Deck on a Hill

Written by admin

The Deck on a Hill was built in the year 2000, and I have been looking for another hill ever since. When you program for a living, the chance to play with hammers on a big scale does not come often!

Deck on a hill Introduction

These pages describe the building of a garden deck on an otherwise pretty unusable slope in my garden. I am writing this a little over 4 years since I built the deck, and hence the photos are mostly of the finished product, albeit with 4 years wear and tear.

But the deck is as solid as ever, and since I started out with practically no building experience, and since a deck as large as this does require some fairly well thought out engineering, I thought it would be a good idea to share the knowledge gained and hopefully help a few others.

Inspiration

Since moving into this house we had failed to make any practical use of the slope at the bottom of the garden. Even getting to the two paths on the slope was a little hazardous as it involved traversing a small section of unpathed slope with a manhole in the middle of it. Early in 2000 I had one of those eureka moments, why not create a deck on the slope? The thought in this case was almost instantly converted into certainty. We would gain access to an unused area of the garden, making it a whole lot larger since as you can see it is a pretty small garden to start with, and since the house is north facing, we would create an area which actually got some sun.

rarely has an idea seemed so right. Initial Practicalities

It is all very well being inspired, but in the real world projects cost money. I won't pretend I was hard up at the time, I wasn't. But there were certainly plenty of other priorities taking chunks out of my income and having no savings at the time, it would have put a different completion on things if a loan was going to be needed to do the work.

As such the very first thing to do was to make some form of cost estimate. Exact costing at this stage was immaterial, I just needed to gauge the practicality of things. The deck had to be the width of the garden wide, about 12 meters, and whilst the outward length was up for grabs, it clearly had to be at least in the region of 6 foot (I measure in meters, but tend to think in feet!), anything less than 6 foot would not be a deck it would be a walkway. So the total surface area allowing for the "L" shape to the steps was going to be at least 25 square meters.

What does 25m2 of timber cost? I didn't have a clue. So it was off to Wicks the local but pretty useless diy/building store. I don't buy much from there, as you just have to put up with queues and poor service., but they are on the whole cheaper than many places and hence a good place to start if you want to know some rough figures. This trip told me that I was looking at several hundreds of pounds for the basic decking. Obviously this was just part of the cost, but it did show that the scope of the cost was in the low thousands. It would make a dent in the credit cards, but we were not talking about a long term home loan or anything. There were no good excuses not to go ahead.

Well actually there were plenty of good excuses! I had never mixed concrete before, or even done basic carpentry at school, and this deck would be 5 or 6 feet off the ground. It was not a project that I could afford to do badly, then again it was also the middle of march and still cold and damp.

Getting started

With all the excuses lined up to give up, I tend to think the best thing to do is to show some commitment and make a start. I had no idea at this stage on design, but I did know one thing. It would be pretty impossible to work on a 45 degree slope. Whatever else happened, I was going to need some form of level path. So for the next week or two when weather allowed I spent some time each day cutting a path into the hill about 6 foot out from the wall the deck would be built on to. I made no special efforts to make this path level parallel with the wall and in fact the lie of the land gave it a 2 foot drop end to end. First Design Ideas

I had next to no idea where to start, but I did see an advert for reclaimed railway sleepers at what looked to be a good

price (they were not actually that cheap for the quality, but there you go, it is all a learning exercise). I thought railway sleepers could have all sorts of uses. They could make up the frame work, shore up the hill, even have deck furniture applications. So I bought 14 of the damn things. In a way this was a psychotically move, I had physically broken some earth, but now I had broken into my wallet as well.

The sleepers duly arrived and where amazingly heavy. I guess they are loaded with tar. It was pretty obvious that doing anything with these monstrosities was going to need some heavy duty sawing equipment. So it was back to the drawing board.

Timber frames

Having sensibly given up on railway sleepers, a timber support frame work of some description was required. What type of frame design was still an open question. Heck I could not have told you any of the possible designs at this stage. However, what ever the design it was going to have to be robust enough to take the weight. I needed some tables to tell me what size of timbers to use. The internet was great for this. A quick search revealed loads of links.

Diy Doctor

dprhardwood

Tember Decks

I decided on 8" by 2" joists 16" apart. You can support decking timber perfectly safely with wider joist spacing, and it fact I had a manhole to worry about, where I would need to allow wider access (and it was just as well I did!). But I was planning on starting the easy end away from the "L" shape and the manhole. I figured by the time I had built 10m or so of frame work. I would have learnt a bit and have a better idea of what to do. With 16" joist spacing then the decking board would feel totally solid under foot, with wider spacing of up to 24" you are still safe, but there will be a bit of flex.

On one end the joists would be supported on joist hangers set into some 8" by 2" ledger plates attached to the wall with frame anchors.

On the other end, well I had decided on 4" by 4" posts, but how they would attach to the joists was still a matter of some confusion. Might the posts be very long for example to provide a frame work not just below, but also about to support whatever fencing I put round the deck? I had no vision of what the fencing might be, but there would have to be some, leaving a 5-6 foot drop just is not socially acceptable!

So I kept on searching the net until the answer leapt out at me. The design would be cantilevered. In this model the support posts are sandwiched between two planks and the joists lie across the planks, where they are basically held in place merely by weight alone. The cantilever can be up to 25% of the joist length.

The advantages of the cantilever frame are many fold.
- The support posts can be shorter as they will be further up the hill. In my case it rendered the longest posts still well short of the point where diagonal cross bracing would be required.
- You don't need to worry about making the tops of the post level with each other. The 8" by 2" planks sandwiching the posts will of course need to be level, but being an inch or two out on the posts, won't matter so long as they are not above the required level.
- There are no joints to cut, joints only present more edges that will need treating, and weaken the wood.

This is as far as I went with the design at this stage. I felt confident that this was the way to go. Handling the "L" and the fencing would work itself out in time. But I still had not finalized the dimensions.

Whilst I was feeling pretty confident, I can't say my friends all had such boundless optimism. My good friend from Yorkshire Barry, even bought me a book on timber decking, reflecting not I think spontaneous generosity, but more a concern at the potentially brewing disaster.

How wide can we go?

This was actually an easy decision. Once you did the measuring and once I found out that my timber would come in 4.8m lengths, then 2.4m just under 8ft was not only obvious, but extended the deck size to as one friend put it, "one step short of megalomania". Any wider and it would have been difficult to access the hill below the deck space. It would also have been risking annoying the neighbours. 8ft is a nice size, one hell of a lot better than the minimum of 6ft I had considered the smallest useful size. 8ft is also a big deck. Would such a construction need planning permission?
Planning permission

Four years on and I still don't know the definitive answer to the need for planning permission. Possibly there isn't one. It is easy to be caught out on the technicalities of planning, for example in the UK you cannot erect a shed within 20m of a highway. This rule would catch my shed put up be the previous owners and I'm sure many others in the street as we back onto a road. But I'd be willing to bet that few people have bothered with planning permission. When it comes to garden decking you never see "Ground Force" worry about such issues. Probably it would have hinged on, when does a bit of decking cease being a bit of decking and become a "structure"? and thus subject to the planning laws.

I decided to take my chances, I couldn't imagine the neighbours complaining, I had judged a lot of angles and at most the deck would put a bit of shadow on one neighbours front lawn on a late summers evening. Timber

You can't build a deck without the wood, by now I knew a little about what I wanted, and a lot of what I had read was encouraging, with modern pressure treating, timber is now a remarkably durable building material. But all told I really only knew a little and one thing I did know was that I wanted a whole lot of timber for this project. Going to B&Q and bringing it home in the boot of the car was not an ergonomic or economic option. I wanted somewhere I could buy from that would be friendly, knowledgeable, local and would deliver. I started going to builders yards, i',m sure they has what I needed, but there was no service, no prices marked and I always felt like a fish out of water.

I managed to pick up 4"x4" posts for my supports but I wasn't happy about buying anything else.

Then my internet searching got lucky, a site established Jan 28th 2000 cropped up. The Timber Decking Company LTD . This company was hidden away on a back road practically on my door step, closer than anywhere else I had looked. The prices were good and there was even a 10% off special offer at the time.

Surely too good to be true I thought, as I made my way there. But no, here was a company where you could talk directly to the owner Gary Collins, a member of the federation of master builders or for that matter his Dad who was helping out, and get a great level of service.

So I put my first order in for joists and joist hangers. Going by the book I guess I should have made clear estimates of all the quantities I'd need in advance. But I did not see the point, so long as each time I ordered I was above the free delivery amount I thought I might as well limit the amount of stuff I had cluttering the garden up, and whilst I was getting a clearer idea of what the project would cost, I was committed to it and did not need or want to worry about the overall financial damage.

The Timber Decking Company did make a silly mistake on the first order, the joist hangers supplied were flimsy things unsuitable for a project of this magnitude. Gary dealt with this in good humour, confirming my belief that they were a decent company to deal with.

So now I had the means to start building.

The Ledger plate

The ledger plate seemed the place to start the actual building. I was busy digging 2ft foundation holes for the posts in my trench, but I figured measuring everything relative to the ledger plate would be the best way forward. The height the ledger plate was attached at was a key consideration. This would define the level of the deck, and we decided a height level with the existing steps would be right. Higher would catch a little more sun, but all the proportions would be wrong, even the steps at the side of the deck would cease to be easily accessible.

The wall itself is worth a mention at this point, as is clear the house is on a slope, a small patch of level garden is supported by a very well constructed brick wall. This wall was not always there, when the house was built the level part of the garden was even smaller and it was backed with a quite shoddy brick wall, which can still be seen. As I understand it, this wall began to collapse and Neil my ex next door neighbour who was a bricky by trade built the new one. He and the then owners did not economise they used strong "engineering" bricks. These are tough cookies as I was to find out.

Given the length of the deck, two 4.8m stretches of 8" by 4" would form the ledger. I marked these out with the prospective joist positions and drilled holes for shield anchors.

These we set at diagonals with two holes between each joist position, the levels for the holes were geared so that the corresponding holes in the wall, would be in brick, not mortar. The horizontal positions may also have been geared to miss the mortar as well.

The shield anchors We bought from screwfix direct, who are an invaluable diy supplier. We bought M8/120, the 12cm length being needed to go through 5cm of timber and 4cm into the wall along with 1cm clearance between the ledger and the wall.

Anyone who knows anything about shield anchors may well be scratching their heads at the moment! did he seriously say 1 shield anchor every 8 inches? one of those things would hold an entire housing estate together! well that is as maybe, but in the absence of any knowledge I wanted to be on the safe side. Though I did come to regret it, when the drilling started.

In order to get the wall holes in precisely the right place the plan was to drill in a single shield anchor, attach the ledger board temporarily and mark the remaining positions by sticking a pencil through the pre-drilled bolt holes. This is where we had our first hiccup in the schedule. Each hole took about 10 minutes of hard drilling into the tough engineering bricks. Many thanks go to Eric and especially Simon who got their share of RSI in drilling these holes with my Black and Decker drill.

When finally all the holes were drilled and the frame anchors attached, we put some silicon sealant on the anchors and tried to attach the ledger board. There was no way it was going to fit. You cannot seriously expect two dozen or so holes to line up perfectly. The answer was to use a bigger bit to redrill the ledger holes to give a few mm slack, with this and some vigorous encouragement with a club hammer, the first ledger plate was attached. One important point to note with a ledger plate is that it should not back directly on to a wall where it will trap water and risk rotting despite the wood treatment. We placed some large stainless steel washers on each anchor to create about 1cm clearance. The sealant was aimed at avoid trapped water in such a crucial piece of the construction. Though our bricky friend Neil next door did have a chuckle at this, as well as the number of anchors.

With one ledger done, there was nothing for it, but to do it all over again with the second ledger.

I really can't recall quite how long it took us, but it was easily the most soul destroying part of the entire project. In fact with the exception of digging the holes for the foundation posts, the rest of the construction was great fun.

Finally after much sweat blood tears and an idea that turned into an abortive patent application, we had the second ledger in place. At this stage we may have been drawing a few curious glances, just what the hell is he up to?

Foundations

Once I had decided on the cantilever design, I had started digging some foundation holes in the path I had dug, conveniently this path being about 6 foot from the wall was in right spot. The holes needed to be about 1 foot square and 2 foot deep. There are all sorts of tools for making this job easier and I had none of them. I dug 11 holes a meter apart at the far end, and a bit more than this at the near end. This was as ever totally over engineered, the closer spacing at the far end is intended to provide additional support should a summer house type structure ever be built there. As it is, we have had a gazebo and currently a greenhouse, but nothing permanent has really taken our fancy.

Those holes took a long time, with a spade, trowel and bare hands, next time I hire a decent tool for the job. You can get hole diggers from hire shops, though the usability of these things on a slope did concern me somewhat.

In the bottom of each hole I put a storage heater brick (any old rubble will do), God knows why I still had these heavy slabs, two house moves since I last had storage heaters, but sometimes when you are a bit of a hoarder things do actually come in handy.

So now was the time to concrete in the posts, since my concreting experience was limited, well no existent limited, it was time to draft in my then 76 year old Dad for some hard labour. Mixing sharp sand ballast and cement might not be rocket science, but I didn't want to miss a trick on the foundations. Here is a useful guide on concrete mixes. The first load of concrete was mixed, in a sound demonstration that a life time of gardening keeps you fit and healthy! and the first post concreted in. The post had first been cut to height by using a spirit level on a board balanced on the ledger board out towards the post, and the post itself was kept level using one of those simple but essential tools a post level.These cost just about nothing and make posts an awful lot easier to deal with.

One pole done 10 more to go. But the cantilever design does at least make this part of the build quite a casual exercise, pin point accuracy is not needed.

At this point the work attracts a bit more attention, is it a fence I'm building halfway up the hill? The sandwich boards

Now we are getting some where, with boards both sides of the tops of the posts, we will have something substantial in place. But how to attach them? Well for a start we will avoid week spots by making sure where was have to finished on board and start the next, we don't have to do this both sides of the same post. That avoids weak spots, but for the actual

attaching we have bought a variety of things to try out, coach screws, galvanized 6" nails, and galvanized brackets. Whatever we do, we need to be spot on, checking the level along the posts and also across from the ledger board.

The easiest way I found to do this, was to get an approximate but too low level, attach two brackets at the near and far posts, and then slot the board into the brackets. You can now wedge a few slithers of wood into the brackets to adjust the level upwards whilst you check with a spirit level across and along. I used a meter long level, but longer would have been better, with a short level any warping in the wood may throw readings off, and not help you in spotting the warp. Having found the level I hammered in three 6" nails on each post, and also nailed the brackets fully to the wood. This struck me as pretty adequate to the task.

Working along all was fine until it came to the last post, the first one that had been concreted in, somehow or other it was out of line. and a little bit of creative bodging was needed. I still don't know how I messed up there, I had been using a nylon rope from one end to the other of the path to mark out a dead straight line, as clearly this was the one thing with the posts that had to be right.

With this hiccup dealt with, some structure was now visible, in particular it shed a bit of light on the "L" to the steps, where a long joist span over 3m would be needed and where the joists would need to accommodate a manhole cover. I decide to be as conservative as ever and draft in my Dad to build a little supporting wall below the man hole cover, it can't do any harm and we have plenty of bricks as the old path had a couple of rows of bricks to make a flower bed. We also place a small blob of concrete to support what will be the final joist at the very top of the hill under the steps.

By now a few people are loitering as they go past, I think the penny has dropped, as to just what the plot it. Placing the joists

Having returned the small and useless joist hangers and bought some decent ones at Wicks, it is time for a lot of hammering, each joist hanger has over a dozen nail holes. But this is were it starts to get really satisfying, very fast progress can be made. In principle with all the effort that has gone into keeping things level the joist hangers and joists can be nailed in place without rechecking the levels, and frankly I doubt there would have been a perceivable difference had I done that, but it takes little effort to check the level joist to joist and out to the posts, and the joist hangers can be hammered in just a little up or down accordingly. I don't think there was movement of more than a centimetre either way, over a 2.4m joist span this is a small fraction of a degree, pretty much as near perfectly level as you are likely to get. Where the joists were balanced on the sandwich boards a light weight "L" shaped bracket was used to keep the joists parallel. The bracket had little fixing strength, but sheer weight is all they need here.

As we work along placing joists, it is important to remember that decking boards are going to be laid, where one decking board ends and another begins. As our joists are two inches wide, this would leave 1" for fixing the end of each board to a joist. I am not planning on a fancy pattern to the decking board, just running them in parallel to the wall, with staggered lengths to avoid entire rows of joints. To give more room for the fixing, at points where joints will occur, I nail a second joist to the first. Maybe I should have used a little sealant here, but I did not, arguably the wood is tightly nailed together, and very little water will get down here, it is not like a wall where driving rain will see sheets of water washing down. Water also has a lot of surface tension, it is not that penetrate.

The joists only take a couple of days to complete, I am not commenting much on time scales here, as the work was all carried out whilst I was ostensibly working from home. So a good deal of the work was done on a "Whilst that program is compiling, I'll knock a few nails in" basis. This does not tell me or you very much about how long the job takes. In elapsed time, from the first digging to completion it was a couple of months, but the serious work was more like a few weeks, not exactly "Ground Force", but then I was working mostly alone and without half the tools they use, come to think of it, they might have had a rude shock with the engineering bricks and struggled to do this job in a couple of days!

As the joists expand, it is very gratifying to see people stopping in the street below to discuss and admire the work in progress, some visitors are clearly not just passing buy, they are making a specific trip to see the deck. In the following months there even appears to be a knock on effect with hard landscaping projects in the neighbouring streets, one can almost imagine the nagging in some of the houses, "if he can build that on his own, why can't you repair the wall?". Even Barry's scepticism has evaporated. What is emerging is big, level, and clearly won't fall down short of a nuclear strike. Topping Off

Here I have to jump ahead a little, throughout the project I have been puzzled over how to do the essential fencing. we have been visiting garden centres, diy stores, fencing companies and looking over some very nice display fencing at our favourite supplier the Timber Decking Company. We have also been spending a lot of money, well over £1000 has been spent already. In real terms this is next to nothing for what has been achieved, but it is putting pressure on the plastic, and we have other fish to fry. In particular we have been planning a three week "holiday of a life time" in the United

States, hopping from place to place sometimes meeting with our good friends Barry and Sue who will be on a similar but slightly different tour, for us it will be Washington, Front Royal, Williamsburg, Ocean City, Lancaster, Philadelphia, New York. We have I think negotiated a pretty good deal for the trip, but it is still a small fortune.

So our search for fencing is very budget conscious, we are also aware that the length and wide of the deck does not divide neatly into the dimensions of ready made panels and some fancy work will be needed for a neat result. We decide on simplicity. The fence posts will be 3"x3" slotted into post holders secured into the deck with coach bolts, and the fence itself will be simple trellis.

The fencing company that supply this will not make up of supply the wood for not standard lengths of trellis, but Gary at the Timber Decking Company is as cooperative as ever and gets hold of the wood for us.

So now the decking board can start to be lain, staying a little away from where we want to attach the post brackets and for that matter fascia boards will also need attaching to the exposed joist ends. But all that will be somewhat easier when we can actually stand on a solid deck.

There are three basic ways you can fix down decking, nails, screws and fancy concealed fixing. Nails fired from a nail gun is the way they do it in the trade, very quick very cheap, but once the boards are down they ain't coming off again in a hurry. We have a manhole to cover and we may need to gain quick access, in fact a few years on this precaution is validated as we suffer a real drainage disaster. We decide on screws as our fixing method, a lot of screws! There are 30 joists and 20 deck board in width for most of the deck, needing 2x30x20 screws not counting where boards join or where the deck is "L" shaped to the steps, that is 1200 screws and then some.

How do you fit 1200 screws? I tried a few ways, with pilot holes and using my Black and Decker drill as a power screw driver. But the most productive way I found was using a "Yankee" ratchet screw driver and a gentle helping hand with a club hammer! I cannot over emphasise the difference in productivity a decent Yankee screwdriver makes. I think I'd still be laying the boards now with it. Mine lasted the duration of building the deck, but broke shortly afterwards, but it had earned its cost my then.

The other issues when laying boards are spacing and warping. Deck boards are not perfect and need a lot of diligence to lay well over long lengths. I have no basis for comparison, but I feel the boards we got were pretty good, only one board was particularly poor, and we are talking about quite a lot of board here.

Spacing can be controlled by using 6" nails punched through pieces of card as separators, the card prevent the nails falling through the deck. where there is an issue with warping, a nail or to at the side of the board can temporarily hold it in line. You then work from one end of the board to the other. Working towards the middle with a warped board is said to concentrate the warp into the middle making finishing impossible. This makes sense to me and I did not have any reason to try and find out the truth of the matter. The Fascia Boards

Fixing these required a little thought, holding up a 4.8m plank with one hand and hammering in a nail with the other is not very feasible. What I did was nail in the few wood scraps beneath the end of some of the joist ends, so I could perch the fascia boards in place for nailing. Sitting on the deck above nailing in the board below did not work well for me, I bent a lot of nails. Working from below would have been very awkward as well though. I guess all these types of skills take a certain amount of practice to perfect, but I never got proficient at this one. Fencing

With the fascia boards in place I could nail in more bits of 8"x2" board between the joists where the post holders would need to be attached. Nailed on three sides (two joists and a fascia board) this would provide a sturdy support for the post holders.

The post holders where secured with coach bolts driven into a pilot hole with a socket wrench. You need a decent size pilot hole or the wood will split. I attached steps of trellis wood to each side of the posts to provide a corner into which I would screw the trellis's themselves.

At the far end of the deck, two final stretches of trellis was made up from scratch as there was a longer than standard length stretch along and across.

Well there is was structurally complete. Just in need of painting, and crying out for some deck furniture and a BBQ! Deck Painting

There are a lot of ways to finish off a deck, painting, staining, oil finishes etc. With this much deck to cover we went for paint. A paint finished seems to last two or three years. Initially we went for a wood tone, but then we made the mistake

of going for a bluish tone, uncharitably described as "battleship grey" by friends. Getting back to a wood tone is a hurdle we have to cross soon. Aside from the advisability in my opinion of sticking with wood tones as they will be sympathetic to repainting in another wood tone as years go by, I cannot think of much useful to say on painting decks. Though one thing does come to mind. On a small deck I built later, I used fence stain, this said don't use on decks on the tin! But was perfectly good for decks and a whole lot cheaper. This makes me think that manufacturers want to segment the market and charge more for something labelled a deck stain/paint. Finishing Touches

Perched in full view of the road as it is and with only trellis fencing, the deck seems less like a private area of garden and more like a theatre stage. We build three tables out of the remaining wood and perch big pots with climbing plants, to try and shield the view a little. To date this is still the least successful aspect of the deck. I may yet get radical and tear down the trellis in favour of fancy panels.

We also need plant troughs, furniture and of course a deck like this must have a BBQ. We shop around a lot and settle on a decently sized gas BBQ and some ornate stone troughs. These items cost a fair bit of money, but they will be permanent features of the deck and are worth it. For the furniture though we reason that how we use the deck will evolve and change over time, putting expensive wooden furniture on the deck will constrain that flexibility, plastic resin furniture may not be as attractive, but it has the virtues of being cheap, easily cleanable and disposable. We are now on our second set of plastic furniture and have no desire to change this stance. The disposable approach has also applied to putting cheap gazebos and a even currently a little greenhouse at the far end of the deck.

One of the final touches was electricity, lighting and even a network connection. These items are pretty frivolous though. This is not Spain, Australia or Florida, this is in England, we enjoy a lot of BBQs on our deck, but the number of occasions where it has got dark and is still pleasantly warm are few and far between, the time between lights going on and people retreating inside is always on the short side.

Oh and what of the good old railway sleepers I bought at the start of the project? For some weeks to come visitors were given a pair of gloves and invited to help hump a sleeper down to beneath the deck. Some people might lug these around for a living, but even after all the weeks of decent exercise building the deck I found them damnably heavy. But they eventually got there and were used to help landscape the little remaining slope, including a level pathway under the edge of the deck. It makes a great area for children to play and make a den. As under the deck is accessible, and as it is now easy to get down the hill, the usable garden area has effectively doubled.

Costs

The timber, decking boards, and assorted fixings came in at around £1700. Which was round about the amount I had sort of expected. As I have said I really avoided thinking about the cost beyond estimating it was within reason. Adding the deck has no only given us a lot of pleasure over the last few years, it has also added a lot of value to the house, visible as it is from the main road, the "house with the deck" is one of those houses that is known to people. I won't exaggerate too much and claim it is a local landmark. But such a claim would not be far short of the truth. Four years later

It is now four years since the deck was built and the only sign it is worse for wear is the current coat of battleship grey paint, which will be dealt with next year. The deck boards over the manhole are a little more uneven in their spacing than they were, since they had to come off and go back down again, and I did not do such a good job as first time round.

The climbers have made slow progress over the trellis and in one case died. No claims of green fingers here. On the subject of the greenery we had a little dispute in the making of the deck about whether to put membrane beneath the deck to suppress plant growth. For most decks this is an absolute must. In this case, what with the north facing aspect, the chalky/clay crap that passes as soil and the fact that the deck was going to be way above it all, I did not see the point, neither did Barry a keen gardener who once managed a garden centre. Conversely my Dad also a keen garden seemed to think we would have plants poking through the boards in no time. Time has now passed judgment, no membrane and no plants poking through either. Grass has re-established itself on the landscaped slope and the wild strawberries have flourished.

The rhubarb that was doing well, but which got a little too underfoot in the building did not make a comeback, and nothing else we have tried on the slope itself has survived either.

But the main point is the "structural integrity" as they would say on Star Trek, and in this regard there is little apart from the cobwebs in the joists that would tell you the deck was not recently built. I see no reason why it should not stay that way for at least a couple of decades.