

## BUILDING LEAKAGE TEST

---

Date of Test: 5/19/2019

Test File: loosebrock final

Customer: Broadview Builders  
9050 N Hwy Dr  
Circle Pines, Mn 55014

Technician: Donald Jahnke

Project Number: Loosebrock Residence

Building Address: 4535 Lakeshore Place  
Arden Hills , MN

---

### Test Results

- Airflow at 50 Pascals:  
(50 Pa = 0.2 w.c.)  
242 CFM50  
0.48 ACH50  
0.0755 CFM50/ft2 floor area
  - Leakage Areas:  
24.9 in2 Canadian EqLA @ 10 Pa  
13.3 in2 LBL ELA @ 4 Pa
  - Building Leakage Curve:  
Flow Coefficient (C) = 19.0  
Exponent (n) = 0.650 (Assumed)
  - Test Settings:  
Test Standard: CGSB  
Test Mode: Depressurization
- 

### Infiltration Estimates

- Estimated Average Annual Infiltration Rate:  
18.1 CFM  
0.04 ACH  
4.5 CFM per person  
(using bedrooms + 1)
  - Estimated Design Infiltration Rate:  
Winter: 27.3 CFM  
0.05 ACH  
Summer: 17.1 CFM  
0.03 ACH
- 

### Cost Estimates

- Estimated Cost of Air Leakage for Heating:
- Estimated Cost of Air Leakage for Cooling:

**BUILDING LEAKAGE TEST Page 2 of 4**Date of Test: 5/19/2019 Test File: loosebrock final

---

**Building Information**

|                      |              |
|----------------------|--------------|
| Volume               | <b>30221</b> |
| Surface Area         |              |
| Floor Area           | <b>3200</b>  |
| Height               | <b>32</b>    |
| # of Bedrooms        | <b>3</b>     |
| # of Occupants       | <b>3</b>     |
| Year of Construction | <b>2019</b>  |
| Wind Shield          | <b>S</b>     |

**Location Climate Information**

|                            |                 |
|----------------------------|-----------------|
| Ventilation Weather Factor | <b>0.97</b>     |
| Energy Climate Factor      | <b>17.00</b>    |
| Heating Degree Days        | <b>7876</b>     |
| Cooling Degree Days        | <b>315</b>      |
| Design Winter Wind Speed   | <b>8.4 mph</b>  |
| Design Summer Wind Speed   | <b>13.4 mph</b> |
| Design Winter Temp Diff    | <b>81 deg F</b> |
| Design Summer Temp Diff    | <b>13 deg F</b> |

**Heating and Cooling Cost and Efficiency Information**

|                      |              |
|----------------------|--------------|
| Heating Fuel         | <b>Gas</b>   |
| Heating Fuel Cost    |              |
| Heating Efficiency % | <b>94.00</b> |
| Cooling Fuel Cost    |              |
| Cooling SEER         | <b>30.5</b>  |

**Equipment Information**

| Type                  | Manufacturer        | Model          | Serial Number | Custom Calibration Date |
|-----------------------|---------------------|----------------|---------------|-------------------------|
| <b>Fan</b>            | Energy Conservatory | Model 3 (110V) |               | Default                 |
| <b>Micromanometer</b> | Energy Conservatory | DG700          |               |                         |

# BUILDING LEAKAGE TEST Page 3 of 4

Date of Test: 5/19/2019 Test File: loosebrock final

---

## Depressurization Test:

### Environmental Data

| Indoor Temperature (°F) | Outdoor Temperature (°F) |
|-------------------------|--------------------------|
| 68.0                    | 55.0                     |

## Data Points - Data Entered Manually

| Nominal Building Pressure (Pa) | Baseline Building Pressure (Pa) | Adjusted Building Pressure (Pa) | Fan Pressure (Pa) | Nominal Flow (cfm) | Adjusted Flow (cfm) | % Error | Fan Configuration |
|--------------------------------|---------------------------------|---------------------------------|-------------------|--------------------|---------------------|---------|-------------------|
| 0.4                            | n/a                             | n/a                             | n/a               | 246                | 243                 | 0.0     | Ring C            |
| -50.0                          | -50.4                           | 116.9                           | 116.9             |                    |                     |         |                   |
| 0.4                            | n/a                             | n/a                             | n/a               |                    |                     |         |                   |

---

### Deviations from Standard CGSB - Test Parameters

**- Test data was not collected at all 8 recommended target building pressures.**

---

**BUILDING LEAKAGE TEST Page 4 of 4**

Date of Test: 5/19/2019 Test File: loosebrock final

---

**Comments**

None

---