

C.23 STEM WALLS CRAWL SPACES

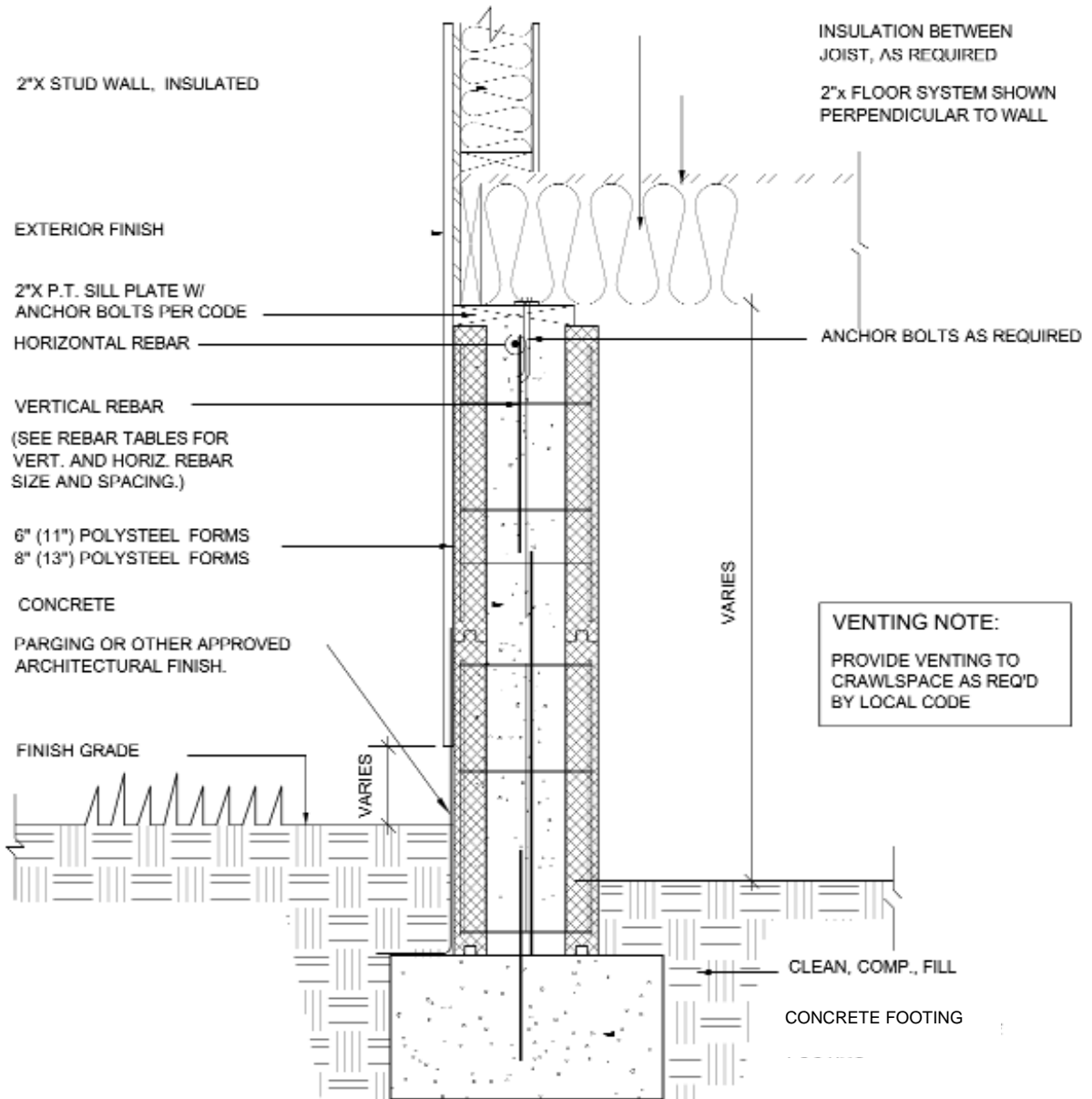
Building a stem wall for crawl spaces is virtually the same as constructing a PolySteel wall, with few exceptions. The key decision to be made is how to connect the floor system to the wall. For a framed structure, the floor can be set on top of the wall, as illustrated in [Figure 3.24](#) below. For a PolySteel structure (good decision), you should attach the floor system as outlined in Section C.13 (Intermediate Floors) of the Manual. It is also worth noting that, while the building code requires foam plastic insulation to be covered with a 15-minute thermal barrier (e.g., 1/2" drywall), this is not required for crawl spaces constructed with PolySteel that meet certain requirements. Consult the ICC Evaluation Report for PolySteel for details. [Figures 3.24](#) and [3.25](#) below illustrate the basic designs of a PolySteel stem wall for a crawl space.

1. Reinforce the stem wall in accordance with Table C-4000-1 in the Design Section of the Manual.
2. Set the forms on a wet or dry footing in accordance with the procedures outlined in Section C.7 of the Manual, and make sure the top of the stem wall is level. Trim the bottom of the forms (rather than the top, to maintain the tongue of the form and the concrete bond beam at the top of the wall) as needed, and check the wall for straightness.
3. For stem walls 24 inches high, or less, no bracing is required prior to placing concrete. However, you might want to use a top rail to keep the wall straight and prevent floating (see Section 15.2). For stem walls higher than 24 inches, brace the walls in accordance with the procedures outlined in Section C.10 of the Manual. For stem walls higher than 24 inches, brace the walls in accordance with the procedures outlined in Section C.10 of the Manual.
4. PolySteel creates the ideal energy efficient crawl space and it is our recommendation that, whenever practical, you take steps to reduce or eliminate the need to install crawl space vents in the stem wall, in compliance with the code (Chapter R408 of the IRC). If, however, you plan to install vents in your crawl space, they need to be prepared and braced in the same way a window buck is created, or you can use a vent which has been developed especially for our forms. See Section D.7 in the Tips and Techniques Section of this Manual for details about this vent.

Note: *Crawl spaces with more than 4 feet of unbalanced backfill should be designed as a basement wall in accordance with the appropriate tables in the Design Section of the Manual.*

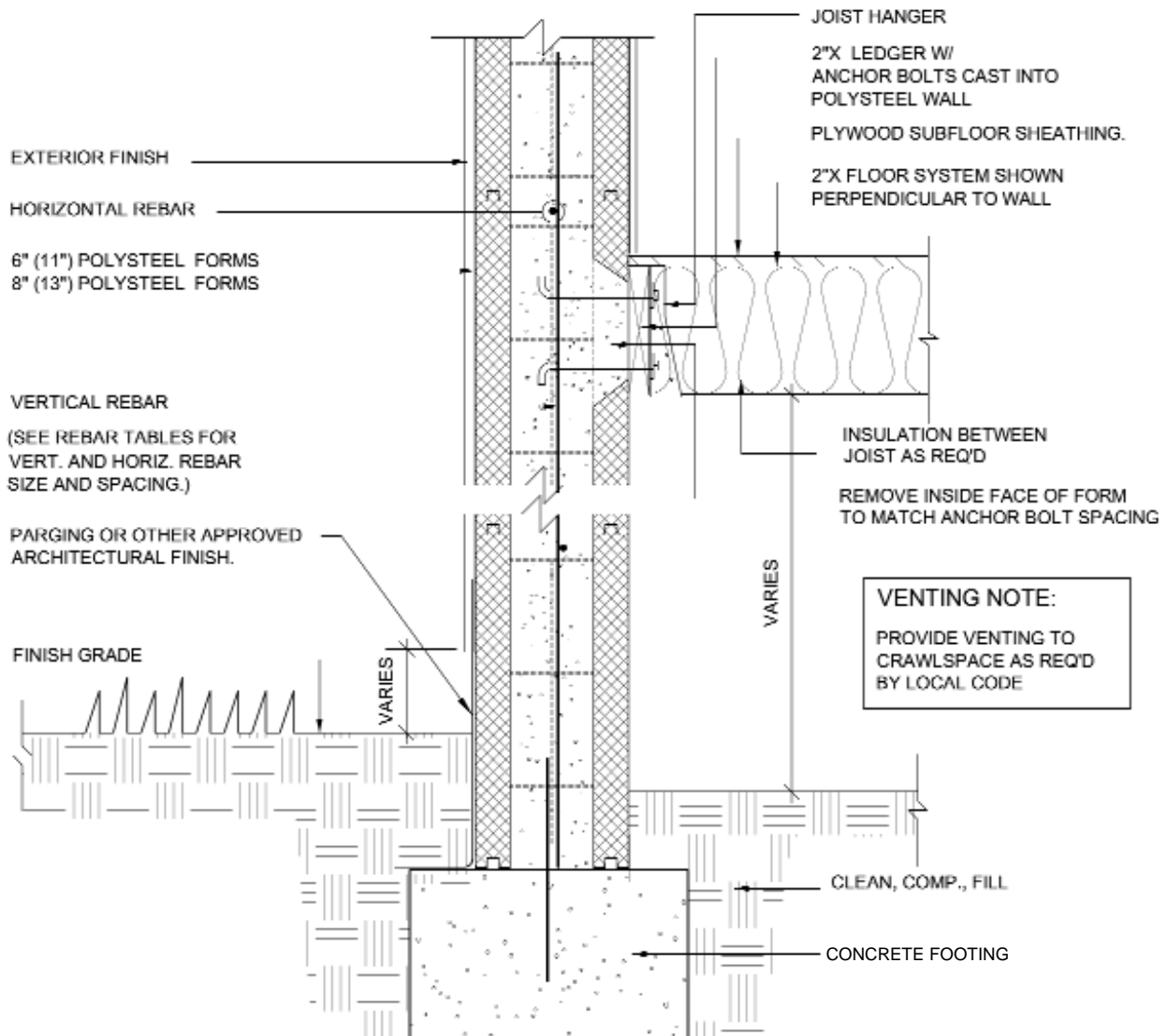
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FIGURE 3.24 STEM WALL AND CRAWL SPACE FOR FRAME CONSTRUCTION



C.23 STEM WALLS CRAWL SPACES

FIGURE 3.25 STEM WALL AND CRAWL SPACE FOR POLYSTEEL CONSTRUCTION



Note: In most stem wall applications, the exterior surface of the stem wall does not require sealing, damp proofing, or waterproofing. However, should your specific application or circumstance make it necessary to coat or seal the exterior of a stem wall, the methods for sealing, or waterproofing, a basement wall should be followed, as outlined in section C.24 of this Manual.