

*INTERIM ADVICE NOTE 65/05*

**DESIGN OF VEHICLE  
RECOVERY OPERATIONS AT  
ROAD WORKS**

The Purpose of this document is to provide the Project Sponsor / Designer with comprehensive guidance on the range of issues to be considered and the options available to them when deciding to provide recovery operations within a HA scheme.

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### 1. Introduction

1.1 For several years, the Highways Agency has been providing free recovery within many of its road works sites. Over the years numerous pieces of guidance on the design of Recovery Operations have found their way into various HA documents such as the Trunk Road Maintenance Manual, Specification for Highway Works and more recently the Guidance for Safer Temporary Traffic Management.

1.2 The purpose of this document is to provide the Project Sponsor / designer with comprehensive guidance on the range of issues to be considered and the options available to them when deciding to provide recovery operations within an HA scheme.

1.3 This guidance applies to both motorways and all-purpose trunk roads.

### 2. Why have a recovery service at road works

2.1 Whenever works involve a reduction in the amount of carriageway available to traffic, then congestion is more likely to occur and accidents or breakdowns are more likely to result in stationary traffic. Stationary vehicles in the carriageway represent a safety hazard both for the occupants of that vehicle and other road users. Also, by blocking a traffic lane, the traffic capacity at the road works site is further reduced, thereby causing further delays on the network. Hence it is in everyone's interest to remove that vehicle as quickly and safely as possible. In these circumstances it may be appropriate to have recovery arrangements in place to minimise the disruption caused.

2.2 The provision of a free recovery service should be considered whenever works are likely to involve the following:

- Reduction in the number of lanes available
- Narrow lane widths
- Sections of motorway without hard shoulders
- Hard shoulder running
- Known congestion sites
- Decommissioning of emergency telephones over a significant length of carriageway

2.3 The advice in this note assumes that when the decision has been made to implement vehicle recovery at road works, that the appropriate signing including "Free Recovery starts here – await rescue", is installed.

### 3. Liaison and Planning Issues

3.1 Early planning and consideration of the options available is essential to ensure the right level of service is provided and the cost minimised.

3.2 The Police and Highways Agency Traffic Officers (HATO) should be involved at an early stage of planning to offer advice on the need for and specification of recovery services appropriate to the particular stretch of the network affected.

3.3 The designer should note that local Police forces currently have their own contracted recovery operators and may be able to provide advice and guidance on the performance and capabilities of local operators.

3.4 If not involved with the contract already, the Maintaining Agent should be consulted for advice on the proposed locations of recovery stations and setting down points. These should also be checked to ensure they do not conflict with proposed works

3.5 Where it is proposed to construct, or site, temporary facilities for recovery operators outside the highway boundary, the Local Authority will need to be consulted over planning consent issues, waste arrangements and statutory charges.

3.6 Siting of recovery operations on the local road network (i.e. off trunk road) should be discussed with the Local Highway Authority and written agreement of proposals obtained.

#### **4. Monitoring of Site**

4.1 In order to achieve rapid removal of broken down vehicles, it is essential that an efficient system be set up to monitor the affected network for broken down vehicles throughout the duration of the works. This can be achieved using one of the following:

4.2 **Closed Circuit Television (CCTV)** – Such systems are relatively expensive to install and maintain but are reliable and allow 24hr monitoring and recording of the affected network. CCTV systems can be linked either directly to the Recovery Contractors office or else to a dedicated monitoring station provided by the main contractor. Monitoring stations must be manned for the duration of any restrictions imposed by the works and must be provided with appropriate communications systems.

4.3 **Roving patrols** – These offer a cheaper alternative in terms of set up costs. These require additional recovery or contractors' staff to drive through the works area looking for broken down vehicles. Once found, the patrol reports the location to the recovery base. **Unless roving patrol vehicles are fitted with appropriate impact protection, they should not be used to protect broken down vehicles.** [Advice on appropriate impact protection vehicles is given in "Temporary Traffic Management on High speed Roads – Good Working Practice ( Published by TRL Ltd. On behalf of a group including the Highways Agency)]. On larger sites the use of roving patrols can slow the recovery operation when compared with CCTV and hence this system is not recommended for road works where congestion is currently or likely to become a major problem. Costs will be minimised if the decision to provide roving patrols results in the inclusion of this facility in the road works contract at the outset rather than as an addition to a contract.

4.4 **Watchman** – This is the cheapest of the three systems and relies upon Contractors staff within the site area acting as lookouts for broken down vehicles. This system can be very effective within small sites but has limited value on larger sites. Watchmen can be useful when used in conjunction with roving patrols.

#### **5. Level of service**

5.1 Having located a broken down vehicle, the level of recovery service employed must be appropriate to the risk of accident and /or scale of congestion likely to develop. Again, several tried and tested options exist.

5.2 **Dedicated / On site Recovery equipment** – This is the most costly option as the recovery vehicles and staff are based on site permanently for the duration of the works / restrictions. Response times will be dependent upon the size of site and number of bases but are usually quicker than any other arrangement.

5.3 **Minutemen / Local arrangements** – This system is reliant upon there being locally based recovery services available. The contractor shall make arrangements with a local service provider for a priority call-out system. The required service level including response times and minimum equipment levels will be specified by the Designer.

## 6. Location of dedicated recovery services

6.1 The choice of location for a recovery base station should normally be left to the contractor unless there are particular safety implications that limit the number of suitable locations.

6.2 When choosing the location of the base, designers/contractors should give consideration to the safety of both the recovery operator and the road user. Recovery vehicles should not be required to carry out dangerous manoeuvres on the network in order to exit or leave their base. If located adjacent to the carriageway they should be suitably protected from accidents involving errant vehicles or debris. The use of cones, permanent barriers, temporary proprietary vehicle restraint barriers, etc should be considered as appropriate. Where appropriate, base stations may be protected by location behind bridge abutments / piers provided visibility for access and egress is not compromised.

6.3 The likelihood of congestion / accident will influence the level of response time required and this should be considered at the pre-contract planning stage.

6.4 The designer / contractor should carry out a risk assessment of his proposals before implementation. The Project Sponsor should satisfy himself that this risk assessment is adequate before giving agreement to any location.

6.5 When choosing the location of the base, the designer / contractor should consider use of the following:

6.6 **Motorway Service Areas** – If these are convenient for the works, they offer an ideal and safe location. Local permissions from the operators must be obtained.

6.7 **Local Garages located off network** – These are not appropriate where congestion is likely to block slip roads/local roads quickly preventing access. Response times will be dependent on distance away from site.

6.8 **Hard shoulder** – Sufficient width should be provided to ensure ease of access / egress. Temporary widening of the back of hard shoulder may be required if insufficient width exists. Adequate protection is essential. Consideration must be given to arrangements for recovery vehicles to turn around before return to base.

6.9 **Slip roads** – As with Hard shoulder.

6.10 **Access roads** – Where access roads are provided for emergency access and or gritting purposes, these can offer a useful location for the recovery base provided there is sufficient width to allow their intended use to continue unhindered.

6.11 **Lay-bys – on / off network**

6.12 **Verge Hard standings** - Where there is sufficient highway land, a temporary hard standing behind the hard shoulder or verge may be constructed to accommodate the base station. After completion of the road works temporary hard standings should be removed to prevent their use as general stopping points. In locations where the provision of a hard standing would involve substantial construction costs, consideration should be given to more cost effective alternatives.

6.13 **Abnormal Load lay-bys** – if conveniently located near to the works, these can offer a low cost option. Prior to use, the Police must be consulted regarding likely abnormal load movements during the works period. Protection should be provided as appropriate and signage to deter illegal parking erected.

6.14 **Emergency refuges** – These should be avoided if possible unless the works prevent their use by road users.

**6.15 Service Provider's depots and Compounds** – Local maintenance depots and winter maintenance compounds can be used subject to there being sufficient space and easy access to the network. The Project Sponsor should seek permission for use at a very early stage of planning, as there will be issues of safety and security to overcome.

**6.16 Surplus Land** – Land located within junctions or owned by the Overseeing Organisation can be used subject to the use not interfering with sight lines, visibility splays etc and safe access and egress being possible.

## **7. Setting Down Locations**

**7.1** Once the broken down vehicle and its occupants have been recovered, the recovery operator needs to be able to convey them to a safe location as quickly and safely as possible so that he / she can return to standby ready for the next incident.

**7.2** The designer / contractor should give consideration to the following when deciding upon a setting down location:-

**7.3 Safety** – Recovered motorists should be protected as far as reasonably practicable from the possibility of involvement in accidents with other traffic. Hence, if possible, the setting down point should not be located on a high-speed road or alternatively physical barriers should be provided to give some protection from traffic.

**7.4 Security** – It is important to consider and mitigate as far as practicable any danger to recovered occupants from criminal threat or activity. In remote setting down locations, it may be necessary to provide staff or CCTV and lighting to safeguard them.

**7.5 Arrangements** – At all setting down locations there should be **telephone facilities** to enable recovered motorists to make arrangements for further assistance.

**7.6** In addition to the above requirement the following items are deemed desirable but not essential: -

- a) Toilet facilities
- b) Drinking water facilities
- c) Shelter with heat, light and seating

**7.7. Suitable Locations** - Listed below are typical locations that are currently used as setting down locations for recovered vehicles and occupants. However this list is not exhaustive, and circumstances may arise where a combination of these locations on a day / night basis may best serve the interests of the road users. In addition, local knowledge may be employed to identify unique locations, which fulfil the requirements for setting down recovered vehicles and occupants. The police are often able to advise on this.

- a) **Motorway Service Areas** – At MSA, the facilities for recovered vehicles and passengers listed above already exist. Setting down recovered vehicles and passengers at a service station should be considered whenever a service station is near a road works site. The service area operator should be consulted at the planning stage to ensure that there are no insurmountable problems.
- b) **Local Services or garages.** – Checks should be made to ensure facilities are 24 hour and the local Police should be consulted to ensure there are no security issues.
- c) **Contractors' compound** – Contractors' compounds may be considered as setting down locations where they are situated close to the road works site, and there is sufficient land for parking and other facilities. For safety and security, it will generally be necessary to fence off

the recovery setting down area from plant, materials, and any potential health and safety hazards in the compound.

- d) **Winter Maintenance Compounds** – As for contractors' compounds. Operational times may not coincide with the site times causing problems of access / security.
- e) **Temporary lay-by** – Where there is sufficient highway land, a temporary lay-by behind the hard shoulder may be constructed to accommodate recovered vehicles and passengers. However the construction of the temporary lay-bys may be made impractical by topographical and land ownership factors. After completion of the road works temporary lay-bys should be removed to prevent their use as general stopping points. In locations where the provision of a temporary lay-by would involve substantial construction costs, consideration should be given to more cost effective setting down locations.
- f) **Off route lay-bys** – Where the road works are near a suitable junction, a lay-by on an adjoining road may provide a good location for setting down recovered vehicles and occupants.
- g) **Hard Shoulder** – If this option is selected, some measure of physical protection from passing traffic must be given to the setting down point. The provision of a suitable impact protection vehicle equipped with a crash cushion, or the deployment of a temporary vehicle restraint barrier, are two possible ways of providing such protection. If either of these methods are used, advice should be sought from the Overseeing Organisation on their deployment. Neither method will be able to fully protect a broken down vehicle from damage should a heavy goods vehicle (HGV) impact at speed.

## 8. Leaflets

8.1 The Specification for Highway Works [see Manual of Contract Documents for Highway Works (MCHW) Vol 1] provides for leaflets to be handed out to drivers / riders of recovered vehicles. The leaflets should include a Directory Enquiries telephone number from which motorists can obtain the services of local garages.

8.2 It should be noted that in the Notes for Guidance on the Specifications for Highway Works (NGSHW), the reference under clause NG120 2(v) to telephone numbers of local garages should be omitted and replaced by the Directory Enquiries telephone number. This will ensure that impartiality of both the Police and Highways Agency towards private companies is maintained.

## 9. Vehicles and Equipment

9.1 The Specification for Highway Works (see MCHW Vol 1 Cl 120 and Vol 2 Appendix 1/20) provides a generic specification for basic types of recovery vehicles, equipment and inspection requirements.

9.2 The designer should note that the list of equipment represents only guidance and he is recommended to consult with one of the recognised recovery industry associations for advice and guidance on the latest equipment and capabilities of vehicles. Alternative equipment specifications should be agreed with the Overseeing Organisation.

9.3 The use of Impact Protection Vehicles (IPV) should be considered where vehicle speeds passing the broken down vehicle are generally in excess of 30 mph. This applies to the incident site and also to the setting down point.

## 10. Communications

10.1 The key to an effective recovery system on site is good communication between the relevant parties.

10.2 The contractor should provide an effective 2 way communication system, taking into account any local communication black spots or low signal areas. Secondary “back-up” communication systems should also be provided to ensure continued service.

10.3 A dedicated landline should be provided between the recovery base station / CCTV monitoring station and the Police for use in emergencies.

## **11. Qualification and Training**

11.1 Vehicle recovery operatives should hold appropriate certificates of competence for the tasks they are performing. The Sector Skills Council for the industry has developed National Vocational Qualifications in respect of Automotive Skills. Advice can be gained from the Overseeing Organisation. In addition, vehicle recovery operatives shall hold a current driving licence free of endorsements other than for parking or speeding. They shall also have in place, appropriate insurance covering damage to broken down vehicles while being recovered to a place of safety as well as third party liability insurance.

**11.2 With effect from 2006, all recovery operators working within HA construction sites will be required to be accredited to the National Highway Sector Scheme for Vehicle Recovery at Highway Construction Sites.** As soon as Sector Scheme SS17 is available, recovery vehicle operators on Highways Agency sites will be expected to be registered to the scheme within 12 Months of its availability on the United Kingdom Accreditation Scheme (UKAS) web-site.

11.3 The company employing vehicle recovery operatives shall ensure that each individual is vetted in respect of a police record, which may be audited under the sector scheme.