

August 30, 2023

Mr. Dan Vezo
JELD-WEN, INC.
3737 Lakeport Blvd
Klamath Falls, Oregon 97601

RE: Equivalence of ASTM E1996-05, ASTM E1996-12a and ASTM E1996-14a

Dear Mr. Vezo:

At your request, I have reviewed the ASTM standard specification used for your product approvals to evaluate its equivalence to the same standard specification referenced by the Florida Building Code, Building, 8th Edition (2023). Specifically, I am comparing:

ASTM E1996-05 Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricanes.

ASTM E1996-014a Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricanes. (Reference Standard of 2023 FBC).

Noted differences between the standards include:

1. Addition of Annex A1 *Fenestration Substitutions* and Annex A2 *Impact Protective System Substitutions* to ASTM E1996-12a.
2. Wind Zone 4 pass/fail criteria in ASTM E1996-05 are more stringent than those in ASTM E1996-12a.
3. Addition of Annex A3 *Allowable Stress Design Wind Zones* to ASTM E1996-14a.
4. Wind Zone 4 requirements are moved to non-mandatory Appendix X4 *Additional Protection* in ASTM E1996-14a.

The noted differences do not affect the test specimen requirements or test methods or diminish the interpretation of results. It is my professional opinion that the standard specifications are equivalent.

MOLIMO, LLC

Michael D. Stremmel, PE

FL PE 65868

FL REG 37122

cc: file