

Happy Thanksgiving! (2012 Newsletter, Published October 2014)

We closed 2011 with our neighbor siding professional replacing all the windows in our house, and replacing the new damaged siding with more new siding. Inside, I installed ceiling joist extensions, furring strips, and replaced the section of ceiling above where the kitchen cabinets used to be.

Between working on the kitchen design, and meeting with cabinetry folks, I removed most of the drywall from the kitchen walls and commenced repairing the ceiling. As customary when I do any work in the house, all old wiring is abandoned and replaced with new Romex. I knew where the main set of switches must be located for the ceiling lighting in both the kitchen and the patio room, so it was no problem to completely finish the ceilings, even before I finalized the rest of the electric.

The next stage involved removing as much of the old kitchen as possible, while maintaining some of the kitchen in usable condition for as long as possible. I included the photo on the left, pardon the mess, to show why I had so much trouble taking early measurements. When I made a measurement across the old existing counter top, through a hole in the drywall to the blocks, I got a different measurement than I obtained later at ceiling level.

The new sheet of drywall in the finished patio room is perfectly vertical, and even trimmed slightly at the bottom right corner. This wall was on the exterior of the house, to the left of the rear entry door.



I hate showing some of the mess I encountered, but it explains a lot about the wall being so far out of plumb. The light green vertical studs in the right photo measure a full 2"x4" plus an additional 3/4" dark green flooring plank is placed behind the vertical studs only on three studs. This added width was probably necessary to install the drain for the washer. Also note the capped and taped old electrical wires hidden inside the wall. This is just one reason why I abandon existing wiring and completely rewire a house with new Romex.



If you are curious about the pink sheet of plastic. As you can see, the drywall, lower studs, and flooring are deteriorated from the drain overflowing on occasion. Back when I remodeled the master bedroom, I replaced this section of drywall, which is inside the back wall of a closet. Finding no leaks, and to ensure no moisture got into the closet until we redid the kitchen, should the drain overflow again, I lined the wall with plastic before replacing the drywall. If I recall, I used green board in this area as a secondary safety measure as well.

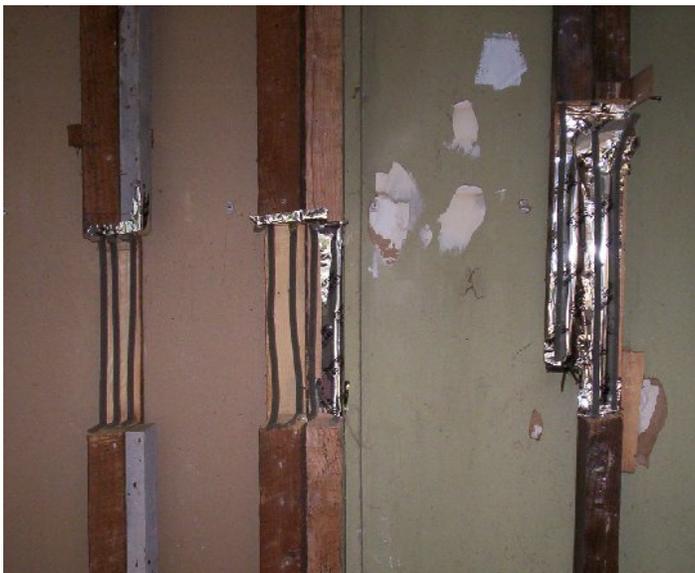
The wall thickness of this north facing wall ranged from 4-1/2" to 6-1/4" on the kitchen side. The bedroom side was fairly close to plumb. The lengthy 2005 Newsletter shows the bedroom renovation.

I'm sure it goes without saying, when working with such tight tolerances, in many cases I was often splitting more than hairs to ensure everything came together at the end perfectly. Placing a vent hood on an interior wall leads to all kinds of problems. If someone makes a vertical exterior duct cover, I never found one. So I used the standard easy to find six inch round duct cover. Thankfully, the back of a corner cabinet has a wedge shape giving me just the amount of room I would need to make the transition from rectangular to round, while maintaining a downhill slope in the ductwork.

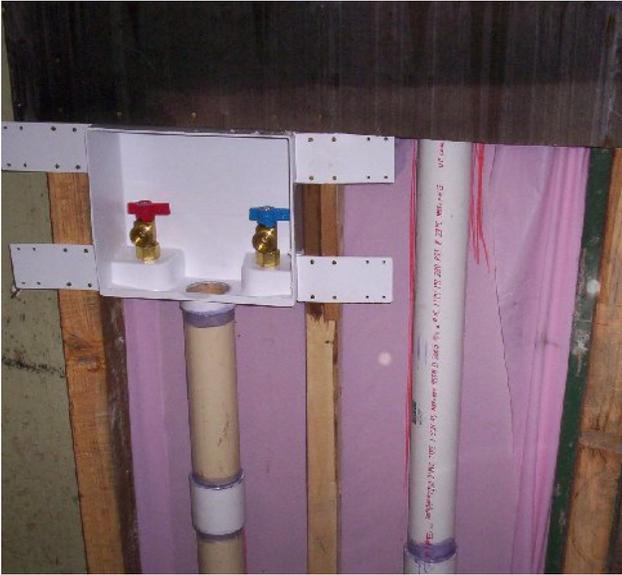
Some concrete blocks are solid and/or filled with concrete, anything to make the job harder. It took me a long time to get through since I run out of energy so fast. The right picture shows the slots cut in the studs for the rectangular ductwork to pass through. They will be reinforced again later in the project.



To prevent a rattle inside the walls, I placed foam between the wood and ductwork and covered with mylar duct tape. Soft liquid foam will also be used after all the studding is in place. I also placed the foam and tape over the side of the ductwork facing the camera. The transition piece from rectangular to round will receive a poured in liquid polyester to prevent grease puddling inside this area.



On this same wall, to the right where the original plumbing was located. I tore out the existing waste and supply plumbing, then relocated the original trap and standpipe to under the floor. This required repairing the floor joist and adding a cross member for support. I also replaced all the original cast iron to the main vent stack with PVC. Yes I'm very sloppy with the purple cleaner. I learned years ago if you are too neat, the blind inspectors will say you didn't use enough. Both the hot and cold water supply lines have a long anti hammer tube. It stops noise and extends the life of solenoid valves.



Before I could complete the sanitary plumbing connections, it was time to remove the last remaining section of the kitchen cabinets, the sink base. I won't get into the things we found under these cabinets, but the condition of the flooring under the sink truly was a surprise. The wood was so deteriorated you could crumble it in your hands like a sugar cookie. The old iron pipes were so brittle, I did not need to cut them with a saw, a sharp yank and they snapped right off. All of the sanitary waste plumbing will be replaced and vented through a new stack. Our new kitchen design includes a deep sink, disposal, dishwasher with it's own waste and water lines, and a direct line to the ice maker. The new kitchen windows are filled with UV and solar heat protecting gas to four or five times the normal level.



Although I have several photo's taken after I completed each phase of the sanitary and supply plumbing. I think it goes without saying I had to know exactly where each stud would be placed, and where each of the appliances will fit, and how. As we move along in the construction project, not visible in these images, the extra steps taken to ensure appliances ended up flush with the counter top fronts, will become more apparent.

In the left image, the stud closest to the left, without a lower cabinet mount rail, will be the refrigerator alcove. Likewise, the connections for the dishwasher are in their own little alcove. Neither the floor or ceiling in this house is level, thus the reason for the painted white line near the ceiling to draw a level line across. The horizontal studs are for the cabinet mounting rails. The vertical studs on this wall are not on sixteen inch centers, they are aligned with the edges of the individual cabinet units.



To appease the plumbers who may be viewing the waste plumbing in the photo above, it is properly vented. The wet vent distance under the floor, before reaching the dry stack-vented branch arm to the main or common vent stack is under twenty inches. The original DWV was only wet vented and passed code. When I replaced all the old cast iron with PVC, I chose to add the additional dry vent. The visible trap in the photo is for the dishwasher waste connection. Dishwashers already have a vent loop, some even use an above the counter AAV, which are legal if used on a dishwasher as a vacuum breaker, but not as a plumbing vent. Code did not require any further venting than what I already supplied. So what's with the auxiliary revent pipe that is undersized to pass code? Because the DWV system already passes code without a revent pipe, technically it is not a revent pipe at all, but is used as a vacuum breaker for the dishwasher. It runs steadily uphill to the stack-vent for the washing machine.

The copper tubing is the more interesting than waste plumbing any day. The red knob on the right is a hot water shut-off to the dishwasher, and the anti-hammer tube is covered with foam rubber to prevent a rattle against the wall or stud. The red valve to the left is a cold water shut-off to the refrigerator. By running half inch tube all the way to the refrigerator, you have less resistance than using ice-maker hook-up kit tubing. Although we are talking low volume usage, I still installed an anti-hammer tube here as well, because of the solenoids in the refrigerator. You will recognize the two standard stub-outs for the kitchen sink faucet, to which shut-offs will be added later. The longer stub-out below, on the hot water side, will go to a full-pressure fill-valve for filling mop and other buckets. I use a lot of hot water on some of my projects and this extra outlet is beneficial. I should have added one on the cold water side for the dogs water, but I normally fill it from a tub spout added for that purpose.

Next on the agenda, after repairing the floor under the sink, I installed the pull-boxes and rough-in for the wiring. All measurements are made from the level line drawn around the perimeter of the room, where the top rail for the upper cabinets is located. This was necessary because the floor is not level. Once the wiring was in, I installed spacer blocks on the floor, under what later would be the four corners of each cabinet section, and elsewhere as needed. These spacers were both nailed and glued in place. The photo on the right shows the studs and added bracing over the hood vent ductwork. Both of the two blue pull-boxes closest to the corner, representing eight electrical outlets, will be inside the corner cabinet garage. One can never have enough outlets, evident by my earlier bathroom renovation.



Everyone knows what insulation batting looks like, so if some appear in the images, they are merely coincidental to show something else. These next two pictures are to show the alcoves. On the left is for the dishwasher hook-up, the right alcoves are for the range, washer and dryer. Note the second smaller alcove for the dryer vent, to ensure the dryer ends up flush with the counter top front. Working in a house with walls so far out of plumb, and sloped flooring, taking measurements at such tight tolerances, and getting the blueprints just right was an engineering nightmare.

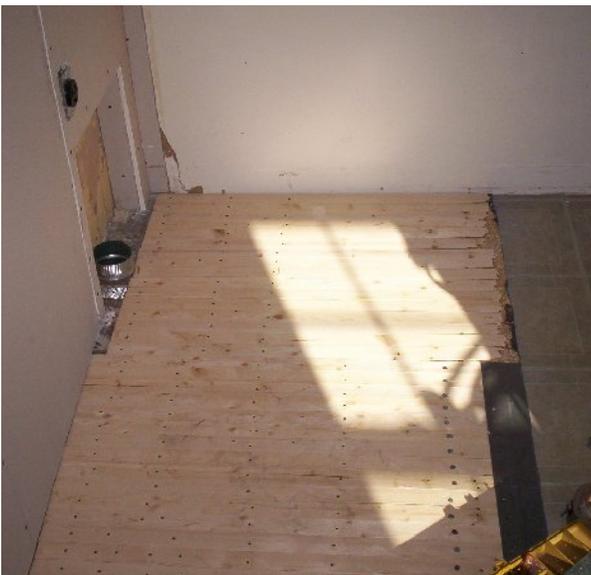


I'm still a long way out from buttoning up the new kitchen with drywall. The base for the cabinets came next. For reference, the lower corner of the new wood closest to you, at the bottom of the picture, is flush with the original finished floor at this point. The purpose of the spacers under this new wood is to make the base the cabinets sit on perfectly level. The floor slopes downhill to the right of the ell, and dips sharply toward the north wall from about three feet.

My brother-in-law Everett graciously cut the several wedges needed to bring the floor up to level. The compound slope in two directions in this area required several measurements and adjustments. The image of long triangular wedges make the floor appear to slope uphill after the wedges were in place. However, if you look at the edge of the base for the cabinets, you can see not only are the wedges level, but they are also slightly lower to make up for the final finished flooring material.



There are six nails in each of these long wedge triangles, and two layers of the original flooring were removed to ensure the thin tapered ends are below the old vinyl squares. I snapped one photo of the unfinished corner to show the raw taper ends. The photo on the right is where the refrigerator will go. The new flooring piece will butt against the new cabinet, and the wedges make the area level.



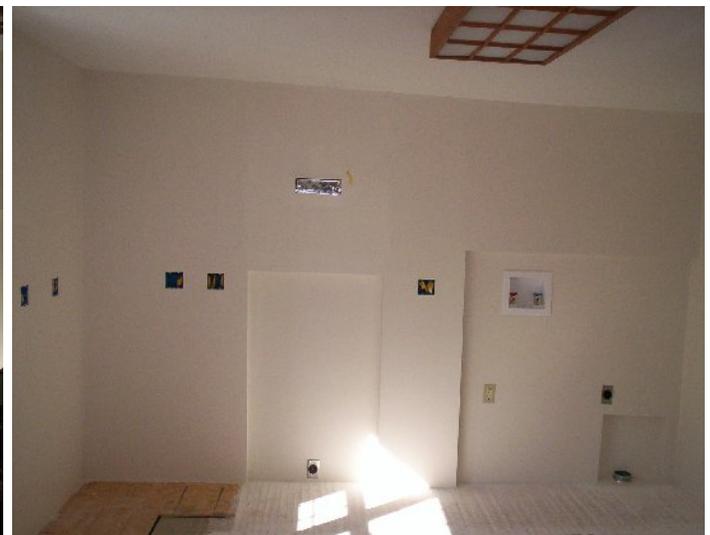
Finally to the buttoning up stage. Sure hope this fits. - Like a glove. Now the work begins.



Now for the boring images, I'll make them small, and not say anything, since they are self-explanatory.



This part of the job is now finished, time to show off my work before the cabinets go in.



Not everything goes as planned. Sometimes the materials are assembled by idiots. In the first image, the bottom lazy susan is OK. But how does one use the top one? I guess it is designed for anti-gravity spices! The microwave cabinet in the center image has the doors upside down, easily fixed. Hard to tell in the right photo, but this cabinet is 1-1/4 inches larger at the bottom than at the top, oops. A roll out drawer cabinet came with a center post, a set of stacked drawers, with the drawer fronts installed sideways, and the left right island cabinets came with two lefts and no right. To make matters worse, there was something wrong with each and every new appliance. The sent out five ranges before they said no more, live with the dents. The wire lower basket inside the dishwasher was smashed, could not possibly be shipping damage inside the unit, and it took two years to get the dryer repaired.



The best I can do now is show you the almost completed kitchen, the cabinets up, the flooring in, but not the crown molding or totally completed kitchen. Work came to a halt waiting on the base cabinets, then the corner cabinet was delayed, and after all the work was finished, my camera came up missing.

