

## FMW Renovation Update

September 30, 2018

*Who makes these changes?*

*I shoot an arrow right.*

*It lands left.*

*I ride after a deer and find myself*

*Chased by a hog.*

*I plot to get what I want*

*And end up in prison.*

*I dig pits to trap others*

*And fall in.*

*I should be suspicious*

*Of what I want.*

— Rumi

We begin the week looking forward to a **Change Order** that will add \$242,342 to the price of the contract.

This week’s weather report is pretty depressing, so let’s take a moment from the battle of contractor against mud to report on the money and the budget and how the contract works. Skip to the pictures, if money does not interest you.

Despite all our efforts to get professional cost estimates during the design, we found the price of the project jumping, sometimes by almost a million dollars. Ouch.

Finally, on April 19<sup>th</sup>, we signed a contract with Monarc Construction to carry out the plans for a GMP (guaranteed maximum price) of \$3,367,930.

Does it seem like we’re approaching solid ground? Well, sort of.

We then started forward with a budgeted contract cost of \$3,955, 474.

Why the big difference?

It turns out that the cost of a construction contract is subject to so many unknowns that everybody agrees that the contractor may propose further “Change Orders”, and we are likely to accept some of them. We budgeted more than \$587 thousand for future change orders. Six months from now, we will know the final price. We hope and expect not to use the whole allowance.

One source of Change Orders has to do with the fact that Monarc estimated the cost based on a “bid set” of plans that we provided early last December. Monarc got subcontractor bids and provided us with a proposal in January, based on those plans, and we signed the contract in April on that basis. Meanwhile we were continuing to revise the plans, partly in response to requirements imposed by various DC regulators — particularly DC Water.

In May, we gave Monarc a new “construction set” of plans, and they are entitled to suggest Change Orders justified by additional work or costs in the new plans.

Beyond that, the Monarc’s January bid assumed a start date of March 5<sup>th</sup>, but the DC permit process took so long that we were not able to sign the contract until April and

did not issue the Notice to Proceed until May 29<sup>th</sup>. To the extent that Monarc can reasonably show that additional costs resulted from the delay, they can propose Change Orders to increase the contract price.

Beyond that, the contract work begins with a blizzard of correspondence in the form of **submittals**, and **RFIs** (requests for information), and **ASIs** (architect's supplemental instructions).

An **RFI** is a request from Monarc for clarification or further detail on the plans. There are many of these in the first few months. The answers may change the costs a bit.

A **submittal** is a subcontractor's detailed description of what they expect to provide. Sometimes it's not quite what we and the architects had in mind. If the plans were clear, there's no additional cost. If not, there may be additional cost.

For example, a submittal described a smaller and more cheaply finished elevator than we expected. Our plans were clear about the size, but not about the finish, so we don't pay more for the larger elevator, but we do pay more for nicer doors.

Sometimes the submittal indicates that the item we specified is no longer available and a cost change may be involved.

Sometimes excavation, demolition, or investigation reveals unexpected conditions that increase the cost of the work. We've been lucky so far not to encounter any serious problems.

An **ASI** is a late change to plans issued during the work because we had not finished planning or changed our minds or made a new decision or are responding to new information or just made a mistake or left something out. There have been seven of those so far.

One ASI eliminated several doors, so we should get a Change Order that actually lowers the contract price.

The most important ASI was the first, issued on June 26<sup>th</sup>. That ASI contained the plans for the renovation of the Assembly Room. Monarc will knock down the wall between the Assembly Room and the Children's Library and adjoining hall to create a larger Assembly Room. They will tear out the ceiling and the lights and also the ceiling above that and the associated plumbing and wiring and ductwork and replace all that with a new, higher, acoustic panel ceiling with indirect LED lighting and crown molding and new ducts and vents and plumbing.

They will remove the vinyl floor tile and the vinyl-asbestos tile below that and replace it with half-inch cork. They will also recreate the walls of the former Children's Library with folding walls so that that part of the new, larger Assembly Room can sometimes be enclosed as First Day School space or meeting breakout space.

The cost of that ASI has been under discussion for several months, and we now have a proposed Change Order to include that work in the contract for an additional \$232,342. That is only 7% higher than the earlier estimate we had been working with, so it leaves the budget quite unruffled. We are eager to get this step out of the way so that the Assembly Room work can be included in the project schedule and we can get some sense of when the Meeting's regular activities will be most disrupted.

So far, we have agreed to seven other Change Orders, totaling \$40K, which is well within expectations. The pace of changes should slacken as we get out of the opening phase of the work.

The final source of change is bad karma which comes to us in the form of one of the wettest summers Washington has ever had, with no end in sight. It's raining right now. Since we can't determine if it's our bad

karma, or Monarc's, or the District's, we might be charged extra if the days lost to weather exceed a reasonable amount.

**Monday** ☁️🌧️

Time to look outside.

Still raining, and the Post announces that this may be the Wettest Summer Ever.

The concrete crew manages to strip the forms from Friday's foundation pour but gives up plans to assemble wall forms.

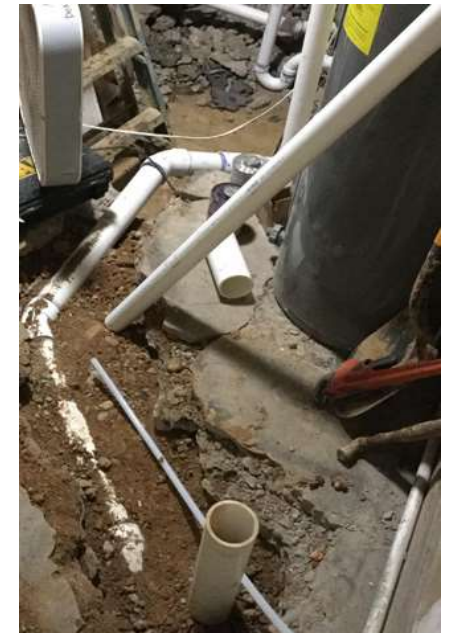
The waterproofers could not waterproof, although you can see why waterproofing might be a good idea.



The site utilities subcontractor brought an excavator and trench box to begin extending the drains toward the street, but could not use them.



The electricians abandon plans to work on the conduit for the stair lights.  
The plumbers happily lay out pipes for sinks and drains and things.





Tuesday ☁️

Weather somewhat less awful, and things happen in the gloom.

Five waterproofers install drainage board on the shoring where the west retaining wall and stairs will rise up.

The drainage board (magnified at right) is plastic and full of holes that capture water that comes through the soil and channel it down the wall.



Next, the waterproofers cover the drainage board with a waterproof sheet.



The wall will be poured against that, backed up by the drainage board.

Twelve concrete workers consider how to proceed in the rain, and start to make up wall panels.

Somehow, one of the crews has managed to cut the 10-inch drain line under this work, installed to drain water from the upper terrace area. Take one step backward.

The new carpentry on the upper level between Quaker House and Carriage House is starting to show signs of distress in all the wet.

Three site utilities guys show up. A backhoe lurks around the corner poised to strike at the sidewalk.



But the weather forecast discourages them.

Meanwhile, the concrete guys are carefully cutting out an odd bit of board that might almost remind one of stairs.



The work spills out through the gates, as we enter a new phase.

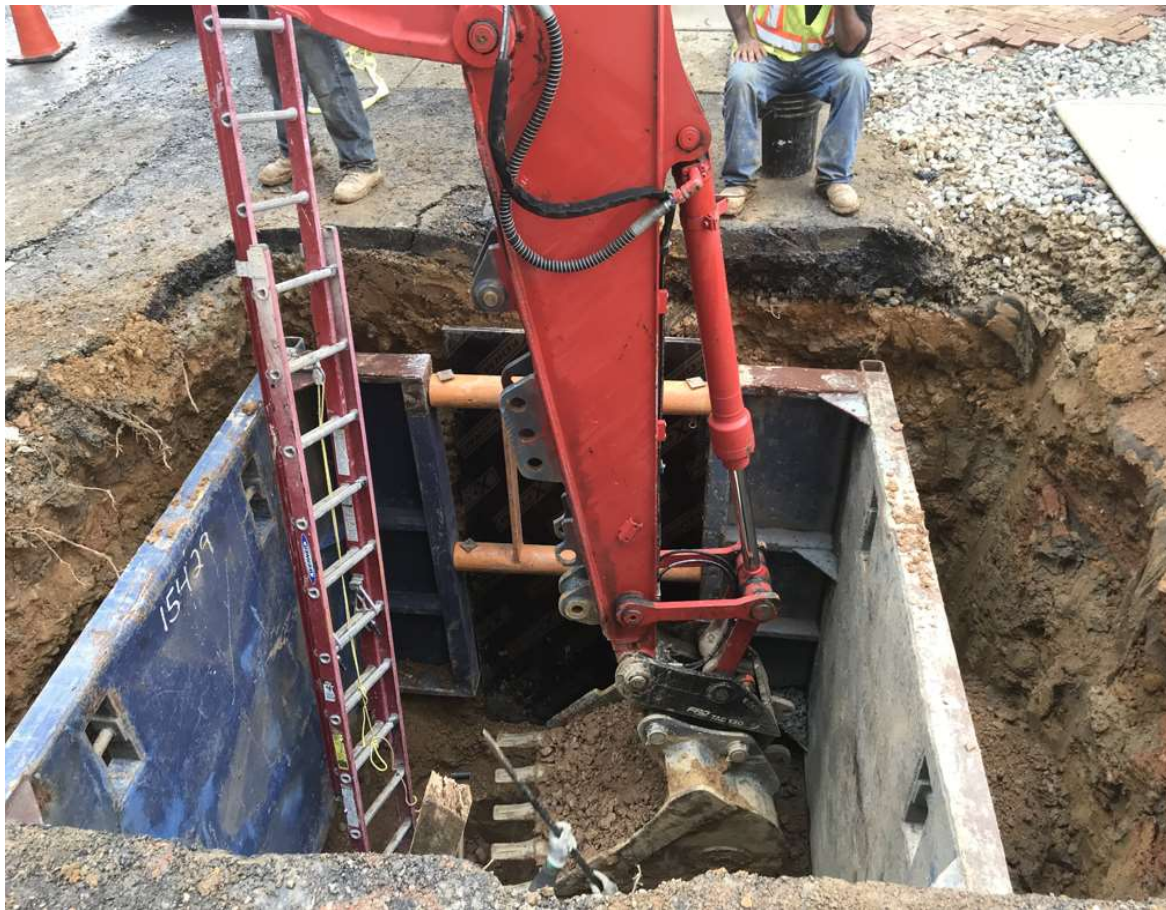


**Wednesday** 🌤️

Blue skies and puffy clouds.

Ten concrete workers, four drainage guys, and an electrician are on site.

The backhoe stops lurking and bites into the sidewalk.



Inside the gates, the site is very crowded.



It drops a trench box into the hole to protect against wall collapse.

The concrete crew carefully studies the situation.



They prepare forms and assemble reinforcing steel in preparation for next week's pouring of the west retaining wall.





They also deploy the stair-shaped piece of wood they cut out yesterday.



What's up with that?

They are doing this for the electrician, who is supposed to install stair lights in the concrete wall above every other stair but must do this before the wall is poured and while the stairs have yet to arrive. He has to wire the lights in mid-air, in exactly the right places. The board represents the future stairs. Good luck with that.

Now we know why they were looking at the plans instead of pouring concrete.

Thursday ☁️🌧️

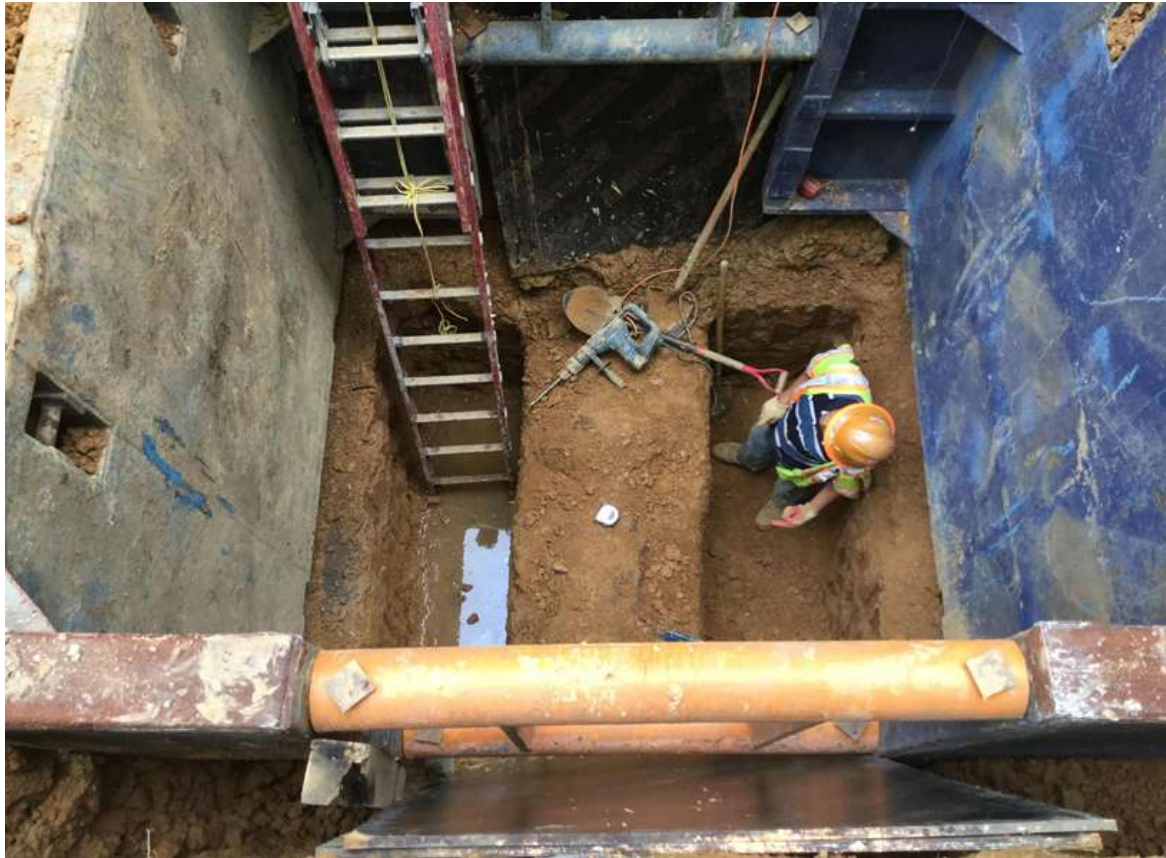
The rain mostly holds off, and work proceeds, with the same cast as yesterday, but three electricians this time.

They wire up some of the airborne junction boxes.



Ten concrete workers help the electricians and continue to prepare forms.

The drain gang quickly uncovers the 23-inch sewer line, which turns out to be right where the District put it about 110-years ago.



They pour a concrete base to place the new manhole we are giving to the city.



A DC urban forester comes to look at the roots of the street trees our arborist has uncovered, marks them, and goes away to think about what we should do about them.

One way to handle them would be to dissect them out of the soil with an air knife and then install the new pipe underneath them and put the dirt back.

The problem is that they go under the sidewalk, so ordinarily the drain crew would demolish the sidewalk with an excavator, which is not a delicate tool.

The more serious problem is that DC Water insisted that our civil engineers replace the nice 12-inch drainage basin they wanted to put next to the tree with another four-foot manhole. No way to snuggle that in among the roots.

**Friday** 🌤️

Another fairly clear day, but it rained like anything overnight.

The drain gang finds their nice hole full of mud and starts a bucket brigade.



The nine concrete workers mop out their work site and continue to construct wall panels, while the electrician finishes wiring the stair lights.



Note that this wall will not be as tall as it looks here, because much of it will be below ground.

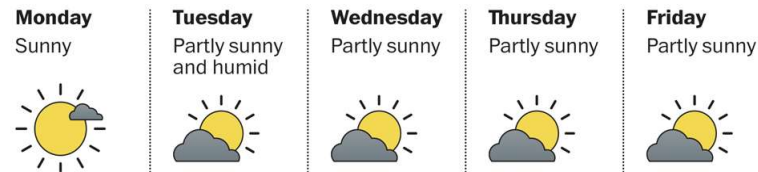
By the end of the day, the manhole is in place, and the drain crew is packing it in crushed rock.



Another manhole must go in next to the one just installed.

## Looking Ahead

October begins with the forecast of a dry week!



Maybe we can stir up some dust for a change.

The plan for the week includes finishing the manholes and freeing up the construction entrance again, so the concrete crew can pour the west retaining wall on Thursday.

Then they can start to repeat the process to lay the foundations and pour the big, curving north retaining wall.

Also Monarc hopes the masons will be encouraged by the sunny days to finally lay up the south wall of the storage room, so structural steel can be installed, and the rest of the structure can begin to rise.

Perhaps water will stop leaking out of the bank, and the waterproofers can finish up the waterproofing of the north wall of Quaker House and the Storage Room. Then the backfill can finally be put in place.

In an interesting new development, Monarc is about to smash four door-sized holes in the north wall of Quaker House.

These holes will eventually become the doors from the new lower corridor into the main Quaker House stairs, the new ADA restroom, the janitors closet, and the ground floor of the west end of Quaker house.

Perhaps most exciting, we have just added the plans for the Assembly Room renovation to the contract.

Very soon we will achieve maximum inconvenience by demolishing the Assembly Room and blocking traffic on both Decatur Place and Florida Avenue.