

W. W. Schaefer Engineering & Consulting, P.A.

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ENGINEER'S EVALUATION REPORT #WWS-149

Prepared for:

C.P. Loewen Enterprises
77 Hwy 52 West
Steinbach, MB Canada R5G 1B2
Phone: (204) 326-6446

Prepared by:

Warren W. Schaefer, P.E.
Florida Professional Engineer #44135

Manufacturer: C.P. Loewen Enterprises

Product Category: Windows

Evaluation Method: 1-D (Engineer's evaluation)

Product model & name: Aluminum Clad Wood Impact Casement Window

Documents that must accompany this report:

1. W. W. Schaefer Engineering & Consulting drawing No. 1637

Window size restrictions and assembly requirements:

See drawing NO. 1637

Maximum allowable design pressure:

See drawing NO. 1637

Installation requirements:

See drawing No. 1637

Code compliance:

Code section(s) considered with this evaluation:

FBC Chapters 17 & 24

Mullions:

Mullion conditions stated in this approval have been tested in accordance with the test standards listed in this report and meet the requirements of FBC.

Wood Coatings:

All wood members shall be of an approved durable species or be treated in an approved method with an approved preservative per applicable codes and standards.

Test Standards applicable to the testing of these windows:

TAS-201, 202 & 203

ASTM E1886

ASTM E1996

AAMA/WDMA/CSA 101/I.S.2/A440

Test Laboratory: Architectural Testing, Inc. (currently Intertek) & Element Materials Technology

Test report numbers:

Architectural Testing: A8912.01-201-18, A8912.02-201-18, A8912.03-201-18, A8912.04-201-18, A8912.05-201-18, A8912.06-201-18, A8912.07-201-18, A8912.08-201-18, A8912.09-201-18, A8912.10-201-18, A8912.11-201-18 & A8912.12-201-18.

Element: ESP041159P.1, ESP041159P .3, ESP041159P.1 ASTM, ESP041159P .3 ASTM, ESP041159P.1 TAS & ESP041159P .3 TAS

UL Laboratory Canada: IM-0045-A

Note: All HVHZ test reports have been signed & sealed by a Florida P.E.

Compliance statement:

This product & its installations have been evaluated as required by the applicable Florida product approval rule and the Florida Building Code (FBC) and are found to be in compliance with each the rule, the Florida Building Code & all code required standards referenced here-in.

General report notes & system limitations:

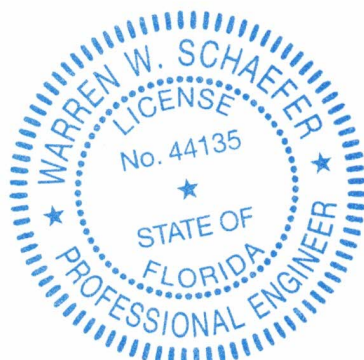
1. All size, configuration & installation conditions shown in this report and the referenced drawing No. 1637 are based off the referenced test reports and/or engineering analysis in accordance with the Florida Building Code.
2. Windows shall be constructed in accordance with the descriptions in this report, and the manufacturer's state approved quality assurance entity specifications.
3. This product is approved for use in & outside of the High Velocity Hurricane Zones (HVHZ).
4. Job required design wind pressure shall be calculated in accordance with the Florida Building Code Chapter 16 and ASCE 7 Minimum Design Loads for Buildings and Other Structures (0.85 directionality factor may apply).
5. These windows are both small & large missile impact rated for use in wind zone 4 & missile level "D" locations and need not be shuttered.
6. Any change to this product's components and/or assembly or its Florida approval without the knowledge & consent of W. W. Schaefer Engineering & Consulting, P.A. and Warren W. Schaefer, P.E. shall void this evaluation/certification and thus the products Florida approval.

Quality Assurance Entity: Window & Door Manufacturers Association (WDMA)

Disclaimers:

1. The parts, components, assembly & performance of this product, and liability there-of are the sole responsibility of the manufacturer and their quality assurance and shall be as tested unless stated otherwise in this evaluation report or the uploaded approval drawing No. 1637. Neither W. W. Schaefer Engineering & Consulting, P.A. nor Warren W. Schaefer, P.E. claim any responsibility for said parts, components, assembly or performance and shall be deemed responsible only for the evaluation of the product as stated here-in.

Warren W. Schaefer, P.E.
Florida P.E. #44135



Digitally signed
by Warren W
Schaefer
Date:
2026.03.31
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