DIVISION: 05 00 00—METALS
SECTION: 05 40 00—COLD-FORMED METAL FRAMING
SECTION: 05 41 00—STRUCTURAL METAL STUD FRAMING
SECTION: 05 42 00—COLD-FORMED METAL JOIST FRAMING
DIVISION: 09 00 00—FINISHES
SECTION: 09 22 16.13—NON-STRUCTURAL METAL STUD FRAMING

REPORT HOLDER:
CUSTOM STUD, INC.

EVALUATION SUBJECT:
C.S.I. COLD-FORMED STEEL FRAMING

“2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence”
DIVISION: 05 00 00—METALS
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DIVISION: 09 00 00—FINISHES
Section: 09 22 16.13—Non-Structural Metal Stud Framing

REPORT HOLDER:
CUSTOM STUD, INC.

EVALUATION SUBJECT:
C.S.I. COLD-FORMED STEEL FRAMING

1.0 EVALUATION SCOPE
Compliance with the following codes:
- 2015, 2012 and 2009 International Residential Code® (IRC)

Property evaluated:
Structural

2.0 USES
The Custom Stud, Inc. (C.S.I.) cold-formed steel framing members are used for framing of nonload-bearing interior walls, curtain walls, and load-bearing walls, floors and roofs.

3.0 DESCRIPTION
3.1 General:
The C.S.I. cold-formed steel framing members, described in this report, are factory-formed from coils of steel at the facilities listed in Table 2. The cold-formed framing members include C-shapes (S-sections), tracks (T-sections), U-channels (U-sections) and hat furring channels (F-sections). The S-sections are manufactured with and without web punch-outs. All other framing members (T-sections, U-sections, and F-sections) are manufactured without punch-outs. When provided, the punch-outs have a width of 1 1/2 inches (38 mm) and a length of 4 inches (102 mm) in S-sections with a depth of 3 1/2 inches (89 mm) or greater. In S-sections with a depth between 1 7/8 inches (41 mm) and 2 1/2 inches (64 mm), punch-outs have a width of 3/4 inch (19 mm) and a length of 4 inches (102 mm). The punch-outs are spaced a minimum of 24 inches (610 mm) on center and have a minimum distance between the end of the member and the near edge of the punch-out of 10 inches (254 mm).

The C.S.I. S-sections, T-sections, U-sections, and F-sections are detailed in C.S.I.’s catalogue titled “Product Technical Guide”, dated March 2017 which is distributed with this report. The following tables, figures, and pages from the catalogue are part of this report:

Material Specification...........................................Page 4
General Product Information.................................Page 5

Note: In Note #9, replace “must be approved by a design professional” with “are outside the scope of this report.”

Definitions of Structural Property Symbols...............Page 6
Section Properties (S-Sections)............................Pages 7-14

Members with a web height-to-thickness ratio in excess of 200 are outside the scope of this report.

Note: Holes in the web of members with a web height to thickness ratio in excess of 200 are outside the scope of this report.

Members with a web height-to-thickness ratio in excess of 260 are outside the scope of this report.

Members with a web height-to-thickness ratio in excess of 260 or a flange width-to-thickness ratio in excess of 60 are outside the scope of this report.

Interior Nonload-Bearing Wall Heights—Composite

Tables—Composite .............................................Pages 19-20

Additional notes applicable to pages 19 and 20:
- Gypsum wallboard must be a minimum of 5/8 inch (15.9 mm) thick and Type X, complying with ASTM C1396 and manufactured by American Gypsum, CertainTeed, Georgia Pacific, Lafarge, National Gypsum, Temple-Inland, or USG.
- Fasteners for attaching the gypsum wallboard to the studs and tracks must be No. 6. Type S, fine thread drywall bugle head screws conforming to ASTM C1002.
- Installation of the gypsum wallboard must be in accordance with GA-216 or ASTM C840.
- Each gypsum wallboard panel must be attached to the top and bottom track with a minimum of 3 fasteners spaced a maximum of 16 inches (406 mm) on center.
**4.0 DESIGN AND INSTALLATION**

**4.1 IBC Method:** The section properties for the cold-formed steel framing members recognized in this report, have been determined in accordance with the applicable edition of the North American Specification for Design of Cold-Formed Steel Structural Members (AISI S100). The moments listed in this report are allowable moments and are used with Allowable Strength Design (ASD) for flexural members with the compression flange fully braced. For other conditions of compression flange bracing, the allowable moment must be determined in accordance with the applicable edition of AISI S100. The design of flexural members must address combined bending and web crippling, and combined bending and shear, as applicable, in accordance with the applicable edition of AISI S100.

**4.1.2 IRC Method:** The S-sections listed in Table 1 of this report qualify for use with prescriptive requirements of the IRC. T-sections with flange width of 1.250 inches (31.75 mm) or greater qualify for use with the prescriptive requirements of the IRC. For use of all other sections under the IRC, the cold-formed steel framing members must be limited to engineered structures, in accordance with IRC Section R301.1.3.

When the framing members are used to construct buildings that do not conform to the applicable requirements of IRC Sections R505.1, R603.1 or R804.1.1, and for framing members not identified in Table 1 of this report, the structural analysis and design must be in accordance with the IBC, as described in Section 4.1.1 of this report.

**4.2 Installation:**

The framing members must be installed in accordance with the applicable code, the approved plans and this report. If there is a conflict between the plans submitted for approval and this report, this report governs. The approved plans must be available at the jobsite at all times during the installation.

**5.0 CONDITIONS OF USE**

The C.S.I. metal framing members described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

**5.1** The cold-formed steel members must be installed in accordance with the applicable code, the approved plans and this report.

**5.2** Minimum uncoated base-metal thickness of the cold-formed steel members as delivered to the job site must be at least 95 percent of the design base-metal thickness.

**5.3** Complete plans and calculations verifying compliance with this report must be submitted to the code official for each project at the time of permit application. The calculations and drawings must be prepared and sealed by a registered design professional, and required by the statutes of the jurisdiction in which the project is to be constructed.

**5.4** Framing members cold-formed from NS33 steel are limited to use in interior non-load-bearing walls subject to a maximum 10 psf (478 Pa) transverse load. Framing members without the steel classification designated must be considered NS33 steel (see Section 7.0).

**5.5** Framing members with a height-to-thickness (h/t) ratio of more than 200 must be provided with web stiffeners in accordance with Sections B1.2 and C3.2.2 of AISI S100 and holes or punch-outs in the web are outside the scope of this report.

**5.6** The interior non-load-bearing wall assemblies are limited to interior installation where the superimposed axial load is zero pounds.

**5.7** Design of the attachment of the interior nonload-bearing wall assemblies to the surrounding structure is outside the scope of this report.

**6.0 EVIDENCE SUBMITTED**

**6.1** Data in accordance with the ICC-ES Acceptance Criteria for Cold-formed Steel Framing Members (AC46), dated June 2012 (editorially revised April 2015).
6.2 Data in accordance with the ICC-ES Acceptance Criteria for Cold-formed Steel Framing Members—Interior Nonload-bearing Wall Assemblies (AC86), dated May 2012 (editorially revised August 2015).

7.0 IDENTIFICATION

7.1 At a spacing not exceeding 96 inches (2440 mm) on center, each cold-formed steel member is stamped, stenciled or embossed with the report holder’s name or initials; the acronym "ICC-ES"; the evaluation report number (ESR-4024); and the minimum uncoated base-metal thickness in mils or decimal inches. For structural applications, the minimum yield strength and the protective coating designation (CP 60 or CP 90 as defined by AISI S200-12 or ASTM C955) are included. For non-structural applications, the minimum specified yield strength if over 33 ksi (230 MPa); the metallic coating type and weight if other than ASTM A653 G40; and the designation "NS" are included.

7.2 The report holder’s contact information is the following:

CUSTOM STUD, INC.
8415 220th STREET WEST
LAKEVILLE, MINNESOTA 55044
(952) 985-7000
www.customstud.com

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**TABLE 1—C SHAPES (S-SECTIONS) FOR USE WITH THE IRC**

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**TABLE 2—MANUFACTURING LOCATIONS**

<table>
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<tr>
<th>CUSTOM STUD, INC (C.S.I.)</th>
<th>CUSTOM STUD, INC (C.S.I.)</th>
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<tr>
<td>8415 220th STREET WEST</td>
<td>4542 BALDWIN AVENUE</td>
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<tr>
<td>LAKEVILLE, MINNESOTA 55044</td>
<td>MONTGOMERY, ALABAMA 36108</td>
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</table>
DIVISION: 05 00 00—METALS  
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REPORT HOLDER:  
CUSTOM STUD, INC.  

EVALUATION SUBJECT:  
C.S.I. COLD-FORMED STEEL FRAMING  

1.0 REPORT PURPOSE AND SCOPE  
Purpose:  
The purpose of this evaluation report supplement is to indicate that C.S.I. Cold-Formed Steel Framing, recognized in ICC-ES master evaluation report ESR-4024P, has also been evaluated for compliance with the codes noted below.  
Applicable code editions:  
- 2014 Florida Building Code—Building  
- 2014 Florida Building Code—Residential  

2.0 CONCLUSIONS  
The C.S.I. Cold-Formed Steel Framing, described in Sections 2.0 through 7.0 of the master evaluation report ESR-4024P, complies with the Florida Building Code—Building and the Florida Building Code—Residential, provided the design and installation are in accordance with the 2012 International Building Code® (IBC) provisions noted in the master report.  
Use of the C.S.I. Cold-Formed Steel Framing has also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the Florida Building Code—Building and Florida Building Code—Residential.  

Exception 1:  
On pages 7 through 18, of the C.S.I Product Technical Guide (Attached to ESR-4024P), members noted with Footnote 2 include cold work of forming in the allowable moment and have not been evaluated for compliance with the High-Velocity Hurricane Zone provisions of the Florida Building Code—Building and the Florida Building Code—Residential.  

Exception 2:  
Members with a base metal thickness of less than 0.0296 inch (0.752 mm) and a coating less than G90 have not been evaluated for compliance with the High-Velocity Hurricane Zone provisions of the Florida Building Code—Building and the Florida Building Code—Residential.  
For products falling under Florida Rule 9N-3, verification that the report holder’s quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).  

This supplement expires concurrently with the master report, reissued June 2019.