CENTURYAN

CENTURA GROUP

Christmas 2019

Issue 17
December 2019

CRL & VolkerLaser bag 'Repair and Refurbishment Project of the Year'

I am pleased to be able to present another issue of our great in-house newsletter as the end of 2019 approaches.

I am also pleased to be able to confirm that, pending audit, our group sales have reached £42m. This is a record figure and achieved at the end of another years trading by the nine companies that comprise the Centura Group.

Consistent sales at that level illustrate the strength and growth of Centura. It must not be forgotten that we remain an independent private company and that we survive and flourish only because of the experience, advice and knowledge of our great team members. Indeed each region of CRL can now claim sales figures in excess of the total sales of some of our competitors.

In CRL we are welcoming some new regional management teams. In a changing world it is important that we are not too set our ways and that we are able to promote new thinking and new strategy. It is also very gratifying to see that we continue to help develop the careers of so many people, some of whom have worked for the company for many years and are now in senior positions. In turn of course it allows some of our newer members to develop their own career paths, especially when they are coached, mentored and supported by their more experienced work colleagues.

2019 has been notable not only for strong sales, but also how those sales are generated. We work under many framework agreements across the country with a number of varied clients. This form of long-term procurement has been helping CRL for many years but more recently the arrangement has been adopted by our smaller companies. Repeat work gives our customers predictability and confidence in what is being delivered. For Centura it allows longer term planning, more efficient working and better use of resources. In 2020 framework opportunities and repeat working will account for more than 30% of Group sales.

Also in 2020 we will see the implementation of our new RedSky Summit integrated IT system. Some of will already be familiar with certain modules, in coming months it will affect all of us. It is a powerful system and an all important business tool. Used properly it will make us all more efficient and allow us much better financial control of our projects.

As I write this the result of the General Election has just been announced. Whatever your views may be on this issue the result will at least remove the uncertainty of the past 3 years and allow the country to move on without the deadlock that has hampered any decisions being made in Parliament. Indeed the second line of the Prime Ministers acceptance speech confirmed investment in infrastructure which can only be good for the Centura Group.

We can therefore expect significant change in the market in 2020 especially as international trade deals are to be discussed. Our core clients however are UK based and they all have a strong need to maintain and upgrade their assets. Trade deals outside the UK may well lead to new and exciting opportunities for our Centura Companies.

I would like to mention a special retirement at the end of 2019. Alan Marsh will be leaving us after a stellar career of more than 34 years with the company. His rise through the business is well known and there cannot be anyone who has not been helped by Alan. Alan fulfilled so many functions across the Group we are still trying to list them all. His enthusiastic help will not be forgotten. We all wish Alan and of course his wife Sue the very best for their retirement and their future.

At the end of the year many of us will be looking forward to a well earned break and time spent with friends and family. This is a time to rest a little and recharge those batteries for the New Year in 2020.

We close 2019 in good shape and, as always, ready for new experiences and new challenges. I would like to thank each and every one of you for your contribution to Centura in 2019.

A Happy and Healthy Christmas to you all.

Tony Rimoldi
Chief Executive

the numbers

A regular feature in this newsletter is to publish a scorecard showing how the group is preforming. The following tables has gathered together all the latest information from the current financial year.

CENTURA GROUP

Qtr 1 Jul - Dec 2019

Customers & Markets

858	No. of tenders submitted
£72.5m	Value of tenders submitted
374	No. of new contracts awarded
£13.6m	Value of contracts awarded

Operational

100	% of performance questionnaires showing client satisfaction
161	No. of contracts in progress
106	No. of contracts ahead of target

Learning, Quality & Innovation

150,000	RIDDOR free man hours
99%	CSCS carded site workforce
86%	Employees H&S Training Compliant
0	Suggestions submitted in the Innovation scheme

Financial & Stakeholders

Turnover year to Dec
Profit year to Dec
Overhead costs year to Dec
Cash Flow

Group Business Plan Sales for Year to June 2020

	Target	Total
Concrete Repairs Ltd		
Bristol	£7.5m	
Chesterfield	£6.0m	
Chesterfield Highways	£8.6m	
Falkirk	£6.0m	
Mitcham	£11.0m	
Australia	£2.4m	£41.5
CRL Surveys Ltd	£1.5m	£1.5m
Buxton Associates Ltd	£0.7m	£0.7m
FJ Samuely Ltd	£0.3m	£0.3m
Equilux Ltd	£1.5m	£1.5m
TL Fire Ltd	£0.2m	£0.2m
Lifespan Ltd	£0.4m	£0.4m
Total Sales		***£46.1m***

group gossip

The Group would like to welcome...

Abdurrahman Tamimi, CRL MIT
Amanda Graham, CRL AUS
Anna Hancock, H/O
Arran Davie, CRL FAL
Craig Jeffrey, CRL FAL
Craig Steele, CRL CHE
Gavin Atkins, CRL CHE
Gavin Scott, CRL FAL
Gerard McNulty, CRL CHE
Harpal Sandhu, CRL CHE
Helen Moritz, H/O
Jack Dunlop, CRL FAL
Jaimin Desai, CRL MIT
Jamie Robertson, CRL FAL
Joe Jeffers, CRL MIT
Marc Fox, CRL CHE
Martin Fane, CRL CHE
Muhsin Khan, CRL BRI
Nimisha Patel, H/O
Robert Moss, CRL CHE
Shawn Makaua-Soloma, CRL AUS
Tony Culhane, CRL AUS
William Vivers, CRL FAL

Say goodbye to...

Alex Rowley, CRL CHE
Andy Siddles, CRL CHE
Ashaim (Ash) Sharma, CRL MIT
Charles Montgomery, CRL CHE
Christopher Richards, EQU
David Bonner, CRL BRI
Graham Grant, CRL FAL
Ingus Klavins, CRL CHE
Jerome Crockett, CRL MIT
Joshua Fussell, BUX
Kevin Jones, CRL MIT
Lisa Davie, CRL FAL
Matthew Dyer, CRL MIT
Palak Gandhi, CRL MIT
Samuel Wilson, EQU
Scott Exton, CRL CHE
Sebastiano Dorata, CRL MIT
Sorrentina Chorlie, H/O
Sukhpreet Singh, CRL CHE
Trefor Buckley, CRL FAL
Victor Yule, CRL FAL
Vimbainashe Kanyangarara, CRL MIT

Congratulations on promotions to...

Carl Naylor, CRL CHE - Foreman
Tomasz Markowski, CRL BRI - Snr Tradesman
Christopher Lennon, CRL SUR - Survey Tech L2
Danny Sykes, CRL SUR - Survey Tech L2
Mohammad Al Hujaj, CRL SUR - Survey Tech L3
Harpal Sandhu, CRL CHE - Tradesman
Matt Cain, CRL CHE - Highways Area Manager
Piotr Welzant, CRL SUR - Senior Survey Tech L1
Jason Ilagan, CRL SUR - Senior Survey Tech L2
Lukasz Chudy, CRL SUR - Senior Survey Tech L2
Frances Banning, CRL CHE - CRL Compliance Manager
Samantha Taylor, CRL SUR - Website Design & Maintenance

Any contributions are gratefully received - please contact nhill@centuragroup.co.uk

Awards

Concrete Society Awards

Congratulations to the Alliance team who were awarded the 'Repair and Refurbishment Project of the Year' from the Structural Concrete Alliance at the prestigious Concrete Society Awards on Wednesday 20 November 2019 for their work on the M5 Oldbury Viaduct.

Concrete Repairs Limited formed an alliance partnership with VolkerLaser, who worked together to undertake the largest ever concrete repair project ever carried out in the UK. This involved essential repair work to the concrete decks, deck ends and cross-head beams on a 3.2km long elevated section on the M5 to the west of Birmingham.

The Concrete Society Awards celebrate excellence in concrete across the UK and the judges praised the Alliance for genuine collaboration and innovative methodology, as well as demonstrating how sharing lessons learnt and resources can lead to outstanding achievements.

The photograph shows Dave Burgess CRL s' Highways Director and Keith Barrow from Volkerlaser collecting the award from Anton Du Beke with Steve Richards, outgoing Chairman of the Concrete Repair Association.

ICW Awards

The CRL team in Highways England Area 9, as part of the SRN Alliance in Areas 3 & 9, has won the prestigious Supply Chain category at the annual Institute of Collaborative Working Awards at the House of Lords in December. Alliance representatives from Kier, R&W, Crown and Chevron were at the event to collect the award.

Highways Area 9 & 10

M5 Oldbury Viaduct

November saw the completion of the M5 Oldbury Viaduct works, which at £19.4M has been CRL's largest ever project. The scheme is believed to be the largest concrete repair project undertaken in the UK. November also saw the project win the prestigious Concrete Repair Society award for 2019 for collaborative working between CRL and our alliance partner, Volker Laser. With the duration spanning two years, it's certainly going to take a while to get used to no longer travelling to site.

Don't miss our article in the November issue of the Concrete magazine……

Dave Burgess of CRL and Keith Barrow from VL receive their award.

M6 Whitley Lane and Gore Farm Bridges

The works, valued at £1.4M have involved the strengthening of the existing concrete piers, installation of sheet piles for coffer dams, hydro demolition, sacrificial anodes, scaffolding, formwork and concrete repairs.

This is the first project that we have undertaken for the new Asset Delivery Framework in Area 10 (AD10). CRL were appointed as the principal contractor on this scheme, which presented the site team (led by Project Manager, Paul Quinlan) with a number of significant problems and programming issues early on. Thankfully they were able to overcome most of these and progress on site has been excellent, with the concrete repairs and strengthening works expected to be finished before Christmas. As PC, CRL will remain on site throughout the follow-on works, which includes drainage, general civils work, new slip form barrier installation, resurfacing and white lining.

Works nearing completion on the NB side of Gore Farm Overbridge.

2020 Works

For the last 4 months I have been involved in ECI meetings, temporary works design and programming of the next two follow-on schemes we have.

January 2020 will see the start of M56 Helsby Viaduct, which is a £1.8M scheme to repair the existing sill beams, jack the bridge to allow for the replacement of the pot bearing, then water proofing of the 5,000m2 deck.

In February 2020, we will start M53 Moreton North; this scheme involves the demolition of the existing junction 2 slip road over the M53 (by others). CRL will then strengthen the existing half joints before we install new steelwork and construct a new deck. A 3m wide cantilever on the south side of the structure has made the temporary works design for this scheme particularly challenging. CRL will again be principal contractor on this £1.7M scheme.

Matt Cain
Highways Area Manager

snapshot

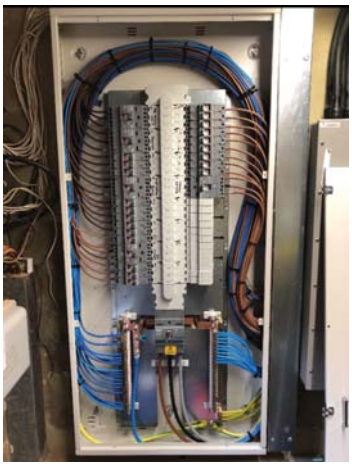
Equilux Update

Guildford Borough Council Civic Offices

IT Cooling Replacement Project- £130k

Equilux has just completed a new Air Conditioning system to 5 specialist I.T. communication rooms within Guildford Borough Councils Civic Offices. The works entailed the construction of a new concrete plinth and external plant base with specialist screen fencing, electrical sub main cabling and new Dakin Air conditioning plant. At all times the existing cooling systems had to be maintained to prevent critical systems failure. The client and consultant engineers are delighted with the end result and the way the installation was carried in a busy office environment with minimal disruption.

Moat Lodge- Waverley District Council



Equilux have carried out the electrical remedial repairs for a sheltered accommodation block consisting of 26 flats. The works required the replacement of the main intake panel board with minimal down time as the residents were dependant on having constant power. Equilux devised a way to change over the board whilst keeping the existing supplies live, this resulted in downtime of only 10 minutes per flat. The Equilux team was praised by the client for their hard work and efficiency on site and stated that "Equilux were a pleasure to work with and did a great job"

Well done to Derek Corr, Dominic Cauchi, Daniel Wooderson and Dariel Fernandez who all contributed to this successful project.

99 Kensington High Street lighting

Equilux working alongside CRL Restoration have just completed the external lighting to this prestigious building. The team were under pressure to complete before Christmas and the results can clearly be seen below highlighted the restoration work carried out by CRL.

Vinci HQ, Astral House, Watford

Vinci required an in house design for their HQ reception in Watford. As the UK focal point for a £40 billion Euro company, it was important to achieve a high spec finish.

Equilux assisted in the lighting and small power design and met the client's requirements. An LED lighting scheme was devised that illustrated illustrated the Vinci brand and values.

Equilux also provided air - conditioning for comfort cooling and bespoke radiators and fan heaters.

A temporary reception was installed out of hours with electrical services for a seamless transition whilst the works were undertaken.

Completed under the watchful eyes of Vinci's senior directors, the MD and all residents int he building, the project was a great success. Thanks to Derek Corr and Dariel Fernandez- Garcia who carried out these works.

snapshot

Buxton Associates & Samuely Update

Queensbridge House – Upper Thames Street

Buxton Associates are providing structural monitoring services for this prime riverfront hotel currently under construction in the heart of the City of London.

The Westin London City will be a key part of the redevelopment of the former Queensbridge House site, as well as an independently operated destination restaurant. The site stretches from Queenhithe Dock - the oldest in London - and runs north to south, bridging across Upper Thames Street and giving it a prominent position over one of the primary arterial routes through the City of London. Highly visible from the South Bank, the hotel will also benefit from panoramic views over the River Thames and will complete the northern riverbank walkway between the Tower of London and Millennium Bridge.

With 220 bedrooms, 29 suites, a Presidential Suite, an indoor swimming pool, spa and fitness studio this £75m development is programmed to complete in late 2020.

The construction has had many challenges; the site straddles 4 Scheduled Ancient Monuments and so the Museum of London were in attendance to inspect Roman remains during foundation works, inevitably leading to delays. The structure is a reinforced concrete frame with post tensioned floors and precast walls.

16 Minories

Buxton Associates are providing structural monitoring services for this 342 room Canopy Hotel development on the eastern edge of the City of London.

The building is part refurbishment (of the old Aon Insurance office) and part new build; this leads to a mixture of concrete frame and steel frame for the new sections. The external façade is clad in a rather ornate pressed aluminium cladding, each section of which is a full storey high – so not much margin for error.

Scheduled for completion in mid 2020 this £65m development for 4C Hotels will include a roof top restaurant, a pub and a residential block.

The Buxton Associates project at Princes Mead school in Winchester was completed in time for the September school opening. This £2.5m extension to the grade II* listed main school building provides a new dining hall and kitchen, new classrooms and a digital study space.

We worked alongside Re-Format architects and Acheson Construction to successfully deliver the project.

Cullum Welch House

FJ Samuely have been working alongside CRL to undertake the design of specialist repairs using both concrete and carbon fibre.

At Cullum Welch House, part of the Grade II listed Golden Lane Estate in the City of London, we designed and detailed the reinforcement for the replacement balustrade panels. These have deteriorated significantly over time, due to carbonation and reinforcement corrosion, and all panels are being replaced with new concrete panels reinforced with stainless steel.

Regents Crescent

At Regents Crescent we have provided carbon fibre reinforcement design and detailing for the substantial strengthening works that are required on this new building. The development, on the edge of Regents Park, comprises 67 new build apartments constructed behind a rebuilt façade.

A new stair and lift opening was requested as a late design change in order to link 3 flats vertically. In order to safely transfer the loads down to the foundations a carbon fibre strengthening solution over 4 different floors, was developed in conjunction with the incumbent engineer.

snapshot

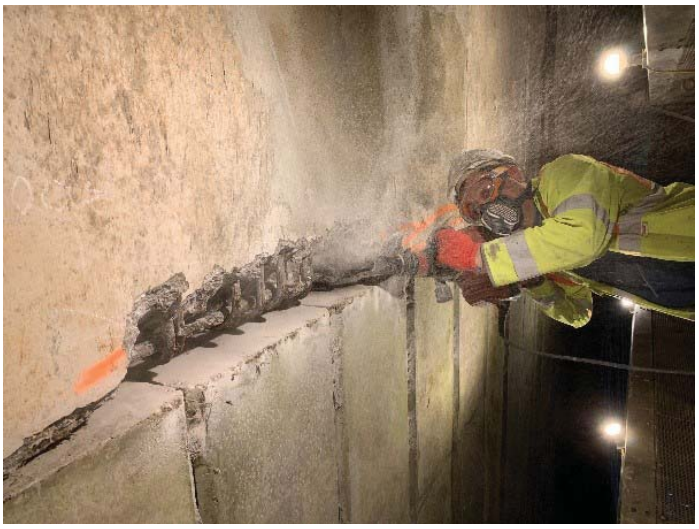
Tawe Bridge

CRL Bristol have been working alongside Knights Brown and Atkins on the Tawe Bridge near the city of Swansea, to the underside of this bridge on the M4 located between junctions 44 and 45.

The original scope of works consisted of 32m2 of repairs to various areas of the bridge which had suffered significant deterioration during its lifespan. Initial programming set out the works to be completed within 7 weeks. However, upon a detailed hammer survey inspection of the bridge, this initial area grew in size significantly and increased to over 175m2. This caused the project's completion date to be extended to more than double its original time.

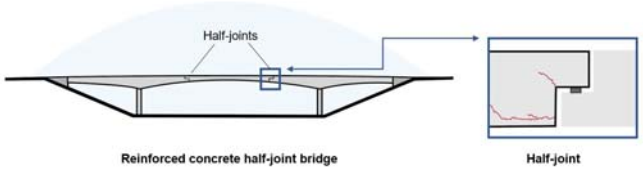
The project had restrictions imposed by Atkins before any work could be undertaken. Around the bearings and half joints, night closures were in operation, preventing the disruption of live loads whilst the works took place. The CRL operatives were briefed nightly and instructed to complete repairs by a certain time ensuring critical strength was achieved before the bridge reopened.

Hydraulic Jacks



Half-Joint Repairs

Hydraulic jacks were installed temporarily to the Eastbound and Westbound carriageways as to take the loads off the bearings before repairs could be undertaken above and below them. These critical areas of the bridge required careful management and awareness to ensure the work was completed safely and complying with the constraints set out.



All works throughout were completed using access from hanging scaffolds, independent scaffolds, MEWPs and an underbridge unit. The Scaffold areas had imposed weight restrictions of 150kg per 3x3 area, so calculations were created to ensure operatives removed the broken out repairs regularly making sure it remained a safe working area.

Moog 230x 'underbridge unit platform

Concrete Spraying

All repairs had to be broken out either by hand or with the use of hydro demolition. Once the concrete had been removed from behind the rebar and clean steel had been found, the corrosion was removed from the steel and a zinc primer or similar was painted on. PatchGuard sacrificial anodes were then installed before repair material was reinstated by hand or in larger areas using a wet concrete spraying method.

To increase the longevity of the bridge, all concrete surfaces were subjected to a jet wash, two coats of Hydrophobic Bridgeguard and a drip detail installed on the perimeters of the bridge which will aid in preventing any future water impregnation into the substrate.

A big thanks to our Contracts Foreman – Mark Beddis and his team for the works they have carried on the day shifts and a big thanks to our Contracts Foreman – Robert Najcak and his team for the works they have carried out on the night shifts.

Roger Southwell
Contracts Manager

update

CRL Suveys, Emley Moor Tower

SUR183745 Emley Moor Tower, Huddersfield, West Yorkshire

Contract Value £66,345.00There has been a transmission tower on this site since the early days of television. The first tower, erected in 1956, was a 135m lattice tower, which was replaced in 1964 by a 385.5m guyed mast tower, which collapsed, apparently due to a combination of strong winds and ice build-up, on 19th March 1969 (the night watchman's log, rather like the chap who jumped from the Empire State Building and was heard to say, "so far so good", as he passed each floor, reported 22:00, "all OK", 23:00 "all OK etc. etc. 02:00 "Tower Collapsed". A temporary mast was then erected, whilst the concrete tower was constructed, between 1969 and 1971.

The concrete Tower is 330.4m (1,084ft) high and Grade II Listed. When constructed it was the tallest freestanding structure in Europe and is still so in the UK. From the viewing gallery @ 275.3m the world looks tiny, as the tower sways gently back and forth in the continual winds at that height.

During the winter months ice build-up on the structure can be significant, with falling and windblown ice constituting a significant risk to both those in and around the offices at the base of the tower, but also to the neighbouring public and passers-by. Falling and windblown concrete represents an equally significant risk, but potentially 24/7.

CRL Surveys became involved following a drone survey identified 6No. 'minor' defects. During a preliminary visit, for pricing repair of these, an abseiler climbing down to the "The Necklace", through the steelwork beneath the viewing gallery, identified some significant spalling missed by the drone. The drone could not be flown amongst the steelwork framing or the various antennae at that level.

CRL Surveys subsequently undertook a full internal and external condition survey, using teams of abseilers, working closely with the customer's (Arqiva) riggers and phasing the work during monthly shutdown weekends, as a German Contractor transferred kit and services to a temporary, neighbouring tower. The TV Transmitter on the top of the concrete tower is to be replaced, 'to clear band width for 5G', whatever that is.

Several external defects were discovered, mainly comprising failed 'making-good' of construction faults, most of significant size and all missed by the drone survey. I won't bore you with photos of spalled concrete, but one was so large (and should have been visible to even a blind drone pilot), we had to leave it in place and return with a bespoke rig and safety netting to ensure nothing fell to ground during its removal. I lied!

Before

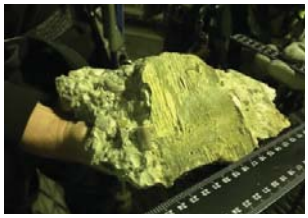
After

During the internal survey we identified many defects where the walls were leaking, at construction joints and cracks (vertical cracks caused by the gentle swaying of the tower in the wind), but of greater concern there were a number of distressed supports to the internal gantries, used to both brace the lift (thankfully there are no steps up to the top, although the lift looks feels and sounds very old and tired) and support walkways out to apertures in the wall, for aircraft warning lights.

Pic comment: A corroded internal gantry, with the support concrete degraded. The bearing shelf beneath was also badly cracked.

CRL Suveys, Emley Moor Tower cont'd

Pic comment: A piece of falling concrete such as this could really spoil someone's day. The internal areas of the tower also contained sensitive cabling and other kit, critical to the North's TV coverage, as well as personnel.



All in all, a successful and interesting Contract, which will be remembered by all concerned. Special thanks obviously to the abseilers, but also to the Arqiva Riggers who assisted greatly.

CRL are in process of advising the Customer further and will hopefully undertake the repairs and may be the application of a few square meters of coatings.

Note: If you must get a drone survey done make sure you understand, accept and allow for the limitations (abseilers also have limitations) and that the pilot knows where to look and what they are looking at.

Simon Bladon
Surveys Manager

The baby has landed

Unbeknownst to me in late 2018, just around the time of the 12-week scan with our fifth baby, my wife had seen an advert for parents-to-be who might like to take part in a BBC2 documentary. They were looking for both first-time parents and those who already had children, and applicants just had to write a little blurb about what they would bring to the programme. Helen prepared her pitch, talking about how we both work full-time and how, alongside the ever-expanding family, she was also running her own business teaching Spanish to children as well as doing a full-time degree in antenatal education. She also highlighted the voluntary work that we both do with local youth groups. Months passed and she hadn't heard back. She hadn't even mentioned the programme to me and in all honesty I think she had forgotten that she had even applied.

At about 36 weeks pregnant, whilst rushing between the school run, a ballet class for our three-year-old and a speedy dinner before the Friday night Scouts / Guides she had a phone call from the BBC asking if we would still like to be involved. They could hear on the phone just how hectic things were and whilst she thought that would put them right off, we think now it probably sold them on our story. The following week was a blur of phone calls, Skype chats and even face to face meetings with the Series Producer, and then they confirmed that they wanted to follow our story as part of the programme. It was around this time that I become aware of what Helen had applied for and with a bit of convincing agreed that I was willing for us to get involved.

Given how close Helen was to her due date by then, they wanted to start filming straight away. Cameras were placed around the house and a small team of three moved into our summerhouse with a handheld camera. We were each given a microphone pack to wear every day that they filmed, and they followed us in every aspect of our daily lives as they gradually pieced together the diary management madness that is our reality. Three weeks after the cameras first started rolling, they filmed the birth of our fifth child, Abigail, and so continued the focus of the programme, looking at how a newborn affects the lives of the family they join.

The programme follows six families and looks at how a new baby (or babies!) impacts on family life - though to be fair, in our case I think we pretty much stuck to our normal routine. A week after Abigail was born, I was back at scouts on a Friday and Helen was back running Guides. The "TV adults", as they became known in our house, wanted to film me at Scouts and also Helen at Guides. This resulted in a lot more paperwork, asking permissions, signing of consent forms than I ever realised was possible.

Filming continued for another few weeks and when Abigail was about six weeks old, the "TV adults" packed up their cameras and left. Not without accompanying us out on our 'first' date with Abigail where the series producer kindly told some people, whilst interviewing me in the car park outside the restaurant, that we were shooting an adult film!

In October we welcomed the Series Producer back to our house and she let us watch a not-quite-polished version of the first episode in advance of it being aired to the general public. As I write this in early December we are part way between episodes 1 and 2 and I do not have a clue what is coming next! All I know is that there has been lots and lots of filming left on the cutting room floor, do not believe everything that you see on TV, and keep an eye out for the appearance of the CRL Surveys polo shirts!

We originally applied for the show as we thought it would make a fantastic piece of posterity for us as a family, enabling us to revisit life as we welcomed our fifth child. We still think it will be a wonderful thing for us to look back on, but inevitably our parenting choices and style will now be scrutinised by a nation!

Nigel Pierce
Assistant Survey Manager

snapshot

Altahullion Windfarm

CRL Scotland are nearing completion on a challenging structural repair job on two wind turbines at Altahullion Windfarm near Dungiven in Northern Ireland.

These turbines have large gravity bases and the turbine towers are fixed to a 2m high upstand that sits on top of the main base. During routine inspections it was observed that the turbine tower was moving in an unusual manner and on further investigation it was discovered that the concrete upstand was rotating on the construction joint when under load. From these observations it was determined that these turbines were unsafe to operate and were shut down.

CRL have developed a considerable reputation in the renewables industry for dealing with complex structural issues on wind turbine bases and RES the turbine owners and operators at Altahullion, approached CRL in May of this year to discuss this issue to see if our experience in dealing with turbine bases could help in coming up with a solution to resolve the problems at Altahullion.

These discussions led to several different schemes being developed, ranging from steel and concrete collars being cast around the outside of the existing upstand to internal post tensioned tendons of various sizes and configurations. In the end a scheme using internal post tensioned tendons was chosen.

In July this year the repair strategy for these turbine bases was fixed and detailed design work commenced. Full specification and drawings were completed, agreed and issued in August and the contract for the execution of these works was signed in September.

Works commenced on site in mid-October with our site team setting out and drilling a series of 36, 2.6m deep, 45mm diameter, holes at varying angles, through the turbine upstand into the main gravity base. These holes had to be very carefully located and angled to avoid multiple power cables and other services that were cast into the base.

Once all these holes had been drilled and cleaned all the holes were surveyed using a high resolution down-the-hole camera and the location of all cut reinforcement was recorded along with the condition of the concrete over the full depth of the hole.

The completion of the hole drilling allowed the installation of the tendons to commence. This involved some careful calculations to determine the exact load of epoxy resin to be injected into the bottom of the hole to provide an anchored length of 1.1m, leaving around 1.6m of tendon free to be post tensioned. The post tension work was successfully completed at the beginning of December with all tendons finally loaded to between 469kN and 625kN.

1 Installed tendons

We are now on site carrying out the final stages of the works where we are injecting all voids and tendon holes with structural epoxy resin. This will be the final operation and after a few days curing the integrity of these bases will have been returned to an acceptable level and the turbine will be able to be returned to service in time to benefit from the winter winds.

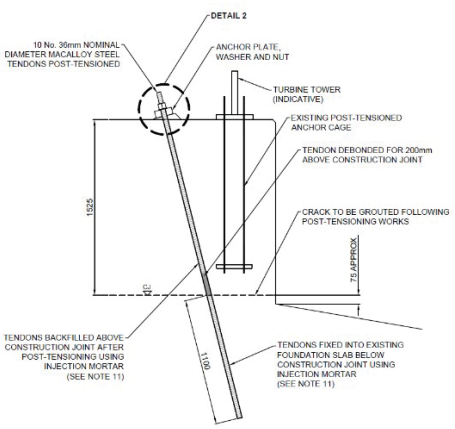
This has been a challenging project which has again tested the expertise and ingenuity of CRL Scotland's team and as usual the team has risen to the challenge and has delivered another successful project that will enhance our reputation in this growing marketplace.

Murray Soutar
CRL Falkirk
Busines Unit Manager

Turbine base excavated

Tendons ready to tension

Tendon arrangement



snapshot

Milford Towers

Milford Towers. £1.7M
August 2018 – January 2020

CRL are nearing completion as Main Contractor, for Lewisham Homes, at Milford Towers in Catford. Milford Towers consists of 9 residential blocks, 22 commercial units and a busy marketplace. There is also a Multi-Storey car park which CRL carried out refurbishment works to 15 years ago. It's still looking good!

The original scope of Works was to carry out Concrete repairs, pressure wash, and then apply fairing coat and anti-carbonation coatings. Extensive additional repairs were carried out to concrete ring beams, with a consequential effect on the programme and an extension of time to the programmed works. Additional works have included the replacement of brickwork, re-pointing, Helifix repairs, expansion joint replacement, staircase tread repairs and asphalt repairs. We also carried out the complete demolition of an entire defective concrete parapet wall and replaced it with a new powder coated steel balustrade. Large parts of the project were done using roped access techniques.

The site team has had to take great care in maintaining safe access and egress to commercial and residential properties. Public protection has been top of the list when planning each stage of works. Occasional 'out of hours' working has also taken place, due to a busy marketplace and Tesco store being located directly below site. CRL also had to implement noisy works restrictions for concrete breakout in close vicinity of residential properties. The on-site facilities management staff have been very complimentary, and great relationships have been formed with locals and market traders.

Works are now nearing completion and the site team deserve a big "Well done" for their efforts, during what has proved to be a challenging contract at times.

Shaun Swinbourne
Site Manager.

Green Street MSCP, Jersey

Green Street MSCP Refurbishment, Jersey

Following previous great success of car park refurbishments in Jersey, CRL Bristol have recently completed the £2.3million pound full refurbishment of Green Street MSCP, which is set right in the heart of St Helier, Jersey working directly for States of Jersey.

The busy 13,000m2 five storey car park, which is operational around the clock by local residents, commuters working in St Helier and the Islands Police Head Quarters staff, received a total repair and refurbishment makeover, previously undertaken with great success by CRL to Patriotic Street, Pier Road and Sand Street multi-storey car parks.

The project consisted of concrete survey, full perimeter external scaffold protection and survey, removal of existing wall and perimeter column coatings by Aqua blasting, pressure washing all concrete surfaces and staircases, concrete repairs, Triflex deck joints, Radflex expansion joints, perimeter anti-suicide fence replacement, removal of existing deck coatings by surface preparation along with Triflex PMMA waterproof coatings, metalwork decorations, linemarking, Aquaron application, anti-carbonation coating and miscellaneous builders works.

The 34 week long project which was completed in mid October also facilitated additional structural and propping works to the previously added new top deck extension built in 2015. CRL employed a wide range of specialist island based sub-contractors, including fencing replacement, scaffolding, decorations, fire doors and extensive electrical and lightning upgrade works to deliver this scheme.

Martyn Lewis
Contracts Manager

group gossip

"This is M6 Whitley and Gore Farms's Christmas Tree... complete with CRL star created by Ryan Walker. His uni hours are starting to pay off ha ha!"

Christmas Crackers...

"What do you get if you combine Santa and a duck?"
A Christmas 'quacker'!

"Where is Santa's favourite swimming spot?"
The North 'pool'

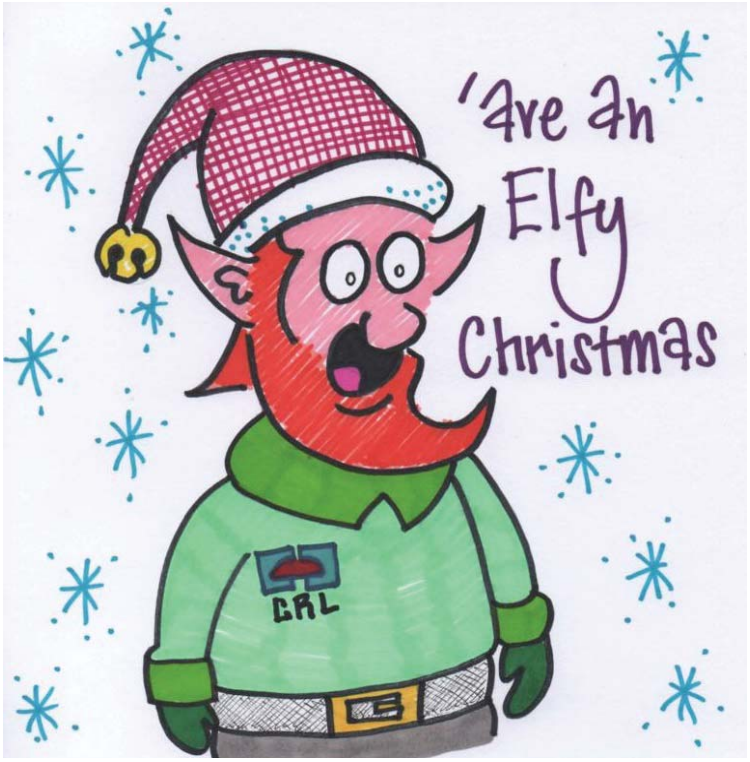
"What kind of music do elves listen to?"
'Wrap'

"Why was the snowman looking in a bag of carrots?"
He was picking his nose!

"Why did Santa go to the doctor?"
Because of his bad 'elf'

"Why did they ask the Turkey to join the band?"
He has the drum sticks!

"What do you calll a chicken in the North Pole?"
Lost!



Drawing by Nigel Roper, Group Safety Advisor

"What do you call people who are afraid of Santa Claus"
Claustrophoic!

Evening Class Claim Scheme

The company will contribute up to £100 per employee, per academic year. towards the cost of an evening class at a local college or education centre. There is no restriction on subject matter.

For more info contact Nicky Hill, Group Training Officer 02082884836.