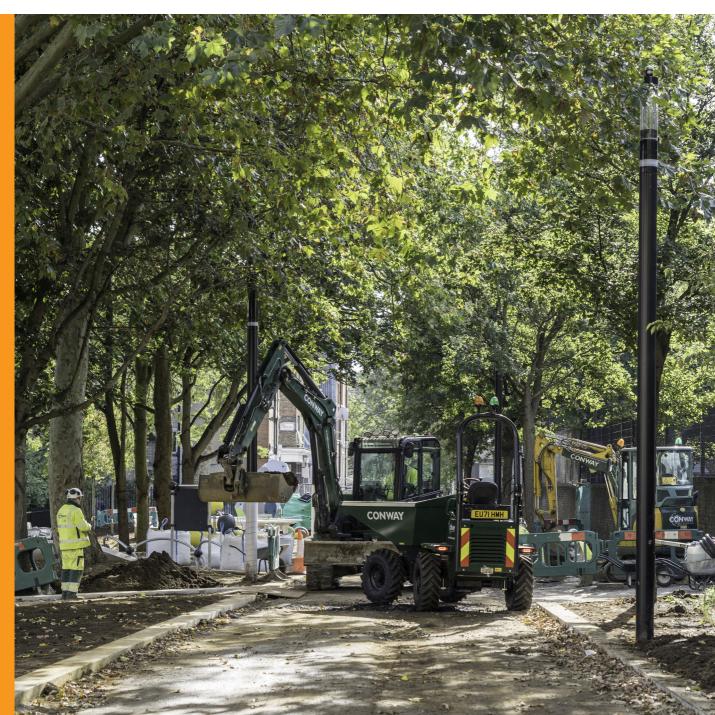


ISSUE 43

CONSTRUCT





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Foreword



Adam Green
CEO FM Conway

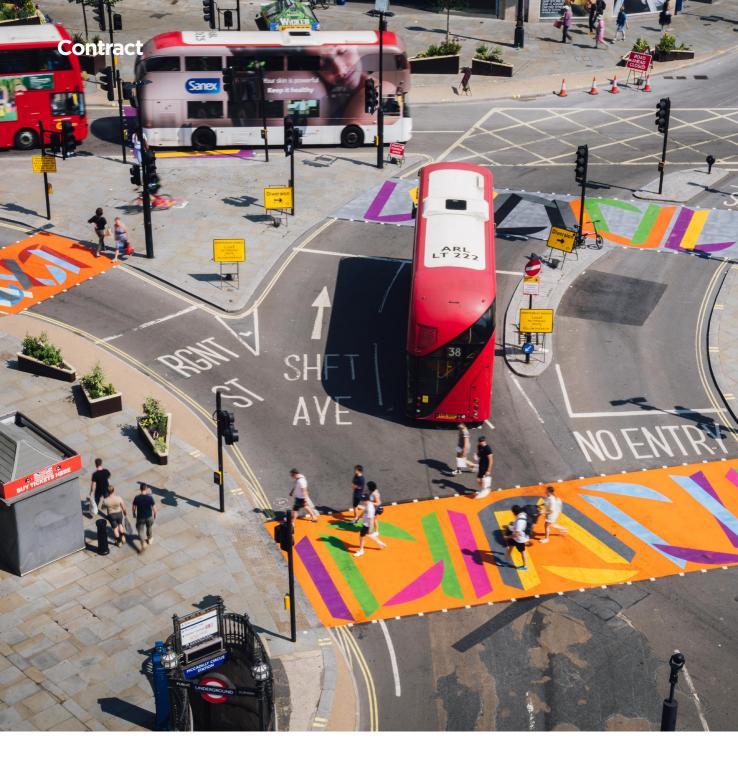
OUR STRONG VALUES AND EFFICIENCY HELP US MANAGE TURBULENT MARKETS AND REDUCE OUR CARBON IMPACT

The COP26 climate conference in November highlighted the issues of climate change and decarbonisation, and it was gratifying that so many governments and businesses pledged to tackle the climate crisis. This is a very important issue for the business, and we have already started our own journey to be net zero by 2045. In October 2021 we launched our net zero strategy, which sets out the challenges ahead and explains how we intend to achieve this goal. I am confident that everyone in the wider FM Conway family will embrace the challenge, and I am sure that many of the solutions we need will come from within the business itself.

As ever, we are looking for ways to make our work more efficient, both to reduce the carbon we generate and to mitigate the impact of turbulence in the markets that is fuelling price increases. Our self-delivery model and long-term contracts also put us in a far better place to cope with price inflation than many other infrastructure and construction companies.

Throughout its 60-year history, FM Conway has always been keen to adopt innovative materials, technologies and methods to make our operations safer and more efficient. This approach has helped us strengthen our long-term relationships with clients - like the London Borough of Merton, where we have been working for over 40 years as well as developing new ones, like National Highways. I am particularly pleased that we have had the opportunity to demonstrate our capabilities in supplying and laying asphalt with a high recycled content on the strategic road network. And I am delighted to have been appointed to lead National Highways' Supply Chain Safety Leadership Group. We have been working tirelessly over the past 18 months to share our health and safety vision, Big Ten in 10, and it is my belief that, through this group, we will be able to further protect the lives of our industry workforce.





STREET ART TAKES OVER

FM Conway's specialist surfacing division has installed the largest colourful art crossing in Europe as part of the Piccadilly Art Takeover. The project, in which the area surrounding London's Piccadilly Circus was transformed by artists, is a partnership between the Royal Academy of Arts and Art of London, together with Westminster City Council and the Mayor of London.



GROUND BREAKER

AS THE BUSINESS MARKS ITS 60TH YEAR, CHAIRMAN MICHAEL CONWAY ASSESSES WHAT HAS MADE THE COMPANY SUCCESSFUL AND LOOKS AHEAD TO THE FUTURE



This year FM Conway celebrates its 60th anniversary – a major milestone that would, one imagines, cause many people to look back at their achievements. Not so for chairman Michael Conway. "I try not to worry about the past," he says. "What happened yesterday happened. You can't change it. I focus instead on tomorrow and the opportunities that lie ahead."

Michael was a child when his father Frank started the business in 1961, and only a young man when he took over the company 15 years later. At that stage, despite having enjoyed considerable success, the business was in a fairly perilous financial position, with only one contract on the books to build a subway in the London Borough of Waltham Forest.

Frank had set out as a traditional civil engineering contractor, picking up individual one-off contracts for roads and structures. Michael instead felt that there was greater opportunity and security in local authority term maintenance contracts. "History has demonstrated that one-off schemes can be volatile," he says. "For me, it is important to know and understand your risk."

When Michael took over the business, he did not have a grand plan in mind and instead focused on gathering a team of like-minded people around him who shared an ambition for winning work. "We didn't have budgets or forecasts back then, but we knew that as long as we managed our risk and won the contracts we wanted, we were heading in the right direction," he says.

Michael believes that much of the company's success and growth over the last 60 years can be attributed to the people who work for the business at every level: "They really know their business and understand what it takes to deliver exceptional work," he says.

"When we were building the business – and in fact we still are – it was our people knowing the detail that made the difference. And no matter how big we get, we still ensure that we always understand everyone's problems."

Michael says there is no real secret to FM Conway's success: "It's a mixture of good people, good knowledge and understanding, and good opportunities." These were the ingredients in the decision to buy the Erith asphalt plant back in 2014. "The opportunity presented itself – an old asphalt plant in the middle of nowhere with its own jetty," he says.





"How many times is something like this going to come up in my lifetime? Probably never."

That decision has been crucial to FM Conway's self-delivery model, which underpins the business's success.

While the contracting landscape has changed considerably in the last 60 years, one thing FM Conway has always been good at is helping clients understand what their problems are and how to solve them. These days that includes innovative technology, such as its intelligence-led asset management programme map16, RoadBotics data collection and HoloLens augmented reality.

"All our innovation over the years has been pretty ground-breaking," says Michael. "We are pioneers in recycling and the environment. I remember when we bought our first crusher and started recycling Type 1 over 30 years ago. And now today, we are pushing the boundaries in health and safety with our revolutionary approach 'Big Ten in 10' and delivering market-leading training to our skilled workforce."

So how does the future look to the chairman? "It's exciting to reach 60 years," he says. "We're a strong business, but it's what lies ahead that is important. As long as everyone continues to innovate, develop and evolve, then we'll have many, many more years ahead of us."

Above right:
Michael with one
of the company's
tipper trucks in 1981
(top) and meeting
the Queen in
Croydon in 1983

CARBON SAVING ASPHALT

THE HIGHEST PROPORTION OF RECYCLED ASPHALT PAVEMENT EVER USED ON THE STRATEGIC ROAD NETWORK HAS BEEN LAID ON THE M3 IN HAMPSHIRE



FM Conway's determination to make highway maintenance more sustainable has been demonstrated once again with a trial to reconstruct a section of the M3 in Hampshire with material that sets a new benchmark for carbon savings.

The project saw a section of the northbound carriageway of the M3 rebuilt using in-house developed materials containing up to 70% recycled content.

The trial, on a mile long stretch of the motorway between junctions 5 and 6, represents a UK first for such a high proportion of RAP used in the surface and binder courses and, in places, in the base course too.

Current trunk road specifications limit the proportion of RAP to 10% in the surface layer and 50% in the binder course. But, using the new mixes, these bars have been significantly raised on the M3, with 50% RAP

FACTS

Project

M3 70% recycled materials trial

Client

Kier and National Highways

Contract period

June 2021

FM Conway divisions

- Surfacing
- Aggregates
- & Asphalt
- Technology Centre

going into the surface course and 70% into the binder and base courses, giving total depths of between 120mm and 200mm.

Matthew Wayman, senior pavements advisor at client National Highways, says: "Although it has been common practice for many years to use a degree of recycled asphalt, this is a major step forwards in helping us reduce the amount of new materials needed, which in turn significantly reduces our carbon footprint by reducing the emissions and energy required to excavate, manufacture and transport the materials needed to make asphalt.

"We were happy to depart from standards for this exciting opportunity presented by our supply chain colleagues at FM Conway and Kier Highways, since early collaboration gave us confidence that the materials installed would deliver the same level of performance as conventional materials otherwise used on our network." he adds.



The innovations used in developing the new materials have driven substantial carbon savings. The high RAP content resulted in a 23% reduction in carbon compared with traditional materials, while manufacturing the asphalt as a warm mix saved a further 14% as it only had to be heated to 150°C. Standard hot mix asphalts are heated to 180°C.

As a result, the total carbon emissions for the mile long stretch of road equated to 118t, while the equivalent for a standard mix would be around 154t.

FM Conway head of technical, aggregates and asphalt, Mark Flint, explains how these savings were achieved: "We approached it on two fronts: combining the fuel saving technology of mixing it cooler with the material saving aspect of using the RAP.

"The combined 37% carbon saving that we achieved brings the trial close to National

LOCATION



Highways' net zero strategy target of a 40-50% reduction by 2030."

FM Conway business development director Nick Burman highlights another positive aspect of using warm mix: "We completed it in just nine night shifts, saving three shifts compared with a conventional mix.

"That provides customer benefits by reducing network occupation, as well as reducing risk because operatives spend less time on carriageways.

"It also means we made even more carbon savings, because there were fewer vehicle emissions," he adds.

FM Conway head of carbon and environment Vanessa Hilton says: "Using RAP at this level requires a twin drum dryer asphalt plant and there are only seven of these currently in the UK, with FM Conway owning two of these plants."

"No other material supplier in the UK has this sort of facility"

Another requirement of RAP is that the source material must come from the road, and in this case a stock of high polished stone value (PSV) RAP was required for processing into two different products. In the surface course material, the first RAP is used to replace high PSV aggregate, while in the base binder materials, the RAP is included to make it a zero-waste process.

And, while the supply of recyclable material may be restricted, Vanessa explains an added upside of using it: "We take the road planings back to one of our twin drum asphalt plants, and that same vehicle then collects the new material, so we're making carbon savings on the haulage."

FM Conway's Technology Centre played a crucial role in the success of the M3 trial by designing the new asphalt mixes, which include the company's own polymer

M3 RAP TRIAL IN NUMBERS

36t

120-200mm

depth of new material

10,872m²

2,940t

new surface, binder and base course material

30°C reduction in asphalt



modified binder (PMB). "From the planings used, they were able to evaluate the bitumen content and then match it with something that would give us the longevity and durability required," explains Mark.

"It requires an in-depth testing process, and no other material supplier in the UK has this sort of facility."

He adds that, while this trial broke records, it has more important ramifications: "It's not just that this was a first; it's also provided a massive learning curve – for us and for National Highways. We all need to understand how this works, given the amount of PMB material out there that's going to need to be recycled over the next 20 years or so."



Contract



SHARED GOALS

CELEBRATING A SUCCESSFUL 42-YEAR RELATIONSHIP WITH THE LONDON BOROUGH OF MERTON

When FM Conway won a contract to maintain roads in the London Borough of Merton in 1979, neither party could have predicted that the relationship would still be going strong more than 40 years later. But, by constantly developing its services to meet the changing needs of the borough, FM Conway has continued to win every highways term maintenance contract in Merton since that first tender.

There has been a lot of change in that time. The population of Merton has grown by around 25%, with 211,000 people now living in the borough, putting pressure on the road network, drainage systems and public realm. And FM Conway's capabilities have also grown, from being a relatively small

MERTON IN NUMBERS

211,000 population

14.7 square miles area

9 rail stations

28 bus routes contractor to a sophisticated business that can support Merton in many different ways.

"We have been evolving constantly," says FM Conway senior contracts manager Kirk Layton, who has worked with Merton for 10 years. "Our self-delivery model is the result of that evolution. It enables us to offer Merton – and all our clients – a one-stop-shop."

That first term contract was just for highway maintenance, but now FM Conway provides everything from water and drainage management, street lighting, and traffic management to structures, consultancy and large-scale public realm regeneration projects.

PARKLETS

This year FM Conway has supported Merton Borough Council's efforts to help hospitality businesses thrive by programming and supervising the installation of eight "Parklets" – small pavement extensions built in front of restaurants and cafes to give extra outside seating space.

"The Parklets can be designed to any arrangement," explains FM Conway principal engineer Dean Gibbs. "They are all bespoke and can be edited to take account of utility covers, services and drainage."

The Parklets were made and planted up by a subcontractor, so FM Conway's role was to facilitate the project and support Merton on the design and delivery side. This provided a safe working environment for the subcontractor, as well as the consultancy and civil engineering teams.

"Consultancy did an assessment of each site from a safety point of view - making sure the Parklet was not too close to a junction and would not affect sight lines," Dean adds. "Then we went in and assessed the kerbs and reset them if they needed it, as well as doing any minor civils work."





On behalf of the London Borough of Merton, FM Conway has also installed 50 gulley sensors to measure silt levels in high-risk flooding areas, through its new contract, and introduced 70 electric vehicle chargepoints installed on lamp columns throughout the borough as part of its SureCharge service (see box).

Other projects include supervising the installation of "Parklets" to provide outside seating for hospitality businesses (see box) and supporting the borough to change its pay and display parking to pay by phone.

"Incorporating everything into one contract has been a massive help to us," says Merton Borough Council infrastructure manager

LOCATION



(highways) Gary Marshall. "We know that we can call on FM Conway to support our teams if their expertise is needed."

Carbon reduction is a high priority for Merton, so the borough and FM Conway are working hard to introduce technologies, materials and ways of working that will cut carbon, including electric construction plant and equipment, and warm mix asphalt. Three warm mix schemes have just been completed (see box), with the material coming from the company's asphalt plant in the neighbouring borough of Croydon.

"We've laid three substantial schemes and asked FM Conway to show us the carbon savings," explains Gary. "Having an asphalt

"People here have been working with each other for a long time. They've got good knowledge of the borough and understand what people in Merton want"

plant just five miles away goes a long way to reducing traffic movements."

Another climate-related project is the installation of rain gardens alongside roads that capture and store rainwater to prevent flooding.

Projects like this showcase how things have changed since the early days of the contract. But FM Conway surfacing business manager Nick Webster says the contract is such a success because "everything revolves around the people and relationships", with many people having worked on the contract for over 30 years.

"People here have been working with each other for a long time," he says. "They've got good knowledge of the borough and understand what people in Merton want."

Gary adds: "Everyone knows exactly what's expected – all the way from the operatives up."

WARM MIX ASPHALT

During the summer, FM Conway laid 1,456t of a more sustainable warm mix asphalt on three residential streets in Merton - Kenilworth Avenue, Vineyard Hill Road and Cottenham Park Road - as part of its carriageway resurfacing programme.

The warm mix asphalt is laid at a reduced temperature compared to traditional hot mix asphalts, cutting energy usage and reducing the associated carbon emissions by 15% without compromising the life expectancy of the road surface.

"The important thing about warm mix is that there is no difference when it comes to laying it, or in the performance of the material, but we burn far less fuel producing it at the asphalt plant," explains FM Conway's surfacing business manager Nick Webster. "The carbon savings come from how we produce it, the location it's produced and how we transport it."

Merton Borough Council infrastructure manager (highways) Gary Marshall says: "From a client perspective that's what you hope for. We want to reduce our carbon, but we don't want to compromise on longevity."

SURECHARGE

SureCharge is FM Conway's end-toend solution for installing, operating and maintaining on-street electric chargepoints. Most of the units that have gone in so far make use of existing street lighting columns, making them quick and easy to install.

FM Conway has just completed a contract with the London Borough of Merton to provide 70 SureCharge electric vehicle chargepoints on lamp columns throughout the borough. The contract takes the number of SureCharge points going in across London to over 500.





IMPROVING THE ENVIRONMENT FOR PEDESTRIANS IS THE MAIN AIM OF A REGENERATION PROJECT THAT TAKES IN THREE DIFFERENT LOCATIONS IN LONDON'S ROYAL DOCKS. BUT WILDLIFE HAS NOT **BEEN FORGOTTEN**

Sections of London's Royal Docks area have been revitalised by a regeneration project designed to help further transform this former industrial heartland into an attractive district for people to live and work in. The project - commissioned by the Greater London Authority (GLA) has involved FM Conway's civil engineering teams working on three individual phases: refurbishing the Connaught Bridge paved area and the Royal Albert Way pedestrian overpass, and installing new dockside lighting.

"The areas we transformed were in need of a revamp," says FM Conway contracts manager Paul Williams. "They're mostly pedestrianised with tired old precast

FACTS

Project:

London **Roval Docks:** Connaught Bridge, Royal Albert Wav overpass and dockside lighting

Client

Greater London Authority

FM Conway divisions

- Civil Engineering
- Consultancy
- Lighting - Structures
- Traffic
- Management - Aggregates & Asphalt

concrete materials, and the GLA wanted to take most of those out and replace them with resin bound surfacing materials and coloured asphalt. We also refurbished all the lighting in each of the three areas."

At Connaught Bridge, the main task was to refurbish the north and south approaches to the pedestrian swing bridge that runs below and slightly to the west of the main vehicular bridge. The team also softened the environmental aesthetics by substituting precast concrete paved areas with soft landscaping, featuring grasses and wildflower planting, as well as repainting the balustrade on the swing bridge and dock edges.

A five-minute walk from the swing bridge is the second site: a pedestrian overpass that crosses the heavily trafficked A1020 Royal Albert Way. Here the team removed old block paving and precast concrete slabs before regulating the surface with a binder course and laying Ulticolour coloured asphalt. The paving was carried out sequentially, in two half-width sections, so that pedestrians could continue using the bridge at all times.





LOCATION



Before paving work could begin, the team had to remove vegetation, as the railings had become festooned with ivy. "The ivy was completely overgrown on both the east and west sides of the overpass," Paul recalls. "We needed five night-time lane closures of Royal Albert Way to accommodate cherry pickers, and worked from below to clear it all."

With the ivy removed, the team dug out the old soil and vegetation from raised planters that border the pedestrian route along the length of the bridge, and replanted them

before fitting new granite cladding and coping stones.

New aesthetic features on the bridge include several narrow transverse granite setts with centre-line lighting columns, as well as uplighting units installed at regular intervals that sit flush with the resurfaced pedestrian route. To encourage biodiversity FM Conway added beetle habitats and 15 bird and bat boxes to the bridge.

The third part of the project involved installing lighting along the north dock-edge of Gallions Point Marina. "We were required to install the lighting to give it a more pedestrian-friendly refresh," explains Paul. "They didn't have any lighting at all along one stretch of the dockside edge, so our consultancy division designed, and then we installed, completely new columns."

Paul is keen to champion the environmental aspects of the scheme, including a hybrid solar pod generator used to charge the batteries that powered the site's welfare facilities. "It is fantastic to be able to introduce these innovations, and we've been using it at other London sites since," he says.

FAST TRACK

IN-HOUSE EXPERTISE ENSURED ESSENTIAL BRIDGE REPAIRS IN SOUTHWEST LONDON WERE COMPLETED AHEAD OF SCHEDULE DESPITE UNEXPECTED COMPLICATIONS

When it became clear that St John's Hill Bridge in southwest London required strengthening, Wandsworth Borough Council looked to framework supplier FM Conway's self-delivery capability to complete the works as quickly as possible. But once work started, it soon became clear that this would become more complex than first thought.

St John's Hill Bridge carries the A3036 over multiple railway tracks on the approach to Clapham Junction station. Investigations had indicated that one of the bridge's six spans required strengthening, as FM Conway contracts manager for structures south Craig Mason explains: "There were concerns over the defective existing waterproofing membrane that was causing maintenance issues for the borough."

The strengthening works were initially planned just for span three of the bridge, and included removing and replacing the bridge deck waterproofing, strengthening the concrete bridge deck and renewing the footway paving and road surfacing to ensure the continued structural integrity of the bridge.

Once work started, however, the team realised that not only did a greater area of span three require attention than originally

FACTS

Project

St John's Hill Bridge

Client

Wandsworth Borough Council

Value **£375,000**

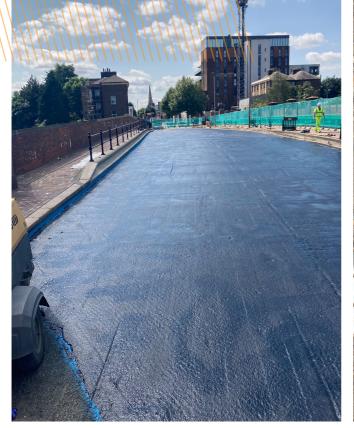
FM Conway divisions

- Structures
- Traffic
- Management
- Surfacing
- Term
- Maintenance
- Aggregates & Asphalt

Concrete cutting subcontractor

Truecut Diamond Drilling anticipated, but part of span two did as well, as project manager Toby Allen explains: "Once the asphalt was removed it was clear that the area of strengthening needed to be increased not only in span three, but also the adjoining span two. The extent of the works increased from 84m² to 160m²."







The team also discovered that the centreline crown and the camber that creates a fall to both kerb lines was not formed by asphalt, as first thought, but by the bridge deck itself, requiring precision concrete to be installed at various different levels.

The new concrete bridge deck needed to be reinforced and connected to the existing deck below. To achieve this, long L-bars were fixed into the beams under the bridge and two layers of steel reinforcing bars were laid in a mesh-like formation. The new concrete was then poured around the reinforcement.

One kerb line was removed, along with the existing waterproofing membrane, so the whole bridge deck could be waterproofed using a spray applied twopart system.

With an 8t weight limit on the deteriorated span, FM Conway opted for lightweight, remotely operated, tracked Brokk plant to break out the concrete layer by layer, with 13t machines deployed at adjoining spans to clear the broken-out concrete. "Whilst excavating, the Brokks are accurate, delicate and lightweight, which was the ideal plant for the works in hand," explains Craig. "We had to be millimetre-precise because, with the existing deck infill being

LOCATION



the wrong shape, we obviously didn't want to risk punching through the deck."

Even though there were no repairs to the underside of the bridge, any works that might conceivably create falling debris were undertaken either at night or during a two-day track possession to prevent any risk to trains. And, for additional safety, FM Conway also provided trackside spotters throughout the project.

The St John's Hill Bridge project illustrates FM Conway's self-delivery capability, with the business's traffic management division handling the bridge closure and diversions so that the structures team could take over the bridge and carry out the civils work, including the concrete removal. The surfacing division completed the planing and laid new asphalt, while the FM Conway term maintenance division installed the new kerbs and footways, including the re-laying of the block paving. All the asphalt was supplied from FM Conway's Heathrow asphalt plant.

Even with the extra works, the combination of FM Conway's self-delivery capability, working weekends and bringing in additional resources meant the job was finished a full 20% faster than the 10 weeks originally planned.

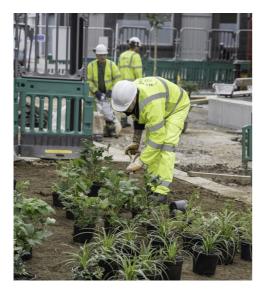
BREATH OF FRESH CITY AIR

A GREEN SPINE BEING CREATED IN WESTMINSTER WILL CREATE AN OASIS OF PARKS, PLAY AREAS. AND IMPROVED BIODIVERSITY



A dearth of green space around Church Street in Westminster is being remedied by the introduction of a "Green Spine" that will provide a green walking route through the area for residents, businesses and visitors to enjoy.

"At around £7 million, the current Phase 1 of the Green Spine is a considerable undertaking, so we've phased the works



FACTS

Project

Green Spine (Phase 1)

Client

Westminster **City Council**

Principal designer, design lead and project manager

WSP

FM Conway divisions

- Structures
- Term
- Maintenance
- Surfacing
- Street lighting
- Water & Drainage
- Management
- Aggregates

& Asphalt

to cause minimum disruption for residents and businesses, but at the same time to get them done as quickly as possible," says Westminster City Council's programme assurance manager, highways and public realm, Simon Morgan.

Phase 1 runs southeast to northwest for around 400m. At the south end is Lisson Street, formerly a traditional road with carriageway, footway and parking. The Green Spine plan will see this road completely closed to traffic and landscaped to include a new path, with FM Conway installing lighting, children's play equipment, new trees and other planting to encourage biodiversity.

To the west side, the existing Broadley Street and Lisson Street Gardens will be combined and enlarged to create a much bigger green space. Meanwhile, to the north, the scheme also includes widening the pavements at Salisbury Street to make life easier for pedestrians.

It is a project that showcases FM Conway's self-delivery capabilities, with the Westminster term maintenance team delivering the footway and carriageway public realm work and the structures division focusing on retaining walls, fences and foundations for granite benches.



The project will provide muchneeded green space in the urban landscape

LOCATION



"There's a lot of variation on this job, so we developed a programme for working in two areas simultaneously to reduce the programme length and help minimise disruption to the local area," explains FM Conway senior contracts manager Matt Cerrone.

The term maintenance team began with highway works at the north end of the scheme, constructing a new raised table at the junction of Church Street and Salisbury Street to improve pedestrian accessibility. "We then installed some rain gardens and narrowed the carriageway to create more space for pedestrians," says Matt.

Meanwhile, operatives from the structures division started work to join the two parks further south at Lisson Street Gardens. "If we didn't run the work in parallel you'd have a programme that was two or more years in length," explains Matt.

"The other key consideration is phasing the project so that it still maintains access for residents and businesses. Church Street, for example, has a diverse range of businesses as well as a daily market.

"We've employed a public liaison officer who engages weekly with local residents

GREEN SPINE IN NUMBERS

49

n gardens

1400t

142t

reused stone for gabion baskets

ZIZ ranite benches

262m fencing

4 w play aroa and businesses and provides updates on forthcoming works, as well as to answer any questions or concerns about the works," he adds. "We've seen how this benefited the programming and phasing."

Combining the two parks into one has involved re-profiling Lisson Street Gardens, explains structures division contracts manager lonut Istrati: "The park was in a sunken area and used to have a level difference of about 2.5m. We in-filled with nearly 2,500t of imported structural fill to bring the entire area to the level of the existing road. We also self-delivered and installed gabion basket walls to retain the new fill."

As part of the scheme, a children's nursery that is located between the two parks will have its existing timber fence replaced and the nursery play area increased to give the children more outdoor space. Other work in the park includes constructing new pedestrian footways, installing granite and timber benches, and building a new timber stage for children's activities.

Phase 2 of the Green Spine, which is currently in the early stage of design, will continue north through the Luton Street development and along Fisherton Street.

Project

Carbon reduction is a major priority for Westminster City Council, and FM Conway is doing everything it can to support the borough with this aim. Last year FM Conway and Westminster identified two upcoming projects to see how feasible it is to cut carbon emissions on routine maintenance schemes.

The first of these schemes – renovating the steps to the Parliament Street underpass – has just been completed, and the results are very impressive: a 75% reduction in carbon compared with a similar project.

The scheme, delivered by FM Conway's structures team, involved renovating the life-expired steps on both sides of the underpass to ensure they meet current standards. The underpass provides access to Westminster Underground station, as well as enabling people to cross the busy road at the end of Whitehall.

The work involved replacing metal nosings that provide a non-slip surface at the

PARLIAMENT STREET IN NUMBERS

600kg total carbon

75% estimated carbon

number of trees required to offset

100% recycled steel in

edge of each stair tread, installing new waterproofing, and repairing the concrete steps where they had become worn.

It is the type of job that needs doing on all staircases after they have been in use for some time, so was a good project to choose as a carbon reduction trial. And, as FM Conway recently did similar repairs to the Golden Jubilee Bridge, carbon emissions could be compared directly.

"We chose it because of where it was and the work we were doing, and also because we had a baseline - the Golden Jubilee Bridge - where the materials are similar," explains FM Conway senior contracts manager Jason Critchell.

Finding lower carbon materials was key to reducing the overall carbon footprint of the project, and the structures team sourced environmentally friendly materials for both of the two main elements – the metal nosings and the concrete repairs.

LOW CARBON MATERIALS AND A NOVEL APPROACH TO MOVING PEOPLE AND MATERIALS HAVE CONTRIBUTED TO THE SUCCESS OF A CARBON REDUCTION TRIAL PROJECT

CARBON CUTTING STEPS



The cast steel nosings, from specialist manufacturer AATI, are made from 100% recycled materials, while the old ones were taken away to be recycled. For the concrete repairs, the team opted for a Sika product that contains fly ash rather than cement. Cement manufacture requires a lot of energy and emits a much higher volume of carbon than fly ash, which is a waste product from coal power stations.

More carbon was saved by using GRP containing recycled plastic instead of stainless steel for box sections that sit underneath the nosings to support the overhangs.

But materials are only part of the story, as FM Conway contracts manager Peter Moore explains: "When you look at the carbon calculators, you realise that a big part of it is transport. We encouraged staff to use public transport to get to site, we had an electric van to move things around the borough, and we used an electric cargo bike to ferry materials."

FACTS

Project

Parliament Street underpass staircase renovation

Client

Westminster City Council

Contract period

July-September 2021

FM Conway division

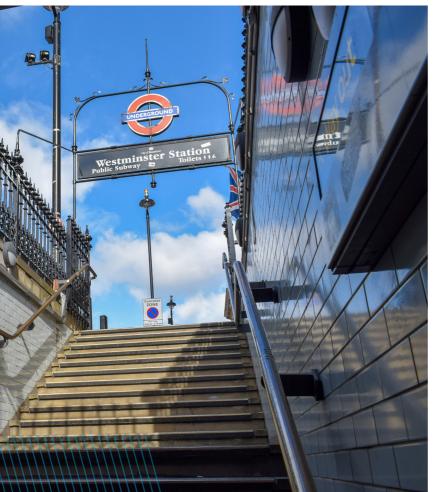
Westminster
City Council
Term Contract
(Contract C Structures)

Other innovations included an eco-friendly welfare unit, powered by hydrogen and solar energy rather than a diesel generator, and using mains electricity on site and to power cordless plant.

Peter says the project took a lot of planning and thinking "a little bit out of the box", but adds: "When you break it down, it isn't a lot harder."

Jason adds: "It's been a great learning experience that has involved a change in the construction process right the way through, but once that change gets into everyone's mindset we're going to be looking at everything in this way."

Westminster City Council's bridges and structures manager Louisa Augustine says: "This is a very well used route for residents and visitors alike, and that made it quite challenging. Also, it is a priority of Westminster City Council to reduce carbon, and this scheme achieved this and showed how it can be done for all schemes."





An electric cargo bike was among the low carbon initiatives for getting materials to site, and it is now being used on other London projects

LOCATION



Carbon



NET ZERO FUTURE

TWO YEARS AGO FM CONWAY PLEDGED
TO CUT GREENHOUSE GAS EMISSIONS
BY BECOMING NET ZERO BY 2045.
A NEWLY-LAUNCHED STRATEGY
DETAILS HOW THIS WILL BE ACHIEVED

Climate science shows that global temperatures are already 1.1°C above pre-industrial levels, meaning there is only 0.4°C to go until larger scale impact is seen on our climate. Against this background, FM Conway's innovations to remove carbon from its operations have never been more important or had such a captive audience.

In October the company launched its Net Zero Strategy to realise chairman Michael Conway's ambition that the business would be net zero by 2045. This coincided with the Government publishing its net zero road map.

"We are confident that our plan is a balanced and credible approach to the climate emergency, reflective of the government's view of the decarbonisation pathway," says FM Conway head of carbon and environment Vanessa Hilton. "Michael was a big advocate of recycling way before others in our industry and has always had a real drive to make sure the resources that we have available are used in the most efficient way in order to protect the local environment – and that as a business we are not producing any detrimental impacts with what we do.

"The Net Zero Strategy has allowed us to map out the savings we can make in a realistic time frame and to identify the milestones of accomplishment that will get us there," she adds.

Vanessa says many people in the business are already bought in: "Our net zero launch event saw people engaged and thinking about how they can be part of the decarbonisation plan."

The strategy was launched to the entire business in a virtual environment by CEO Adam Green, with Vanessa explaining the steps set out in the strategy. Guest speakers from SG Fleet and the Woodland Carbon Code helped to dispel some common misconceptions and misunderstandings around electric fleet and carbon sequestration.

"We asked the question 'How important is climate change to you?', with 10 being the most important issue facing the world," Vanessa continues. "Our people answered with an average of 8.7.

"Clearly, we have a brilliant team of people who not only know our operations but want

5 STEPS TO CUT CARBON

STEP 01

manage, monitor, report

Emissions
are reported
quarterly
and reviewed
against targets

STEP 02

eliminate

Remove processes, deliverables or assets from the business to eradicate ssociated GHGs

STEP 03

improve efficiency

Collaborate to reduce GHG output by improving operational efficiency

STEP 04

diversify

Change
processes,
deliverables
or assets by
adopting existing
products or
approaches

STEP 05

innovate

Adopt new products, technologies, or delivery methods when they come into the marketplace

"Our plan is a balanced and credible approach to the climate emergency"

to increase the pace of change to a net zero future. The purpose of the strategy is to consolidate all the effort and create a more structured path to achieving collaborative, legitimate solutions."

The strategy identifies five areas where the business believes the most significant carbon reductions can be achieved: energy management, plant and transport, natural capital, waste management, and material resource efficiency. In each of these areas, the strategy looks at how to cut carbon through five steps:

- manage, monitor, report
- eliminate
- · improve efficiency
- diversify
- innovate

Vanessa hopes that many solutions will come from within the business itself, and the board has set up a £20,000 carbon innovation fund for ideas that promote a reduction in greenhouse gases or support the Net Zero Strategy.

"We are looking for any ideas that support efficiency measures and provide environmental benefit," Vanessa explains. "This could be as simple as a green wall or brown roof on a building or as ambitious as a proposal for a new hydrogen electrolyser to power our asphalt plants.

"Other simple ideas could be changing the specification of the lights, materials or products we use, or reducing the waste we create from our offices and sites."

She adds: "This is not a strategy that sits in the senior leadership team. It has been shaped by our people for our people. We need to share the responsibility, the ideas and innovations between our clients our supply chain and our own people. Together we will achieve our net zero ambitions."

Interview

ON A 52-YEAR CAREER AT FM CONWAY



GUS SMITHCONTRACTS MANAGER

When did you join FM Conway?

I joined in November 1969 when I was taken on as a digger driver, to drive a Drott - a bulldozer with a large bucket. I was interviewed by Frank Conway, and I didn't actually get the job to begin with, but lucky for me the others didn't work out and I got a telegram asking if I would like to come back for another interview. I was living in East Dulwich at the time, and I took the number 12 bus from Peckham for the interview in Ancaster Road.

> I was very young when I got the job. I grew up on a small farm in Ireland and came to England when I was 16 where I worked on lots of different building sites, as well as a stint in a local nightclub. Shortly after arriving, I met my wife, and after we got married in 1968 she told me to go and get myself a job, so that's when I applied to FM Conway.

What was your first job with the company?

I was told to meet the company's lorry in Penge at 6.30 on Monday morning and we went to Old Bexley where we were building a car park. There were only about 10 people in the company then, with a couple of diggers and a few lorries.

I worked in all the London boroughs as a machine driver in my early days, and in 1985 I became a supervisor in Merton.

I remember when we won the first term contract for the London Borough of Merton. We were still quite a small company then, and we had been working on a contract to resurface school playgrounds during the summer holidays when the tender came out for the highway work. Michael was on his honeymoon when we found out we had won it.



What are the biggest changes you've seen?

It's amazing what's happened in the last 52 years. Life is certainly very different now as there is so much more support for everyone. It's the changes in plant and equipment that amaze me. I wish we had them back in my early days.

It is these innovations that keep the job exciting and importantly - protect people.

We never had our own asphalt plant when I started. We always had to be going to other people for our materials, and they would serve their own people first. I remember Michael saying 'one day we will have our own asphalt plant', and true to his word, that's what happened.

We were ahead of our time with self-delivery too. Michael wanted to ensure that we could be in control of our own processes.

What are the highlights of your 52-year career?

There have been so many highlights. When the first asphalt plant opened at Erith it was a dream come true and a real turning point for the business.

We've done some great stuff in Merton – some wonderful things. When you look at children going to school and our older generations crossing the road, and you know it was us that put in the crossing – that makes it all worth it.

The Olympics was a big thing for me in Merton. The company was very involved in the Olympics all over London, and we had some amazing targets to make - turning roads into one ways and two ways. It was wonderful seeing all the people going to the Olympics and knowing we had a hand in that.

What does the future of FM Conway look like?

I've got a personal interest because my daughter Samantha is a supervisor for Merton and her husband Paul is an operative in Westminster and Merton. Their son – my grandson – also works for the company, and so does my son Malcolm.

I'll be keeping an eye on James Tallon. He started out as an apprentice for me. Michael thought he would be good for the company and asked me to show him what we do in Merton. I gave him a job doing the stop and go boards and the traffic was horrendous but he stayed on and I'm delighted for him that he's now a managing director.

I know the company is not going to stand still. You can't stand still in this business. Whatever innovation comes along, the company will be making the most of it.

NEW TALENT

FM CONWAY THRIVES BY BRINGING IN NEW TALENT FROM DIFFERENT BACKGROUNDS. IN THIS ISSUE WE FOCUS ON THREE PROGRAMMES THAT ARE HELPING TO ATTRACT YOUNG PEOPLE INTO THE BUSINESS.

FM Conway uses a range of initiatives to attract the right people at every level of the business. Three current programmes are particularly valuable in attracting people at the start of their careers: Kickstart, Apprenticeships and Inspire.

Kickstart

The government launched Kickstart in summer 2020 to give employment opportunities and experience to young people aged between 16 and 24. The initiative was coordinated by Job Centres, and all candidates were actively seeking work opportunities.

"We fully support the Kickstart programme because it is a great way of giving young people an opportunity at a particularly difficult time," says FM Conway emerging talent partner Deborah Underwood-King.

The business has welcomed 26 Kickstarters since January 2021, providing them with six months' work, mentoring and training that includes functional skills, CV workshops, and effective communication.

"We have been really impressed with the candidates, and I particularly liked that they are from a wide range of backgrounds," says Deborah. "None of them had considered construction before, but by the end of their placement 91% said they would consider a career in construction.

"We're really proud of the programme. The young people told us the experience made them feel valued and gave them real skills that can help them in the future."

Apprenticeships

The business has always had a strong tradition of apprenticeships. The length and structure of each apprenticeship varies, but they all include mentoring, training and studying for qualifications.

"Apprentices are an important part of our succession planning," explains Deborah, adding: "We want to reach diverse talent, and that's what they bring."

Apprenticeships can last up to five years if they include a university degree, but from the minute they arrive the apprentices are full employees. "That's something we're proud of," says Deborah. "They belong to their team straightaway."

Inspire

Under the Inspire programme, FM Conway sponsors students who are at university and provides them with eight weeks' paid work experience during the summer holidays. At the end of their degree course each student is given an interview for a permanent job.

So far the business has welcomed civil engineering students, giving them experience in the civil engineering, structures and consultancy divisions.

This year for the first time the Inspire programme will also be used to attract talent to aggregates & asphalt.

"It is a good way of bringing in different talent, and it's been a very successful scheme," says Deborah.

PROFILE KICKSTART



Maria Gore
processing coordinator
apprentice, water & drainage
management

Maria took her A-levels in 2020 during the pandemic, and says it was "near impossible" for young people with little workplace experience to find apprenticeships or jobs. "When I heard about this opportunity I was eager to apply and see what it was like," she says.

She admits to knowing "little to nothing" about construction before joining FM Conway in January 2021: "The construction industry was never seen as a route that I could look into at my school, and that led to my misjudgement about women in such an industry."

Maria, who won the 2021 CECA Midlands Kickstarter of the Year Award, says she found the whole Kickstart journey interesting, and wants to encourage more women to discover the industry. Since completing the programme, she has been taken on as an apprentice and is studying for a business management Degree Apprenticeship.

PROFILE APPRENTICESHIPS



Ben Newmarch apprentice civil engineer, consultancy

Ben joined FM Conway in September 2019 on a Degree Apprenticeship, studying for a BEng in civil engineering at London South Bank University.

"Coming out of school, I had the option to go to university and had been offered places to study civil engineering full time," he explains. "However, the opportunity to study part time as part of an apprenticeship whilst working and gaining experience and not having to pay for my degree was a much better option.

"I chose FM Conway as, on my interview day, the involvement with current apprentices showed me they really cared about the development of their employees and had the best apprenticeship programme.

"Immediately I was thrown in the deep end with work in all different types of projects," Ben recalls. "As a result, my knowledge has increased drastically since I first started, and I am now a crucial part of my team."

Ben's current role includes managing the structural inspection programme for Transport for London and a range of structural designs: "I love the fact no two weeks are the same for me, and very rarely do I spend a whole week in the office."

PROFILE INSPIRE



Manisha Sidhpura graduate engineer, structures

Manisha joined the business in 2018 as a summer intern while studying for a civil engineering degree at the University of Nottingham. "FM Conway had a lot of support and opportunities that inspired me to join," she explains. "They provided a grant, which could be used for university fees and books, and the structures team work on very interesting projects, which attracted me."

During her first placement she accompanied her mentor, head of structures Adam Barnes, to site visits and meetings, and was involved in the tender for the Illuminated River project. She also worked with the engineering team on inspections, basement surveys and design.

The following summer Manisha assisted in the tender for the second phase of Illuminated River, and after joining the company as a graduate engineer spent eight months delivering the project on site.

"I got to see the project through from the beginning to the very end," she says.

"I love the team I work with. All my colleagues are very supportive and I have been given the best opportunities to progress in my career."

MPA AWARDS SPECIA

FM CONWAY'S APPROACH TO HEALTH AND SAFETY, AND THE WORK OF ITS EMPLOYEES IN CREATING A SAFER WORKING ENVIRONMENT. HAVE BEEN RECOGNISED AT AN IMPORTANT INDUSTRY-WIDE AWARDS CEREMONY

FM Conway stole the show at the first joint Mineral Products Association (MPA) and British Precast Health & Safety Awards 2021. The business was shortlisted as a finalist in seven categories - more than any other company, took Highly Commended in one category and won three of the main awards.

The awards celebrate actions taken by companies and individuals to keep their colleagues safe. This year's event

INDIVIDUAL RECOGNITION AWARD WINNERS

- Kevin Rilev
- Dean Edwards
- Gerard Minter
- Derek Bucklev
- Mark Whelehan
- Dave Thomas
- Leon Simpson

- Kevin Ward
- Michael Henderson
- Eric Moloney
- Sean Sowney
- Jerry Banks
- Aaron Manning

highlighted numerous initiatives to address key health and safety challenges, in particular the elimination of the causes of 'The Fatal 6', the high-consequence hazards that have historically accounted for the industry's most serious incidents.

FM Conway's success demonstrates that the focus the business has on safety in every aspect of its operations is recognised throughout the wider infrastructure industry.

In addition to the awards won by the business, 13 FM Conway employees also won Individual Recognition Awards for their contributions to making their organisation and the industry a safer and healthier place for everyone.

Andrew Cox, FM Conway safety, health, environmental and quality director said: "These are fantastic achievements that demonstrate FM Conway's strength in depth as a team to implement engineering solutions for health and safety hazards. Congratulations to everyone involved."

WINNER

Safer Transport & Logistics Award

FM Conway took home the award for the use of SideScan®Predict which predicts potential collisions and forewarns the driver to take evasive action at an earlier point than previously possible.



WINNER

The Eurobitume Trophy

For Outstanding Work in the Asphalt and Contracting Sector, which the business won for the second year running.



WINNER

The Fatal 6 Award

Presented for the first time this year, which recognised FM Conway's 'Big Ten in 10' safety initiative as the most exceptional innovation implemented to eliminate the consequences of the 'Fatal 6'.



HIGHLY COMMENDED

Safer Handling of Inbound & Outbound Materials Award

An asphalt lorry body spray bar was introduced to reduce risk to drivers, creating a safer working environment and giving time and cost savings.



FINALIST

Safer Production Award

A modification to the Heathrow Hot RAP slinger system removed the need for oil-based release agents and reduced the risk of introducing this to a high-temperature environment.



FINALIST

Safer Maintenance & Housekeeping Award

FM Conway was shortlisted for its approach to the Imperial Wharf bitumen tank repair, using alternative cutting methods and reducing confined space risks.



FINALIST

Safer Operations at a Contracting, Construction or Customer Site Award

Two innovative manual handling solutions were trialled to reduce strain on the workforce.



FINALIST

Safer Transport & Logistics Award

FM Conway implemented Viewmatics, a simple solution where all vehicle hardware telematics can be accessed from one central platform.



GOLDEN TICKETS

DON'T FORGET TO CHECK IF THERE IS A GOLDEN TICKET IN YOUR ISSUE OF CONSTRUCT. YOU COULD BE THE LUCKY WINNER OF CASH, VOUCHERS OR A CAMERA



As part of FM Conway's 60th year celebrations, each of Construct's quarterly releases will feature 15 Golden Tickets, randomly inserted in the copies sent to employees. Each ticket guarantees the finder a prize, which could be annual leave vouchers, a camera or a cash prize of up to £600.

Here are some of last issue's Golden Ticket winners:

Nicolae Moldoveanu Drainage operative, Water & Drainage Management

Drainage operative Nicolae was delighted to find he had won a cash prize of £60 inside his copy of Construct. "It is a surprise. I didn't expect it at all," he said. "I'm going to go with my son and spend it on something nice with him."

Glen Maloney Business partner, Finance

Finance business partner Glen Maloney bagged an extra day of annual leave with his Golden Ticket. Glen works alongside various parts of the business, including Lighting, WDM and Traffic Management, and enjoys reading Construct to see projects he has been involved in. He was surprised and delighted to receive his Golden

Ticket. "My wife and children have the day earmarked for a trip to Gravity for the half-term holiday," he said.

Mark Cressey Driver, Transport

Transport's Mark Cressey came forward after finding a Golden Ticket and discovered he had won £60. Mark is the lead driver at the Erith asphalt plant, where he has worked for just over six years. "I was gobsmacked when I opened the envelope and there it was," he said. "I'll probably take the kids out for the day somewhere before winter sets in. I do often read the magazine and I like to be kept in the loop about how we're doing."

Lee Blackwell HGV driver, Water & Drainage Management

Another of our lucky winners is Lee Blackwell, an HGV driver from the water & drainage management division, who has been with the business for 11 years. Lee won an extra day of annual leave, which he said came at the perfect time: "It means a lot as I've used all my holiday up early this year. Thank you for my prize. I'll make the most of it."

Hannah Leach Learning & development coordinator, Human Resources

Our latest jackpot winner is learning & development coordinator Hannah Leach, who won £600. Hannah joined the business in January 2020 and enjoys reading Construct to find out what is happening across the business – particularly hearing employees' thoughts and ideas for FM Conway. However, she didn't think she would be a Golden Ticket prize winner. "I've not won anything like this before," she said. "I was over the moon to get a ticket, let alone the top prize! I'm looking to put the money towards a holiday next year – provided things are back to normal."

News in Brief



HIGHWAY HEROES

Three FM Conway colleagues were recognised as Highway Heroes at the first Safer Highways' Highway Heroes Awards. Peter Moore, Erjon Zhupali and Sam Winter each won a personal achievement medal for bravery and dedication towards their peers and community. The awards celebrate the hard work and success of unsung heroes across the business who have coped admirably in the face of adversity and deserve recognition for their brave actions in the line of duty. Thanks also to Liam McGoldrick, Ricardas Grabauskas and Jack Stapley, who took the time and effort to nominate Peter, Erjon and Sam.



BETTER SOCIETY

For the third year in a row FM Conway was a winner at the Better Society Awards, taking home the Inclusive Employer Award at the 2021 ceremony. The award is given to an employer that has made concerted and effective steps to ensure their workplace, employment practices and recruitment policies are fair, equal and inclusive for all. FM Conway proudly demonstrated its commitment to an inclusive workplace by showcasing initiatives aimed at equality, diversity & inclusion, disability, Kickstart, apprentices and creating a female friendly environment.

INSPIRING CHANGE

- Disability champion

FM Conway won the Inspiring Change in the Workplace Award at CECA's Inspiring Change Awards for its commitment to disability awareness. The award recognises businesses that have introduced initiatives that help foster and develop an inclusive workplace where people of varied backgrounds, perspectives or life experience share ideas and work together productively. On this occasion the business was recognised as a champion for positive actions that remove barriers for working in the construction sector with regard to better recruiting, retaining and supporting people with disabilities.





Samaritans Sevenoaks @SamsSevenoaks

We are so excited to be at the #sevenoaksbusinessshow thank you @7oaksEvents for organising the show and to @FMConwayItd for gifting the stand.

Come and visit us!





Sarah McDermott @nightingaleSMcD

Delighted to accompany @WandsworthMayor to open this lovely play park in #Tooting - not just a playground but a place for adults to meet when the children are at school. Well done @wandbc & contractors @FMConwayItd @JohnLocker_UK on the opening despite the problems of COVID





Veterans Awards @AwardsVeterans

Massive congratulations to all the team at @FMConwayltd who became our Employer of the year award winner sponsored by @HughJamesLegal at this year's English Veterans Awards!

Fantasic company and well done!

#veteransawards #veterans #military





John Sweeney @jnsweeneytweets

@FMConwayItd are all done on King Charles Rd Berrylands with the road resurfacing. Promised and delivered in two days. Take note @TfL and @UKPowerNetworks.





Brian Healy MSLL IDA @llsonbhoy

@the_ilp just reading the LJ warmest congrats to @FMConwayltd what a truly fabulous project at the RAH ... well done

Compliment from

Member of the public

Division

Surfacing

Employees

Joseph Rumbold, Robert Weeden, John Mcateer. Paul Padfield

Location

Den Avenue, Bognor Regis

"I would like to thank FM Conway for the fantastic job they did resurfacing Den Avenue. It looks fantastic. Furthermore, our family had to leave for a funeral during the works and the foreman made sure there was adequate space for us to drive out, making it much less stressful. Please pass on our thanks to the team."

Compliment from

Member of the public

Division

Water & drainage management

Employees

Lee Brinicombe, John Watson, Michael Gatton, Jamie Leyland, David Rendell, Julian Wynn Location

Caffyn Place, Broadbridge Heath, West Sussex

"Please pass on my praise to the staff attending the water drain blockage at Caffyn Place. They are polite and professional, but moreover, they are determined. What a first-class team and company!"

Compliment from

Michael Barratt, development impact manager, Transport for London

Division

Term maintenance

Employee

Matt Cerrone

Location

Strand, Westminster

"We met with Matthew Cerrone and team at the ongoing Strand project in Westminster to assess and highlight where disability may have been caused by traffic management. The energy and effort he made to ensure the public were considered during the meeting was exemplar and one for you to be proud of. Disability caused by works can't be designed

out overnight, but I'm really pleased with the way FM Conway are taking the lead and continually trying to make change! Matt was running all over the place for us, relocating and removing signs, which are strewed all over the area. It's a great partnership and working with

people like Matt makes it all worthwhile."

Compliment from

Member of the public

Division

Structures

Employees

Craig Mason, Toby Allen, Samuel Smith, Mark Wearn, Jason Clark, Dominykas Lauraitis, Colin Lloyd, Ronald Harmel, Paul Winter, Ian Dennis, Toby Allen, Samuel Goddard Location

St John's Hill, Battersea

"As a local resident, I wanted to pass on my thanks to all who worked and are still working on St John's Hill Bridge. The road was opened up before the expected 10 weeks and you have done a fantastic job!"



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