



SFIA 137: Evaluation Reports for the Steel Framing Industry

Presenter: Don Allen, PE, SE, LEED AP

Date: July 18, 2024



**Approved
Continuing
Education**



- Welcome & housekeeping
- A word about SFIA
- Speaker introduction
- Presentation
- Q&A

Agenda

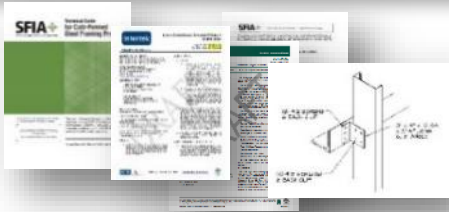


Welcome & Housekeeping

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- Mics are muted. Please ask any questions in the chat or Questions windows.
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Major Programs and Services: Tools, Information and Support

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Business Planning

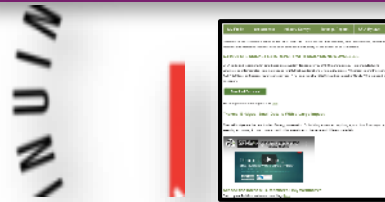
	Structural Tons Reported				Total
	Q1'19	Q2'19	Q3'19	Q4'19	2019
East	\$1,100	\$2,365	-	-	105,488
North Central	18,368	20,520	-	-	88,897
South Central	22,905	26,815	-	-	55,060
West	35,443	35,054	-	-	73,295
Total					
	Manufacturing Tons Reported				Total
	Q1'19	Q2'19	Q3'19	Q4'19	2019
East	61,583	56,000	-	-	1,815,541
North Central	21,179	21,172	-	-	44,711
South Central	22,840	24,899	-	-	47,198
West	24,017	27,826	-	-	51,823
Total	132,369	141,877	0	0	274,266



Architectural Services



Educational Programs



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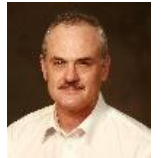
Advocacy



Certification



SFIA Staff





Introducing our Speaker!



Don Allen, P.E., S.E., LEED AP

Don Allen is Director of Technical Services for the Association of the Wall and Ceiling Industry (AWCI) has been involved in commercial and residential steel framing since 1990. As of August 1, 2024, Don will be joining the SFIA as its newest Executive Director!

Evaluation Reports for the Steel Framing Industry:

*When are they required,
and how should they be used?*

AWCI

ASSOCIATION OF THE
WALL AND CEILING
INDUSTRY

Presented by:

Don Allen P.E., S.E., LEED® A.P.

AWCI's director of technical services (now) allen@awci.org

SFIA's executive director (Starting August 1) allen@steel framing.org

SFIA 

STEEL FRAMING INDUSTRY ASSOCIATION



Credit(s) earned on completion of this course will be reported to **AIA CES** for AIA members. Certificates of Completion for both AIA members and non-AIA members are available upon request.

This course is registered with **AIA CES** for continuing professional education. As such, it does not include content that may be deemed or construed to be an approval or endorsement by the AIA of any material of construction or any method or manner of handling, using, distributing, or dealing in any material or product.

Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.



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Course Description

We will discuss how evaluation reports and certification programs have been used, and when they are appropriate and not appropriate for steel framing products. Architects, engineers and building officials will learn when they should request evaluation reports, and contractors will learn how to respond when evaluation reports are requested or specified.



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Learning Objectives

1. Understand what code evaluation reports are, and how they are used in the wall/ceiling/framing industry.
2. Know when evaluation reports are not required on standard, code-approved framing products.
3. Identify when evaluation reports are required on nonstandard framing products.
4. Show where standard products are listed in building codes and code referenced documents from the American Iron and Steel Institute (AISI) and ASTM International.
5. Understand the role of 3rd party certification programs in the evaluation report process.
6. Discern what companies provide evaluation reports, and how these reports can be successfully used to streamline the submittal process on nonstandard products.

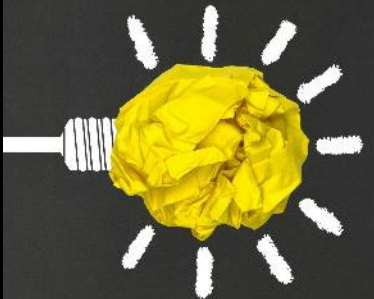


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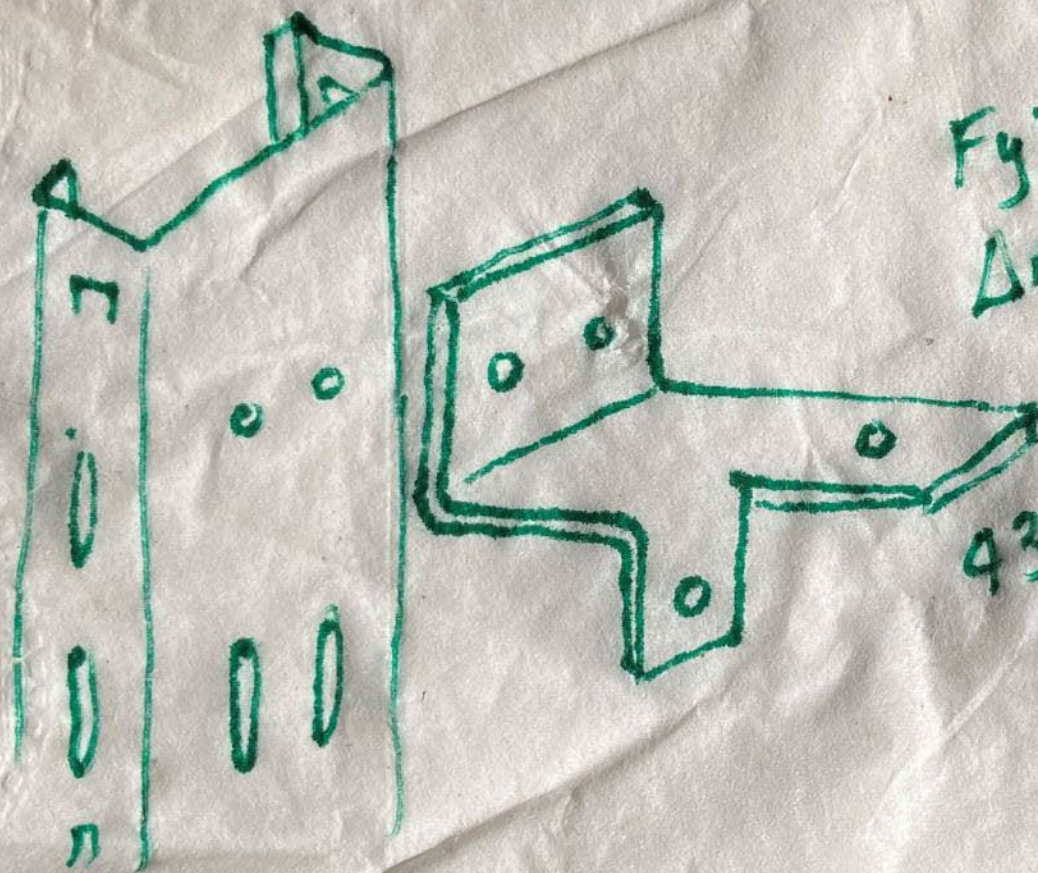


Evaluation Reports.

LEARNING OBJECTIVES



1. Understand what code evaluation reports are, and how they are used in the wall/ceiling/framing industry.
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6. Discern what companies provide evaluation reports, and how these reports can be successfully used to streamline the submittal process on nonstandard products.




$F_y = 55 \text{ KSI}$
 $\Delta_{MAX} = \frac{1}{8}''$

43-68 MIL

New Stud Widget

- Sometimes AC already exists
- Sometimes testing protocols in place.
- Check with ES before testing
- Review results
- Send results and \$ to ES
- Let them know to what codes you want to show compliance.
- Possibly perform more evaluation
 - Different testing
 - Engineering review



EVALUATION Criteria

International Association of Plumbing and Mechanical Officials

Evaluation Criteria of
COLD-FORMED STEEL FRAMING
MEMBERS—INTERIOR NONLOAD-BEARING WALL ASSEMBLIES

EC 004-XXXX

1.0 INTRODUCTION

1.1 Purpose: An IAPMO ES Evaluation Criteria that defines the evaluating and testing procedure for structural performance of vertical cold-formed steel framing members (studs) used in non-loaded-bearing, interior wall assemblies along with establishing wall height limits for recognition in IAPMO Evaluation Service, L.L.C. evaluation reports under the 2006 *International Building Code*® (IBC), the 2006 *International Residential Building Code*® (IRC), and 2007 *California Building Code* (CBC). Bases of recognition are IBC Section 104.11, IRC Section R104.11 and CBC Section 108.7.

Based on stiffness and strength characteristics of interior non load-bearing wall assemblies, consisting of cold-formed steel studs and gypsum panel products installed on one or both sides of the wall such that the wall responds to transverse loading as an assembly, this criteria establishes an empirical method of determining wall height limits. This method is an alternate to the sheathing-braced design defined in the building codes for cold-formed steel stud wall assemblies resisting transverse loads.

1.2 Scope: This criteria is applicable to the design of field-fabricated interior non loading-bearing walls when using the Allowable Stress Design (ASD) method where the superimposed axial design load is zero pounds and the transverse design loads are limited to 5, 7 ½, 10, and 15 psf (240, 360, 480, and 720 Pa).

1.3 Codes and Referenced Standards:

1.3.1 2006 *International Building Code*® (IBC) International Code Council.

1.3.2 2006 *International Residential Code*® (IRC),

International Code Council.

1.3.3 2007 California Building Code

1.3.4 AISI General-04, Steel Framing—General Practice and Steel Institute.

1.3.5 AISI WSD-04, Standard Framing—wall Stud Design, Institute.

1.3.6 AISI NAS-01, North American Design of Cold-formed Steel Supplement, American

1.3.7 ASTM A 370-05, Standard Definitions for Mechanical Testing of Steel Products, ASTM International.

1.3.8 ASTM C 473-03, Standard Physical Testing of Gypsum Products, ASTM International.

1.3.9 ASTM C 1178-04, Standard Test Method for Coated Glass Mat Water-Resistant Gypsum Panel, ASTM International.

1.3.10 ASTM C 1278-03, Standard Test Method for Fiber-Reinforced Gypsum Panel, ASTM International.

1.3.11 ASTM C 1396-02, Standard Test Method for Gypsum Board, ASTM International.


1.3.12 ASTM E 72-02, Standard Test Method for Conducting Strength Tests of Assemblies of Building Construction, ASTM International.

1.4 Definitions:

1.4.1 Interior Non loading-

ICC EVALUATION SERVICE, INC.

Evaluate • Inform • Protect



ACCEPTANCE CRITERIA FOR COLD-FORMED STEEL FRAMING MEMBERS

AC46

Approved June 2006

Effective July 1, 2006

Previously approved October 2004, January 2001, March 2000, April 1998, January 1994

PREFACE

Evaluation reports issued by ICC Evaluation Service, Inc. (ICC-ES), are based upon performance features of the International family of codes and other widely adopted code families, including the Uniform Codes, the BOCA National Codes, and the SBCCI Standard Codes. Section 104.11 of the *International Building Code*® reads as follows:

The provisions of this code are not intended to prevent the installation of any materials or to prohibit any design or method of construction not specifically proscribed by this code, provided that any such alternative has been approved. An alternative material, design or method of construction shall be approved where the building official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.

Similar provisions are contained in the Uniform Codes, the National Codes, and the Standard Codes.

This acceptance criteria has been issued to provide all interested parties with guidelines for demonstrating compliance with performance features of the applicable code(s) referenced in the acceptance criteria. The criteria was developed and adopted following public hearings conducted by the ICC-ES Evaluation Committee, and is effective on the date shown above. All reports issued or reissued on or after the effective date must comply with this criteria, while reports issued prior to this date may be in compliance with this criteria or with the previous edition. If the criteria is an updated version from the previous edition, a solid vertical line (|) in the margin within the criteria indicates a technical change, addition, or deletion from the previous edition. A deletion indicator (→) is provided in the margin where a paragraph has been deleted if the deletion involved a technical change. This criteria may be further revised as the need dictates.

ICC-ES may consider alternate criteria, provided the report applicant submits valid data demonstrating that the alternate criteria are at least equivalent to the criteria set forth in this document, and otherwise demonstrate compliance with the performance features of the codes. Notwithstanding that a product, material, or type or method of construction meets the requirements of the criteria set forth in this document, or that it can be demonstrated that valid alternate criteria are equivalent to the criteria in this document and otherwise demonstrate compliance with the performance features of the codes, ICC-ES retains the right to refuse to issue or renew an evaluation report, if the product, material, or type or method of construction is such that either unusual care with its installation or use must be exercised for satisfactory performance, or if malfunctioning is apt to cause unreasonable property damage or personal injury or sickness relative to the benefits to be achieved by the use of the product, material, or type or method of construction.

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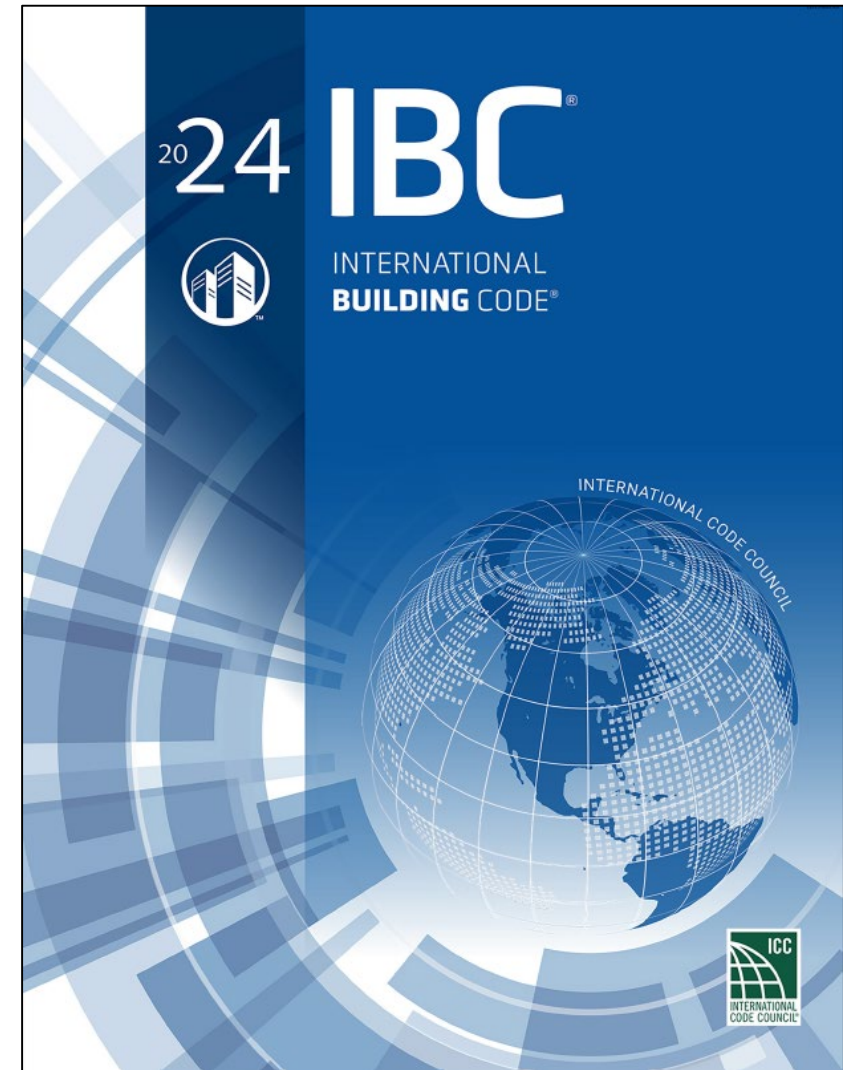
IBC Scope & Purpose

INTRODUCTION TO THE INTERNATIONAL BUILDING CODE

The *International Building Code* establishes minimum requirements for building systems using prescriptive and performance-related provisions. It is founded on broad-based principles that make possible the use of new materials and new building designs.

The IBC is a model code that provides minimum requirements to safeguard the public health, safety and general welfare of the occupants of new and existing buildings and structures. It addresses structural strength, means of egress, sanitation, adequate lighting and ventilation, accessibility, energy conservation and life safety in regard to new and existing buildings, facilities and systems.

Source: 2024 International Building Code, page 5 (in front matter, before chapter 1)

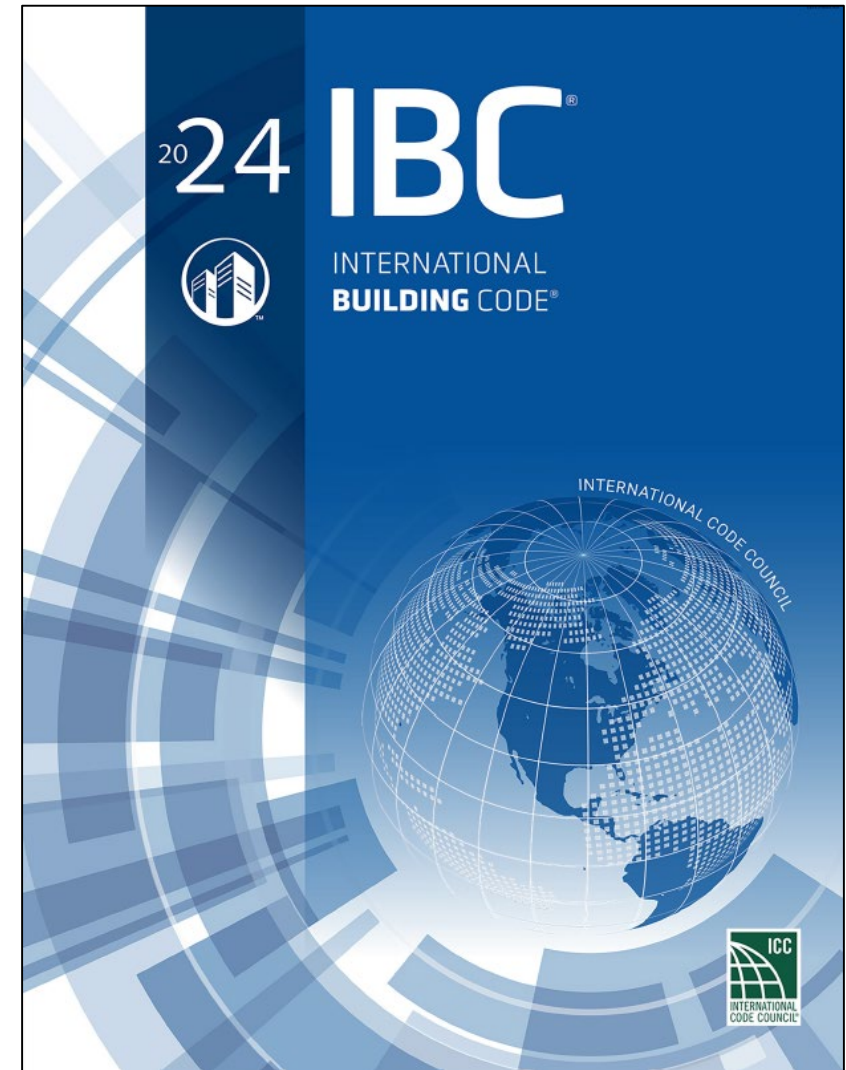


Some background: what is “Code Approved”?

[A] APPROVED. Acceptable to the *building official*.

[A] 104.9 Approved materials and equipment.

Materials, equipment and devices *approved* by the *building official* shall be constructed and installed in accordance with such approval.



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104.2 Determination of Compliance. The *building official* shall have the authority to determine compliance with this code, to render interpretations of this code and to adopt policies and procedures in order to clarify the application of its provisions.

104.2.3 Alternative materials, design and methods of construction and equipment. The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been *approved*.

[A] APPROVED. Acceptable to the *building official*.



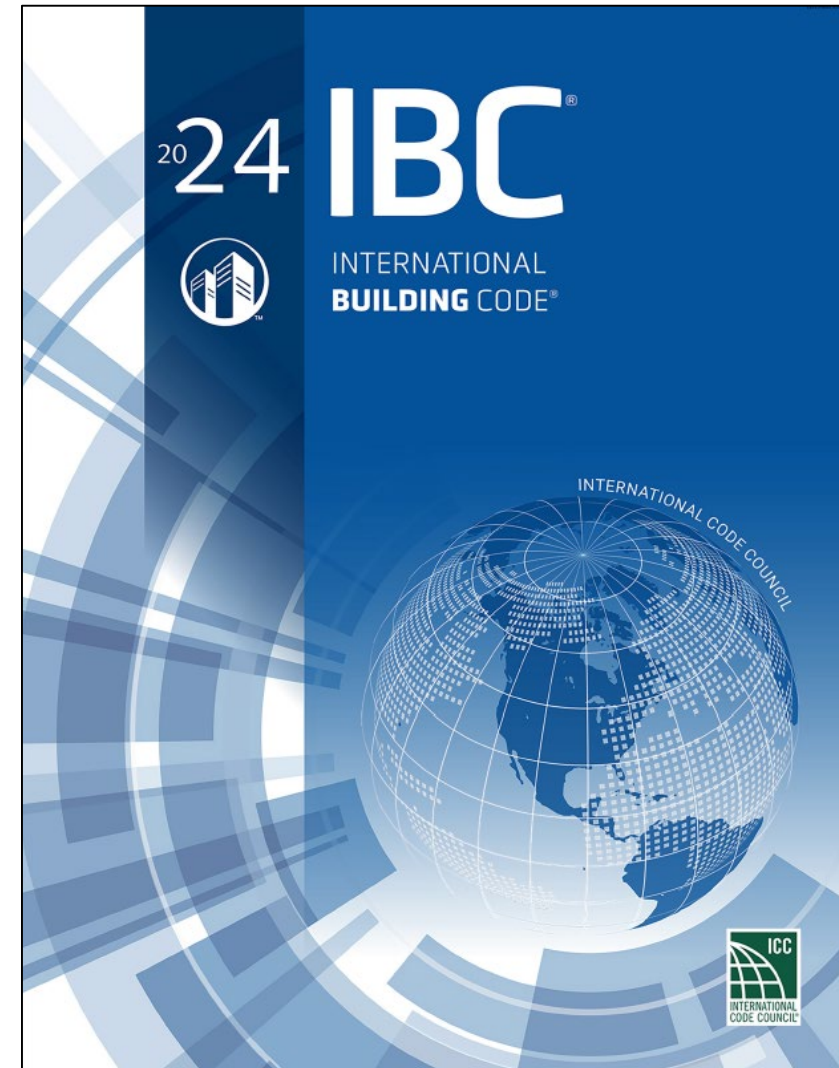
104.2.3.1 Approval authority. An alternative material, design or method of construction shall be *approved* where the *building official* finds that the proposed alternative is satisfactory and complies with Sections 104.2.3 through 104.2.3.7, as applicable.

[A] 104.2.3.2 Application and disposition. Where required, a request to use an alternative material, design or method of construction shall be submitted in writing to the *building official* for approval. Where the alternative material, design or method of construction is not *approved*, the *building official* shall respond in writing, stating the reasons the alternative was not *approved*.

[A] 104.2.3.3 Compliance with code intent. An alternative material, design or method of construction shall comply with the intent of the provisions of this code.

[A] 104.2.3.4 Equivalency criteria. An alternative material, design or method of construction shall, for the purpose intended, be not less than the equivalent of that prescribed in this code with respect to all of the following, as applicable:

1. Quality.
2. Strength.
3. Effectiveness.
4. Durability.
5. Safety, other than fire safety.
6. Fire safety.

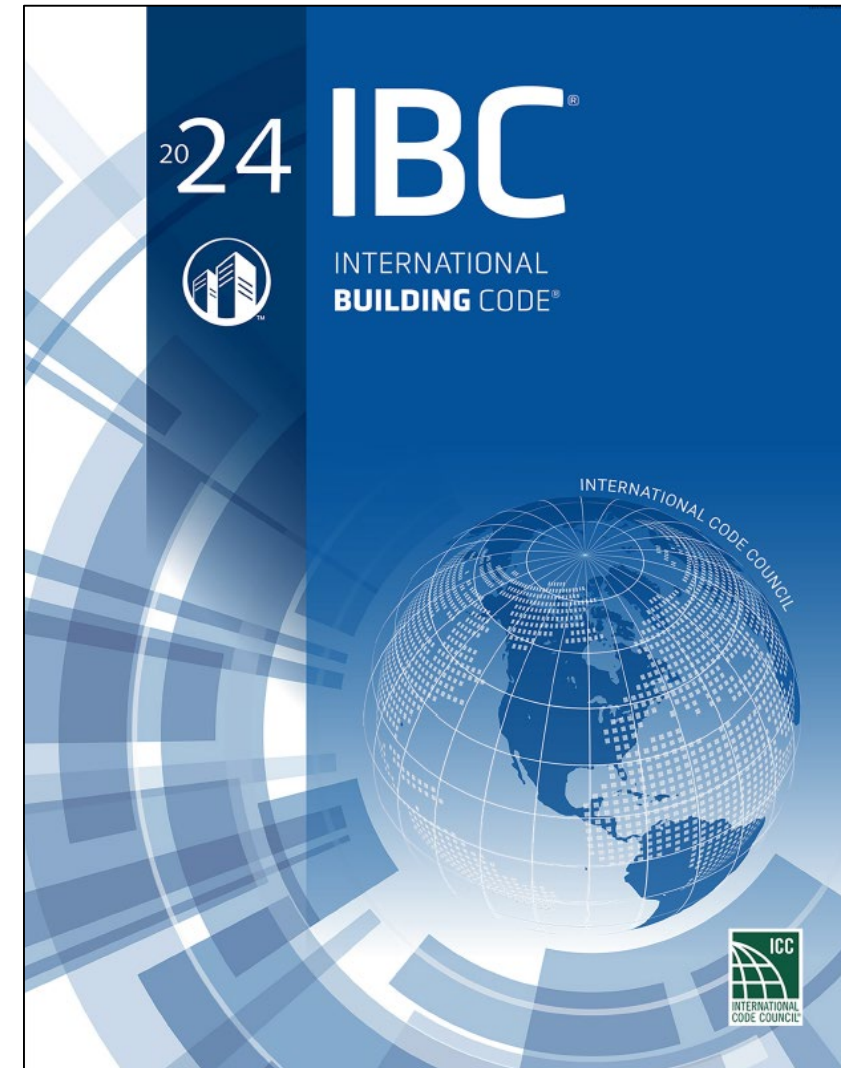


104.2 Determination of Compliance

104.2.3.6 Reports. Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this code, shall comply with Sections 104.2.3.6.1 and 104.2.3.6.2.

104.2.3.6.1 Evaluation reports. Evaluation reports shall be issued by an *approved agency* and use of the evaluation report shall require approval by the *building official* for the installation. The alternate material, design or method of construction and product evaluated shall be within the scope of the building official's recognition of the *approved agency*. Criteria used for the evaluation shall be identified within the report and, where required, provided to the *building official*.

104.2.3.6.2 Other reports. Reports not complying with Section 104.2.3.6.1 shall describe criteria, including but not limited to any referenced testing or analysis, used to determine compliance with code intent and justify code equivalence. The report shall be prepared by a qualified engineer, specialist, laboratory or specialty organization acceptable to the *building official*. The *building official* is authorized to require design submittals to be prepared by, and bear the stamp of, a *registered design professional*.



APPENDIX K—ADMINISTRATIVE PROVISIONS

SECTION K107—PREFABRICATED CONSTRUCTION

K107.1 Prefabricated construction. Prefabricated construction is subject to Sections K107.2 through K107.5.

K107.2 Evaluation and follow-up inspection services. Prior to the approval of a prefabricated construction assembly having concealed electrical work and the issuance of an electrical *permit*, the *building official* shall require the submittal of an **evaluation report** on each prefabricated construction assembly, indicating the complete details of the electrical system, including a description of the system and its components, the basis upon which the system is being evaluated, test results and similar information, and other data as necessary for the *building official* to determine conformance to this code.

K107.3 Evaluation service. The *building official* shall designate the evaluation service of an *approved agency* as the evaluation agency and review such agency's **evaluation report** for adequacy and conformance to this code.

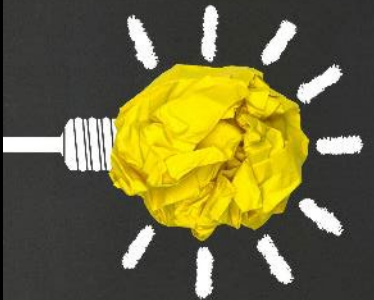
K107.4 Follow-up inspection. Except where ready access is provided to electrical systems, service equipment and accessories for complete inspection at the site without disassembly or dismantling, the *building official* shall conduct the in-plant inspections as frequently as necessary to ensure conformance to the *approved evaluation report* or shall designate an independent, *approved* inspection agency to conduct such inspections. The inspection agency shall furnish the *building official* with the follow-up inspection manual and a report of inspections upon request, and the electrical system shall have an identifying *label* permanently affixed to the system indicating that factory inspections have been performed.

K107.5 Test and inspection records. Required test and inspection records shall be available to the *building official* at all times during the fabrication of the electrical system and the erection of the building; or such records as the *building official* designates shall be filed.





LEARNING OBJECTIVES



1. Understand what code evaluation reports are, and how they are used in the wall/ceiling/framing industry.
2. Know when evaluation reports are not required on standard, code-approved framing products.
3. Identify when evaluation reports are required on nonstandard framing products.
4. Show where standard products are listed in building codes and code referenced documents from the American Iron and Steel Institute (AISI) and ASTM International.
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SOUTHERN STANDARD BUILDING CODE

1807 — APPLICATION OF LIGHT GAUGE STEEL STUDS

When screw type steel framing members are used in non-load bearing and/or non-combustible fire resistive assemblies, they shall conform to the "Gypsum Association Specification for the Installation of Screw Type Steel Framing Members" to receive gypsumboard.

1808 — ALLOWABLE PARTITION HEIGHTS

TABLE NO. 1 — ALLOWABLE PARTITION HEIGHTS
BASED ON WALLBOARD AND NO. 25 GAUGE
STUDS¹ ACTING AS A COMPOSITE SECTION²

STUD SPACING (In Inches)	FACING ON EACH SIDE	STUD DEPTH (In Inches)					
		1 5/8	2 1/2	3 1/4	3 5/8	4	6
		HEIGHT IN FEET AND INCHES					
16	1/2"—one ply	11'0"	14'8"	17'10"	19'5"	20'3"	18'10"
24	1/2"—one ply	10'0"	13'5"	16'0"	17'3"	18'5"	17'8"
24	1/2"—two ply	12'4"	15'10"	18'3"	19'5"	20'8"	19'0"

¹ The tabulated stud heights are based on 25 gauge steel studs and installed in conformance with Gypsum Association specifications for installation of screw type steel framing members to receive gypsumboard.

² Gypsumboard product must have a minimum thickness of 1/2" and may be applied vertically or horizontally.

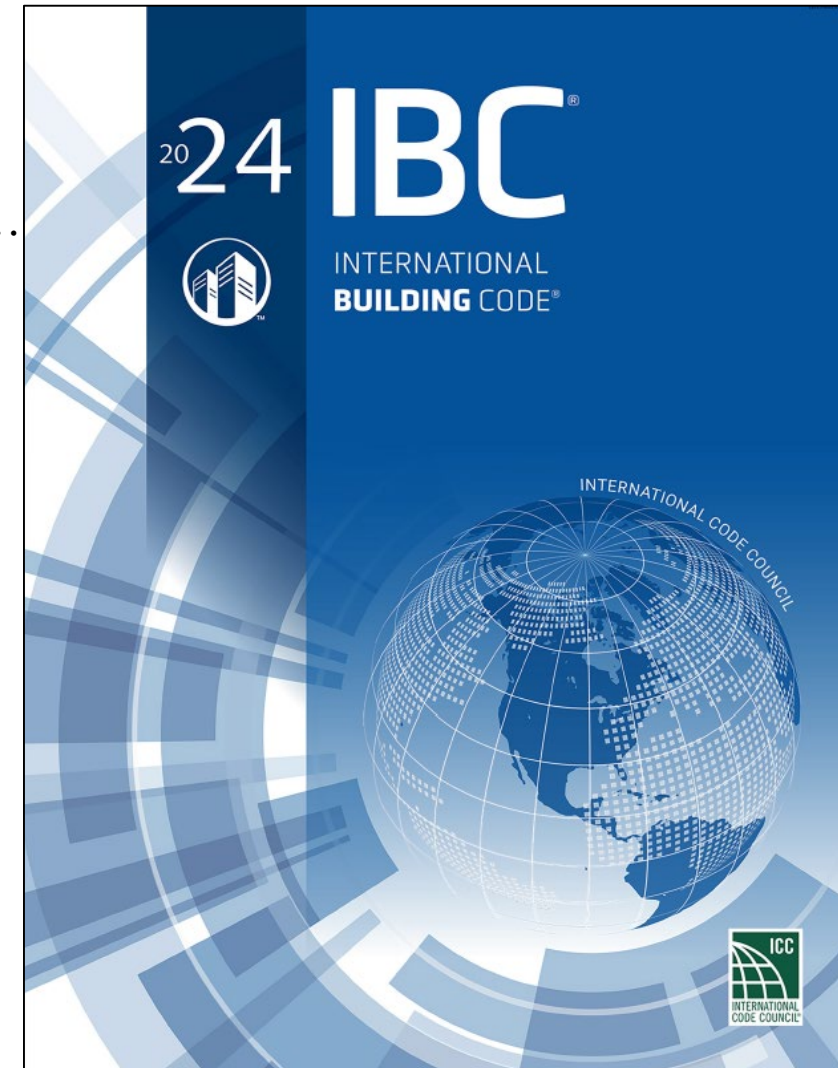
1973 Edition

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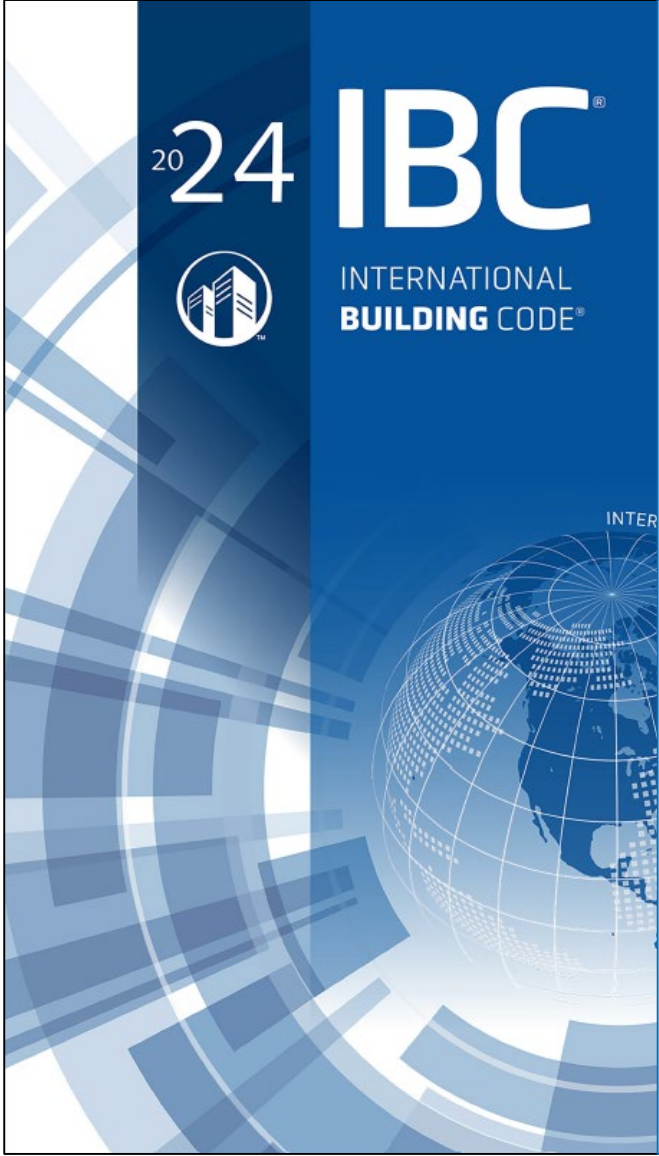


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2024


IBC®

INTERNATIONAL
BUILDING CODE®




- ✓ **Specify** and
- ✓ **Approve** *with Confidence*

When facing new or unfamiliar materials, look for an ICC-ES Evaluation Report or Listing before approving for installation.

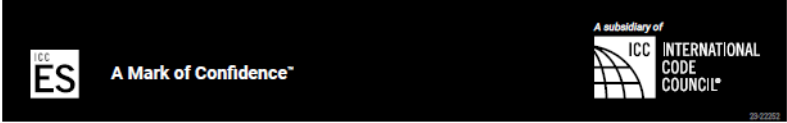
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Multiple Agencies for Evaluation Reports

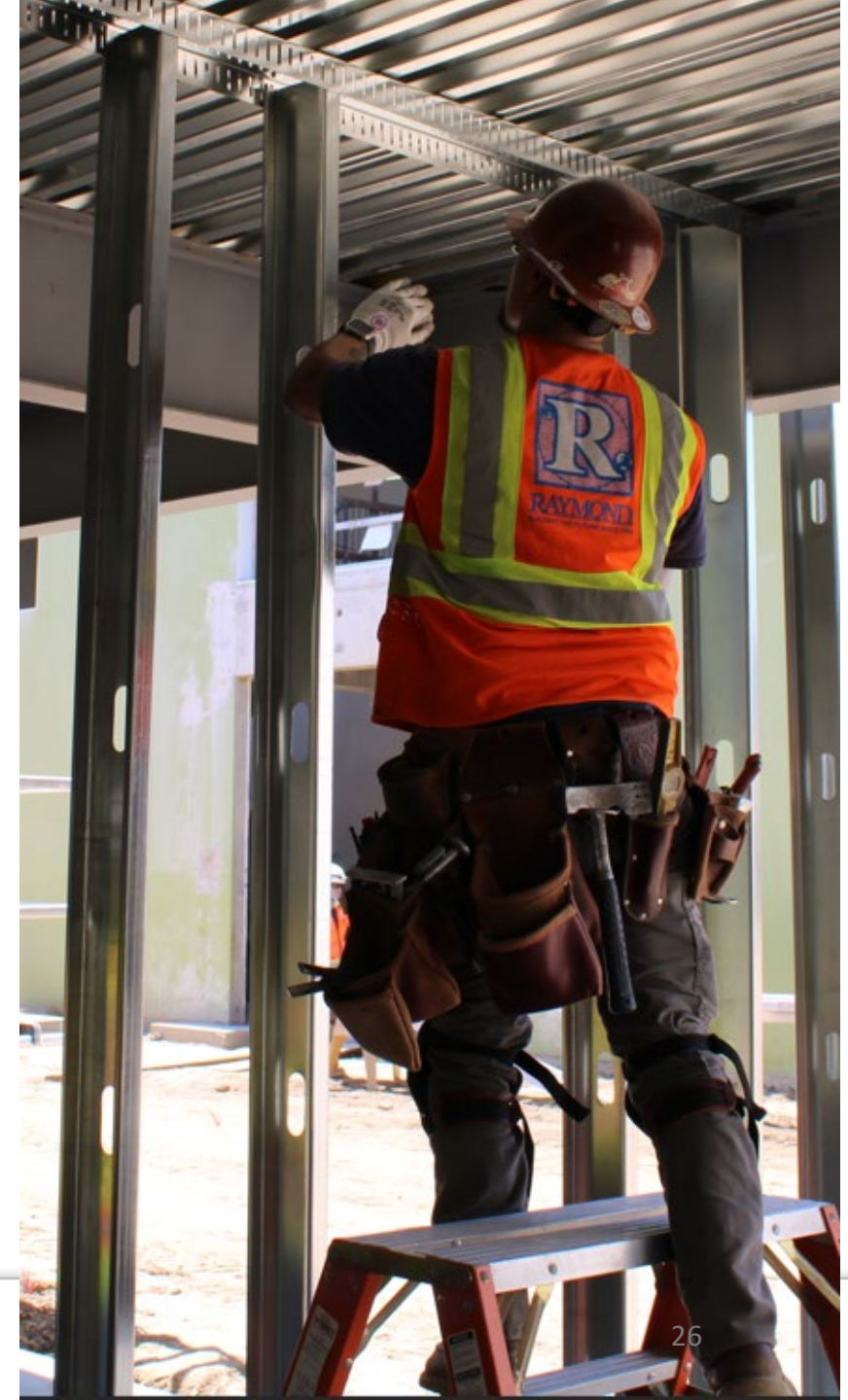


Evaluation Reports Not Required

Materials

Design &

Methods of Construction



Evaluation Reports Not Required

- Design & Methods of Construction
 - Traditional

Voluntary Product Standard PS 1-19

Structural Plywood

December 2019



U.S. Department of Commerce
Wilbur L. Ross, Jr., Secretary

National Institute of Standards and Technology
Walter Copan, NIST Director and Undersecretary of Commerce for
Standards and Technology

TABLE 2304.8(4)—ALLOWABLE SPAN FOR WOOD STRUCTURAL PANEL COMBINATION SUBFLOOR-UNDERLAYMENT (SINGLE FLOOR) ^a (Panels Continuous Over Two or More Spans and Strength Axis Perpendicular to Supports)					
IDENTIFICATION	MAXIMUM SPACING OF JOISTS (inches)				
	16	20	24	32	48
Species group ^b	Thickness (inches)				
1	1/2	5/8	3/4	—	—
2, 3	5/8	3/4	7/8	—	—
4	3/4	7/8	1	—	—
Single floor span rating ^c	16 o.c.	20 o.c.	24 o.c.	32 o.c.	48 o.c.

For SI: 1 inch = 25.4 mm, 1 pound per square foot = 0.0479 kN/m².

a. Spans limited to value shown because of possible effects of concentrated loads. Allowable uniform loads based on deflection of 1/360 of span is 100 pounds per square foot except allowable total uniform load for 1 1/8-inch wood structural panels over joists spaced 48 inches on center is 65 pounds per square foot. Panel edges shall have approved tongue-and-groove joints or shall be supported with blocking, unless 1/4-inch minimum thickness underlayment or 1 1/2 inches of approved cellular or lightweight concrete is placed over the subfloor, or finish floor is 3/4-inch wood strip.

b. Applicable to all grades of sanded exterior-type plywood. See DOC PS 1 for plywood species groups.

c. Applicable to underlayment grade, C-C (plugged) plywood, and single floor grade wood structural panels.

Evaluation Reports Not Required

- Design & Methods of Construction
 - Traditional
 - Spelled out in code

2015 IBC

SECTION 3101 GENERAL

3101.1 Scope. The provisions of this chapter shall govern special building construction including membrane structures, temporary structures, *pedestrian walkways* and tunnels, automatic *vehicular gates*, *awnings* and *canopies*, *marquees*, signs, and towers and antennas.

2024 IBC


SECTION 3101—GENERAL

3101.1 Scope. The provisions of this chapter shall govern special *building* construction including membrane *structures*, *temporary structures*, *pedestrian walkways* and tunnels, *awnings* and *canopies*, *marquees*, signs, telecommunications and broadcast towers, *swimming pools*, spas and hot tubs, automatic vehicular gates, solar energy systems, *greenhouses*, relocatable buildings and *intermodal shipping containers*.

IBC chapter 31: SPECIAL CONSTRUCTION

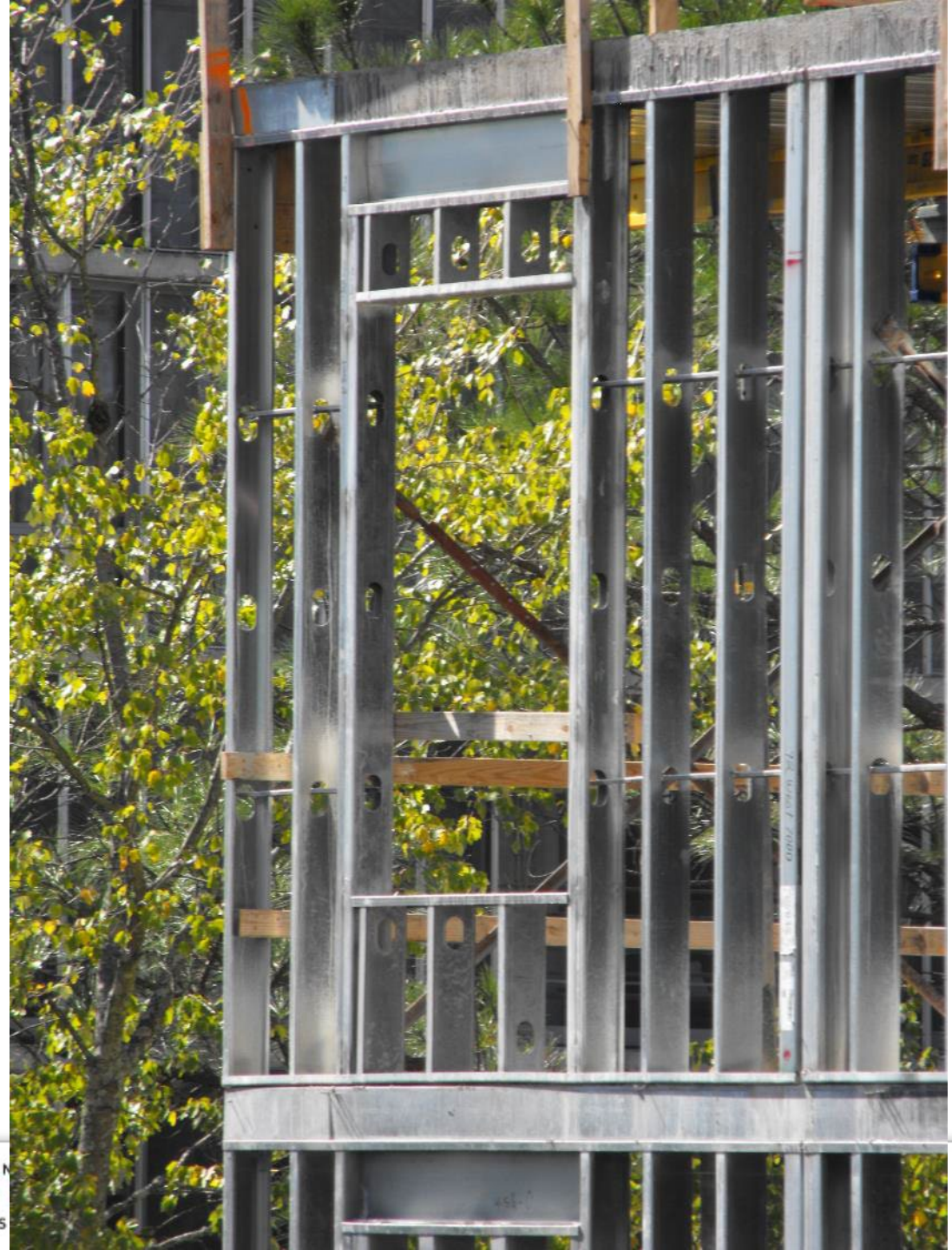
Evaluation Reports Not Required

- Design & Methods of Construction
 - Traditional
 - Spelled out in code
 - On approved documents sealed by a design professional

DRAWING TITLE	
4TH FLOOR FRAMING PLAN & DEMOLITION PHASE II	
STAMP & SIGNATURE	PROJECT NO. 1302300
	DATE: 08/07/13
	SCALE: 1/8" = 1'-0"
ARCHITECT, AIA	S-040.00

Evaluation Reports Not Required

- Materials
 - Code or referenced standard, shows standardized properties or performance criteria or both for materials
- We will look at two types for CFS framing:
 - Structural Members
 - Nonstructural Members



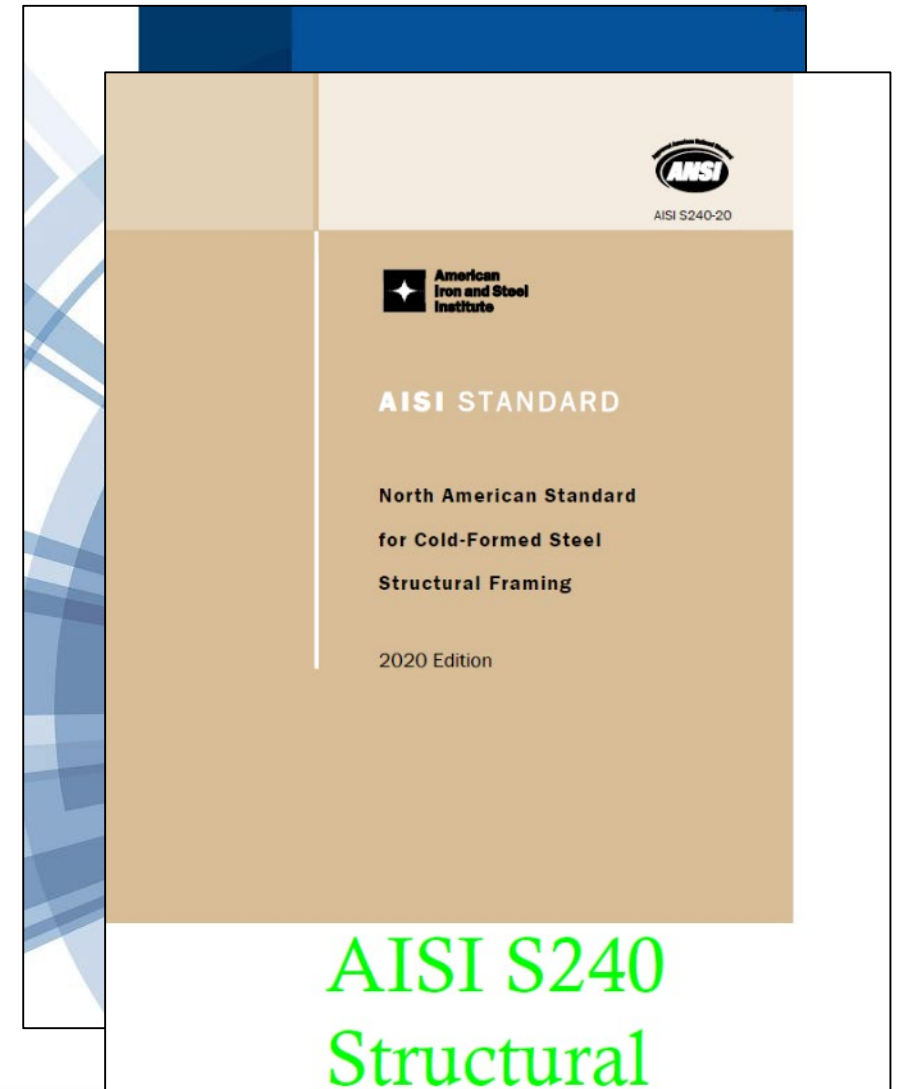
CFS Structural Members in the IBC

- Chapter 22: STEEL

SECTION 2206—COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION

2206.1 Structural framing. For cold-formed steel *light-frame construction*, the design and installation of the following structural framing systems, including their members and connections, shall be in accordance with **AISI S240**, and Sections 2206.1.1 through 2206.1.3, as applicable:

1. Floor and roof systems.
2. Structural walls.
3. Shear walls, strap-braced walls and diaphragms that resist in-plane lateral loads.
4. Trusses.



CFS Structural Members in the IBC

- Chapter 35: REFERENCED STANDARDS

AISI American Iron and Steel Institute, 25 Massachusetts Avenue, NW Suite 800, Washington, DC 20001

AISI S100—16(2020) w/S2—20: North American Specification for the Design of Cold-Formed Steel Structural Members, 2016 Edition (Reaffirmed 2020), with Supplement 2, 2020 Edition

1604.3.3, 1905.7.2, 2204, 2204.2.2

AISI S202—20: Code of Standard Practice for Cold-formed Steel Structural Framing, 2020 Edition

2206.1.3.1, 2206.1.3.1

AISI S220—20: North American Standard for Cold-Formed Steel Nonstructural Framing, 2020 Edition

2203.1, 2206.2, 2206.3, Table 2506.2, Table 2507.2

AISI S230—2019: North American Standard for Cold-formed Steel Framing—Prescriptive Method for One and Two Family Dwellings, 2019 Edition

1609.1.1, 1609.1.1.1, 2204.1, 2206.1.2

AISI S240—20: North American Standard for Cold-Formed Steel Structural Framing, 2020 Edition

Table 1404.5.2.1, Table 1404.5.2.2, 2206.1, 2206.1.1.1, 2206.1.3.3, 2206.3, 2212.1,
Table 2506.2, Table 2507.2

AISI S310—20 w/S1—22: North American Standard for the Design of Profiled Steel Diaphragm Panels, with Supplement 1, 2022 Edition

2204.1, 2208.1

AISI S400—20: North American Standard for Seismic Design of Cold-formed Steel Structural Systems, 2020 Edition

2204.2.1, 2204.2.2, 2206.1.1.1, 2206.1.1.2

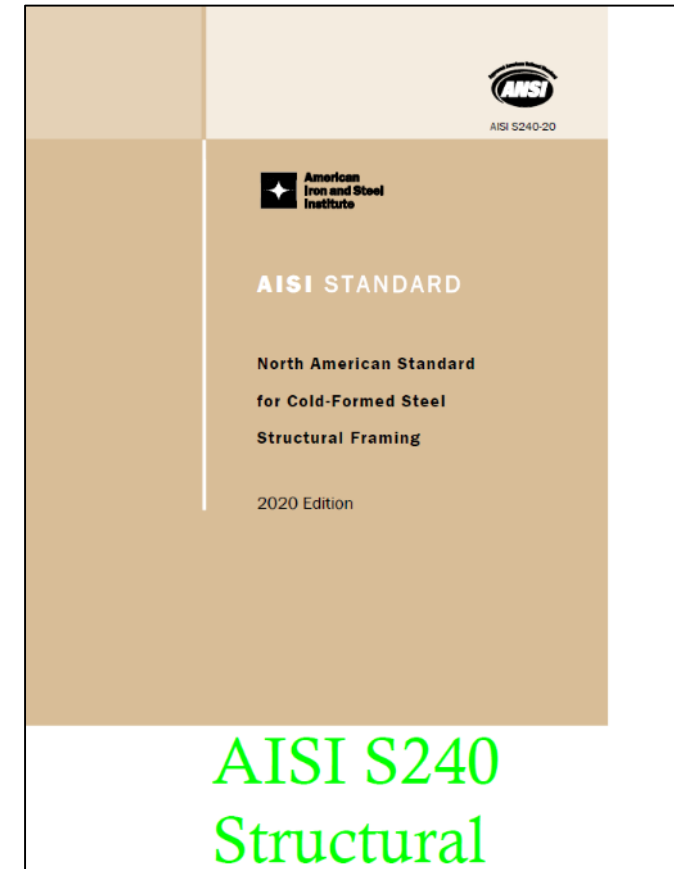


AISI S240
Structural 32

CFS Structural Members in S240

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A5.6 Standard Shapes

Standard shapes for *structural members*, as illustrated in Figure A5-2, are combinations of the basic dimensions listed in Tables A5-4 through A5-8, depending on the member type.

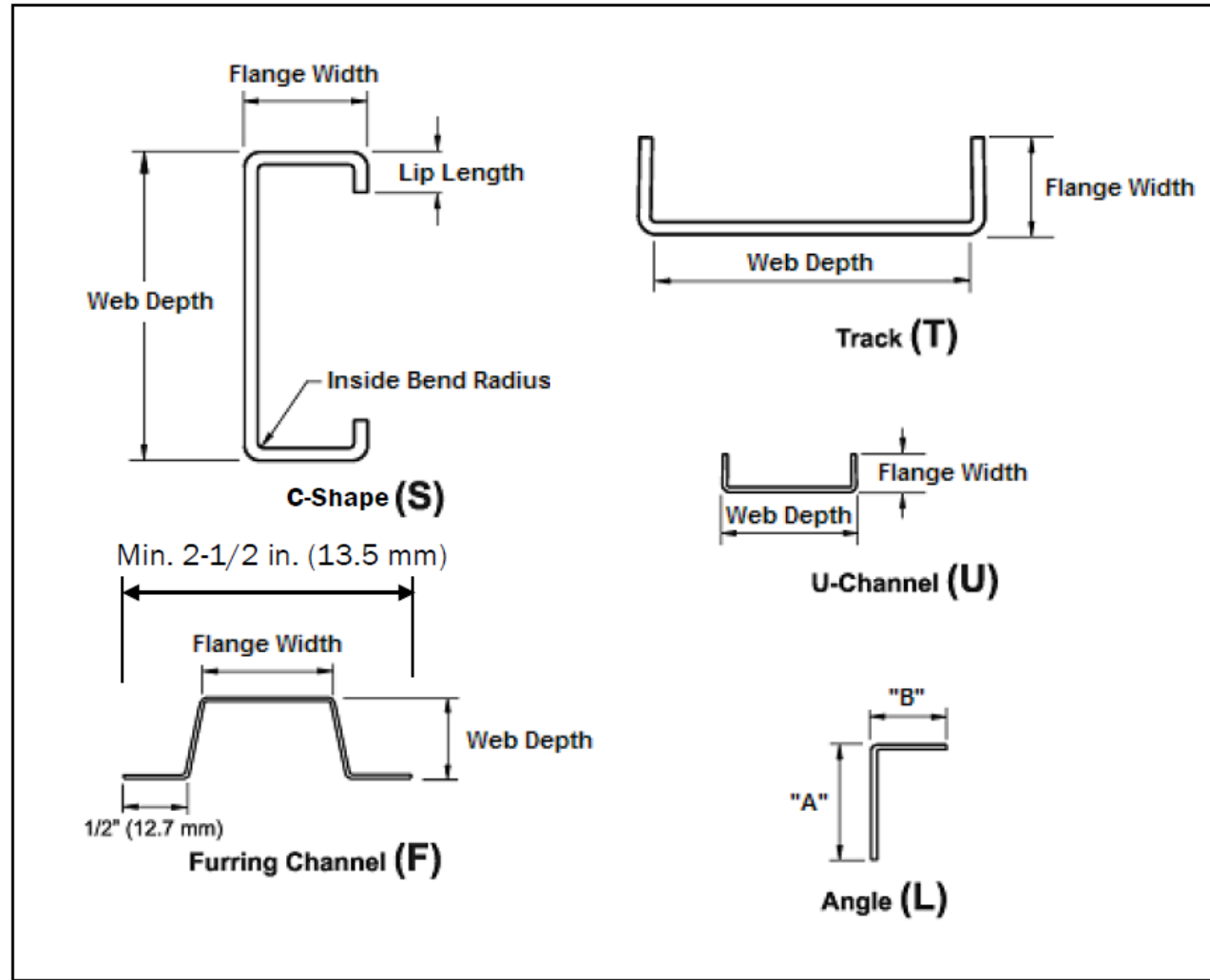
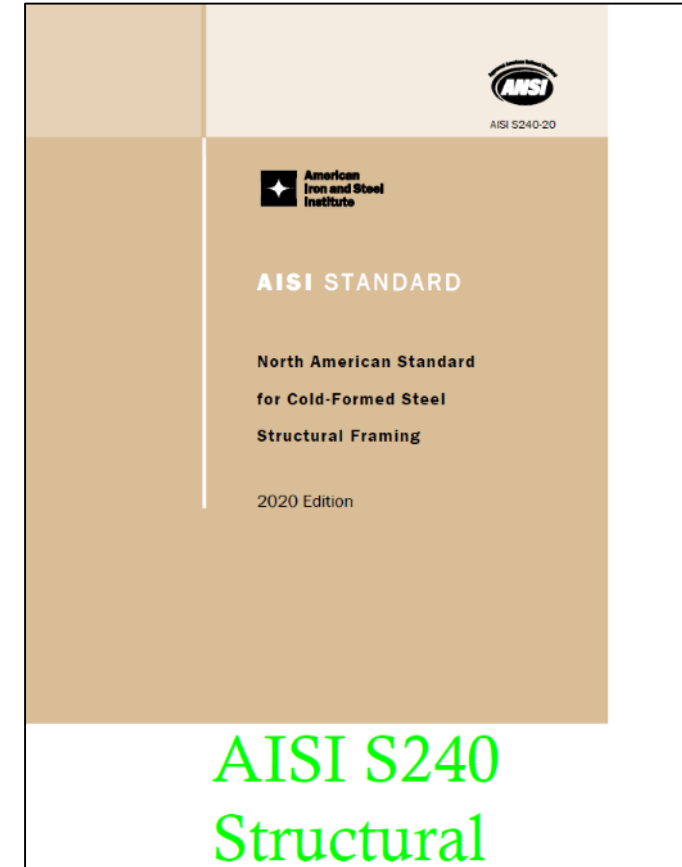


Figure A5-2 Standard Cold-Formed Steel Framing Member Types

in S240



CFS Structural Members in S240

14

AISI S240-20

Table A5-4
Standard Dimensions for C-Shapes (S)

Web Depth			Flange Width		
Depth Designation	Design Depth		Width Designation	Design Width	
	(inch)	(mm)		(inch)	(mm)
162	1-5/8	41.3	125	1-1/4	31.8
250	2-1/2	63.5	137	1-3/8	34.9
350	3-1/2	88.9	162	1-5/8	41.3
362	3-5/8	92.1	200	2	50.8
400	4	102	250	2-1/2	63.5
550	5-1/2	140	300	3	76.2
600	6	152	350	3-1/2	88.9
800	8	203			
1000	10	254			
1200	12	305			
1400	14	356			

Notes: (1) Not all shapes are available in every standard thickness.
(2) Not all combinations of web depth and flange width are available.



Table A5-5
Standard Dimensions for Tracks (T)

Web Depth			Flange Width		
Depth Designation	Design Depth		Width Designation	Design Width	
	(inch)	(mm)		(inch)	(mm)
162	1-5/8	41.3	125	1-1/4	31.8
250	2-1/2	63.5	150	1-1/2	38.1
350	3-1/2	88.9	200	2	50.8
362	3-5/8	92.1	250	2-1/2	63.5
400	4	102	300	3	76.2
550	5-1/2	140			
600	6	152			
800	8	203			
1000	10	254			
1200	12	305			
1400	14	356			

Notes: (1) Not all shapes are available in every standard thickness.
(2) Not all combinations of web depth and flange width are available.

A5 Products

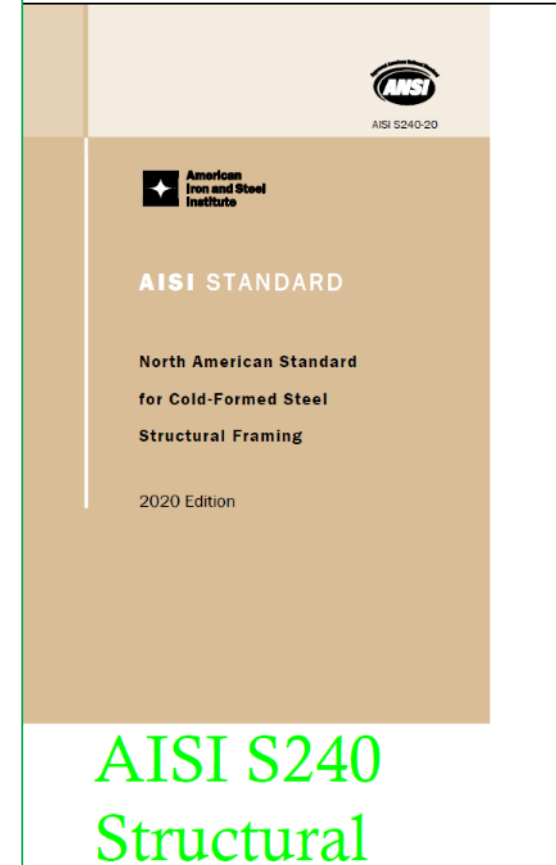
A5.1 Base Steel Thickness

A5.1.1 The material thickness of framing members, in their end-use, shall meet or exceed the minimum *base steel thickness* values given in the *approved construction documents*. In no case shall the minimum *base steel thickness* be less than 95% of the *design thickness*.

A5.1.2 In the United States and Mexico, standard thicknesses are listed in Table A5-1. Member thickness shall be referenced to the corresponding *designation thickness*.

Table A5-1
Standard Thicknesses for United States and Mexico

Designation Thickness	Minimum Base Steel Thickness		Design Thickness	
	(inch)	(mm)	(inch)	(mm)
33	0.0329	0.836	0.0346	0.879
43	0.0428	1.087	0.0451	1.146
54	0.0538	1.367	0.0566	1.438
68	0.0677	1.720	0.0713	1.811
97	0.0966	2.454	0.1017	2.583
118	0.1180	2.997	0.1242	3.155



CFS Nonstructural Members in the IBC

- Chapter 35: REFERENCED STANDARDS

AISI American Iron and Steel Institute, 25 Massachusetts Avenue, NW Suite 800, Washington, DC 20001

AISI S100—16(2020) w/S2—20: North American Specification for the Design of Cold-Formed Steel Structural Members, 2016 Edition (Reaffirmed 2020), with Supplement 2, 2020 Edition

1604.3.3, 1905.7.2, 2204, 2204.2.2

AISI S202—20: Code of Standard Practice for Cold-formed Steel Structural Framing, 2020 Edition

2206.1.3.1, 2206.1.3.1

AISI S220—20: North American Standard for Cold-Formed Steel Nonstructural Framing, 2020 Edition

2203.1, 2206.2, 2206.3, Table 2506.2, Table 2507.2

AISI S230—2019: North American Standard for Cold-formed Steel Framing—Prescriptive Method for One and Two Family Dwellings, 2019 Edition

1609.1.1, 1609.1.1.1, 2204.1, 2206.1.2

AISI S240—20: North American Standard for Cold-Formed Steel Structural Framing, 2020 Edition

Table 1404.5.2.1, Table 1404.5.2.2, 2206.1, 2206.1.1.1, 2206.1.3.3, 2206.3, 2212.1,
Table 2506.2, Table 2507.2

AISI S310—20 w/S1—22: North American Standard for the Design of Profiled Steel Diaphragm Panels, with Supplement 1, 2022 Edition

2204.1, 2208.1

AISI S400—20: North American Standard for Seismic Design of Cold-formed Steel Structural Systems, 2020 Edition

2204.2.1, 2204.2.2, 2206.1.1.1, 2206.1.1.2



CFS Nonstructural Members in the IBC

- Chapter 22: STEEL

2206.2 Nonstructural members. For cold-formed steel *light-frame construction*, the design and installation of nonstructural members and connections shall be in accordance with **AISI S220**.

2206.3 Cutting and notching. The cutting and notching of holes in cold-formed steel framing members shall be in accordance with AISI S240 for structural members and **AISI S220 for nonstructural members**.



CFS Nonstructural Members in the IBC

- Chapter 35: REFERENCED STANDARDS

AISI American Iron and Steel Institute, 25 Massachusetts Avenue, NW Suite 800, Washington, DC 20001

AISI S100—16(2020) w/S2—20: North American Specification for the Design of Cold-Formed Steel Structural Members, 2016 Edition (Reaffirmed 2020), with Supplement 2, 2020 Edition

1604.3.3, 1905.7.2, 2204, 2204.2.2

AISI S202—20: Code of Standard Practice for Cold-formed Steel Structural Framing, 2020 Edition

2206.1.3.1, 2206.1.3.1

AISI S220—20: North American Standard for Cold-Formed Steel Nonstructural Framing, 2020 Edition

2203.1, 2206.2, 2206.3, Table 2506.2, Table 2507.2

AISI S230—2019: North American Standard for Cold-formed Steel Framing—Prescriptive Method for One and Two Family Dwellings, 2019 Edition

1609.1.1, 1609.1.1.1, 2204.1, 2206.1.2

AISI S240—20: North American Standard for Cold-Formed Steel Structural Framing, 2020 Edition

Table 1404.5.2.1, Table 1404.5.2.2, 2206.1, 2206.1.1.1, 2206.1.3.3, 2206.3, 2212.1,
Table 2506.2, Table 2507.2

AISI S310—20 w/S1—22: North American Standard for the Design of Profiled Steel Diaphragm Panels, with Supplement 1, 2022 Edition

2204.1, 2208.1

AISI S400—20: North American Standard for Seismic Design of Cold-formed Steel Structural Systems, 2020 Edition

2204.2.1, 2204.2.2, 2206.1.1.1, 2206.1.1.2



CFS Nonstructural Members in the IBC

- Chapter 25: GYPSUM & PLASTER

2506.2 Standards. *Gypsum panel products* shall conform to the appropriate standards listed in Table 2506.2 and Chapter 35 and, where required for fire protection, shall conform to the provisions of Chapter 7.

TABLE 2506.2—GYPSUM PANEL PRODUCTS MATERIALS AND ACCESSORIES

MATERIAL	STANDARD
Accessories for gypsum board	ASTM C1047
Adhesives for fastening gypsum board to wood framing	ASTM C557
Cold-formed steel studs and track, structural	AISI S240
Cold-formed steel studs and track, nonstructural	AISI S220
Elastomeric joint sealants	ASTM C920
Expandable foam adhesives for fastening gypsum wallboard to wood framing	ASTM D6464
Factory-laminated gypsum panel product	ASTM C1766
Fiber-reinforced gypsum panels	ASTM C1278
Glass mat gypsum backing panel	ASTM C1178
Glass mat gypsum panels	ASTM C1658
Glass mat gypsum substrate used as sheathing	ASTM C1177
Joint reinforcing tape and compound	ASTM C474; C475
Nails for gypsum boards	ASTM C514, F547, F1667
Steel screws	ASTM C954; C1002
Standard specification for gypsum board	ASTM C1396
Testing gypsum and gypsum products	ASTM C22; C472; C473



CFS Nonstructural Members in the IBC

- Chapter 25: GYPSUM & PLASTER

2507.2 Standards. Lathing and plastering materials shall conform to the standards listed in Table 2507.2 and Chapter 35 and, where required for fire protection, shall conform to the provisions of Chapter 7.

TABLE 2507.2—LATH, PLASTERING MATERIALS AND ACCESSORIES	
MATERIAL	STANDARD
Accessories for gypsum veneer base	ASTM C1047
Blended cement	ASTM C595
Cold-formed steel studs and track, structural	AISI S240
Cold-formed steel studs and track, nonstructural	AISI S220
Exterior plaster bonding compounds	ASTM C932
Hydraulic cement	ASTM C1157; C1600
Gypsum casting and molding plaster	ASTM C59
Gypsum Keene's cement	ASTM C61
Gypsum plaster	ASTM C28
Gypsum veneer plaster	ASTM C587
Interior bonding compounds, gypsum	ASTM C631
Lime plasters	ASTM C5; C206
Masonry cement	ASTM C91
Metal lath	ASTM C847
Plaster aggregates	
Sand	ASTM C35; C897
Perlite	ASTM C35
Vermiculite	ASTM C35
Plastic cement	ASTM C1328



CFS Nonstructural Members in the IBC

- Chapter 25: GYPSUM & PLASTER

2508.1 General. *Gypsum panel products and gypsum plaster construction shall be of the materials listed in Tables 2506.2 and 2507.2. These materials shall be assembled and installed in compliance with the appropriate standards listed in Tables 2508.1 and 2511.1.1 and Chapter 35.*

TABLE 2508.1—INSTALLATION OF GYPSUM CONSTRUCTION

MATERIAL	STANDARD
Gypsum panel products	GA-216; ASTM C840
Gypsum sheathing and gypsum panel products	ASTM C1280; GA-253
Gypsum veneer base	ASTM C844
Interior lathing and furring	ASTM C841
Steel framing for gypsum panel products	ASTM C754; C1007

ASTM C754, *Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products*, references both **AISI S220** and **ASTM C645** for nonstructural members.



CFS Nonstructural Members in ASTM



Designation: C754 – 20

Standard Specification for
Installation of Steel Framing Members to Receive Screw-

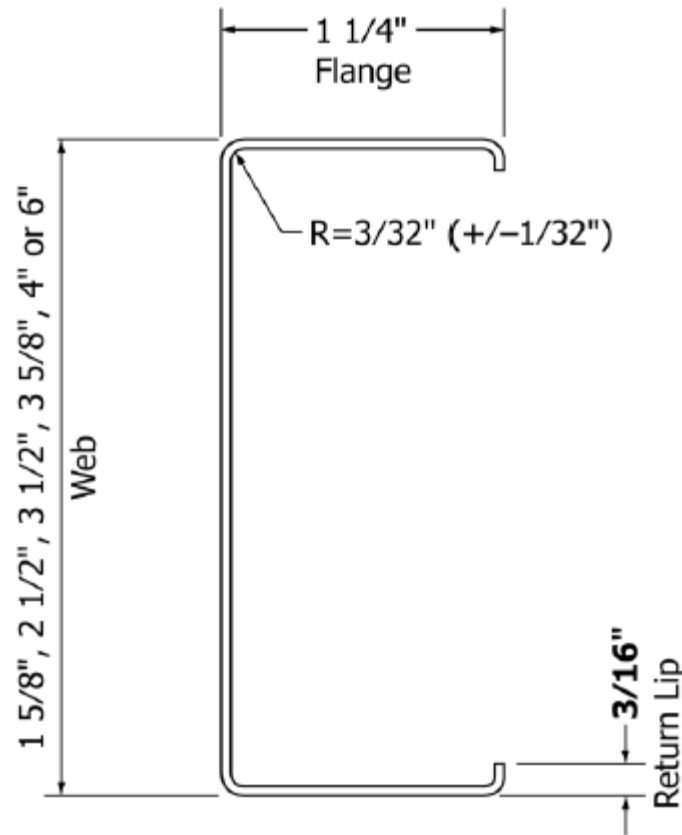


FIG. 1 Minimum Drywall Stud Cross Section

Figure 1 & Table 1 from ASTM C645.

TABLE 1 Minimum Section Properties for Various Studs

Section Designator ^A	Stud Depth in. (mm)		Design Thickness in. (mm)		Minimum Base Steel Thickness ^B in. (mm)		Gross Area ^C in ² (mm ²)		Effective Properties ^{C,D}			
									Ix ^E (1000 mm ⁴)	Mn/Ω ^F (in-k)	Mn/Ω ^F (N-m)	
162S125-18	1.625	41	0.0188	0.478	0.0179	0.454	0.080	52	0.034	14	0.61	69
162S125-30	1.625	41	0.0312	0.792	0.0296	0.752	0.132	85	0.060	25	1.19	134
162S125-33	1.625	41	0.0346	0.879	0.0329	0.835	0.145	94	0.066	27	1.37	155
250S125-18	2.500	64	0.0188	0.478	0.0179	0.454	0.097	63	0.910	38	1.03	116
250S125-30	2.500	64	0.0312	0.792	0.0296	0.752	0.159	102	0.159	66	2.09	236
250S125-33	2.500	64	0.0346	0.879	0.0329	0.835	0.176	114	0.175	73	2.40	272
350S125-18	3.500	89	0.0188	0.478	0.0179	0.454	0.115	74	0.203	84	1.42	161
350S125-30	3.500	89	0.0312	0.792	0.0296	0.752	0.190	123	0.346	144	2.96	335
350S125-33	3.500	89	0.0346	0.879	0.0329	0.835	0.210	135	0.382	159	3.45	390
362S125-18	3.625	92	0.0188	0.478	0.0179	0.454	0.118	76	0.221	92	1.48	167
362S125-30	3.625	92	0.0312	0.792	0.0296	0.752	0.194	125	0.376	157	3.08	348
362S125-33	3.625	92	0.0346	0.879	0.0329	0.835	0.215	138	0.415	173	3.59	406
400S125-18 ^G	4.000	102	0.0188	0.478	0.0179	0.454	0.125	81	0.281	117	1.64	185
400S125-30	4.000	102	0.0312	0.792	0.0296	0.752	0.206	133	0.474	197	3.44	388
400S125-33	4.000	102	0.0346	0.879	0.0329	0.835	0.228	147	0.524	218	4.01	453
600S125-30	6.000	152	0.0312	0.792	0.0296	0.752	0.268	173	1.223	513	5.39	609
600S125-33	6.000	152	0.0346	0.879	0.0329	0.835	0.297	192	1.378	574	6.32	714

^A The section designator defines the cold-formed steel framing member dimensions.

Example: 350S125-18

350 designates the member web depth in 100ths of an inch, 350 = 3.50 in. (88.9 mm)

S designates the type of member, S = Stud

125 designates the member flange width in 100ths of an inch, 125 = 1.25 in. (31.8 mm)

-18 designates the minimum base metal thickness in mils, 18 = 0.0179 in. (0.454 mm)

-30 designates the minimum base metal thickness in mils, 30 = 0.0296 in. (0.752 mm)

-33 designates the minimum base metal thickness in mils, 33 = 0.0329 in. (0.836 mm)

^B Minimum base steel thickness is 95 % of Design Thickness.

^C Properties are based on a centerline radius of 3/32 in. (2.38 mm), see Fig. 1.

^D Effective properties are calculated in accordance with AISI S100 and are based on a yield strength, Fy = 33 ksi.

^E Moment of inertia, Ix, given is for deflection calculations.

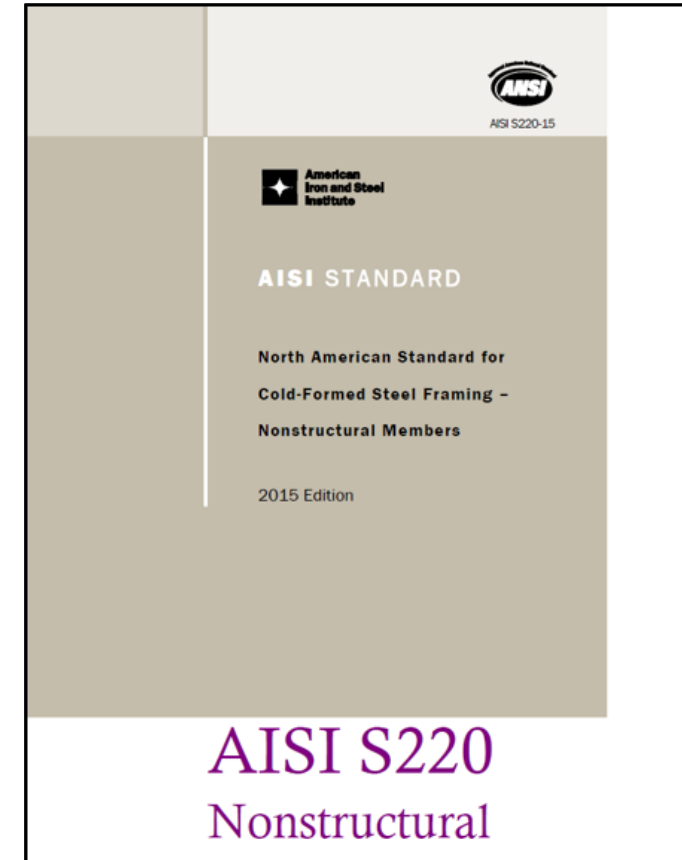
^F Allowable moment is taken as the lowest value based on local or distortional buckling. For distortional buckling, K_φ = 0 and β = 1.

^G Where noted, member web height-to-thickness ratio exceeds 200, web stiffeners required at supports.

CFS Nonstructural Members in S220

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Letter Template for Standard **Nonstructural** Steel Stud and Track Framing

[Date]

[Customer or Specifier Name and Address]

Re: [project name]
Section 092216 Evaluation Report Requirements

[Customer or Specifier name],

Thank you for your correspondence today. This letter is to let you know that because the [nonstructural stud and track types, example: 362S125-30] nonstructural framing members submitted for this project are standard products, they do not require nor does our company maintain International Code Council Evaluation Service (ICC-ES) evaluation service reports on these members.

ICC-ES and other evaluation agencies provide reports for non-standard products, that are not explicitly spelled out in the building code, or where an innovative technology or non-standard configuration is used to meet code requirements. For these nonstructural drywall studs, the configuration is standard and matches the profile specifically shown in ASTM standard C645, Figure 1. The stud and track members submitted match the material, configuration, and tolerances listed in sections A4 – A6 of the American Iron and Steel Institute “North American Standard for Cold-Formed Steel Nonstructural Framing” (AISI S220). S220 is referenced in tables 2506.2 and 2507.2 and section 2206.2 of the International Building Code.

There are several products that use higher yield strength, ribs, bends, embossments, and dimples to allow thinner steel to be used to provide the same strength and stiffness as standard studs. But the framing members referenced above do not fall into that category.

Sincerely,

[Title and Signature]

Letter Template for Standard **Structural** Steel Stud and Track Framing

[Date]

[Customer or Specifier Name and Address]

Re: [project name]
Section 054000 Evaluation Report Requirements

[Customer or specifier name],

Thank you for your correspondence today. This letter is to let you know that because the [stud types, example: 600S162-54 and 600T125-54] framing members submitted for this project are standard studs, they do not require nor does our company maintain International Code Council Evaluation Service (ICC-ES) evaluation service reports on these members.

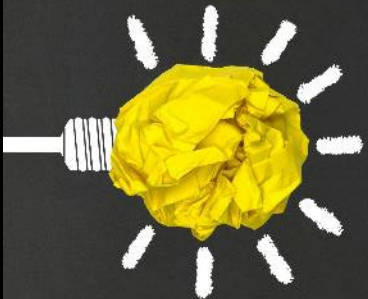
ICC-ES and other evaluation agencies provide reports for non-standard products, that are not explicitly spelled out in the building code, or where an innovative technology or non-standard configuration is used to meet code requirements. For these structural cold-formed steel framing members, the configuration is standard and matches the profile specifically shown in American Iron and Steel Institute’s “North American Standard for Cold-Formed Steel Structural Framing” (AISI S240), Figure A5-2, and tables A5-4 through A5-10. The stud and track members submitted match the material, configuration, and tolerances listed in sections A5 of this document. AISI S240 is referenced in multiple sections of the International Building Code, including section 2206 on Cold-Formed Steel Light-Frame Construction.

Sincerely,

[Title and Signature]

Letter Templates

LEARNING OBJECTIVES



1. Understand what code evaluation reports are, and how they are used in the wall/ceiling/framing industry.
2. Know when evaluation reports are not required on standard, code-approved framing products.
- 3. Identify when evaluation reports are required on nonstandard framing products.**
4. Show where standard products are listed in building codes and code referenced documents from the American Iron and Steel Institute (AISI) and ASTM International.
5. Understand the role of 3rd party certification programs in the evaluation report process.
6. Discern what companies provide evaluation reports, and how these reports can be successfully used to streamline the submittal process on nonstandard products.

Reports Required:

- Configuration does not meet minimums in S220 or S240

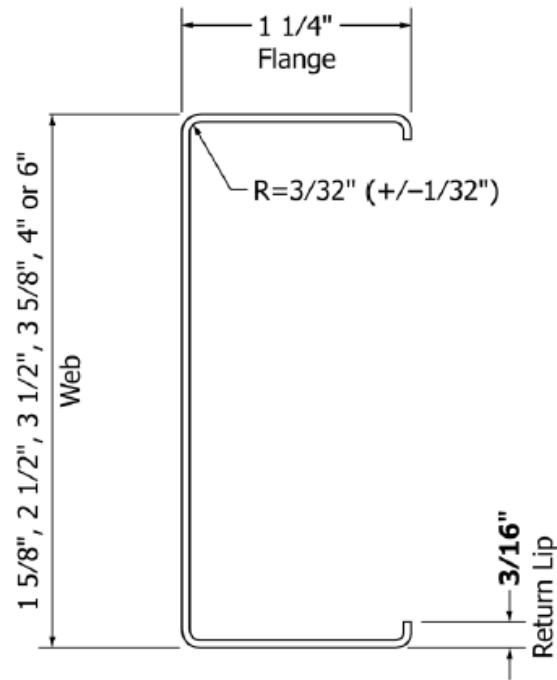
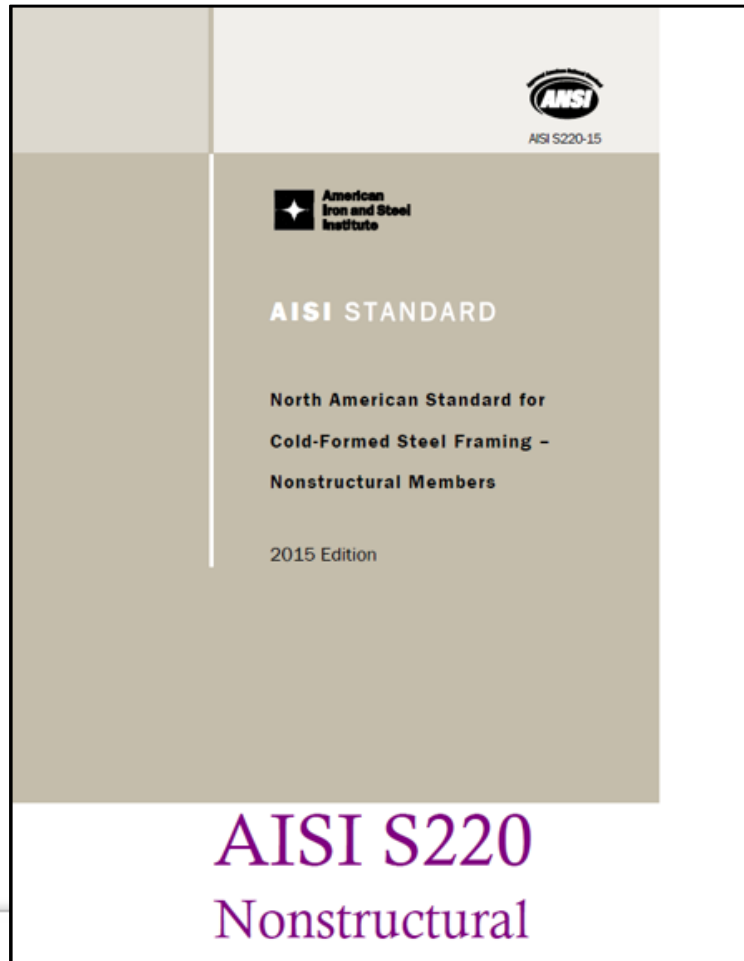
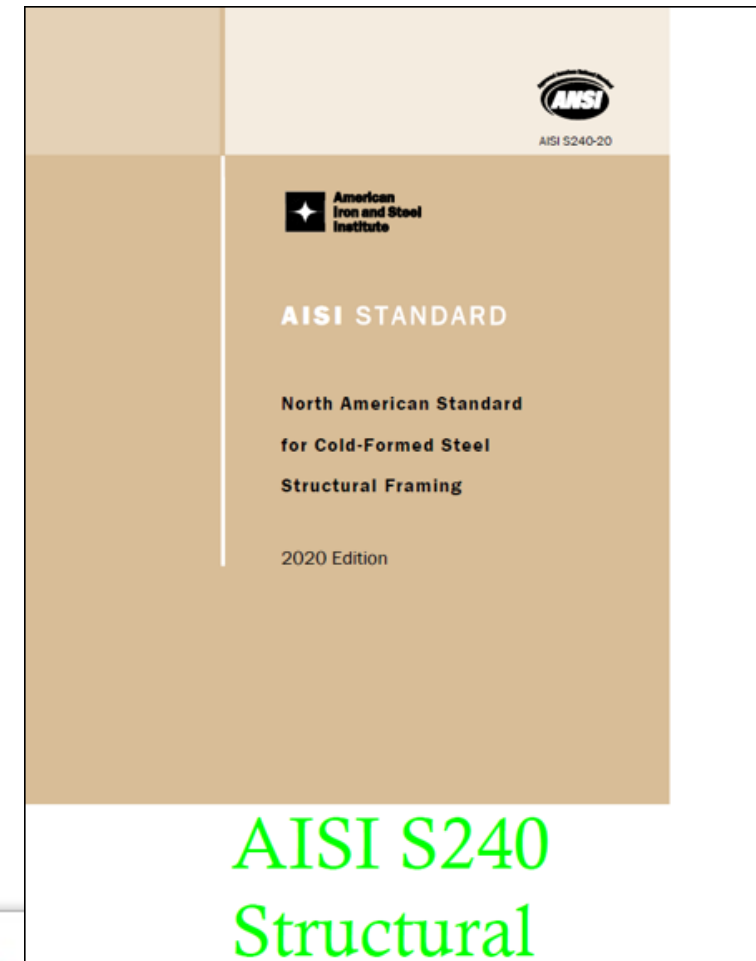


FIG. 1 Minimum Drywall Stud Cross Section

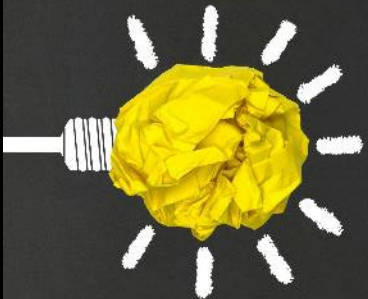


Reports required: Clips and Accessories

- Only for products that cannot be calculated in accordance with AISI S100 or one of the other code-referenced design or test standards.



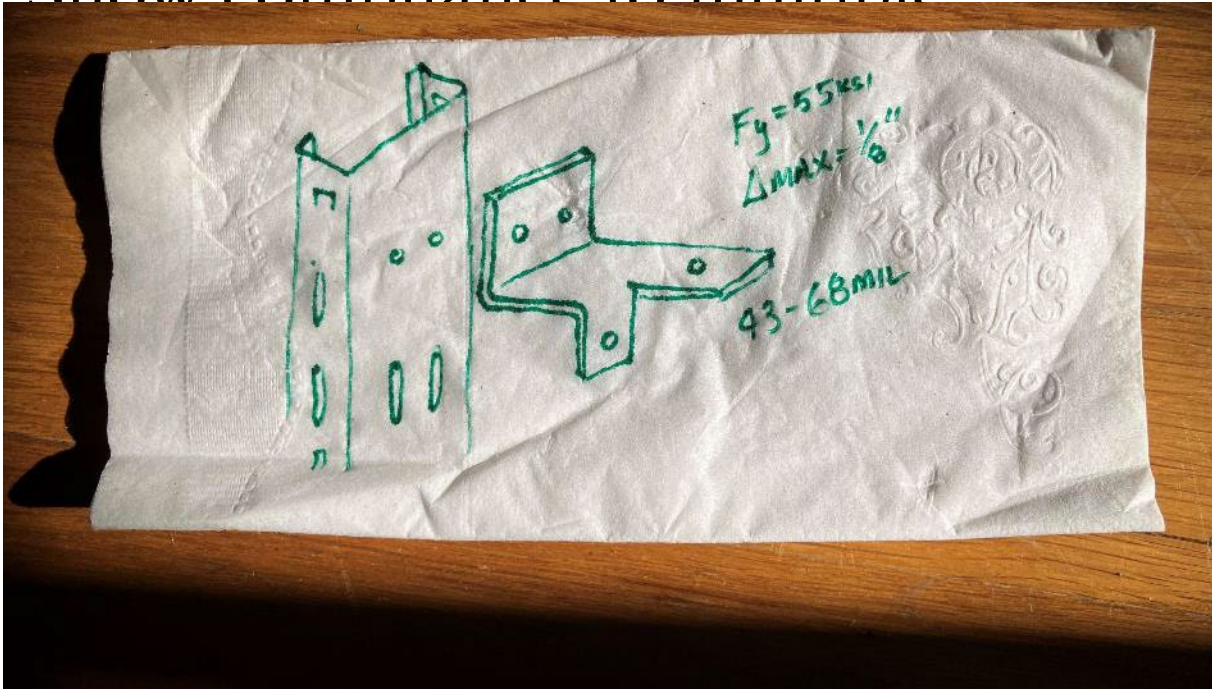
LEARNING OBJECTIVES



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What values do evaluation services provide?

- Show compliance to multiple



- Cross-laminated timber (CLT)

- Marine
- T
- T
- Help
- U
- U
- d
- in
- Other

The most cost-effective the building offer!

Revised edges of the stud!

Water improved nance!

ICC-endorsed other Copy

DI 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

SCOTTSDALE CONSTRUCTION SYSTEMS

DVELE OMEGA CORPORATION

COLD-FORMED STEEL FRAMING MEMBERS

QR Code

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018, 2015 and 2012 [International Building Code® \(IBC\)](#)
- 2021, 2018, 2015 and 2012 [International Residential Code \(IRC\)](#)
- 2013 Abu Dhabi International Building Code (ADIBC)[†]

[†]The ADIBC is based on the 2009 IBC as referenced under the ADIBC.

Property evaluated:

- Structural

2.0 USES

The Cold-Formed Steel Framing Members are used for framing of nonload-bearing interior walls and curtain walls, and load-bearing walls, floors, and roofs.

3.0 DESCRIPTION

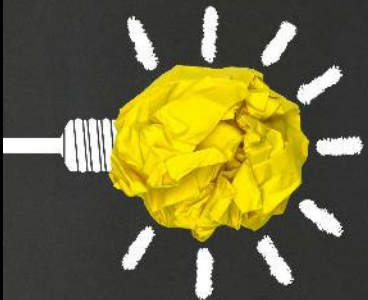
3.1 General:

Member designations are provided in [Table 2](#). Gross, torsional and effective properties are provided in [Tables 3 and 4](#). See [Figure 1](#). Punch-outs are noncircular holes with a diameter of 1.125 inches by 4 inches

ANAB

Page 1 of 20

LEARNING OBJECTIVES



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Multiple Agencies for Evaluation Reports



Certification Bodies

- Companies that issue evaluation reports demonstrate their competence by obtaining accreditation to ISO/IEC 17065: “minimum requirements for bodies certifying products, processes, and services”
- Agencies accredited to ISO/IEC 17065 are referred to as certification bodies.”





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Product Certification Agencies

ISO/IEC Standard 17065

AC370®

ACCREDITATION CRITERIA FOR PRODUCT CERTIFICATION AGENCIES

AC370

October 4, 2023
Effective December 1, 2023

PREFACE

The attached accreditation criteria have been issued to provide all interested parties with guidelines on implementing performance features of the applicable standards referenced herein. The criteria were developed and adopted following public hearings conducted by the International Accreditation Service, Inc. (IAS), Accreditation Committee and are effective on the date shown above. All accreditations issued or reissued on or after the effective date must comply with these criteria. If the criteria are an updated version from a previous edition, solid vertical lines (|) in the outer margin within the criteria indicate a technical change or addition from the previous edition. Deletion indicators (→) are provided in the outer margins where a paragraph or item has been deleted if the deletion resulted from a technical change. These criteria may be further revised as the need dictates.

IAS may consider alternate criteria provided the proponent submits substantiating data demonstrating that the alternate criteria are at least equivalent to the attached criteria and otherwise meet applicable accreditation requirements.

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OVERVIEW

IMPORTANT DOCUMENTS

SEARCH PRODUCT CERTIFICATION AGENCIES



PRODUCT CERTIFICATION AGENCY

Accreditation Criteria for
Product Certification
Agencies AC370 ▶



PRODUCT CERTIFICATION AGENCY

Crterios de
Organismos de Certificación
de Productos AC370 ▶

Page 1 of 7

IAS/PCA/005
AC370
October 4, 2023

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https://bpdirectory.intertek.com/pages/DLP_Search.aspx

INTERTEK DIRECTORY OF BUILDING PRODUCTS

Search and view information on the Directory of Building Products, including Product Listings, Code Compliance Research Reports (CCRRs), Certificates of Compliance (COCs), Quality Assurance, and Industry Programs.

Company: Nothing selected

Listing Category: Nothing selected

CSI Code: 05 40 00 Cold-Formed Metal Framing

Standard: Nothing selected

Program: CCRR

Keywords: Spec ID: CRR #: COC #: Trade/Brand Name: Design Document:

☐ Limit results to listings with code compliance research reports (CCRRs)

☐ Limit results to listings with certificates of compliance (COCs)

SEARCH RESET

Company ▲	Listed Product	Spec ID	Standard	More
California Expanded Metal Products Co. - CEMCO	California Expanded Metal Products Company (CEMCO) - Standard Cold-Formed Steel Framing Members	40645	ICC-ES AC46 (2015); ICC-ES AC86 (R2015)	CCRR #: CCRR-0224
CGK, Inc. dba Premier Steel Fabrication	CGK, Inc. DBA Premier Steel Fabrication -	45443	ICC-ES AC46 (2015); ICC-ES AC86 (R2015)	CCRR #: CCRR-0224

https://icc-es.org/general-listing-directory/

General Listing Directory

Home > General Listing Directory

Reports arranged by CSI (Construction Specifications Institute)

< Back

DIVISION 05 00 00 METALS > 05 40 00 Cold-Formed Metal Framing

Show 10 entries View Legend

Report number	Manufacturer	Product	Codes
ELC-5019 PDF	Hilti, Inc.	Hilti Multi-Duty Channel System (MT)	OS
ESL-1527 PDF	New Castle Steel Inc.	New Castle Steel Deck System	
ESR-1166P PDF	ClarkDietrich®	ClarkDietrich® C-Sections and Tracks ESR-1166P Plans	21 18 15 CBC FBC

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https://icc-es.org/general-listing-directory/

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DIVISION 05 00 00 METALS > 05 40 00 Cold-Formed Metal Framing

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ICC-ES Evaluation Report

ESR-1538

Reissued September 2023

Revised June 2024

Subject to renewal September 2025

ICC-ES Evaluation Reports are not to be construed as an endorsement of the subject of the report or a recommendation of any product, system, or method of construction, or as to any product, system, or method of construction, or as to any product, system, or method of construction, or as to any product, system, or method of construction.

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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

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018, 2015 and 2009 International Building Code® (IBC)
- 2021, 2018, 2015 and 2009 International Residential Code® (IRC)
- 2013 Abu Dhabi International Building Code (see Section 9)

*The ADIBC is based on the 2009 IBC.

Property evaluated:

- Structural

2.0 USES

The Cold-Formed Steel Framing members are used for interior nonload-bearing walls, and load-bearing walls.

3.0 DESCRIPTION

3.1 General:

Member designations are shown in Tables 3 and 4. See Figure 1 for details.



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Code Compliance Research Report CCRR-0154

Issue Date: 04-22-2010

Revision Date: 12-19-2023

Renewal Date: 12-31-2024

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:

Ware Industries, Inc. DBA Marino/WARE
400 Metuchen Road
South Plainfield, NJ 07080
(908) 757-9000
www.marinoware.com

REPORT SUBJECT:

ViperStud® Cold-Formed Steel Studs and Tracks

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2021, 2018 and 2015 International Building Code® (IBC)
- 2021, 2018 and 2015 International Residential Code® (IRC)
- 2023, 2020 Florida Building Code (see Section 9)

NOTE: This report references the most recent edition of the codes cited. Code sections in earlier editions of the codes may differ.

1.2 ViperStud® studs and tracks have been evaluated for the following properties:

- Structural
- Corrosion Protection

1.3 ViperStud® studs and tracks are cold-formed steel framing members used to construct interior nonload-bearing walls and ceilings that may be gypsum board sheathed.

2.0 STATEMENT OF COMPLIANCE

ViperStud® studs and tracks comply with the Codes listed in Section 1.1, for the properties stated in Section 1.2 and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.

3.0 DESCRIPTION

3.1 The ViperStud® framing system products recognized in this report are limited to the products with designations found in Table 2: Viper25, Viper20, Viper 27mil, Viper 30mil, and Viper 33mil.

3.2 ViperStud® framing members (studs and tracks) are fabricated from Non-Structural Grade 50 (NS 50), Non-Structural Grade 70 (NS 70), or Non-Structural Grade 33 (NS 33) in accordance with ASTM A1003 steel specifications as specified in Table 2.

3.3 ViperStud® steel framing members have a protective coating conforming to Specification A653/A653M-G40 minimum, or equal, in accordance with AISI S220. Equivalent protective coatings are designated G40EQ.

3.4 ViperStud® studs are available in minimum steel thicknesses of 0.0147", 0.0181", 0.0269", 0.0296", and 0.0329". The framing members are available in depths of 1 5/8", 2 1/2", 3 5/8", 4", and 6". See Figure 1 for stud and track profiles and Table 2 for recognized product designations.

3.5 ViperStud® Track thicknesses correspond to stud thicknesses. The Viper25 track may also be used with the Viper20 studs.

3.6 Trade holes (knockouts) are spaced every 24 inches throughout the stud length and shall not be located within 10 inches of the end. Trade hole dimensions are as indicated in Figure 2 for each stud depth.



Version: 11 November 2021

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intertek.com/building



SFT-BC-CCRR-OP-19a Code Compliance Research Report



EVALUATION REPORT

Number: 283

Originally Issued: 02/01/2014

Revised: 02/24/2023

Valid Through: 02/28/2026

SCAFCO STEEL STUD MANUFACTURING CO.

2800 E. Main Ave.
P.O. Box 3949
Spokane, Washington 99220
(509) 343-9000
www.SCAFSCO.com

2.1 Installation shall comply with the applicable code, this report, and the manufacturer's instructions. In the event of a conflict, the manufacturer's instructions shall govern.

ADDITIONAL MANUFACTURERS

Quail Run Building Materials
2102 W. Lone Cactus Drive
Phoenix, AZ 85027
(602) 269-2316
www.qrbm.com

United Metal Products
234 North Sherman Avenue
Corona, CA 92882
(951) 739-9535
www.unitedmetalproducts.info

Consolidated Fabricators Corp.
8584 Mulberry Ave.
Fontana, CA 92335
(909) 770-8920
<http://www.con-fab.com/>

SLOTTED STEEL TRACK FOR INTERIOR WALLS (SLT, SDLT) AND SEISMIC DRIFT TRACK FOR INTERIOR WALLS (D, DD)

CSI Section:
05 40 00 Cold-Formed Metal Framing

1.0 RECOGNITION

SCAFCO Slotted Track recognized in this report is evaluated for use in supporting steel wall structural performance properties of the Slotted Track with the intent of the provisions of the following regulations:

- 2018, 2015, and 2012 International Building Code® (IBC)
- 2019 California Building Code (CBC) – attached

2.0 LIMITATIONS

Use of the SCAFCO Slotted Track recognized subject to the following limitations:

The product described in this Uniform Evaluation Service (UES) Report is the intent of the provision of the code, as noted in this report, and for all other codes as applicable, in accordance with IBC Section 104.11. This document shall be used in accordance with the provisions of the code.

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UL Evaluation Report

UL ER38320-01

Issued: November 25, 2016

Visit UL's On-Line Certifications Directory: ul.com/database

for current status of Report.

UL Category Code: ULFE

CSI MasterFormat®

DIVISION: 05 00 00 METALS
Sub-level 2: 05 40 00 – Cold-Formed Metal Framing
Sub-level 3: 05 41 00 – Structural Metal Stud Framing

COMPANY:

EvolutionDeck Inc.
25 Industrial Court B
Sault Ste Marie, ON P6B 5Z9
Canada
<http://paverdeck.com/>

1. SUBJECT:

SPX STRUCTURAL PANELS

2. SCOPE OF EVALUATION

Compliance with the following codes:

- 2015, 2012 International Building Code® (IBC)*
- 2010 National Building Code of Canada
- 2012 Ontario Building Code

* The products and engineered design described in this report may also be considered to be in compliance with the 2015 and 2012 International Residential Code (IRC), based on compliance with the IBC and permissibility language in R301.1.3 of the IRC.

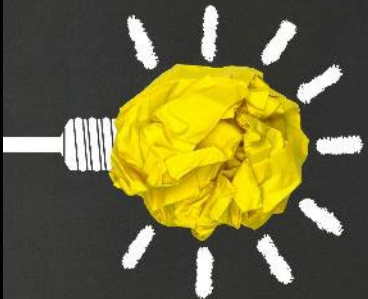
The product was evaluated for the following properties:

- Fire-resistance rated wall construction
- Structural performance

3. REFERENCED DOCUMENTS

- ANSI/UL 263, 14th Ed. (ASTM E119), Fire Tests of Building Construction and Materials

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706-469-4610 (cell)

AWCI's director of technical services (now) allen@awci.org

SFIA's executive director (Starting August 1) allen@steelframing.org

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STEEL FRAMING INDUSTRY ASSOCIATION