

Conclusion

The Roof Angel system was tested in accordance with EN795:2012 and CEN/TS 16415:2013, with the substrate ultimate load test used to verify suitability for design with a 2:1 safety factor for all locations.

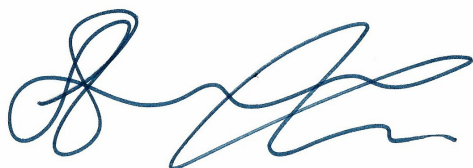
The substrate used in this test is a built up trapezoidal panel system with 0.7mm top deck

Testing was carried out in normal weather with ambient temperatures around 12 - 18 degrees and minimal moisture.

Results:

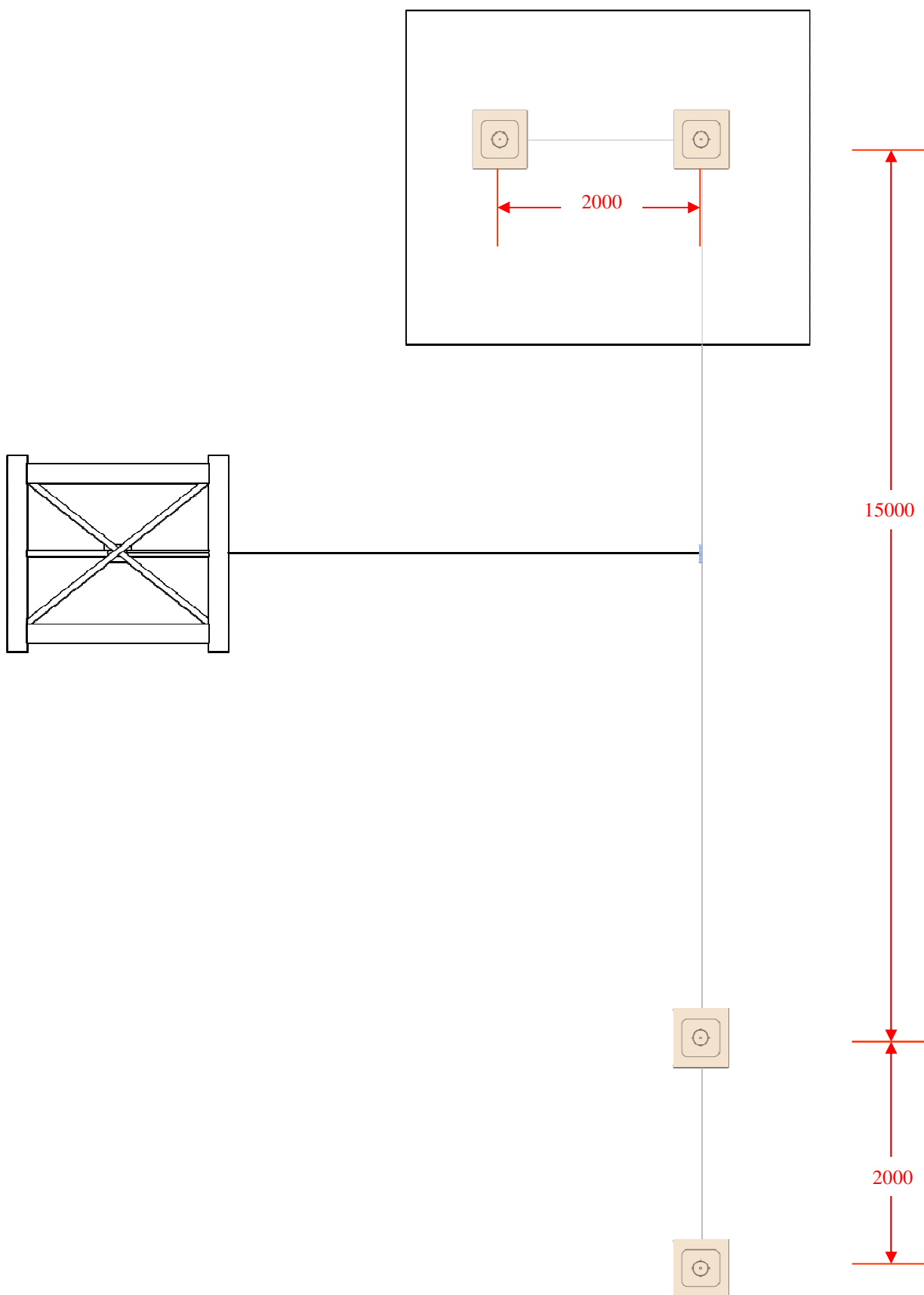
- | | | |
|------------------------------------|---------|-----------------------------|
| ○ EN 795:2012 | 1 User | Pass |
| ○ CEN/TS 16415:2013 | 2 Users | Pass |
| ○ CEN/TS 16415:2013 | 3 Users | Pass |
| ○ System Destruction Failure Point | | Sheet Failure at Rivet Hole |
| ○ System Destruction Failure Value | | 24.10kN |
| ○ Design loads for systems | | 12.05kN. |

Verified by

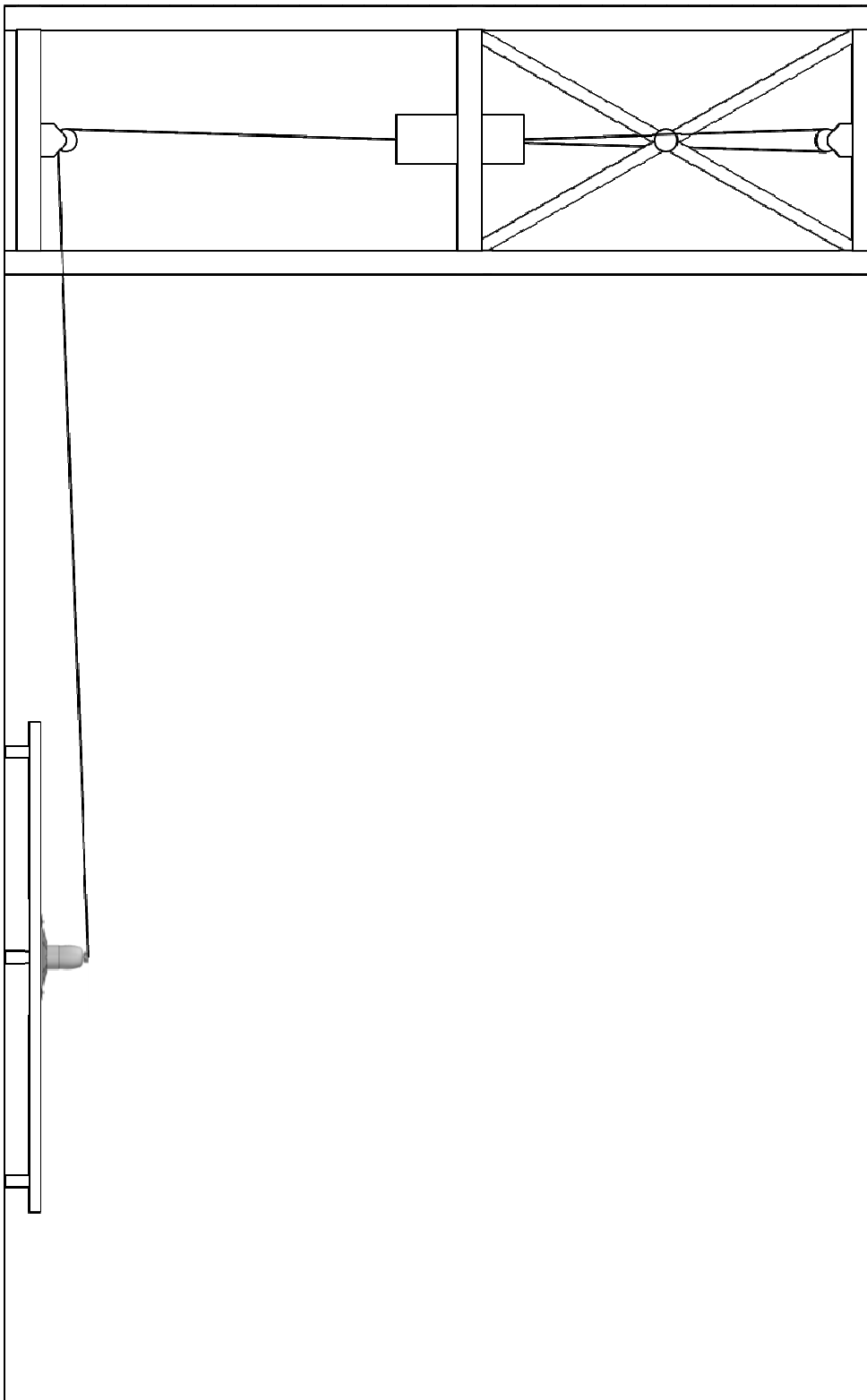


Steve Jervis

Test Layout



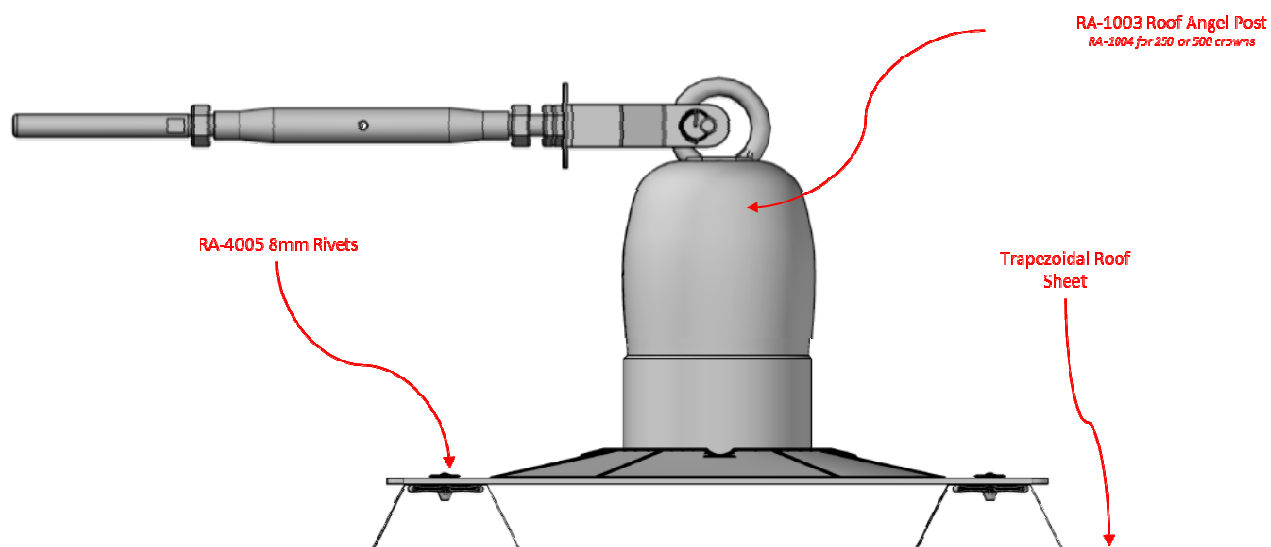
Test Layout



Sample Details

Roof Sample Material Construction	0.7mm Top Sheet Trapezoidal Steel Built Up System
Roof Sample Dimensions	2000x2000
Substructure Construction	Purlins on Steel to Manufacturers recommendations
Roof Angel Fixing Method	12 qty 8mm Bulb Type Rivets

Fixing Detail



Test Report

November 2018

Test Report Number	BSI-TBU-0614-01
Product Reference	Roof Angel
Part Numbers	RA-1016 Module RA-1017 Module
Standards Used	EN795:2012 Type A & Type C CEN/TS 16415:2013 for 3 users
Test Description	Roof Angel fitted to 0.7mm Top Sheet Trapezoidal Steel Built Up System
Date of Issue	June 3 rd 2014

Report Author	S Jervis
Testing Carried out by	A Harris, D Harrison
Witnessed By	W Ottley, S Jervis
Approved by	S Jervis

Report Notes

1. Tests are carried out to an interpretation of test methods and requirements specified in the standard or method specified.
2. Test samples have been stored in warehouse conditions and tested in an uncontrolled environment unless detailed otherwise.
3. Testing carried out in an outdoor environment.
4. Peak forces and arrest distances are stated based on the test method applicable to each result
5. The drop heights have been calibrated to meet the requirements of CEN/TS 16415:2013 and the requirements of EN 795: 2012
6. This report is the property of Bettersafe International BV and should not be passed to, or used by, any other party without written consent.