

PLAYHAVEN FARM LLC & GREEN BUILDING PROJECT



GREENOVATION : ROOF

PLEASE NOTE:

Everything included in "Greenovation : Roof" has been transposed directly from the website. That includes references to the PlayHaven Farm LLC and Green Building Project (PHF&GBP) website pages, external websites, links to documents, etc. Because of how quickly things change on the internet, there are NO links from this document.

BACKSTORY

(April 2009) I see that I neglected to share that not only were we getting water in the basement last fall, we were getting water in through the roof as well. And this with an 8-year old standing seam metal roof. How could it be? Well, it seems the previous owner neglected to mention in the disclosure information that while the metal roof is intact, it has been caulked many times on the north side of the first level. When my handy-hubby went up on the roof to install the TV antennae (yes, we still use a TV antenna - now with a digital converter) and the Cell antenna (boosts the signal to our cell phones and aircards way out here in the country), etc. he inadvertently caused the caulk to loose its seal. So, I wasn't just mopping up the basement with towels during the "Ike" storms, I was also figuring out how to capture the rain that was pouring into wall cavities and coming out the millwork on the north side of the house.

Therefore, we have had to push the roof to the top of the priorities list. We've had two companies come out to give us estimates so far.

One was so insistent that we pursue insurance money for hail damage (spent 20 minutes on the phone to find out if there had been hail in the area in the last year) he was here for an hour and hadn't even started looking at the roof so he could give us an estimate. That, combined with his attitude and being an hour and a half late gave us a really bad feeling about that company and we thanked him for his time and sent him on his way... no business from us, no way, no how.

The other one we liked, he was business-like, arrived on time, heard what our concerns are and what we would like to do, confirmed some problems we knew about and pointed out others we didn't. He had a list of references handy AND insurance papers. I've done due diligence and we've decided to use his company.

That was earlier this month and we are waiting for the quote from the roofing company. Its taking a while because the pattern of the standing seam roof panels was hard to find. We asked him to include what it would cost to not just replace the bad area but to do the entire roof... considering how much trouble finding the pattern was, it might be about the same cost. And since metal roofs are part of the energy efficiency tax credits... we might as well go all the way if its cost effective. I'll let you know.

(June 2009) Where do I start? We received the quote for the roof and here's the deal...

We had hoped that just the area where the leakage has occurred could be repaired/replaced. BUT (and this is what everyone who is looking into a metal roof or buying a house with a metal roof should be very attentive to), it turns out that the metal sheeting on OUR roof is -- first of all -- not a standard

pattern and, therefore, it is not possible to repair/replace that one little area that is so problematic and makes me anxious every time it rains. Secondly, because we have NO DOCUMENTATION from the previous owner about the roof, we have no way of finding out what the warranty should be or to talk to the manufacturer. Thirdly, the quality of the metal sheeting on the roof is pretty poor. SO, even if we COULD find the pattern and the manufacturer, we probably wouldn't want to.

With all that being known, we asked the roofing company we will be using (Shamless Plug Alert), Kansas City Roofing Services, LLC, to give us pricing on replacing the entire roof in the most energy efficient, sustainable way possible (at least a "cool" roof). Like most businesses, they have had limited experience with this requirement and have spent an admirable amount of effort (THANKS, JERRY!) to come up with the most cost-effective products that meet our request. We particularly want to get the energy tax credit by using an Energy Star qualified roofing product. What? you didn't know there is such a thing? Yes Indeed There Is! Follow this link to get more info on Energy Star Qualified Roofing Products.

Jerry came back with two options, DaVinci recycled shingles and a single-ply membrane product that is well known for commercial applications and that is now available for the residential market. I had looked into the DaVinci product before and while it is a fine product, it doesn't qualify as a "cool" roof because it is designed to mimic wood or slate which are darker colors. I was surprised that Jerry didn't include a metal roof in the options, but was very intrigued with the single-ply membrane and went out and did some research on it myself.

It is a single-ply membrane (TPO) that is adhered to the substrate and mechanically attached at the edges as well. As an aesthetic application for residences, they attach an extrusion at intervals to give the appearance of a standing seam roof. This product has normally been used for low-profile commercial applications. It is amazingly light-weight and yet extremely durable. It "thumbs its nose" at hail! There are several different material versions out there (some of which are less desirable from an environmental point of view), but it boils down to putting a rubber-like layer on the roof (similar to the liner in a swimming pool). It comes in a huge variety of colors, including white and light gray which have a high reflectivity and low emissivity -- this is essential for the tax credit and "cool" roof feature. The drawback at this point is the price: it is comparable to slate (ouch!).

The company that makes this particular product (in conjunction with KC Roofing Svc.) is so interested in being associated with our PlayHaven Green Building Project that they are offering a huge discount AND have offered to oversee the installation at no additional cost. Our project would be the first installation in this area and be used as a showcase for the product. That wonderful offer brings the price-tag in line with a quality metal roof and the DaVinci product. (If we can make this happen, the name and info of the company will be all over this website so you can check them out.)

The big "snaffoo" is that we had budgeted \$12,000 for the roof. Which is about half what it will cost to put the TPO on the house. Remember, we thought we were going to REPAIR the roof, not have to replace it. If we can't come up with the rest, we will have to (and I shutter to even type this) put asphalt shingles on the roof.

The thought of a setback like putting asphalt shingles on the roof is SO abhorrent to me that I've been desperately searching for funds. I found a Federal Grant and Loan Guarantee program through www.dsireusa.org that I hoped we would qualify for... but alas, no.

In talking with people about our dilemma, everyone said "Call the insurance company, for goodness sake! Your roof leaks!" So I did and the adjustor came out yesterday. Oddly enough, we had HUGE storms the night before and that included marble sized hail and straight-line winds. So, yes, its very clear that the roof has hail damage. And yes, they are willing to pay for damage to the interior of the house due to the leak.

You'd think we would be all set, yes? Well, not so much... at least, not yet. The insurance company isn't sure that our policy covers "Cosmetic Loss" on metal roofs. So there is some investigating going on by them to see if we ever signed an endorsement called "Exclusion of Cosmetic Loss to Metal Roof Covering Caused by Hail". It seems that having a metal roof that has the correct UL rating qualifies for a discount on home owners insurance -- but you have to sign the aforementioned endorsement. We don't recall signing that document, nor do we think we are getting a discount on our insurance. SO, I contacted our agent and have requested a copy of it -- if it exists. I'll let you know what the outcome is.

I've also looked into a home improvement loan... we've only been in this house a year and what with the housing market the way it is, we're not sure there is any equity in it. Plus, we'd have to have a new appraisal et al and that would cost about \$1,000. So, lets call that our last resort.

The things we are learning! Please learn from our experiences!! I would not wish the worry/anxiety I have been going through on my worst enemy.

(Later in June 2009) I promised to keep you informed on the progress of the roof and there IS PROGRESS!

And the good news is (drum roll, please): YES, WE ARE COVERED for hail damage AND since we chose 100% replacement coverage... we will have enough money to install the TPO (single-ply membrane) roof AND get the Energy Tax Credit AND qualify for discount on our home owners insurance! And most of all, I won't have to worry about rain leaking into the house anymore! WOO HOO!

Kansas City Roofing Services, LLC (once again) has been great -- they've been working directly with State Farm to be sure that all the i's are dotted and t's are crossed. We'll be signing the contract on Monday and then in the next 2 to 4 weeks, we'll be getting the new roof installed on the house.

Which means that the "cool" roof will be a reality and you'll be seeing a couple of new Sponsors listed on this website that you can contact for your next project. There will also be pictures of the installation. We are inviting the local News companies to cover the installation so that more people can learn about what they can do to help reduce their energy consumption and save money doing it. We are also inviting West Central Electric to come out and participate in spreading the word. I'll post the links to whatever coverage we get here so you can check it out.

I will also be keeping track of our electricity consumption over this cooling season and will report later this year a comparison from the season of 2008 to the season of 2009 (without and with the cool roof).

(July 2009) We received the check from State Farm on Saturday, June 27 to replace the roof on the house. And, we were surprised to find that it was made out to us AND our mortgage company... I suppose we shouldn't have been surprised, but since we haven't had this big of a claim before, we didn't know that the mortgage company would be involved.

For any of you who haven't been through this money game, here's the deal. Since the mortgage company owns the house with us, all the owners are listed on the check for large amounts of money... I imagine there is a standard threshold, but don't know what that is. So, the mortgage company takes the check (we sign the back) and deposits it into the Escrow Account of our loan. Then they issue a check for part of that amount (in this case it was \$10,000) made out to us AND the roofing contractor. We then sign the back of that check and include a personal check (since the \$10,000 doesn't quite cover the 50% due initially at the signing of the contract) and send it off to Kansas City Roofing Services LLC. (Who, by the way, knows all about this game.) Now, once the new roof is on the house, we have to contact not only the insurance company but also the mortgage company so that they can all come out to see the house and do an inspection to be sure that we DID have the roof replaced with equal (or greater) quality to what was there. Once they have confirmed that all is well, the mortgage

company will provide the balance of the insurance company's check to us (we aren't sure if they will make it out to us and the roofing company or just us -- I'll let you know). The insurance company will also be cutting another check for the balance that was withheld until we proved that we did, in fact, replace the roof (because we have 'Replacement' insurance). SO, its a very good thing that we have the funds necessary to cover what needs to be paid for before those final checks come to us.

ENERGY STAR QUALIFIED 'COOL' ROOF (JULY - SEPTEMBER 2009)

There a lots of photos of the installation following the story.

We signed the contract on June 29, 2009 with Kansas City Roofing Services LLC to replace the dark green metal roof on the house with the TPO 'cool' roof. It will take 2 to 4 weeks to get the materials in and schedule the installation. GAF Materials Corporation is the supplier of the TPO product (www.gaf.com). When you visit their website, you'll notice that the TPO product doesn't show up as a choice for residential roofing yet... it is THAT new to the residential market.

GAF is overseeing the installation by Kansas City Roofing Services LLC because it's different than their normal commercial installation on low and no-slope roofs. Residential buildings generally have quite a bit more slope to their roofs and that will require some adjustment. GAF is also going to be getting aerial pictures in addition to ground-level photos of the house so they can use it for their marketing. We're also hoping to get some good video of the installation to share with everyone.

I've contacted the 4 TV News stations in the Kansas City area and invited them to cover the installation. So far, one of them has said they are definitely interested and I'm waiting to hear back from the others. I've also contacted West Central Electric Coop (our electricity supplier) and they are definitely interested in seeing the project and getting in on the media coverage. State Farm Insurance has been contacted as well as the Kansas City Chapter of the United States Green Building Council (USGBC) and Hathmore Technologies, LLC (the energy rating company that did our energy audit). The intention is to have as many as we can get of the people/businesses connected with this project available to be interviewed by the media.

(Later July 2009) Kansas City Roofing Services LLC contacted us the end of last week to say that the roofing material is here!

SO, they are scheduled to start Monday, July 27; barring any bad weather delays, of course. YEAH! It has been SUCH a wet summer and soon I won't have to race around the house checking for water leaks any more. YEAH!

The "Media Blitz" is scheduled for THURSDAY, July 30, starting at 10:00 am. I've again contacted the TV News stations in the Kansas City area and invited them to cover the installation. I've also contacted West Central Electric Coop and State Farm Insurance and Hathmore Technologies, LLC and Mother Earth News and everyone else I can think of who would get some benefit from being here for the media blitz. Crossing fingers and toes that we get good coverage and DRY WEATHER (for the next 2 weeks).

(August 2009) I can't believe it's been almost a month since the last post. So, you are probably wondering about the roof, yes?

Kansas City Roofing Services started on Tuesday, July 28th and we've had a mixture of great weather and rain and wind. We figured the project would take longer than you would expect since the application is on steeper pitch than normal. And we were correct in that thinking. Plus, the rain has made it even longer.

I always forget how much time it takes to set up and do the prep work. And since our house has three different pitches on the different gables and one of them is two-stories up, there are harnesses and extra gear to think about.

But things are moving along and what with the rain and wind and needing additional material, I can't complain.

We didn't get ANY coverage from the media and I was SO disappointed! The representatives from GAF and ABC Supply did come out and we spent some time shooting some video of us all talking about using the single-ply TPO on residential applications and stuff and such. (Unfortunately, between wind and airplanes, the footage did not turn out good at all. Waah!)

The GAF guys have also been here to quality control the installation and instruct the guys on how to apply the "rails" that give the roof the appearance of a standing seam metal.

When you take a look at the pictures and you will understand why we are currently calling this our 'Iceberg House'. Really looks like white on white --- great for the Polar Bears and fighting Climate Change --- but just a bit TOO white. So I'm looking at paint colors that will blend with the red barn.

More to come soon, visit again and bring your friends!

(September 2009) The roof is 99% finished and the only thing holding it up from being 100% finished is the persistent rain! Seems like they get here, get started working and after about an hour we get rain. Even if it's only for a short time, that messes things up because they can't work on the roof again until it has dried. So with the cooler weather and cloud cover, that takes several hours. They are down to 7 minor/detail things that need doing, so crossing fingers and toes that the rain stays away long enough for them to do them.

Once Shannon tells me that they are done, I'll be contacting the insurance company and our mortgage company to have them come out and inspect the roof so that all the money that is being held can be released to pay Kansas City Roofing Services LLC.

FYI - if you decide to put this roof on your house and like the Light Gray color... be sure to tell them you want the Energy Star Light Gray that qualifies as a cool roof and for the energy tax credit. The reason I mention this, is because when the roofers ran out of material and we waited for it to come in... it arrived and they put the first length on and realized that they had gotten the wrong color... it was Light Gray, but not the Energy Star qualifying one and was slightly darker than what was already on the house. So, a quick call to GAF and the correct color arrived at light speed (well, not REALLY "light speed"--but pretty darn fast!) a couple days later.

You know I've referred to the house as the 'Iceberg House' because it's all white now. And we are planning to paint the fiber cement siding as soon as we can afford it... But I don't think the house looks bad the way it is (thanks goodness)!

We've already had a neighbor stop by and ask about the new roof. Such fun! I better get a move on and put some literature together to have as a handout. If you have any questions about it, feel free to contact me and check out GAF for product specification information.

(October 2009) WooHoo! The roof is done, finished, complete! And it actually has been for several weeks ... I've just fallen behind on updating the website.

And first of all, I have to tell you that the roof has already made a HUGE difference in the interior temperature of the house. Before, with the dark green roof, I had trouble keeping the inside temperature cooler than the outside temperature because the roof heated the attic space and our insulation is adequate but needs to be improved. NOW, the inside temperature is at least 10 degrees

cooler WITHOUT turning on the AC. Granted we're getting temps between 75 and 80 these days, but before that meant I still had to use the AC to keep the temp in the house in the low 70s. NOT ANY MORE... YEAH!

The crew ended up working over a weekend because it didn't rain those days and finished the rest of the detail stuff that needed doing. There was a problem with getting some of the adhesive off the membrane and so I suggested they put some of the paint they used on the metal flashing on those few spots and it matched beautifully! You'd never guess there was either adhesive or paint there.

They also put some pieces of the rails up to slow down any thawing ice so that it won't come down too fast and damage the roof below (from the 2nd story onto the center gable) and the air conditioner. You see these little "stops" on metal roofs a lot and I think the crew did a great job putting them up so they don't look odd.

Once Jerry gave me the word that everything was done and the hubby and I confirmed that it was, I contacted the mortgage company so they could send out the inspector to verify that the work had been performed and was complete. She came out about a week later. I also called the insurance company and all they needed was a copy of the final bill so they could release the money held back until we proved that we had actually replaced the roof. Low and behold the money arrived from both companies on the same day and Jerry came out to pick up the checks and sign the release that said they wouldn't be putting a lien on the property. (Which was required by the mortgage company... aren't they smart!)

We asked Jerry if they would do another residential installation of this material considering how much money they lost on our job (being the first one they did... rain delays... material delays... etc.). He said they would and that the experience was invaluable because it really showed them the variables that go along with this kind of installation and that means they can plan them in better next time. Plus, our house is rather complicated with the multiple roof pitches and stuff and such. Most houses won't be this time consuming. One of my suggestions is to plan on starting work on this kind of material in the mid to late morning and then work into the evenings, because the roof has to be thoroughly dry to work on it... even condensation makes it very slippery.

We should be getting the warranty and energy tax credit paperwork from GAF any day now. [Update: paperwork received, tax credit received, yeah!]

Eric Butler of Comfort Solutions (insulation company) says: "I wish everyone had a 'cool roof' - yours gave us the best working conditions I've ever been in." and "I left your job around 1:00 pm and had to do some work in my own attic which has asphalt shingles and the difference was amazing - my attic was probably 40 degrees hotter than yours and practically unbearable." (May 2010)



We chose Kansas City Roofing Service, LLC to do the work. They have been fantastic! Making sure we got what we wanted, helping with the insurance company, being sure that safety is job one, doing the job professionally and not rushing through it.

Ours is the first residential application of the TPO Everguard product by GAF in the Kansas City Area... which is to say on peaked roofs as opposed to the more common commercial low or no-slope application.



Preparation is key, as is a good crew. Shannon (Supervisor), Randy and Mark are the primary roofers and others have been added as needed.

Before any 'work' was done, safety harnesses, ladders, scaffold etc. were put in place.

Jerry got the 'cushy' job of painting the metal flashing and vents on the ground. And that's AOK cuz he worked hard to get us the roof in the first place.



It looks like they are putting white TPO on the roof, but it is actually Light Gray. When you see the Light Gray against the Bright White version, you will see the difference (see the sample rail weld farther along).

The crew told me that when they apply the Bright White, they need sunglasses to see what they are doing, the light is so brightly reflected. With the Light Gray, they did not need sunglasses, but thank goodness it is still a 'cool' roof qualifying color!

The crew removed the metal from the roof as they worked on each section... that way there was less concern about rain on the rest of the roof.

Unfortunately for us, rain has been an on-going delay for this project.

We knew that this being the first time KCRS would be doing an application of this material on a sloped roof, it would also slow down the progress.

We are very happy that Shannon and his crew concentrated on doing the job safely and correctly rather than rushing through it.



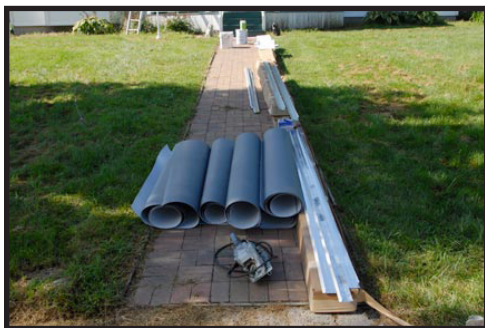
During the first rain delay, the crew started the process of 'beefing up' the roof of the back porch. We discovered that the beams were about 3 feet apart and that is not adequate for the crew to be walking on top of (for one thing).

So they removed the cross members... lower left corner of the picture to make room for adding additional beams so that the porch roof would meet code.



The membrane comes in rolls that are cut to size on the ground and then carried to the roof as needed. (The gray you see in the picture is actually the back of the product.)

The rails (shown to the right of the cut rolls here) won't be put on immediately. Instead the crew will move on to the other sections laying out and applying the adhesive, etc. This will allow any air trapped under the membrane to escape and any glue to be cleaned off before applying the rails.



Here is the metal removed from the first side and the vent holes are exposed.

The crew discovered that our flue pipe was a problem during this stage. The previous owner was supposed to have fixed that flue pipe (see the Energy Rating for details) and it turned out that all they did was wrap a piece of sheet metal around it, which left the hole in place and we are very lucky that there was enough ventilation to keep any carbon monoxide from coming back into the upstairs bedrooms.

We had the flue pipe replaced by an HVAC expert. (Thanks Aaron!)

You can see that the crew starts by putting in the metal flashing and then the first strip of membrane is glued in place at the lowest edge.

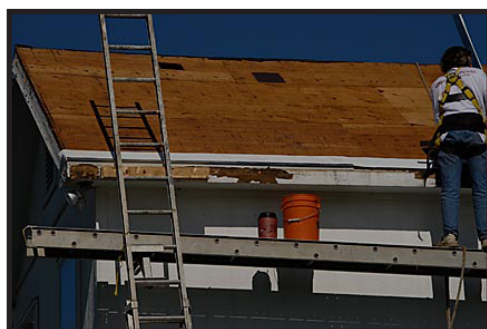
A VERY SIMPLIFIED description of this application follows:

Each section of membrane is positioned so that is straight and then part of it is moved out of the way so that the contact cement (adhesive) can be applied to the substrate (in this case plywood and/or OSB) and to the underside of the membrane.

Both are allowed to dry before easing the membrane back into place.

Then the other portion of that section is moved aside so that the adhesive can be applied to the other portion of the substrate and underside of the membrane... left to dry and then eased into place.

At that point, a roller is used to removed air bubbles.





You can still see where the membrane overlaps at this point, but you won't be able to see it once it is heat welded... which is what Randy is doing in the pictures below and right.



Here is Shannon cutting the membrane and placing one of the roof vents in place. They then added a layer of membrane around the edges and those were also heat welded to seal them.



The bad fascia boards will be replaced using this composite product: AZEK. It does not need to be painted, but CAN be painted.



Once the first side was covered with membrane, the crew was able to start removing the second side.

They decided to start with the second story gable because they needed to wear harnesses there. Most of the rest of the roof did not require them to wear harnesses, which did speed things up some.



Since they had some small pieces already at this point, they went ahead and took care of the 'eyebrow' over the bay window.

The fascia boards are also being replaced there.





This day turned out to be windy, which slowed progress tremendously, so they welded each section as they went to avoid potential wind problems.

This is also the day we had hoped the media would come out to do a story... but, alas, no such luck.

So the guys from GAF (manufacturer), ABC Supply (distributor), Kansas City Roofing Services and I covered it ourselves.



Finishing up the 2nd story.

This gable has the steepest pitch, but is not as high as the second story, so they used the ladder and didn't need their harnesses.



Not sure if you can see it, but just to the left of the rope hanging down (above the butterfly bushes) there is glue that needs cleaning off before the rails are applied. I only point this out because this is common and they have a solvent to remove it.

So, now they are finally in the area where we had rain coming into the house (over the windows to the left of the front door). And they found that the previous owner, when they had enclosed the original porch and added the current porch, did not put plywood all the way to the new porch roof. So the metal was only attached to the rafters in those places.

So, Shannon and his crew repaired the problem areas and redecked the entire section to be sure that there was a solid surface for the membrane to adhere to.



Next you can see how they handle the valleys.

They cut a strip of membrane and place it in the valley in the direction of the flow. Then they put the membrane from either plane so that it crosses the valley too. This puts three layers of the membrane (and adhesive) across the valleys, eliminating the need to put metal flashing in those locations and less chance of leakage.



Now that you know the process, I don't need to explain what they are doing to the front section.

Everyday before they would leave, they put tarp over the areas where the metal had been removed... even if it was just for overnight and no rain was expected.

Good thing, too, because we not only had unexpected rain, but a great deal of condensation, too.



The back porch had to be reinforced (as mentioned previously) before they could work on the the back side of the house. So you can see the new beams here.

Next the added OSB on top of the beams because the membrane needs to be glued to something.

You can see the flashing and edge strip in this picture taken from my office window.

You can also see the pile of metal that is accumulating (in the upper left corner of this picture). Once all the metal is removed, we'll call the salvage company hired by the insurance company to come and get it.





Now, this is the usual application for a single-ply membrane: on a no/low-slope roof. So this section went very quickly.

And here is the back porch, all done. And wow, there is a lot more light in my office because of that reflective surface! And it doesn't added heat with the light.



Finally, they get to start on the back. But this area is very important to get right because of the chimney and the flashing that needs to keep the water away from it.

It was at this point that they ran out of membrane and had to wait for it to be shipped from the manufacturer.

Unfortunately, we also had torrential rain and found that the temporary fix to the flashing did not hold and we had water coming into the house and dripping through the brick on the face of the fireplace and onto the wood stove insert.

Shannon was out within hours of my call to stop the problem and we're crossing our fingers that the rain stops so they can finish the job very soon.



In the meantime, the guys from GAF had been out about a week before this and had taught the crew about putting the rails on the roof so that it will have the appearance of a standing seam metal.



Here is the practice rail that is the Light Gray color of our roof against a Bright White piece of membrane. You wouldn't have guessed that the roof is that color from all the pictures, would you?

The rail has an adhesive backing and on a no-slope roof, that would be all you'd need. But on a steep slope they have the crew do a hot weld at regular intervals along the rail. (See the extra line near the bottom on the left side?)

One thing I was being anal about was making sure the crew knows they need to be sure the rails all face the same direction. And yes, they knew that.



So, this is where we are today, Shannon and Randy have started applying the rails while we wait for the rest of the TPO membrane to arrive.

Then, assuming the rain stops for a few days, they should have this wrapped up in about a week.

Once the membrane is on, they will finish replacing the bad fascia boards, etc. and we will be all set to have the roof inspections so that the insurance company and mortgage company will release the balance of the money so we can pay for the great job!

Hurray! the rain finally held off for a few days and the crew worked a weekend to get everything finished.

So I was able to contact the mortgage company and they sent an inspector who signed off on the job.

I contacted the insurance company and they had me send them the final invoice to prove that we had the roof replaced.

We received the checks from our escrow account and the insurance company on the same day.

The salvage company was contacted and came out to pick up the pile of metal.

Isn't it amazing how much smaller the pile looks when you divide out the clunky little pieces (into the bed of the pickup) and sort and organize the sheets onto the flatbed so they won't blow out.

It took the nice man about 3 hours to get it all loaded and head back to the salvage yard.

Jerry came out the same day and picked up the check.



Oddly enough, I was being interviewed by the Kansas City Star the same day and they put a picture of me with the roof in the article (PDF of the article is attached).



And here it is all finished. If you didn't know the roof was light gray, you'd never guess, would you?

The rails really help the aesthetics by adding texture.

Right now its "The Iceberg House" until we can get it painted. At least we're doing a little bit to help the polar bears!

Thanks again to Kansas City Roofing Services LLC and GAF! We couldn't have done it without you.

We asked Jerry if they would do it again (considering all the problems we encountered) and he said, "YES!" Because now that they've done it, they have an idea of what to look out for and can do it faster the next time.

REPLACE FASCIA BOARDS (APRIL 2011)

We were going to have all of the fascia boards (they are along the roof line at the gables and overhangs) replaced at the same time as the roof (see that Gallery page here); but since it appeared that some of the boards only needed painting, only a few of the really bad boards were replaced at that time.

In hindsight, we should have done it all at once; because in the last three years, the boards that only needed painting became boards that had to be replaced.

And since this roof system is special, we decided that the best course of action was to have the same people who put on the roof replace the rest of the fascia boards.

The new fascia boards are a PVC product: AZEK. You may know by now that I am NOT a fan of PVC products... the manufacturing process is toxic and it's just bad (environmentally speaking).

HOWEVER, if there is one place where I can tolerate it... it is as fascia boards because of their immense durability. This is an expensive product; but it is unlikely that they will ever need replacing.

(FYI: the label at right came off one of the AZEK boards, and I just stuck it on the OSB so I could take the picture.)





As seems to happen whenever this crew comes out, it started to rain soon after they arrived.

So, they started on the porch where water wouldn't enter the house even with the fascia boards removed.

Since they were tearing stuff out, I also had them remove the plastic ceiling panels on the porch. I had hoped to leave the rafters visible and just paint the exposed wood; but that is not possible. The construction is odd and there is water damaged plywood caused by the OLD roof. That means we'll be putting up a ceiling, but this time it will look nice and not have lots of places for bugs and wasps to get into it.

This is the pile of plastic panels that came off the ceiling.

We don't have any use for them, so when one of the crew wanted them, I was more than happy to pass them along.

We LOVE recycling/repurposing!



This paper-wasp nest is about 7 inches across. It was one of 5 nests that were in that ceiling area of the porch. There were also several mud-dabber homes.

No wonder we had so many wasps around this house!

The new ceiling will be caulked and painted to keep the wasps out.

Removal is really loud. Banging hammers, splintering wood, etc. It makes the house vibrate...

It's a bit unnerving.

I just kept telling myself these guys know what they are doing and they don't want to cause any damage... heck, they'd have to repair it for nothing!



There was minor damage along the soffit (that is the wood perpendicular to the wall under each overhang) each place they used the angle iron to 'pop out' the old fascia. But it was easily caulked during the painting prep.

And the metal flashing got a bit beat up, but not so badly that it would need to be replaced. Once it's painted, you won't even notice.



I love the 'arms' of these ladders... didn't mar the roof or the walls at all.

It's not obvious, but the white board at the right next to the gutter was replaced with the roof. Looks brand new, doesn't it? Even though it's been three years, you won't be able to tell the new fascia from the older.

Same situation here, fascia replaced three years ago on the right of the gable.



After deconstruction comes construction.

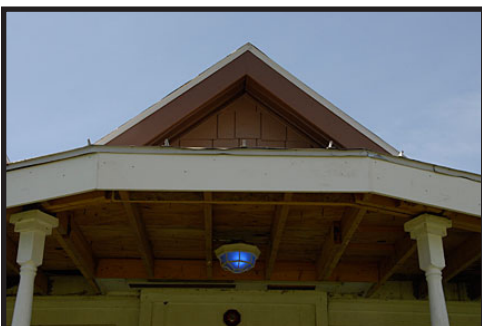
Shannon had the crew put mitered joints on all the boards. (Mitered joints means the ends are cut at an angle, e.g. 45 degrees, and fitted together.)

This is from on the porch looking out. The structural board just this side of the new fascia was so rotten it had to be replaced.

Water damage is a serious structural problem. It's not just about mold, it's about strength. This particular board may not seem to be a big deal, but it holds the substrate of the roof and ties the rafters together.

I cannot stress enough making your structure safe before thinking about upgrading your systems to more environmentally friendly ones. What good are they if your house falls down?

To me, it just makes sense to fix the structure keeping an eco-friendly attitude while doing it.



The porch done... Nice tight joints.

The joints and nail heads will be caulked before painting. Don't want rusting nails!

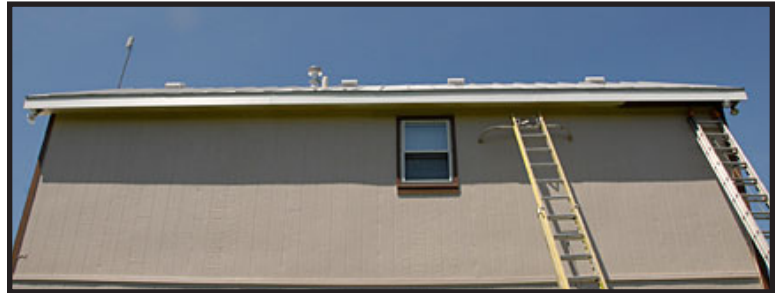


This gable is on the north side and it gets beaten on by wind and rain in the winter. The cementitious fiber siding and AZEK boards will make a tremendous difference!

Unfortunately, the staggered shingle pieces along the edge sustained a bit of damage. (You can see at the peak one of them is broken.)

Luckily, all the pieces that broke off were recovered and were adhered and nailed back on.

What a difference good boards make!



This pile is all the old boards. The crew was able to put it all in their van to haul it away.

And no one had to ride on the top (ha ha).

Thanks Shannon et al!

Now the painters can finish up. You can see the whole house being painted at this [Gallery page](#).