# Annex A – Highways England Metal Theft Toolkit

| Category: | Measure: | Description: | Considerations: | Evaluation[1]: | | | Deployment Feedback: |
|---|---|---|---|---|---|---|---|
| | | | | Protection | Cost | Utility | |
| **Toolkit Measures: Design phase** | | | | | | | |
| **Cable Identification** | Cable Marking | Cable cores (of copper or other metal) can be marked during the production process. This allows stolen Highways England cable to be identified even when the plastic sheathing has been removed by criminals.<br><br>Methods include adding microdoting or laser marking cable. Laser wire marking provides a means to mark coated wire and multi-core cable with graphics, alphanumeric characters or barcode information allowing for a unique reference of cable and can be used as forensic evidence in police investigations.<br><br>All new Highways England cable will have Highways England markings on the outer sheathing and include 'Highways England' tape running through the centre of the cable. | This technique will provide the police with the ability to identify the provenance of any cable found. It will only apply to new cables. | Moderate | High | High | Highways England has specified 'marked' cables in new supply contracts – outer sheathing will have Highways England marking and Highways England tape will run through the centre of the cable. Current cables can be identified using the Highways England Cable Infrastructure Guide available from the Highways England Network Resilience and Security Team (NRST).<br><br>Pros: Copper marking methods such as those in development by the Institute of Materials, Minerals and Mining (IOM3) will allow stripped cable to be identified. Stolen cable is sometimes stripped at theft sites and therefore unidentifiable as Highways England property if successfully removed. (Assuming no other marking techniques have been used)<br><br>Cons: Laser marking and other production marking processes will add cost to the production process and will likely cause time delays to the manufacturing process.<br><br>It has been agreed at this point there is little benefit in marking each strand of copper but this could be revisited if the metal theft situation changes significantly. |
| **Chambers, Ducting and Troughs** | Location of Chambers | At all new installations consideration should be given to locating access chambers in more secure locations. | This could include avoiding secluded locations such as behind noise barriers and screens which assist in concealing criminal activity. The aim, within Highways England, is for no cross carriageway access and therefore locating chambers in the central reserve should be avoided. | Moderate | Medium | Medium | Placing chambers in intelligent locations is an important consideration from a design perspective as secluded locations are often targeted during repeat theft activity.<br><br>Thefts on the Highways England estate have occurred down roadside banks or behind boarding and taken place out of sight of the main carriageway, often in areas covered by undergrowth.<br><br>Pros: Intelligent chamber locations can help reduce the attractiveness and remoteness of cable infrastructure thereby reducing overall vulnerability.<br><br>Cons: This design activity may include reducing the overall number of chambers, thereby reducing maintainability. |

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| **Chambers, Ducting and Troughs (continued)** | Buried Assets | Assets are directly buried underground. | Maintenance issues should be considered in the direct burial of cable. | Enhanced | Medium | Medium | Pros: This has proven very effective in reducing thefts. No known example of direct buried Highways England cable having been stolen.<br><br>Cons: Buried assets can be costly to reinstate and more difficult to maintain when needed. Cost of direct burying existing cable assets can be very costly, a recent example in the North West region - 12km direct burial = £100,000. Consideration of direct burial should be given at the design phase. |
| | Conceal Assets | Designs should take into consideration the asset location with respect to vulnerability to cable theft. | Where possible, metal assets, in particular cable, should be positioned so they are not in full view and are therefore relatively concealed. | Base | Low | Medium | Whilst this has been tried it has proved difficult to identify suitable locations that prohibit thieves from concealing their activities. |
| | Replace Cables with alternative materials | Consideration should be given to replacing copper cables with aluminium or other metal types where feasible. | Consideration should be given to replacing cable at risk from theft with alternative metal. Thieves find high-value metals most attractive including, usually in the order: copper, lead, aluminium and steel. | Moderate | Medium | High | The WM TechMAC took the opportunity to replace adjacent cables with aluminium when reinstating stolen cable. This proved to be cost effective and prevented further thefts. Partner organisations e.g. Power companies have taken the opportunity to replace high value copper with lower value metal items. Aluminium, at mid-August 2017, stood at approximately $1700/tonne as opposed to copper at $6400/tonne. |
| **Cable Protection** | Cable anchors and duct seals | Fitting of anchors for cables in underground ducting or troughing to hold cable in place to frustrate ease of removal. | Cable anchors can be used in the short term where more robust lockdown procedures will take time. Anchors can be used to frustrate thieves from removing large sections of cable (in troughing) and increases the chances of criminals being caught. Cable bands have been used successfully by Network Rail to secure cabling in vulnerable troughing. | Base | Low | Medium | This measure can be circumvented by metal thieves using motorised or mechanical pulling tools or plant. Whilst heavy lifting equipment has been found with a Highways England metal theft offender it is not believed that the majority of thieves targeting the Highways England estate have access to machinery.<br><br>Pros: Cable anchors are a cheap method of reducing vulnerability of cable in troughing. They are easy to install and can be quickly applied to particularly vulnerable sections.<br><br>Cons: This does not stop cable from being cut so criminal damage can still occur, but significant lengths of cable cannot be stolen and therefore attractiveness is reduced. |

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| **Chamber Access** | Access Covers (lockable lids) | High security access covers specifically designed to prevent the unauthorised physical entry into motorway communications chambers.<br><br>Potential security solutions are divided into 2 categories:<br><br>1) Ant-intrusion – a Ductile Iron Unit manufactured in full compliance with EN 124 2015 and fitted with a security device which is certified as meeting with the requirements of the BRE Loss Prevention Certification Board standard LPS 1175 Issue 7 Level 3 rated.<br><br>2) Anti-intrusion and anti-vandalism to prevent the ingress of flammable fluids - a Ductile Iron Unit manufactured in full compliance with EN 124 2015 and fitted with a security device, plus a Fabricated Steel under-cover which is certified as meeting with the requirements of the BRE Loss Prevention Certification Board standard LPS 1174 Issue 7 Level 3 rated. | Products are fully compliant with the requirements contained within section 1532 Chambers for Motorway Communications Cables Manual of Contract Documents for Highway Works<br>Volume 1 Specification for Highway Works: Series 1500 Motorway Communications.<br><br>Does not unduly hinder maintenance. Relatively simple to fit and maintain. Category 2 (inclusion of steel under-cover) is a measure which requires the use of robust security padlocks (closed shackle). | Moderate | Medium | High | The decision to implement lockable lids was taken by the Collaborative Procurement Working Group. This Group consisted of a range of Smart Motorways Delivery Partners who subsequently carefully considered the options available and undertook trials in developing a product to what was identified as the most appropriate standard to enhance network security, this being BRE Loss Prevention Certification Board Loss Prevention Standard LPS 1175 issue 7 level 3 Rated.<br><br>The Catalogue of Security Equipment, maintained by the Centre for the Protection of National Infrastructure (CPNI), sets out a number of alternate designs of hatches. Details are available from the Highways England Network Resilience and Security Team. |
| **Road Signs** | Replace Metal Road Signs with alternative material | Consideration should be given to replacing aluminium signs with less valuable materials where feasible. | Consideration should be given to replacing road signs at risk from theft with alternative materials | Moderate | Medium | High | Area 13 has recently replaced stolen aluminium signs with signs made out of Di-Bond material which is less attractive to thieves. |

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| **Temporary Cables** | Protection of temporary cables | Experience has shown that temporary cabling for power/CCTV/lighting is at high risk of theft throughout the duration of a project. The cabling is typically laid over ground and is easily accessible to cable thieves. | Consideration should be given to using forensic marking products, CCTV and Intruder Detection Systems (IDS) to provide protection. | Enhanced | High | Medium | Manchester Smart Motorways (MSM) reported 21 cable thefts in a 6 month period in 2015. They engaged in a police operation with Greater Manchester Police and brought in the services of a private security company. They developed a response plan between themselves, the police and the security company and deployed forensic marking products, CCTV and IDS. This resulted in an immediate, sharp decrease in thefts. Since 2015 suspicious activity has continued and some thefts have occurred but MSM's response has resulted in a number of arrests and reduced the overall level of theft significantly."<br><br>Contact the Highways England Metal Theft Lead for advice on developing a joint response plan with the police.<br><br>For detailed pros and cons see the relevant sections further on in the Toolkit. |

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| **Toolkit Measures: Works periods / operational phase** | | | | | | | |
| **Liaison meetings** | Local Highways England - Police liaison meetings | Highways England project managers can arrange bi-monthly or quarterly liaison meetings with local police, British Transport Police and Maintenance Service Provider (MSP) representatives to discuss local aspects to the metal theft problem and devise suitable patrol and response strategies. | Metal Theft liaison meetings are useful for developing key relationships with local enforcement and maintenance personnel, all who have a key role to play in countering metal theft. They also allow Highways England to highlight to the police times when a scheme or section of road will be most vulnerable to metal thieves. The Highways England Metal Theft Lead should also be asked to attend to provide information regarding current and historic metal theft activity for the given area.<br><br>Benefits can be gained by visiting local scrap metal dealers (SMDs) with the police before work starts. SMDs should be told when the works are due to commence and shown examples of Highways England cable in case thieves try to cash it in at a later date.<br><br>There can also be a benefit in showing SMDs examples of the cable you will be using. Producing a leaflet showing the cable can be an effective method of doing this. | Moderate | Low | High | Pros: Making police aware of local issues will allow them to direct resources in an efficient manner. It will also highlight the issue of metal theft as a serious concern. This is important as metal theft is often at the bottom of the priority list for local police forces.<br><br>The police are more likely to put a higher priority on cable theft if they understand the safety aspects of the thefts. So highlight the dangers created for road users by the loss of equipment such as MIDAS, signs and signals, lighting and CCTV. There's also the danger to our workforce who could, for example, trip over disturbed troughing lids or fall down exposed chambers.<br><br>A presentation covering the H&S implications of metal theft is available from the Highways England Metal Theft Lead. |
| **Staff briefings** | Metal Theft briefings for sites staff | Site staff can be briefed on the Metal Theft threat by a Highways England project manager during site induction to raise awareness of the problem. Topics such as suspicious metal theft activity, theft reporting process, recent incidents and simple mitigations advice can be briefed and discussed. Safety issues should also be covered, such as what to do in the event of encountering cut cable, or thieves. | The Highways England project manager should contact the Highways England Metal Theft Lead to obtain an up to date understanding of the level and type of threat Metal Thieves pose in the area of work or activity. This will help ensure that briefings are relevant and rely on up to date information. | Moderate | Low | High | Schemes including Metal Theft issues in staff briefings believe it increases awareness of the issue and enhances the security culture of the workforce. |

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| **Theft Reporting** | Reporting of thefts | All thefts, attempted thefts and suspicious activities should be reported immediately through the appropriate channels and where appropriate to the Police and RCCs/ROCs/NCCs. All incidents should be reported to the Highways England's Metal Theft Lead in accordance with CHE Memo 350/15 – Reporting of Metal and Plant Theft. | The accurate recording and reporting of incidents is key to Highways England understanding the full impact of metal theft on its estate. Furthermore the accurate reporting of all forms of suspicious activity in addition to thefts is also key to the ensuring the Police gain a full understanding of criminal activity in a particular area. | Enhanced | Low | High | Areas where rapid and detailed reporting of thefts occurs consistently have seen suspects apprehended quickly and instances of thefts stopped.<br><br>Experience has shown the use of a simple theft response plan involving H.E. staff, control rooms and the local police will significantly improve police response to thefts and will enhance the likelihood of arrests being made and thefts reducing.<br><br>The Highways England Metal Theft Lead can provide guidance on how to produce an effective theft response plan. |
| **Signage** | Deterrent Communications | Range of printed materials in printed form specifically designed for field deployment to deter hostile activity. | These materials have been developed following extensive research by the Centre for Protection of National Infrastructure (CPNI). Details are available from the Highways England Network Resilience and Security Team. | Base | Low | High | Developed by CPNI to disrupt hostile reconnaissance.<br><br>Pros: Cheap and proven method of deterring criminals.<br><br>Cons: N/A |
| | Awareness posters | Metal Theft posters can be created to raise awareness amongst local staff and contractors in key areas such as control centres, compounds, or on site. | Metal Theft posters should be easy to read and impactive. Posters can cover key items such as: 'Reporting incidents, making staff stand out, Personnel protection, and how to minimise the temptation of thieves'. Posters can also highlight Highways England's partnership working. E.g. with local police forces. | Base | Low | High | Pros: Posters are a cheap way of highlighting the metal theft problem to staff and contractors. Short and sharp key messages can improve awareness of the metal theft issue. |
| **Access Control and Physical site security** | ANPR security barriers | An Automatic Number Plate Recognition system placed at the entrance to a site compound can control access. | These systems will allow in vehicles on an approved list. Systems can be expensive. | Base | High | Medium | Pros: Automatic access control system.<br><br>Cons: Expensive system. Previous Highways England run ANPR access control systems have been expensive to repair when damage has occurred. In one instance a guard was used to replace the ANPR system as the cost was less in the long run.<br><br>Cantilever arm barriers, as opposed to full fences, controlled by ANPR will not stop determined thieves. Approved barriers can be found on the CPNI catalogue of security equipment. |

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| **Access Control and Physical site security (continued)** | Permits for staff and vehicles | Staff are given permits for working on site. Approved site vehicles are badged with a hi-visibility sticker or permit. | It is likely staff and contractors are already given permits for working on site as a matter of course. If not permits allow for rapid identification of those approved working on site.<br><br>Local and regional police forces have recommended the use of a Hi-visibility stickers on all approved site vehicles. This allows the police to rapidly identify approved vehicles on a scheme whilst driving at speed on the motorway/major trunk road. Police can then focus efforts of those not displaying these signs. Details of the exact permit stickers must be distributed in a controlled fashion to relevant stakeholders e.g. local police forces, motorways policing groups and Highways England traffic officer service. | Moderate | Low | Medium | Pros: Personnel permits are a quick way of identifying those who should have access to schemes sites, compounds storing cable. Hi-vis stickers for use on cars are a quick and cheap way to identify approved vehicles.<br><br>Cons: Personnel permits need to be administered centrally and the permits need to be of sufficient quality to withstand forgery. |
| | Hired security personnel | Security guards are hired to manage access control to a site be it a compound or vulnerable site scheme location. Deployment of security staff to guard sites and undertake random patrols of designated areas. | Security guards with access to local CCTV feeds can be used to control those entering and exiting a compound or site. Human guards will provide more of a deterrent than ANPR barriers. The security staff must have a sound knowledge of the estate to be patrolled and a robust response and escalation facility. | Enhanced | High | Medium | Vigilant security guards have facilitated the arrest of metal thieves targeting the Highways England estate. This can be a costly option. It is most suited to schemes where a 'site' exists (e.g. smart motorway implementation schemes) or where a high priority route is subject to repeat or high impact offences. |
| | Fences | Installation of fences and gates to create compounds to house / protect cable access infrastructure. | A range of fence types (chain link, weld mesh, palisade) exist that can offer a base level of protection. Details of options can be found in the Catalogue of Security Equipment published by the CPNI. | Base | High | High | Chain link fences offer limited delay to attack and should only be considered for basic boundary fence applications. Chain link does not host vibration-based alarm systems well. Weld mesh and palisade fences provide a higher deterrent than chain link fences and crucially provide a better platform for Perimeter Intruder Detection Systems. |

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| **Access Control and Physical site security (continued)** | Padlocks | Padlocks provide a certain level of deterrent and a minimum standard should include a closed shackle design with a high security mechanism and lock cylinder. | There is a wide range of security rated padlocks on the market. Details can be found in the Catalogue of Security Equipment published by the CPNI. | Moderate | Low | Medium | Enhanced security padlocks have proven effective in deterring and displacing metal thefts. Access to padlock keys should be managed through a robust key control system. Details are available from the Highways England Network Resilience and Security Team. |
| **Smart Motorways All Lanes Running** | All Lanes Running | ALR removes the hardshoulder so thieves can no longer park there to remove assets.<br><br>100% CCTV coverage improves detection possibilities and acts as a further deterrent. | When cable or other assets are stolen ALR CCTV footage should be reviewed for any evidence of the theft.<br><br>Costs are low as systems are already in place for operation of ALR.<br><br>However, access to our assets for ALR maintenance could also provide easier access for thieves. | Moderate | Low | High | Experience has shown the majority of thefts are carried out with access gained from side roads, bridges or across fields but not from the motorway itself. A minority of thefts do occur from the motorway so there is value in reviewing CCTV footage. |
| **Cable storage** | Cable storage and installation | Cable should be intelligently located and stored securely so as to minimise the opportunity of theft from thieves. | Compounds and site locations where significant amounts of metal and cable are stored often become targets for thieves. Large amounts of cable, e.g. on drums of 500/1000m should be stored inside palisade fencing. Small amounts of cabling, where possible, should be installed in containers with strong locks. e.g. .shipping containers.<br><br>For compounds, inward facing movement detectors and audible alarms may be used.<br><br>Metal and cable items should only be brought to site when required for installation. This minimises the time assets are in the more vulnerable location on the road side. | Moderate | Medium | Medium | |
| | Redundant cable storage and disposal | Redundant cable should be stored in the same way as cable awaiting installation and not left lying around. | The theft of scrap cable is a persistent risk and there have been incidents where redundant cable left exposed on the SRN has been stolen by opportunistic thieves. This cable may also alert the thieves to the presence of live cable in the near vicinity which may then also be stolen. All scrap metal should be disposed of promptly in accordance with the Highways England scrap disposal process owned by the Highways England's Technology Convergence Team. | Moderate | Medium | Medium | |

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| **Forensic Marking** | Forensic marking products | Forensic marking devices applied to access points that mark offenders therefore linking them to the crime scene.<br><br>A range of marking products which provide a spray or grease chemical code on protected items which uniquely identifies the owner are available.<br><br>Providers, in some cases, also include signage which can act as an additional deterrent to thieves.<br><br>Products are available in both grease and spray form. | Forensic marking providers run databases which include information on thefts, marked assets and operations. These can be bought as part of a package. Providers offer both annual payment for a full 'managed service' whereas other providers product can be bought with one off payments for use in single tactical deployments and require no on-going investment.<br><br>Spray is often considered preferable due to contamination issues with grease. If grease is to be used, it should be deployed in specific locations in conjunction with the Police. Forensic markings can be revealed under a UV light or microscope depending on the product. | Enhanced | Medium | Medium/ High | Pros: BT and NWR in particular advocate this measure and have stuck with forensic marking due to the deterrence effect of the branding used and the benefits of accessing the databases. Providers can also deploy covert cameras and forensic bombs in tactical deployment.<br><br>MSM had great success with reducing thefts after entering into an agreement with a private security company who use forensic marking products extensively. Working with this company and the police, a number of arrests were made and thefts fell significantly.<br><br>One off cost. No long term buy in required for some products. Used by various Police forces, residential home owners, businesses, local governments, schools and hospitals in the UK, New Zealand and The Netherlands.<br><br>Cons: Licenses can be expensive and widespread application would be a major investment for some products and services. Retroactively marking installed cable and items would most likely be prohibitively costly (but not for new cable).<br><br>Contamination issues have been seen using the grease version which has made it unpopular amongst some users. |
| **Enhanced Vigilance** | Deployed staff asset monitoring | The vulnerability of roadside assets can be enhanced through additional surveillance provided by those Highways England and contractor staff travelling the network. On road resources have a good understanding of what is normal and what is suspicious. | The monitoring process is flexible such that vigilance can be increased or decreased on a regional basis depending upon available intelligence.<br><br>Schemes should:<br>- Consider briefing staff on maintaining vigilance for suspicious activity.<br>- If thefts are occurring, consider arranging enhanced vigilance from on-road assets including Traffic Officer Service patrols, Traffic Safety and Control Officers and Highways England contractor staff. | Enhanced | Medium | High | A number of attempted thefts of Highways England cables have been thwarted in the West Midlands region by on road resources identifying suspicious activity associated with cable theft including bogus highway workers, suspicious vehicles and pedestrians on the motorway. Similarly, in the South West a Traffic Officer Crew identified workers on the verge and sought guidance from the RCC. It transpired that the road workers were expected to be on site but this form of challenge is considered good practice. A number of days later Police vigilance on the same stretch of road resulted in the arrest of a key metal theft offender. |
| | Leafleting Campaigns | Targeting properties adjacent to hot spot areas with leaflets to raise awareness and enhance vigilance. | Important to co-ordinate this with police intelligence. BT have undertaken leafleting campaigns and house to house visits. House to house visits have been more productive than leafleting. | Moderate | Low | High | Leaflets have been deployed by BT in hotspot metal theft areas in conjunction with Crimestoppers. BT Engineers undertake house to house visits to raise awareness. |

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| **Alarms & Detection Systems** | CCTV (and ANPR) | CCTV where coupled with intruder detection systems offers an effective tool to identify suspicious behaviour. | This should be considered as part of an integrated security system including monitoring and a prioritised response by either Highways England / Maintenance Service Provider/NRTS staff or the Police.<br><br>Requires specialist installation although the Maintenance Service Provider has the technical skills to do this. CCTV is good for covering remote buildings such a relay rooms and compounds. Portable cameras are available and can be moved on as projects and schemes require.<br><br>Systems can range from approximately £1000 to £10,000 + for some of the more complex systems.<br><br>Systems should be available to security guard locations rather than being stored and reviewed later. Systems should allow rapid download of images for the police to take away if necessary. | Enhanced | High | Medium | Pros: CCTV can cover large areas, provide and has been proven to deter thieves.<br><br>Cons: These measures can be both technically challenging and expensive to install. It is recommended that these options be considered for mission critical locations including Highways England operated CNI assets.<br><br>Providers can also offer additional technology such as loud speakers that can be connected to CCTV and used as a deterrent. |
| | Intruder Detection Systems (IDS) | Chamber lids can be fitted with a contact alarm that alerts Highways England operators of a breach. | This should be considered as part of an integrated security system including monitoring and a prioritised response by either Highways England/Maintenance Service Providers/NRTS staff or the Police. Details of HMG approved systems can be found in the Catalogue of Security Equipment published by the CPNI.<br><br>Alarm companies have recently been used and are often have 24/7 control rooms with good links to Police forces. | Enhanced | High | Medium | Does not unduly hinder maintenance. Most suitable for critical locations.<br><br>Pros: Effective way of detecting individuals attacking cable infrastructure.<br><br>Cons: False alarms cause frustration within Police forces. Requirement for 24/7 monitoring when installed. This can be negated by using firms providing a managed service. |

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| **Alarms & Detection Systems (continued)** | Passive Infra-Red Detectors (PIR) | Detects the presence of an intruder by the disruption of one or more infra-red beams. | Requires a suitable monitoring system to be instigated. The installation of PIR should only be considered as part of an integrated security system alongside CCTV and a prioritised response by either Highways England/Maintenance Service Providers/NRTS staff or the Police. Requires specialist installation. | Enhanced | High | Medium | Does not unduly hinder maintenance. Most suitable for critical locations. Limited current deployment feedback. |
| | Perimeter Intruder Detection Systems (PIDS) | Fences can be enhanced with Perimeter Intruder Detection Systems (PIDS) designed to provide advance warning of an intruder gaining access to a secure area. | Some fences do not host vibration based alarm systems well. Details of HMG approved systems can be found in the Catalogue of Security Equipment published by the CPNI. Requires specialist installation. | Enhanced | High | Medium | All detection systems demand a compromise between detection capability and false alarm rate. Installation of a PIDS must not be taken in isolation. To be effective it must operate as part of an integrated security system. This may include physical measures such as fences and barriers, providing both detection and delay together with CCTV and security lighting providing alarm verification. |
| **Whistle Blowing** | Crimestoppers | Campaign with reward targeted to hotspot areas to get public engagement and generate intelligence on thieves. | Generates a significant amount of media interest through the Crimestoppers brand. Intelligence is sent to both Police and organisations contacts. | Moderate | High | High | Pros: Has proven highly successful for BT in generating arrests. BT have funded specific regional contracts.<br><br>Cons: Costs are high and this service would only be appropriate for major hotspot regions. |
| | Highways England Whistle Blowing procedure | Staff who suspect possible staff involvement in criminal activity associated with metal theft should report their suspicions to their line manager or use the Highways England Whistleblowing procedure. Service providers should consider using their own policy. | Regular Portal and other internal media articles or Tool Box Talks also ensure the issue is kept upper most in the staff minds. | Moderate | Low | High | |

**1 - Evaluation Key:**

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| **Protection** | The level of protection afforded to an asset by the given measures | |
| **Enhanced** | Enhanced level of protection: | Makes the cable or metal asset a difficult and / or time consuming target for thieves |
| **Moderate** | Medium level of protection: | Provides a moderate level of protection / deterrence to reduce target attractiveness |
| **Base** | Basic level of protection | Has only a limited target hardening impact which may not prove a deterrent in isolation |
| **Cost** | The cost of purchase and installation for the given measure | |
| **High** | Expensive £££ | - |
| **Medium** | Moderate cost££ | - |
| **Low** | Relatively cheap £ | |
| **Utility** | The ease of maintaining the given measure once installed | |
| **High** | Straightforward to maintain | No real impact on the maintenance process for the asset(s) covered by the measure |
| **Medium** | Some maintenance challenges | Some adverse impact on the maintenance process for the asset(s) covered by the measure |
| **Low** | Difficult to maintain | Substantial adverse impact on the maintenance process for the asset(s) covered by the measure |