Highways Safety Hub

Highways Safety Hub Team Newsletter

January 2024

The Road Back into Employment

Fewer than 20% of people find work when they leave prison – one of Skanska's highways projects is helping to buck this trend. Around 70,000 people are released each year from prison, that's 56,000 jobless people, who are all half as likely to reoffend if they have a job.

The project team at the M42 Junction 6 Scheme have been working with the charity Beating Time Inside Job on their initiative to find employment for people while they are serving their sentences. The M42 has successfully supported two individuals, Shaun and Neil since their release from prison, providing productive and rewarding experiences for them both, equipping them with the skills, knowledge and training needed to contribute, work in a team and be financially independent.

Fozia Fazil, Highways Social Value Manager for Skanska says: "We hope to help break the cycle of reoffending by offering secure jobs that provide stability, a steady income and allow people to gain confidence and trust in themselves and others. As a business, if we can contribute to recruiting individuals from the local community and making a difference and give them hope for a better future, for me, that encompasses social value."

Jack Rooke, Works Manager on the scheme says: "Since starting only a short while ago the guys have taken on further training and been promoted as a result of their positive attitudes. I really believe people should be given a second chance. It's about what is ahead not what has happened in the past. This programme is brilliant and has been life changing for Shaun and Neil. It has also been great for the scheme. We really hope others will be inspired by our story and will look to do the same on their projects."

Please speak to Fozia or Jack if you would like to know more – They will be able to answer any questions you may have and be able to put you in touch with Beating Time Inside Job who work with people while they are serving their sentence and get them job ready for release.

Skanska contacts:

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jack.rooke@skanska.co.uk

Highways Passport is endorsed by National Highways and sponsored by the Supply Chain Safety Leadership Group – the Passport provides an easy way for all organisations to demonstrate that workers on their site or contract have the right skills, training and qualifications to work on the strategic road network. Together with the Highways Common Induction the Passport gives confidence that people are being set to work in a safe and compliant way.

The Highways Passport Steering Group consists of key supply chain partners working with National Highways with an overall objective to support and maximise the use of Highways Passport. At the moment the group is working on the following:

- Review and update the Highways Common Induction
- Creation of a new driving for work induction module
- Development of the "Passport Expectations" document e.g. setting the rules for the scheme
- Being a Passport Champion and embedding Passport across the supply chain
- Encouraging active use of the Passport for recording core competencies
- Communicating and promotion activities, developing our Comms Plan for 2024

We are really keen to encourage new members onto the Steering Group in particular in the Operations Community so if you are able to commit some time and would like to shape the future of Highways Passport please get in touch.

Supply Chain Representative: Liz.Brathwaite@skanska.co.uk

Or National Highways Contact: Teresa.Moss@nationalhighways.co.uk

Recent Case Study

Costain

Sector: Highways
Contracts: NEAR J32-35A
Value: £40M

BeSafe

BeWell

BeGreen

COSTAIN

Eliminating Harm Case Study

Wireless CCTV TASCAR foundations for site surveillance to reduce financial risk and environmental harm.

Background

The J32 to 35A package of the M1 National Emergency Areas Retrofit (NEAR) scheme comprises of retrofitting the existing Smart Motorways with 13 Emergency Areas (EA's) alongside the provision of additional Variable Mandatory Speed (VMS) equipment, modification to Stopped Vehicle Detection (SVD) system and provision of Closed-Circuit Television (CCTV) coverage.

To improve road safety and protect the work force, a Temporary Automatic Speed Cameras (TASCAR) system is required to manage and monitor traffic speeds.

In order to achieve this, a sustainable safe system is required.

Challenges

A traditional approach to this, entails a loop of wired cameras connected with cables for signal transmission. Additionally, it also requires excavations to be carried out at each camera site to build the foundations for the camera towers.

The challenges were encountered when planning for the installation, powering and maintenance of the camera system.

Regular cameras require above ground ducting, significant lengths of cabling, power, all typically installed via overnight lane closures. This comes at a significant cost, increased risk to the work force from working at night, next to a high-speed road. In addition, the installation requires significant site clearance, materials and ongoing maintenance along the ducting route.

The Solution

A wireless system assists by reducing people and plant interface (PPI), reducing working at night behind traffic management and associated maintenance and eliminates the risk from the construction activities striking live cables (as no cables are laid out above ground

between the camera stations). Additionally, replacing the traditional excavated foundations with recycled plastic mats, there is a reduction in habitats disturbed, resources required and associated carbon emissions.

COSTAIN

"Improving people's lives through connected sustainable infrastructure"

Benefits

CCTV surveillance is a critical element on construction sites to ensure the safety of the travelling public / monitoring traffic flows and breakdowns. However, the shift from a traditional analogic CCTV system to a wireless system can be applied to any sector, especially Highways.

• **Health and Safety:** Risk is eliminated or reduced by four elements:

Reduced People Plant Interface (PPI): as no plant is needed for TSCAR foundations apart from a small HIAB required for the cameras install.

Elimination: of associated occupational health risks: No manual handling, HAVS, dust and noise exposure during installation.

Reduced work at night: The cable connecting traditional CCTV system would require install and routine maintenance at night; this risk is avoided by using wireless technology.

Elimination of service strikes: to the CCTV system cabling by the construction activities (as no cables are laid between CCTV stations).

• **Environment:** Reduction in use of virgin material such as fill materials. These have been replaced by recycled mats for the TASCAR foundations. The wireless technology ensured the contract did not enter in to areas outside the project boundary when connecting the camera system loop.

• **Carbon:** Every aspect of this upgrade in technology carried a reduction of circa 19 tCO2e emissions; these include:

Concrete: Cost / carbon reduction and elimination of associated health risks.

Plant: No plant was required for the foundation installation, although a small HIAB was required for the camera install.

Energy source: Cameras are solar and wind-powered.

Wireless technology: Cable embedded emissions, install and maintenance.

The mats: are recycled and will be reused, so only the transport associated CO2e emissions are accountable.

• **Legacy:** A wireless system will be used on the other NEAR North Schemes and will be shared across the Alliance.

• **Wellbeing:** Night work contributes to fatigue in the workforce. By adopting a wireless solution, the risk of fatigue has been reduced.

• **Financial:** Total financial saving of circa £600k: from labour, plant hire, materials and traffic management. Figures to exceed £1M with forecasted savings on maintenance and energy.

Key Benefit 1

Financial savings derives from an array of factors for a total of circa £600k.

No fuel or main connection is required to power the cameras. Additionally, these cameras are equipped with a motion detector device; only recording when motion is detected.

Less maintenance and quicker installation of this system implies saving on labour.

Additional saving is drawn by the absence of cabling and the reduced filling material needed for the foundations.

Key Benefit 2

Environmental performance improved.

By using recycled plastic mats across the 37 camera towers required, brought a saving of approximately 7.3 tCO2e; additionally, the solar technology will save approximately an additional 12 tCO2e over a period of 18 months.

Using wireless CCTV, there's a reduction of resource exploited (aggregates and cable), vegetation clearance and no boundaries crossed to lay and maintain the camera cables across the linked sections.

Recommendations:

Recycled mats are sourced from Speedy and TASCAR from Clearway Technology.

Further information— please speak to Dale Flower.

"Installing a truly wireless system has many benefits; from a significant reduction in working behind a temporary traffic management system at night, thereby, removing exposure to those significant hazards".

Dale Flower
Project Lead—NEAR North
Costain

28/09/2023

National Highways Road Risk Conference

On Thursday 21st March 2024 National Highways is hosting its 2nd annual work-related road risk conference at the National Space Centre in Leicester.

The theme for the 2024 event is twofold, firstly to raise awareness of how driver health and wellbeing plays a crucial role in safe transport operations and secondly, how those responsible for managing risk can learn from how risks are managed in other safety critical sectors.

This will be delivered through a full day programme of expert speakers accompanied by market stalls from relevant partners.

As you know safety is at the very top of the priority list and that extends to those who our driving for work on our behalf. We know that you share our values and as such it would be great to see your organisation and your supply chain represented at the conference.

The conference would be beneficial to those who have responsibility for Health, Safety and Wellbeing management and particularly for those who have a responsibility for managing work related road risk.

To register to attend this event, please follow this link (https://www.eventbrite.co.uk/e/vehicles-dont-crash-people-do-road-risk-management-for-at-work-drivers-tickets-764433690747?aff=oddtdtcreator).

Blue Star Award – M6 J21a-26 HoloLens

During the conversion of the hard shoulder into a running lane, Varioguard is installed to ensure the safety of the general public and construction workforce.

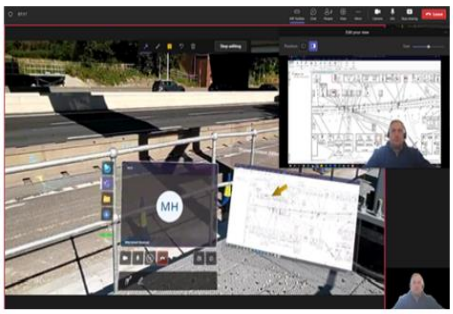
However, this safety measure creates a confined work area behind the Varioguard, resulting in a narrow corridor for works and passing works vehicles and plant.

Consequently, site traffic is reduced to a single lane with few passing places during construction. Due to this, when site traffic passes work, work is temporarily halted to safely let traffic pass by and wait until it is safe to proceed with construction again.

To minimise the number of people working within the Varioguard, the HoloLens augmented reality headset has been trailed and tested on the M6J21A – 26 Project.

The HoloLens headset allows an operator to bring together a global team to observe their surroundings in real time. Through the HoloLens, team members can share the operator's perspective.

The HoloLens breaks down disciplinary barriers and enables real-time data sharing for effective project collaboration, reducing errors and delays. It empowers teams to visualise and interact, enhancing project clarity, productivity, and the proactive resolution of issues.




With the assistance of spatial mapping, remote participants can communicate with the operator, annotating their views to emphasise specific areas of interest. This advanced functionality facilitates collaborative discussions among multi-discipline team members, enabling them to collectively address challenges, guide on-site surveys by a design team, or even provide step-by-step instructions for operations, leveraging the expertise of more experienced team members, all while being separated by vast distances.

On-site workers can benefit from real-time safety information through HoloLens, including hazard warnings and site-specific safety protocols.

Further to the benefits of having global expertise to assist in problem solving, etc the key benefit to the site is from having only one of the construction team members' physically present on-site. This consequently leads to fewer site visitors, resulting in reduced site traffic volume and people / plant / vehicle interfaces.

RTB42 - Working on Hard Shoulders & Roadside Verges

As a result of several serious incidents involving members of the public and roadworkers killed and seriously injured on hard shoulders and roadside verges a new Raising the Bar guidance document has been developed. This guidance must be read in conjunction with the existing requirements detailed in the National Highways document GG115 Requirements for works on the hard shoulder and roadside verges on high-speed dual carriageways which can be found here:

f6a79f63-f077-4b67-ae0b-390ad229a9e7 (standardsforhighways.co.uk)

The objective of the supplementary guidance in the new Raising the Bar is to reduce the overall risk exposure on hard shoulders and verges to all parties and to provide additional guidance on the selection of suitable controls including traffic management. The aim and outcome is to increase awareness of the dangers working on the hard shoulder and on verges present both to workers and to the travelling public with a view to developing standardised approaches to control measures.

The new document can be viewed here on the Safety Hub website:

Microsoft Word - xRtB 42 - Working on Hardshoulders and Roadside Verges October 2023 v1 With Info Sheets.docx (highwayssafetyhub.com)

We are continuing to develop this document and would welcome any feedback which might inform better solutions to improve safety. If you do have any comments, please provide feedback to: Liz.Brathwaite@skanska.co.uk

Raising the Bar

This will help check compliance with the guidance by highlighting significant elements. A link is posted below that will direct you to the Highways Safety Hub website where there are also a lot of interesting items. Also consider joining the Twitter group which gives out lots of useful information regarding changes and uploads including the latest safety alerts.

Home (highwayssafetyhub.com)

Test Before You Touch – Shared by BMJV

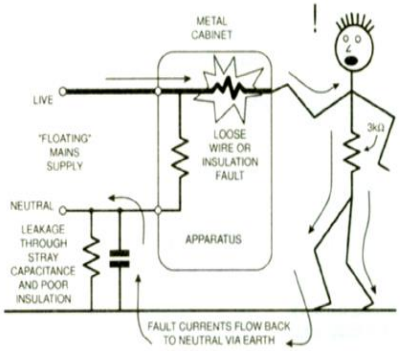
Why?

Damage, incorrect installation or deterioration of existing electrical Installations .

It is possible for the external casing of conductive roadside furniture such as equipment cabinets and lighting columns to become live in the event of an electrical fault. Also, as the scheme progresses and more cabinets and columns become live, the probability of this occurring (albeit small) increases. There is also the legacy of old and redundant electrical installations along with any damage relating to RTC, theft or previous construction works.

What Are the Risks?

Direct contact with an item of faulty street furniture or clipping on to faulty Street furniture when carrying out a Cat and Genny survey.



Could result in:

- Fatality
- Fibrillation
- Electrocution
- Burns

Facts
In the UK, there are around 1000 electrical accidents at work reported to the HSE each year and about 25 people die of their injuries.
Most accidents happened because workers have not been adequately trained, are poorly supervised, or because the risks of the work have not been properly assessed.
(*Source: HSE website*).

Method

On BMJV projects, personnel involved in using detection equipment such as CAT and Genny, and supervising works around electrical equipment must have successfully completed a Level 2 Utility Location and Avoidance qualification. The course prescribes the use of a non-contact voltage detector to check that an item of street furniture is not live prior to touching/accessing or clipping on to it.

1. Check your non-contact voltage detector with your proving unit. To carry out this safety critical test, before touching/accessing or clipping on to an item of street furniture you must first safely prove that your non-contact voltage detector is working properly by proving or testing it with your Proving unit.
2. Once you have proved your non-contact voltage detector is working correctly you must then use it to **TEST** before you **TOUCH** any item of conductive roadside furniture.
3. Test the item of street furniture with your non-contact voltage detector. Lights or tone could indicate voltage. Touch the white tip of your non-contact voltage detector in several places including any doors on the item of street furniture you intend to clip on to.
4. Recheck your non-contact voltage detector with your proving unit.
5. If voltage is present stop work, Do Not Touch, or try to connect your Genny.
6. Keep the area clear, report to your supervisor, do not leave the area unattended.

Summary

Before any Cat and Genny survey work is carried out, the process and the controls to be followed should include:

• **Voltage Detector and Proving Unit:** Check proving unit is in date, check batteries, test your voltage detector on your proving unit, Check for tone and lights.

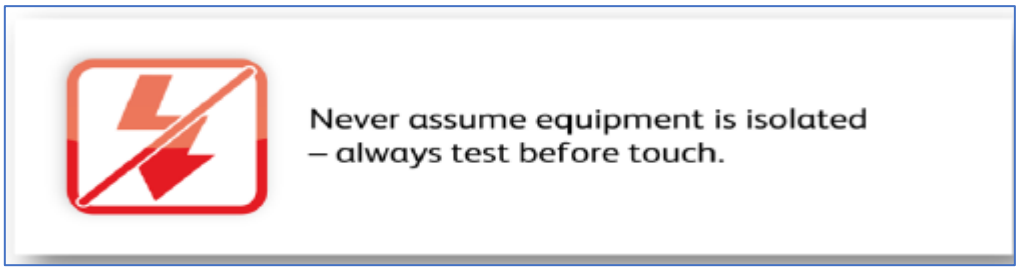
• **Proving of electrical safety:** Touch the white tip of your non-contact voltage detector in several places including any doors on the item of street furniture you intend to clip on to. (No Tone and/or lights indicates metal work is safe)

• **Retest your voltage detector:** Check your voltage tester again with your proving unit check for tone and lights.

• **Emergency contacts:** Supervisor, Electrical Team, Health and Safety Team

On **BMJV** sites the Senior Appointed Person or Appointed Deputy will control the electrical systems

Formal



records **must** be maintained to demonstrate communication and consultation of controls.

Source: BMJV