Road Vehicle Incursion

What is the situation?

An encroachment of a vehicle or part of a vehicle over the boundary between Network Rail and any third party at an overbridge or neighbouring site.

There are 3 primary types of area where RVI (Road Vehicle Incursion) is possible. These are:

- Overbridge sites carrying single carriageway roads, dual-carriageway roads and motorways
- Neighbouring sites where road and rail are beside each other
- Areas adjacent to a railway line where vehicles regularly park

RVIs represent both a risk to railway users and vehicle users using infrastructure in close proximity to the railway.

Whilst there can be a large and varied reasons why a vehicle can become errant, the most severe incidents occur when the vehicles are not contained to entering the railway environment.

• Vehicles entering the railway environment
• High number of sites still requiring mitigation measures
• Alerting railway when boundary is breached

RVIs represent both a risk to railway users and vehicle users using infrastructure in close proximity to the railway.

• Safety benefit – stop vehicles reaching the railway
• Cost saving enabling more sites to be mitigated
• Safety benefit – Preventing trains striking vehicles on the track

Specific priority problems

<table>
<thead>
<tr>
<th>Related goal</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide restraint to errant vehicles</td>
<td>Safety benefit – stop vehicles reaching the railway</td>
</tr>
<tr>
<td>Stop vehicles in close proximity to the railway</td>
<td>Cost saving enabling more sites to be mitigated</td>
</tr>
<tr>
<td>Restrain vehicles in areas with little available space</td>
<td>Safety benefit – Preventing trains striking vehicles on the track</td>
</tr>
<tr>
<td>Reduced cost of RVI mitigation</td>
<td></td>
</tr>
<tr>
<td>Automated system to inform railway of incidents</td>
<td></td>
</tr>
</tbody>
</table>

Expected impact & benefits

- Methods of identification for where road vehicle incursions can happen (i.e. technologies that can identify the geographical location of those sites)
- Novel technologies for capturing location and risk data based on road and rail configurations
- Digital recording of risk assessments
- Means of protecting the railway from vehicle incursion, beyond what is currently used
- Remote technology to record and notify following collision / damage of a boundary measure (e.g. a fence)
- Identifying cost efficient re-enforcement measures