



Code Compliance Research Report CCRR-1073

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DIVISION: 05 00 00 – METALS
Section: 05 40 00 – Cold-Formed Metal Framing

DIVISION: 09 00 00 – FINISHES
Section: 09 22 16.13 – Non-Structural Metal Stud Framing

REPORT HOLDER:
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REPORT SUBJECT:
R-Stud Steel Framing Members

1.0 SCOPE OF EVALUATION

This Research Report addresses compliance with the following Codes:

- 2015 and 2012 *International Building Code* (IBC)
- 2015 and 2012 *International Residential Code* (IRC)

R-Stud has been evaluated for the following property:

- Structural

2.0 USES

R-Stud cold-formed steel framing members (studs and tracks) recognized in this report are used for framing of interior non-loadbearing wall assemblies that are gypsum wallboard sheathed.

3.0 DESCRIPTION

3.1 General:

3.1.1 The R-Stud members that are recognized in this report are limited to the products whose designations are found in Table 1.

3.1.2 R-Stud steel framing members are fabricated from Nonstructural Grade 50 (NS50) in accordance with ASTM A1003 steel specifications. Members have a minimum protective coating of G40 galvanization conforming to ASTM A653.

3.1.3 R-Studs are available in steel thicknesses of 0.0230 in. and 0.0347 in. for framing members in

depths of 3-5/8 in. and 6 in., respectively. See Figure 1 for profile details.

3.1.4 Track thicknesses and widths correspond to the stud dimensions. See Table 2 for recognized product designations.

3.1.5 Studs are manufactured with web openings, spaced every 12 in. on center throughout the stud length and shall not be located within 1 in. of the end of the stud. Web openings are as indicated in Figure 2.

3.1.6 Fasteners for attachment of gypsum wall board to 3-5/8 in. framing shall be #6 by 1-5/8 in. long, bugle-head phosphate fine thread drywall screws. For 6 in. framing, fasteners shall be #6 by 1-5/8 in. long, bugle-head zinc tek point drywall screws. All drywall screws shall comply with ASTM C1002. Fasteners are spaced a maximum of 12 in. on center for 24 in. stud spacing.

3.1.7 Gypsum wallboard shall be Georgia Pacific ToughRock Fireguard 5/8 in. thick Type X gypsum, manufactured complying with ASTM C1396.

3.2 Performance Characteristics:

3.2.1 R-Stud members recognized in this report are used in interior non-loadbearing wall assemblies, and shall be limited to interior installations where the superimposed axial load is zero pounds.

3.2.2 Allowable design loads shown in Table 2 were established by using test data obtained from testing of composite walls (i.e. gypsum wallboard-sheathed walls) conducted in accordance with ICC-ES AC86.

3.2.3 Non-loadbearing wall heights are limited by the lesser of the following: wall deflection; shear strength, web crippling strength, or flexural strength of the stud.

4.0 INSTALLATION

R-Stud framing members must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. The manufacturer's published installation instructions and this Research Report must be strictly adhered to, and a copy of the instructions must be available on the jobsite during installation.

4.1 Framing shall be in accordance with the Code requirements and referenced AISI standards therein for cold-formed steel light frame construction.

4.2 Gypsum board shall be installed full height on both faces of the wall with the panel length vertically oriented.

5.0 CONDITIONS OF USE

The R-Stud framing described in this Research Report complies with, or is a suitable alternative to, what is specified in those Codes listed in Sections 1.0 of this report, subject to the following conditions:

5.1 Installation must comply with this Research Report, the manufacturer's published installation instructions and the applicable Code. In the event of a conflict between the manufacturer's instructions and this report, this report shall govern.

5.2 All designs and calculations shall be prepared by a licensed design professional according to the requirements in the jurisdiction where the project is located.

5.3 Jobsite manufacturing of studs or tracks is outside the scope of this report.

5.4 The interior non-loadbearing wall assemblies shall be limited to interior installations where the superimposed axial load is zero pounds.

5.5 The minimum base steel thickness of the section delivered to the jobsite must be a minimum of 95% of the design thickness.

5.6 The R-Stud framing identified in this report is manufactured in Donald, Oregon by R-Stud Manufacturing in accordance with the manufacturer's approved quality control system with inspections by Intertek Testing Services NA, Inc. (AA-647).

6.0 SUPPORTING EVIDENCE

6.1 Manufacturer's drawings and installation instructions.

6.2 Reports of testing and engineering analysis in accordance with ICC-ES AC86, Acceptance Criteria for Cold-Formed Steel Framing Members – Interior Non-loadbearing Wall Assemblies, dated May 2012 (editorially revised August 2015).

6.3 Intertek Listing Report [R-Stud Steel Framing Members](#).

7.0 IDENTIFICATION

The R-Stud described in this Research Report is identified with labeling at a maximum of 96 in. that includes the following information:

7.1 The report holder's name (R-Stud, LLC.);

7.2 Framing member designation, uncoated metal thickness, yield strength if other than 33 ksi, galvanization coating if other than G40, and designation "NS";

7.3 Bundles of like members shall be identified with the Intertek Mark and Code Compliance Research Report number (CCRR-1073).

8.0 SUPPORTING EVIDENCE

This section is not applicable.

9.0 CODE COMPLIANCE RESEARCH REPORT USE

9.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

9.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

9.3 Reference to the Intertek website address: <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of this report.

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Table 1 - R-Stud Specifications

Designation	Stud Depth	Flange Length	Min Steel Thickness (Inches)	Gauge	Min. Yield Strength (ksi)
362S162-18	3-5/8 in.	1-5/8 in.	.0230	24	50
600S162-33	6 in.	1-5/8 in.	.0340	20	50

Table 2 - R-Stud Allowable Design Loads Established from Composite Wall Analysis
Maximum allowable wall height for the transverse uniform design load indicated (psf)

Designation	Stud Spacing	Maximum Allowable Wall Height	Deflection Limit		
			L/120	L/240	L/360
362S162-18	24 in.	10 ft.	10 psf	10 psf	7.5 psf
600S162-33	24 in.	10 ft.	10 psf	10 psf	10 psf

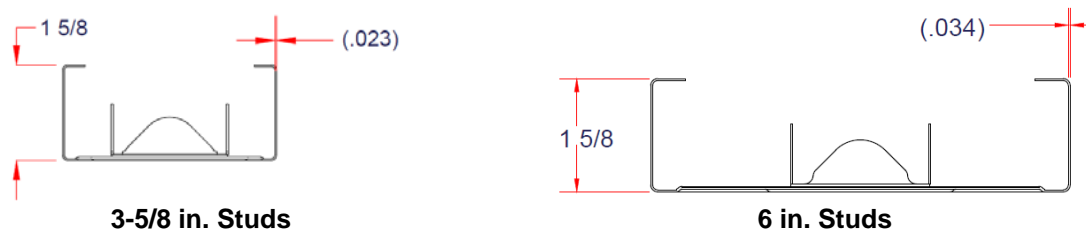


FIGURE 1 –Stud Profiles

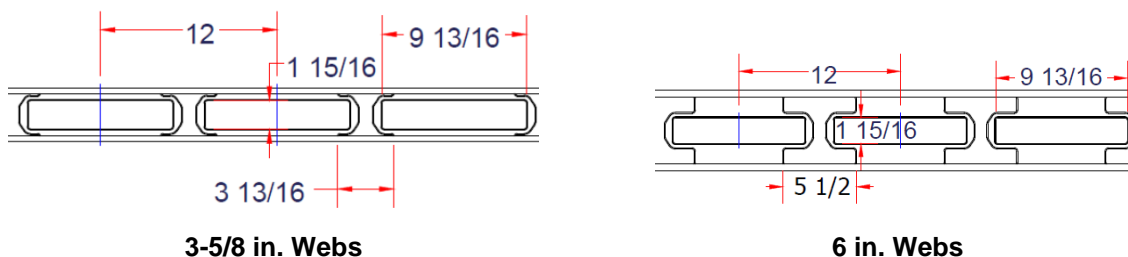


FIGURE 2 – Web Openings