contamination.

**Describe any innovative design elements or structural engineering involved:**

Structural engineering was key as every detail was specified with a maximum efficiency mindset.

## Certifications & Specifications

**Certifications:**

The building is constructed to meet EnergyStar, Indoor AirPlus, Zero Energy Ready Home, and LEED requirements, making this project one of the most energy-efficient buildings in the state of MN.

**HERS Index:**

HERS 45L Credit

**Blower door test results (ACH50):**

Average ACH50 of 1.35. Please see

**Energy use intensity in kBtu/ft<sup>2</sup>:****Describe the HVAC system used on the project:**

Each apartment employs a balanced ventilation strategy with a Panasonic Energy Recovery Ventilator (ERV); incoming air can be conditioned and dehumidified, saving on heating and cooling expenses while simultaneously filtering and improving indoor air quality.

**Other Energy-saving Materials:****Energy-efficient products or design features:****Solar panels installed:****Sustainable materials or design features:****Additional comments:**

Across Minnesota, there is a shortage of rentals affordable and available to extremely low-income households. The Prairie Loft Apartments in Laverne are meant to help address this issue and provide attainable, sustainable housing for the citizens living and working in the area. A utility allowance is included in the base rent of each unit. All in-unit appliances meet EnergyStar requirements and include an in-floor radiant heat system, EV chargers, and solar panels.

**Builder, homeowner, occupant testimonial:**

For comments from builder, please see: <https://youtu.be/bSa4Mee7Rqw>.

## Files & Photos



Prairie-Lofts.jpeg



IMG\_2367.heic



IMG\_2353.heic



IMG\_2369.heic



IMG\_2362.heic



IMG\_2352.heic



### Prairie Lofts – Luverne, MN Unit Blower Door Test Results



C O I

Date: October 14, 2022

Test Dates: 10/13/22 & 10/24/22  
Technicians: Matt Carlson & Jett Sorensen

Unit #	Address	City	State	Zip	ACH50
101	120 W Hatting St	Luverne	MN	56156	0.95
102	120 W Hatting St	Luverne	MN	56156	1.01
103	120 W Hatting St	Luverne	MN	56156	1.71
104	120 W Hatting St	Luverne	MN	56156	1.47
105	120 W Hatting St	Luverne	MN	56156	1.39
106	120 W Hatting St	Luverne	MN	56156	1.18
107	120 W Hatting St	Luverne	MN	56156	1.18
108	120 W Hatting St	Luverne	MN	56156	0.93
109	120 W Hatting St	Luverne	MN	56156	1.19
201	120 W Hatting St	Luverne	MN	56156	1.04
202	120 W Hatting St	Luverne	MN	56156	0.98
203	120 W Hatting St	Luverne	MN	56156	1.96
204	120 W Hatting St	Luverne	MN	56156	1.41
205	120 W Hatting St	Luverne	MN	56156	1.18
206	120 W Hatting St	Luverne	MN	56156	1.18
207	120 W Hatting St	Luverne	MN	56156	1.22
208	120 W Hatting St	Luverne	MN	56156	0.84
209	120 W Hatting St	Luverne	MN	56156	1.13
301	120 W Hatting St	Luverne	MN	56156	1.23
302	120 W Hatting St	Luverne	MN	56156	1.14
303	120 W Hatting St	Luverne	MN	56156	2.6
304	120 W Hatting St	Luverne	MN	56156	1.94
305	120 W Hatting St	Luverne	MN	56156	1.98
306	120 W Hatting St	Luverne	MN	56156	1.58
307	120 W Hatting St	Luverne	MN	56156	1.52
308	120 W Hatting St	Luverne	MN	56156	1.22
309	120 W Hatting St	Luverne	MN	56156	1.28

XRG Concepts, LLC – Rochester, MN – 507-258-6500 – [www.xrgconcepts.com](http://www.xrgconcepts.com)  
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ACH50 results by unit

Delete Application