

# **Making the Basement Livable - Row House Renovation Ideas & Remodel**

## **Basement History**

One of the obstacles with old row homes are the usability of the basement. Today we think of a basement as extra living space. Unfortunately in the 1890's, when our row home was built, the basement was nothing more than a place to store food since it remains cool throughout the year.

Home builders in the late 1800's still had to dig deep to create a foundation. Since basements were not considered living space, there was no incentive to dig a full height basement. This is the case with our row home. Depending on where you stand, our basement was only about 5 - 6 feet high.

At some point in the last 60 years or so, someone decided to pour concrete in the back half of the basement and the front of the basement remained dirt. My best guess for the concrete floor was to provide a stable and hard surface for an old furnace that was still in the home and possibly a hot water tank.

## **Layout of Home When Purchased**

These pictures represent the dimensions and layout of the home when we purchased it. I do not have a layout for the basement but it closely resembles the 1st floor layout. Notice the stairs are in the middle of the house which creates a front and back half of the home. The stairs will be moved to create an open concept living space.

The second floor is wider than the first floor. This is due to a tunnel which runs between my house and the neighbors house. The second floor joists are cantilevered over the tunnel making the second floor an extra three feet wider.

## **Condition of Basement**

When we purchased the home, the basement was filled with junk. There was also very little

lighting in the basement so I'm not sure how any previous owners ever really used this space.

Luckily there was a nice new gas meter already installed so that will save some money. I'm not sure when or why the gas meter was replaced as the furnace had not been ran in years. The electric meter was old and definitely needed replaced early in the project. Both of these are located in the front of the basement.

During the demo process, we filled up three 30 yard dumpsters! The original demo crew took out what they could from the basement but it wasn't worth me getting another dumpster at the time. So I had to have my next crew remove the rest of the debris and the stairs so we could get ready for digging.

### **Digging Out The Basement**

After the basement was cleared out, we could move forward with the basement dig out. In order to make the basement usable, we decided to dig down to a height of 7' 4". That requires moving a lot of dirt! Here's why we need to dig down this far:

- We need to pour a new concrete floor which is approximately 4" thick. This takes us down to 7'.
- Then we have 1/2" of finished drywall on the ceiling. Now we are at 6' 11 1/2".
- We also have to account for about 1/2" of flooring. Down to 6' 11".

Standard door heights are 80" tall or 6' 8" which leaves us plenty of room to install doors and trim.

We have the added bonus of jack hammering out the concrete in the back half of the basement and removing it.

## **New Basement Layout**

The layout of the basement allows for a nice 10 x 13 room which is plenty of space for a couch and TV. We also will have a half bathroom since there will be no bathroom on the first floor. Then the back half of the basement will be a utility room for the furnace, hot water tank and utility sink.

Laundry facilities are located on the second floor of the home.

If you are curious as to what I use to create my floor plans, check out [Chief Architect Home Designer Architectural](#) software. I purchased it from Amazon for about \$180. It is well worth the money if you are doing any sort of major home remodeling projects.

## **Plumbing**

Our new basement plans call for a half bathroom in the basement. The problem is, our sewer line is about 4 feet higher than the basement floor. So in order to have any sort of plumbing for a bathroom, utility sink and floor drain, we had to install a sump pump, or in this case [grinder pump](#), since we have to push waste up to the sewer line.

The plumber mapped out where new lines had to be dug in the ground for my digging crew. For the sewer lines, the digging crew had to dig down an extra 12" for the plumbing.

## **Pouring a Concrete Floor**

After the plumbing was complete, we were ready to pour the concrete floor. We ended up not using gravel since the floor sits well below the frost line and there really won't be anything heavy on the concrete. The concrete serves as a solid surface so we can finish the basement floors.

Luckily there is a window in the basement in the front of the house, so it was easy for the concrete

truck to pour the concrete down a chute we built. From there the workers could spread out the concrete and level it out.

## **Foundation Wall**

When you solve one problem sometimes it creates a new problem. In this case, after all the digging was complete and our concrete floor was poured, our basement floor was about 6" lower than the bottom of the foundation walls. This is not a good situation for the long term. The best solution we came up with was to build a concrete curb around the whole perimeter of the basement floor.

The curb is approximately 10" tall so it will provide support around the entire base of the foundation and overlap it by about 4". We built the curb to be 4" wide as well so our framing can sit on top of the curb.

The curb came out nicely! Now I feel more comfortable that our foundation will remain in tact.

## **PICTURES**

### **Framing**

Now that the concrete floor and curb are complete, we can finally start framing the walls. We used pressure treated lumber for the bottom plates since the base of the framing is in direct contact with the concrete floor and curb. This will help to prevent our framing from rotting in the years to come in case the basement floor experiences any moisture.

## PICTURES

I mentioned earlier that the plumbing made the basement seem incredibly small and closed in. Now that the walls are up, it's easier to visual the space and to see that we do indeed have enough room. Our plans make sense on paper and as they are carried out.

This part of the house is complete and ready for electric, HVAC and water lines.

### **Basement Prep Cost**

Here are the costs we incurred to prep the basement to become a livable space:

- Remove debris and stairs from basement - \$400
- Jackhammer concrete, hand dig and removal of dirt to a depth of 7' 4" - \$1,950
- Plumbing for half bathroom, floor drains, utility sink and grinder pump - \$1,850
- Pour new 4" thick concrete floor - \$2,600
- Build curb and pour concrete around foundation - \$1,000
- Frame walls - \$648

Total: **\$8,448**

### **Final Thoughts**

This is actually the second row home we've renovated where we turned the basement into a living space. The first time we did not have to do any depth digging as the ceiling height was sufficient. Also, our sewer line was ground level and did not require a grinder pump to push waste upwards.

The money spent is well worth it. When the project is complete, we will have 4 levels of living space! This will definitely add value to the home whether we are renting it out or selling it.

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***Hi readers! What do you think of the work we have done to make the basement of our row home a livable space? Feel free to ask any questions, I'd be happy to answer them!***

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