

Evaluation Report FPA-ThermaSteel
September 4, 2024

Product Description: 5-1/2" Thermasteel Panels, Non-Impact

Manufacturer: ThermaSteel, Inc., 609 West Rock Road, Radford, VA 24141

Statement of Compliance: This report evaluates the above-listed product per the requirements of FAC Product Approval Rule Chapter 61G20-3.005 (4). This product complies with the requirements of the 8th Edition (2023) Florida Building Code for use outside the High Velocity Hurricane Zone. The product testing standards performed are outlined below.

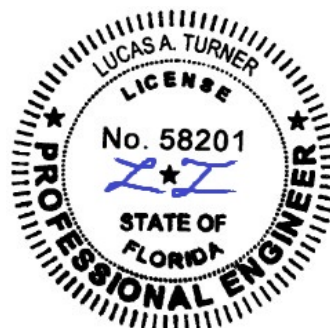
Technical Documentation:

- 1) This report, prepared by Lucas A. Turner, P.E., at 2428 Old Natchez Trc. Trl., Camden, TN
- 2) Test Reports P4546.01-109-18-r0 and P4551.01-119-18-r0, from Intertek York, PA, with testing performed with equivalency to:
ASTM E 72-22, ASTM E 283-19, ASTM E 330-21, ASTM E 331-16

Installation: Product must be constructed and installed per site-specific shop drawings signed/sealed by the design professional of record, who assumes full responsibility of the installed product. Selected examples of product construction and joinery are indicated in this Evaluation for reference of the tested product configuration; project details will vary as indicated in signed/sealed shop drawings, and are not limited to connection types indicated in this Evaluation. General manufacturer instructions may be found at <https://thermasteelinc.com>.

Limitations of Use: This product:

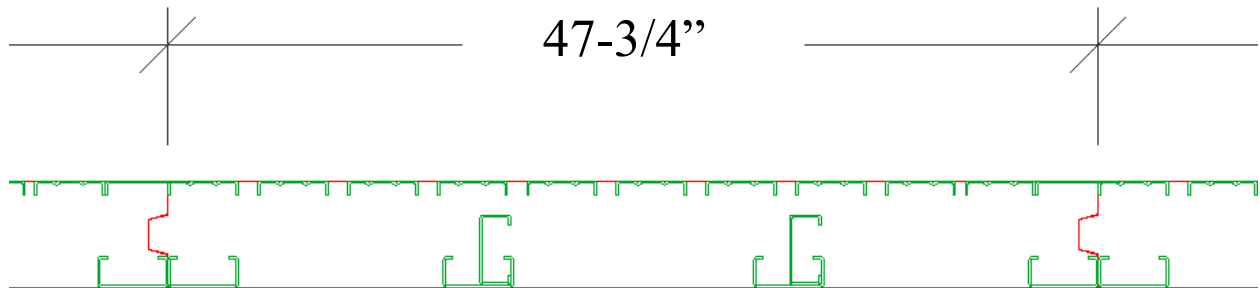
- Is a structural insulated light gauge steel construction panel consisting of EPS foam core with project-specified steel profiles utilized at exterior and interior of panel assembly.
- Is not impact rated and is not intended for designated windborne debris regions.
- May not be used in the High Velocity Hurricane Zone.
- Is not rated in this Evaluation for fire performance. Design professional signing/sealing site-specific project shop drawings takes responsibility for the interior and exterior finish/cladding requirements to achieve the overall fire rating of the complete wall assembly



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- Air/Water/Structural testing was performed on a product size of 5-1/2" depth multi-panel assembly with individual panel size of 47-3/4" width x 144-1/2" height. Foam was 1 psf, steel was 55 ksi min., G-60 Galvanized, with exterior 24-gauge "C" channels at 4-5/8" on-center and with interior 20-gauge "CSJ" spaced 16" on-center with long side parallel to the panel face and at the two middle locations an additional "CSJ" perpendicular to the panel face:



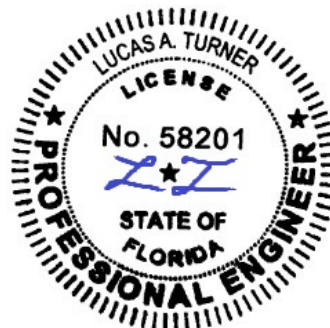
In this configuration, in laboratory conditions this product achieved:

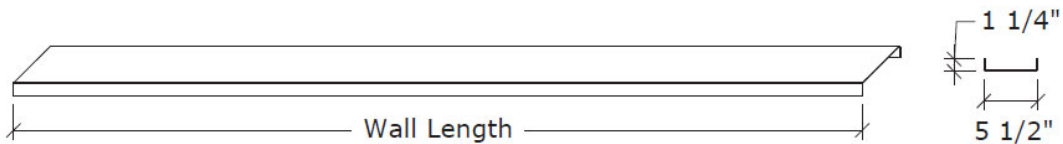
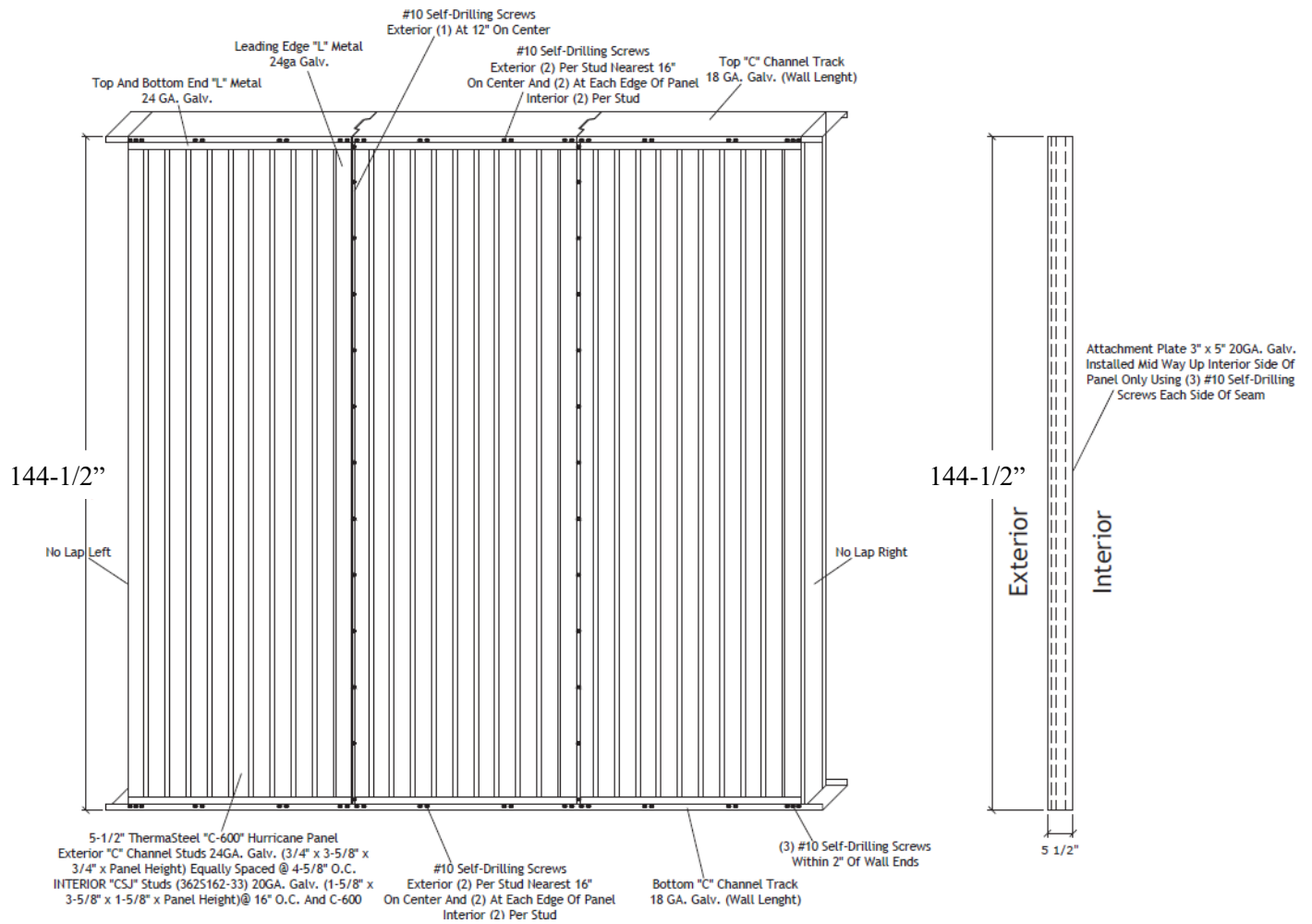
- 0.01 or less cfm/ft² air infiltration and exfiltration per ASTM E 283
- 11.25 psf water penetration resistance (correlates to 75 psf positive ASD Design Pressure water rating, with water at 15% of DP) per ASTM E 331
- Allowable ASD windload design pressure of 60 psf (includes Factor of Safety or FOS of 1.5) per ASTM E 330, with L/180 deflection

In this same panel configuration with testing performed for each Section test on three specimens, of one panel each for Sections 9 and 10 and two-panel assemblies for Section 14, in laboratory conditions this product achieved:

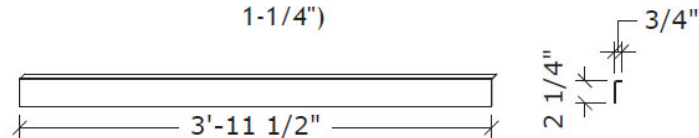
- Ultimate compressive load of 9073 plf per ASTM E 72 Section 9.
- Ultimate tensile load of 1647 plf per ASTM E 72 Section 10
- Ultimate racking shear load of 1201 plf per ASTM E 72 Section 14
- ASTM E 72 test values listed are average ultimate failure loads achieved with no FOS applied, and shall be reduced by all applicable factors/multipliers by the design professional of record for each project.

As-tested product details were as follows:

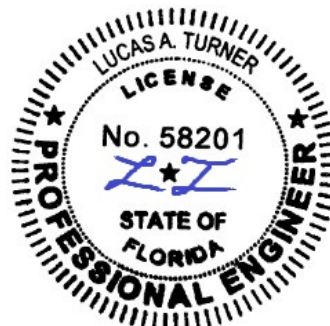


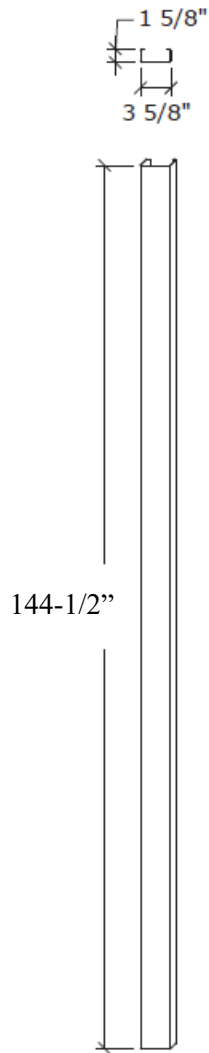


Bottom And Top "C" Channel Track
 18 GA. Galv. (1-1/4" x 5-9/16" x
 1-1/4")

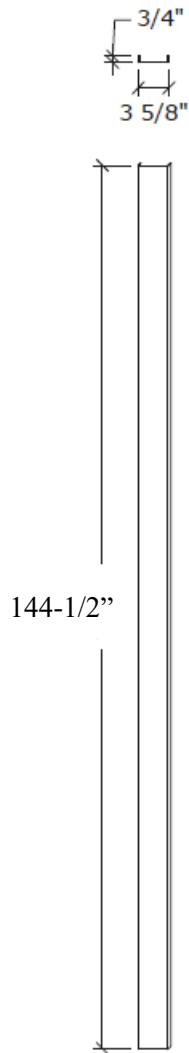


Top And Bottom End "L" Metal
 24 GA. Galv. (3/4" x 2-1/4" x Panel Width)
 4 Required Per Panel

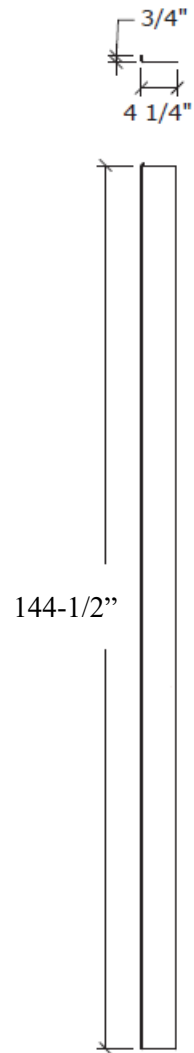




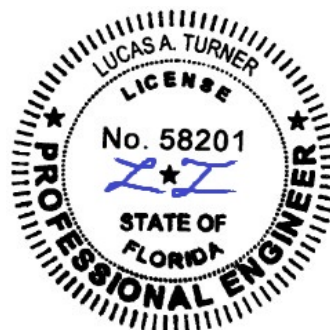
"CSJ" Stud
20 GA. Galv.
 $1\frac{5}{8}" \times 3\frac{5}{8}" \times 1\frac{5}{8}" \times \text{Panel Height}$
6 Required Per Panel

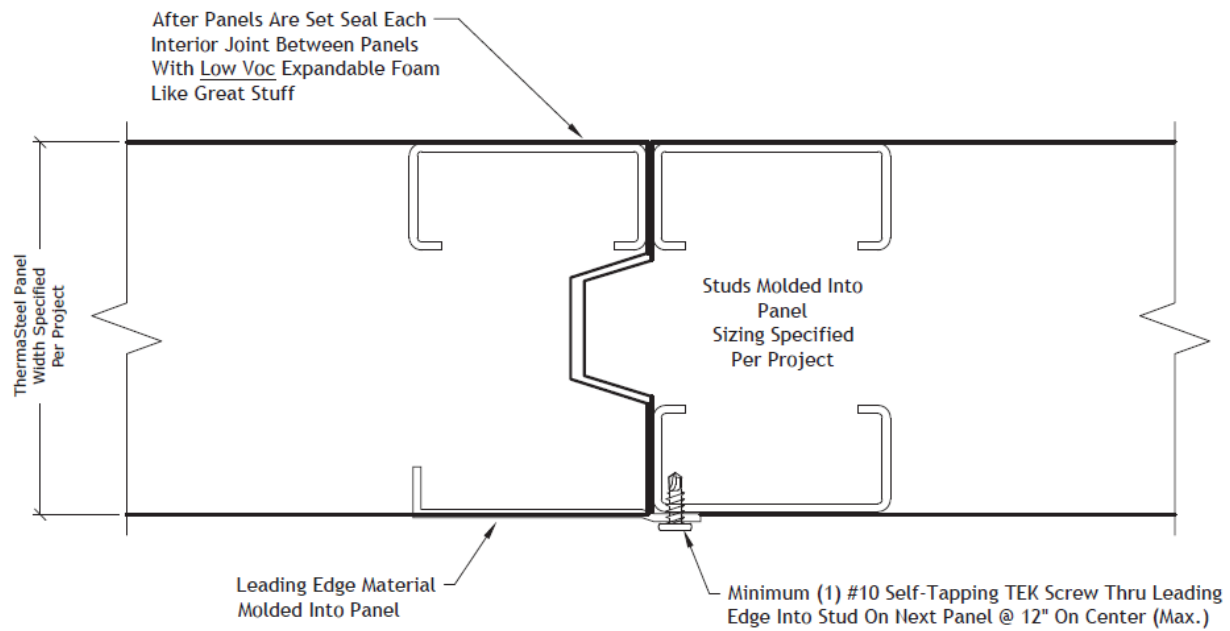


"C" Channel Stud
24 GA. Galv.
 $\frac{3}{4}" \times 3\frac{5}{8}" \times \frac{3}{4}" \times \text{Panel Height}$
10 Required Per Panel

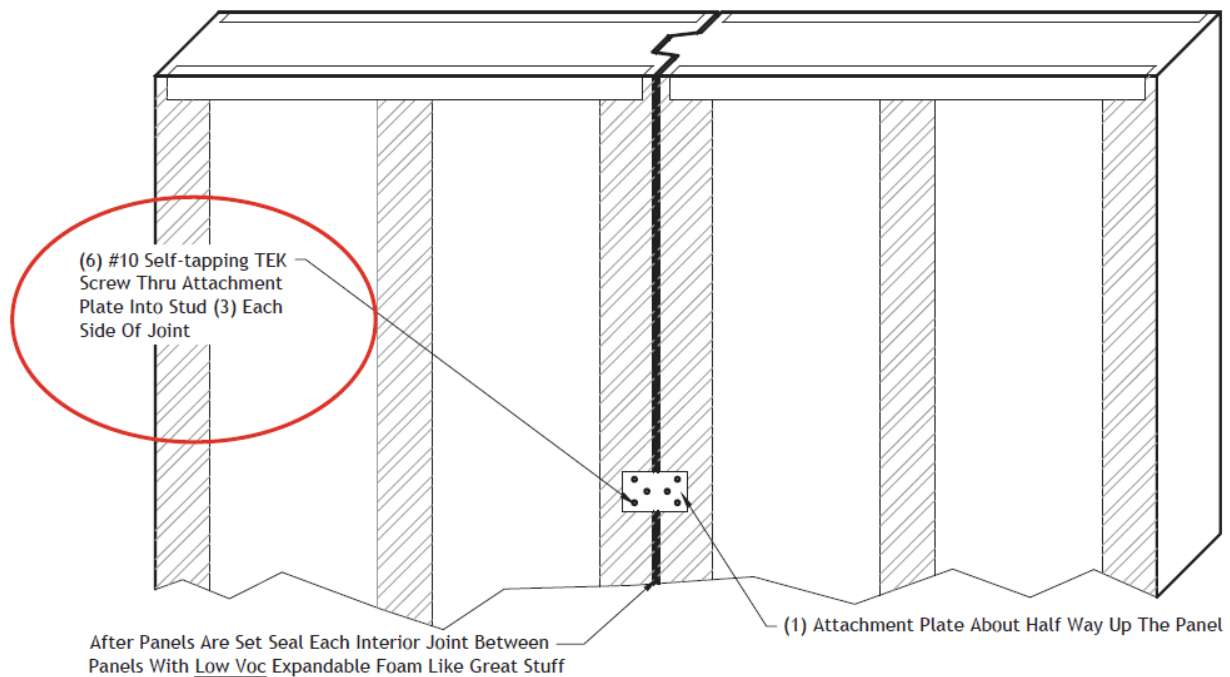


Leading Edge "L" Metal
24 GA. Galv.
 $\frac{3}{4}" \times 4\frac{1}{4}" \times \text{Panel Height}$
1 Required Per Panel

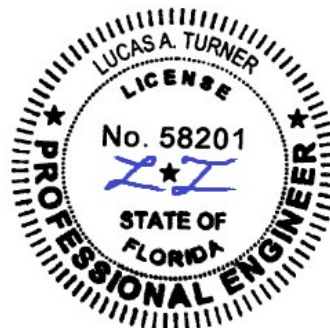




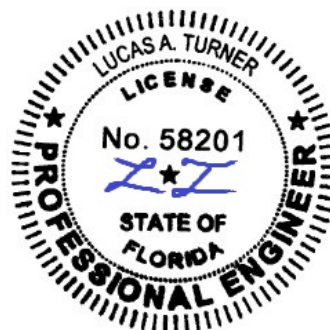
Typical Panel To Panel Joint Connection



Typical Interior Attachment Plate Connection



Certification of Independence: I do not have, nor do I intend to acquire, nor will I acquire, a financial interest in ThermaSteel, or in any company manufacturing or distributing products for which this report is being issued. I do not have, nor do I intend to acquire, nor will I acquire, a financial interest in any other entity involved in the testing or approval process of this product.



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