

National Highways
Principal Designer Working Group
Meeting No.35
Teams
Thursday, 9th May 2024 – 9.15 am – 13.00 pm

Agenda

Name	Initials	Position	Organisation
Attended			
Richard Wilson (Chair)	RW	H&S Director C&P	National Highways
Doug Potter (Secretary)	DP	TA HSW Lead - Principal Designer Manager	Arcadis
Tim Goddard	TG	Principal Designer Manager	Arcadis
John Pilkington	JP	Principal Designer	WSP
Pav Singh	PSi	Technical Director / Principal Designer Manager	Arcadis
Mark Lamport	MLa	Technical Director / Principal Designer Manager	Arcadis
Paul Brown	PB	Technical Manager	WSP Group
Katie Harman	KH	SMP Safety Lead	National Highways
Paul Dennis	PD	A417 Project Manager	Arup
Tim Walker	TW	H&S Manager	Galliford Try
Nick Boyle	NB	Technical Manager	Balfour Beatty
Katie Grey	KG	Chair Highways Safety Hub	Ringway Inf. Services
Robin James	RJ	Operations Director	Temporary Works Forum
Martin Sherlock	MSH	MP Knowledge Management Team Lead	National Highways
Martin Partington	MP	Principal Engineering Man.	Jacobs
Robert Legg	RL	Highways Safety Co.	Motts
Mark Lawton	MLn	Head of Engineering Surveying and GIS	Skanska
Jim Gallagher	JGa	Prin Struct. Advisor (SES)	National Highways
Tim Bowes	TB	Principal Designer Manager	Atkins
Darren Allen	DA	Design Manager (SDF)	Jacobs
Jon Webster	JWe	Safety Lead	Kier
Charlotte Cook	CC	WHS Lead	Arcadis
Dave Olorenshaw	DO	Area Manager	Kier
Tony Lewis	TL	P Designer Man. YNE	Costain
Tom Bolton	TB	Principal Designer Manager	Amey
Alexandra Koutsouki	AK	Senior Engineer/ Transport	Arup
Samuel Hogan	SH	Principal Engineering Man.	Balfour Beatty
Robert Butcher	RB	Technical Director CDM	Jacobs
Stephen Pettifer	SP		
Roger Swainston	RS	PD / CDM Advisor	Jacobs
Steve Williams	SW		
Neil McKay	NMc	PD Lead	Aecom Highways
Zijing Zhan	ZZ	KTP Associate	Arcadis
Daniel Lacey	DL	Risk Management Team	National Highways

Ali Chaudry	AC	Principal Designer	Galliford Try
Ghayan Briggs	GB		Jacobs
Simon Wilkinson	SWi	Technical Director	AECOM
Nicolas Mitchell	NM	PD Advisor	RPS
Chris Harding	CH	Design Manager	Volker Fitzpatrick
Daniel Hassle	DH	H&S Lead	Galliford Try
Steven Naylor	SN		
Noel Gibbin	NG	(CPS Head of Design)	Connect Plus
Alistair Guthrie	AG	CDM Lead	Cowi
Neil McKay	NMc		
Connor McCourt	CMC		Farrans
Jamie Bradley	JB		
Andrew Wedderburn	AW	Principal Designer	Pell Frischmann
Guests:			
Tarvinder Gohel	TG	Structures Director	Arcadis
Drew Gardner	DG		
Apologies:			
Darren Prowting	DPr		
Paul Boddy	PB	Director	Interserve
Stephanie Goldsmith	SG	Senior H&S Advisor	Skanska Infrastr.
Katie Swanick	KS	Contracts Manager	Motts
Aimee Blay	AB	Design Manager	Galliford Try
Thomas Merry	TM	H&S Lead Major Projects	National Highways
Ronan Finch	RF	Principal Designer	WSP
Shaun Pidcock	SP	Director LTC	National Highways
Phil Samms	PS	Engineering Man. (Area 3)	Kier
Kevin Morgan	KM	PD / CDM Advisor	Jacobs
Mark Riordan	MoR	Principal Engineering Man.	Amey
Paul Wilkins	PW	Ass. Tec. Director Structures	Arcadis
Jon Horrill	JH	Principal Designer / H & S	WSP Group
John Migoski	JM	Technical Manager	Network Rail
Suryakant Patel	SP	Principal Designer Manager	Costain
Steve Ristow	SR		Transport for London
Sean Connon	SC	Principal Designer Manager	Costain
Ben Moulton	BM	Safety Lead	Balfour Beatty
David Lumb	DL	Health and Safety Business Partner – RIP North	National Highways
Cora Goodman	CG	H&S Manager YNE	National Highways
Mark Bridges	MBr	Former H&S Hub Lead	Galliford Try
Jordan Flint	JF		Kier
Lawrence Weller	LW	Safety Manager	TfL
James Washington	JWa	Safety Lead	Kier
Owaiz Khan	OK	Technical Manager	MGF

Richard Horan	RH		Telent
Glen Matthews	GM		Kier
Robert Mullen	RM	Asset Information Group	National Highways
Marcus Anning	MA		National Highways
David Harris	DH		
Jason Glasson	JG	Asset Information Manager	National Highways
Tarandeep Atwal	TW	Associate Director	Arcadis
Rob Eagles	RE	Temp Works Designer	MGF
Charlotte Taylor	CT		Morgan Sindall
Russell Brookes	RB		National Highways
Greig Houghton	GH	Design HSE Lead	Jacobs
Terry Meadows	TM	Safety Lead	Kier
Paul Watson	PW		Amey
Steve Haviland	SH	Partnership Lead	Farrans
Richard Delaney	RD	Senior H&S Consultant	Capita
Ken Harrison	KH	Principal Engineer	Amey Consulting
Craig Simmonds	CS	Managing Director	Macleod Simmonds
Elliot Galvin	EG		Mott Macdonald
Adrian Shawcross	AS	Rail Associate	Ramboll
Clare Brown	CB	Safety Lead	Link Connex (Bam Nuttall)
Sophie Gwynne	SG	Graduate Highway Engineer	Arcadis
Oliver McMann	OM		Atkins
Philip Farrar	PF	Highways Safety Hub Website	Galliford Try
Sam Roberts	SR	Director	Met Geo Environmental Ltd
Anthony Adu-Gyamfi	AAG		
Stephen Pettifer	SP		Volker Fitzpatrick
Eleanor Brennan	EB		
Matthew Murrell	MM		
Beverley Mears	BM		National Highways
Abbey Featherstone	AF	Technical Lead	Connect+
Ian Nixon	IN	Sector SHE Director Transportation	Costain
Steve Willoughby	SW	Technical Director	Pell Frischmann
Stephen Larkin	SL		Aecom
Andy Robinson	AR		
Alexandra Kouts	AK		Arup
Simon Hawley	SH		Rambol
Steve Bowen	SB	Technical Director	Stantec
Jim Castle	JC		LTC
Leah Shah	LS		
Alexandrine Bernard	AB		Rambol
Reuel Abrams	RA	Senior Project Manager	Arcadis
Patrick Brady	PB	Engineering Manager M25DBFO	Connect plus /BB
Kevin Stevens	KS	Safety Manager	FM Conway
Gordon Crick	GC	BIM for H&S	HSE

Keith Smith	KS	Group Chief Engineer	Chevron Group
Steve Yates	SY	PD / CDM Advisor	Jacobs
Euan McRobie	ER	H&S Lead	Capita
Nicola Hodges	NH	Project Manager	Keltbray
Adrian Lewis	AL	RHS Manager (East Region)	National Highways
Tony Wallis	TW		Tetra Tech
Josh Hicks	JH		Mott Macdonald
Natalie Mansell	NM	Head of Safety – SR, H<	Atkins
David Owens	DO	Digital Manager	WSP
Helen Richardson	HR	NH Regional Lead	National Highways
Christina Kio-Bennett	CKB	Senior Design Manager	Skanska
Steven Scott	SS	PD Lead	Arup
Elizabeth Bennett	EB	Director	Safety in Design
Liam Burns	LB		National Highways
Florus Georgios	FG	H&S Lead	Skanska
Toria Thomas	TT	Principal Designer	Arup
Graham King	GC	LTC H&S Lead	National Highways
Amjad Farzana	AF	MP Knowledge Management Team	National Highways
Sam Allin	SA	CDM Manager	Jacobs
Joanna Goulding	JoG	Head of Health & Safety Risk, Standards and Assurance	National Highways
Nicola Tweedie	NT	SA – Road User Safety	National Highways
Paul Haddon	PH	Digital Lead A19N2W	Balfour Beatty
Elliot Grub	PH	Digital Engineer A19N2W	Atkins
Jonathon Giles	JGi	Principal Designer Manager	Rambol
David Riley	DR	H&S Business Partner	Amey
Iain Reidy	IR	Risk Management	National Highways
Nina Warminger	NW	H&S Manager SWAD	National Highways
Lee Ward	LW	Principal Designer Manager	Arcadis
Stuart Dawes	SD	H&S Manager A66	National Highways
John McGovern	JMc	PD Lead	AtkinsRealis
Sulagna Ghosh	SG	Ass. H&S Rep Leeds	WSP Group
Chris Griffin	CG	Design Innovation Manager	National Highways
Anne-Marie Cobb	AMC	Lead Development Manager	Octavious
Ian McDermott	IMC		Kier
Marcus Anning	MA		National Highways
Simon Allum	SA		
Steven Ward	SW		Arup

1.0 Welcome - (Richard Wilson)

RW welcomed everyone to PDWG meeting No 35

- HSW Moment – Hexavalent Chromium (Cr(v1) Tarv Gohel (Arcadis)

What is Hexavalent Chromium (Cr(VI))?



How was risk managed?



ARCADIS

Birmingham City Council

HSE
Health & Safety
Executive

VolkerLaser

TG presented on recent issues that had been encountered on the Birmingham City Council (BCC) Tame Valley Viaduct. This is a 7 lane structure which requires strengthening and refurbishment of box girder members. Refurbishment commenced a number of years ago and during initial paint testing Hexavalent Chromium VI was discovered which is carcinogenic. All bodies involved including Arcadis, HSE, BCC and contractors have worked together to develop enhanced H&S measures. Presence of the chemical required additional PPE, enhanced cleaning and disposal processes – it should be noted that currently monitoring and testing processes are not well developed nationally. HSE are looking at the proposals adopted on the scheme and hopefully will be using the proposals to highlight best practice.

TG and the Arcadis team have developed a Case Study which will be shared on the NH Home Safe and Well portal together with a Safety Share which is to be uploaded to the Hub site shortly.

TG is happy to provide further details to the group and provided his contact details tarvinder.gohel@arcadis.com

TG/DP

Richard W asked - Do we know how many of these structures have this material present within them? TG indicated that there are a considerable number of structures of similar age and construction and therefore many may contain Cr Vi paint systems – so Designers need to be made aware of the issues and the testing measures to be undertaken.

Mark L asked - Has the material been banned? TG indicated that it had only recently been banned for use within Europe. It is no longer used in this country (in civil engineering) but measures will need to be put in place to manage the threat it possess until it is final eliminated from the work environment.

Katie Gray asked - If the Healthier By Design group could communicate this learning along with the Occupational Health group. Doug P to share the Case Study and Safety Share with the group and John Pilkington (SCSLG) – Both are in final draft.

DP

HSW Moment – Protection of Surface Laid Cables - Katie Grey



10 The Highways Safety Hub - Raising the Bar 9 - Utility Avoidance - Version 6 - March 2023

Marking Overhead Utilities

Goal posts that span traffic routes and provide a physical barrier to prevent vehicles that may impact with overhead structures are used in accordance with Health and Safety Executive guidance.

As an additional control, and where practicable, sets together with blue coloured road cones and combine must be placed at the end of construction areas. Refer for further details relating to overhead protection in the HSW Moment.

This will serve to provide driver/operators with an additional "reminder" of the need to ensure that boom/body is correctly positioned prior to leaving the construction area. How should be used on any plant that could impact overhead utilities if unrestricted. Refer to Raising the Bar 1 on relating to mobile plant and equipment.

Gates/barriers/exclusion zones/other measures (e.g. physical limiters in cabs for drivers) are hazards as they physically prevent uncontrolled access to areas where present.

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Protection and Maintenance of Temporary Surface Laid Cables

- Dedicated route, with consideration given to reducing the risk of damage, including work activities, vandalism or theft.
- Minimise requirement for relocations or changes to the cable route.
- Clear arrangements for access for maintenance/24hr service outages.
- Identifying and protecting joints and connection points.
- Location of National Highways/Private land boundaries, e.g. wayleaves.
- Nature of the site – topography, ease of unauthorised public access.
- Duration of temporary cable and any planned changes to route.
- Removal of cable and all associated infrastructure immediately at works completion.

Specific arrangements are identified in TSP0420 for the protection of surface laid cables, including the responsibility on the project to:

- Install, protect and remove upon completion temporary bypass cable ducting.
- Provide a safe means of access to and alongside the route of the temporary bypass cable.
- Clear the route of vegetation and other obstructions including in the vicinity of the duct start and finish points.
- Install mechanical duct plugs or other proprietary duct sealing system that can easily be removed (excluding expanding foam within each open end of the ducts, i.e. where there are joints at the ends of the route and shall also seal the cable entry point the chambers where the bypass enters if applicable).
- Manage the route during its life, ensuring that it is not encroached by other works by other contractors or is at risk through theft or vandalism.
- Notify the Service Provider immediately in the event of any theft or actual damage to the bypass cable and provide whatever assistance is required by the Service Provider to repair or rectify such faults.

12 The Highways Safety Hub - Raising the Bar 9 - Utility Avoidance - Version 6 - March 2023

Further consideration for the protection of safety critical cables and infrastructure should include:

- Fenced or barrier area around cross-carriageway duct exit and entry points.
- Suitably sealed ducting to prevent access by rodents at joints/entry points.
- Collared joints to prevent access at points along length of duct (secured with tie wraps to prevent joints separating).
- High visibility weed suppressant matting at cross-carriageway ducts.
- Identification markers to show cable route above vegetation growth.
- Vegetation management plan (i.e. sward cutting / use of growth retardant herbicide along routes and at identified assets/locations).
- Proactive communication of the bypass routes with stakeholders.

All temporary cables, ducting and infrastructure must be removed when the temporary service is no longer required and should be agreed as part of the handover process.

Marking Temporary Safety Critical Cables

To aid identification throughout the life of the temporary cable, the installation of hazard markers is recommended. The hazard markers should be placed at the start and finish of the safety critical cable and at regular points along the route to provide an enhanced visual identifier.

To aid identification in the event of a service outage, hazard board may be used to include identification of cable/service and contact details.

Dealing with Legacy Services

Visual inspections should be made prior to any vegetation clearance, grass cutting or other activities to identify any unmarked hidden services. Where areas are completely overgrown, follow a safe method for clearance by clearing 1m wide swathes at regular intervals throughout the proposed site clearance area. Cut swathes areas downwards in 300mm intervals with a visual check for services and difficult underfoot conditions such as rabbit holes etc. before progressing with works. Where unanticipated surface laid cables are located, action will be required to identify the cable and whether it is live (and the service it carries), it is redundant but potentially live (e.g. post-ended electrical cable) or construction waste (not active).

Arrangements for temporary or permanent protection, i.e. ducting, raising, or removal should be agreed and recorded on drawings, GIS, registers etc. to ensure information is properly documented.

Where a hazard exists that cannot be removed, the use of hazard markers to provide a visual identification of the cable route should be considered; a board can be used to identify the hazard and provide information to any personnel attending the site.

Unexpected surface laid cables and identified hazards should be formally raised with National Highways, to agree permanent removal/rectification to eliminate the hazard for future works.

Email: highways.safety.hub@highways.gov.uk

Raising the Bar 9 – Utility Avoidance April 2024

11 The Highways Safety Hub - Raising the Bar 9 - Utility Avoidance - Version 6 - March 2023

- Dedicated route, with consideration given to reducing the risk of damage, including work activities, vandalism or theft
- Minimum requirement for relocations or changes to the cable route
- Clear arrangements for access for maintenance/other service outages
- Identifying and protecting joints and connection points
- Location of National Highways/Private land boundaries, e.g. wayleaves
- Nature of the site – topography, ease of unauthorised public access, geology and habitats
- Duration of temporary cable and any planned changes to route
- Removal of cable and all associated infrastructure immediately on works completion.

Specific arrangements are identified in TSP0420 for the protection of VRS bypass cables, including the responsibility on the project to:

- Install, support and remove upon completion temporary bypass cable ducting.
- Provide a safe means of access to and alongside the route of the temporary bypass cable.
- Clear the route of vegetation and other obstructions including those in the vicinity of the duct start and finish points.
- Install mechanical duct plugs or other proprietary duct sealing systems that can easily be removed (excluding expanding foam) within each open end of the ducts, i.e. where there are joints and at the ends of the route and also seal the cable entry ports to the chambers where the bypass enters if applicable.
- Manage the route during its life, ensuring that it is not endangered by other works by other contractors or is at risk through theft or vandalism.
- Notify the Service Provider immediately in the event of any threat or actual damage to the bypass cable and provide whatever assistance is required by the Service Provider to repair or rectify such faults.

If the planning activity identifies the location for safety critical cables must be the central reserve, detailed arrangements will be required for safe and immediate access for maintenance activities and 24hr service outages.

All safety critical cables should be recorded within project BIM or GIS models or equivalent, as is the agreed practice for buried and overhead cables. All include the route(s) of the cable and key access points, such as the location of any joints or chambers. This information (drawing(s)) should be accessible/linked with key stakeholder organisations to aid safe planning of their activities.

Standard Practice
If safety critical cables must be routed on the roadside verge, to mitigate the risk of cables are to be sleeved in ducts and raised off the ground or placed on viases.

Temporary safety critical cables should not be attached to the vehicle restraint barrier, or to an existing boundary fence unless it can be confirmed as National Highways property or permission from the landowner has been obtained.

Wherever possible, temporary safety critical cables should not be routed within 2m of the vehicle restraint barrier or edge of carriageway (e.g., to avoid damage through vegetation clearance or placed within VRS deflection zones). The design Risk Assessment and planning activities must consider routing the cable away from the carriageway, along the rear boundary if access for installation and maintenance is possible.

Email: HighwaysSafetyHub@highwaysengland.co.uk



Raising the Bar 9 – Utility Avoidance April 2024

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Further consideration for the protection of safety critical cables and infrastructure should include:

- Fenced or barrier area around cross-carriageway duct exit and entry points
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- Collared joints to prevent access at points along length of duct (secured with tie wraps to prevent joints separating)
- High visibility weed suppressant matting at cross-carriageway ducts
- Identification markers to show cable route above vegetation (grass)
- Vegetation management plan (i.e. sward cutting / use of growth retardant herbicide along routes and at identified assets/locations)
- proactive communication of the bypass routes with stakeholders

All temporary cables, ducting and infrastructure must be removed when the temporary service is no longer required and should be agreed as part of the handover process.

Marking Temporary Safety Critical Cables
To aid identification throughout the life of the temporary cable, in addition to maintaining clear access to the cable, the installation of hazard markers is recommended. The hazard markers should be placed at the start and finish of the safety critical cable and at regular points along the route to provide an enhanced visual identifier.

To aid identification in the event of a service outage, hazard board may be used to include identification of cable/service and contact details.

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Visual inspections should be made prior to any vegetation clearance, grass cutting or other activities to identify any unmarked hidden services. Where areas are completely overgrown, follow a safe method for clearance by clearing 1m wide swathes at regular intervals throughout the proposed site clearance area. Cut swathes areas downwards in 300mm intervals with a visual check for services and difficult underfoot conditions such as rabbit holes etc. before progressing with works.

Where unanticipated surface laid cables are located, action will be required to identify the cable and whether it is live (and the service it carries), it is redundant but potentially live (e.g. pole-ended electrical cable) or construction waste (not active).

Arrangements for temporary or permanent protection, i.e. ducting, raising, or removal should be agreed and recorded on drawings, GIS, registers etc. to ensure information is properly documented.

Where a hazard exists that cannot be removed, the use of hazard markers to provide a visual identification of the cable route should be considered; a board can be used to identify the hazard and provide information to any personnel attending the site.

Unexpected surface laid cables and identified hazards should be formally raised with National Highways, to agree permanent removal/rectification to eliminate the hazard for future works.

Email: HighwaysSafetyHub@highwaysengland.co.uk



What Happens Next...

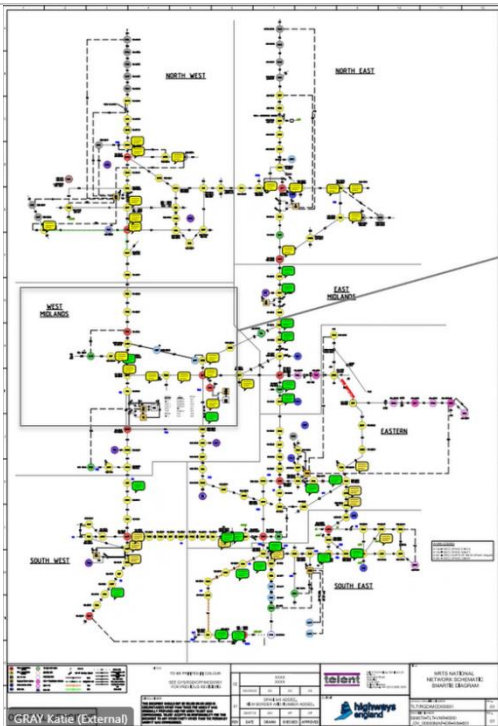
- New Raising the Bar – Protection of Temporary Surface Laid Cables and Identification of Hazards in the Roadside Verge for October 2024.
- Review and update of Raising the Bar 9 for current best practice on avoiding buried and overhead utilities?
- Safety Hub Working Groups – volunteers needed!
- Can we use technology or adopt engineered controls to further reduce risk?
- Engagement with Principal Designers Working Group for discussion, sharing of innovation/best practice in design and integration into RtB26 – Safety by Design
- National Highways to develop process for transfer of information on location/duration of bypass cables between Client and internal/external stakeholders (PCI/PPP Information)
- National Highways to identify and review ongoing maintenance of bypass cables from Scheme to Region

And to eliminate the hazard through:

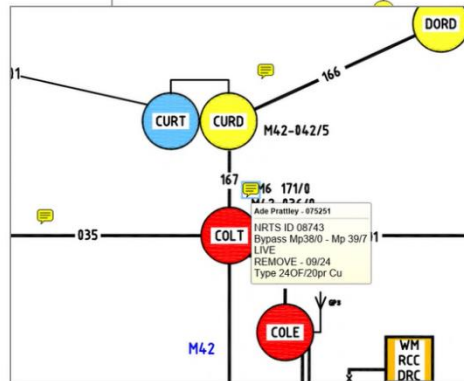
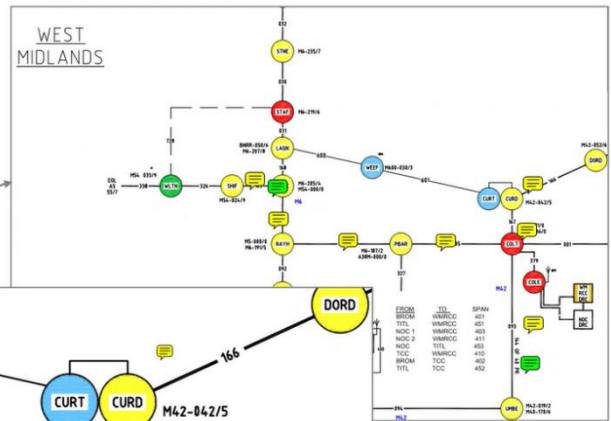
- Design – remove the cable from locations where we have commonly seen damage
 - Dedicated cable route
 - Protected within ducting
 - Raised off the ground
 - Not within 2m of carriageway
 - Not within VRS deflection zone
 - Not attached to VRS
- Planning – engagement with key stakeholders and defined responsibilities for the whole life of the cable, and critically its removal once works are complete (maintenance plan)

And in making things more visible:

- Fenced or barriered / high visibility weed matting at cross carriageway entry/exit points
- Growth retardant herbicides along route
- Hazard Markers – at start and finish points as well as along the route
- Short term identification of hidden hazards
- Unexpected surface laid cables or identified hazards must be identified and agree permanent removed/rectification to remove the hazard.



Bypass Location Interactive Map



Richard W noted – This was to be discussed as SCSLG meeting week of 13th May. RW also noted that reviews are required as to the locations of where these temporary cables are to be located. Due to some of these cables being “temporary” for longer periods that anticipated, due to delayed schemes, etc, then the specification should be reviewed to ensure the ducts / cables are fit for purpose.

o **Matters Arising (PDWG 34 – 25/01/24)**

- CDM Documentation – Mark Lamport to speak with Nina Warminger, this remains outstanding, MLa to chase. MLa
- RW to catch up with Jasson Glasson and David Stone on H&S File Digitisation and feed back to Mark Lamport. RW noted that PCF and 3D are being reviewed for RIS3. RW
- DP to contact NH with regard to identifying if there are any GIS Working Groups – DP had now spoken with Thomas Coleman who is the NH GIS lead, here DP and MLa has raised the issue of the creation of a NH national GIS hazard layer to form part of the H&S File and asset data management system. Thomas had been supportive of this proposal which built on MLa’s presentation at PDWG 34. MLa is to take this forward with Thomas and report back to this group. MLa
- DP/MLa had also raised the issue of the creation of a National Highways Geospatial Working Group to dive greater consistency. MLa to feedback on this also. Similarly, RW to speak with Jason Glasson with regard the setting up of a CIRIA GIS Community. MLa/
RW
- BIM Working Group – RW to confirm with David Stone what the status of this group is? RW
- Safety by Design Template within SQP – DP confirmed this was being picked up within the PDWG DRM Standardisation Group DP
- RW is to contact Will Spur to ensure more a consistent approach is achieved in the update of GD 904 – in respect to Speeds adjacent TM. RW
- o Guidance document for designers that set out the requirements for inspections would be of value. MP will update following discussions with OD. MP
- MP to review examples shown in his Design for Maintenance presentation as they could become case studies in line with the current Lessons learnt – MP confirmed this is ongoing. MP
- Update of RtB 26 should have improved alignment with the needs of OD with improved coverage of Maintenance issues – DP confirmed this is now being managed by the DRM Standardisation Group – who will take this point on board. TG/
DP

- SCSLG information on the Safety Hub website appears out of date, this should be reviewed. RW had raised this issue with John Dowsett. RW noted he has a discussion planned with Phil Farrar to make the site more intuitive and more up to date.
- Capture of residual risk data – use of GIS platform and inclusion within the H&S File – MLa was to update on progress within the agenda item.

RW/
PF

2.0 Presentations for Learning Opportunities

2.1 NSCRG update – Daniel Lacey (National Highways)



National Safety Control Review Group (NSCRG)

Update for the Principle Designers Working Group (PDWG)

May 2024

NSCRG update for PDWG (1 of 5)



Issue	Decision	Summary
Health, Safety and Wellbeing (HS&W) moment	For information	<p>Overview:</p> <ul style="list-style-type: none"> ▪ A newly-published report from the European Transport Safety Council (ETSC) shows that half of road deaths in Europe occur on rural roads. ▪ In 2022, some 10,000 people died on the rural roads of Europe – more than half of all road deaths. ▪ It was discussed that we need to work collectively with other organisations to better understand how we can create a difference and guard against safety initiative fatigue, particularly for social demographics that may historically have been difficult to engage with and influence. ▪ We need to understand the key/recurrent causation factors. Further conversation is to be undertaken with the Road Safety Division, based on the ETSC report, and to understand how NSCRG can support. <p>Source: Reducing Road Deaths on Rural Roads (PIN Flash 46) – ETSC</p>



[Reducing Road Deaths on Rural Roads \(PIN Flash 46\) – ETSC](#)

NSCRG update for PDWG (2 of 5)

Issue	Decision	Summary
<p>Next generation cyber futures:</p> <p>Understanding the relationship between safety and security on a digitally enabled SRN</p>	For information	<p>Overview: In follow-up to the November 2023 NSCRG attendance, this attendance was to follow up with ongoing work since that date, and what our next generation cyber futures capability will be, linking in the Digital Roads Strategy. The recommended way forward involves five key tasks, that are already funded:</p> <p>A. Develop a common vocabulary across safety and security. B. Review of safety and security risk assessment processes to identify similarities and opportunities to streamline. C. To establish a safety and security working group to be a technical authority. D. Develop simulations and case studies to articulate the link between safety and security. E. To have greater consideration of cyber related risks across National Highways through awareness and education campaigns.</p> <p>NSCRG feedback/actions included :</p> <p>Discussion is critical to make cyber security 'important' as it needs to be built into people's everyday vocabulary and mindset. Cyber security does impact on safety, and alignment with existing governance and approach will be critical to successful embedment.</p> <p>A representative of the SES Safety Risk Requirements Team will be a part of the safety and security working group technical authority (Ron T), and a cyber security representative will become a principle NSCRG attendee (TBC) to support alignment and understanding in respective governance. NSCRG attendees will also share and support embedment of this work and support where can.</p>

NSCRG update for PDWG (4 of 5)

Issue	Decision	Summary
<p>Nearside vehicle restraint system (VRS) review programme overview</p>	For acceptance - Accepted	<p>Overview:</p> <ul style="list-style-type: none"> In response to commitments within the 2nd and 3rd year Smart Motorways Stocktake Progress Reports, circa 620km of ALR carriageway has been assessed to identify opportunities where VRS could be removed or relocated Of the carriageway assessed, 33km (5%) was identified as an opportunity for removal or setback. A Safety risk assessment (SRA) (that complies with National Highways requirements) has identified that if removal is progressed there is likely to be a reduction in risk for 4 hazards (benefit), including H135 Vehicle stops in live lane; the SRA also identifies an increase (disbenefit) in risk for verge incident management and rejoining the carriageway hazards. The project consider that the safety benefit gained outweighs the safety disbenefit and recommends the removal of the VRS. <p>NSCRG general feedback/actions included :</p> <ul style="list-style-type: none"> When CD 377 is updated there is an opportunity to enhance advice for designers to clarify that VRS should be a last rather than primary resort, this would then reflect the ERIC principle. Action – project to engage with document owners (TBC). We noted the term 'verge' is currently absent from our communication strategy/campaigns to our customers. Action – NSCRG findings shared with comms to consider the addition of 'verge' into future campaign work (✓). NSCRG noted that 33km of VRS can be set-back or is technically not required, on approximately a 50% ratio, and if the business accepts the projects proposal this will need to be built into a future programme of work as the current NEAR programme is likely to be too far advanced to accommodate further work <p>NSCRG decision: The safety work undertaken was accepted as suitably and sufficiently managing safety risk for all those affected by the proposed activity.</p>

Daniel Lacey (External)

Paul Brown – Questioned the removing of barriers and the risks associated to maintenance workers. DL noted this was discussed and the findings of this discussion topic will be issued.

DL

Katie Harman – Go left campaign details with regard exiting the vehicles to the left and waiting behind the barriers - with this proposal there would be reduced barriers. DL noted this was also discussed and the potential confusion to the public that may arise. DL to share the content, potentially at the next meeting.

DL

David Olorenshaw highlighted that a significant number of operative injuries relate to slips and trips on the soft verge. Additional vehicles on the soft verge will increase the number of hidden ruts. Should we consider some form of semi hardening of this area? DL agreed that this was a valid point / risk, and this is something he will feed back and mention at NSCRG.

DL

Robert Legg commented with regard the VRS requirement - How is the requirement for VRS assessed? Is it a clear cut as a RRRAP assessment or a risk assessment beyond the CD377 requirements? Ultimately who

is responsible for the acceptance of reduced VRS provision if it is not in line with CD377? DL confirmed he would discuss and respond post meeting.

DL

Paul Brown questioned if this would require a departure from standards? DL will discuss and respond.

DL

Neil McKay asked if vehicle restraint system provision had been compared to other countries. He had recently been involved in work opportunities in Italy and their provision of VRS systems exceeds the UK greatly especially in verges. DL would take back to the group for comment.

DL

NSCRG update for PDWG (5 of 5)

home
safe
and well

Issue	Decision	Summary
NSCRG risk register review	For acceptance - Accepted	<p>Overview:</p> <ul style="list-style-type: none"> The NSCRG risk register has recently been reviewed and updated with input from safety risk managers and owners across the wider business. Operations Control Division (OCD) attended to discuss updates to their risks for operational technology performance and availability. Assurance was given for current risk statuses and latest risk treatments, including bringing the Technology Operations Centre (TOC) under the remit of OCD on 1 April 2024, to give end to end ownership and accountability. <p>NSCRG general feedback/actions included :</p> <ul style="list-style-type: none"> NSCRG were content with the updates to the operational technology safety risks and how they're being treated. OCD will gather further data on roadside asset access including whether off network access (ONA) was available, and if it was used. This could prompt action for improved ONA use, reducing roadspace booking requirements which can impact on repair timeframes. OCD will provide quarterly operational technology performance and availability updates to NSCRG. <p>NSCRG decision: The updates to the NSCRG risk register were accepted for finalisation and continued monitoring.</p>

DL would provide an update on the findings of the VRS Review Paper

DL

2.2 HSE's Smarter Regulation Sandbox - Steven Naylor



Background to HSE's Smarter Regulation Sandbox initiative

- Collaboration between HSE & its Discovering Safety Research Programme and the SafetyTech Accelerator
- Supported by a research grant from the Government Office for Technology Transfer (part of the Dept for Science, Innovation and Technology) and its Knowledge Asset Grant Fund
- Opportunities for smarter regulation, regulatory compliance and improved health and safety performance
 - by making relevant digital information/knowledge assets machine readable
 - and leveraging emerging digital technologies
- 14-month study, running from Jan 2024 to Mar 2025
- Working closely with the Smarter Regulation Directorate (part of the Dept for Business and Trade)
 - SRD Open Regulation Platform as a starting point?
- Construction industry focussed, (initially)



- Regulatory requirements**, e.g. HSE regulations, incl. new regulations, other regulations, incl. regulated by other regulators, and in other countries
- Guidance** on how to comply with requirements, achieve effective performance, treat specific risks, e.g. HSE published guidance, HSE practical toolkits, industry guidance
- Technical standards**, e.g. BSI, IEC, ISO, equipment, technology and people certifications, accreditations
- Other business generated rules**, e.g. linked to insurance policies, contracts, procurement
- Performance and compliance data**, e.g. generated through discharge of HSE's regulatory functions, routine h&s data generated by industry, compiled by industry bodies



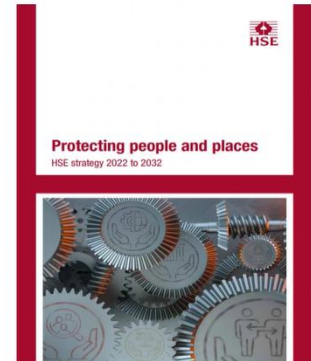
Aims of initiative

Aims to provide

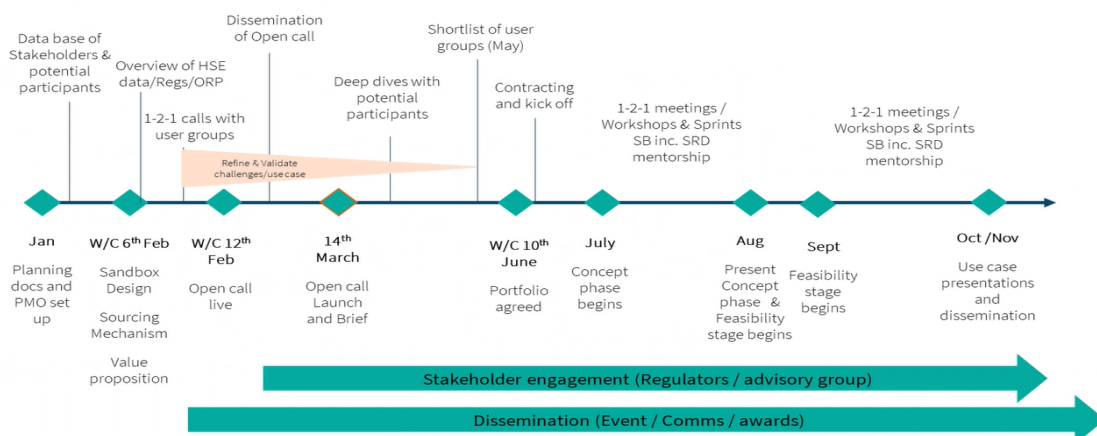
- Construction Industry** with help navigating complex requirements landscapes linked to health and safety, to improve performance, reduce regulatory burdens
- Tech companies serving construction industry** with the opportunity to access smarter requirements information/knowledge to enable new innovative digital solutions to be developed for industry
- Regulators such as HSE** with a safe pro-innovation environment to better understand opportunities to improve regulatory performance through innovation
- Smarter Regulation Directorate** with the opportunity to develop use cases linked to their Open Regulatory Platform (ORP) and Open Regulation Data Standard

Support HSE in delivering on key aims in its ten-year strategy to

- Maintain Great Britain's record** as one of the safest countries to work in
- Enable industry to innovate safely**, supporting its transition to net zero

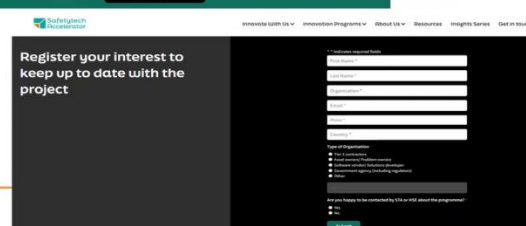
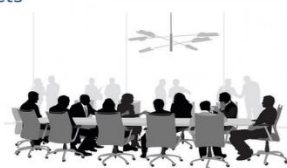
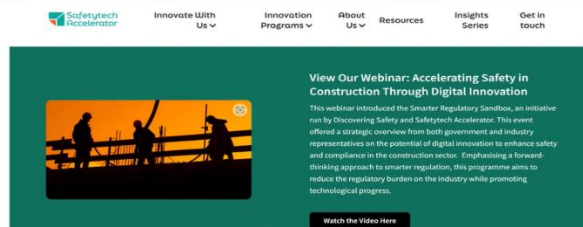


SRS Timeline



Work up of challenge areas to feed into Sandbox

- Marketing and comms activities, social media, blogs, briefing webinars
- Website set up for submissions of expressions of interest
- Targeted reach-out across existing HSE/STA contacts



Sorts of Organisations/Groups reached out to?

- Clients of construction projects
 - Contractors delivering projects
 - Designers/consultants for projects
 - Wider construction supply chain
 - Construction industry bodies and associations
 - Standards, accreditation & certification bodies
 - Assurance service providers
 - Insurers
 - Other regulators, besides HSE
-
- Digital solutions providers (incl. enterprise ehs software vendors, project information management vendors, industrial safetytech vendors)

Industry challenge owners, needing smart solutions



Smart solutions owners, (existing/future), to potential industry challenges



Discussions had?

- Introductory call, brief about project, aims/objectives, scope, benefits of getting involved, timescales/time commitments, ideas re potential challenge and solution areas to feed into Sandbox explored
- Second call, deeper dive into challenge/solution areas suggested in first call, work up of challenge statements for shortlisting

As of 01 May 24 –

- 15 expressions of interest submitted via website,
- 25 approaches via networks,
- 38 intro calls completed,
- 27 deeper dive calls,
- 11 not for them or subseq. dropped out due to resourcing constraints



Discussions had?

Some of the organisations spoken to?



Contractors –

- Colas
- BAM Nuttall
- Kier
- Ferrovial
- Murphy

Clients –

- Heathrow
- Gatwick
- EDF Energy
- Thames Water
- Severn Trent Water
- Lower Thames Crossing

Design houses, Consultancies –

- Atkins
- Bryden Wood
- Arcadis

Standards/Assurance bodies –

- BSI

Industry bodies –

- Association of British Insurers
- Construction Products Association
- Home Builders Federation h&S working group
- UK Water h&S working group

Insurers –

- LV
- AXA
- Zurich

Software vendors, Tech companies, incl.

e-learning –

- STC Inviso
- SysMax
- Pathfindr
- Ockham Hydrogen
- Navitech
- Navirego
- Evercam
- Pillar
- BIMSafe
- Evotix
- Notify Technology
- Oracle
- HAL Robotics
- Fyld
- Plinx
- Procure
- Skillcast

Broad categories of challenge area surfaced through discussions to date

- Navigating multiple/complex “requirements” landscapes, understanding requirements
- Going from external “requirements” to compliant internal operating procedures
- Going from compliant internal operating procedures to documentation of compliant organisational/human performance, incl. health and safety functions and workers at point of works
- Mapping performance data to specific “requirements”, to measure compliance/performance
- Benchmarking performance data against others, to measure performance
- Going from work scenarios to risk scenarios and then onto effective risk treatments, to achieve effective performance



Broad categories of solutions area surfaced through discussions to date

- Open Regulation Platform in its current form, incl. current ORP metadata standard, future iterations of ORP, incl. a more detailed metadata standard perhaps?
- Technology able to mark-up according to a metadata standard, e.g. using a Large Language Model
- Technology able to digitally encode requirements, define rules linked to different requirements, auto-create digital checklists
- Technology to support measurement of performance dynamically, in real time, e.g. IIoT, computer vision
- Technology to support mapping of performance data back to requirements
- Technology to support checking of performance against requirements, rules, e.g. through auto-checking
- Technology to support intelligent recording and organisation of project and performance data, e.g. according to key data and information standards, PAS1192/6, ISO19650/6, UNICLASS risk classification
- Technology able to convert external requirements to internal operating procedures, e.g. risk assessment method statements, management of project h&s files under CDM regulations
- Technology able to serve up relevant knowledge linked to requirements and procedures, e.g. to health and safety functions, to workers at point of works, e.g. going from work scenarios to risk scenarios, risk scenarios to risk treatments, work/risk scenarios back to external requirements and internal procedures



Thanks for listening!


- Questions?
- National Highways led ideas for use cases with its stakeholder networks? –
 - *principal design teams, principal contractor teams, wider supply chain, tech companies you're talking to, digital solutions you're interested in exploring?*

Further information, more detailed chat, contact me @

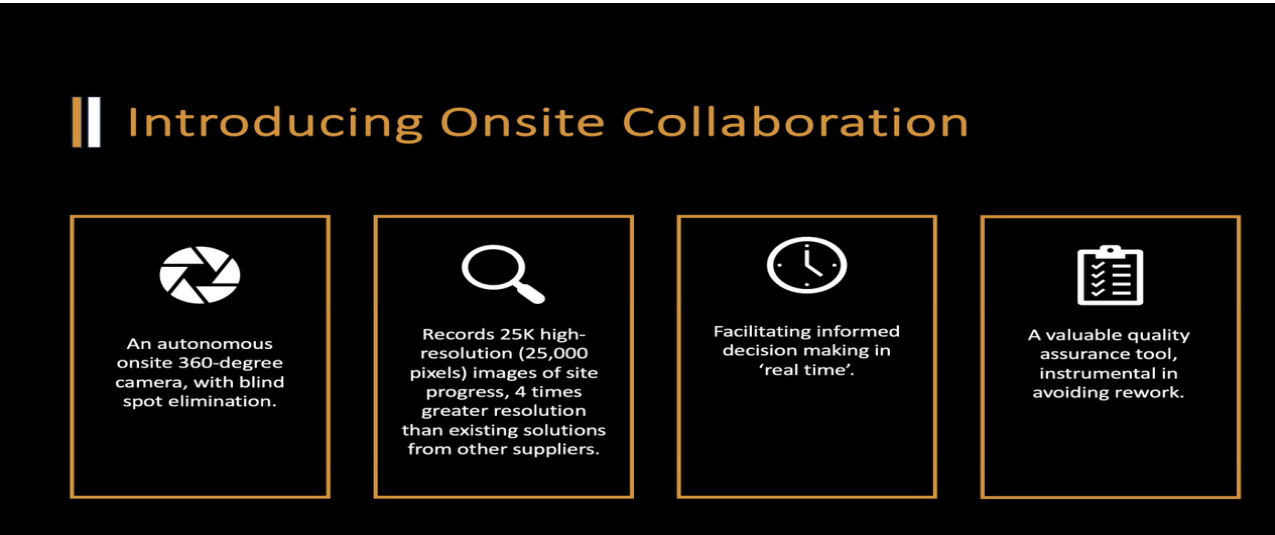
steven.naylor@hse.gov.uk

<p>Martin Sherlock – Was really interested in the outcomes of this work – NH are exploring ways to interrogate their largely unstructured historical lessons learnt data to extract and retain learning. MS asked if HSE will come back to share outcomes and findings? SN indicated that HSE are very keen to establish feedback / lesson learnt from other projects and would be interested in coming back to the group to discuss further.</p> <p>Nick Boyle – asked if the project objectives had been shared with i3P - the infrastructure industry innovation partnership could be a good vehicle - www.i3P.gov.uk This was client led with & contractors and consultants also members. SN indicated contact has been made and this was an area where this initiative should be shared.</p> <p>Pav Singh asked if RW could coordinate projects, so they be developed with HSE - H&S Hub or PDWG? RW indicated he would discuss this further with Tom Merry within National Highways to review how best they can support SN and HSE.</p> <p>Roger Swainston said he felt there is some wider learning across the industry to understand what machine-readable documentation looks like. Steve Williams of NR shared the following links with the attendees:</p> <p>https://www.youtube.com/watch?v=ukzFI9rgwFU https://www.imeche.org/training-qualifications/training-details/ai-for-engineers-in-rail https://learn.nvidia.com/courses/course-detail?course_id=course-v1:DLI+S-FX-07+V1 https://www.deeplearning.ai/courses/ai-for-everyone/</p>	<p>SN/ DP</p> <p>RW</p>
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2.3 Onsite Collaboration – Drew Gardner



The slide features a central box with the text "Introduction to Onsite Collaboration" and "May 2024". Below this is the OC logo and the tagline "Showing you the full picture, wherever you are."



The slide is titled "Introducing Onsite Collaboration" and contains four key points:

- An autonomous onsite 360-degree camera, with blind spot elimination.** (Icon: Camera lens)
- Records 25K high-resolution (25,000 pixels) images of site progress, 4 times greater resolution than existing solutions from other suppliers.** (Icon: Magnifying glass)
- Facilitating informed decision making in 'real time'.** (Icon: Clock)
- A valuable quality assurance tool, instrumental in avoiding rework.** (Icon: Checklist)

|| Clear Lens Technology

Featuring a unique electro-mechanical clean lens system, which protects the lens from dust, rain and even sprayed concrete.



external)

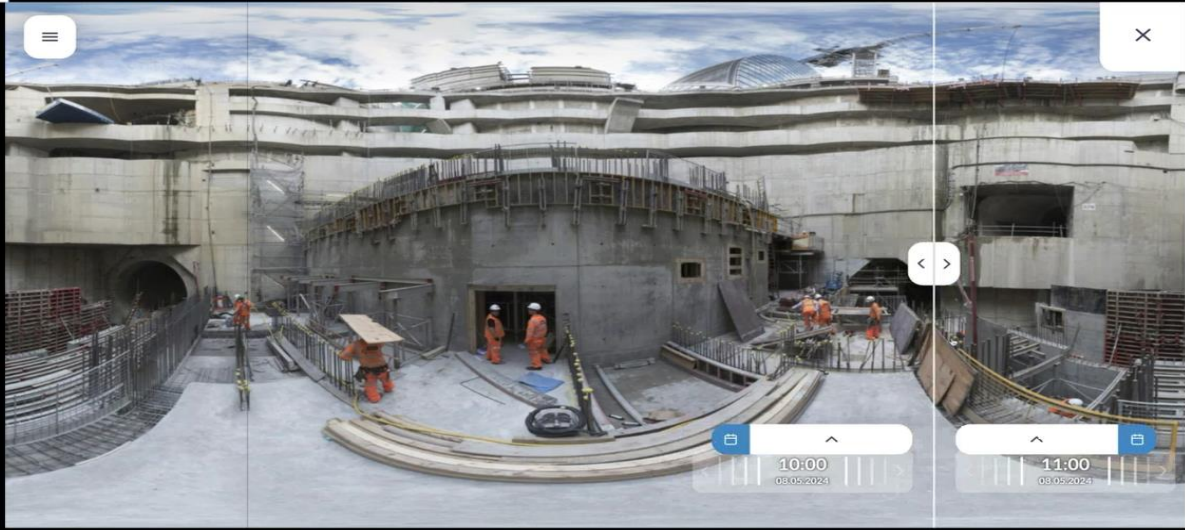
360 Onsite collaboration camera 25k resolution



|| Deep Zoom



Compare Feature Demo



What's the need? (1 of 2)

- **Comprehensive Documentation:** 360 cameras capture the entire construction site, providing a complete view of the surroundings. This aids in comprehensive documentation of the project progress, allowing for a detailed visual record.
- **Communication and Collaboration:** 360 images facilitate clearer communication among project stakeholders, including engineers, contractors, and clients. Everyone can view and understand the site conditions without being physically present.
- **Safety Audits:** 360 cameras assist in conducting safety audits by providing a comprehensive view of the construction site. This helps identify potential hazards, monitor compliance with safety protocols, and implement corrective measures.
- **Control:** Detailed 360 images allow for thorough quality control assessments. Users can zoom in on specific areas of interest and identify any construction defects or deviations from the project specifications.

What's the need? (2 of 2)

- **Project Documentation for Legal Purposes:** In the case of disputes or legal issues, having a visual record of the construction site through 360 images can serve as valuable evidence. This documentation can be critical for resolving disputes or claims.
- **Training and Education:** 360 images can be used for training purposes. New team members or subcontractors can familiarise themselves with the site layout, safety protocols, and specific project details before physically arriving at the site.
- **Time-Lapse Construction Videos:** By capturing a series of 360 images over time, construction companies can create time-lapse videos showcasing the entire construction process. This can be a powerful marketing tool and a visual representation of the project timeline.

|| Benefits

- **Resolution:** Conventional camera has 4k resolution (4000 pixels) whereas our Onsite cameras have 25k (25000 pixels). 1 onsite camera is equivalent to 4 site eye cameras.
- **Quality assurance:** This tool can be used to plan activities on site and allows planned comparisons. Allowing continuous interaction during the build.
- **Wide Field of View:** 360 cameras provide a panoramic view, capturing a complete 360-degree field of view, eliminating blind spots. This allows for comprehensive monitoring of an entire area with a single camera, reducing the need for multiple conventional cameras.
- **Improved Forensic Analysis:** In the event of an incident, the detailed 360-degree footage allows for a more comprehensive post-incident analysis. Investigators can pan and zoom within the recorded content to gather additional details.
- **Streamlined client reports:** These cameras can be used to prepare and present high-quality reports to stakeholders. This enables better oversight of activities, progress tracking, resource planning and management, and the ability to address issues promptly.
- **Valuable tool:** preventing variations, delays, and extension times whilst measuring and tracking productivity metrics.

|| Commercial Value

- Avoiding reworks
- Last month a user was viewing the cameras and noticed that a TBM sump had been erroneously filled in. It was noted that as this was spotted early it did not impact TBM progress.
- Saving unnecessary site visits, the cost of one camera at a cross passage would be covered by just two people using it (based on eight monthly visits by 2 project engineers).
- Valuable for tracking remediation work such as on concrete linings.

|| Testimonies

*"Powerful time saving tool. This **saves me at least two unnecessary trips** to site a week." - Quantity surveyor*

*"These cameras would be great on cross passages, it **would save my team and I two half day visits a week.**" – Project engineer*

*"This would be ideal for paused sites, with potential to **deliver efficiencies.**" – Project Director*

*"I use screenshots from platform for my weekly reports. This system has **attracted the attention of the HS2 board.**" – Project manager*

*"Between the current non 360 cameras and the 360 onsite collaboration cameras, I **would choose the onsite 360 cameras every time.**" – Site Lead*

*"I find this extremely useful. The resolution is like no other. **This is such an improvement from the current solution.**" - Manager*

Katie Harman - Thinking of POP and reducing worker exposure e.g., a TSCO completing drive through checks of TTM. Could this system be linked to assets to notify of defects or issues? DG indicated there was the potential to link the imagery to AI sensors.

DG indicated that the cameras are fully GDPR compliant and could be used in low light environments and provided a number of examples.

3.0 SCSLG Initiatives & Safety Hub Update
3.1 - SCLG Healthier and Safer Design WG – John Pilkington – (WSP)

SGSLG Healthier and Safer by Design

Since last update	Next Steps
<ul style="list-style-type: none"> Met with Andrew Cox to discuss further development of Healthier and Safer by Design Common Intent and start development of performance triangle Agreed Phil Gregson from performance team to attend June meeting to work on performance triangle Discussed risk profiling as method of standardisation and a potential metric to demonstrate risk reduction – potential to include as part of the 3D passport in Operations so it must be completed/reviewed as the project passes through the stage gates Acknowledged lack of readily available data relating to design related ill health regarding site investigation Ongoing discussion regarding Noise, Dust, Vibration & Musculoskeletal issues arising from site investigation activities and engagement with in-house/supply-chain who carry out activities for best practice/where the industry is going. Had catch up meeting with Steve Perkins – for update on Healthy Highways work in the SE, and how design can make a difference 	<ul style="list-style-type: none"> Update final draft of Healthier and Safer by Design Common intent for issue Start development of group performance triangle Look at developing Risk Profile template which can be used across the supply-chain for all designers (Inc. Temp works/TTM etc.) so it must be scalable and usable Continue discussion regarding dust, noise vibration and musculoskeletal issues related to site investigation work.

RW referenced Occupational Health studies by the Alliance and that he has chased Tom George over the sharing of this information. John noted he had a call with Tom and would check the information available. John would also chase the Occupational Health & Hygiene group / Hygiene Partners to gain an update.

3.2 Highways Safety Hub – Update – Katie Gray (Ringway)



Safety Moment Challenging the “As Is” & Designing out Risk Amey

M65 Partial Column removal scheme

- Scope – Partial removal 300+ lighting column above access door, ensuring integrity of circuit
- Temp measures to achieve savings whilst junction scheme is considered due to end-of-life asset, asset led?
- Phased approach introducing additional risk ‘both during and future works’
- Increased future TTM, road-worker exposure and increased cost
- 300 horizontal cuts of vertical columns
- Cut columns and make-shift water proofing
- Future works instruction – redundant columns going forward?



Overview

- **Last meeting:** 2nd May 2024
- **MSK Research Proposal:** Steve Perkins presented a proposal to undertake an industry research project - Musculoskeletal Risk Profiling. Seeking supplier investment – total project value £160k (NH proposing to fund half).
- **SCSLG Community Update:** Positive feedback from members. A request for a Significant Risk Strategy template.
- **M25 Weekend Closure:** Case Study

- **RtB 42 Working on hard shoulders and roadside verges:** Operational focus and feedback – lateral safety zone (IPV, sweeping, Gully Cleansing).
- **Raising the Bar April Updates** - RTB9 – Utility Avoidance (published)
- **Next meeting:** Discussion: Above & Below Ground Services themed workshop
- **New CPF & Guidance:** Collating feedback
- **Communication:** “better links between SCSLG, Significant Risk Working Groups and the Hub...”

KG indicated that the Highways Safety Hub would share the M25 Weekend Closure with PDWG.

KG

Proposed by Occupational Health Group – Review of Musculoskeletal Risk in RIS3



Musculoskeletal Risk Profiling Research
RIS2 Designated Funds proposal

Steve Perkins
Managing Director,
Steve Perkins Associates

Steve Perkins Associates

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Why musculoskeletal risk?

- Over half of all occupational ill-health.
- Over 2M lost working days per year.
- £650M cost to construction employers.
- 54% leavers over 50 say it's because work is 'too physically demanding'.
- Affects 37,000 construction workers.
- Significant manual handling risks in many highways' tasks.
- Loss of experience for industry with skills shortage and recruitment issues.
- Pain, incapacity, risk of poor mental health for the individual.

Steve Perkins
AV scdm (External)

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Why now?

- RIS3 focus on making the most of existing infrastructure.
- This will mean more renewals and maintenance.
- Existing assets not designed with maintenance (or health) in mind.
- Increased manual handling activity and musculoskeletal risk.
- RIS3 will see more musculoskeletal innovation and interventions.
- Currently no sector risk profiling = no way to prioritise interventions.

How will it work?

Collaborative approach over 9 months utilising specialist occupational hygiene and ergonomics resource.

1. Communication and engagement
2. Stakeholder analysis and scope
3. Literature review
4. Focus groups for long list of tasks
5. Surveys to rationalise long list
6. Task and hazard characterisation
7. Analysis and reporting
8. Results communication

Steve Perkins
AV scdm (External)

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What are the benefits?

- Comprehensive understanding of the prevalence, scope and nature of risks.
- Evidence-based decisions on future innovation or intervention proposals.
- Highlighting examples of good practice for wider sharing.
- Insights into current barriers to sharing and implementing good practice.
- Sharing of all results with National Highways and supply chain leaders.
- Supports; Safety priority; Home Safe and Well; SCSLG Significant Risk 2040 vision

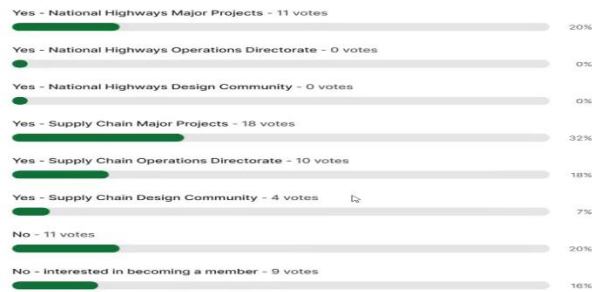
SCSLG Comm Update - Poll

Are you aware of the Safety Hub group?
Multiple Choice Poll 53 votes 53 participants



slido

Are you an active member of the Safety Hub?
Multiple Choice Poll 56 votes 56 participants



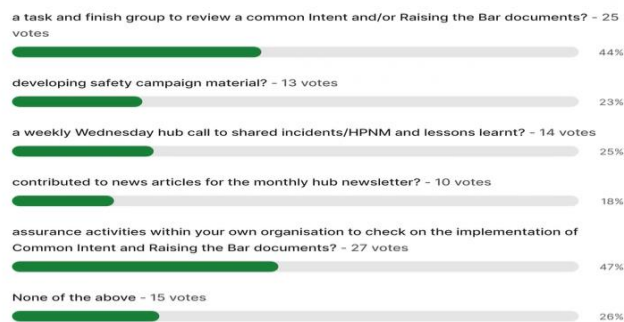
slido

As a Hub member, are you actively involved in a significant risk working group?
Multiple Choice Poll 49 votes 49 participants



slido

In the past 12 months, have you been involved in
Multiple Choice Poll 57 votes 57 participants



slido

What one thing would you suggest to help provide closer links between the SCSLG, Significant Risk Working Groups and the Safety Hub?

Open text poll 38 responses 37 participants

- Anonymous: Better communication, greater awareness of work in progress and collaboration between groups
- Anonymous: Focus solely on implementation of output from SCSLG
- Anonymous: We need to look at a structure in the process when the hub the hub are aligned to make proposals changes to R&R
- Anonymous: Seems to be good links already due to overlapping membership
- Anonymous: Key areas of focus
- Anonymous: Involve Tier 2 and Tier 3 more. Communicate and liaise with them. Get them involved. They have great ideas and will support and raise awareness
- Anonymous: Increased communication. Potential WhatsApp groups?
- Anonymous: Link with HS2 and NR.
- Anonymous: Regular Invitation of hub members to SCSLG meetings.
- Anonymous: More working in parallel to see if ideas are workable and do they need bottom to top input

- Anonymous: More working in parallel to see if ideas are workable and do they need bottom to top input
- Anonymous: Ensure that work if groups are endorsed and adopted by NH area construction managers etc
- Anonymous: More communication
- Anonymous: I would like to be more involved
- Anonymous: LinkedIn ?
- Anonymous: More communication
- Anonymous: Maybe have a section in your meetings to bring in working group's activities
- Anonymous: communication
- Anonymous: More comms. I'm in a working group but didn't realise the link to the hub.
- Anonymous: Communication
- Anonymous: Awareness helps to develop involvement. this session being one of them

slido

Finally, what is the one H&S challenge you are facing in our industry now, that this community can help overcome?

Open text poll 44 responses 41 participants

- Anonymous: Off the shelf technology adoption at low cost.
- Anonymous: How do we actually change? Keep having the same issues.
- Anonymous: musculoskeletal
- Anonymous: Noise and dust
- Anonymous: Greater use of AI
- Anonymous: More consideration to future maintenance
- Anonymous: competencies & behaviours
- Anonymous: Cost versus SAFETY
- Anonymous: People using highways passport
- Anonymous: Culture and behaviour of both Customers and roadworkers.

- Anonymous: Culture and behaviour of both Customers and roadworkers.
- Anonymous: Skilled workforce
- Anonymous: Standard compliance across the industry
- Anonymous: Maintenance
- Anonymous: A raising the bar document on fixed wire electrical inspections would be useful. Construction specific.
- Anonymous: Social changes and behaviours impacting our workforce - influence of members of the public
- Anonymous: Temporary Works awareness
- Anonymous: Eliminating risk from the outset by spending more time looking at impact of designs on safety of the workforce
- Anonymous: setting people to work safely
- Anonymous: Roadworker abuse
- Anonymous: Road user perception



slido

“better links...”

- Significant Risk Working Groups – Named Hub representative
- Hub Newsletter articles – message from SCSLG, WG updates...
- Steering group meeting to clarify roles between SCSLG, WG, Hub...
- Communications WG – Hub website and social media, SCSLG involvement...?
- Above & Below Ground Services WG – Proposal Hub to form scope & membership

<p>Pav Singh asked – If Safety Hub could consider developing a restricted material list similar to HS2 occupational health as part of the research project? Katy noted this would be a good one to take back to the Occupational Safety group linked back to PCF.</p>	<p>KG</p>
<p>Pav Singh also asked if Safety Hub could consider integrating the work of NUAR within the Utility coordination work? https://www.gov.uk/guidance/national-underground-asset-register-nuar - KG would definitely take this on board.</p>	<p>KG</p>
<p>Mark Lawton noted – will take USMP & PUMA to the next F to F Hub Meeting – they are the Utility survey professionals with the utility detection skills.</p>	<p>MLn/ KG</p>
<p>Kate indicated that the Safety Hub would welcome new members to discuss the above topics and other topics and join / share the learning – Safety Hub invite to be shared to PDWG attendees.</p>	<p>KG</p>

<p>4.0 Information and Discussion</p> <p>4.1 Temporary Works Forum – Trends etc – (Robin James - TWf)</p> <p>RJ provided a brief verbal update – a more detailed note is attached to the minutes</p> <ul style="list-style-type: none"> • Quick refresh on the work of TWf • TWf trends <ul style="list-style-type: none"> ○ 3rd On-line training course – EMOS – Scaffolding ○ 45+ Working Groups – Wg 5 Working Platforms Guidance review, ○ Wg 32 – Low Carbon (Excavation), Road Hual /Temp Highways, ○ Mesh fencing guidance, ○ BS5975 – Review ongoing, revised version due soon • TWf – Funding ongoing with university scholarships • Construction Safety week was 6-10th May • No Falls Week 	
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<p>5.0 T&F Groups – Updates</p> <p>5.1 H&S File Digitalisation – Mark Lamport (Arcadis)</p>  <div data-bbox="164 1254 1455 1579"> <p>Principal Designer Working Group Event No 35</p> <p>Health and Safety File Digital Development Mark Lamport, Arcadis</p> <p>9th May 2024</p> </div>  <div data-bbox="164 1635 1455 2072"> <p>Task and Finish Group – Action Summary</p> <table border="1"> <thead> <tr> <th>SUB-TASK NUMBER</th> <th>SUB-TASK DESCRIPTION</th> <th>SUB-TASK ACTION OWNER</th> <th>CURRENT STATUS/CONCLUSION</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Establish which other National Highways group(s) are working on H&S File digitalisation and liaise with them to avoid duplication.</td> <td>Richard Wilson/Jason Glasson</td> <td>Completed. Conclusion: no other NH groups are working on H&S File digitalisation.</td> </tr> <tr> <td>2</td> <td>Establish what progress consultant organisations who are members of PDWG have already made with respect to Health & Safety File digitalisation.</td> <td>Saskia Lear + representatives of PDWG consultant organisations</td> <td>Survey undertaken and results reported previously by Saskia Lear. Conclusion: responses indicated a broad variation with regard to progress on Health & Safety File digitalisation, some appearing to claim H&S Files are being provided in digital form.</td> </tr> <tr> <td>3</td> <td>Establish end-user requirements – clients, operators, maintainers, designers (of future modifications and upgrades), decommissioners/demolishers. <ul style="list-style-type: none"> • What information do they need from the H&S File? • In what format? • On what platform? </td> <td>Mark Lamport (transferred from Andrew Finch)</td> <td>Completed. Conclusion: there appears to be significant misalignment and incompatibility between the way that H&S information is stored, managed and communicated during the pre-construction design and construction stages and the way that the end-users store, manage and communicate H&S information.</td> </tr> <tr> <td>4</td> <td>Identify which of the National Highways H&S File content requirements set out in the H&S File PCF product guidance can be presented in digital form. Is this all or some of the content?</td> <td>Tim Bowes/David Owens</td> <td>Completed. Conclusion: all of the H&S File information required by CDM2015 Appendix 4, and that which is additionally required by National Highways, is capable of being tagged to assets on a GIS platform. 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Task and Finish Group – Action Summary

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6	Identify any specific requirements of the National Highways Digital Delivery and Digital Roads documents which would be relevant to H&S File digitalisation.	Rob Butcher	Completed. Conclusion: the broad inference from these documents is that digital capability of common data environment enables HSF features such as Digital Twins and Handover, but there is no specific guidance or detail. The content is supportive of HSF digitalisation as part of the digital handover asset data process.
7	Produce Outputs and Deliverables	Mark Lamport	Work in progress – currently 80% complete.

What a digital H&S File could look like

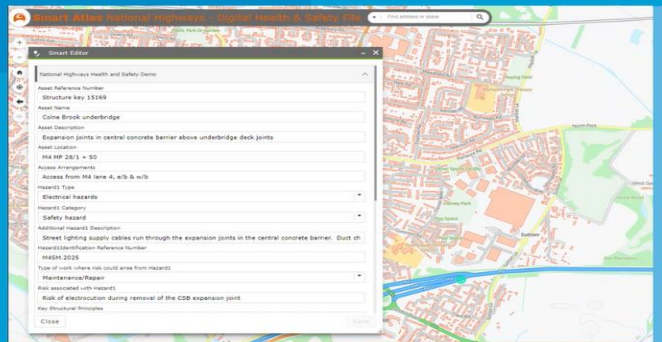
H&S File text

Contents

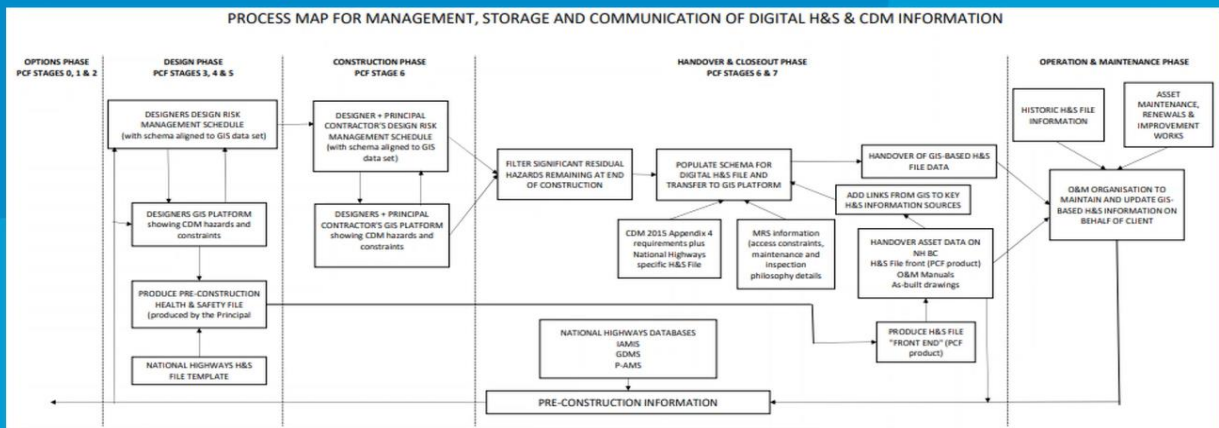
- 1 Introduction 5
- 2 Location and Address of Project 5
- 3 Project Description 5
- 4 Project Client and CDM Dutyholders 5
- 5 Consultants and Specialist Sub-Contractors 6
- 6 Previous Health and Safety Files and Other Information Sources 6
- 7 Digital Health & Safety File Information 6
- 8 Design Information 8
- 9 As-Built Information 8

+

GIS-based data




Process Map



Key Conclusions

- Proof of concept of H&S File digitalisation has been demonstrated.
- Design organisations are already adopting and utilising GIS-based tools and platforms for storing and communicating health and safety information during the pre-construction and construction stages – so this is just an extension into the handover stage.
- Buy-in needed from end-users (eg OD) for adoption
- The current mis-alignment between the design community and the end-user maintenance community appears to be the principal significant challenge to be overcome.

General Recommendations for the H&S File

1. Clearly define what a Health & Safety File is, and is not.
2. Rename NH BC Volume 19 (see screenshot below) from “Handover Health and Safety File” to “Handover Asset Data”.
 
3. Ensure handover asset data is collated during construction in a CDE structure (such as Business Collaborator) which directly maps across to NH BC Volume 19 (with sub-volumes 19.1 – 19.12). The Health & Safety File PCF product should be uploaded to, and held in, NH BC Volume 19.10 (PCF products).
4. Additional clarity is required as to where, ie which sub-volume, all the different types of documents should be uploaded to on NH BC.

Proposed Required Actions

1. Format and content of H&S hazard and H&S File information to be shown on the GIS platform needs to be agreed and standardised – eg hazard marker shape: equilateral triangle?, colour, use of pictograms, hazard descriptor, Design Risk Management Schedule hazard reference etc.
2. Geospatial platform which is to be used to store and display GIS-based hazard information needs to be standardised – eg ArcGIS Enterprise, or other platform?
3. A standardised structure and content for the data schema needs to be produced to ensure that all projects collate and handover significant residual hazard and H&S File information in a consistent way during design, construction and handover phases to feed into the GIS platform.
4. Interface and linkage issues between Design Risk Management Schedule and GIS platform need to be resolved.
5. Alignment with ADMM and ISO19650, Part 6?
6. NH standards and PCF guidance will need to be revised to reflect H&S File digitalisation (but with flexibility for projects already in progress).
7. Establish processes and protocols for updates to the GIS-based H&S information to ensure that updates are undertaken by authorised competent personnel.

Potential Benefits of H&S File Digitalisation

1. Aligns with National Highways digital objectives and aspirations.
2. Aligns with the “Golden Thread” for higher risk buildings.
3. Facilitates access to key H&S-related hazard and other information by those who need it.
4. Provides a single platform for storage of H&S-related hazard and other information (currently there is no central location on the NH databases for H&S-related hazard and other information to be stored).
5. The adoption of digital Health and Safety Files would enhance National Highways ability to demonstrate that the legal obligations of the CDM Regulations 2015 have been robustly complied with in regard to effective communication of health and safety information (both PCI and Health and Safety File information) during the project lifecycle.
6. The digital Health and Safety File information held on the GIS platform would facilitate provision of key Pre-Construction Information for future design and construction projects.
7. GIS-based digital Health and Safety File information can be readily updated (unlike document-based information).
8. Supports and feeds into an ultimate objective to have a digital twin of the SRN.
9. Would support National Highways to deliver their 2040 safety objective.

Next Steps

Needs high level National Highways commitment and support from both Major Projects and Operations directorates to make it happen...

Paul Brown asked – If we produce purely digital H&S files, is there a potential issue around how these are shared with / accessed by consultees as part of the PCF process. Katie Harman noted access permissions for consideration in OD too. MLa responded hopefully hosting and access provisions should enable this, however worth considering in the solution. David Olorenshaw felt that the significant benefit of digitisation is that the GIS system (and its data) can be accessed and updated by designers, contractors, OCD and maintainers. So much better than the current system where data is lost the moment projects are handed over.

MLa

MLa asked Steve Williams if Network Rail are following a similar path – SW indicated there was an intention to provide an electronic format, however, to develop a common format is likely to be problematic. However, he felt there was the potential opportunity for National Highways and Network Rail to come together to share our lessons learned and the development work completed to date.

MLa/
RW/
SW

Pav S highlighted that – HS2 are now adopting ISO19650 and using Safetibase as a method of co-ordinating all information in a single resource, once HS2 issue the next phase of projects they will then be providing Safetibase as the H&S File / Risk Management tool as the base for their hazard information. MLa to follow up on.

MLa

DO noted - One benefit would be a GIS location to store information (which was then managed by the asset owner)

5.2 Suicide Prevention Design Tool – Apologies from Nicola Tweedie. Update by DP.

The draft Suicide Prevention standard has been issued to the Technical Standards committee for consultation previously in January 2024 and February. The expectation is for the standard to be released in late in 2024 / or early 2025. A more detailed update is expected at the July PDWG.

5.3 Knowledge Management T&F Group - (Martin Sherlock – National Highways had sent his apologies)



Knowledge Management Task & Finish Group update

The value of knowledge is only realised when it is used to help improve decision making.

Progress to date

We have a Terms of Reference with key objectives:

- Identify and take action on common goals to capture, share, communicate and apply learning from experience
- Align our work with the PDWG ToR and MP Knowledge Strategy
- Agree initial objectives (from a very long list) for 6 months and review
- To be mindful that learning from failure can be commercially and reputationally sensitive, and consider how to overcome those hurdles

We have a 6-week meeting cycle with a simple agenda, 11 members, and (coming soon) a tracker for actions and outcomes



Priorities (consensus from those who have voted so far)

- List and signpost to resources online we can promote
- Align our categories to knowledge categories to drive consistency
- Gap analysis across HSH and KM Site, to consider gaps to close
- Identify a pilot intervention to transfer design knowledge to project delivery to showcase learning and value of its application
- Improve root cause analysis
- Promote better trend analysis from HART to understand where to focus efforts above
- Obtain better OD feedback on whole life design problems (link to Design for Maintenance group)
- Improve user experience of knowledge sites
- Improve access to and use of historic learning lessons data (Digital Labs PhD student)
- Understand knowledge content from Raising the Bar (picked up by SCLG H&S by Design Group)



Mind the gap: Back to Basics

Online Knowledge Sharing Events taking place 22nd May PM and 23rd May AM

Including a mix of keynote speakers, learning from others' experiences, practical problem solving and bitesize sessions to improve your knowledge practice

Sign up [here](#) or by clicking the banner on the Knowledge Management site home page



Bringing people together to share and learn from each other's experience

https://forms.office.com/Pages/ResponsePage.aspx?id=sp9QKa9_i0-3oJL5bsXebN0IkncDH9ROrXGUJC_Q5BJUOU9KWFVKTzdIVkVGRjNHWkZUUFZZWIZPMY4u

5.4 WLD Safety Shares & Design for Maintenance T&F Group - (Martin Partington – Jacobs)

PDWG Task Group – Safety Shares

Summary on a page for PDWG 9th May 2024

Purpose of the Meeting –

- to review draft shares that have been developed, to get them to finalise/publish state
- to review status of other draft shares that have been potentially identified.

Attendees

- | | | | |
|--------------------------------------|--------------------------------------|--|--|
| ▪ Martin Partington (Jacobs) - Chair | ▪ Rob Butcher (Jacobs) | ▪ Jim Gallagher (National Highways) | ▪ Francis Wu (Arcadis) [Occasional] |
| ▪ Doug Potter (Arcadis) | ▪ Stuart Dawes (National Highways) | ▪ Paul Brown (WSP) | ▪ Pav Singh Phull (Arcadis) [Occasional] |
| ▪ Sophie Gwynne (Arcadis) | ▪ Tim Goddard (Arcadis) [Occasional] | ▪ Andy Stagg (Premier TM) [Occasional] | |

Meetings Summaries -

- 4no Shares Finalised and published - Nos: 33 to 36
- 3no have had 1st review but still in draft:
 - exposure to dangerous compounds in confined spaces
 - NRTS cables temporary bypass leading to communication failures
 - Inappropriate temporary wash down facilities leading to poor driver behaviours
- New members joined

Next Meetings:

- Wed 29th May 2024, 2.30-4pm
- Tues 25th June 2024, 2.30-4pm
- Tues 30th July 2024, 2.30-4pm

Future Designing for Maintenance shares to include some from presentation:

- Access/egress to technology assets
- Access/egress to inspect / replace lighting columns/assets
- Verge/central reserve options to eliminate HAVS, flying stones, and need for TM

5.5 Design Risk Management T&F Group – (Doug Potter - Arcadis)

Principal Designer Working Group Event No 35

DRM Standardisation Task and Finish Group

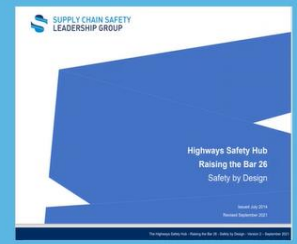
- Terms of Reference / Outputs

Doug Potter, Arcadis

9th May 2024

Terms of Reference / Outputs

- ❑ Support SCSLG Healthier and Safer by Design T&F Group
 - Align outcomes as highlighted by Chair of H&SBD Group
- ❑ Update of RtB 26 in line with the Common Intent
 - Reduce in size and improve key focus / guidance areas:
 - Promote Design Risk Management Standardisation
 - Drive consistent DRM Terminology
 - Align with requirements of OD and MP (end user needs)
 - Incorporate new 5x5 Matrix (for guidance)
 - Review outputs from the A66 Risk Standardisation exercise
 - Incorporate Significant Risk outputs
 - Support the use of GIS and BIM aligned to HSE's BIM4H&S
 - Promote Training
 - RAG List links
 - Review Health and Safety by Design Plan Templates – PCF/3D process
 - Support development of Case Studies / Safety Shares
 - Link with Knowledge Management and WLD & Design for Maintenance T&F Groups



6.0 AOB

6.1 No AOB

7.0 Next Meeting – 18th July 2024 – Atkins Realis Office Birmingham – Meeting will be face to face on a first come basis as places are limited and via Teams for those who can't make it on the day.