Chapter 3

Gressingham/Aughton/Halton Eco/Halton Urban

Phase 1 green, Phase 2 pink.

George Metcalfe. A man of Grit.

George interviewed by Brian Thompson and team from BBC Click.

Our B4RN banners, designed by John Hamlett

The original B4RN banners by John Hamlett.

Gressingham and George.

Gressingham, a very small village next to Arkholme saw how good B4RN was, and a farmer called George got together with video producer, John, and formed a formidable team in 2013 to try to get it into their area. This village was not in the original Phase 1 build, but Barry said they could start, as other routes had either wayleave issues or had not taken the baton yet.

John and George, the main Activists, found many enthusiastic Adopters/volunteers from their village, most residents contributed in one way or another, and they raised money in investments to pay for their duct. EIS was still available, which made shares very attractive with a 30% tax rebate for UK taxpayers.

Despite being unable to walk, George dug on his digger for as long as he could every day until his wife dragged him home. He even spent a whole day digging without realising he had broken his leg. He got fibre to his farm, and ultimately to the entire village.

BBC World Service and BBC Click did a programme featuring George, and there is a link at the bottom of the page if you want to listen to it.

John was the designer of our banners, sponsored by the Area of Natural Beauty (AONB), and if you look closely at the horizon you can pick out George on his quad bike, checking his stock.

Beyond the book:

BBC World Service

Peter Docton and John backfilling with sieved soil to get stones out.

A small piece of split gash duct on the fence so the farmer knows where not to knock a post in.

One of George's trenches between Arkholme and Gressingham.

Volunteers laying the duct and backfilling with soft fill.

John was the inventor of the 'bread tray sieve technique', which sifted the rocks out of the backfill. He invented it because he had a bad back and could not keep bending down into the trench to pick the stones out. He loaded the fill on the tray and wriggled the soft fill onto the duct, discarding the stones.

John, with his most stalwart volunteers Peter and Roy, also made sure the chambers were done well, and the duct could not kink going in and out of them.

He also came up with the idea of using gash (waste) duct on the fencing wire to mark the spot where the duct went through.

John's early routes had tape tracer which went on top of the soft fill under the sod .

From one village to another, a superb trench dug by George. The farmer of grit.

House digs were done by the volunteers and householders to a very high standard. The duct was protected with alkathene pipe when it went under hedges or walls. The following photos show a good example of a house dig. Sod was rolled and the lawns protected with plastic sheeting. We later realised that 'hinging' the sod on one side was much better, but all these things were learned eventually. A hinged dig is where one side of the sod is not cut and is folded back over to dig the trench, then folded back after backfilling.

John digging under a hedge and threading duct through alkathene pipe.

Garden sub-ducted in alkathene with metallic tracer tape.

The finished garden dig.

Iain Robertson and Jane Paxman labelling ducts.

Chris Hall blowing the fibre to Gressingham and David Smith fleeting.

A long neat garden dig, with spoil kept off the lawn surface.

The trench was dug, and again alkathene was used to protect it, and the entry point for this house went into the cellar and then up through the floor instead of having a box on the wall outside.

The duct was laid in the trench and backfilled with the tracer tape above it.

Volunteers helped with labelling ducts. Up to then we had been using cut up yoghurt pots and duct tape, but then Iain had the idea of using plant labels and cable ties, and each duct was labelled for every property.

Chris Hall blew the fibre to George's farm, helped by David Smith from Arkholme. When we were blowing the fibre to George's farm our trailer was hijacked, and the compressor and tools were stolen overnight. The insurance would not pay because it was not in a 'secure compound', it was actually stuck in mud in a field. Three volunteers from other parishes loaned B4RN the money to buy a new compressor and a blowing machine. The new blower was named after one of them, Anton, (and is in the hall of fame now it can not be repaired any more).

Then John was told that there was not enough money in the kitty yet to put the optics in the cabinet. John carried on installing villagers, and promptly found more investors to buy the necessary cabinet gear, and Gressingham and Eskrigge came live off the Arkholme cabinet. Those routes were dug by two local farmers, John Lumb and Martin Brookes, and

We made a sticker for Anton.

The Anton blower in the Hall of Fame at the office.

The new blower Anton bought.

Chris Hall blowing the house fibres.

Leonard brought his trailer every day.

John Hamlett fusing customer connections.

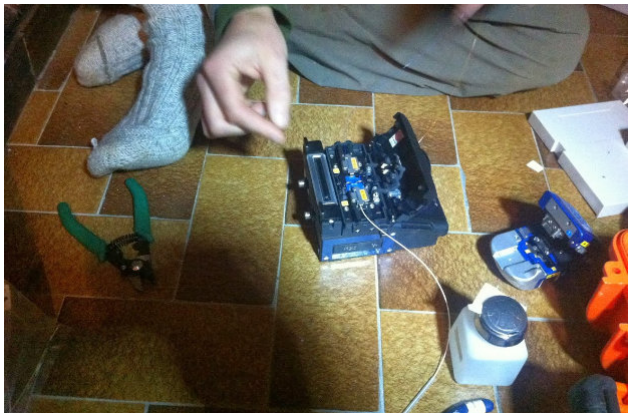
Martin did a lot of the village digs and house installs.

Chris Hall from Arkholme was the main core blower, and he blew the house fibres to each home, too. Then the fusers started their job.

George's son Leonard brought his trailer each day for us to fuse in.

John then learned how to fuse the fibres, and organised fusing for those he had not time to do as he was still busy digging.

John and his team got the duct from Arkholme to Gressingham and up through Eskrigge, he also taught the Aughton volunteers the tricks of the trade. He then made us a little film when we reached our 1000th customer (the one where Prince Charles fused a fibre), "This is B4RN - the community broadband network", and John was delighted he could now upload this video in seconds on his B4RN connection.



John Hamlett - first fusing lesson, on the floor.

Tim Higgs, a volunteer from down south helps John set a chamber.

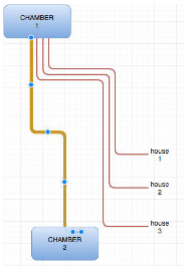
George is happy with his home office connection.

The dig nearing completion with Gressingham church in sight.

John also joined the management team for B4RN and went on helping other villages and did presentations for those who were interested in doing a B4RN project. He inspired many other communities to JFDI.

John also wrote our first comprehensive 'build guide', and HSE (Health and Safety) booklet to prepare communities to work safely.

John designed the first coherent method of duct mapping. Up to then we had used the back of an envelope that Bruce drew for us. It worked, but a proper duct map looked more professional, and that is what we were aiming for.



John stayed very active in B4RN until the management team was dissolved, his last work being a professional brand refresh including a new website, stationery and livery of the first B4RN vehicles.

George got his connection and was very happy.

John was able to upload his video productions and was also very happy.

George dug 8 kilometres of duct to enable Gressingham to join to Arkholme, then other villages benefitted from the start they had made.

Aughton started digging towards Gressingham even before they had finished, and Halton Eco Housing took an interest. John helped them all get started and then he finished all his own, and some of them came to help him and learn the ropes.

Beyond the book:

John's video

The Eskrigg and Gressingham signpost.

As you will have seen from the map at the start of this chapter, Gressingham and Eskrigg were not in the Phase 1 plan, but because of George and John they got their connections. This set a pattern for many other villages, 'If whey can do that, then why can't we?' Little, forgotten hamlets rose to the challenge, which in turn led to larger villages in the valley.

At this point in B4RN's story there was no government support, and everyone had to finance and actually dig all the duct in themselves. It is a testament to the tenacity of people and communities - showing what they can achieve if there is someone or something to enable them to do it. It is the foundation upon which B4RN has grown.

Chris and Hilary Carr.

The Aughton Lindsey spade.

The Aughton banner.

Tidy trench. John Mackay and Chris, 50 metres by hand to avoid utilities.

Aughton

In 2013 Hilary in the next village to Eskrigg (Aughton) heard about B4RN and was relentless in making sure her husband Chris mobilised too. Their internet connection at the time was 0.73mbps and unusable. She wanted a better service for her community. Everyone who knows Hilary knows that she never ever gives up when she decides something needs doing. Chris did not stand a chance. He went to help John and George at Gressingham and saw how ducts were laid and worked out how it could be done in Aughton. He then went to Whittington and Capernwray digs and learned blowing techniques. Once he was sure the project was a goer, the tribe started to build around the two activists.

Hilary invited Barry to the village hall, and many people attended and were interested. This village was also not included in Phase 1. Another load of cats to herd, but Chris was extremely well organised and played his cards very well.

They got B4RN banners up and spread information around the parish. The Aughton pudding festival had raised a few thousand pounds that year, and Chris persuaded the church and the village hall to 'loan' their share to B4RN to buy ducting and a cabinet, and the village hall agreed to host the cabinet. This was where Chris decided to start the dig, 2.5 miles away from any connection. Gressingham had not finished theirs, but he knew they would.

The sight of the diggers brought out volunteers and more interest in investment. Chris said: Traversing a nest of cables (electric and telecoms) and water pipes meant digging by hand, on the way to Ghyll Bank. If you want a neat trench then John Mackay is your man! Thanks also to Tim Williams for his muscles! The first big dig was through a field owned by another George, who had the ear of the other farmers'. They started their dig in February 2014.

John Hamlett helping Chris get organised on the first big dig.

Chris helping at the Whittington blow.

Hilary, Bruce, John and other volunteers at the Snab blow.

Rollo (the dog), Hilary and Chris blowing fibre to the top end of Aughton.

The dig down from the hall cabinet to the tiny centre of the village was in plain sight, and it was done very carefully with the sod placed to one side. Chris backfilled it all by hand, and Hilary replaced the sod and trampled it down, leaving hardly any trace of where the duct had gone. John Hamlett from Arkholme is pictured in that trench, setting them off the right way. The farmers were impressed.

Chris also undertook the management of the digging, route planning and wayleaves, working with the farmers and passing on the training he had got from George and John at Gressingham.

Chris had also joined blowing teams in other parishes to learn what the problems were and how to fix them before his blows started, and how to fleet.

The farmers all broke out their diggers and dug their own land to join the previous village after they had finished their chores. Bruce and his trusty Volvo, Chris Hall with his pickup truck and John from Gressingham blew the core fibre to the chambers. Fibre was also blown to a group of houses on the way to Halton. Every property in the parish got its fibre. Chris and his teams had dug to them all.

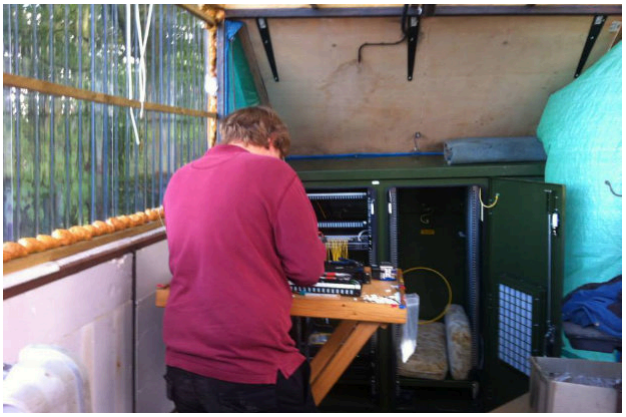
The cabinet was installed at the village hall, and Frank and Josh coupled up the electrics, and Alistair and Iain terminated all the core fibres. They were sheltered by Frank's amazing see-through caravan at the chamber and by whatever was available in the fields.

Josh coupling up the electric to Aughton cabinet.

Hilary's pregnant daughter and Hilary watching Chris blow house fibre.

Frank Balassa the electrician and Hilary at Aughton cabinet tea break.

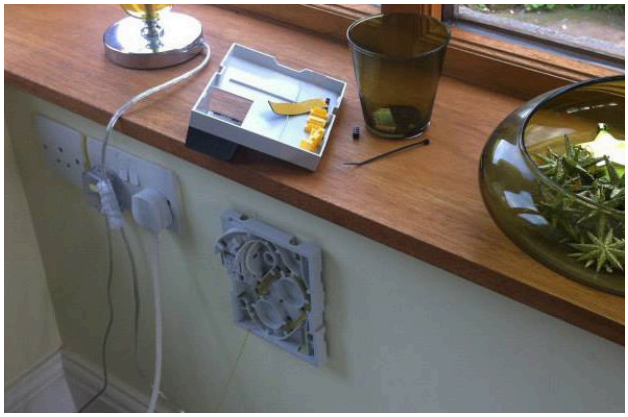
Alistair and Iain doing the bullets to bring the cabinet live.



Alistair fusing in Frank's caravan at Aughton cabinet.

Hilary helping with the fusing at the cabinet.

Chris catching the fibre at a customer's house.



The fibre has arrived in the property.

All the joins and bullets were also being done on the routes into the village. Work continued at the cabinet, with more routes being blown into it as the digs were completed. Chris Hall came to blow the local customers house fibre, watched by Chris and Hilary's family and prospective grandchild. Hilary made sure plenty of refreshments were available, and everyone kept working hard. Chris went to each house blow to receive the fibre, and the fusers were there to terminate it. Chris could find any joins in the

Chris finding and fixing a blocked duct.

Chris getting the chamber ready for the blows.

Chris finishing a customer install.

The Eco housing volunteers (Jonny and family) digging the new route around a wayleave blocker.

duct where fibre blows got stuck, because he had done all the joins himself.

Bruce brought more core fibre to blow down to the bottom half of the village and onwards uphill to Halton. Then after they were connected in the cabinet, the bullets were done on all of those routes, too.

Some volunteers from the Eco - the Co Housing group in Halton joined Chris in the trenches to learn

Bruce brought more fibre for another core blow.

the ropes. Jonny Murton had been the first, but 69 different volunteers worked on the project, and considering there are only 68 properties in a 2km radius of the village hall, this is pretty amazing.

Tony, Derek and another farmer, Chris, dug through their fields to connect to the core where Gressingham had finished theirs.

Frank and Richard took over at the top end of the village to complete the core dig to where the Halton folk would start theirs.

One of the routes had to have changes made because of an absentee landowner. The tenant farmer was desperate for a connection, and Jonny Murton appeared to help get the fibre through an alternative route. This started the Eco housing project. He and his boys dug a lot of it by hand, and he negotiated new wayleaves. They dug under walls and sub-ducted the 7mm house ducts through extra protection.

The alternative route completed by Jonny Murton and his team.

The alternative route under a wall.

The bespoke sponge catcher pop bottle in action.

Built in 1687, and now part of a truly #Digitalbritain.

Chris says that the project could not have been done without the goodwill and help from the farmers, who were splendid. Once the ducting was underway Chris had to ensure blowing the fibre was booked well in advance. The other groups were wanting theirs blown too, so Chris came up with a cunning plan to book a month before and get the date in Bruce's diary. He had assisted the Whittington and Wennington groups who were blowing fibre, so he knew what it entailed and how difficult it was to get a date from B4RN. He made sure everything was ready at his end, and it all went like clockwork. Chris caught the fibre as it popped through to the chambers. Quality control at its finest.

As well as learning how to plan a network, organise the diggers, install the house kit and blow fibre, Chris also found his dowsing skills were honed, as he found he was able to locate water pipes and drains with his bespoke dowsing kit.

He was out digging most days with different farmers and volunteers in 2014, but the main work in the village was always planned for Saturdays, when more people were available. Everyone who could help chipped in.

Chris installed the CPE (Client Premise Equipment) into every house, and with careful planning in advance, he managed to do them all. Hilary learned how to fuse the fibres and put the routers on.

There were many old properties in the area, so Chris needed his big drills in some cases, but he persevered, and they all got connected. He really enjoyed the excitement of seeing the fibre blow through into the house. One of the oldest houses Chris drilled through dated to 1687. One place he installed had neither mains water nor grid electricity, so the router had a windmill to power it up.

Hilary also assumed the task of communicating with everyone so they knew what was going on. She let everyone know of progress as it happened. She ran a

The branches that are making up this chapter of the project.


The showtell day at Aughton village hall.

Derek Burrows' Lindsey spade.


Chris Carr, Member of the B4RN Empire with his JFDI spade award.

Facebook group and used email a lot, so everyone could join in when they could.

Chris said friendships were made that have stood the test of time, and the mutual respect the project generated was great. He also says they had lots of fun doing it all.

There was almost 100% take up of the service in Aughton.

During the project the village hall hosted one of our showtell days, where visitors from all over the country came to see how we were doing it.

Scotland sent a film crew, some of this is in Gaelic but you can get the gist! (There is a link below to their film). Barry says how Scotland can do what we are doing, and Balquhidder took up the challenge and built its own network.

Derek Burrow, a local farmer who had done a lot of digging, also got a Lindsey spade.

Chris was awarded the MBE spade for all his hard work. He became a director and is now Chair of Directors at B4RN.

Aughton cabinet came live in August 2014, a year after the great pudding festival that loaned them some of the first funding they needed to get started.

Aughton dug 16,677 metres of duct. A mighty branch on the B4RN tree was growing fast.

Beyond the book:
BBCAlba News
Balquhidder Broadband

The Eco logo.

The hydro dam.

The Eco houses.

James Bellarby testing the service in his Eco House.

Halton Eco Housing

Aughton led on to Halton, which also was not in the original Phase 1 either, but if the community wanted B4RN, they found ways to make it happen.

Barry's phased building plan was shot. What seemed like a sensible plan of action was totally thwarted by these determined individuals who wanted to 'jump right in', and Barry's prediction at the launch event came true. It was like herding cats.

The Eco housing project in Halton was especially determined. They already had a hydroelectric plant on the river Lune for their electricity. As they were building their houses, James Bellarby had insisted they had fibre duct laid to each of them by the builders. Also he said they needed ethernet run through their houses. They were future-proofed - except for the fact they could not get a decent service for broadband. Then he heard about B4RN.

James never thought B4RN would get there, but he was determined to try. They started in 2014.

James was the Halton Eco activist, and he led the tribe. After working with Chris in Aughton, he decided to bring the core to the houses, connecting any farms up in between.

He was helped by a really great local family of landowners - the Bowring brothers, Thomas and Duncan, who owned the local estate. They were not particularly bothered about it themselves, but their tenants were desperate and there was talk of them moving out. James, Tommy and Johnny brought the core through from Aughton to their properties, with James doing most of the house installs. Thomas's house is dated 1683.

Duncan worked in a bank in London, so he wasn't over bothered about his country home's

Some very old properties - this one dated 1683, go into the digital age.


Previously laid ducts and chambers at the Eco Houses.


All the duct is in this pathway, and they dug down the bank to join it.


Bruce coupling up the spaghetti to blow fibre to the customers.

connectivity, but his wife did a lot of charity work and wanted it. (When Covid lockdown began in 2020, Duncan called James back in to network his house, as he had to work from home. His help and largesse at the start of the project could now be repaid).

The duct had been laid as the foundations to the Eco houses had gone in, and it was quite a struggle to find them and where they led to. Bruce from B4RN worked it all out, and two rows of terraced houses were blown in a day. Corinne had drilled all the houses and threaded duct through to the house install boxes she had put on, and Bruce blew it in. The connections team were on hand to fit routers and get contracts signed. James then had to re-terminate all the ethernet in the houses as it had been wired up for phone lines not data, but he did it all cheerfully to help his neighbours.

The main customer for this route was the Elephant Mill at the end of the co-housing property This was a community workspace hosting several small businesses. The hub (cabinet) for this entire group is hosted on site, powered by their own electricity from their own hydro plant . James then had to dig to more businesses just past the Eco housing as they wanted a connection too. Then he got a new job and the project was left to Halton central to continue, but everyone remains eternally grateful for his 'year out' doing the B4RN project.

All this sounds straightforward, but there had been a major obstacle on the route from the top of Aughton to the bottom of Halton. An absentee landlord. We had found up to now that landowners, especially the farmers and the large estates, were quite happy to let the duct through their land, and wanted connections. Absentees, or trustees were sometimes a different matter. At this point James was on the point of giving up. No matter what he did he could not get permission. The tenant farmer had agreed as he needed the connection for his farm and family, but the landlord had to sign the wayleave. Luckily

All the volunteers turned out to help Bruce.

Jonny's boys, child labour at its best.

Volunteers at the top end get the fibre through to the Eco houses.

Lots of multicore duct was laid to enable Halton to join on.

Johnathan Murton (Jonny) was a business user at the Elephant Mill and a professional surveyor, and he stepped up to help James sort it out. He worked out a way of taking the connection through half a dozen properties and a shared drive instead of using the blacklisted land. He also carried on helping to bring the route to the eco-housing project, meeting another obstacle as they reached their goal.

When Jonny had first heard of B4RN, like many he never thought it could happen. A year later, he heard it was happening. His sister Rachel in Hornby was proactive in her village, and Jonny got curious. He recalls that he was pretty slack at work, and it was the summer, so instead of taking the kids to play parks he hired a mini digger and got to work burying ducting to the Bowring estate and helped dig through the gridlocked land where the wayleaves had not been granted. His boys helped backfill the trenches. He just knew this was something he 'had to' do.

Another parcel of land that was scheduled for development was in the way, and the farmer was not easy to talk to as he lived miles away, ie not on the land in question. Simon Grant joined the tribe and managed to help the farmer see that having a B4RN connection handy to the new development would increase the value of the properties once they were built. Once the farmer saw the potential, Simon could route it so that it would not interfere with the development, and the core could join to the Eco land.

Once there it was relatively easy to join it up to the new hub. The Eco community were busy building their homes or out working. It was a relatively 'young' community, and the older members held keys for those who were out all day so that installations could go ahead. James had to sort contractors to help with the field digs and keep them supplied with ducting, which was usually in short supply. It was not an easy project in those early days,

Jonny's boys finding water.

Helping Bruce with the blowing.

Jonny gets his MBE spade award.

Like Technology's cabinet.

and it is amazing that it actually came to pass, but it did. And kudos to those who made it happen.

Jonny helped James organise mole ploughs to get down to Halton and worked with Simon to get it through to the hydro/eco housing in 2014.

Jonny recalls happy days when Thomas Bowring showed his boys how to find water with bits of wire coat hangers. One of them could do it, one could not, and Thomas said they had to have the 'aura' to do dowsing. Dawn Keyes from the eco-housing and Corinne (who also installed all the house boxes) also helped him with the ducting when he was digging, and the boys were a good help, too. He wanted to get them involved so they understood how the infrastructure of things worked and so they would not take for granted the effort involved to get it to places.

He was amazed at the help he received as he passed through the different areas on the routes by the age of the volunteers. Hardly any youngsters materialised, due to work and family commitments, but retired people came, he says it was sometimes a case of putting a Zimmer (walking frame) to one side and picking up a shovel, but they got the jobs done. The boys were still on hand when the fibre came and Bruce had willing helpers.

When the route had got near Halton, Jonny talked to the main village people, up the other side of the road to the eco-ousing and to the school. He gave talks, and started fundraising, but then he moved from the village and handed the baton to the main Halton group, who took it from there. Jonny got his MBE spade award for all his and his family's efforts.

The Halton Eco group had got the fibre into the village at the bottom end, and now it was up to the main village if it wanted to join on. One of the businesses, Like Technologies hosted the first cabinet.

Barry at the public meeting.

Halton made their own banners and put them everywhere.

Halton produced their own flyers and distributed them.

Social media was used to inform everyone of progress.

Homes and businesses on the routes into Halton all got connected too.

Halton Central

The urban dig

Apart from a few short digs in pavements, and some road crossings, most of the B4RN digs up to now had been in fields. The Halton project was the first one to be done mainly in 'hard dig'. It turned into a massive learning curve, but it paid off.

Specialist contractors were taken on to do this job, and the role of the volunteers changed. Instead of having to get muddy every day, their job was to engage their neighbours and fix house kits. In 2016 Jonny Murton had asked Barry to come and there was a presentation at the community centre and there were many volunteers who wanted to help. They printed and distributed leaflets to their community.

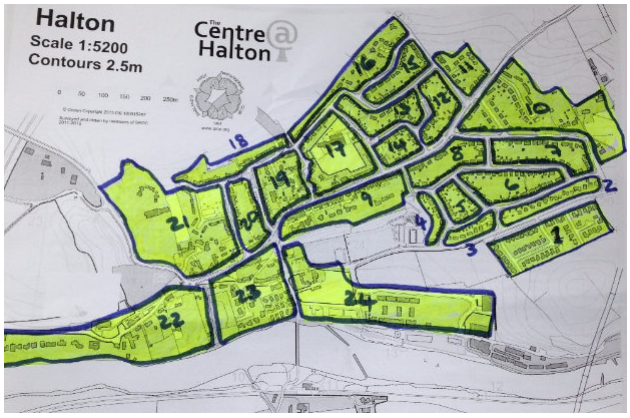
At this time the EIS scheme gave taxpayers 30% tax back on shares. They then organised an open day drop-in, where those who showed interest could come and find out more.

They got the cabinet sited in November of that year.

The volunteers worked every weekend as a group to dig in the main core.

Then followed a couple of years of planning and discussion and many changes in the plans, including the unexpected end of EIS, which was a great blow to many projects, as it had stimulated investment to get projects going. This project really got the 'rough end of the stick', as the plans kept changing, governments changed rules and it is a miracle the project went on to completion.

The first bit of the dig was fairly traditional, soft dig, and the group were busy planning routes through



The working areas of the village.

The promotion when the cabinet base was installed.

The duct store and measuring ground.

Duct measured out to reach each property from a chamber.

gardens and getting wayleaves for soft dig. Then vouchers appeared, and BDUK changed Halton's classification from a 'rural' to an 'urban dig' as it involved pavements. This meant all the work the volunteers had done was 'wasted' and it was dark days for the project, with lots of confused residents and volunteers. All their plans and routes had already started, or were well into planning, using the traditional method.

By now (2018) Halton had FTTC, (BT Fibre To The Cabinet) and some people were quite content with that, and some were not interested in the internet at all. All this was recorded by them, and then volunteers did not waste their time or bother people unnecessarily.

The Activists persisted, and they re-mapped the village and found a route into the hall and the school. They knocked on all the doors and spread the word that the project would really happen. The initial group of volunteers had dwindled down to about 10 at this point, but they were people of grit, and they got organised. Time moved on.

Then Covid happened just as they got going. How many setbacks could a project survive?

A coordinator from B4RN was assigned, and Elaine Elrick informed them that as it was going to be an urban dig, that their job was now to get sign-ups and get vouchers to pay for it all. They divided the village up into routes, and had meetings on Zoom every Monday night. During Covid they shared all their information, and kept each coordinator updated. They updated their Facebook page and kept the community engaged.

They had training in house digs and house kit fitting from Jorj, and agreed a community pot for dig grants would pay for their equipment and set about to do it all. They soon found that between them they had many skills. Although many were retired they could all dig, and every Friday they went as teams to dig

Volunteers laying sub-ducting through a rough area.

The villagers dig to their hall.

This is what the small toby box in the pavement looks like.

Dig days are always better with tea and cake. Hands up who wants cake?

gardens. Those who were good with drills specialised in the house kits. Rob Thompson kept accurate records of all the work done, and the houses finished, those still to do, and those not interested. Duct was measured out for all the houses they could reach with soft dig.

The Parish council were very supportive and bought them their first SD drill until the dig grants started to come in. They had a store behind HiQ for all the duct and fittings they needed. At the Monday meetings they put their orders in. David Johnson made them a wooden template for drilling the walls for the boxes, and he also helped with telephony questions, as many residents still wanted to keep a landline number, and he advised them all about VoIP (Voice over Internet Protocol) - free phone lines through the B4RN service, customers could choose a provider and just pay for calls.

Logistically Damian had to organise the duct placement, and subduct was often used, with many hands to feed the B4RN duct through it. He was organising all the digs with the volunteers and he said the team could do six on a good day. He was on a four day week during covid so he gave up his Fridays and weekend to help his community with all the others.

Damian says they did over 300 installations as the B4RN civils team did the hard dig in the pavements. He and the team took the connection from the 'toby box' outside every house straight up the path or garden and got it into the property. Inside each toby box was the house duct, brought up through the pavements from the chambers. The volunteer's job was to extend the duct in it to the house box.

He recalls how difficult it all was, as this was the first real hard dig B4RN had undertaken and everyone was learning how to do it. He also recalls how much fun they had and the satisfaction of doing a good job. Meeting people, making new friends. Using the system they had set up recording what jobs they had

The core volunteers get their spades when the cabinet comes live.

Robert was awarded a JFDI spade for his efforts with router installs.

Everyone helps on a big garden dig.

David Johnson on a garden dig.

done they could focus on one chamber at a time. As in all B4RN projects, tea was served.

Volunteers turned out to backfill the trenches carefully. Neat trenches, and top quality backfilling. The intrepid diggers were not fazed by any obstacle in their path, and they made sure stones were removed from the trenches. A mini digger was sometimes used where appropriate.

The volunteers laboured until 2020, when the cabinet finally came live. The tribe were awarded the JFDI spades, which by then had replaced the plastic ones! In the meantime B4RN had started the hard dig, so they continued with house installations. They accompanied the house fusers and learned how to install the routers.

B4RN allocated a coordinator from their newly formed connections team, and Helen McKinstry organised the router fittings with the volunteers. Elaine continued to organise the hard dig, and the project continued, with the stalwart team of volunteers. Each day another strip of the village was done. And the volunteers dug all the house gardens.

Permits were needed to work in the pavements, unlike the soft digs in the fields, so they made sure every house was ready when the blowers and fusers came. This sort of organisation was invaluable to B4RN and another lesson was learnt. They concentrated on doing it in batches so that only one permit was needed for a whole area rather than jumping about from place to place.

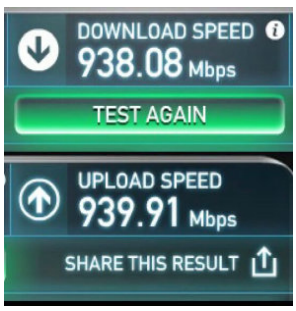
Everyone shared their information as they were all exceptionally good at something, and by the end of the project they had all learned a lot more.

Existing broadband contracts were an issue, but they raised this with B4RN, who brought in a new process called CONNECT+. This meant anyone stuck in a contract of less than 12 months could still join B4RN, but would only pay £5 a month until their old

Frank and Barrie blowing the house fibres.

Robert Stavely and Jon Randall Paley fusing in Halton.

Alex Colton and Kit Mackereth fusing at a pavement chamber.



Award from LDCVS, and a fairly symmetric speed test.

contract ended. This meant that customers could go live, and claim the vouchers which were so essential to the project. A great decision.

Frank Brown and Barrie Cheeseman came to blow the fibre when the house installs were ready. Barrie had been an Activist on the Heversham project (in a later chapter), and he and Frank made a great team. Frank's story is also in another chapter, he joined the tribe on the Wennington project.

The splicers from B4RN came to do the bullets, and permits had to be made for that job too, as the pavements were closed for short periods. As all this was done in the Covid period all precautions were taken.

Damian continued to update the Facebook page and help customers, which took a great deal of pressure off the B4RN helpdesk, as wifi issues are commonplace with new installs, and a local person is really handy. In larger properties where meshes or ethernet is needed, he knew how to do it and what a house would need. He gave his time willingly. Damian said once the project was built and every house who wanted a service had taken it the volunteers all said 'what will we do now?' but that they have found other things to do and have all been glad to make so many friends.

Because this was the first 'urban dig', they shared their knowledge at their group meetings with volunteers from Brookhouse and Levens. The lessons were also learnt by B4RN and other urban digs were a lot more organised, thanks to their feedback and hard work.

An award came from Lancaster District Community and Voluntary Solutions. They had done a brilliant job. They also had bragging rights with their speedtests.

The Halton project laid 27 kilometres of trenching, including the Eco Phase 1 project.

Photo credits to Halton volunteers, a picture record of their fantastic achievement.

Soft fill going onto the duct in the trench.

Laying out duct to properties.

Starting the dig down the banking.

Down the banking they go.

Lots of volunteers joined in.

All that is left is to brush the pavement now and the job is done.

No volunteers were lost.

The finished sod back on. The red mark is where it was planned to go.

The house digs in progress, from the toby box to the property.

Sometimes diggers had to be used.

Many hands make light work.

Just to backfill now.

A long stretch.

Laying duct in a trench prior to backfilling,

Getting through a wall.

Backfilling the trench with soft fill.

The start of a pavement trench by the B4RN civils team.

Multiple ducts in the trench, marker tape and clean fill.

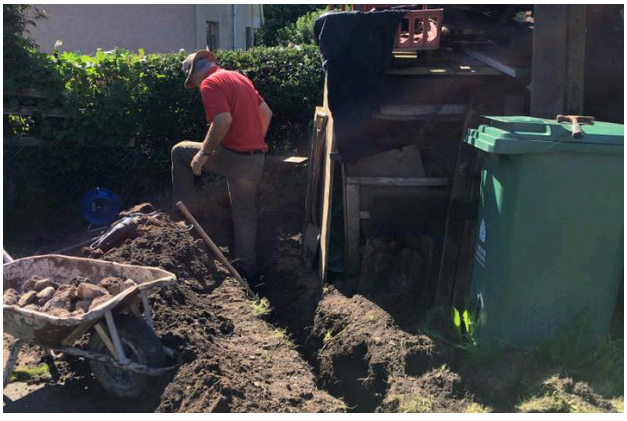
Finishing up the dig and the spoil ready to remove.

Small sections barricaded each day to minimise disruption.

The B4RN chambers. Customer duct is orange, the fibre is black.

David and the team backfilling.

The mighty Halton tribe.



No matter what, they got through. - walls, hedges, wheelie bin stores.