

**Section 09110**  
**Long Form Specification**  
**INTERIOR METAL STUD FRAMING**

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*This section includes lightweight, usually 0.036 inch (0.9 mm) thick or lighter, non-axial load bearing metal stud framing including a special top-track permitting vertical deflection of structural members while maintaining lateral stud partition alignment. Edit this section to provide stud materials for interior partitions. Load bearing stud framing for structural conditions is described in Section 05410 - Load Bearing Metal Studs. This section can be supplemented with performance criteria statements if conflicting prescriptive statements are edited or deleted accordingly.*

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**PART 1 GENERAL**

**1.1 SECTION INCLUDES**

- A. Formed metal stud framing [at [interior] [\_\_\_\_\_] locations.]
- B. Slotted metal top track to permit vertical structural deflection.
- C. Framing accessories.

**1.2 RELATED SECTIONS**

- A. Section 05500 - Metal Fabrications: Metal fabrications attached to stud framing.
- B. Section 07213 - Batt Insulation: Acoustic insulation between framing members.
- C. Section 07810 - Applied Fireproofing.
- D. Section 08310 - Access Doors.
- E. Section 09205 - Metal Furring and Lathing.
- F. Section 09260 - Gypsum Board Assemblies: Metal studs for partitioning.

**1.3 REFERENCES**

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*List reference standards that are included within the text of this section. Edit the following as required for project conditions.*

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- A. ASTM C645 - Standard Specification for Non-Load (Axial) Bearing Steel Studs, Runners (Track), and Rigid Furring Channels for Screw Application of Gypsum Board.
- B. ASTM A653/A653M - Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- C. ASTM A924 / A924M - Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
- D. ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Board.
- E. ASTM C1002 - Standard Specification for Steel Drill Screws for the Application of Gypsum Board or Metal Plaster Bases.
- F. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.

- G. ASTM E814 - Standard Test Method for Fire Tests of Through-Penetration Fire Stops.
- H. UL 2079 - Test for Fire Resistance of Building Joint Systems.

#### **1.4 SYSTEM DESCRIPTION**

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*Use this article carefully; restrict statements to describe the combined result of the components used to assemble the system. Do not repeat statements made in the Section Includes article.*

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- A. Interior Walls: Metal stud framing system with [batt] [\_\_\_\_\_] type acoustic insulation specified in Section [\_\_\_\_\_] , interior gypsum board specified in Section [\_\_\_\_\_].
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*The deflection limits in the following paragraph relate directly to the nature, type, and exposure of the finish to be installed over the metal framing work. Smooth finish plasters usually require a deflection limit of 1:240, 1:360, or less. Certain masonry veneer cladding, when attached to components specified in this section, may require even more stringent deflection limits such as 1:600; also consider the type and frequency of masonry wall ties and load distribution to the metal stud framing.*

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- B. Maximum Allowable Deflection: [1:180] [1:240] [1:360] [\_\_\_\_\_] span.
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*The following subparagraph identifies anticipated deflections of building structural framing elements and the effect the deflecting member will have on the metal framing work of this section.*

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- C. Design system to accommodate construction tolerances, deflection of building structural members, and clearances of intended openings.
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*The following Article identifies performance requirements for metal stud systems in conjunction with fireproofing assemblies specified under Section 07810. Edit the Paragraphs to suit Project conditions and requirements.*

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#### **1.5 PERFORMANCE REQUIREMENTS**

- A. Cyclic System: When tested in accordance with UL 2079 [and UBC-1997, Section 706.2] for cyclical movement and when subsequently tested in accordance with the time temperature curve of ASTM E119 and ASTM E814, conform to requirements of 1 and 2 hour fire resistive rated construction and to requirements of hose stream resistance.

#### **1.6 SUBMITTALS FOR REVIEW**

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*Do not request submittals if drawings sufficiently describe the products of this section or if proprietary specifying techniques are used. The review of submittals increases the possibility of unintended variations to drawings, thereby increasing the Specifier's liability. The following submittals are intended for review and approval or other action by the Consultant.*

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- A. Section 01300: Submission procedures.

- B. Shop Drawings:
  1. Indicate [prefabricated work,] component details, [stud layout,] [framed openings,] [anchorage to structure,] [type and location of fasteners,] and accessories or items required of other related work.
  2. Describe method for securing [studs] [\_\_\_\_\_] to tracks, [splicing,] and for blocking and reinforcement to framing connections.
  3. Provide calculations for loadings and stresses of [exterior walls,] [specially fabricated framing,] [and] [\_\_\_\_\_] under the Professional Structural Engineer's seal.
- C. Product Data: Provide data describing standard framing member materials and finish, product criteria, load charts, limitations, [and] [\_\_\_\_\_].

### 1.7 **SUBMITTALS FOR INFORMATION**

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*The following submittals are informational; responsive action by the Consultant is not required.*

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- A. Section 01300: Submission procedures.
 

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*When manufacturer's instructions for specific installation requirements are referenced in Part 3 Execution, include the following request for submittal of those instructions. Edit the Part 3 statements to avoid conflict with manufacturer's instructions.*

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- B. Manufacturer's Installation Instructions: Indicate special procedures, perimeter conditions requiring special attention, and [\_\_\_\_\_].

### 1.8 **QUALITY ASSURANCE**

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*Include the last sentence of the following paragraph only when the costs of acquiring the specified standards are justified.*

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- A. Perform Work in accordance with [ASTM C754.] [ML/SFA 540.]
- B. ICBO - ESER - 5344
- C. Fire-Rated UL2079

### 1.9 **MOCK-UP**

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*Use this article for assessing full sized erected assemblies for review of construction, coordination of work of several sections, testing, or observation of operation.*

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- A. Section 01400 - Quality Control: Requirements for mock-up.
- B. Provide mock-up of stud wall framing including [insulation,] [sheathing,] [glazed frame,] [door frame,] [\_\_\_\_\_,] and interior finish specified in other sections. Coordinate with installation of associated work of Sections [05410,] [07260,] [07270,] [09206,] [09260,] [and] [\_\_\_\_\_].
- C. Mock-up Size: [\_\_\_\_x\_\_\_\_x\_\_\_\_] m ([\_\_\_\_x\_\_\_\_x\_\_\_\_] feet), including corner.
- D. Mock-up may [not] remain as part of the Work.

## 1.10 DELIVERY STORAGE AND HANDLING

- A. Store materials off ground in a dry, well-ventilated area, covered or otherwise protected from physical damage.
- B. Support Products in a manner to prevent bending or a deflection set.

## 1.11 PROJECT CONDITIONS

- A. Section 01300: Coordination and meetings.
- B. Coordinate the placement of components within the stud framing specified in Section [\_\_\_\_\_].

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

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*In this article and subsequent articles, list the manufacturers acceptable for this project. Edit the subsequent descriptive specifications to identify project requirements and to eliminate any conflict with specified products.*

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- A. Slotted Top Track: Sliptrack Systems, SLP-TRK®, Phone: 888-475-7875, Fax: 530-662-2865, e-mail: mail@bradyinnovations.com, web site: www.bradyinnovations.com.
- B. [\_\_\_\_\_].
- C. Substitutions: [Refer to Section 01600.] [Not permitted.]

### 2.2 STUD FRAMING MATERIALS

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*If multiple thicknesses and stud widths are required, schedule this criteria at the end of the section or indicate on drawings.*

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- A. Studs: ASTM A653/A653M, non-load bearing rolled steel, channel shaped, punched for utility access, [as scheduled.] [as follows:]
  - 1. Depth: [40] [60] [90] [100] [150] [\_\_\_\_] mm ([1-5/8] [2-1/2] [3-1/2] [4] [6] [\_\_\_\_] inches).
  - 2. Thickness: [0.9] [0.75] [\_\_\_\_] mm ([0.036] [0.030] [\_\_\_\_] inch).
- B. Bottom Tracks: Same material and thickness as studs, bent leg retainer notched to receive studs [with provision for crimp locking to stud].
- C. Slotted Top Tracks:
  - 1. 1.5 mm (16 ga) thick, to ASTM A653/A653M, Grade 50 with a minimum yield point of 345 MPa (50,000 psi) thick,
  - 2. [1.2] [0.91] [0.53] mm ([18 ga] [20 ga] [25 ga]) thick, to ASTM A653/A653M, Grade 33 with a minimum yield point of 228 MPa (33,000 psi),
  - 3. [63] [92] [102] [152] [203] mm ([2-1/2] [3-5/8] [4] [6] [8] inches) wide,
  - 4. 3050 mm (10'-0") long,
  - 5. 63 mm (2-1/2 inch) down-standing legs with 6 mm (1/4 inch) wide by 38 mm (1-1/2 inch) high slots spaced at 25 mm (1 inch) on center.

- D. Furring and Bracing Members: Of same material as studs; thickness to suit purpose.
- E. Fasteners: ASTM C1002, [self drilling, self tapping screws.] [\_\_\_\_\_.]
- F. Sheet Metal Backing: [0.9] [\_\_\_\_] mm thick [0.036] [\_\_\_\_] inch) [galvanized] steel for reinforcement of [\_\_\_\_\_].
- G. Anchorage Devices: [Power actuated.] [Drilled expansion bolts.] [Screws with sleeves.] [\_\_\_\_\_.]
- H. [Acoustic] [\_\_\_\_\_] Sealant: As specified in Section [09260.] [\_\_\_\_\_.]
- I. Touch-Up Primer for Galvanized Surfaces: SPCC - Paint 20 zinc rich.

## **2.3 FABRICATION**

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*Delete the following paragraphs when shop fabricated assemblies are not required.*

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- A. Fabricate assemblies of [framed sections] [\_\_\_\_\_] to sizes and profiles required.
- B. Fit, reinforce, and brace framing members to suit design requirements.
- C. Fit and assemble in largest practical sections for delivery to site, ready for installation.

## **2.4 FINISHES**

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*Metal finishes may be constant throughout as either galvanized, primed, or unfinished. Where finishes vary by component or location, identify the variables in a schedule at end of this section.*

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- A. Studs and Slotted Top Track: [Galvanize to ASTM A924 / A924M [Z275] [Z180] ([G90] [G60]) coating class.] [Prime paint.] [Electro-galvanize.]
- B. Bottom Tracks and Headers: [Galvanize to ASTM A924 / A924M [Z275] [Z180] ([G90] [G60]) coating class.] [Prime paint.] [Electro-galvanized.]
- C. Accessories: [Same finish as framing members.] [Galvanize to ASTM A924 / A924M, [Z275] [Z180] ([G90] [G60]) coating class.] [Prime paint.]

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Section 01700: Verification of existing conditions before starting work.
- B. Verify that rough-in utilities are in proper location.

### **3.2 INSTALLATION**

- A. Align and secure slotted top track and bottom runners at [600] [\_\_\_\_] mm ([24] [\_\_\_\_] inches) on center.
- B. Install slotted tracks in strict accordance with manufacturer's instructions and referenced regulation requirements, to give proper support [and to achieve the required fire rating].

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*Include and edit either of the following paragraphs for air or acoustic sealing between the runner and substrate. Coordinate with Sections 07260 and 07270.*

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- C. Place [one] [two] [\_\_\_] beads of [acoustic] [\_\_\_\_\_] sealant between runners and substrate [, studs and adjacent construction] to achieve [a vapour seal] [and] [an acoustic seal].
- D. [OR]
- E. Achieve an air tight seal between runners and substrate with [acoustic] [\_\_\_\_\_] sealant in conjunction with Section [07270.] [\_\_\_\_\_.]

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*Include and edit either of the following paragraphs for air or acoustic sealing between the stud and the adjacent vertical wall construction. Coordinate with Section 07270.*

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- F. Place [one] [two] [\_\_\_] beads of [acoustic] [\_\_\_\_\_] sealant between studs and adjacent vertical surfaces to achieve an [air seal] [acoustic seal].
- G. [OR]
- H. Achieve an air tight seal between studs and adjacent vertical surfaces with [acoustic] [\_\_\_\_\_] sealant in conjunction with Section [07270.] [\_\_\_\_\_.]
- I. Fit runners under and above openings; secure intermediate studs to same spacing as wall studs.

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*Check span capability of studs with positive and negative wind loads and sheathing materials to determine stud spacing. Stud spacing may be specified below if a single spacing is used throughout the work; if multiple stud spacing dimensions are required, schedule this criteria at the end of the section or indicate on drawings.*

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- J. Install studs vertically at [300] [400] [600] [\_\_\_] mm ([12] [16] [24] [\_\_\_] inches) on center.
- K. Align stud web openings horizontally.
- L. Secure studs to bottom track using [crimping] [clip and tie] [fastener] [\_\_\_\_\_] method. Do not weld.
- M. Secure studs to slotted top track with #8 wafer-head screws. Maintain minimum deflection gap of 16.5 mm (0.65 inch) between top of stud and top of slotted track. Limit vertical movement to 25 mm (1 inch), plus or minus 13 mm (1/2 inch).

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*In the following paragraph, identify if stud splicing is acceptable. If it is, include and edit the second sentence.*

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- N. Stud splicing [not] permissible. [Splice studs with 200 mm (8 inch) nested lap, secure each stud flange with [flush head screw.] [crimped indentation.] [\_\_\_\_\_.]
- O. Fabricate corners using a minimum of three studs.
- P. Double stud at wall openings, door and window jambs, not more than 50 mm (2 inches) from each side of openings.
- Q. Brace stud framing system rigid.
- R. Coordinate erection of studs with requirements of [door frames,] [glazed frames,] [and] [\_\_\_\_\_]; install supports and attachments.

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*Wood blocking can be placed in vertical studs at door jambs to assist in securing the door frame.*

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- S. Coordinate installation of wood bucks, anchors, and wood blocking with electrical and mechanical work to be placed within or behind stud framing.
  - T. Blocking: [Secure wood blocking to metal studs.] [Secure steel channels to studs.] [Install blocking for support of [plumbing fixtures,] [toilet partitions,] [wall cabinets,] [toilet accessories,] [hardware,] [opening frames,] [and] [\_\_\_\_\_].]
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*Utilize the first of the following three paragraphs for stud framing that extends to the finished ceiling only. The second paragraph describes stud framing that extends to structure above. The third paragraph describes stud framing that extends to the ceiling and to the structure above.*

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- U. Extend stud framing to ceiling only. Attach ceiling runner securely to [acoustic ceiling track] [ceiling framing] in accordance with [manufacturer's instructions.] [details indicated.]
  - V. [OR]
  - W. Refer to Drawings for indication of partitions extending stud framing through the ceiling to the structure above. Maintain clearance under structural building members to avoid deflection transfer to studs by installing slotted top tracks.
  - X. [OR]
  - Y. Refer to Drawings for indication of partitions extending to finished ceiling only and for partitions extending through the ceiling to the structure above. Maintain clearance under structural building members to avoid deflection transfer to studs by installing slotted top tracks.
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*The following paragraph identifies the need to make a similar statement in the appropriate insulation section for coordination purposes.*

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- Z. Coordinate placement of insulation in stud spaces after stud frame erection.

### **3.3 ERECTION TOLERANCES**

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*Include this article when tolerances are important to the nature of the project. Tolerances required will vary depending on the nature of subsequent construction of finish. Flat, smooth surface finishes will require rigid erection tolerances.*

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- A. Section 01400: Tolerances.
- B. Maximum Variation From True Position: [3 mm in 3 m] [\_\_\_\_\_] ([1/8 inch in 10 feet] [\_\_\_\_\_]).
- C. Maximum Variation From Plumb: [3 mm in 3 m] [\_\_\_\_\_] ([1/8 inch in 10 feet]) [\_\_\_\_\_].

**END OF SECTION**