INTERIM ADVICE NOTE 63/05 (Revision 1)

ASBESTOS MANAGEMENT APPLICABLE TO THE STRATEGIC ROAD NETWORK

This Advice concerns the management system to be adopted to comply with the Control of Asbestos Regulations (CAR) 2006.

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1. INTRODUCTION

1.1 Changes to regulations have set requirements for the control of asbestos in places where people may work. Following wide consultation within the Highways Agency (HA), the HA Board have agreed an action plan for the Agency to meet its obligations under these regulations as an employer, a government procurer and an asset manager. The strategy places duties on staff with responsibilities for HA premises, HA projects and for the HA estate, including privately financed trunk road sections. This interim Advice Note (IAN) sets out the strategy, the duties and the actions needed for compliance with the new Duty to Manage, Regulation 4.

1.2 The *Control of Asbestos Regulations (CAR) 2006* came into force on 13 November 2006,bringing together three previous sets of Regulations covering the prohibition of asbestos, the control of asbestos at work and asbestos licensing. These requirements specifically address Regulation 4, the Duty to Manage asbestos in non-domestic premises. The regulations are contained within Statutory Instrument 2006/2739. All Statutory Instruments may be downloaded free of charge from the Internet:

http://www.opsi.gov.uk

1.3 The Health & Safety Executive (HSE) have published a number of advisory documents to explain and complement the regulations. The most applicable to, and the basis of, this IAN are: *A Comprehensive Guide to Managing Asbestos in Premises (HSG 227),*. The *Approved Code of Practice The Management of Asbestos in Non-domestic Premises (L127)* and *Survey, Sampling and Assessment of Asbestos-containing Materials (MDHS100)*. See also the link to HSE's asbestos web page at http://www.hse.gov.uk/asbestos/information.htm.

1.4 **The Duty to Manage under Regulation 4**

Regulation 4 is not substantively changed from the 2002 regulations. This regulation places a specific legal duty on every person to identify materials containing asbestos in any premises they own, occupy, manage or for which they have a responsibility, to assess the risk of those materials and to ensure that a management system is in place that responds correctly and appropriately to the materials present. The Duty to Manage places "Duty Holder" responsibilities on owners/lessees of premises and those with any contractual obligation for maintenance or repair to ensure suitable and sufficient assessment is carried out to determine whether asbestos is or is liable to be present in premises. They must also record that assessment, manage the condition of Asbestos Containing Materials (ACMs) and inform every person likely to disturb ACMs in the course of their work. The regulation also places a legal duty of co-operation with the Duty Holder to comply with these duties on every person.

A set of specific work methods are also found on the HSE's web site as 'Asbestos Essentials Task Sheets'

This duty to co-operate will involve HA and its 'Providers' supplying information on Asbestos Containing Materials (ACMs) in its communication and electrical equipment to Duty Holders in non-highway managed premises such as the Regional Control Centre (RCC) at Perry Barr and Police Control Centres (PCC's).

1.4.1 Duty Holder responsibilities for the Highways Agency are as follows:

a) The HA Network controlled by HA and managed by HA's Providers - The primary responsibility as Duty Holder rests with the Highways Agency. The HA's General Asbestos Management Plan tasks 'Providers' to produce Action Plans and implement other process control measures. The HA will therefore audit and monitor Providers and

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carry out regular reviews of the General Asbestos Management plan and the effectiveness of the compliance measures.

b) The HA Network controlled by Private Finance concessions - The primary responsibility as Duty Holders rests with Private Finance concession holders. They are provided with the Highways Agency system documents for information and they can adopt these in their entirety. Alternatively they will be requested to provide details of their strategy to comply with Regulation 4 of the CAR 2006. The HA will monitor Private Finance concession holders' compliance, via the HA's current auditing and monitoring procedures. Where HA implement schemes on Private Finance controlled routes, HA will implement its procedures for these schemes and pass completed scheme Health and Safety Files to the concession holders for incorporation in their Asbestos Management Plans if appropriate, that is, when any asbestos containing materials are affected and remain in assets for which the concession holder is responsible.

1.5 Control of Asbestos Regulations 2006 (CAR) and Construction (Design and Management) Regulations 1994 (CDM)

It should be noted that the Asbestos Management System described in this Interim Advice Note specifically addresses the HA's Duty to Manage asbestos in premises under Regulation 4 of the Control of Asbestos Regulations (CAR) 2006. Regulation 4 came into force on 21 May 2004 under the 2002 Regulations.

The system, therefore, does not supersede any of the requirements in the following Departmental Standards and Advice Notes, which give effect to the other health and safety regulations shown:

* SD10 Construction (Design and Management) Regulations 1994 Requirements for Health and Safety Plan
* SD11 Construction (Design and Management) Regulations 1994 Requirements for Health and Safety File
* SA8 Use of Substances Hazardous to Health in Highway Construction

CAR 2006, however does supersede earlier asbestos Regulations from 1987 and amendments, including 1992, and imposes regulations including the Duty to Manage asbestos in Regulation 4.

The management system for asbestos and asbestos containing materials (ACM) will create an individual action or management plan for each highway related asset. This plan serves two fundamental purposes:

- it will be the means whereby potential release of asbestos fibres during work activities or other disturbance is managed and controlled, and

- it will be the document to inform designers, planning supervisors, principal contractors and other contractors of the location or presumed location of ACMs

The system therefore complements existing requirements under CDM and will form the basis for ensuring that asbestos issues are included in Health and Safety Plans and Files, design risk assessments and COSHH assessments as detailed in the above standards.

It should be noted that revisions to SD10, SD11 and SA8 will be required to bring in reference to CAR 2006 and new asbestos management systems. A particular example arises in SA8, which currently refers to an option to use asbestos cement pipes for surface water drainage

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construction in Annex D. Asbestos cement products were finally banned from use in the UK in 1999.

1.6 **Definitions**

1.6.1 **Premises**: includes every asset within the highway boundary and also infrastructure and other assets outside the highway boundary associated with the highway where the current or future Provider organisation is responsible for maintenance or design work on these assets as part of the contract between the HA and the Provider organisation.

Assets within and outside the highway boundary include but are not limited to: Roads, Bridges and other high structures, tunnels, masts, communications and electrical items, control rooms, out stations, transmission stations, maintenance compounds, depots, stores, workshops and picnic sites (including toilet blocks).

1.6.2 **HA Providers**: Includes Maintaining Agent (MA), Maintaining Agent Contractor (MAC), Regional Maintenance Contractor, TechMAC, NRTS Contractor, ECI Contractor, Framework Contractor and other Consultants, Contractors and Suppliers.

1.6.3 **Area Providers**: Are all the above Providers which are working under the direction of the HA's Traffic Operations Directorate Area Performance Managers or other managers responsible for maintenance and improvement schemes.

1.6.4 **Major Projects Providers**: Are the consultants (Framework or otherwise), contractors and their designers (ECI or other Design and Build Contracts) working under the direction of the HA's Major Projects Directorate Project Leaders. It would normally be expected that the consultants would be the Management Plan and Action Plan Owners up to the point where an ECI contract was awarded, at which point the responsibility transfers to the new HA Provider.

1.6.5 **Highways Agency General Management Plan (GMP) Owner**: The Traffic Operations Directors nominee as stated in the Annex No 1, GMP.

1.6.6 **Provider Plan Owners**: These are expected to be relatively responsible, senior members of the Provider organisations and part of local management teams e.g. for Area Providers they would be Network Managers or Highway Structures Managers. For Major Projects controlled schemes, it would be the Planning Supervisor. Competency will be ensured through attendance at an appropriate training course in the Duty to Manage. All Area/Scheme Management Plans require acceptance and/or approval by HA's Area Performance Managers.

1.7 **General responsibilities**

The annexed asbestos management plans and processes set out HA's policy and strategy for compliance and detail requirements to be adopted by its Providers. These documents also include review and approval processes by HA and its Providers to ensure HA's compliance with the regulations. The plans and processes cover all scheme, routine maintenance and emergency incident (including fly tipping) activities.

1.8 **Annexed documents**

Annex No 1:	General Management Plan (GMP)
Annex No 2:	Generic Format for Area/Scheme Specific Management Plan (A/SMP)
Annex No 3:	Generic Asbestos Action Plan (AAP)
Annex No 4:	Process for Dealing with Third parties
Annex No 5:	Asbestos Control Check List Associated with All Work Activities

Annex No 6: Process for Works following an Emergency Incident or Fly Tipping
Annex No 7: Asbestos Survey Specification
Annex No 8: Management Flow Chart No.1
Annex No 9: Management Flow Chart No.2
Annex No 10: Management Flow Chart No.3
Annex No 11: Case Studies of Asbestos Containing Materials Discovered in Highway Infrastructure

2. BACKGROUND

2.1 Approximately 3,000 people die each year from asbestos related diseases, 25% of those people once worked in construction. Regulation 4 places a specific legal duty on employers to identify materials containing asbestos in any premises owned, occupied, managed or for which they have a responsibility, to assess the risk posed by these materials and to ensure that a management system is in place that responds correctly and appropriately to the materials present.

2.2 Asbestos Containing Materials (ACMs) are known to exist within the highway boundary in roads and drainage, highway structures and associated buildings and other assets outside the boundary. Generally these ACMs are considered to pose a relatively low risk, particularly with respect to maintenance and improvement schemes on the highway, but there is still a legal duty to manage this risk. Road tunnels are considered to pose the highest risk for highway works and are addressed accordingly in the management system. ACMs can only pose a risk to health if the asbestos fibres become airborne and are then inhaled. If ACMs are in good condition and not disturbed a risk does not exist. Wherever possible, ACMs should be left in place and managed. For highway works many ACMs are likely to fall into the category of “leave in place and manage”, subject to scheme specific works, which may require their removal. This is because most known ACMs are either buried or encapsulated, considered to be in good condition and unlikely to be disturbed by routine maintenance activities.

2.3 **Asbestos Materials**

Asbestos is a term used for a number of naturally occurring minerals, which have crystallised to form long thin fibres and fibre bundles. There are three main types – chrysotile, amosite and crocidolite – referred to as white, brown and blue asbestos respectively. On HA’s network assets under consideration they are most likely to be combined with other materials as asbestos containing materials (ACMs) for fireproofing, waterproofing, mastics, insulation, boards and asbestos cement ducts, pipe and sheets.

ACMs may be present if the highway asset was constructed, manufactured or refurbished before 1999. The use of Blue or brown asbestos materials was banned in 1985 and the installation of asbestos cement was prohibited in 1999, as was the importation, supply and use of all forms of ACMs. However, it cannot be assumed the installation or construction of highway assets after these dates do not contain ACMs, as equipment or products held in stock may have been used but it is a reasonable assumption that if the highway asset was constructed or installed during the year 2000 or after, ACMs should not be present.

3. HIGHWAYS AGENCY STRATEGY FOR COMPLIANCE

3.1 The management system, annexed to this IAN, detail the policy, procedures and strategy to be adopted by HA’s Providers for the highway network premises. This management system addresses the Duty to Manage the risk from exposure to asbestos occurring, or presumed to occur, in all network assets and facilities in terms of location, condition, sampling/testing and assessment of ACMs during maintenance, emergency work or improvement work to all assets. The management system requires HA’s Providers to update risk assessment when the results

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of monitoring show this to be necessary. The management system will ensure this information is passed onto those Providers likely to disturb known or potential ACMs. The management system includes regular monitoring and review procedures for HA to measure the effectiveness of the compliance measures. It is anticipated that an audit group will conduct reviews of the management system under the guidance of the GMP Plan Owner.

3.1.1 Audit procedures for the management system will also be incorporated within existing Health and Safety audits, including best practice reviews, undertaken on HA's Provider organisations. E.g. for Area Providers this will be undertaken through the Traffic Operations Contract Compliance Audits (TOCCA), or other similar existing or future arrangements. Results should be fed into the review process in 3.1 above.

3.1.2 Monitoring of independent Health and Safety audits of management systems, undertaken on Private Finance Companies managing HA routes and bridge crossings, will be undertaken by the Departments Representatives.

3.2 **Highways Agency Staff**

It should be emphasised the risk from asbestos to HA staff involved in highway related activities is considered to be very small. Nevertheless this risk must be managed.

3.2.1 Staff working away from the office and visiting highway and highway related premises, as defined in 1.6 above, are to comply with the following requirements:

a) Staff involved in carrying out inspections in or on enclosed parts of highway structures, buildings or other assets, must ensure an asbestos risk assessment has been undertaken. Staff should consult the HA's Provider responsible for the assessment and obtain advice on the risk and location of known or potential ACMs, so that a safe working procedure (SWP) can be adopted. A SWP procedure would normally consist of not disturbing these ACMs or any dust or debris in the immediate vicinity. These visits should only be necessary for a very limited number of HA staff at scheme preparation stage. Staff should never visit schemes in progress without being aware of and complying with the principal contractors Health and Safety plan, which would be expected to include induction training for visitors.

b) Staff involved in visits to highways or highway associated land or other facilities or assets which do not involve carrying out inspections in or on enclosed parts of highway structures, buildings or other assets should take sensible precautions and not disturb anything that is not clearly concrete, brick, metal, timber, glass etc. This includes accumulations of dust and debris, particularly in tunnels, which could contain ACMs

The HA's Staff Site Safety Manual and Health and Safety Notices are under review and will be amended to include the above requirements.

3.2.2 Traffic Officers/Managers should be adopting the following guidance:

Generally the risk of exposure to asbestos fibres on the network is extremely low but specific attention is drawn to accidents in tunnels, where damage is sustained to the tunnel, and overturned HGV's, or smaller vehicles, carrying construction demolition waste/debris or any bagged material spilt onto the carriageway, which could be hazardous waste containing asbestos materials.

Elsewhere staff should not attempt to physically move vehicles involved in traffic accidents that may have damaged asbestos containing materials, on or off the carriageway. These will be highway assets that are clearly not concrete, steel, glass etc. Typically these could be surface

mounted verge communication/cable troughs. Other possibilities are vehicle fires under overbridges that could have permanent deck formwork with ACMs. The fire could release asbestos fibres. Staff should keep well away. Similarly staff should not attempt to get involved in moving over height vehicles trapped under bridges unless the deck soffit is clearly concrete. Similar advice also applies to vehicles impacted on bridge abutments that could be clad in anything but concrete.

Staff should keep well away from clear-up operations by the Term Maintenance Contractor (TMC) / Incident Support Units (ISU's) following an incident. HA require the TMC/ISU to examine suspected debris and make the decision whether it is appropriate to bring in a specialist removal contractor where the presence of ACMs is considered a possibility. Staff should never touch or disturb accumulations of dust or debris, particularly in tunnels.

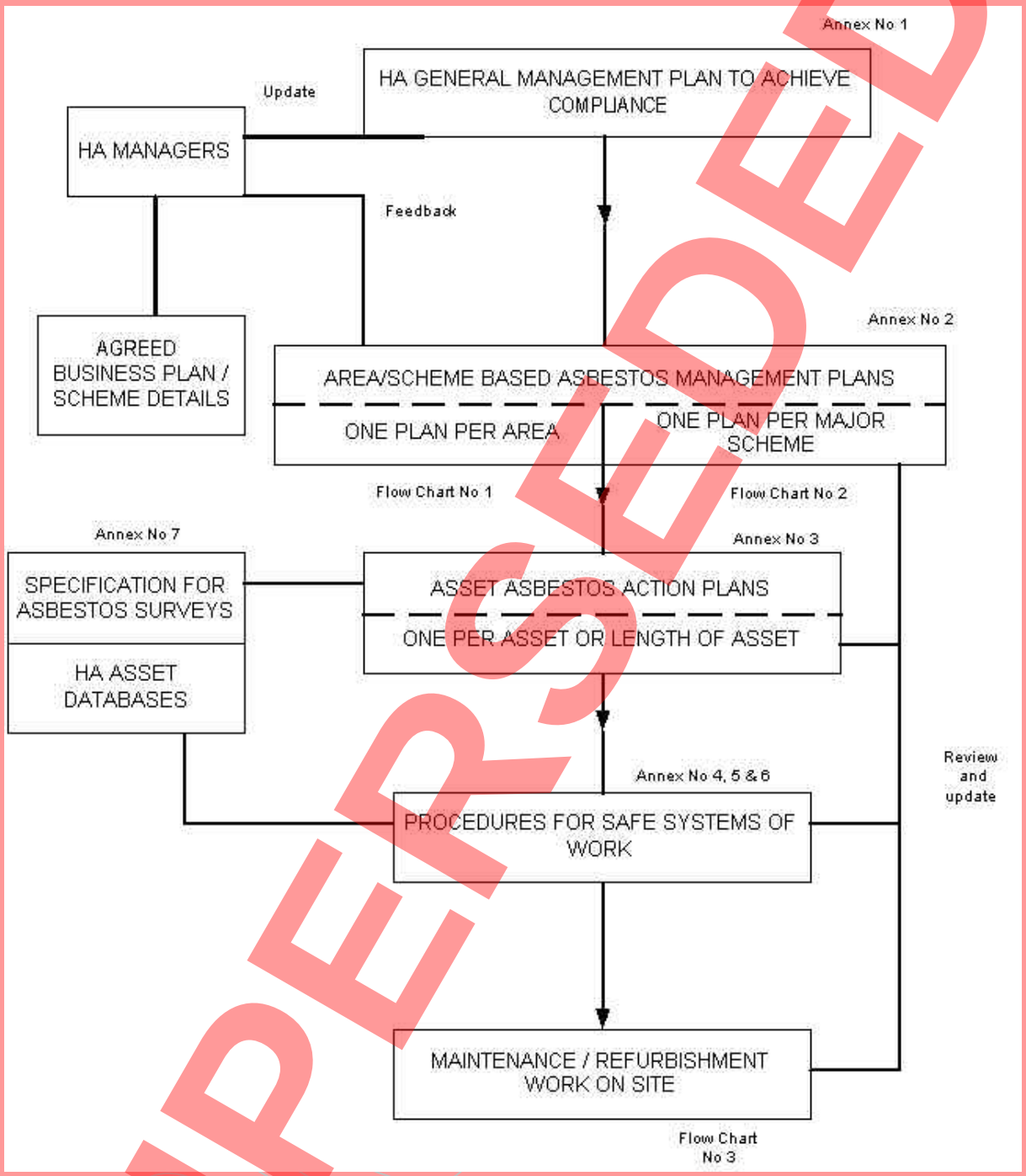
The above requirements have been incorporated in Traffic Officer/Manager procedures.

3.3 **The Highways Agency General Management Plan (GMP, Annex No 1)**

3.3.1 The GMP is the HA controlled plan that states how HA will discharge its Duty to Manage under Regulation 4. It is an ‘umbrella’ plan outlining how HA’s Providers will be given the responsibility for, and tasked to produce, action plans in compliance with the regulations. The GMP identifies the likely locations of ACMs within the highway infrastructure, the prioritization of the compilation of AAPs for individual assets or route lengths affected by current and future work programmes and annual percentage targets for network coverage. The GMP also covers requirements for process control, monitoring and review, management of asbestos action plan (AAP) records and training requirements for Providers. The GMP owner is the HA’s Traffic Operations Director and his/her nominee will be responsible for annual review of the GMP to measure the effectiveness of the compliance measures.

3.3.2 The system structure for HA asbestos management is shown in the following Figure No 1:

Figure 1. System Structure for HA Asbestos Management



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3.3.3 Training

The arrangements for training for HA's Providers are given in section 4.5 of this IAN. The training was to allow Providers to deliver the Duty Holder responsibility in conjunction with the HA. HA's nominated Plan Owner, Major Projects Project Team Leaders and Traffic Operations Area Performance Managers were therefore requested to make every effort to attend the training in order to discharge their responsibilities. The general awareness and areas important to HA staff were at the beginning of the training programme, after which HA staff were free to leave if they so wished as the programme continued into more detailed aspects.

3.3.4 Included Assets

The GMP applies to all assets likely to be included in future work streams where the possibility exists to disturb known or potential ACMs. Currently these work streams include:

Targeted Programme of Improvements (TPI)
Major Maintenance involving the highway carriageway or structures
Developer generated Section 278 agreement schemes
Minor schemes for highways and structures maintenance
Local Network Management Schemes (safety, environmental etc. related)
Technology projects for traffic management and driver information systems
Routine maintenance as a regular ongoing programme of repairs, preventative maintenance, renewals and upgrading
Principal or Special Bridge Inspections and other intrusive inspections/investigations
Emergency works, including Road Traffic Accident damage, fires and unforeseen safety defects
Winter maintenance
Equivalent work to Maintenance Compounds and other buildings

3.3.5 Excluded Assets

The HA assets not directly covered by this IAN and the GMP are:

3.3.5.1 Building assets on the HA estate

The building fabric and associated assets and infrastructure are managed separately by HA's Human Resources Services Directorate (HRS) through their Business Improvement and Estates Division (BIED) and regional Property and Facilities Management (PFM) teams who have developed their own management system. For highways assets housed in these buildings/infrastructure where ACMs could be disturbed by maintenance/improvement/demolition activities, e.g. communications equipment, relevant information on this highway
equipment is to be passed to BIED for incorporation into their facilities asbestos action plans.

Facilities included are:

All HA regional offices
The Yate Store, Bristol and its replacement in Sharpness, Gloucestershire
All current or future Regional Control Centres (RCC's)
All Traffic Officer out stations
All other current or future facilities managed by PFM

3.3.5.2 **Land and properties acquired by the HA under blight or Compulsory Purchase Order (CPO)**

Typically this is land and property owned and maintained by HA as a result of past or future road schemes. This land and property is managed separately by HA's Major Project Directorate (MPD) through their Lands and Delivery Support Division (LDS) who have developed their own management system. MPD Project Leaders or their 'Providers' preparing highway schemes that utilise this land and property should contact LDS, either Julie Macavoy or Jane Cresswell for relevant asbestos action plan information on these assets for incorporation into Health and Safety Plans.

3.3.5.3 **Other properties managed by a third party**

These currently include:

Police Control Centres (PCC)
The Traffic Control Centre (TCC), Birmingham
The Fire Service College (FSC), Moreton-in-the-Marsh, Gloucestershire

These properties are either owned or managed independently of HA (a Private Finance Co. in the case of the TCC) but include highway equipment or infrastructure managed by HA or its Providers. For highways assets housed in these premises where ACMs could be disturbed by maintenance/improvement/demolition activities, e.g. communications equipment and highway infrastructure, relevant information on this highway equipment is to be passed to the building manager or Duty Holder.

3.3.6 **Plan for Compliance**

Agreement on timescales has been reached with the Health and Safety Executive (HSE) to cover all highway network assets with Asbestos Action Plans (AAPs) based on the generic document at Annex No 3. The timescales agreed are set out at Annex No 1, Annex No 2 and at 3.3.6.1 below. These timescales take account of risk from potential ACMs related to work activities on the network assets, the availability of specialist surveyors within the industry, the size of the network, number of assets and the balance of risk from ACMs and the traffic management required to carry out the necessary survey work prior to producing the AAPs.

3.3.6.1 **Requirements and Targets**:

Completion of AAPs is a requirement in advance of all planned schemes and other work activities where disturbance of known or potential ACMs is a possibility. For highway assets in general a maximum 20-year programme for full coverage, or an annual 5% coverage of the highway network, is required. Shorter periods are a requirement for certain assets that are listed below. The 5% target applies only to Area Providers and commenced from the financial year beginning 2005/06. However for work activities commencing without the prior completion of an AAP, sufficient information needs to be included to indicate to the Contractor that survey work has or has not been carried out and which consequent assumptions have been included in the pre-construction H&S plan.

The contribution made by Major Projects Providers is not to be included in the Area Providers 5% target. In the event of Area Providers schemes and other work activities exceeding the 5% target in any one year, the target for the following year is to be adjusted. Where a shortfall in schemes to meet the 5% target occurs, the target is to be met on a prioritised basis of asset age, suspected age, the need for Principal Bridge or other Inspections requiring Traffic Management or routes to be de-trunked.

The 5% target applies equally to all included highway assets for specific route lengths within an AAP. The target is to be applied for highway structures included on the Structures Management Information System (SMIS) database, each of which is to have its own AAP. The requirement for separate AAPs for these highway structures also applies to Major Projects Providers. In the case of TPI schemes, preparation of a Scheme Management Plan (Annex No. 2) and AAPs should commence as soon as possible after Preferred Route Announcement stage.

All survey/sampling work, as outlined in Annex No 7 to this IAN, should be undertaken making the maximum use of Traffic Management required for other programmes of work e.g. Geotechnical Investigations, routine maintenance, Principal Bridge Investigations etc.

A shorter 3-year programme for completion is applied to the following highway assets that are considered to a pose a potentially greater risk of release of asbestos fibres through work activities:

All highway road tunnels
All highway Transmission Stations (mainly located on the motorway network)
All highway associated Maintenance Compounds, other depots, stores, workshops, offices, picnic site facilities etc, owned or leased by the HA.

Each of theses assets is to have individual, asset specific, AAPs.

3.3.7 **Liaison with Other Parties**

The process for dealing with third parties for shared or adjacent premises and infrastructure is covered in Annex No 4 to this IAN. These other parties are listed in the Annex and include utility companies, landlords, emergency services etc. Annex No 4 deals with issues of communication and co-operation in line with the responsibilities and duties of Plan Owners to other Duty Holders under Regulation 4. It also covers exchange of information from both sides in meeting Duty to Co-operate responsibilities. Particular attention is drawn to the need to make available to the Emergency Services the location of ACMs, which is specifically included in Regulation 4.

4. PROVIDER ACTIONS

4.1 HA's General Management Plan (GMP) in Annex No 1 to this IAN sets out required Provider actions to discharge HA's Duty to Manage under Regulation 4. This and Annexes Nos 2 to 7 include preparation of the plans and processes, control check list to be adopted, review requirements and the specification setting out requirements for survey, sampling/testing, risk assessment and registers.

4.1.1 **Surveys, sampling, testing and risk assessment**

The objectives, method and scope of this work are set out in Annex No 7 to this IAN and should be used as a generic specification document for all specialist asbestos survey work. It is anticipated that for the majority of highway assets, Type 2 surveys (non-intrusive sampling surveys) are to be undertaken on surface elements within the highway boundary, or visible elements of highway structures, unless planned works have the possibility to disturb hidden or buried potential ACMs, in which case Type 3 surveys (intrusive sampling surveys) are to be included in a survey order. Therefore for a number of assets, for example drainage systems, they must be presumed to contain asbestos and recorded as such in the AAPs. The intention is these 'hidden' assets will be dealt with over time as scheme works demand.
For buildings and similar premises within and outside the highway boundaries specific guidance on sampling requirements is given in Annex No 7.

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Specialist work should be arranged through the normal ordering system for the MAC, TMC or other appropriate term contract using an accredited surveying organisation.

Trial surveys and tests were undertaken to determine whether older electrical and communications equipment contains ACMs. Risk assessment was carried out on this equipment. The HA also made contact with manufacturers to determine which components contain ACMs and which do not. Any information has been included on the databases holding this equipment. Where there is any uncertainty or information is not available on certain types, Providers are to assume ACMs are present. If a proposed upgrade scheme involves extensive removal of existing equipment/systems, the Provider should arrange for sampling surveys and testing in accordance with the requirements.

A similar process of making contact with bridge bearing manufacturers has been undertaken to determine which types contain ACMs. Where available, this information has been included on the SMIS database. Where there is any uncertainty or information is not available on certain types, Providers are to assume ACMs are present.

4.1.2 Labelling of ACMs

For highway assets in general, labelling should not be necessary unless recommended by a specialist surveyor, particularly in maintenance compounds, buildings and inside electrical cabinets/boxes.

4.2 Communication

It is an important requirement to ensure, within the delegated Duty to Manage on behalf of HA, that plans and information are obtained and communicated to others. This includes other HA assets and property managed by third parties as indicated in section 3.3.5 of this IAN and other parties as indicated in section 3.3.7. It also includes making plans and information available to maintenance contractors working on buildings in maintenance compounds.

4.3 Feedback to HA Managers

Area and Major Project Provider Plan Owners will feedback to HA's Area Performance Managers, as required by the Annex No 2 document to this IAN. This includes submission of initial Area/Scheme Specific Management Plans in advance of each new financial year and any revisions of the Plans there after.

4.4 CAR and CDM

Attention is drawn to Section 1.5 of this IAN, which sets out how the CAR complements existing requirements under CDM by ensuring that asbestos issues feed into Health and Safety Plans/Files, design risk assessments and COSHH assessments as detailed in HA's standards. It is important to note that the management system introduced by this IAN should not duplicate or replace CDM requirements and processes in any respect.

4.5 Training

Annex No 1 (the HA's General Management Plan) of this IAN covers training requirements for Provider nominated plan owners to deliver the Duty Holder responsibilities in conjunction with Highways Agency.

The Highways Agency arranged for initial training to be provided to all Area and Major Projects Plan Owners in one location near each of the HA's regional offices.

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5. DATABASE ISSUES

The key documents to be held on HA's databases are the Asbestos Action Plans (AAPs). The method of recording information in a standard format is outlined in Annex No 3 to this IAN. Highway structures meeting the criteria set out in BD 62 for structures records are to have AAPs covering each structure uploaded onto the Structures Management Information System (SMIS) database. Smaller highway structures and other highway assets included in AAPs for nominal 5km route lengths are to be uploaded to the HA Pavement Management System (HAPMS) database. The National Online Motorway Asset Database (NOMAD), covering communications and other electrical equipment on the motorway network, will cover basic information only on the presence of ACMs in this equipment, as it is identified, to assist Providers with the preparation of AAPs. There is no requirement for AAPs to be held on NOMAD. AAPs for Transmission Stations on the highway network and buildings, Maintenance Compounds, the Coleshill Computer Centre etc outside the highway boundary should be held on the HAPMS database.

A 'bulletin board' has been developed for the SMIS database and it is anticipated that something similar will be developed for the HAPMS and NOMAD databases. This will be the means of communicating knowledge of ACMs in specific structure/equipment types, components, designs/manufacturers etc to other Providers.

Arrangements have been made to allow SMIS to accept AAPs and NOMAD to record the presence of ACMs. Guidance has been given on document/data format and entry requirements. HAPMS is able to accept asbestos data against specific assets. HAPMS will accommodate most or all highway assets not currently held on existing databases, such as lighting columns/illuminated signs and highway drainage pipe-work across the network and All-Purpose Trunk Road (APTR) traffic signal and other equipment. The Geotechnical Database Management System (GDMS) will accommodate all highway drainage assets.

All uploading of data to the SMIS, HAPMS and GDMS databases should be in pdf format.

5.1 Entry of data on SMIS

Arrangements for uploading AAPs on SMIS are in place and Providers should refer to the SMIS help guide inventory section, which includes guidance and requirements. Further guidance on future SMIS developments, in the form of an Interim Advice Note, on the preparation and uploading of these action plans has been issued. Initially, and until further notice, HA's MA and MAC Providers are to upload all AAPs and any other data for overall consistency from both maintenance schemes and Major Projects schemes. Initial contact with HA should be made by email to SMIS@highways.gsi.gov.uk

5.2 Access to NOMAD

Access to the NOMAD website for MA and MAC Providers can be arranged by applying for user name and password. Access (read only) for those Private Finance concession holders with no current access arrangements (e.g. Second Severn Crossing Group) is also possible. Initial contact through HA should be made with Russell Mead (Telephone: 0117 372 8344 or email russell.mead@highways.gsi.gov.uk).

5.3 **HAPMS Documents**

All queries regarding uploading AAPs should be addressed to the HA database manager. Initial contact should be made with Colin Christie (Telephone: 01234 79 6106 or email colin.christie@highways.gsi.gov.uk).

6. REVIEWS

6.1 Reviews will be undertaken for all plans at appropriate intervals. General requirements for HA, including audit and monitoring are included in section 3.1 of this IAN. The requirements for HA's Providers are covered at section 4.1.

6.2 **Condition monitoring of ACMs**

Monitoring and/or inspection of assets containing asbestos or presumed asbestos is to be planned to tie in with other routine or planned inspections/surveys once AAPs are in place. These monitoring inspection frequencies are set out in Annex No 3 to this IAN. It should be noted that for all highway assets within the highway boundary a 2-year inspection frequency has been agreed with the HSE, providing the asset contains ACMs with a low priority rating and where the risk of damage and consequential disturbance is low. Routine inspections will also be used (as in Annex No 3) to record any damage or deterioration in the condition of ACMs.

6.3 **Communication of Plans or information to others**

It is necessary to ensure Plans and other data is passed to or received from others or included within procedures for HA staff visiting the highway and other highway associated premises. Completed AAPs are to be passed to contractors preparing to work on all highway schemes or other buildings and premises. HA staff are to comply with the requirements and procedures listed in section 3.2 which is or will be incorporated into staff procedures and guidance documents. Information is to be passed on highway assets in building assets on the HA estate or properties managed by a third party (sections 3.3.5.1 and 3.3.5.3) or requested from HA land and property managers (section 3.3.5.2). Communication and co-operation with other parties; shared or adjacent premises, utility companies, landlords, emergency services etc is to be undertaken.

7. COSTS, BUDGETS AND PROGRAMMES

7.1 HA Area Performance Managers are required to approve all Area/Scheme Specific Management Plans produced by Providers, including all revisions following review.

7.2 Area Performance Managers and Major Project Sponsors will need to deal with the approval of costs associated with the production of Management Plans and operating the management system. Costs are estimated not to exceed 0.5% of HA's annual budget for all scheme work. Spreadsheets allowing HA managers to forecast costs on a scheme or Area basis have been made available separately to this IAN.

7.3 It is recognised that implementing the required management system will have an impact on works programmes, especially in the first 2 years, but every effort has been made to minimise this impact.

8. FURTHER INFORMATION

8.1 If you have any questions on this document please contact:

Chris Foreman, Tel. 0117 372 8978
E-mail: chris.foreman@highways.gsi.gov.uk

8.2 If you have any queries about project management issues please contact either TOD or MPD local contacts.

ANNEX NO 1 - GENERAL MANAGEMENT PLAN

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Life History Summary

Date	Plan Status and Comments	Plan originator (name)	Reviewer (name)	Plan Owner (name)
May 2004 January 2007	Original Reviewed December 2006	SSR SSR	TBA Andrew Withington (TOD)	TBA Andrew Withington (TOD)

1. SCOPE AND DEFINITIONS

Plan Originator: Highways Agency (Safety Standards and Research Directorate)

Plan Owner: Highways Agency (Traffic Operations Directorate) Traffic Operations Director with Andrew Withington as nominee

Purpose: Describes how the HA will discharge the Duty to Manage under Regulation 4 of the Control of Asbestos Regulations 2006 (CAR), in respect of highway infrastructure and associated facilities.

Scope: An `umbrella plan' outlining how the HA's Providers will be tasked to produce Action Plans.

Asset Types: Includes Roads, Bridges and other high structures, tunnels, masts, communications and electrical items, control rooms, out stations, transmission stations, maintenance compounds, depots, stores, workshops and picnic sites, where the current or future Provider organisation is responsible for maintenance or design work on these assets as part of the contract between the HA and the Provider organisation.

Providers: Includes Maintaining Agent (MA), Maintaining Agent Contractor (MAC), Regional Maintenance Contractor, TechMAC, NRTS Contractor, ECI Contractor, and other Consultants, Contractors and Suppliers, including those under framework agreements.

Size of the Infrastructure Asset

- Approx 7500 km of highway and associated inventory items, signs, barriers, drains, fences etc.
- Approx 14500 highways structures (defined in BD 62 and held in the SMIS database) and numerous other minor structures, culverts, walls etc.
- In excess of 100,000 items of electrical infrastructure.
- Numerous major structures (viaducts, tunnels, etc).
- Approx 80-100 maintenance compounds, depots, workshops, etc within direct Provider control.
- Approx 150 transmission stations, mainly on the motorway network.
- A computer centre at Coleshill, Birmingham.
- Approx 30 Police Control Centres, which hold HA, owned equipment, where there is a duty to co-operate with the building owner or his agent as the duty holder.
- A Regional control Centre (RCC) at Perry Barr, Birmingham, which holds HA owned equipment, where there is a duty to co-operate with the building agent or his agent as the duty holder.
- A Traffic Control Centre in Birmingham, managed by a private finance company, which holds HA owned equipment, where there is a duty to co-operate with the duty holder.
- Buildings and infrastructure at the Fire Service College, Moreton-in-the-Marsh, Gloucestershire, where there is a duty to co-operate with the duty holder.

2. ASBESTOS CONTAINING MATERIALS (ACM)

Much of the highway infrastructure is over 20 years old in terms of the original construction and therefore may contain ACMs unless it is specifically known and recorded that subsequent maintenance and improvement works have included removal of that ACM. An example would be new drainage works involving removal of asbestos cement pipes or re-waterproofing a bridge deck replacing asbestos sheet composite boards such as `Famliner'.

Known areas where ACMs exist include the following items or products, but this list is not exhaustive:

Highway Structures:	Permanent formwork to bridge decks, cast in stop end formwork in decks. Early M1 bridges. Filler boards in joints/ballast walls. Bearings. Some joint fillers/mastics. Gaskets between precast beams. Drainage to abutments/piers. Famliner C250 and C500 board waterproofing systems. Utility pipes, including insulation to water pipes slung under decks. Bitumastic coatings to some Armco culverts
Highways:	Drainage pipes, communication ducts and troughs and electrical ducts and chambers. Roofing to shelters, cabins, etc. Panels in electrical cabinets. Back panels and fuse assemblies in street lighting columns, lanterns and other jointing cabinets/enclosures.
Buildings:	Likely occurrence of ACM is referred to in numerous documents issued by HSE, including roofing, drainage, lagging, insulation, etc.
Tunnels:	Build up of dust deposits behind claddings, ceilings, etc from vehicles (for example, brake linings). Asbestos cement ventilation ducting and cladding panels. Rope gaskets between tunnel segments. Insulation, lagging and lining for fire protection to pipework and cables for M & E equipment. Water tanks, sumps and debris, tiling and roofing materials. Associated control buildings and fan rooms, containing M & E services.

3. TYPICAL WORK PROGRAMMES

The HA maintains and improves its assets through a wide variety of work programmes. These include:

- A programme of major schemes involving improvements and new build, usually to significant lengths of highway. These are known as Targeted Programme of Improvements (TPI). TPI schemes include bypasses, widenings, carriageway re-alignment, junction improvements, etc.
- A programme of schemes involving major maintenance of carriageway pavement reconstruction or bridge works.
- A programme of Local Network Management Schemes (LNMS) involving predominantly safety related schemes to junctions or other `hot spots' on the network or capacity improvements using the HA's `Toolkit' of techniques for this work.

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- Programmes of traffic management and driver information schemes.
- Programmes of smaller schemes for highways and structures.
- Routine maintenance work on the network as a regular ongoing programme of repairs and/or preventative maintenance. Work would include cleaning, renewing road markings, gully emptying, litter picking and clearing vegetation.
- Principal Inspections and other intrusive surveys.
- Emergency response works following Road Traffic Accident damage, fly tipping, fires and safety defects (potholes in carriageway, etc).
- Winter maintenance, including gritting and snow clearance.

There are also work programmes for building maintenance or improvement work in all depots, workshops, stores, control rooms, etc, both for planned and emergency works.

4. EXCLUDED ASSETS

This Management Plan does not include assets managed by HA Major Projects Lands Branch, buildings on the HA estate which house HA staff (for which PFM are responsible), private finance controlled infrastructure commissions or other property and assets not maintained by Provider organisations.

However, highway associated facilities do exist in buildings not controlled by HA Providers (for example, equipment in Police Control Centres), and these facilities are maintained by HA Providers. In this case, relevant information for these facilities shall be passed to the relevant duty holder for premises.

5. PLANNING FOR COMPLIANCE

Introduction

The Highways Agency will issue an Interim Advice Note (IAN) advising Provider organisations of the requirements of this plan and what they need to plan and achieve in order to enable the HA to meet its obligations under the Duty to Manage under Regulation 4 of the CAR 2006.

The HA aims to implement the requirements of Regulation 4 over a period of 20 years, owing to the vast amount of infrastructure assets. It is therefore the intention to inform Providers of this aim to produce an Asbestos Action Plan (AAP) complying with HSE guidance for each item or length of infrastructure or premises. Providers will be expected to produce a forward programme covering their proposed breakdown of assets based on a prioritised system set out below to cover 5% of the total network per year.

However, for all `buildings' (compounds, depots, stores, workshops, control offices, etc) the rate of compliance will be $33^{1}/_{3}$ % per annum to achieve full coverage within 3 years.

It is considered that potential work activity in tunnels poses a higher risk than most other elements of the highways infrastructure and Providers will be expected to produce AAPs for all tunnels within the first three years.

Achieving the Percentage Targets – Prioritisation

TPI Schemes

Consultants appointed to develop schemes up to TPI entry will be responsible for compiling a Scheme Management Plan and AAPs for the length of the network affected by their scheme,

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including any assets likely to be demolished or handed back to local highway authorities under detrunking arrangements. It is expected that there will be an AAP for each structure and for each 5 km length of the route, slip roads, junctions etc. All asset types, except individual highway structures, will be included in the carriageway AAP including electrical items. The programme for completing TPI schemes will depend on scheme progress and will need to be agreed with HA Project Sponsors. In any event, AAPs would be required prior to any unexpected maintenance work, or prior to commencement of construction.

AAPs will be handed to the ECI Contractor on appointment and become their responsibility as the Provider. Thereafter they will update and produce new plans prior to construction as required. Copies of all AAPs will be lodged with MA/MAC organisations for completeness and updating of the necessary databases both prior to construction and following completion of works on site.

All other major Discrete Works Schemes

Providers will be responsible for compiling AAPs for the length of the network or the discrete structure(s) affected by the annual programme of maintenance or improvement work.

As for TPI Schemes, AAPs will be required for each discrete structure and each 5 km highway route length which includes the Scheme.

Other Works Schemes and Routine Maintenance

AAPs for assets affected by this work will be prepared on a discrete basis as part of the 5% per annum programme. Providers will be responsible for determination of the programme for AAP production in their area, where it is likely that Routine Maintenance operations will have an effect on ACMs.

A worked example of this prioritised process is given in Appendix A

Building Assets

A similar priority system will be applied. Buildings will be covered by AAPs within 3 years. Those with planned maintenance need or improvement schemes will take priority, but, otherwise, Providers will concentrate on main depots, older depots or those without robust asbestos registers in place.

This will only apply to depots and other buildings where the HA own the depot and/or are leasing to the Provider organisation. It should be noted, in some areas, the MAC/TMC occupies depot buildings which are not owned or leased by the HA. In these cases the MAC/TMC will have to determine independently of the HA, which organisation is the duty holder under Regulation 4 of the CAR 2006 and will be responsible for compiling their own Asbestos Action Plans under the Regulations.

In buildings, where the HA owns, installs and maintains equipment through Provider organisations, but does not have responsibility for the building itself, the HA will expect Providers to co-operate with the Duty Holder for asbestos issues. This will generally be the building owner or an agent in the case of police control centres. For buildings managed by the HA (for example, RCCs), it will be necessary to make initial contact with the HA's regional Property and Facilities Management (PFM) organisation.

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6. PROCESS CONTROL

It is a requirement that a simple format report (similar to the worked example in Appendix A) is prepared and then updated annually by the Provider organisation for approval by the HA's Area Performance Manager, or HA Project Sponsor, who will send a copy of the report to the Plan Owner to maintain a record of progress intended and achieved for the production of AAPs. The report should show cumulative figures on an annual basis.

Co-operation

As part of the Duty to Manage under Regulation 4 of CAR 2006, if the HA has information regarding the likelihood or otherwise of ACMs in assets, there is a requirement for the HA to co-operate with any other party with responsibilities associated with that asset or premises.

The HA will therefore instruct its Providers in respect of the following:

- Co-operate with all parties likely to have information.
- Request information, where appropriate, on ACMs from manufacturers.
- Review of as-constructed/maintenance records prior to compiling each AAP.
- Inform all parties likely to be involved in maintenance, survey and improvement works of the presence, or presumed presence, of ACMs.
- Inform all Third Parties with an interest in plant in the vicinity of or running over, across, under or through any highway asset of the presence, or presumed presence, of ACMs. These will include the emergency services, utility companies, Local Authorities, Network Rail, British Waterways, navigation authorities, private bridge owners and other companies, such as Trafficmaster.

7. MONITORING AND REVIEW

This plan will be reviewed annually to measure the effectiveness of the compliance measures towards full compliance under the Duty to Manage. The fundamental questions must be "Are these arrangements working?", "Are the HA's Providers delivering the requirements?" and "Are safe working practises in place for all assets under the control of HA Providers?"

The first annual review was based on the recommendations of the HA's advisor, arising from an audit of a sample of Provider organisations and TPI schemes, during which the above questions were addressed. In following years, it is anticipated that an audit group will conduct a review along similar lines, under the guidance of the Plan Owner.

8. RECORDS

Providers will be required to keep records of AAPs in pdf format on the respective databases as agreed with the HA. These will include SMIS, HAPMS and GDMS. GDMS will hold highway drainage assets by uploading a duplicate of the AAP for the appropriate highway section. NOMAD will be used to hold factual information in respect of ACMs found to be in the electrical infrastructure asset, but the AAPs for those assets will be included within the appropriate highway section. Where highway assets cannot be entered on these databases, plans should be kept in hard copy by Providers and placed in electronic folders as word/excel documents, until the requirements of database entry can be resolved. Providers will be required to seek advice from HA database contacts via HA managers.

Plan formats and procedures will be produced for Providers to follow to achieve a reasonable level of consistency across the national network. These will include:

- Area or Scheme Specific Management Plans – generic format stating how the Provider will plan for delivery of AAPs for their areas of responsibility. This will include reporting requirements back to HA area managers.
- Asbestos Action Plans – generic format for each asset (structures, buildings) or group of assets (highway lengths).
- Model specification for Asbestos Surveys and Assessments to be used to procure survey work from properly accredited specialist contractors employed through existing term contracts with Provider organisations.
- A range of flow charts and standard procedures which set out the principles to be followed by Providers in their own project management systems to demonstrate compliance and to record actions, reviews, etc.

9. TRAINING

Providers will be expected to nominate one or two key staff in their organisation to act as the named AAP Owner and to deliver the Duty Holder responsibility in conjunction with the Highways Agency. Providers will be expected to maintain an appropriate number of trained key staff, to allow for staff changes.

Nominated Plan Owners will be expected to have undertaken training to cover asbestos awareness and the requirements of the Duty to Manage relating to asbestos in the workplace.

Initial training was delivered by the HA on a regional basis and involved a one day course.

If the Highways Agency consider it necessary to provide further training or refresher training, then this will be arranged.

APPENDIX A

Worked example of reporting progress against targets

An area MA has 1000 structures and 600 km of highway route to maintain for the HA, creating targets of 50 structures and 30 km.

No TPI schemes will generate AAPs in years 1 or 2, due to scheme programme.

Other major work accounts for 20km of carriageway and 15 structures in each of years 1 and 2. Other minor works cover a further 20 structures and 5km of route length in each year.

1st Year

Target 5%	TPI	Other	Remainder	Year 1 Total	Cumm
Structures 50 No	-	35	15	50	50
Carriageway 30 km	-	25	5	30	30

2nd Year

Target 10%	TPI	Other	Remainder	Year 1 carried forward	Cumm
Structures 100 No	-	35	15	50	100
Carriageway 60 km	-	25	5	30	60

Consequence

Thus in first year, 15 structures AAPs and 5 km of route AAPs need to be prepared over and above the `scheme' priority ones. These AAPs would be prioritised on the grounds of asset age, suspected ACMs, or the need for Principal Inspections.

In 2nd year, 15 structures and 5 km of route AAPs need to be prepared over and above the `scheme' priority to maintain the target completion rate. Similar prioritisation would apply.

This information would then be sent to the HA manager for approval.

Use of this appendix

The information in the above table shall be regarded as a minimum to allow the HA manager to review and report progress to the HA's General Management Plan Owner. Progress will be affected by various factors including roadspace availability and other HA priorities. Providers should include the affect of completed TPI schemes, other major schemes and detrunking in their reports but not in their targets.

ANNEX NO 2 - GENERIC FORMAT FOR AREA/SCHEME SPECIFIC MANAGEMENT PLAN

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COVER SHEET

HA ASBESTOS MANAGEMENT

[Area/Scheme] **MANAGEMENT PLAN**

for

[Insert Area Name or discrete Major Scheme Name]

ORGANISATION
[Insert Name]

PLAN OWNER
[Insert Name]

DATE
[Insert date of initial preparation]

Notes:

1. Purpose of this Management Plan is to demonstrate how the HA Provider will plan for the delivery of AAPs for their area of responsibility.
2. Plan Owner will be the competent person in the Provider organisation's local management team with responsibility for this plan.
3. Date will be when the initial plan was prepared. Revision and date history will be recorded on the contents page, including changes to "organisation" and "plan owner".
4. Discrete schemes are those managed by the HA Major Projects Directorate and include TPI schemes, other major schemes and section 278 schemes.

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Note: Life History of Specific Arrangement Plans should be documented as below

Date	**Plan Status and Comments**	**Plan compiled by (name)**	**Reviewed by (name)**	**Approved by Plan Owner (name)**
23 June 2005 December 05 March 06 etc	Initial Plan for year 05/06 Review No 1 – No change Review No 2 – Programme for Year 06/07	Bloggs Bloggs Bloggs	Smith Smith Smith	Jones Jones Jones

SECTION 1

ASSET LIST FOR THE WHOLE AREA OR WITHIN SCHEME LIMITS

To Include:

- Brief description and numbers of structure types – bridges, viaducts, tunnels, culverts, walls and the like. List major structures separately.
- Brief description and length of carriageway types – main carriageways, slip roads, junctions, dual, single, drainage, signs, communications infrastructure, etc.
- Brief description of buildings – compounds, depots, stores, workshops, outstations, control offices, etc.
- Brief description of other assets – masts, pumping stations, picnic sites, etc.

a) Highway Structures (use SMIS References/Terminology)

Structure Type	Number	Special features/comments
Bridges	179	
Culverts	103	
Etc	etc	
Tunnel	1	Name, length, standard
Viaduct	2	Names, lengths, standards

b) Highways Lengths (lane km)

Route	Carriageway Standard	Length (lane km)	Comments
M33	D2M	80	
	D3M	100	Includes 3km of viaduct in a)
Etc			

c) Buildings, compounds, etc

Name and Location	Purpose	Brief Description of assets
M44 Northbound Junction 38	Maintenance compound	Offices, salt barn, garages, workshop and yards.
M33 Junction 5	Transmission station	Brick built with equipment in small compound

d) Other assets

Asset description	Number (if appropriate)	Location
Westwood picnic site	-	A88 Westwood Road Littleham
Greener pumping station	-	M33 Junction 16

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SECTION 2

WORKS PROGRAMME FOR FINANCIAL YEAR [Insert dates]

To include the number and type of assets to be worked on derived from:

- Listings of programmes for schemes delivery and scheme budgets to identify number and extent of assets affected (major schemes).
- Minor/routine maintenance programmes.

Listing of Major Schemes in Area (brief details only)

Scheme Name	**Network length (Route km)**	**No of structures included**
eg M33 Climbing lanes Junctions 1 to 2 M44 Widening	 3km 20km	 7 40

Listing of all Maintenance Work in Area for Financial Year [Insert dates]

Brief Description	**Asset Nos/Lengths affected**	**Comments if required**
Named schemes - Structures - Roads - Other/Hybrid Schemes Eg Resurfacing M33 J6-7 Waterproofing schemes Roofing work, maintenance compound at Greener	 5.3 route km 6 structures 1 building	 Work required to replace asbestos cement roofing sheets in poor condition

Note:

2.1 This section is not required in Management Plans for Major Schemes. Assets for those schemes will be covered by Section 3.

SECTION 3

AAP PROGRAMME FOR FINANCIAL YEAR [Insert dates]

To Include:

- Assets covered by Works Programme and/or Major Scheme and targets for producing AAPs.
- Other Assets for which AAPs are required to meet the 5% annual target for infrastructure and $33^{1}/_{3}$ % annual target for all highway road tunnels, maintenance compounds and all buildings
- Proposed prioritisation to meet the annual targets.
- Schedule for agreement by HA Area Performance Manager or HA Project Sponsor to feedback to HA General Management Plan Owner, using standard format attached.

Asset Type	Asset Description	Programme
Highway Structures	Individually listed	Date for surveys, AAP completion and works start (if appropriate)
Highways	Listed by 5km nominal length	Date for surveys, AAP completion and works start (if appropriate)
Compounds	Individually listed	Date for surveys, AAP completion and works start (if appropriate)
Other assets	Individually listed	Date for surveys, AAP completion and works start (if appropriate)

Notes:

3.1 For a TPI Scheme, or similar Major Improvement, the Provider should ensure that the HA Project Leader signs off equivalent schedule before passing details to the Area Performance Manager for inclusion in reviews. The timing of compilation of AAPs should be agreed with the HA Project Leader and this will be dependent on scheme progress. In any event, the AAPs must be in place prior to any construction works. In order to avoid encroaching on TPI or other major scheme limits, Area Providers should obtain confirmation of the progress, or intended progress, of AAP compilation, prior to reporting to the HA Area Performance Manager.

3.2 In the schedule, the line for 2006/07 will be left blank at the start of year 2005/06, as will the column for “Total Achieved”.

3.3 At the end of 2005/06, the line for 2006/07 will be completed and the total achieved for 2005/06 will be noted.

3.4 The schedule will be the means of approving the AAP programme and recording progress in the year and will be updated annually.

SUMMARY SCHEDULE FOR APPROVAL BY HA AREA PERFORMANCE MANAGER

HA ASBESTOS MANAGEMENT

AREA No xx or SCHEME NAME

Example (shown for Area Plan – TPI scheme would be similar)

Year	Targets		Included in TPI limits	Prioritised from Maintenance Programme	Remainder to achieve target	Total Programmed	Total Achieved
	Asset Type	No / Length					
2005/06	Structures	50 No	-	35 No	15 No	50 No	
	Carriageway	30 km	-	25 km	5 km	30 km	
	Compounds	3 No	-	2 No	1 No	3 No	
	Other assets	10 No	-	3 No	7 No	10 No	
2006/07							

Completed by [Name] ---------- Plan Owner

---------- Signed

---------- Date

Approved by [Name] [for TPI and Major Improvement Schemes only] ---------- HA Project Leader

---------- Signed

---------- Date

Approved by [Name] ---------- HA Area Performance Manager

---------- Signed

---------- Date

SECTION 4

ARRANGEMENTS FOR MONITORING AND REVIEW

Note:
Proposed arrangements for reviewing the programmed schedule for compiling AAPs should be listed in this section.

These will include:

- Measuring progress against targets.
- Means of incorporating the consequences of works programme changes into the AAP programme to ensure plans are in place prior to the start of any maintenance work to the asset.
- A formal review shall be undertaken at 6 months to check whether procedures are working. Results of this review are to be recorded and this Plan amended if required. Changes are to be recorded in the `Life History' table on the contents page.
- Reporting to the HA Area Performance Manager will be a requirement following agreement of annual programmes and any budget reviews. Any revisions to this plan will be sent to the HA Area Performance Manager. See also notes in Section 3.

SECTION 5

PROCUREMENT OF SPECIALIST ASBESTOS SERVICES

Notes:

5.1 Specialist services will be procured through the appropriate Works Order process for this Area. The HSE recommends, and the HA requires, that specialist asbestos surveying and laboratory testing organisations should be UKAS accredited to ISO 17020 and 17025 respectively. The MAC/TMC will let the appropriate contract with the Surveying and Testing Organisation.

5.2 Providers will be responsible for obtaining approval from the HA Area Performance Manager prior to the issue of the works order for the proposed specialist services commission to the MAC/TMC via the usual approval route.

5.3 All surveys must comply with the requirements of MDHS 100 – Surveying, sampling and assessment of asbestos-containing materials published by HSE Books 2001 ISBN.0 7176 2076 X. A typical specification for infrastructure and building surveys is also provided as a standard document. This covers work on surveying, sampling, testing and reporting using a packaged approach.

5.4 In planning for surveys the following issues need to be considered:

- Whether records indicate a strong likelihood of ACM or not.
- The risk posed by working under traffic management compared to the likely risk of disturbing ACMs during planned maintenance work.
- Known consistency of materials/components based on contract limits during the original construction work and the repeated detailing on bridges and culverts. This will allow representative sampling and assessment work to take place. However, previous modifications to assets need to be considered.
- Similarity in the appearance of construction details in buildings and other similar structures.
- Combining survey work for asbestos with other maintenance activities within planned traffic management measures.
- Combining asbestos surveys with planned principal bridge inspections to take advantage of shared access arrangements.

5.5 Annex No. 7 includes a generic specification based around MDHS 100 but requires the specialist surveyor to recommend actions for each known or presumed ACM. Recommended actions should be produced by the surveyor in conjunction with the Provider to make sure decisions on actions are appropriate for the asset in question. These actions will form the 'action plan' column on the asbestos register required for inclusion in the AAP format.

5.6 The following survey types will be appropriate in the following general circumstances in the table below. Type 1 surveys do not involve any sampling operations and are therefore not likely to be appropriate for highway infrastructure assets.

Asset Type	Element/Feature included in the Survey	Survey Type (As MDHS 100)
Buildings, compounds, miscellaneous structures	All visible components or materials in roofs, ceilings, walls, floors etc where no intrusive maintenance work is planned to hidden components	Type 2
	All components where intrusive work is planned during refurbishment, modification, demolition, reconstruction or extension of a building structure.	Type 3 to ceiling voids, wall infill, etc
Highway Structures	All visible materials in structure – no intrusive work planned.	Type 2
	All materials/components in the structure which would be affected by intrusive work eg, re waterproofing or joint repairs.	Type 3 to existing waterproofing systems, joint fillers, etc
	Any demolition or reconstruction	Type 3
Highways Generally	All visible surface features – no work planned which could affect ACMs in the ground, eg in ducts and surface water drains	Type 2
	All elements which could be affected by major construction work – eg ducts, chambers, surface water drains, buried joints, utilities infrastructure	Type 3
	Any demolition or reconstruction – eg major widening, new slip roads or junctions	Type 3

SECTION 6 – ANNEXES

This section will include copies of annual plan reviews which should be signed and dated by the Plan Owner.

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ANNEX NO 3 - GENERIC ASBESTOS ACTION PLAN (AAP)

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COVER SHEET

AREA XX/ SCHEME REFERENCE
ASBESTOS ACTION PLAN

for

[Asset Name]

[Organisation]

[Plan Owner]

[Date first compiled]

Notes:

1. Area no. or major scheme name to be inserted.

2. Asset name to be inserted, eg Westover Road Bridge, Greenhills retaining wall, Northbury Park maintenance compound, M33 carriageway from xx to yy.

3. Provider organisation and Plan Owner's name to be inserted. This should be a competent person within the Provider organisation's local management team holding suitable training in the duty to manage requirements.

4. Date to be inserted as the date of the initial plan. Updates and amendments to be listed in the table on the Contents Page, including changes to "organisation" and "plan owner".

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Life History Summary

Date	Plan Status and Comments	Plan compiled by (name)	Reviewed by (name)	Approved by Plan Owner (name)
June 2005	Initial Plan	Bloggs	Smith	Jones
April 2006	Revision No 1 – Update following monitoring inspection	Bloggs	Smith	Jones
June 2006	Revision No 2 – Update following maintenance work	Bloggs	Smith	Jones

Notes:

1. Table should include the full life history of changes to the plan.
2. Section 7 should include paperwork/documents evidencing the changes.

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SECTION 1 - SCOPE AND DESCRIPTION

ASSET NAME [Insert]

ASSET REFERENCE NO(S) [Insert]

LOCATION [Insert]

OTHER DEFINING REFERENCE/NAME [Optional]

BRIEF DESCRIPTION OF ASSET [Insert]

Notes:

1.1 Asset name should be normal name of highway structure, maintenance compound, etc, or section length and route for each 5 km highway length.

1.2 Reference numbers should be those used generally and included in formal records, databases etc. These will include structure key, marker post, OS reference, etc.

1.3 All location and reference details should be given to ensure that the asset is adequately defined.

1.4 Brief description should include main features only, eg:

- 4 span bridge, road over rail.
- 300 metre retaining wall.
- 5km length of M33 including junction 4.
- Greenhills maintenance compound, including salt barn, garage, office and store.

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SECTION 2 - DESK STUDY AND SURVEYS UNDERTAKEN

2.1 **DOCUMENTS REVIEWED** (Note 2.1) [List]

2.2 **CORRESPONDENCE WITH PRODUCT MANUFACTURERS** (Note 2.2) [List]

2.3 **SURVEYS UNDERTAKEN FOR INITIAL AAP** (Note 2.3) [List with dates]

2.4 **ADDITIONAL SURVEYS** (Note 2.4) [List with dates]

Notes:

2.1 The desk study should comprise a thorough review of all as built and other asset records, including structure files, health and safety files, any existing asbestos registers, drawings, photographs, inspection records etc to glean information on the likely asbestos containing material (ACM). Assets where all new construction commenced after the year 1999 are unlikely to contain asbestos. Previous records or local knowledge indicating the use of ACM should be noted. For assets constructed after the year 1999, this section should comprise a simple statement to that effect and no further sections will be required for this plan, although it should be noted that there is a possibility that construction included some use of ACMs stock piled pre 1999 (see also note 3.1 below).

2.2 Other parties have a duty to co-operate under the Control of Asbestos Regulations 2006, with anyone preparing an AAP. These include contractors and component or material manufacturers. Components in tunnels, movable bridges and other special structures could be the subject of specific enquiries by Providers in their area.

2.3 A listing and brief description of surveys undertaken on the asset should be included here. Surveys will include Type 2 (surface material sampling) or Type 3 (intrusive sampling). See Annex No 2; section 5 and also MDHS 100 – Surveying, sampling and assessment of asbestos-containing materials for advice. Survey dates should also be given.

2.4 When further survey and testing is carried out in advance of any planned intrusive maintenance, improvement or reconstruction work to an asset, the results of those surveys shall be included here as an update to the AAP and the AAP given a new revision number. This is to ensure the plan includes all current information at all times.

SECTION 3 – RISK REGISTER AND ACTIONS

RISK REGISTER DOCUMENT

Notes:

3.1 The Risk Register table will be produced by the asbestos surveying organisation as part of the specialist commission and will contain all elements of the asset, irrespective of whether ACM is present, presumed to be present or assumed not to be present by virtue of age, test result or the constituent material, eg brick, stone, concrete, steel, etc. The purpose of the register is two fold; firstly to identify ACM, or presumed ACM and secondly to alert all persons working on and around the asset as to when these materials could be affected by any work carried out on the asset. **Note: If the asset was constructed after 1999 and there is no evidence on the scheme records that ACMs may have been used during construction, this and later sections in this plan will not be used and will be blank.**

3.2 The Risk Register therefore contains three sections down the sheet

1. Those asset elements which have been confirmed as ACM through survey, testing and assessment or known following prior work on the asset.
2. Those elements which must be presumed to be ACM because they are hidden or buried in the asset and have not been subject to testing and assessment.
3. Those elements which are presumed not to contain ACM by virtue of age or their engineering material characteristics. This section also will include those components proved not to contain asbestos following sampling and testing.

3.3 The Risk Register also contains three sections across the sheet for each asset element.

1: The element description, location and other defining details.
2: The summary of survey, sampling, testing and assessment results, OR reasons for presuming ACM, OR reasons for assuming no ACM by nature of the material.
3: The actions to be carried out in respect of known ACM or presumed ACM. Actions will be graded A, B, C or D see below in note 3.6.

3.4 The register should include summary details only. The full details will include the report from the specialist asbestos surveyor and/or testing house. It is important to note that most of the details required in the register are taken from reports by the specialist surveyor.

3.5 The Risk Register should be updated by inclusion of information gained following further sampling, testing and assessment prior to maintenance or construction work and any changes to elements as a result of that work, eg

- replacement of waterproofing containing asbestos
- replacement of broken asbestos cement roofing sheeting
- repair of damage to asbestos cement electrical ducts/chambers
- replacing damaged asbestos insulation board in buildings
- demolition of asset and rebuilding under major widening schemes.

3.6 Actions shown on the register are those necessary as a result of the risk assessment process. They indicate the level of remedial work necessary which must be carried out to ensure all persons are not accidentally exposed to airborne asbestos fibres which could be inhaled.

- Action Level A: indicates those materials or asset elements which are known not to contain asbestos as a result of a direct test, or presumed to be non ACM because of age or constituent material. More detail can be found in HSE publications.

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- Action Level B: indicates ACMs which as a result of the survey and assessment process have a low score and can be left in place and managed. This will also include materials which were not investigated in the survey because they were hidden, buried and not likely to be disturbed during most work activities (see also note 3.5).
- Action Level C: indicates known ACMs which as a result of assessment are in a condition which requires repair, sealing, covering or other means of encapsulation to prevent fibre release. When work has been carried out these elements should be regraded to Action Level A or B in the register.
- Action Level D: indicates known ACMs which as a result of assessment are in a condition such that the material should be removed and replaced with non-ACM.

It is expected that most highway infrastructure will fall into Action Levels A and B with the occasional C. Buildings and other assets in maintenance compounds may be Action Levels A, B, C or D.

The supervisor of any works falling into Action Levels C and D should be licensed under the Control of Asbestos Regulations 2006.

3.7 It should be noted that unless ACMs fall into Action Levels C and D, no disturbance of the ACM should be necessary. If work is to be done on parts of the asset which actually do contain an ACM, then further survey work is necessary prior to that work being carried out.

ASSET NAME				[Insert]							**ASBESTOS RISK REGISTER**	
ASSET DESCRIPTION AND REFERENCE				[Insert]								
Section	Location Building name Element name	Component Name / Description	Other reference	Survey Type 1, 2 or 3	Sample Ref	Positive test for ACM (For Section 1)	Material Assessment Score (MDHS100 refers)	Rating for disturbance during maintenance Low, Medium, High	Actions necessary - A, B, C or D	Photo ref	Grounds for presumed ACM (Section 2)	Grounds for presumed non-ACM (Section 3)
Section 1 known ACMs	Egs Deck Spans	Permanent soffit formwork	-	2	123/45	Yes	3	L	B – Manage	123/45		
	Salt Barn	Roofing	-	2	123/56	Yes	5	M	C – Repair and manage	123/56		
	Street lighting duct chambers	Chamber covers	-	2	123/67	Yes	5	H	D – Remove and replace with non ACM	123/67		
Section 2 Presumed ACMs	Egs Abutment – east	Joint filler board	-	-			6	M if joint replaced	B – Manage; Type 3 survey if to be disturbed	-	No records, age of structure 1970	
	Office Block	Roof insulation	-	2 only			5	M if void entered	B – Manage; Type 3 survey if to be disturbed	-	Drawings	
Section 3 Presumed Non ACMs and confirmed non ACMs after testing	Egs Office block walls	All faces to building	-	2					A	-		Brickwork
		East and west side	-	2					A	-		Steelwork
	Parapets	All	-	2					A	-		Reinforced concrete
	Piers All decks	Waterproofing system	-	-					A	-		Replaced in 2002 as maintenance scheme

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SECTION 4 – ACTION PLAN, MONITORING AND REVIEW

4A GENERAL ITEMS [Include standard text] see below and notes

4B ASSET SPECIFIC ITEMS [Include specific text]

GENERAL ITEMS [To be included in all AAPs]

4.1 This section contains the management actions which will be carried out to ensure that:-

- Asbestos materials requiring treatment or removal, (Action Levels C and D) are dealt with in a timely manner
- Known or presumed asbestos materials (Action Level B) that remain in situ, are maintained in a safe condition
- Procedures are in place to control all work which could effect, or potentially effect known or presumed asbestos materials.

Register Updates

4.2 The Risk Register included at Section 3 will be maintained and updated on receipt of new information. The Plan Owner will be responsible for approving all changes.

Remedial Work to ACM

4.3 The Plan Owner shall consult with the appropriate HA manager to gain approval to work required to any known ACM assessed by specialist surveyors to fall into Action Level C or D. On approval, the required work shall be carried out and the register updated.

Surveys

4.4 All specialist asbestos surveys shall comply with the requirements of MDHS 100 – Surveying, sampling and assessment of asbestos containing materials. This applies to Type 1, 2 or 3 surveys. A generic survey document is provided at Annex No 7.

Monitoring Inspection

4.5 All assets where ACM is known or presumed shall be re-inspected for signs of deterioration of the visible ACM, using the standard form in section 7. Such inspection will not include any intrusive work. If, on comparison with initial photographic evidence, the ACM shows signs of damage/deterioration, additional survey and assessment work shall be ordered before determining the extent of any remedial work. If the assessment shows the ACM to be Action Level C or D remedial work shall be instigated as 4.3 above. Inspection will therefore be targeted where surveys have shown ACMs to have the greatest risks from damage and disturbance.

4.6 ACM monitoring inspection frequencies shall be as follows [tick box for asset type].

Highway structures	2 years	☐
Highways lengths (including all assets within the highway boundary)	2 years	☐
Buildings in maintenance compounds	6 months	☐
Other buildings and network assets outside the highway boundary	1 year	☐

In addition, other regular network inspections will facilitate collection of visible damage to ACM components. The Plan Owner shall ensure that information is passed on from such inspection reports with regard to ACMs, using the standard form in section 7.

Asbestos Hazard Labelling

4.7 No labels will be fixed to any part of the asset unless specifically recommended by the specialist surveyor's report. It is likely that labels could be fixed to the inside of electrical cabinets/boxes and any area of compound, buildings, etc. as agreed in conjunction with the AAP owner.

Communicating the Plan

4.8 The Plan Owner shall ensure that the information in this plan is communicated to all Third Parties likely to work in, on and around the asset. Annex no 4 – Process for Dealing with Third Parties – will be followed. Third Parties will include

: other HA Providers
: emergency services
: utility companies whose equipment is carried over, under or through this asset.
: Local Authorities
: Network Rail
: British Waterways
: Navigation Authorities
: private bridge owners
: other companies, such as Trafficmaster

Planned Work

4.9 Before any planned work is carried out on this asset, the project manager for the work will follow the flow chart in the HA Interim Advice Note. This will ensure materials will be considered in advance of design work and incorporated in Design Risk Assessments and Health and Safety Plans prior to ordering or commencing any maintenance or construction works. This will also include sampling/testing in advance of any intrusive work in connection with other engineering surveys where ACM would be encountered, for example, testing in connection with Principle Inspections for highway structures. Contractors arriving at maintenance compounds to carry out building or other maintenance should be shown a copy of the appropriate AAP and risk register.

4.10 The Asbestos Control Check List (Annex No 5) will be used to monitor the process in 4.9. Each completed check list shall be included as part of this plan at Section 7, where ACMs were encountered.

Unplanned or Emergency Work

4.11 When an emergency incident occurs on the network which directly affects this asset or part of it, the "Process for Works after an Emergency Incident or Fly Tipping" (Annex No 6) shall be followed by the HA Provider(s). On completion of the `emergency' part of the work, including initial clearance, the Plan Owner shall ensure that any further work follows the `Planned work process" above.

Reviewing this Plan

4.12 This plan shall be reviewed by the Plan Owner no longer than 12 months after the initial plan was prepared, unless there is good reason to consider an interim review at 6 months. This latter interval could be invoked where the Plan Owner considers that significant issues have arisen via regular general inspection on the network or that significant new information regarding the asset has come to light, for instance, following damage incidents.

4.13 The Review shall include answering the following key questions

- Has the Plan been communicated to others, including employees, other HA Providers, and appropriate Third Parties?
- Have the results of inspection and monitoring activity been recorded and included? Is there a need to change the frequency of ACM monitoring?
- Have any arrangements for ACM labelling, remedial treatment or removal been carried out and the plan updated?
- Has any work been carried out to the asset and any necessary documentation included in the Plan?

4.14 The results of the review are to be recorded, stating whether the management arrangements herein are still current and satisfactory and the document appended to this Plan. Any significant changes should be communicated as 4.8 above.

ASSET – SPECIFIC ITEMS

4.15 Any special items for major structures

[Listed to include particular arrangements for

- viaducts
- tunnels
- complex interchanges
- access restrictions]

4.16 Any special items for maintenance compounds and other miscellaneous assets

[Listed to include particular arrangements for

- Shared occupations
- Reviewing fixed equipment in premises `controlled' by other organisations
- Assets with regular significant vandalism]

SECTION 5 – LOCATION PLANS AND DRAWINGS

This section includes the means whereby ACMs are identified on appropriate drawings. Where available, CAD or scanned drawings should be used.

Notes:

5.1

For Highways:	1:2500 or 1:1000 is suggested
For Structures:	General arrangement drawings or drawings already in structure files.
For Buildings:	Building layout plans identifying floors/partitions etc.
For other miscellaneous Assets:	Layout plans, general arrangement drawings or sketch plans if nothing else available .

5.2 Known or presumed ACMs should be denoted on the drawings using appropriate colour code.

Red:	known ACM from knowledge or testing.
Orange:	presumed ACM in areas not tested.
Green:	Asset known to be free of asbestos, by material constituents, age or prior asbestos removal.

5.3 Above colour code will be inappropriate for highways, especially “green areas” and “orange areas”. It will be sufficient to note on the drawings that all buried items, drainage and duct runs are presumed to be ACM unless and until proved otherwise by Type 3 surveys. ACM “Reference” and “Present” fields will be provided within the HA NOMAD database for electrical and communications infrastructure (including cabinets, controllers, feeder pillars, jointing chambers, etc) where the incidence of ACMs is known from manufacturer’s data or survey results respectively. These fields will indicate if ACMs are present in that item.

5.4 Drawings should be amended as and when further information becomes available.

5.5 Providers should determine the best drawing format on which to record ACMs, allowing for the document size on their systems and avoiding the need to store and then update drawings in different formats but holding the same information.

SECTION 6 – DETAILED ASBESTOS SURVEY REPORTS

[Detailed reports etc should be listed and included here as Annex A, B etc]

SECTION 7 – UPDATE SHEETS AND OTHER DOCUMENTS

This section comprises update sheets and other evidence in respect of the following:

- Results of specific ACM monitoring inspections (use standard form attached)
- Feedback comments from other routine network inspections with respect to ACM (use standard form attached completed only when a problem has been identified)
- Results of AAP review process (use standard form attached)
- Completed Asbestos Control Check List for planned work carried out on the asset which required an addition or amendment to this plan
- Summary report following an emergency incident. Asbestos Control Check List also used if incident involved work to an asset component containing asbestos
- Other miscellaneous feedback received from other HA Providers, emergency services, utility companies or other Third Parties with regard to ACM in this asset.

FEEDBACK RECORD FROM ROUTINE NETWORK INSPECTIONS (ASBESTOS ISSUES ONLY)

Asset Name	
Asset Reference	
Date	**Name of Inspector reporting**
Comments **Signed**	
Date	**Name of Inspector reporting**
Comments **Signed**	
Date	**Name of Inspector reporting**
Comments **Signed**	
Date	**Name of Inspector reporting**
Comments **Signed**	

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RECORD OF SPECIFIC ASBESTOS MONITORING INSPECTIONS

Asset Name	
Asset Reference	
Date	**Name and status of person carrying out the inspection**
Comments/Outcome **Signed**	
Date	**Name and Status of person carrying out the inspection**
Comments **Signed**	
Date	**Name and Status of person carrying out the inspection**
Comments **Signed**	
Date	**Name and Status of person carrying out the inspection**
Comments **Signed**	

RECORD OF REVIEW PROCESS FOR AAPs

Asset Name		
Asset Reference		
Review Date	**Reviewer**	**Plan Owner**

1. COMMUNICATION – Has the Plan been communicated to others?

   - to employees ?
   - to other HA Providers?
   - to emergency services?
   - to utility companies and other Third Parties?

   } Provide feedback

2. INSPECTION/MONITORING – Have the results of inspection and monitoring activity been recorded and included?

   - Provide comments on records and any need to change the monitoring frequency.
   - Include comments on whether the Risk Register needed updating or otherwise amending.

3. LABELLING, REMEDIAL TREATMENT AND REMOVAL OF ASBESTOS – Have recommendations from specialists been carried out?

   - labelling – was any required? Include comments.
   - remedial work – has it been carried out and the register updated? Include comments and refer to evidence.
   - removal work – has it been carried out? Include comments and refer to documentary evidence for safe removal and disposal.

4. MAINTENANCE OR OTHER WORK – Has any work been carried out to the asset or part of the asset which affected an ACM?

   - planned work. Include comments and refer to documentary evidence and any updating.
   - emergency work. Include comments and refer to documentary evidence and any updating.

5. OVERALL REVIEW OBSERVATIONS

List any observations and recommendations to this Plan and any possible general modifications to management systems or procedures.

In Summary state whether Plan should be modified. Yes / No

6. Reviewed by

Name: _____

Signed: _____

Date: _____

7. Approved by Plan Owner

Name: _____

Signed: _____

Date: _____

ANNEX NO 4 - PROCESS FOR DEALING WITH THIRD PARTIES

Scope: Describes the way that Plan Owners will deal with the issues of communication and cooperation with Third Parties who may have a Duty to Manage in respect of their infrastructure in the vicinity of HA assets or who may carry out work on those assets.

Third Parties: These will include the Emergency Services, Utility Companies, Local Authorities, Network Rail, British Waterways, other navigation authorities, private bridge owners and other companies, such as Trafficmaster.

General

1. It is anticipated that, in time, all third parties will develop reciprocal arrangements with the HA in line with new Duty to Manage responsibilities. These include a duty to co-operate with other duty holders for shared or adjacent premises and infrastructure.

2. The following process will apply to each category of third party.

Emergency Services

3. ACM information should be passed to the Emergency Services, particularly Fire and Rescue, for a route/section on a summary basis. Passing of individual AAP copies to the Fire and Rescue service is unlikely to be appropriate, owing to the volume of paperwork involved. The summary should contain only those items which would prove to be a problem in the event of a road traffic accident or fire. Examples would include ACMs in: - claddings, deck soffit formwork to structures, waterproofing (deck surface fire), highway ducts (close to surface) and cable troughs (on or close to the surface). It is suggested that discussion is needed with emergency services (fire particularly) to ascertain format/level of information required on a local basis.

4. Guidance contained in paragraph 103 of the HSE Approved Code of Practice for Regulation 4 of CAW Regulations should be noted in respect of Emergency Services and the transfer of information.

Utility Companies

5. Companies should hold Asbestos Management Plans, probably on their GIS records/databases. The provisions of the New Road and Streetworks Act apply to the exchange of information following serving of notices. Thus, if notice is served on a utility company in advance of HA works, any asbestos related information should be included in the company's responses. If no reference to asbestos is received then a follow up request for clarification should be sent. If works are then to be carried out for diversion and alteration as part of the HA scheme, by a contractor working for that utility company, AAP Risk Register information should be made available to that contractor prior to work commencing on site.

5. A similar process will be required if the utility company serves notice in advance of a proposed utility scheme. The response to the utility company by the HA Provider will include AAP Risk Register information as required.

6. It is suggested that this is achieved using standard paragraphs inserted in requests and returns to and from the utility companies.

All Other Third Parties

7. Where the HA owns a highway structure, but not the asset component carried by that highway structure, there will be a need to exchange AAP information in advance of works being undertaken on site. Information exchange shall include nil returns where appropriate and is expected to take place at first notification by the HA or the Third Party of works to be carried out. An example would be resurfacing of a Local Authority road over an HA Highway Structure.

8. Where the highway is carried by a structure owned by the Third Party, the Plan Owner shall ensure that exchange of information takes place on receipt of the notice of any works from the Third Party.

9. A similar process should be followed for non-highway assets to ensure that the required level of asbestos related information is made available to all other contractors who may be carrying out work on HA assets. An example would be contractors carrying out plumbing or electrical cabling work in offices located in maintenance compounds. Plan Owners will be responsible for ensuring that a process is in place for buildings under their control.

ANNEX NO 5 - ASBESTOS CONTROL CHECK LIST ASSOCIATED WITH ALL WORK ACTIVITIES

Asset Name: .....

Reference (structure key, marker post, etc): .....

Database location (tick) SMIS ☐ HAPMS ☐ GDMS ☐

Description of maintenance scheme, improvement or upgrade scheme, routine maintenance activity or emergency works

.....

.....

.....

.....

GENERAL NOTES

G1 A check list should be completed as follows:

- for each discrete maintenance scheme; copied to the appropriate individual AAPs if scheme covers more than one asset
- for each major scheme; copied to each asset covered by the scheme
- for each type of generic routine maintenance activity per area, or route within an area; copied to individual AAPs only if required by activity affecting an ACM
- for each emergency works incident; copied to AAP if incident affected an ACM
- for each Principal Inspection or other specialist work requiring intrusive testing or investigation work to an asset.

G2 Where surveying and testing has not proved to be practicable prior to work being carried out to an asset, the presumption must be made that asbestos is present, especially for buried or hidden features, unless materials involved can be categorically stated not to contain asbestos. See also AAP guidance in Interim Advice Note. This must be reflected in Risk Assessments and information prepared for Health and Safety Plans and appropriate measures taken.

G3 Each checklist will apply for the life cycle of the scheme or maintenance activity. When work is completed, the form should be signed off and copied to the Plan Owner. Flow Chart No 3 also applies. The AAP should be updated by changes to the Asset Risk Register if required.

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G4 It is recommended that this Check List should be incorporated into providers' project management systems, with modifications as necessary

CHECK LIST [See notes below]

1. Was an AAP in place prior to work being identified? Yes ☐ No ☐

2. Are ACMs present or suspected to be present in areas or elements where work is planned? Yes ☐ No ☐

3. Will work disturb an ACM or presumed ACM? Yes ☐ No ☐

4. Have surveys, samples, tests, assessments been completed including further Type 3 surveys as required? Yes ☐ No ☐

   If Yes Date results/report completed d d ☐☐ m m ☐☐ year ☐☐☐☐

   If No Reason? (eg emergency works)

   ---

5. Have Design Risk Assessments been carried out with respect to asbestos and included in CDM processes? Yes ☐ No ☐

6. Has HSE been notified if works removing ACM are due to be carried out? Yes ☐ No ☐

   If No Reason? ---

   ---

7. Has pre-construction Health and Safety Plan been passed to Contractor? Yes ☐ No ☐

8. Have method statements been received from Contractor with respect to work on ACM? Yes ☐ No ☐

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9.	Did work involve control measures in area of ACM?	Yes ☐	No ☐
10.	Did work uncover any unexpected ACM?	Yes ☐	No ☐
	If Yes brief description with outcome:	.....	
11.	Did work involve removal of ACM or demolition of element including ACM?	Yes ☐	No ☐
12.	If Yes, have consignment notes and other details of Special Waste disposal been received from Contractor?	Yes ☐	No ☐
13.	Date works on ACM completed	d d ☐☐	m m ☐☐ year ☐☐☐☐
14.	Has AAP been updated via a copy of this check list?	Yes ☐	No ☐
15.	Has appropriate Database been updated	Yes ☐	No ☐

Completed by Project Manager

Signed: .....

Name: .....

Date: .....

Received by AAP Owner

Signed: .....

Name: .....

Date: .....

NOTES FOR EACH SPECIFIC QUESTION / SECTION OF THE CHECK LIST

Q1 For the first few years of applying the Asbestos Management System, AAPs will not be in place prior to identifying work programmes. However, it is the intention that AAPs should be prepared for all assets prior to works being carried out.

Q2 This information should come from survey results in the AAP (when completed). If this is not available, a presumption should be made that hidden elements may contain asbestos unless strong evidence to the contrary.

Q4 This applies to surveys and testing work specifically required in advance of identified work which may disturb ACMs. This could include tests on dust and debris to be removed prior to routine maintenance on bearing shelves, etc.

Q5 This is to ensure that asbestos issues from the register are integrated into CDM processes.

Q6 Certain works on ACMs require notification to HSE 14 days prior to contractors carrying out work. See HSE guidance and CAR 2006.

Q7 This is to ensure that asbestos issues are integrated into CDM processes.

Q8 This is to ensure that asbestos issues are integrated into CDM processes.

Q10 Occasionally work may uncover ACMs which were totally unexpected. Contractors should be prepared for this situation under their obligations as an employer under CAR 2006 and other Health and Safety legislation.

Q14 AAPs should be updated by appending a copy of the completed check list where ACMs have been affected or where new ACM information has come to light.

Q15 Where ACMs have been confirmed, sealed or removed as part of any works, the entry in the appropriate HA database should be amended accordingly.

ANNEX NO 6 - PROCESS FOR WORKS FOLLOWING AN EMERGENCY INCIDENT OR FLY TIPPING

SCOPE:

Applies to works necessary after an emergency incident to all asset types. Incident could include collision, road traffic accident, fire, collapse or partial collapse of a structure, embankment/cutting slips after bad weather, etc, where ACM are known to be present or suspected to be present. Also applies to fly tipping which may contain asbestos waste from building materials, etc.

1. Duty officer, Incident Support Unit (ISU) or maintenance contractor's representative, in conjunction with the HA's Traffic Officer's (where HATO's operate), confirms that the emergency services have completed their work and that all necessary general safety measures have been implemented.

2. Emergency services to be consulted to establish if they are aware of any spread of dust which could contain asbestos fibres.

3. AAP owner ensures that any safety measures are maintained in place in conjunction with maintenance contractor and emergency services.

4. Contractor or ISU arranges for any debris which is suspected to contain asbestos and still on the highway, to be removed by a licensed asbestos removal contractor. It should always be presumed that debris does contain ACM and appropriate precautions taken during the clearance work to current asbestos and other health and safety requirements. All necessary paperwork shall be forwarded to the Plan Owner, including consignment notes and other details of material disposed of as Special Waste. Whenever possible, clear up work shall be undertaken before the Police open up the carriageway to traffic.

5. If further work is needed to protect and/or repair the asset, then the work should be treated as planned work and the process to establish the appropriate knowledge of ACMs should be commenced prior to any work being carried out.

6. Results of this process should be fed into AAPs as required by other procedures/flow charts, including the Asbestos Control Check List, which should be completed as required, although it is accepted that not all sections will apply.

ANNEX NO 7 - ASBESTOS SURVEY SPECIFICATION

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1.0 INTRODUCTION

The Highways Agency is to commission asbestos surveys through it's agents and Providers for a large number of their buildings, compounds, associated offices, depots and highway infrastructure assets.

The objective of the surveys is to identify, assess the condition of, and quantify all asbestos containing materials as defined and described in the MDHS 100.

This document, which is to be read in conjunction with MDHS 100, sets out the method to be adopted and the scope of these surveys. It also defines the format of the Asbestos Report, the Bulk Sampling Analysis Report and the Asbestos Register for completion by the surveying Organisation in conjunction with the Provider's Representative.

The asbestos surveys will be Type 1, Type 2 or Type 3 surveys as defined in MDHS 100.

2.0 SURVEYING ORGANISATIONS

The Surveying Organisation carrying out the survey shall be UKAS accredited to ISO 17020.

The surveys shall be carried out by experienced building surveyors or engineers trained in asbestos surveys to at least the standard of the British Occupational Hygiene Society (BOHS) : P402 – Building Surveys and Bulk Sampling.

All surveyors shall have passed the BOHS P402 examination and have demonstrated their competence to prepare acceptable reports, prior to carrying out any surveys.

The Surveying Organisation shall appoint a lead or senior asbestos surveyor to manage and supervise the commission. This person shall ensure that consistency is maintained at all times by the surveying teams engaged on the commission.

The Surveying Organisation shall at all times comply with appropriate health and safety legislation and ensure that it's procedures are followed throughout the commission**.**

3.0 EXISTING INFORMATION

Prior to carrying out the survey, the Provider's Representative will provide the Surveying Organisation with copies of any available relevant information including drawings, previous survey reports, asbestos records or registers.

Where possible, this information shall be reviewed by the Surveying Organisation prior to the survey and record drawings prepared for marking up during the survey in conjunction with the Provider's Representative.

4.0 RISK ASSESSMENT

A risk assessment specific to the property/asset to be surveyed shall be prepared based on existing information and an initial inspection. The risk assessment will take into account the safety of Highways Agency, Provider and surveying staff and any other occupants of the building such as visitors and contractors and shall be recorded using standard forms produced by the Surveying Organisation.

The Surveying Organisation shall produce survey and sampling method statements incorporating the results of risk assessments in advance of carrying out survey work and give a copy to the Provider's Representative.

5.0 ACCESS ARRANGEMENTS

Buildings

The surveyors will be responsible for agreeing access arrangements, through the Provider's Representative, with the manager at each property. Full contact names and addresses will be provided.

At least one week's notice shall be given and appointments be confirmed in writing by the surveyor, giving details of the anticipated duration of the survey and requesting sight of any available records relating to asbestos.

Highways Infrastructure

Because of the nature of working on or near the highway, surveying of roads and bridges, etc., will be carried out under controlled access conditions, including working within traffic management and working at night in certain locations and providing access to electrical/communications items.

The Provider's Representative will be responsible for making access arrangements following discussion with the Surveying Organisation.

The surveying organisation will be accompanied at all times by the Provider's Representative, or nominee, when working on or near the highway.

General

Access equipment will be provided by the Provider's Representative over and above standard three metre folding ladders, which shall be provided by the Surveying Organisation.

The Provider's Representative will arrange for labour required for any excavation work in highways, where Type 3 surveys are required

Surveyors shall carry identity cards at all times and motorway passes issued by the HA. The latter will be arranged by the Provider's Representative.

6.0 SCOPE OF SURVEYS

During the course of the survey, all reasonable efforts shall be made to inspect all normally accessible areas to identify the physical presence of materials suspected of containing asbestos. When safe access is available using specialist equipment such as tower scaffold and mobile elevating work platforms supplied by the Provider's Representative, then this will also be used.

Any other areas that are out of reach will be surveyed remotely using binoculars if necessary. In these cases, where asbestos may be reasonably believed to be present, then the assumption of asbestos being present will be made.

Highways infrastructure

In general, Type 2 surveys will be undertaken to include the surface elements of all the carriageways, verges, central reserves and earthworks features and all visible elements of highway structures including bridges, culverts, gantries, tunnels, viaducts, etc. The Provider's Representative will determine the sequence of survey work in relation to access availability within traffic management in conjunction with the survey teams and whether work will be required at particular times of the day or at night.

Any requirements for Type 3 surveys will be included in the survey order in the event that sampling is required of any buried items on which work is planned, for example bridge deck waterproofing or suspected asbestos cement drains or ducts.

Surveys of electrical equipment in boxes and cabinets will not be required, unless specifically in the Works Order.

Buildings and similar premises

To avoid unnecessary disruption and damage a number of areas may be specifically excluded from the survey order as follows in a) to f), unless type 3 surveys are required:

a) **Lift shafts/plant/machinery** - Lift shafts, plant rooms, sub-stations or similar, shall be surveyed only where the presence of a specialist engineer for safety reasons is not required. The Surveying Organisation will not be required to take samples of integral components of machinery (e.g. gaskets and rope seals) or other components where this could affect the material's integrity.

b) **Concealed spaces and voids** - Cavity wall voids or concealed spaces in the fabric of the building will not be surveyed. Where asbestos products are present (e.g. asbestos ceilings), these will not be removed to allow inspection behind them.

c) **Furniture/fixtures/fittings/carpets etc** Fixtures, fittings, linoleum and carpets etc. will not be removed or lifted.

d) **Sub-surface material** - To minimise damage to the fabric of the building, sub-surface examinations of walls, floors (such as concrete materials) and ceilings will not be carried out.

e) **Live electrical equipment** - Samples will not be taken where the act of sampling would endanger the surveyor, or affect the functional integrity of a safety feature, e.g. fire breaks, seals etc.. Electrical fuse boxes will not be opened.

f) **Excluded Items** - The survey will not include, bitumen roof felts, other bitumen products, damp proof course, paints, mastics, sealants and putties. All these materials may contain small amounts of asbestos, but do not normally present a hazard during normal occupation. The survey will not extend to sampling dust deposits to look for asbestos contamination from previous asbestos removal work.

Certain items by their nature should be assumed to have an asbestos content, for example fire doors, fuses to electrical boxes, gaskets, ropes associated with heating or power plant.

Particular difficulties are often associated with areas where ad-hoc alteration and refurbishment have previously been carried out, and where asbestos may be hidden behind cladding materials. Asbestos is also frequently concealed within the fabric of buildings within

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sealed voids, as shuttering etc. it is therefore possible that further asbestos containing materials may be found, particularly during electrical rewiring, heating installations and other refurbishment or demolition works.

It should be noted that Type 3 surveys will be commissioned where considered appropriate by the Provider's Representative, particularly in the areas covered by (a) to (f) above.

7.0 PHOTOGRAPHS

Photographs shall be taken to show examples of all situations in which asbestos is suspected and specifically of each sampling location. Repeat photographs of numerous identical situations will not be necessary.

Photographs should be cross-referenced to the survey results table with a unique reference system. Photograph labelling will clearly identify the building/location at which the photograph was taken.

All photographs will be in landscape format.

8.0 SAMPLING AND TESTING

Prior to carrying out any sampling, a risk assessment shall be undertaken by the Surveying Organisation for the specific location. For buildings, this shall take into account the use and occupancy of the room or other internal space, the nature of the product being sampled and access requirements.

Warning signs "Asbestos Sampling – Keep Clear" may be erected and protective sheeting laid below the sample area where reasonably practicable or in occupied areas.

Samples of about 3 to 5 cm^2 shall be taken of all different products potentially containing asbestos as follows, based on Asbestos and Man-made Mineral Fibres in Buildings – Practical Guidance published by DETR:

Spray Coating	-	one sample per 10-15 m^2 or in installations of greater than 100m^2 - one per 25 - 30 m^2.
Lagging	-	one sample per three metre run of pipe or for longer pipe runs (over 20 metres in length) –one per six metres.
For boiler and calorifiers	-	two samples per unit.
Insulation Board	-	one sample per type of product or panel or where, large numbers of apparently identical panels have been used in an area, then 2 or 3 samples should be taken.
Asbestos Cement	-	as insulating board
Other Materials	-	one sample from each type of product.

Detailed recommendations on safe methods of sampling described in MDHS 100 shall be rigorously followed.

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After each sample has been taken, the damaged area should be sealed using tape or sprayed EVA to prevent escape of fibres. Any debris created shall be removed by wet-wipe and placed in double sealed bagging for safe disposal.

In the event of unforeseen or accidental release of excessive debris, above what would normally be expected for taking samples, the surveyor will:

- Evacuate immediate area, and inform client contact;
- Ensure isolation of area and restrict entry to authorised persons;
- Arrange with a licensed contractor to carry out clean up and subsequent air monitoring.

The sample location shall be labelled and photographed. A record shall be made on the report results table of the location and the sample identifier.

Samples shall be individually bagged and labelled to identify:

- Building/asset
- Location
- Sample identifier

Testing of samples shall be undertaken by organisations accredited to ISO 17025 by UKAS.

9.0 EQUIPMENT

All necessary equipment, including ladders, tools, PPE, sampling materials, consumables, etc., shall be provided by the Surveying Organisation, with the exception of the access equipment in section 5.

10.0 ASSESSMENT

The risk from asbestos shall be based on a visual assessment of the material and a judgement on the use of the location, based on the following criteria in MDHS 100:

- Product Type
- Asbestos Type
- Damage / Deterioration
- Surface Treatment

Using the material assessment algorithm from MDHS 100, reproduced on the next page, the potential for fibre release, if disturbed, shall be assessed as follows:

Assessment score	**Potential for fibre release**
10+	High Potential
7-9	Medium Potential
5-6	Low Potential
<4	Very Low Potential

MATERIAL ASSESSMENT ALGORITHM

POTENTIAL FOR ASBESTOS FIBRE RELEASE (Taken from MDHS100)				
Product type (or debris from product)	**Score**		**Asbestos type**	**Score**
Asbestos-reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints or decorative finishes, asbestos cement etc).	**1**		Chrysotile (White)	**1**
Asbestos insulating board, mill boards, other low density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt.	**2**		Amosite (Brown)	**2**
Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing.	**3**		Crocidolite (Blue)	❸
Extent of damage / deterioration	**Score**		**Surface treatment**	**Score**
Good condition: no visible damage	**0**		Composite materials containing asbestos: reinforced plastics, resins, vinyl tiles.	**0**
Low damage: a few scratches or surface marks; broken edges on boards, tiles etc.	**1**		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), asbestos cement sheets etc.	**1**
Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	**2**		Unsealed AIB, or encapsulated lagging and sprays.	**2**
High damage or delamination of materials, sprays and thermal insulation. Visible asbestos debris.	**3**		Unsealed lagging and sprays.	**3**

Assessment Score

Circle the relevant boxes above and add scores to determine the overall Assessment Score

Presumed or strongly presumed asbestos containing materials are scored as crocidolite ❸

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11.0 RECOMMENDED ACTION REQUIRED

Three options are outlined in MDHS 100 where asbestos products containing asbestos are identified to be present in the building:

a) Management of existing asbestos. If the asbestos is in good condition and well sealed it may be left in place and an appropriate management control system set up. This may include:
- A log which is maintained and kept up-to-date
- Information, instruction and training of staff
- Regular inspection and maintenance
- Labelling of asbestos likely to be disturbed during maintenance
- A permit to work system

b) Sealing, repair or encapsulation. If it is likely that any asbestos-based materials may release fibres, particularly where the material is damaged or is likely to be disturbed or abraded then the material must be treated.

Sealing involves the application of a coating (paint, polymeric, cement etc,) which must firmly bond to the asbestos material.

Repair involves filling of cracks, patching, encapsulation or cladding with sheet materials

c) Removal. Where there is a risk that fibres may be released and it is not practical to seal or repair the area then asbestos material must be removed by an approved contractor.

These are not mutually exclusive as, for example, management of existing asbestos will be required where asbestos is left in place or before it is removed.

The material assessment should identify the high-risk materials, that is, those which will most readily release airborne fibres if disturbed. It does not automatically follow that those materials assigned the highest rating in the material assessment will be the materials that should be given priority for remedial action. Priority must be determined by carrying out a risk assessment which will take into account factors such as:

- The location of the material
- Its extent
- The use to which the location is put
- The occupancy of the area
- The activities carried on in the area
- The likelihood/frequency with which maintenance activities are likely to take place.

Recommendations for action on known or presumed asbestos containing materials shall be based on the material assessment and the judgement of the surveyor who shall take into account the above factors as known at the time of presenting the report.

Consultation with the Provider's Representative will be necessary in respect of the potential activity/disturbance for highway infrastructure assets.
Outline guidance on the selection of the most appropriate option is given in the table below, although the surveyor must ultimately base recommendations on his or her risk assessment,

the assessment score of the product and the results of consultation with the Provider's Representative.

Recommended Actions

Assessment Score	Product	Low chance of disturbance	Normal	High chance of disturbance	Planned Refurb./ Demolition
<4	All	M	M	M	R
5-6	Asbestos-reinforced composites	M	S	S	R
	Asbestos insulating board other low density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt.	M	S	S	R
	Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing.	S	S/R	R	R
7-9	Asbestos-reinforced composites	M	S	S	R
	Asbestos insulating board other low density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt.	M	S/R	R	R
	Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing.	S	R	R	R
10+	Asbestos-reinforced composites	S	S	R	R
	Asbestos insulating board other low density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt.	R	R	R	R
	Thermal insulation (e.g. pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing.	R	R	R	R

M = manage S = seal and then manage R = remove

12.0 ASBESTOS SURVEY REPORT

A detailed individual report for each building/asset shall be prepared in the format and with the contents shown in Appendix A as agreed with the Provider's Representative.

The objective of this report is to provide a comprehensive record of the type, extent and condition of any asbestos containing products. It shall also contain recommendations which will form part of the future management of asbestos containing materials identified. It shall also contain those elements of the asset known or presumed not to contain ACM.

This information shall preferably be shown on drawings where these are available, or by detailed description supplemented by sketches where drawings are not available. Areas excluded from the survey shall also be clearly identified.

13.0 BULK SAMPLING ANALYSIS REPORT

The Bulk Sampling Analysis Report shall be referred to in the Asbestos Report and should contain the following information:

- The name, address and accreditation number of the laboratory that carried out the testing
- The analysis method used
- The address/location of the property/asset
- A table summarising the results of the analysis including asbestos found or not found and types identified, by sample unique identifier for all samples
- Dates that the analysis was carried out
- Names and signatures of the analyst and any countersigning person

14.0 ASBESTOS REGISTER

The Surveying Organisation shall provide an asbestos register which shall contain the following information to a format to be agreed with the Provider's Representative, based on the schedule in Appendix B:

- Building/asset name and address/location/ reference
- Area
- Location
- Component/element of the asset
- Sample reference
- Material assessment score
- Remarks
- Proposed action
- Reasons for presumption of asbestos-containing materials
- Reasons for assumption of non asbestos-containing materials

It shall be based on an Access database and will be readily updateable.

APPENDIX A – FORMAT AND CONTENTS OF SURVEY REPORTS

1. INTRODUCTION

1.1 General objectives, specification, date of survey

1.2 Property/Asset description

1.3 Scope

1.4 Agreed variations to specification

1.5 Available information inspected before survey

2. SURVEY RESULTS

2.1 Detailed results of survey, sampling, testing etc.

2.2 Material assessment scores

2.3 Laboratory used, with relevant details

3. SUMMARY OF FINDINGS AND RECOMMENDATIONS

APPENDICES

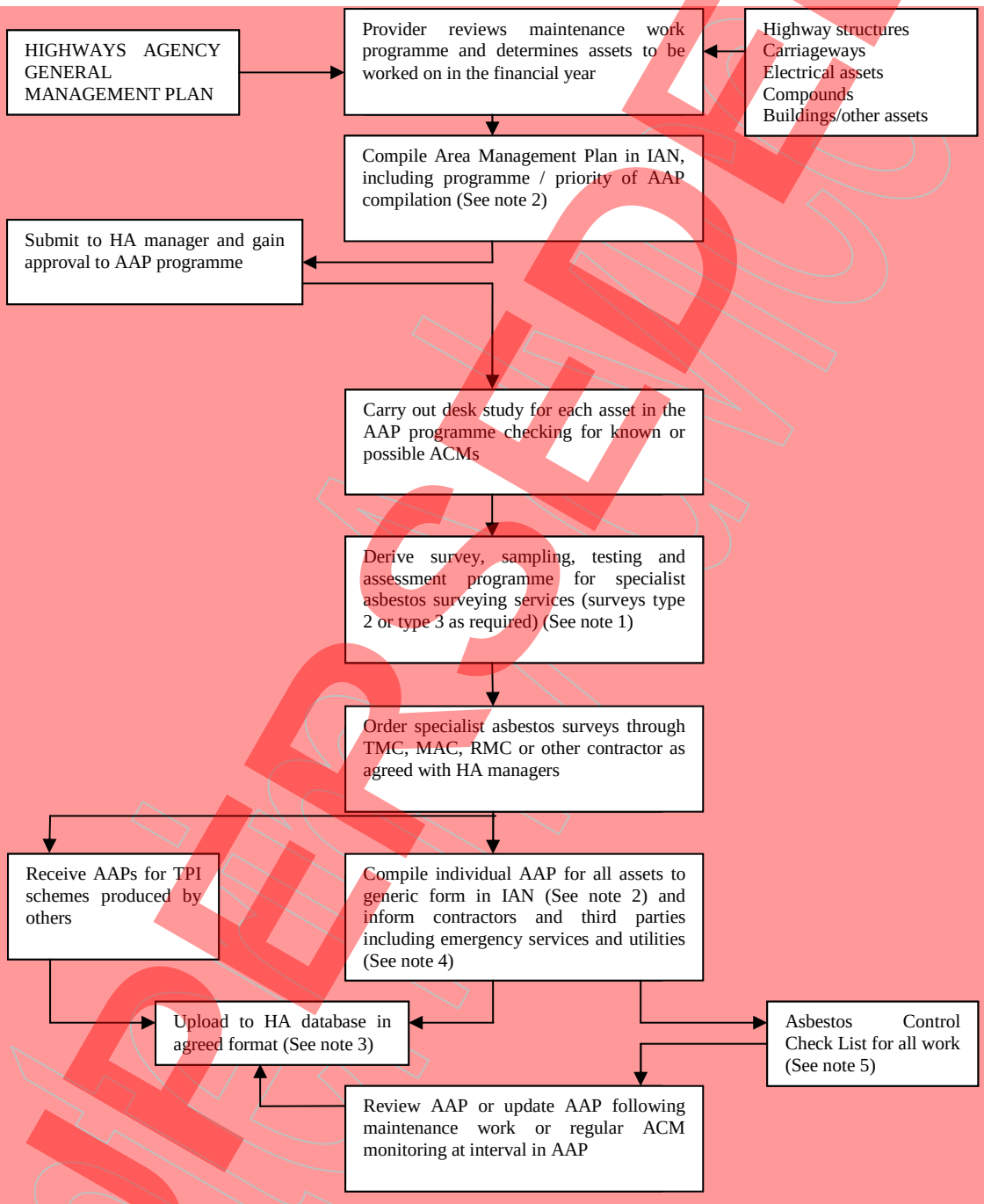
1 Detailed test results including photographs
2 Drawings/sketches
3 Analysis reports

APPENDIX B –FORMAT OF REGISTER

Example attached

ASSET NAME				[Insert]							**ASBESTOS RISK REGISTER**	
ASSET DESCRIPTION AND REFERENCE				[Insert]								
Section	Location Building name Element name	Component Name / Description	Other reference	Survey Type 1, 2 or 3	Sample Ref	Positive test for ACM (For Section 1)	Material Assessment Score (MDHS100 refers)	Rating for disturbance during maintenance Low, Medium, High	Actions necessary - A, B, C or D	Photo ref	Grounds for presumed ACM (Section 2)	Grounds for presumed non-ACM (Section 3)
Section 1 known ACMs	Egs Deck Spans	Permanent soffit formwork	-	2	123/45	Yes	3	L	B – Manage	123/45		
	Salt Barn	Roofing	-	2	123/56	Yes	5	M	C – Repair and manage	123/56		
	Street lighting duct chambers	Chamber covers	-	2	123/67	Yes	5	H	D – remove and replace with non ACM	123/67		
Section 2 Presumed ACMs	Egs Abutment – east	Joint filler board	-	-			6	M if joint replaced	B – Manage; Type 3 survey if to be disturbed	-	No records, age of structure 1970	
	Office Block	Roof insulation	-	2 only			5	M if void entered	B – Manage; Type 3 survey if to be disturbed	-	Drawings	
Section 3 Presumed Non ACMs or confirmed non ACMs following tests	Egs Office block walls	All faces to building	-	2					A	-		Brickwork
	Parapets	East and west	-	2					A	-		Steelwork
	Piers	All	-	2					A	-		Reinforced concrete
	All decks	Waterproofing system	-	-					A	-		Replaced in 2002 as maintenance scheme

ANNEX NO 8 – ASBESTOS MANAGEMENT FOR ALL MAINTENANCE WORK (SCHEMES, COMPOUNDS AND OTHER BUILDINGS).
FLOW CHART NO 1 - PRODUCTION OF AREA MANAGEMENT PLANS (AMP) AND ASBESTOS ACTION PLANS (AAP)



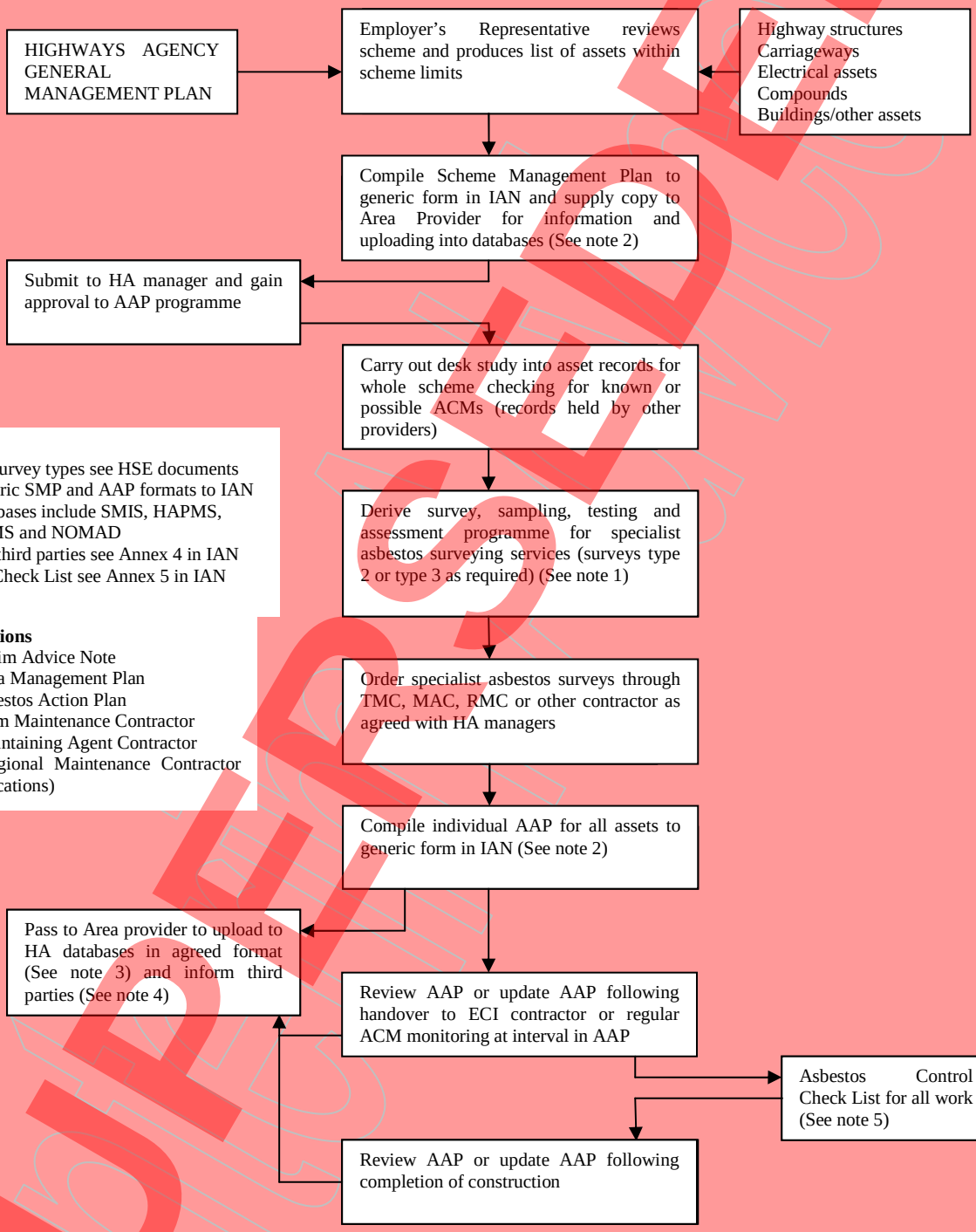
Notes

1. For survey types see HSE documents
2. Generic AMP and AAP formats to IAN
3. Databases include SMIS, HAPMS, GDMS and NOMAD
4. For third parties see Annex 4 in IAN
5. For Check List see Annex 5 in IAN

Abbreviations

IAN: Interim Advice Note
AMP: Area Management Plan
AAP: Asbestos Action Plan
TMC: Term Maintenance Contractor
MAC: Maintaining Agent Contractor
RMC: Regional Maintenance Contractor (communications)

ANNEX NO 9 – ASBESTOS MANAGEMENT FOR MAJOR SCHEMES (ASSUMES ECI PROCUREMENT)
FLOW CHART NO 2 - PRODUCTION OF SCHEME MANAGEMENT PLANS (SMP) AND ASBESTOS ACTION PLANS (AAP)



Notes
1. For survey types see HSE documents
2. Generic SMP and AAP formats to IAN
3. Databases include SMIS, HAPMS, GDMS and NOMAD
4. For third parties see Annex 4 in IAN
5. For Check List see Annex 5 in IAN

Abbreviations
IAN: Interim Advice Note
AMP: Area Management Plan
AAP: Asbestos Action Plan
TMC: Term Maintenance Contractor
MAC: Maintaining Agent Contractor
RMC: Regional Maintenance Contractor (communications)

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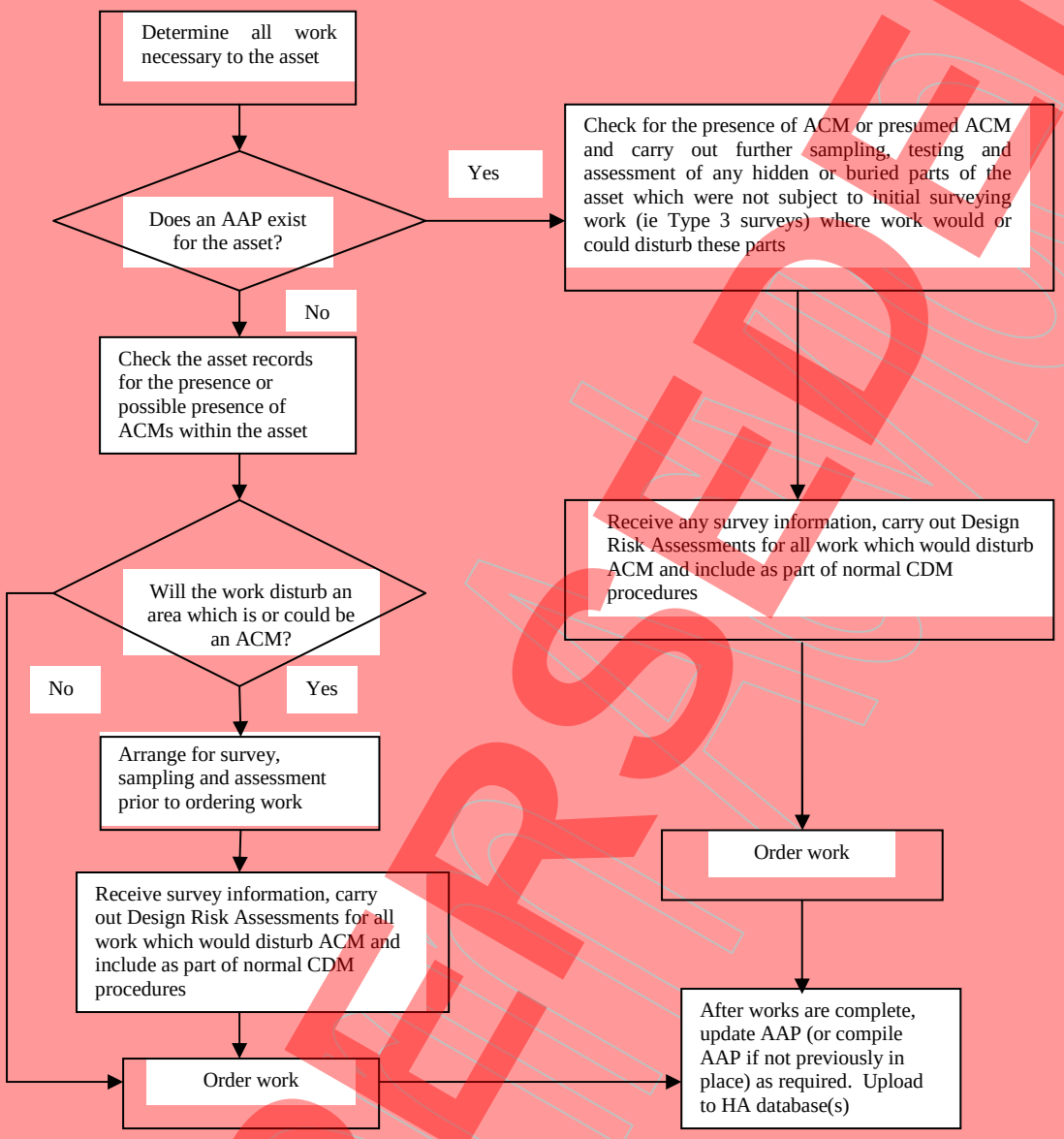
ANNEX NO 10 – FLOW CHART NO 3 - FOR ASBESTOS MANAGEMENT OF ALL MAINTENANCE WORK, MAJOR SCHEMES (INCLUDING ROUTINE MAINTENANCE, BRIDGE INSPECTIONS AND MISCELLANEOUS SURVEYS/INVESTIGATIONS (See Note 3)



Notes

1. Without specific knowledge, ACM must be presumed to be present in the absence of test results following surveying and sampling.
2. Materials known to be concrete, steel, aluminium, brick, timber, stone or bituminous pavement can be assumed to be asbestos free.
3. For TPI schemes, it is assumed that an AAP is in place prior to the ECI contractor carrying out Design Risk Assessments.
4. The Asbestos Control Check List must be used in conjunction with this chart.

Abbreviations

AAP: Asbestos Action Plan
ACM: Asbestos Containing Material
CDM: Construction (Design and Management) Regulations 1994

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ANNEX No 11
CASE STUDIES OF ASBESTOS CONTAINING MATERIALS DISCOVERED IN HIGHWAY INFRASTRUCTURE

1. Asbestos filler board was found unexpectedly as a joint filler between the end of an infill concrete/precast beam deck and an insitu reinforced concrete ballast wall on a highway structure. The bridge was built in the 1960's and few, if any drawings of the deck construction had survived. During testing operations associated with the bridge assessment process, the board was found after breaking out a section of the ballast wall to view the ends of the precast beams. Fortunately the testing contractor noticed the material and took appropriate measures to avoid exposure to asbestos fibres.

2. Asbestos cement ducts and chambers were noted on walk over surveys for a street lighting renewal contract on a dual carriageway in the midlands. The ducts ran along the central reservation and chambers which had previously been damaged had been covered with temporary concrete slab covers. When work proceeds a decision will have to be made as to whether the whole system should be replaced with non asbestos containing materials as part of the scheme.

3. Asbestos cement surface water drainage pipes were found during drainage renewal work on a late 1970's dual carriageway. At that time, pipe material choices in the Specification gave Contractors the option to use AC pipes. Most contractors sourced up to around 300 diameter pipes in SGW material, 375 to 525 diameter pipes in AC material and over 600 diameter in concrete. Construction drawings show line and level, but not materials.

4. Asbestos cement sheet materials were found in service bays of M1 Bridges built in the 1960's. The material had been used to create a drainage path in deep service bays along the bridge deck cantilevers. A removal process has been ongoing in order to completely replace the material within a programme of deck refurbishment works.