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3.5 Fabrication



a) Mechanical fasteners, except for nails, at exposed faces shall be concealed.

3.5.1 Stringers

3.5.1.1 Stringers, Mortised

a) Mortise depth shall be a minimum of 6.4 mm [.250"] to facilitate securing of the wedge, tread, and/or riser, as applicable (See Figure 97).

b) At open mortised (wedged) stringers, tread/riser/stringer joint gap shall be a maximum of .4 mm [.016"]. Gaps shall not exceed 20 percent of the joint perimeter (See Figure 97-B, C, & D).

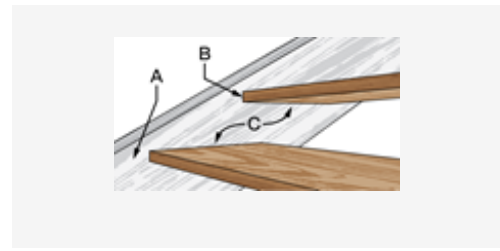
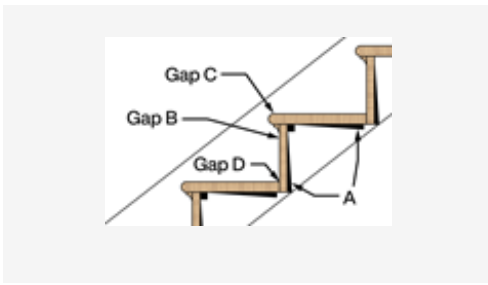
c) At nosing, joint gap shall be a maximum of .8 mm [.031"] (See Figure 97-C).

d) Treads and risers that are mortised into open mortised stringers shall be securely attached with wedges, glue, and/or mechanical fasteners (See Figure 97-A).

e) At closed mortise (no wedge) stringers (See Figure 88-A), tread/riser/stringer joint gap shall not exceed (See Figure 88-B and 88-C):

Premium	Custom	Economy
.4 mm [.016"]	.8 mm [.031"]	1.2 mm [.047"]

f) Treads and risers that are mortised into closed mortised stringers shall be securely attached with glue and mechanical fasteners (See Figure 88).



3.5.1.2 Stringers, Open Cut

- a) Shall be securely attached to underside of treads with glue blocks and/or pocket screws.
- b) Shall be mitered to risers with no visible end grain and no gap in the miter joints.
- c) At risers with transparent finish, miter joints shall be glued and fasteners shall be concealed whenever possible.

3.5.1.3 Stringer Transitions

- a) Shall allow for continuation, return, or termination of base cap (See Figure 100).



3.5.2 Risers

- a) Tread/top and bottom of riser joint gap shall not exceed:

Premium	Custom	Economy
.3 mm [.012"] wide by 20% of the joint length	.4 mm [.016"] wide by 20% of the joint length	.8 mm [.031"] wide by 20% of the joint length

- b) Where scotia is used, gap tolerance shall be measured between tread and scotia.
- c) Shall be securely attached to the leading edge of the tread with mechanical fasteners and/or glue blocks.

d) Shall be securely attached to the trailing edge of the tread with mechanical fasteners.

3.5.3 Treads

a) Shall be securely attached to stringers and risers with mechanical fasteners, wedges, and/or glue blocks.

b) At open rise stairs, plank treads shall be attached to stringers with mechanical fasteners.

3.5.4 Stair Carriages (Concealed Stringers)

a) Shall be securely attached to the staircase assembly.

b) Shall be securely attached to the building structure.

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