



Masonry Advisory Council

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The 10 Major Items of Brick Veneer on Wood Frame

1. You must use continuous flashing under the first course of brick under the sills and heads of windows and doors in a brick veneer wall. *Do not use asphalt impregnated felt.* Have the flashing extend to the exterior face of the masonry wall. A self-adhered bitumen type is preferred (IPCO flashing or W.R Grace Perm-a-barrier) / otherwise set flashing in a continuous bead of sealant to prevent water from finding its way under the flashing.
2. Install weep holes at 24" on center when using open head joint type weep holes. When using cotton sash cords as a wicking material, space the cords at 16" on center.
3. For one and two family wood frame construction, the corrugated sheet metal anchor spacing must be one anchor for each 2.67 sq. ft. of wall with a maximum spacing of 32" horizontally and 18" vertically on center with a minimum embedment depth of 1 1/2" into the bed joints for the veneer (with 5/8" mortar cover to the outside face). Also place anchors within 12" of openings.
4. It is essential to maintain a 1" minimum air space between the back of the brick veneer and the sheathing to ensure proper drainage.
5. It is recommended to only use Grade SW brick in this climate.
6. For most brick veneer, Type N mortar is suitable; however, Type S may be required. Head joints and bed joints should be full with tooled vee or concave joints.
7. The exterior face of the poured concrete or concrete block foundation, which the brick veneer sits on, should be in the same plane as the finished brick's wall plane. The reason for this is to prevent water from traveling horizontally into the building on the projecting concrete ledge. [If the concrete wall is that far out of line, the flashing should be set in mastic to prevent water from entering under the flashing. If concrete is out of location, brick can overhang the foundation by 1/3 bed depth (with 2/3 bearing on foundation) before a shelf angle is needed.
8. The finished grade must be below the weep holes (preferable 2" to 3" below the flashing line). If brick goes below the flashing, fill the space between the brick and the foundation with grout or mortar.
9. Make sure the flashing is placed behind the building paper or house wrap. (Not in front of the building paper, or water will run between and appear at the wooden sill plate).
10. Use flashing end dams at the edges of openings and prefabricated flashing for inside and outside corners.

Building paper or house wrap



If you would like a copy of BIA Technical Note #28 Revised - send your business card with a note to:
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or call us at 847-297-6704

How to Get Along with the Building Official (for Architects & Contractors)

By Kelly P. Reynolds

How many times have I heard an architect or engineer complain about the local code officials? He's too strict, doesn't interpret the code the same way I do, or is too slow to respond to reviews. Here are the rules on how to succeed with the local official.

- 1) Know what codes are being used in the jurisdiction. Don't complain that "I didn't have to do this in the other towns". Codes can differ due to state and local amendments. It is the designer's responsibility to find this out.
- 2) Don't just drop in on the code official without an appointment. This is not only rude and unprofessional, but interrupts his schedule. Call and make an appointment accordingly.
- 3) Don't call the code official without a specific reason, don't waste his time or yours.
- 4) Respect the code official. Their industry is becoming specialized and you may be surprised how much they can be of assistance. Have a friendly and courteous attitude and see him become helpful throughout the entire project.
- 5) Don't ask the code official what is required. Come prepared and know the codes, ordinances and local amendments. The code official is not going to design your building for you. . . that's your job !!! His job is to review plans, not to teach you how to design.
- 6) Only submit complete plans that are legible and easy to read. Plans that can't be read, are missing sections, and difficult to understand pages only complicate the approval process and get your project to the bottom of the pile. Remember: GIGO (garbage in, garbage out).
- 7) Involve the client in the permitting and review process. Do not, however, have the owner, lawyer, landlord and architect all calling the code official to check on the status of the permit process. Many questions can be answered with the owner present and questionable design issues or uses can be resolved well in advance.
- 8) Plan review takes time. Do not let a problem in your poor planning become an emergency for the building department. The more interruptions, the longer it takes to get your permit.
- 9) Help expedite the plan review process by having all the necessary information easy to find. Provide a code analysis, or use the Plan review Record for the **IBC**. If you want a **FREE** copy of this 16-page form, just send a 10" x 13" self-addressed envelope with 60 cents postage affixed to Kelly P. Reynolds, PO Box 31820, Phoenix, AZ 85046-1820. (Requests without the proper postage **will not** be honored.)
- 10) Have a meeting with all the code officials (building, mechanical, plumbing, electrical, fire department) for project meetings. Keep them in the loop, and approvals will go a lot smoother and without costly delays.
- 11) Don't ask for waivers, bending the rules or cutting some slack. The code is a minimum and looking for ways to cut corners will send up a red flag. If you do not agree with an interpretation, you can go to the Board of Appeals. The purpose of the Board is not for a waiver, but instead to hear both sides and render a fair and accurate interpretation.
- 12) Make your plans as objective as possible. Avoid personal attacks on the code official. In return, he may try to exceed his authority, thus causing further cost and delay with the project.
- 13) Don't blame the code official for the code requirements. He is simply enforcing a code adopted by his elected officials. The truth is he has very little discretionary authority. Try a performance approach to resolving a particular code problem.
- 14) Maintain written records of all meetings and distribute, in writing, all agreements and items discussed in those meetings to all parties involved with the approval process. Don't keep secrets thinking that you can bring them up later and pressure the code official into changing his mind.
- 15) Build rapport with the code officials and thank them for their cooperation. Don't expect special favors, Be willing to offer your technical expertise to his staff. I have had code officials call me about other projects asking my technical opinion., There's nothing wrong with competence and cooperation. Lead the effort.
- 16) Be prepared for the worst case scenario. There is always a chance that you will face ethical issues when the code official wants you to go beyond the code, but your client is willing to comply just to get the project moving along. If corruption, payoffs or stonewalling take place, carefully report illegal activity. Don't tolerate it. Respond, don't react.
- 17) Be professional at all times. Avoid being arrogant or pushy. You can be friendly, personable, helpful and professional without being a know-it-all designer, contractor or engineer. Your people skills can be as important as your technical skills. Once I was in a meeting with an arrogant architect who challenged every code comment, asking who were we to question him. He stated "I have a license." My response to him, "My dog has a license also, so what". At that point he got the message and the meeting went forward.