Masonry Bulletin

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Are there typical detail drawings for 90 degree corners using 8” concrete masonry units?

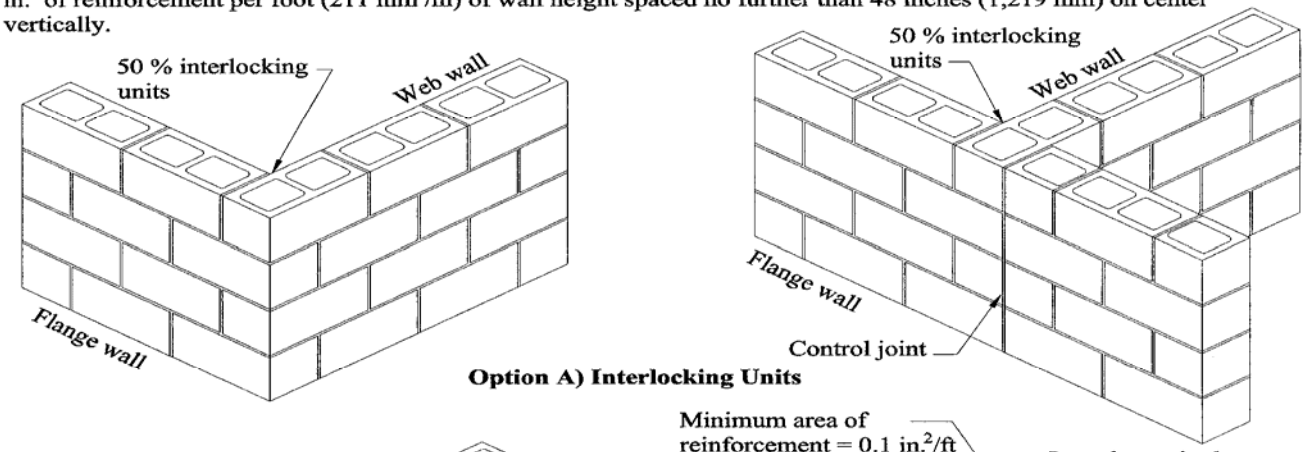
The following typical details for corners in a masonry wall are taken from NCMA Design and Construction Details for Concrete Masonry manual referenced by ACI 530/ASCE 5/TMS402:

When the design relies upon two intersecting walls to act compositely to resist applied loads, the *Building Code Requirements for Masonry Structures* (Ref. 1.8) stipulates three options to transfer stresses from one wall to the other, each requiring the masonry to be laid in running bond. When any of these conditions are not met, the transfer of shear forces between walls is required to be prevented.

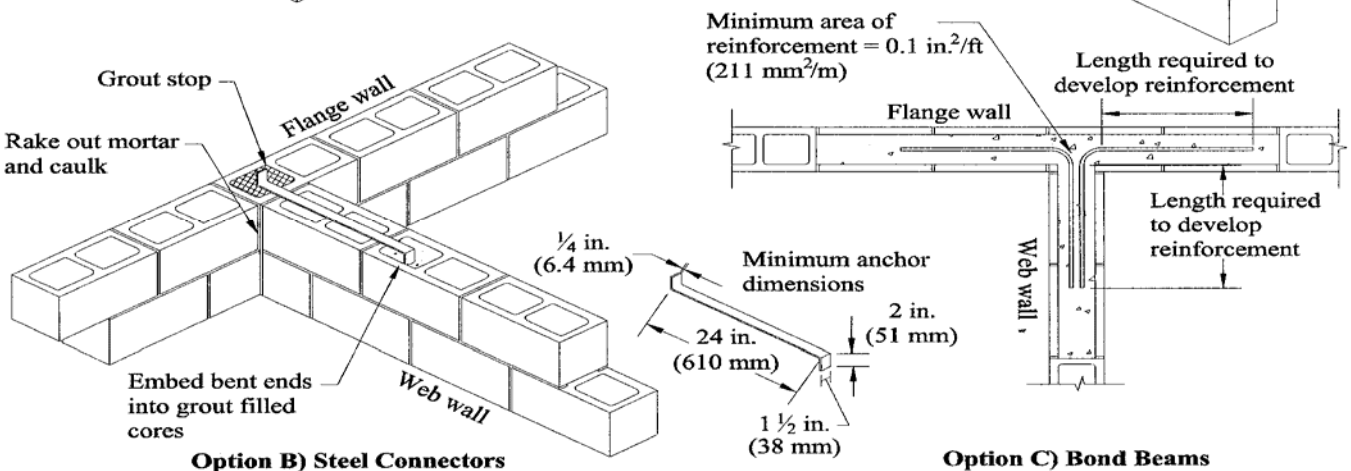
Option A: Walls are constructed such that 50 percent of the units interlock at the interface. This option, while easily accomplished at corners, results in bond interruption at 'T' intersections. As such, it is generally good practice to install a control joint in the flange wall to minimize cracking at this location unless horizontal reinforcement or other detailing is provided to eliminate the need for a control joint. If a control joint is constructed, the portion of the flange wall separated from the intersection by the control joint generally should not be considered effective in resisting applied loads from the web wall. See Section 2C for control joint details.

Option B: Walls are anchored together by steel connectors spaced at vertical intervals not exceeding 48 inches (1,219 mm) on center. While not required by Code, it is generally good practice to construct a control joint (to minimize cracking potential) at the intersection of two walls anchored in such a manner.

Option C: Bond beams are incorporated into the intersecting walls. The bond beams are required to contain at least 0.1 in.^{2} of reinforcement per foot (211 mm^2/m) of wall height spaced no further than 48 inches (1,219 mm) on center vertically.



Option A) Interlocking Units



Option B) Steel Connectors **Option C) Bond Beams**