Hostile Vehicle Mitigation

The threat

Recent terrorist incidents both in Europe and the UK have shown a different method of attack. This method uses the Vehicle As a Weapon (VAW) by gaining speed and entering crowded areas to hit as many people as possible. This style of attack is very simplistic and takes minimal planning to carry out. As the barriers to entry for organising an attack are lower, there are an increasing number of attacks and a much higher likelihood that they will occur in the future. Due to the minimal planning requirement of the method, those with hostile intent may not come to the attention of the security services as they might when attempting to procure materials for the manufacture of an IED (improvised explosive device).

The vehicles which have been used in this form of attack have varied (please see diagram below for illustrative purposes) from a 40t articulated lorry (Berlin attack 2016) to a sports utility vehicle (SUV) (Westminster attack 2017). The largest threat to the UK from this form of attack has been identified by CPNI as the N1G 2.5t 4 x 4 and the N3C 18t Lorry (as used in the Bastille day Nice attack in July 2016). The N1G vehicles can turn corners faster, accelerate more quickly and handle difficult terrain or mount footways with ease when compared to trucks. They are also considerably easier to acquire by theft due to their popularity and as all full EU license holders can drive them they can be easily rented. The 18-tonne N3C lorry has been identified as a threat due to their popularity as delivery lorries in cities and towns meaning there is more opportunity for one to be hijacked and swiftly used in an attack. Their size means that when hitting densely crowded areas they are less likely to become immobilised due to blockage in the undercarriage or wheels.

Type of test vehicle	Vehicle clas- sification and description	Test vehicle mass (kg)	Illustration
Car	M1	1 500	
4x4 crew cab pick- up	N1G	2 500	
Flat bed	N1 (single cab)	3 500	
Day cab vehicle	N2A 7 500 kg 2-axle rigid (flat bed, open curtain side or rigid box)	7 200	
	N2B 12 000 kg 2-axle rigid (flat bed, open curtain side or rigid box)	7 200	
	N3C 18 000 kg 2-axle rigid (flat bed, open curtain side or rigid box)	7 200	

The method of attack for a VAW is to manoeuvre into place behind a protective line (possibly at low speed) then to accelerate to a high speed and to collide with as many people as possible for maximum effect. If the vehicle is stopped, the perpetrators could continue on foot as a marauding attack with either firearms or bladed weapons.

Attack Planning

When using a vehicle as a means of attack, a terrorist will take into consideration the potential payoff in terms of propaganda (including the profile of the target), its economic value, disruption caused or the opportunity to cause mass casualties. Recent attacks in London and

Manchester were crude but achieved high profile propaganda for the proponents.

The ability to reach the target without being detected or stopped on route will be taken into consideration as will the ease of access. Enhanced police presence and road closures will reduce the likelihood of an attack.

Pre-attack planning can range from the complex and detailed, undertaken over a period of time, to something based on the terrorist's familiarity with the target. During the planning phase, there will be a period of information gathering confirming approach routes and point(s) of attack to achieve the desired effect.

The installation of barriers, planters and walls will act as a visual deterrent to a vehicle attack (Cameras, street lighting, an intermittent police presence do not). It should be remembered that the terrorist is not deterred by the prospect of being caught or killed in the act; their intention is to maximize fatalities to gain a reaction.

More capable and experienced groups, with access to the support of sympathisers, will be able to pool the gathered information. They are also more able to carry out more complex attacks, including those using ringer vehicles, false documents and such like. Less capable groups and lone actors launching less complex attacks are more likely to carry out information gathering and planning themselves.

Priority of Locations

The table below shows the priority for the locations. The highest priority to secure is Parliament Street due to events and access of attack:

Loc	Location		
No			
11	Parliament Street	Priority 1	
12	High Ousegate and	Priority 1	
	Spurriergate		
13	Coney Street	Priority 1	
14	Davygate	Priority 1	
20	Finkle Street	Priority 1	
21	Church Street	Priority 1	
22	Jubbergate	Priority 1	
1	High Petergate	Priority 2	
2	Minster Yard East	Priority 2	
3	The Queen's Path	Priority 2	
4	Chapter House Street	Priority 2	
5	College Street	Priority 2	
6	Deangate	Priority 2	
7	Goodramgate	Priority 2	
8	St Andrewgate	Priority 2	
9	Colliergate	Priority 2	
10	Shambles	Priority 2	
15	Stonegate	Priority 2	
16	Lendal	Priority 2	
17	Blake Street	Priority 2	
18	Bootham Bar (High	Priority 2	
L	Petergate)		
19	West Window	Priority 2	
	(Precentor's Court)		

^{*} Priority 1 locations to be installed first in order to protect Parliament Street during events.

Whilst the proposed scheme comprises 22 locations and covers a large area of York City Centre it is recognised that some places are more likely to be at risk from a threat perspective than others. With this in mind the locations have been categorised as either Priority 1 or Priority 2, with 1 being the highest rating.

The basis on which the locations have been prioritised has comprised their position within the city centre, usage, vulnerability, and pedestrian and traffic flow. Given the size of the overall scheme it is not feasible to install all the measures as one continuous programme of works due to restrictions such as budgetary constraints, timing of street closures, community disruption and the holding of local events. Therefore, it is necessary to prioritise those locations which are deemed to be the most

^{*}Priority 2 locations installation order to be confirmed.

vulnerable and could be undertaken within an achievable programme of works which offers the most scope for the protection of crowded places in an iconic city.

The heart of the city is centred on Parliament Street, Spurriergate and Coney Street. These are the main shopping streets in the city and as such attract a large number of visitors. At any given time, there is a high footfall and coupled with dwell time this presents an ideal location for those with hostile intent. Furthermore, many events such as festivals and markets take place on Parliament Street and in the surrounding area and it serves as the focal point for other civic occasions. These occur throughout the year and attract large numbers of visitors, especially at times such as Christmas and during the summer months. Having identified the three streets as those at most risk of attack within the scheme, it resulted in them as being categorised as Priority 1 locations. In order to provide the necessary protection to the area it is necessary to prevent vehicular access by installing HVM measures. Placing these measures at the ends of Parliament Street, Spurriergate and Coney Street does not provide complete protection due to the other streets which also provide access to the area. These routes include Davygate, Finkle Street, Church Street and Jubbergate. It is necessary therefore to install HVM measures to prevent vehicular access to these streets and in turn Parliament Street, Spurriergate and Coney Street. Because these streets are linked directly to Parliament Street, Spurriergate and Coney Street they too must be categorised as Priority 1. They are also streets which experience the same levels of pedestrian footfall and dwell time as Parliament Street, Spurriergate and Coney Street.

St Sampson's Square which sits within the city centre area will also be afforded protection by the installation of HVM measures at the specified locations identified as being Priority 1. This square has significant events situated within its confines throughout the year and would be likely location for those with hostile intent.

Priority 2 locations have been determined on the basis that HVM measures need to be installed at these points however the threat is not as great as those listed as Priority 1. These locations are situated around the periphery of the main city centre and provide pedestrian and vehicular access to those areas identified as being Priority 1. Measures would be installed following the completion of the Priority 1 locations. Priority 2 areas do not have the same volume of pedestrians as those listed as Priority 1, and whilst they are still considered to be vulnerable to

an attack, they are not as attractive a target to those with hostile intent as the Priority 1 locations.