5697 North 13th Street
Omaha, NE 68110

April 5, 2019

Mr. Greg Albracht
GGGS LLC
13441 Erskine Street
Omaha, NE 68164
galbracht@icloud.com

Re: Report
Mechanical Testing of ¼-inch and 3/8-inch Aluminum Furring Strips
ESi Project No: 69818N

Dear Mr. Albracht:

Engineering Systems Inc (ESi) was retained by GGGS LLC to provide compression testing on two sizes of rolled aluminum furring strips. The testing was performed using a 1000-lb. capacity Instron Universal Testing machine.

The samples were cut to 4 inches in length. The height of the corrugations was measured using a dial caliper. Each sample was then placed between two 5/8-inch steel plates, which were placed between the fixed and moveable cross-head of the testing machine.

The cross-head was moved until just touching the upper platen, and the load and displacement values were zeroed. Displacement was then increased until the peak force had been achieved. The displacement was returned to zero and the size of the samples was re-measured.

Three samples of each size were tested, and the results of the testing are shown in the table below.

Sample (4 in. long)	Initial Corrugation (in.)	Max. Force (lbs.)	Deflection (in.)	Total Deflection (in.)
¼-in. A	0.225	596	0.176	0.049
¼-in. B	0.240	555	0.177	0.063
¼-in. C	0.228	569	0.196	0.032
AVG	**0.231**	**573**	**0.183**	**0.048**
3/8-in. A	0.325	1105	0.281	0.044
3/8-in. B	0.326	948	0.307	0.019
3/8-in. C	0.325	947	0.282	0.043
AVG	**0.325**	**1000**	**0.290**	**0.035**

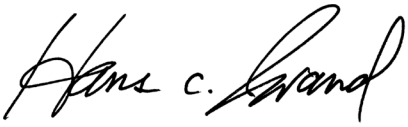
Conclusions

Based on the above referenced investigation and analysis, the following conclusions are provided to a reasonable degree of engineering (or scientific) certainty.

To determine the load per foot, the average maximum force is multiplied by 3.

1. Therefore, the nominally ¼-inch height strip will support 1719-lbs/ft. (573 lbs./4-inch sample times 3).
2. The nominally 3/8-inch furring strip will support 3000-lbs./ft. (1000 lbs./4-inch sample times 3).

Respectfully submitted,



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ESi