

### **UK CONSTRUCTION**<sup>™</sup> O N L I N E

# HGHWAYS

### Unlocking Economic Benefit: New road links to boost business in Bedfordshire by £2Bn

**BUSINESSES** large and small are set to benefit from two new roads in Bedfordshire, both of which are fast approaching the final phase of construction.

Highways England's A5-M1 Link - a 2.8 mile dual carriageway which will create a new junction along the M1 and improve eastwest connectivity between the A5 and the motorway - and Central Bedfordshire Council's Woodside Link - a 1.8 mile road adjoining a number of industrial parks to the new M1 junction - are already benefitting organisations and their ongoing growth, and attracting all manner of new businesses to the wider Dunstable region. Iftikhar Mir, Highways England's Major Projects Director overseeing the A5-M1 Link, said: "The M1 is the backbone of the national road network, and the improved links that Highways England and Central Bedfordshire Council are creating near Dunstable will help businesses of any size to connect to their customers anywhere in the UK and beyond.

"Whether it is helping an established business invest and grow or attracting new operators to the area, these new link roads will benefit Bedfordshire, the region and the entire country."

Since the schemes first began in early 2015, more than 50 contracts have been signed for industrial and distribution space across Dunstable, Houghton Regis and Leighton Buzzard, generating an additional 2,500 jobs regionally. What's more, this investment is thought to amount to an astounding £2Bn boost for the local economy.

Transport infrastructure has a vital role to play in unlocking economic opportunity. In Bedfordshire, businesses are beginning to sense the benefit of improved access to both the M1 and the wider road network. The availability of skilled workers - thanks in part to the planned HRN1 housing development, which will introduce more than 5,000 new homes north of Houghton Regis - is another key consideration for companies looking to invest.

According to Highways England, the business parks are filling up fast. A tranche of new developments are likely to free up a further 52 hectares of commercial space however, with sites available for occupancy from winter 2017/18 onwards.

#### THE BUSINESS CASE

In light of the new A5-M1 and Woodside links, there are many reasons a business might establish a Bedfordshire presence. Bodybuilding.com is a fitness website and supplement store with sales of \$0.5Bn and growing. Established in 1999, the Idahobased business has humble origins - having initially operated out of a domestic garage - but now supplies to customers in 127 countries around the globe.



Since 2015, the US Company's European operation has been based along the A1-M1 corridor in Houghton Regis. Caroline Underwood, Bodybuilding.com's Vice President of Operations UK, was on-hand to explain why: "Central Bedfordshire stood out on the map as the ideal location, with a hub of employable people within the resident population. Business has more than doubled for Bodybuilding. com since it arrived in the UK and our current warehouse and office facility has plenty of room to create more jobs.

"Improved transport links to the M1, via the new junction 11A and the Woodside Link, are another key part of the infrastructure, offering fast access to the M1 and airport links for quick and easy transport to international markets."

Signature Flatbreads is another such business. Beginning as a modest family-run, Londonbased baker in 1984 - known then as Honeytop - Signature Flatbreads has emerged a world leader in flatbread production, with state-of-the-art bakeries in the UK and India. In 1995, Signature Flatbreads relocated to larger premises within the A1-M1 corridor near Dunstable to accommodate a wider product range and everincreasing customer demand.

David Laurence, Signature Flatbread's Commercial Director, said: "Given that we have a 24 hour production facility supplying fresh and long-life products with daily deliveries to all UK retailers, we have a constant flow of delivery vehicles collecting goods with booking slots to meet at their end destination.

"We rely heavily on the road network to deliver our products so better, less congested links thanks to the A5-M1 and Woodside links will make it easier for us to meet our commitments to our clients. "And if it also means that our employees arrive on time and in a better state of mind then so much the better!"

At a cost of £162.1M, the awardwinning A5-M1 Link involves the construction of an entirely new dualled road, three new junctions including an additional motorway connection, and six new bridges.

Crucially, the scheme will unlock up to 40 hectares of land for business use and deliver infrastructure enough for 7,000 new homes to be built north of Houghton Regis. Access to the M1 via the A5 will also be substantially improved and congestion through Dunstable's town centre markedly reduced, offering motorists consistently faster and safer journeys.

Elsewhere, the nearby £38.3M Woodside Link will also alleviate congestion on local roads and provide better access to the M1 from the Dunstable and Houghton Regis regions.

### Your Safety is our Priority!

Working in the vehicle hire industry our priority is our customer's safety whether you're working in a vehicle or on the road; we want to ensure you and your team are kept as safe as possible.

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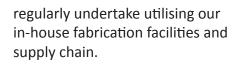
With each of the vehicles utilised for highways comes the tricky issue of being able to add additional safety enhancements without restricting the functionality. We're always looking at new developments in the market to help such as recordable/ WiFi download cameras, telematics, non-slip flooring and manoeuvring support.

We regularly carry-out builds and modifications to enhance safety such as when we worked on an 18T TM with crash cushion and side



Verdegro crash cushion

lifts to enhance the safety of the operatives and reduce injuries. We were able to incorporate built-in side tail lifts which rested on the ground when loading cones and then sat level with the vehicle body when in transportation mode. To add further safety precautions we added an alarm to indicate when the handbrake was released, interlocks were also installed to restrict the tail lift movement whilst the vehicle was being driven. Although this was a specific customer request the fabrication is not unusual and is something we



All our TM vehicles come with fall arrest to the latest safety specification to ensure operative safety and all foot wells come with safety handles for additional reassurance. Depending on the



18T traffic m truc



NightOwl – light mast



Scorpion cra



vehicle's requirements steps can be added that are built into the side guards and dropsides for an incorporated 3 points of access. We can add front grill LED flashing lights to ensure that traffic knows where the vehicle is situated or we can add the Nightowl mast system to help operatives working, both are especially useful in areas of



anagement k

low visibility. For further safety enhancements we can add sidescan, cycle safety warning system, reverse cameras, recordable CCTV and 360° camera systems of your chosen specification to the vehicles.

Alongside the basic safety features of a TM truck which, again, come as standard we are also able to offer the Verdegro, Safe-Stop crash cushion which all have the Guardmaster autobrake system plus a galvanised steel support frame with enclosed hydraulic pump. We also offer the world-leading Scorpion crash cushion; the only company in the UK to do so. The Scorpion is the first to be tested and pass the 70mph speed test in the UK, it has taken and passed all offset NCHRP350 tests plus the additional side impact test which is optional, it has complete coverage of the rear of the vehicle to offer total protection.

To further protect the operatives working on the highways we provide welfare and crew vehicles. They come in 5-9 seat options from basic crew seating to providing mess facilities which include a table, hot water boiler, microwave, hand wash facilities, toilet and tool storage areas. The crew/welfare vans are incredibly useful to provide essential relief options and to allow the operatives to have breaks away from the danger of the highway but still be situated on-site.

When you hire a vehicle from us you will notice that all compliance needs are scheduled in advance to ensure that the vehicle always remains road legal. Our dedicated compliance team will work with you to ensure that when the vehicle is booked for compliance maintenance you incur the least amount of downtime. The compliance team will offer you onsite servicing and maintenance, if it is safe to do so, and we can also provide replacement vehicles in certain circumstances.

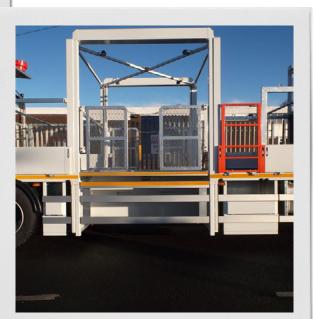


sh cushion



Welfare van





Bespoke build – lifting platform



### No Gaps in the Traffic Management Market

With nearly half a century in the vehicle hire industry and joint experience of the highways market, SHB Hire and Acklea can ensure that there will be no gaps in the traffic management market.

With nearly half a century in the vehicle hire industry and joint experience of the highways market, SHB Hire and Acklea can ensure that there will be no gaps in the traffic management market. We have one of the most diverse fleets in the UK and can offer almost every vehicle. We are capable of supplying all your vehicle hire needs for the highways industry from:

- 3.5T TM vehicles
- 3.5T 26T grabs
- Tippers and dropsides
- 7.2T plastic bodied TMs,
- Incident support vehicles,
- Dedicated impact protection vehicles
- 18T 26T TMs with and without crash cushions
- Barrier and lighting rigs, hotboxes, road menders, gully emptiers
- Welfare and crew vehicles

The list of vehicle options is endless. Through our extensive fleet we are able to supply the full array of vehicles required to carry-out highways operations on a variety of time scales from spot, short, flexi to long term hire. We're flexible so you don't need to be.

We even have the resources available through our in-house fabrication facilities and highly experienced managers to design and build or modify to specification enabling you to have the exact vehicle for your needs.





12T – 26T Traffi management with without crash cushi

3.5T - 26T Dropsides

#### DROPSIDE

We offer a selection of 3.5T – 26T dropsides which have the option of being supplied with MLC boards, LP13s, dropwells and tail lifts.

#### 12T – 26T Traffic Management with or without crash cushions

The most integral of the highways management vehicles is available with or without a crash cushion depending on individual requirements. The TMs can be supplied with LED folding light arrow boards, dropwells, storage boxes, fall arrests, sign racks, cab roof beacons, front and rear LED flashing lights, reverse cameras plus side-scan cycle safety and white noise reverse beeper. All electrics are to EU standards and beacons to IP67 rating.

#### **Barrier Rigs**

To either install or remove the central reservation we have 18T barrier rigs which incorporate the Orteco hydraulic hammer unit on a swivel plate giving outside and near side access, together with a suitable hydraulic crane for barrier repair work. The barrier rig is also supplied with 240v inverter charging system for recharging of battery powered hand held tools, hydraulic operated Orteco 2M 800HD hammers dual side access on a rotator plate which gives you a safe working



Barrier rigs

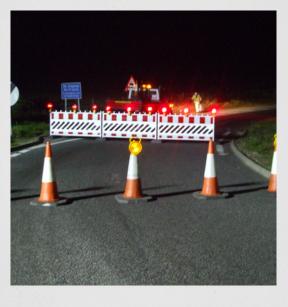


#### The 7.2T Plastic Bodied TM

We have the 7.2T plastic bodied TMs which enable a heavier load due to their light-weight body. They are able to carry enough equipment for a full 2km lane closure, whilst still being able to offer multiple safety and operational benefits over larger commonly used vehicles.



or on 7.2T plastic bodied TM



Barriers

Variable message signs

environment, HMF 1530 K-1 B3 hydraulic truck mounted loader crane, four function crane remote control with HMF info centre, Chapter 8 and conspicuity to current legislation.

#### Variable Message Signs

To complete the Traffic Management operations we are even able to offer variable message boards. These come with a full matrix LED panel with vehicle actuated sign which makes it ideal for all-purpose roads, has the latest surface mount device LED technology, is suitable for all weather conditions, comes in an option of amber, white or red LEDs plus the trailer can be mains powered, batteries or solar assisted. We also supply the WeNipol which is specifically designed for the emergency services and road services. It is able to display not only static signs but also dynamic, symbols or texts in any language. It is remote controlled with LED display for cable or radio operation.

#### **Barriers**

For additional safety precautions we have robust, high quality plastic barriers. They are capable of withstanding high wind pressure so are the ideal choice for motorways, dual carriageways and slip road closures. For added safety the barriers have retroreflextive foil Type 1 for high visibility and they are manufactured to allow safety lamps to be mounted on the barriers using a simple metal bracket.



### Safety First: Speed camera scheme to tackle road traffic accidents in Devon

Highways England is to invest £250,000 as part of a road safety improvement programme between the A38 and A380 at Splatford Split, near Exeter.

In recent past, an abnormally high percentage of road traffic accidents have occurred along this route. Consequently, Highways England have opted to install average speed cameras at four strategic points along a four kilometre stretch of eastbound carriageway. It is thought that this preventative measure will help improve road safety for those motorists traversing the route and act as a deterrent for any would-be speedsters.

Highways England Asset Delivery Manager Julian Strong said: "We are committed to making our roads safer and to ensure a free-flowing network.

"Collision data has shown that there have been 72 personal injury accidents between 2009 and 2014 - an average of more than one accident per month - on this section where the A38 and A380 merge following a steep descent.

"Average speed cameras have been proven to be effective in getting people to moderate speed and we are taking the initiative at this location to improve safety by achieving more consistent and compliant speeds."

Currently, the speed limit sits at 70 miles per hour. The hope now is that the new measures, which have been welcomed by Devon and Cornwall Police and Devon County Council both, will help keep it that way.

Speaking on behalf of the Peninsula Road Safety Partnership, Jon Farr said: "From the observation of driver behaviour and analysis into changes in the rate of accidents, concerns were raised about vehicles merging at a variety of speeds across the four lanes of highway. "The combined assessment of both police and the highway authorities was that additional traffic management measures were required for safety purposes and to achieve a more consistent flow of vehicles through the junction."

Councillor Stuart Hughes, Devon County Council Cabinet Member for Highway Management, added: "Speed cameras have a positive effect in reducing collisions and injuries and the installation of these cameras will improve safety. By covering the approaches to Splatford Split, it will encourage motorists to maintain a constant speed where traffic merges."

Work to install the cameras began in late March and will involve two weeks of overnight single lane closures on the eastbound carriageway and one full overnight closure, to coincide with resurfacing work already planned at the location.



### Carillion celebrate one million man-hours without injury

**HIGHWAYS** England operatives are celebrating the safe working practices that have enabled them to reach a landmark one million hours without injury.

Carillion - who, on Highways England's behalf, undertake regular maintenance along a stretch of the M40 between Denham and Warwick - achieved the milestone of four years without any work-related injuries to any of its employees. The contractor also celebrated two years without time lost to incidents on the M40 and more than a million man-hours worked.

According to Carillion, communication is central to the team's continued success. Management engage with operatives on a daily basis to address commonplace issues and counter complacency. Briefings are held to highlight best practice, particularly during the hazardous night shift, while a 'Don't Walk By' policy enables operatives to forge a safer working environment for themselves and their colleagues.

Steve Field, Operations Manager at UK Highways, said: "This is a remarkable achievement. Managing the health and safety of our staff is a complex operation, with four shift patterns across three depots combined with the unknown of drivers who are on the motorway while we work.

"By ensuring all employees have a thorough induction to generate a culture of challenge, and by engaging with our people, we make working in this high-risk environment safe and embrace the 'Target Zero' policy towards tolerance of workplace danger. We have a genuine belief that the safety of our people is the most important part of what we do."

Highways England Team Leader Menir Khan added: "Safety is Highways England's top priority, and we're keen to foster and share best practice of safe working across our road network.

"While we look to minimise the risk to our drivers and our operatives through our traffic management and working outside of peak hours, working on the motorway will always be a highrisk environment. UK Highways have led the way in showing how to minimise this risk to increase the safety of their staff and ensure that everyone goes home safely at the end of their shift. We will be sharing this practice and looking to see it replicated across our road network."



### ASBESTOS MANAGEMENT ON HIGHWAY PROJECTS

Risk management specialist Lucion Services has produced a white paper on the asbestos management issues associated with highways projects.

With much of the UK highways infrastructure over 20 years old, one of the biggest risks associated with renewal, repair and maintenance activities are the hidden dangers of asbestos containing materials (ACMs) that may be present.

In the highways environment ACMs are known to exist in road building materials, drainage structures, pipes, bridges and viaducts, retaining walls, associated buildings and other assets. In particular, road tunnels, depots and other buildings are considered to pose the highest risk for highways related works.

It is the responsibility of the duty holder to make sure that all highways assets are well managed and maintained, and this includes knowledge of where the asbestos is located.

To address the health risks associated with ACMs, the Control of Asbestos Regulations 2012 (CAR) seeks to minimise the risk of harmful effects of exposure to asbestos. Regulation 4 of the CAR 2012 includes an explicit duty for those in control of assets to identify and manage any asbestos present. In addition to CAR 2012, the Highways England (HE) asbestos management strategy complements existing requirements under the Construction Design and Management Regulations (CDM) 2015. This forms the basis for ensuring asbestos issues are included in Health and Safety Plans and files, and in the design of risk assessments and other actions required by the Control of Substances Hazardous to Health (COSHH) Regulations 1992.

HE will audit and monitor Providers and Major Project Providers against these policies.

In order to manage any ACMs present they must first be positively identified or presumed to be present. The presumptive basis of asbestos management requires the duty holder to assume that all unknown infrastructure fabric contains asbestos and that procedures are put in place to ensure that the material is dealt with accordingly – through an asbestos management plan.

The most common starting point is an asbestos management survey which is designed to identify, as far as is reasonably practicable, the presence and extent of any suspect ACMs.

As well as desk studies, this is also likely to include 'intrusive' sampling and analysis to make a material assessment of the condition of any ACMs present and their ability to release fibres into the air. In the case of hidden assets, including drainage systems, the assets must be presumed to contain asbestos unless there is evidence to the contrary.

In addition, for specific work packages or projects, a refurbishment and demolition survey is needed before any refurbishment or demolition work is carried out. This investigative work is fully intrusive and also involves destructive inspection, as required, to gain access to all areas including those that may be difficult to reach. This is an involved process requiring trained civils operatives working alongside the asbestos surveyor.

The asbestos management plan uses the location of any ACMs identified in the survey to set out those measures required to prevent any unknowing exposure to asbestos by highways staff, maintenance workers and the general public.

A thorough and robust area asbestos management plan, and associated action plans, is therefore a fundamental requirement to ensure compliance with Highways England requirements.

To help those responsible meet their responsibilities, risk management specialist Lucion has produced a special white paper on Asbestos Management on Highways.

Click here for your free download.



**Asbestos Management** 

**Refurbishment Surveys** 

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Ensure compliance with the duty to manage asbestos Fully intrusive surveys of highway structures inc. drainage Removal of asbestos in highway structures and assets

#### **Asbestos Management on Highways**

Lucion Environmental specialise in the surveying, identification and analysis of asbestos containing materials. As an independent company we are able to ensure the delivery of impartial, trusted inspection and testing services to our clients across the world. We offer a holistic approach towards asbestos management, supporting infrastructure organisations and local authorities to ensure that appropriate measures are incorporated into the design and allowance made in project budgets and time scales.

www.lucionservices.com

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T. 0345 5040 303 enquiries@**lucion**services.com www.**lucion**services.com Supporting project teams and mitigating project risks

"Lucion's ability to provide continuous high levels of resource proved crucial to the success of a large project required on a small timescale. Their operatives were professional in dealing with staff on site whilst remaining aware of the sensitivities of the project." **Skanska** 





## Highways England give behind the scenes insight on £1.5Bn A14 upgr

A Highways England Project Manager has given a sneak preview of progress to date on the largest road upgrade currently under construction in the UK.

Four months have passed since the £1.5Bn A14 upgrade began in Cambridgeshire. Now, word of the innovative feats of engineering and archaeological finds is being made public for the very first time.

For those unaware, the landmark A14 Cambridge to Huntingdon improvement programme began in November of last year, and a great deal of progress has been made in the intervening months.

It is thought that the upgrade - which applies to the A14 between Ellington, west of Huntingdon, and the Milton junction on the Cambridge Northern Bypass, and includes the widening of the A1 between Brampton and Alconbury - will relieve congestion, unlock growth and better connect communities across the East of England.

Chris Griffin, A14 Project Manager at Highways England, was on-hand to explain more: "As yellow diggers have become a familiar sight along the A14 corridor in Cambridgeshire, drivers will have noticed the changes along the existing A14. But there is plenty happening that they might not have noticed."

On matters of traffic management, Mr Griffin remarked: "The narrow lanes, temporary speed limits, cones and barriers we've installed allow workers to build accesses for construction traffic and carry out vegetation clearance ahead of the bird nesting season while keeping disruption on the road to a minimum and keeping road users safe."

With sustainability an obvious concern, any trees felled as part of vegetation clearance will be used as fodder for local biomass energy production. Saplings will also be planted once the project nears completion.

Chris went on: "We are committed to keeping the main roads at full capacity during the day, so we only use overnight lane or carriageway closures if it is absolutely necessary. Like, for instance, if we need to install signs or barriers, carry out pavement surveys or strengthen the carriageway where heavy machinery will need to cross on a regular basis.

"We've also installed CCTV cameras along the A14 so we can actively manage disruption to road users from a dedicated control room within the scheme's main compound. This helps us to stay aware at all times of conditions on the road and to take measures quickly if things don't go to plan."

All of which is fairly typical of a large-scale improvement programme. To learn more about the schemes most distinctive aspects, we must first venture



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away from the A14's roadside.

According to Mr Griffin: "A significant part of the scheme is a new bypass, including a viaduct over the River Great Ouse, which will run south of Huntingdon. This bypass is a brand new road so is being built away from the existing A14, with no disruption to road users other than when plant occasionally cross local roads while travelling along the new construction haul roads.

"Work on this section of the project is progressing well and to schedule. Building the 750 metre long River Great Ouse viaduct, which will carry the new A14 across the flood plain and river, is a complex task. The first step has been to install a pontoon which has a 52 tonne capacity, allowing fully laden dump trucks and plant access across the river. This pontoon is allowing us to install a temporary bridge so we can start building the viaduct itself."

Construction of the foundation and viaduct columns is also

underway, with plans announced for later this year to begin installation of the steelwork that will support the bridge's deck and the casting of some 800 concrete panels required.

Chris added: "We have also been building foundations for several of the new bridges. People may have noticed our construction teams installing giant steel cages along the A1 recently. Once these are in place, concrete will be poured around them to form the bridge foundations and we'll be able to start building the bridges themselves."

Archaeology is a key consideration as well. Here, a dedicated archaeological team has made considerable progress, excavating great swathes of land following a period of extensive surveys and trial trenching. As of April, important archaeological remains - some of which date back to the prehistoric era, others to the Romano-British and medieval periods - have been unearthed. Mr Griffin clarified: "The trial trenching identified some 350 hectares of land that our archaeologists would need to look at.

"Most of the remains show evidence of settlements or industrial activity, including a wellpreserved series of Romano-British pottery kilns, some carving tools and even the remains of a cow."

Further excavations are scheduled to take place throughout 2017, and the team has made public plans to present its findings to the wider community once the archaeological dig is finished.

In conclusion, Chris gave his opinion on progress to date: "I am pleased with progress so far on the scheme. We have a challenging timetable to deliver the scheme and open the new A14 to traffic by the end of 2020, so it is good to see the speed at which work is progressing as well as the innovative solutions we are using to tackle challenges."



### Highways England sounds the call for apprentices and university graduates

HIGHWAY'S England has sounded the call for apprentices and graduates to help shape a road network worthy of the 21st century.

The authority has pledged to recruit 90 apprentices and 46 university graduates as part of National Apprenticeship Week. These posts are likely to be filled over a seven month period, with Highways England hoping to bolster capability and capacity as a £15Bn improvement programme begins to takes shape. Recruitment will progress along similar lines for three years or more.

San Johal, Human Resources Director at Highways England, commented: "Our apprentices tell us they find their work varied, engaging, challenging and exciting. "This is a great time to join our team. By 2021, we will have delivered a £15Bn government investment in our motorways and major A-roads to keep drivers and businesses moving, boosting the country's economy.

"To do this, we are investing in the next generation. As an apprentice, you are learning whilst you are earning. Our apprenticeships are available to everyone and are a real alternative to traditional routes like university. Visit our website and explore our apprenticeship opportunities to begin a fantastic career with us."

The Highways England apprenticeship scheme also supports Government aspirations to create 30,000 apprenticeships in road and rail before 2020. Amelia Kirwan, Apprentice Project Manager, said: "I'm over the moon to have got a Higher Level Apprenticeship within Highways England; they want you do well within your role and look after their employees. I'd say being only 18 and having a pension plan already set up and running is pretty good going."

Administrative, civil engineering, customer service, financial, HR, IT and project management opportunities are all up for grabs. New recruits will play their part in the modernisation of England's motorways and major A roads, and deliver some of the country's most technically advanced projects.

To find out more, sign up for e-mail alerts or apply for an apprenticeship, please visit: https://www.gov.uk/ apply-apprenticeship



### WHAT DOES THE CONSTRUCTION INDUSTRY NEED TO KNOW ABOUT YOUR ORGANISATION?

WITH 110,000 CONSTRUCTION PROFESSIONALS EAGERLY AWAITING YOUR GUIDANCE, WHAT WOULD YOU SHOW THEM TODAY IF YOU COULD?

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