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HW #17 Beam Design

A built-up shape consisting of two 1 x 16 flanges and a 5/16 x 40 web is used as a beam with continuous lateral support. If A572 Grade 50 steel is used, what is the flexural design strength? For width-thickness ratio limits for welded shapes, refer to Table B5.1 in Chapter B of the AISC LRFD Specifications, "Design Requirements."