## CPC Habitat Team 3 Report 8/23/2008

Team 3 consisted of Tim and Martha Cassel, Bryan Singer, Jim and Ethan Wilmot, Denise McKinney, and yours truly. Dean Grothe generously spent the day working with our team.

We're using a different construction technique this time: no more fitting joists into sockets in the brick. A 2 x 6 wall will rest on basement footers. The wall has a single bottom plate of treated lumber that's glued and nailed into the footer and a double top plate on which the first floor joists and sub-flooring will rest.

## Accomplishments:

Team 3 began insulation and framing following the rebuilding of the house's side and rear walls, and the pouring of footers in the basement. Styrofoam insulation, which should cover the basement walls up to the first floor level, is complete on all but the front. (It's OK if the insulation extends above the basement framing – it can be trimmed off later, after the subflooring is installed.) The left wall framing is complete (more or less – see below) and the right wall is something less than half done.

We also made quite a few repairs to the masonry in places where there were missing or loose bricks and mortar.

## Problems

### Problems resolved:

This house is a bit odd in that the basement will be not quite 5' high – really more than a crawl space, but less than a basement. I think just planning how to get started was a significant first step – there was a lot of measure-twice-cut-once involved in ensuring the basement framing was the correct height.

### Problems to be resolved:

In spite of the house's left wall being new, it is far from straight – you can stand at the front of the alley beside the house and see just how crooked it is. We snapped a chalk line to get the framing wall straight, but the crooked masonry means that once the basement framing is done, each joist and sheet of subflooring will have to be measured carefully and will end up being cut to different sizes to conform to the masonry.

In addition, the new footers on which the basement framing rests aren't level front-to-back and the left footer isn't consistently level with the right footer. We first laid a framing level along the footer on the left side, and it looked straight, but once we'd cut the studs all to the same length and set the wall in place, it became apparent that there were areas where the concrete had set at different heights. I imagine if we ignored this problem and went ahead with the joists and subflooring, it wouldn't be too apparent that the floor wasn't level, but it would be better if the top plate of the left wall were shimmed. I've attached a photo to illustrate where the shimming may be needed.

When we began the right wall, we tried cutting each stud to a different length to accommodate the variations in the footer, but I think we were only partially successful, so shimming may be required on the right wall as well. I suspect the best way to proceed may be to build the right wall as level as possible, then insert shims while installing the joists, depending on how level each joist is. Hope this makes sense.

## Next Steps:

The right side wall will need to be completed. The back wall needs to be framed with 2 x 4s – the side walls will support most of the house's weight, but the front and back walls will support the ends of the subfloor. The floor will be lower at the front to allow clearance for the door, so 2 x 4 framing for this lower area will have to be built. This lower area will extend front-to-back to where the 2 x 6 basement wall framing begins: Bo can give the specs for the left-to-right dimension. The next team should be able to begin installing the joists, and perhaps the subflooring.

**Materials needed:**

- 2 x 6 x 8s to complete the right side wall and top plate
- Liquid Nails to glue the right side bottom plate to the footer
- Nail gun to nail the right side bottom plate into the footer
- Floor joists
- Subflooring
- Generator
- Compressor
- Framing nailer
- Appropriate nails
- There's a bag of concrete left in the house, but you'll need water, hoes, trowels, etc. to continue masonry repairs

## Final Comments:

We lost several hours because the generator, compressor, and sufficient lumber weren't delivered to the house until 11:00 – all we could do was work on masonry repairs and insulation. We used all of the lumber that was finally delivered and called for more, but quickly used all of the second delivery as well. Assuming the next team can get the lumber and tools delivered quickly, I believe there should be sufficient time to begin installing the first floor joists and subflooring. If my description of the work that needs to be done is insufficient, I can be reached at 410-992-3789 (home) or 410-707-4181 (cell). I'll probably be out of town next weekend, or I'd meet the next team at the house – if I'm not out of town, I'll drop by.


Styrofoam