

LRSSB works with Midland Metro Alliance to manage risk ahead of extension handover

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Planning for the handover of a multi-million-pound extension to West Midlands Metro looks to have been boosted by a risk assessment process adopted for the light rail sector by the Light Rail Safety Standards Board (LRSSB).

Midland Metro Alliance (MMA), which is constructing the route on behalf of Transport for West Midlands (TfWM), has utilised LRSSB's BowTieXP software system to develop a comprehensive database of assessments as it prepares for the opening of extensions to Edgbaston Village and Wolverhampton Railway Station.

Named after the shape of graphics to illustrate its core principles, BowTie contains eight elements: hazard, top event, threats, consequences, preventive barriers, recovery barriers, escalation factors and escalation factor barriers.

LRSSB was invited by TfWM and MMA to conduct a compliance review their processes against the Railways and Other Guided Transport Systems (Safety) Regulations (ROGS) to help ensure a safe and smooth handover to the operator, West Midlands Metro.

Mark Ashmore, LRSSB safety and assurance manager, said: “MMA is one of the first light rail constructors to adopt the BowTie approach in this way since its introduction to the sector.

“Over recent weeks we have organised a series of workshops for the team at the alliance to help them make the most of the approach that draws on best practice from all stakeholders involved in the project to ascertain the maturity and robustness of the MMA, TfWM, and MMLs processes in delivering the expansion projects.”

Feedback from the workshops has been overwhelmingly positive in respect of effectiveness of the application of the new bowtie assessment process employed by the LRSSB.

“The workshops have also resulted in the production of initial series of Bowtie assessments and risk dashboards. By adopting the system, the alliance has been able to identify the processes and procedures it has in place for allocation of responsibilities, design, construction, testing, acceptance and handover of extension works and assets,” Mark said.

“The exercise has been mutually beneficial to all parties particularly in relation to the lessons learnt. LRSSB are now currently considering the development of best practice reference framework based upon the initial data that has been collated.”

The BowTie risk assessment database is one of several projects currently being developed by the LRSSB that aim to build a central resource and comprehensive framework for management and mitigation of risk.

Peter Cushing, director of the Midland Metro Alliance, who helped to establish the LRSSB in 2019, said: “Safety is our core value at the alliance and we are always investing technologies which can help to streamline this crucial part of the tramway development process”.

Mark added: “By promoting the adoption of the Bowtie assessment process and providing appropriate support for organisations as they introduce the bowtie principle to their safety management processes, we aim to help drive continuous safety improvements across the light rail sector.”