Shear Test

May 5, 2015

REPORT NUMBER: **HETI-15-M502**

MANUFACTURER: PROJECT CLASSIC STRUCTURAL ENGINEERING
7318 Texas Trail, Boca Raton, Florida 33487.

TEST LOCATION: Hurricane Engineering & Testing Inc.
6120 NW 97th Avenue, Doral, Florida, 33178

NOTIFICATION NUMBER: HETI14025 (MIAMI-DADE COUNTY, FLORIDA
LAB. CERTIFICATION No.: 10-1117.07 (MIAMI-DADE COUNTY, FLORIDA)
IAS. CERTIFICATION No.: TL-296 (ISO 17025-05)
FBC ORGANIZATION No: TST1691
FBPE Certificate of Authorization Number: 6905

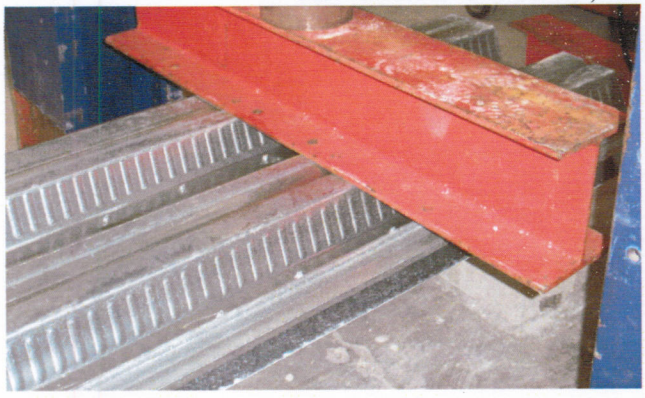
PRODUCT: Non Composite Panels
(See Hurricane Engineering & Testing, Inc. marked Drawing).

PRODUCT SIZE: 27" w x 248 ½" long x 6 1/8" deep
27" w x 284 ½" x 6 1/8" deep
27" w x 368 ½" x 6 1/8" deep

PRODUCT DESCRIPTION: Steel Panel (Reference Material Tensile Test Report No. HETI-15-T303, HETI-15-T304, HETI-15-T305)

DRAWING NO.: S7 by Project Classic Structural Engineering, dated 2/10/15
S8 by Project Classic Structural Engineering, Dated 2/9/15
S19 by Project Classic Structural Engineering, Dated 2/10/15

TEST WITNESSED BY: Syed Waqar Ali, Ph.D. (HETI)
Nasreen K. Ali, E.I. (HETI)
Eugenio Rivera (HETI)
Mr. Rafael E. Droz-Seda, P.E. (HETI)



20'-8" Product Description

Each sample was constructed by attaching (2) separate panel halves on top of each other to create the hexagon shaped steel frame. The panels were setup to create a 1 ½" camber at the center. The (2) panels were attached with (4) rows of (31) #10 x ¾" Hex Head Self Drilling Screws (HH SDS) located at 1 ½", 6 5/8", 12 ¾", 19 ½", 24 1/8", 30 5/8", 37", 44 ¾", 52 ¼", 64 5/8", 75 5/8", 85", 96 1/8", 104 ½", 111 ½", 124", 132 ½", 142 ¼", 151 5/8", 162 ½", 172 ¼", 182 ¾", 193 ¼", 201 3/8", 209 ½", 216 3/8", 222 ½", 228 ¾", 235 1/8", 240 ½", and 245 5/8" from the left end.

Individual Panel Size:	25 ½" w x 248 ½" long x 3 1/16" deep
Single Finished Panel Size:	27" w x 248 ½" long x 6 1/8" deep
Double Finished Panel Size:	51 5/8" w x 248 ½" long x 6 1/8" deep
Corrugated Panel Thickness:	16ga (0.060" with coating)
Concrete:	None

23'-8" Product Description

Each sample was constructed by attaching (2) separate panel halves on top of each other to create the hexagon shaped steel frame. The panels were setup to create a 1 7/8" camber at the center. The (2) panels were attached with (4) rows of (39) #10 x ¾" Hex Head Self Drilling Screws (HH SDS) located at 2", 6", 9 ½", 14 ¼", 20 ½", 22 3/8", 26 3/8", 32 ½", 39", 47", 55 ½", 61", 65 ¾", 74 ¼", 84 ¼", 95 ¼", 105 ¾", 114 ¾", 125", 134 ¾", 145 ¼", 155 ½", 165 ¾", 175 ½", 179", 189 ½", 199", 209", 218 ¾", 229", 238", 245 ¾", 252", 258 ¼", 264 ¼", 270", 274", 277 ½", and 282" from the left end. Next, an 18 gauge x 24 1/8" x 284 ¼" flat galvanized steel sheet was placed on top of the panel and was attached using (4) rows of (37) # 10 x ¾" HH SDS located at 1 5/8", 5 ¾", 9 ¼", 12 ¾", 19 1/8", 25", 33", 41", 49 5/8", 59 3/8", 69", 78 ¼", 88 3/8", 99 1/8", 109", 118 5/8", 129", 139", 142 ½", 148 ¾", 157 ½", 167 ½", 179 ¼", 189 ¾", 200", 209", 220", 230 ¾", 239 3/8", 246 7/8", 253", 258 ¾", 265", 269 ¾", 275", 278 ¾", and 282 ½" from the left end.

Individual Panel Size:	25 ½" w x 284 ½" long x 3 1/16" deep
Single Finished Panel Size:	27" w x 284 ½" long x 6 1/8" deep
Double Finished Panel Size:	51 5/8" w x 284 ½" long x 6 1/8" deep
Corrugated Panel Thickness:	18ga (0.048" with coating)
Reinforcement:	(1) 18ga (0.048" with coating) galv. steel flat sheet (24 1/8" w x 284 ¼")
Concrete:	None

30'-8" Product Description

Each sample was constructed by attaching (2) separate panel halves on top of each other to create the hexagon shaped steel frame. The panels were setup to create a 3 ½" camber at the center. The (2) panels were attached with (4) rows of (52) #10 x ¾" Hex Head Self Drilling Screws (HH SDS) located at 2", 6 ½", 10 ½", 15", 21", 26 ¼", 32", 39", 47", 54 ½", 66", 74", 81 ¼", 88 1/8", 94", 100 ½", 106 ¾", 110 ½", 114", 118", 125", 135 ½", 145 ½", 155 ¼", 165 ¼", 174 ¾", 185 ¼", 193 ½", 198 ¼", 202 ¼", 208 ¼", 214 ¼", 220", 227 ½", 235 ¼", 243 ½", 253", 263", 273 ¼", 283 ¾", 293 3/8", 303 3/8", 314 3/8", 322 ¼", 329", 336 3/8", 342 ½", 348 ¼", 354 ¼", 358", 362 3/8", and 366 ¼" from the left end. Next, (2) 18 gauge x 24 1/8" x 368 ¼" flat galvanized steel sheets were placed on top of the panel and were attached using (4) rows of (45) # 10 x ¾" HH SDS located at 2", 5 ½", 14", 21", 27", 32 ½", 40 ¼", 46 ¾", 55 ¼", 65 ½", 75 ½", 86", 95 ½", 105", 115 ½", 125 ½", 135", 145 ¼", 156", 166 ¼", 175 ½", 184 ¾", 193", 203

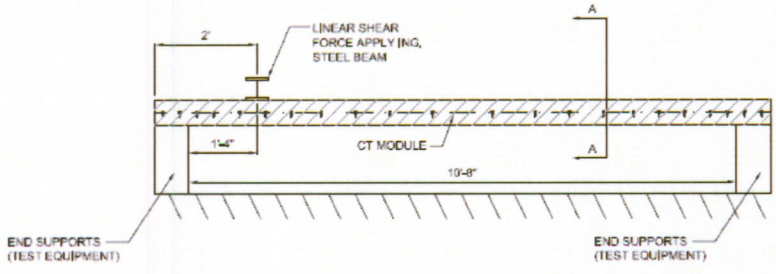
5/8", 214 ½", 224 ½", 234 ¼", 243", 254 ¾", 264", 274", 284 ½", 295 ¼", 303 ¼", 315 ½", 323 ½", 330 ½", 336 ½", 342 ¾", 349 ½", 355", 359", 363 ¼", and 366" from the left end.

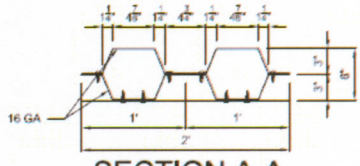
Individual Panel Size:	25 ½" w x 368 ½" long x 3 1/16" deep
Single Finished Panel Size:	27" w x 368 ½" long x 6 1/8" deep
Double Finished Panel Size:	51 5/8" w x 368 ½" long x 6 1/8" deep
Corrugated Panel Thickness:	16ga (0.048" with coating)
Reinforcement:	(2) 18ga (0.048" with coating) galv. steel flat sheet (24 1/8" w x 368 ¼")
Concrete:	None

Sample showing connection of (1) or (2) galv. flat steel sheets to the finished single panel for 23'-8" and 30'-8" samples. (Sample was flipped over to show connection. Flat sheet is installed on bottom of sample.)

Test Procedure: The shear load was applied by using a hydraulic pump, ram, load cell, and by using a 6 ½" x 8" I-beam the width of the sample to evenly apply the load across the sample.

Deflection Gage: The deflection was measured using linear variable differential transformers (LVDT, HETI-0172).





SECTION A-A

SCALE: 1" = 1'

TEST RESULTS

HETI-15-M502

(Test Date: February 9, 2015)

Non-Composite Sample without Holes. Shear Point at 24" from end. 16 Gauge Steel

Sample No.	Load (lbs)	Average Center Deflection (in)	Failure Mode
1	6,151	1.21	Local Buckling at Shear Point
2	6,392	1.14	Local Buckling at Shear Point

HETI-15-M503

(Test Date: February 10, 2015)

Non-Composite Sample without Holes. Shear Point at 24" from end.
18 Gauge Steel sample with 18 Gauge Flat support on bottom.

Sample No.	Load (lbs)	Average Center Deflection (in)	Failure Mode
1	6,938	1.25	Local Buckling at Shear Point
2	7,153	1.23	Local Buckling at Shear Point

HETI-15-M504

(Test Date: February 10, 2015)

Non-Composite Sample without Holes. Shear Point at 24" from end.
16 Gauge Steel sample with (2) 18 Gauge Flat supports on bottom.

Sample No.	Load (lbs)	Average Center Deflection (in)	Failure Mode
1	7,663	1.13	Local Buckling at Shear Point
2	8,605	1.23	Local Buckling at Shear Point

Conclusion

The samples were structurally intact at the conclusion of this test.

NOTE: The above results were obtained using the designated test methods that indicates compliance with the performance requirements of the referenced specifications. This report does not constitute certification of the specimens tested.

STATEMENT OF INDEPENDENCE

The Hurricane Engineering & Testing, Inc., does not have, nor does it intend to acquire or will acquire, a financial interest in any company manufacturing or distributing products teted or labeled by the Hurricane Engineering & Testing, Inc. Hurricane Engineering & Testing, Inc., is not owned, operated or controlled by any company manufacturing or distributing products it test or labels.

Dr. Nasreen K. Ali
Vice President

Mr. Rafael E. Diaz-Seda, P.E.
Resident Engineer