

Appendix 'A'

Highway Asset Information Strategy

February 2017

Highways Asset Management Plan – Highway Asset Information Strategy
February 2017

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1 – Introduction

The Highways Asset Management Framework (HAMF) is the overarching document that provides a framework for highway asset management in Lancashire and was adopted by the Cabinet Member for Highways and Transport in December 2016. It clearly sets out what highway asset management means to the County Council and outlines the procedures, processes and systems currently in place, or those we intend to adopt, to help ensure that Lancashire's highway and transport assets are maintained in a condition that is considered fit and safe for reasonable use. It describes what is reasonable to achieve with the resources available and sets out in a transparent manner how they will be utilised in the most effective manner.

The HAMF stresses the importance of having up to date and reliable information about the number and type of assets and their condition so that the asset location, condition where they are in their lifecycle is known. This is required to make sound judgements with regards budget planning, maintenance options, scheme selection and works prioritisation.

This Highway Asset Information Strategy is the first step in setting out how inventory data is collected, managed and periodically refresh it. It is acknowledged that collecting information about all of the assets simultaneously is not possible. The Strategy will apply to the fabric, structures, street lighting, signs, other street furniture and most of the other asset types of the vehicular highway network initially and include structures such as bridges on the non-vehicular highways such as footpaths and bridleways. Data collection is prioritised between the assets based on the relative importance that each asset group contributes towards our goal of delivering an effective transport system. This is crucial in order to realise the key strategic priorities and achieve the broader economic, social and environmental goals as set out in the TAMP over the period 2015/16 to 2029/30

The data will be collected and managed in line with the guidance contained in the Highway Maintenance Efficiency Programme (HMEP). The data will also be used to value the assets in line with the Whole of Government Accounts procedure. The data will be used to support performance management and progress will be reported in maintaining the assets annually as part of the TAMP data refresh reporting procedures.

2– Measuring Asset Condition

An essential component of an effective asset management regime is the ongoing monitoring of an assets condition as this enables determining where an asset is in its life-cycle so that intervention with the right treatment at the optimal time to effectively utilise resources in the most cost effective manner.

Monitoring and measuring the condition of the assets over a period of time enables the effect of maintenance strategies or material uses to be assessed and early opportunity to amend these if required. Where up to date engineering data is not currently available for asset groups alternative data sources in the interim are used to make initial assessments of the overall condition of the asset grouping.

The data-gap will be addressed by collecting engineering data that is considered most the appropriate for each particular asset grouping. For some assets this will include information collected via mechanical means, for others this will involve the collection of objective data by highway inspectors or operatives using national guidelines. For other assets, the condition will be determined using data sources such as age profiles etc.

Even where engineering data is currently available and considered to be robust efforts will continue to explore alternative data collection methodologies and will migrate should other data collection systems provide better information with which to manage the assets more effectively e.g. through scenario planning etc.

3 - Data Gathering Approach

The transport infrastructure asset is diverse encompassing the fabric of publicly maintainable highways, structures, street lighting, signs, other street furniture and other asset types. In order to make the most appropriate investment decisions it is vital we have sufficient knowledge of the condition, location and lifespan of each of the highway assets. The level of information required will vary depending on:

- The benefits of specific information;
- The costs of collection of information;
- The resource costs of maintaining the data once gathered;
- The relative importance of the maintenance decisions required;
- The requirements of whole government accounts;

The purpose of this strategy is twofold. Firstly to service the data needs of the County Council's core information technology system so as to provide up to date accurate and reliable data to inform LCC's operational decisions and secondly to co-ordinate the required data gathering to ensure that allocation decisions are informed by appropriate, current and reliable data. Given the complexity and diversity of the information required it is accepted that it may not be possible to gather all of the data for all asset groups annually.

Assessment of the condition of each type of highways asset may have different data capture mechanisms. It is anticipated that this strategy will identify:

- The data currently held and its fitness for purpose;
- The most appropriate way of gathering the data;
- The most appropriate time to gather data;
- The mechanisms to utilise the data captured;
- Any limitations of the data gathered;
- The outputs required from the data captured;
- The frequency data gathering is required;
- The costs associated with the capture of the data required;
- The level of detail to hold against an asset;
- How long details will be retained to satisfy legal or operational purposes;
- The person required to maintain the data once it is obtained;

Information about the condition of the asset is required by April each year to allow the most appropriate way to allocate resources between the different asset groups to be assessed. This will allow the most impact in terms of improving and/or maintaining asset condition and the level of service the asset provide to users.

Allocations will be based on a needs basis and the criterion will be reviewed annually to reflect the most up to date available asset condition data.

The data gathering approach therefore seeks to prioritise the data gathering exercise in order to produce annual data gathering plans which themselves have a life cycle of four or five years. By scheduling the data collection process over a 5 year cycle it means that data is collected on a regular cycle for all assets groups. It also avoids the peaks and troughs in data handling and will be better placed to manage more effectively the process of updating the relevant asset databases.

A suggested 5 year rolling data gathering schedule is proposed below:

	Year 1	Year 2	Year 3	Year 4	Year 5
A,B and C Roads	SCANNER A and B roads 100% one direction. C roads 50% one direction	SCANNER A and B roads 100% reverse direction C roads 50% reverse direction	As Year 1	As Year 2	As Year 1
Rural Unclassified Roads	Video Survey 50% of the network	Video Survey 50% of the network	As Year 1	As Year 2	As Year 1
Residential Roads	Video Survey 50% of the network	Video Survey 50% of the network	As Year 1	As Year 2	As Year 1
Footway and Cycle Tracks	Visual inspection and condition recording. 25% of the network	Visual inspection and condition recording. 25% of the network	Visual inspection and condition recording. 25% of the network	Visual inspection and condition recording. 25% of the network	As Year 1
Bridges	General Bridge Inspections. 50% of the bridge stock	General Bridge Inspections. remaining 50% of the bridge stock	As Year 1	As Year 2	As Year 1
Lighting	Column condition collected as part of Electrical Test. 1/5 th of the lighting stock each year.	Column condition collected as part of Electrical Test. 1/5 th of the lighting stock each year.	Column condition collected as part of Electrical Test. 1/5 th of the lighting stock each year.	Column condition collected as part of Electrical Test. 1/5 th of the lighting stock each year.	Column condition collected as part of Electrical Test. 1/5 th of the lighting stock each year.
Retaining Walls	General Wall Inspections. 50% of the wall stock	General Wall Inspections. remaining 50% of the wall stock	As Year 1	As Year 2	As Year 1

Provided in the attached appendices is a summarised assessment of the status of the current inventory data together with information relating to the required condition data, the size of asset, current data availability, data gathering protocol, current data limiting factors, cost of data gathering and required outputs identified.

Attached at Appendix 5 are details of the various asset registers we intend to use and maintain our asset data up to date.

As stated earlier this data gathering approach and asset registers currently do not cover the collection of all information about all assets types. This strategy will be updated in time so as to fill these gaps in line with our identified priorities.

The Road Network

a) A, B and C Road Network

Information Required

The results of the annual condition survey of the A, B and C road network are required in order to:-

- Assess the proportion of A, B and C roads in each district area classified as RED, AMBER or GREEN according to the SCANNER survey;
- Assess whether adjustment of the allocation basis is required.

The results of the SCANNER data form an integral part of the development of the following years capital programme. In order to achieve this, survey data is required in April each year and must be in a form that enables each 10mtr length of road which may require further investigation or treatment to be easily identified.

Size of the asset

Approximately 2,567km

Current data availability

Data has been collected since 2009 and is considered reliable and up to date.

Data gathering protocol

SCANNER data is gathered in accordance with central government requirements using an accredited supplier and calibrated equipment.

The rationale for gathering data between February and March each year is that the effects of the preceding winter can be evaluated in the data gathered. The benefits associated with gathering SCANNER data prior to winter are not considered to outweigh the benefits of having reliable data in the spring of each year. The survey will collect data on the condition of the highway but is not capable of measuring any other parameters.

Current data limiting factors

The current data is a sound basis for the analysis required. A strategic objective would be to provide a more visual representation of the condition data associated with the use of the County Council's Mapzone GIS software. District based condition trends and evaluation against a generic county wide standard are required to inform longer term investment decisions.

Costs of gathering information

The cost to the County Council of getting the SCANNER data into a useable format is estimated to cost in the order of £35000 per year.

A video survey of the A, B and C network and condition extraction is undertaken annually at an estimated cost of approximately £77,000. In addition to this a SCRIM survey which measures the skid resistance of the carriageway is required in order to identify sites of low skid resistance in accordance with our skidding policy. The cost of this survey is approximately £62,000.

Required Outputs Identified

- District by district area condition data;
- District by district area comparison to county wide standard;
- Total maintenance need in each district in terms of length of road requiring attention;
- Estimated Costs of maintenance needs.

Prioritisation

It is suggested that the asset is prioritised as follows:-

- The strategic / resilient network;
- High importance non- strategic network.

Summary

The data obtained is fit for maintenance programming purpose and is gathered in an appropriate manner. However the methodology does not allow any additional information to be collected which relates to the additional assets associated with the highway.

b) Residential Unclassified Roads

Information Required

Condition survey results on the residential road network are required in order to:-

- Assess the proportion of the residential network in each district which may require further investigation or remedial works;
- Assess whether adjustment of the allocation basis is required.

The results of the condition surveys form an integral part of the development of the following years capital programme. In order to achieve this, the most up to date survey data is required in April each year and must be in a form that enables those parts of residential road network that requires further investigation to be identified.

Provided that a certain proportion of residential road network is updated each year, it is debatable whether a full survey of this part of network that requires further investigation to be identified.

Size of the asset

Approximately 3,346km

Current Data availability

Residential road condition data had until recently not been collected since 2009. Whilst it is possible to extrapolate from the 2009 data, on the basis of a deterioration rate which mirrors the A, B and C road network in each district area, the uncertainty associated with such an exercise was considered to be very high. As a consequence highway video surveys were carried out in 2016 across the whole of this network. In future 50% of the network will be video surveyed each year.

Data Gathering Protocol

Condition data could be collected via a number of different ways. Due to road geometry, cul-de-sacs etc. this network is not suitable for SCANNER surveys. Coarse Visual Inspection surveys would require a walked survey and would take too long to collect. As a result information is to be collected via video surveys as this enables data to be collected relatively quickly.

Current data limiting factors

Whilst data can be collected quickly a major drawback is the need to examine the recording and extract data. To overcome this the County Council is to incorporate data extraction into the procured data collection service. As with SCANNER and CVI surveys the incidence of parked cars may interrupt data gathering.

Costs of gathering information

The cost to the authority of gathering and then manipulating the condition data is in the region of £52,000. Collecting data across 100% of the network on an annual basis is not considered to be appropriate or necessary. As a result condition data will be collected from half the network each year. This data is collected by a video survey and then the condition data extracted.

Required Outputs Identified

- District by district area condition data;
- District by district area comparison to county wide standard;
- Total maintenance need in each district area in terms of length of road;
- Estimated costs of maintenance needs.

Prioritisation

It is suggested that the network is prioritised as follows:-

- Residential feeder roads leading to the principal strategic network;
- Residential main roads feeding local estates;
- Individual residential roads.

Summary

The data collected as part of the 2016 survey is fit for maintenance programming purpose and setting of Service Standards.

c) Rural Unclassified Roads

Information Required

Condition survey results on the rural unclassified road network are required in order to:

- Assess the proportion of the rural unclassified road network in each district which may require further investigation or remedial works;
- Assess whether adjustment of the allocation basis is required.

The results of the condition surveys form an integral part of the development of the following years capital programme. In order to achieve this, the most up to date survey data is required in April each year and must be in a form that enables those parts of residential road network that requires further investigation to be identified.

Provided that a certain proportion of rural unclassified road network is updated each year, it is debatable whether a full survey of this part of network that requires further investigation to be identified.

Size of the asset

Approximately 1,065km

Current Data availability

Rural unclassified road network condition data had until recently not been collected since 2009. Whilst it is possible to extrapolate from the 2009 data, on the basis of a deterioration rate which mirrors the A, B and C road network in each district area, the uncertainty associated with such an exercise was considered to be very high. As a consequence highway video surveys were carried out in 2016 across the whole of this network. In future 50% of the network will be video surveyed each year

Data Gathering Protocol

Condition data could be collected via a number of different ways. Due to road geometry, cul-de-sacs etc. this network is not suitable for SCANNER surveys. Coarse Visual Inspection surveys would require a walked survey and would take too long to

collect. As a result information is to be collected via video surveys as this enables data to be collected relatively quickly.

Current data limiting factors

Whilst data can be collected quickly a major drawback is the need to examine the recording and extract data. To overcome this the County Council is to incorporate data extraction into the procured data collection service. As with SCANNER and CVI surveys the incidence of parked cars interrupting data gathering.

Costs of gathering information

The cost to the authority of gathering and then manipulating the condition data is in the region of £17,000. Collecting data across 100% of the network on an annual basis is not considered to be appropriate or necessary. As a result condition data will be collected from half the network each year. This data is collected by a video survey and then the condition data extracted.

Required Outputs Identified

- District by district area condition data;
- District by district area comparison to county wide standard;
- Total maintenance need in each district area in terms of length of road;
- Estimated costs of maintenance needs.

Prioritisation

It is suggested that the network is prioritised as follows:-

- Rural unclassified roads that are not part of the strategic network and provide sole access to urban communities;
- Rural unclassified roads serving a number of communities with significant populations;
- Rural unclassified roads serving isolated individual residential or business properties;

Summary

The data collected as part of the 2016 survey is fit for maintenance programming purpose and setting of Service Standards.

Footways

Information Required

Condition survey results of the footway and cycle path network are required in order to allow a timely response to defects, within existing resources. Information required:-

- A district by district area condition of the asset;
- The numbers of defects in each district area;
- The incidence and locations of claims for personal injury;
- The cost of successful claims to the authority.

Size of the asset

Approximately 6,574km

Current data availability

We currently have a full survey of the footway network and an indication of the numbers of defects and the numbers of claims in each district area.

Data gathering protocol

The most accurate method of gathering condition data would be by means of a walked survey. Over the past 12 months the county council has been collecting objective condition data relating to all the footways in Lancashire using a modified version of the Footway Network Survey (FNS) methodology which was developed by the Transport Research Laboratory. However due to the cost of the FNS, a video survey and extraction of the footway condition data has been trialled and deemed a more economic and sufficient way of determining the condition.

Current data limiting factors

The use of objective data will enable service standards based on objective data to be set. Given the size of our footway network and the speed at which walked surveys can progress, it is unrealistic to think the whole footway network can be surveyed each year.

Cost of gathering information

The cost to the authority of gathering and then manipulating the condition data is in the region of £32,000. In order that the data collected can be processed and costs kept to a minimum it is considered appropriate to collect this data over a four year period.

Required Outputs Identified

- District by district condition data;
- District by district comparison to county wide standard;
- Total Maintenance need in each district in terms of length of footway;
- Estimated costs of maintenance needs.

Prioritisation

The codes of practice suggest it is possible to sub categorise footways into four categories dependant on the footfall in each category i.e.:-

- High footfall areas e.g. town centres;
- Medium footfall areas, connecting footways leading to high footfall areas;
- Residential areas of moderate footfall;
- Low footfall rural areas.

It is suggested that data gathering is prioritised in a similar manner.

Summary

The current data is not ideal but it is available and this needs to be balanced against the costs of a full CVI and the potential unreliability of a video survey.

Bridges and Similar Structures

Information Required

The information required includes:-

- The current average bridge condition index for each structure,
- The current average bridge condition index aggregated for each district area;
- The identification of structures having a critical bridge condition index of <40;
- The action plan for each structure having a critical bridge condition index of < 40;
- Critical intervention data for each structure;
- The inspection programme for the following year;

Size of the asset

Approximately 2,000 bridges and other structures

Current data availability

We currently have good information on our principal structures which include a bridge condition index. We may not have similar data for non-highway structures.

Data gathering protocol

Data is gathered from an ongoing general bridge inspection programme.

Current Data Limiting Factors

The current data is a reliable indicator of the current relative condition of the network in each district.

Costs of gathering information

Costs of gathering information approx. £227,000 per annum, broken down as follows:-

- Principal Bridge inspections approximately £100,000 per annum - funds in the region of 20 inspections.
- Specialist inspections - £60,000 per year annum - funds in the region of 21 special confined space inspections and 7 special underwater inspections - Revenue funded
- 2 x in-house bridge inspectors - £67,000 per year - funds in the region of 1,100 inspections per year. Revenue funded

The information gathering and manipulation costs to the authority are high.

Required Outputs Identified

- District by district condition data
- District by district comparison to County Wide Standard
- Programme of remedial action on critical structures.

Prioritisation of network

It is suggested that the network is prioritised on the basis of:-

- Bridges on strategic routes / resilient network routes,
- Bridges not on strategic routes which are the sole access to communities
- Bridges which are not on strategic routes but carry high volumes of traffic
- Bridges which carry low volumes of traffic
- Others

Summary

The current data is fit for purpose

b) Retaining Walls

Information Required

Retaining walls are an asset which historically has been attended to on a reactive basis only. As resources are likely to be scarce, it is essential that those retaining walls most in need, and are on a strategic routes, the resilient network or on other important routes are prioritised first for attention. Therefore we need reliable information about the condition and ownership of each identified retaining wall. As retaining wall information is to be stored in the bridges database, we are proposing to use the bridges methodology to calculate the condition of the retaining wall stock.

Size of the asset

Full extent, currently unknown. Data is being collected as and when assets become known. We currently have information for 1,442 retaining walls.

Current data availability

Data is gathered from an ongoing general bridge inspection programme.

Data gathering protocol

In-house inspectors are currently being used to gather information about the location and condition of all known retaining walls. Once this exercise has been completed condition information will need to be refreshed on a regular basis and a three year cycle is considered appropriate.

Current data limiting factors

Full extent of the asset and its maintenance requirements are unknown.

Costs of gathering information

We now have information relating to approximately 90% of all retaining walls in Lancashire, regardless of owner. Data relating to the remaining 10% will be collected by the bridge inspectors as part of their routine activities.

Street Lighting

Size of the asset

Approximately 148,000 street lighting units.

Approximately about 16,000 illuminated signs and bollards

Information Required

The information required is condition and risk based to allow:-

- The Identification of columns at high risk of failure;
- Prioritise investment in replacement columns;
- Identify the risks associated with the asset.

Current Data availability

Information relating to missing column material types and erection dates was gathered in 2012.

The theoretical risk of column failure can be determined by running the mathematical modelling procedures contained in TR22 which calculate the effects of a column's life on its location and its environmental surroundings (e.g. gritting route, ground conditions, subject to strong winds, industrial pollution etc.) and the additional uses made of it (used for attaching signs, flower baskets etc.) on its design life. The calculation compares the manufacturer's design life to its theoretical age, which is real age minus a calculated factor that takes into account column material type and location etc, which enables an Action Age to be calculated.

TR22 enables further prioritisation to be made by taking into account the effects of failure, again based on a column's location (e.g. central reserve of a motorway/dual carriageway, in a busy pedestrianised area, on a bridge over a motorway or mainline /railway etc. TR22 procedures were run for all lighting databases in 2012 and this exercise needs to be repeated every year.

Current data limiting factors

The testing of columns as they reach their Action Age to assess the likely risk of the failure of columns deemed to be at the end of their service life as determined by TR22 is currently not undertaken.

Costs of gathering information

The costs of gathering data are high particularly if testing is carried out to assess the failure risks associated with columns. Instigating such a programme would however

ensure that steel columns are not replaced too early (whilst they still have some residual life) or left too long whereby they pose a hazard.

Required outputs identified

- District by district condition data
- District by district comparison to County Wide Standard
- Numbers of high risk columns in each district

Prioritisation of the asset:-

- High risk areas due to geographical condition
- High risk columns in high risk areas
- High risk columns in lower risk areas.

Summary

The current data does not provide risk based analysis to identify replacement strategies beyond replacement of specified types irrespective of the risks of each installation.

Asset Data Inventory Register

Appendix 5

Lancashire County Council holds a number of data sets which are available for use throughout the services and updated on an ad-hoc basis by the data custodian. These data sets are used for reporting both internally and externally and for day to day and for providing information daily to assist officers undertake the roles within the authority. The data held is specified below.

Asset Data Set	Data Custodian	Purpose / Description	Currency	System	Updates
Retaining Walls	Asset: Bridges	Retaining Walls drawn using start and end coordinates. Used for cyclical inspections, work programmes and maintenance. Defines those maintainable at public expense	High	Symology HAMS	Updated as new structures built e.g. Bay Gateway. Condition updated through Cyclical maintenance
Bridges and Structures	Asset: Bridges	Location and details of bridges, footbridges and culvert structures Used for cyclical inspections, work programmes and maintenance. Defines those maintainable at public expense	High	Symology HAMS	Updated as new structures built e.g. Bay Gateway. Condition updated through Cyclical maintenance
Street Lighting	Asset: Street Lighting	Locations of lighting columns, illuminated signs/bollards. Used for cyclical inspections, work programmes, maintenance, energy returns, performance indicators and TR22 reports	High	Symology HAMS	Updated as new roads built and when equipment is changed.
Adopted Streets	Asset: Adoptions	Defines the adopted highway maintainable at Public expense	High	Symology HAMS	Ongoing as submitted, dedicated post in HAMT
Compulsory Purchase Orders	Asset: Adoptions	Land and Property affected by Compulsory Purchase Orders		Symology HAMS	Ongoing as submitted, dedicated post in HAMT
Section 50 Licences	Asset: Adoptions	Private Apparatus laid in the adopted highway up to boundary walls	High		Ongoing as submitted, dedicated post in HAMT
Search Notices	Asset: Adoptions	Legal Notices declarable under Question 3.7 of the Con 29 Search Form		Symology HAMS	Ongoing as submitted, dedicated post in HAMT

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Asset Data Set	Data Custodian	Purpose / Description	Currency	System	Updates
National Street Gazetteer	NSG Custodian	Defines Streets of England and Wales to National Standards. Used within Permit Schemes and Street Works	High	Symology HAMS	Download from Geoplace maintained by NSG Custodian Post in HAMS
UKPMS Network	NSG Custodian	Network of Section No's tied to Defect Reporting and Repair and Cyclical Inspection. Condition data from Scanner and CVI determines data driven prioritisation of Capital Highways Schemes	High	Symology HAMS	Maintained by NSG Custodian Post in HAMS
Gullies	Highways Asset Manager	Location of gullies grates along highways in Lancashire	Medium	Symology HAMS	Annual Asset collection from GAIST Video Survey
Drainage Pipes	Highways Asset Manager	Location Plans To inform Schemes / Works / Development	Medium	Symology HAMS	To be determined
Drainage Ponds	Highways Asset Manager	Location Plans To inform Schemes / Works / Development	Medium	Symology HAMS	To be determined
Drainage Nodes	Highways Asset Manager	Location Plans To inform Schemes / Works / Development	Medium	Symology HAMS	To be determined
High Risk Routes	Highways Asset Manager	Some parts of the highway network are categorised as 'Higher Risk Route's due to their relatively poor safety record. Records kept to ensure the safety implications are considered as part of all ongoing work including routine maintenance etc. so significant improvements on safety are achieved	High	Symology HAMS	Collison data is monitored continuously, if need arises for amendments it is done
Road Chainage	Highways Asset Manager	Contains the start and end points of road and distances along the road at 25m intervals.	High	Symology HAMS	To be determined
Section 38	Asset: Adoptions	Area of new development subject to a pre-adoption agreement supported by a bond between LCC and the developer	Medium	Symology HAMS	As submitted LCC

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Asset Data Set	Data Custodian	Purpose / Description	Currency	System	Updates
Footways Salting Routes	Asset: GIS Manager	Defines High footfall across Urban Cores which require Treatment in line with Winter Services.	High	Managed by Asset in ArcMap, accessed by LCC staff and Public via MAPZONE and Mario respectively	None have been suggested since creation in Winter 2014.
Section 278 Agreement	Asset: Adoptions	Areas of Agreement between LCC and a developer for work on an existing highway e.g. existing junction improvement near a development site.	High	MAPZONE	As submitted to LCC
Surfacing Layer	Highway Asset Principal	Carriageway / Footway / Road Safety and Flood schemes Assessment and Prioritisation	High	Stored in CORAM Accessed as Spatial Data Engine (SDE) Layer via ArcMap	Continuous maintenance by HAMT staff. Kept current for Prioritisation of Capital / LPRF / Deterioration Pot funding.
Video Surveyed Roads	Highway Asset Principal	First Data set captured for Coarse Visual Inspection	Low	MAPZONE	None Planned Superseded by GAIST CVI
Uni - Directional Roads	Highway Asset Principal	One way roads/carriageways	Low	MAPZONE	None Planned Superseded by GAIST CVI
Highways Defects	Highway Asset Principal	Safety defects as collected on a routine basis in accordance with a cyclic programme of inspection. Used to generate Key Performance Indicators	High	Highways Defects Sorting System	Daily

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Asset Data Set	Data Custodian	Purpose / Description	Currency	System	Updates
Pedestrian Crossing	Highway Asset Principal	Places where pedestrians can cross the road in relative safety	High	MAPZONE	As Submitted
Public Enquiry Manager (PEM)	Highway Asset Principal	Model of those sections of the highways network that have open PEM records. This model is built each night and the displayed numbers can change during the next working day.		PEM layer. Stored as a Spatial Database Engine layer in CORAM	Daily
Marker Posts	Highway Asset Principal	Not currently maintained	low	MAPZONE	To be determined
Footways	Highway Asset Principal	Not currently maintained	Low	MAPZONE	To be determined
Flood Risk Assets - Structures	Asset: Flood Risk	Locations to aid in identification of Risk and Maintenance	High	Symology HAMS	HAMT Staff weekly site surveys updated as done
Flood Risk Assets - Routes	Asset: Flood Risk	Locations to aid in identification of Risk and Maintenance	High	Symology HAMS	HAMT Staff weekly site surveys updated as done
Flood Risk Assets - Water Features	Asset: Flood Risk	Locations to aid in identification of Risk and Maintenance	High	Symology HAMS	HAMT Staff weekly site surveys updated as done
Core Areas	PROW Team	Areas where district councils are responsible for the public rights of way network. Non-core areas are the responsibility of LCC	Low	MAPZONE	Last update March 2011
Bridges For Searches	Asset: Bridges	Structures utilised for Land Searches	High	Symology HAMS	Continuous review
RMMS Nodes	NSG Custodian	The RMMS Nodes are used in referencing the highway network for maintenance and inventory purposes	Medium	MAPZONE	Continuous review
Collisions	Highway Asset Principal	The layer holds collision points on the road network reported to the police for the last 5 year. Determines High Risk Routes	High	Symology HAMS	Daily

To ensure that consistent results are achieved the same survey methods are applied where applicable. The majority of the surveys are undertaken by external contractors, which are acquired by procurement. To ensure economies of scale are achieved, the surveys can be procured using a number of methods:

- Procurement through a framework contract, or working in collaboration with other Authorities.
- Tendering for more than one years' worth of surveys.
- Combining tendering for more than one similar survey.

By procuring the surveys and analysing the data enables Lancashire to understand the condition and monitoring any improvement or deterioration. This allows targeted and planned maintenance and performance measures to be put in place in line with best practise. All survey costs has a financial benefit to Lancashire to inform intelligent decisions that are evidenced with data for a transparency and enables a holistic approach to asset management.

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Gap Analysis and Action Plan

Appendix 6

The Asset Group have undertaken a gap analysis of the data sets and are actively working to creating complete and up to data datasets. The following table describes the gaps and the actions that will be implemented.

Data Group	Description	Issue	Action
Highway Adoption extents	To define the extents of the adopted highway	Spatial data layer incomplete	Complete data layer by 01/01/2018
Bridges	Ownership of structures mainly related to retaining walls	Identification of ownership for structures that are found to be in poor condition to gain funding for repairs.	Ownership studies are undertaken as and when an issue with a structure is identified.
Bridges	Missing material element data	Using blanket coverage of unknown data elements for unidentified structure components. The Gross replacement costs of some structures are inaccurate.	Identify those structures that have missing element data.
Bridges	Sign height data is not to current standards	Sign heights may be incorrect as the measuring of bridge height guidelines have changed in the new standards.	Asset Group is currently undertaking a study of bridge heights, to be completed by 2018
Bridges	Construction information	Construction data maybe incorrect in a minority of locations	Inspectors to check construction information on the biennial inspection.
Street lighting	Inventory of all components of street lighting columns	Discrepancies exist	Video survey and existing data sets need to be compared and corrected in phase 2 of the Core System Review in Highways Asset Management System (HAMS).
Street lighting	Lack of information on column condition	Lack of information on column condition	CSR will provide handhelds machines, column condition will then be updated on HAMS when each column is visited for maintenance work, and during routine inspections.

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National Street Gazetteer		<p>Missing or incomplete data sets include:</p> <ul style="list-style-type: none"> Environmentally sensitive areas HGV approved routes Level crossing safety zone Parking bays and restrictions Pedestrian crossings and traffic signals Pipelines and specialist cables Proposed special engineering difficulty Protected street Special construction needs Special engineering difficulty Special events Special surfaces Speed limits Strategic route Street lighting Structures not special engineering difficult Traffic sensitive Winter maintenance routes Height, Weight and Width restriction 	<p>Medium term project to update the data, when HAM's is implemented starting in February.</p>
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