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RESEARCH REPORT: RR 26185

Expire: January 1, 2023  
Issued Date: February 1, 2021  
Code: 2020 LABC

## **GENERAL APPROVAL –Renewal – Facet/Flat Roof Attachment System**

### **DETAILS**

The Sustainable Technologies Facet / IronRidge Flat Roof Attachment (FRA) is an aluminum alloy plate attachment, in compliance with JIS-H5302 Grade ADC12 (AA Grade 384 / ASTM B85 Grade SC114A), used for connecting equipment to the rooftop of a building or structure. The product is available under two different brand names, the “Facet” and the “FRA”. The Facet / FRA is attached through the roof surface with approved fasteners in compliance with 2020 LABC, manufacturer published installation instructions and this general approval. The optional Facet/FRA flashing cover provides a positive attachment for single-ply, asphalt, and/or coated flat roof surfaces.

Ultimate tension and shear loads for the plate system are specified below. A factor of safety of 3.0 shall be applied to the ultimate loads shown. No increase for short-term loading shall be permitted.

Ultimate Tensile Load	= 12,777	lbs
Ultimate Shear Load	= 6,796	lbs

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**The approval is subject to the following conditions:**

1. The Facet / FRA Rooftop Attachment System must be installed in accordance with the manufacturer's published installation instructions, the 2020 Los Angeles Building Code and this general approval. A copy of the manufacturer's installation instructions shall be available at the job site.
2. The capacity of the Facet/Flat plate fasteners and existing structure to support any additional imposed loads is beyond the scope of this general approval. The attachment of any equipment to the Facet plate is beyond the scope of this general approval.
3. Calculations demonstrating that the applied loads are less than the maximum allowable loads shall be submitted to the Department for each project. The calculations shall be prepared by a licensed engineer or architect registered in the State of California.
4. Details of the Facet/Flat plate attachment to the roof structure shall be submitted to the Department for review for each project. The details shall be prepared by a licensed engineer or architect registered in the State of California.
5. The Facet/Flat plate is manufactured under a quality assurance program with inspections by Intertek.
6. The Facet/Flat plate attachment system shall be identified with the manufacturer's name (Sustainable Technologies/IronRidge), trade name of the products (Facet/Flat Plate), and the Los Angeles Research Report Number (LARR 26185) on the product packaging.

Sustainable Technologies, LLC/IronRidge, Inc.  
RE: Facet/Flat Roof Attachment System

## **DISCUSSION**

The report is in compliance with the 2020 Los Angeles City Building Code.

The approval is based on tests and criteria on file with the Department.

This general approval of an equivalent alternate to the Code is only valid where an engineer and/or inspector of this Department has determined that all conditions of this Approval have been met in the project in which it is to be used.

Addressee to whom this Research Report is issued is responsible for providing copies of it, complete with any attachments indicated, to architects, engineers and builders using items approved herein in design or construction which must be approved by Department of Building and Safety Engineers and Inspectors.

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Attachment: Facet/Flat Plate Cut Sheets (2 Pages)