CPNI
Centre for the Protection of National Infrastructure

VEHICLE SECURITY BARRIER SCOPING DOCUMENT

OCTOBER 2010

This scoping document can be used by customers seeking proposals from potential Vehicle Security Barrier (VSB) suppliers. The information provided in this form will help suppliers to offer comparable quotations and solutions that meet both the customer's security needs and operational requirements.

Note: this form is not exhaustive. Details may be omitted (if sensitive) or supplemented where appropriate.

1) Project details
Project name or reference:
Location:
Start date (mm / yyyy):
Completion date (mm / yyyy):
Budget estimate:
Other (e.g. critical milestones, installation opportunities):

2) Contracts (details of any specific contractual requirements)
Type of order / contract (terms & conditions):
Liquidated or ascertained damages required?
Contractor assurances (e.g. ISO 9001, ISO 14001):
Confidentiality agreement required?
Contractor vetting required?
Site induction required?
Other:

3) Security / site assessments	Completed	Required
Level 1 OR (general)		
Level 2 OR (HVM)		
Risk assessment		
User Requirements Document		
Vehicle Dynamics Assessment		
Topographic survey		
Geotechnical survey		
Traffic survey		

4) Supporting information	Available
Site plans	
Utilities diagram	
Building drawings	
Electrical diagrams	
Planning permission restrictions	
Proposal plans	

5) Services required (services to be provided by the supplier)					
Project management		Civil works			
Consultancy		Electrical works			
Design (e.g. product or layout)		Drawings			
Manufacture (e.g. product)		Manuals			
Delivery		Training			
Installation					
Commissioning					

6) VSB impact and performance requirement (hostile vehicle – penetrative attack)		
Provide minimum enforceable blast stand-off distance:		
Hostile vehicle penetration (beyond the rear face of the VSB):		
Maximum allowable dispersal of major debris (beyond the rear face of the VSB):		
VSB resistance to blast:		
Threat vehicle	**Impact angle (°)**	**Impact speed (km/h)**
1,500 kg car (M_1)		
2,500 kg 4x4 pick-up (N_1G)		
3,500 kg flat bed van (N_1)		
7,500 kg 2-axle rigid lorry (N_2)		
18,000 kg 2-axle rigid lorry (N_3)		
30,000 kg 4-axle rigid lorry (N_3)		
Construction / plant (specify):		
Military (specify):		
Other (specify):		

7) Style of VSB											
Passive (static)						Active (moving)					
Perimeter						**Vehicle Access Control Point (VACP)**					
District		Site		Threshold		Single line		Interlock		Final denial	

8) Environmental constraints	
Strong winds	
Drainage / flood risk	
Heavy snow	
Temperature (very hot / cold)	
Ground pollution	
Air conditions (e.g. saline, acidic)	

9) Physical constraints	
Topography	
Ground conditions	
Foundation depth (useable)	
Underground obstructions	
Overhead obstructions	
Space for heavy equipment	

10) Vehicle Security Barrier (state the type(s) of VSB required)					
Architectural bespoke design		Ditch		Modular system	
Balustrade		Door		Multi-function product	
Blocker (re-deployable)		Fence (wire rope)		Planter	
Blocker (retractable)		Gate (retractable)		Wall	
Bollard (fixed)		Gate (rising-arm)			
Bollard (removable)		Gate (sliding)			
Bollard (retractable)		Gate (swing)			
Bund / berm		Integrated VSB			

11) Aesthetics (specify type of finish required)
Integrated (with local architecture / style):
Coating (e.g. paint, galvanised):
Cladding (specify):
Topping (including height):

12) Post-installation (specify after sales support needs)
Warranty length:
Spare parts:
Online / telephone technical support:
Remote monitoring / diagnostics / resolution:
Service contract length:
Emergency call-out option:
Call-out response time (max allowable):
Repair time (max allowable):
Other:

Vehicle Access Control Point (VACP) specific requirements

13) Legitimate traffic (i.e. traffic allowed inside the secure perimeter)					
1,500 kg car (M_1)		Construction		Pedestrian	
2,500 kg 4x4 pick-up (N_1G)		Military		Equestrian	
3,500 kg flat bed van (N_1)		Emergency services			
7,500 kg 2-axle rigid lorry (N_2)		Bicycle			
18,000 kg 2-axle rigid lorry (N_3)		Motorcycle			
30,000 kg 4-axle rigid lorry (N_3)					

14) Frequency of operation / duty cycle (specify the volume and cycles of traffic using the VACP)
Traffic volume per week (estimate):
Peak use (specify day(s) of week):
Peak use (specify hours of the day):

15) Entry / exit (including emergency access)
Number of entry points:
Number of exit points:
Number of entry lanes:
Number of exit lanes:

16) Additional VACP features (not including VSB products)	
Traffic control barriers	
Guard hut	
CCTV surveillance	
Communications	

17) Operation / power source	
Manual (human)	
Electric (single phase)	
Electric (3-phase)	

18) Back-up / power source	
Manual (human)	
UPS	
Generator	

19) Power cut scenario (in the event of a power cut how should the active VSB respond?)	
Open (safety override security)	
Close (secure) **(consider safety & security implications, justification and audit trail)**	
Remain in current position (could be open or closed)	
Manual override option?	

20) Control interface	
Automatic Access Control System (AACS)	
Button (user operated)	
Touch screen	
PC	

21) Control location	
Number of local control points	
Number of remote control points	
Location of master control:	
Location of slave control(s):	

22) Control functions					
Open / close		Monitor (barrier status)			
Emergency open		Monitor (fluid pressure)			
Emergency close		Monitor (fluid temperature)			
Manual operation override		System diagnostics			
Fast operation override					

Additional considerations:

1. Protection for VSB control systems (i.e. versus surreptitious or forced attack);
2. Location of critical services (under / over-ground);
3. Collateral damage (caused by blast effects).

Further requirements or comments:

Provide a copy of this form to the supplier(s) and keep the original as a record of the request.