

# HEREFORDSHIRE PUBLIC REALM CONTRACT 2020/21

## ANNEX 8 – ASSET MANAGEMENT (TAMP)

### SERVICE OVERVIEW

SERVICE SUMMARY		
		Output
Capital Activities	Asset Management Services	Management of TAMP Team Periodic review of TAMP & LCPs Improvements in the Service required by Incentive Fund. Limited Confirm Development. Capability Development.
	Asset Data Management & GIS Services	GIS mapping service to support and enable TAMP. Mapping service supporting the Contract's operation. Mapinfo GIS Software Licence Asset Data Inventory Development.
	Carriageway and Footway Annual Programme development	Horizons and WDM Pavement System utilised Prioritised Programme Highway enquiries dealt with Concept Highway Schemes Developed
	Network Management Systems	Licence costs for ELGIN Roadworks.Org
	Highway Network Survey	Scanner Surveys completed CVI of U Roads completed Footway survey completed

	SCRIM	Survey and subsequent investigation, prioritisation
	Steward Asset Inspections	Statutory and NRSWA inspections of the Highways Asset
	Commercial Support	Support with pricing, QS activity
	AMX, PMS, Yotta	Provision of asset management tools
Revenue Activity	Not used	Not used

Performance Indicators		
	Indicator	Target
OPIs	<b>OPI 11 Complaint Handling</b> Percentage of complaints responded to in accordance with timescales agreed with the complainant	Response within 1 month
OPIs	<b>OPI 12 Risk Management</b> - Based on the RAG rating for risk where:  1. All Red risks must be reviewed monthly 2. All amber risks every 6 weeks 3. All yellow risks every 2 months	100%
Strategic KPI	<b>SPI 1- Killed and seriously injured</b> The number of people killed or seriously injured in road traffic accidents	Upper 55 Lower 63
	<b>SPI 2 - Principal road condition</b> Percentage of principal roads where maintenance should be considered	Upper 10.1% Lower 13%
	<b>SPI 3 - Non Principal B road condition</b> Percentage of non- principal (B) roads where maintenance should be considered	Upper 65% Lower 74.65%
	<b>SPI 4 - Non Principal C road condition</b> Percentage of non- principal (C) roads where maintenance should be considered	Upper 65% Lower 74.65%

<b>SPI 5 - Unclassified road condition</b> Percentage of the unclassified road network where maintenance should be considered	Upper 28.5% Lower 34.5%
<b>SPI 8 - Third party claims reduction</b> Percentage of indemnified third party claims repudiated	Upper 80% Lower 70%
<b>SPI 9 - Flooding resilience</b> No. of properties at risk of flooding as a result of highway defect	Upper 30 Lower 45
<b>SPI 10 - Skills and employability</b> Meeting a range of skills and employability outcomes aligned to the Employers Skills Academy outcomes	Upper 4 Lower 3
<b>SPI 11 Local Spend</b> Percentage of work by value delivered by suppliers who have a base in Herefordshire together with workforce costs for those living in Herefordshire	Upper 30% Lower 24%
<b>SPI 15 - Customer satisfaction</b> Percentage of customers satisfied based on the annual national highways and public transport satisfaction (IPSOS MORI) Survey	Upper 39% Lower 36%
<b>SPI 16 - Continuous improvement</b> Identification of savings projects/ initiatives	Upper 10% Lower -10%

## SERVICE SUMMARY

This service will carry out the asset management approach as detailed in Herefordshire’s Transport Asset Management Plan.

In line with this, the strategic management and maintenance of highway infrastructure assets will focus on the lifecycle (cradle to grave) approach set out in Figure 1, for the five main asset groups:

- Carriageways
- Highway Bridges and Safety Barriers
- Footways and Cycle ways
- Highway and Flood Risk Drainage
- Street Lighting and Traffic Signals

This approach includes:

- Inspections to understand and measure the condition of the assets
- Assessment of maintenance requirements and approaches based on deterioration and Lifecycle Plans
- Prioritisation of resources within an asset group and across the asset groups based on agreed factors, which are based on national guidance and local policy
- Control of new assets joining the network and disposal of assets at the end of their useful life.

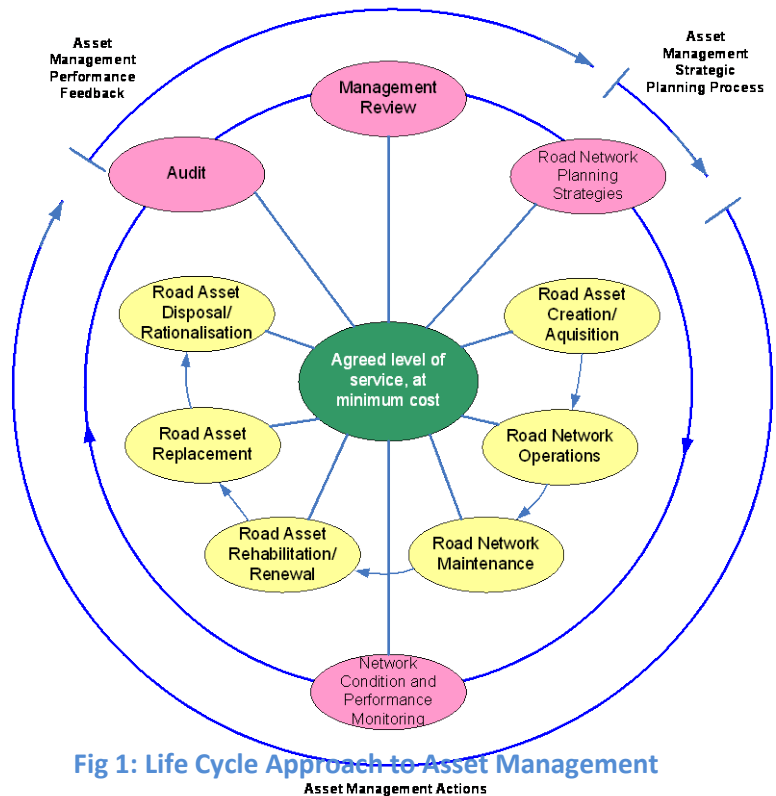


Fig 1: Life Cycle Approach to Asset Management

Our Asset Infrastructure Strategy will have a holistic approach that will promote improved value for money by providing a balanced, value managed, financially sustainable and resilient infrastructure.

**Local Transport Plan Strategy : Asset Management**

*The aim is to support the growth of the county by keeping the travelling public safe, making the best use of its transport assets and where possible facilitate more efficient usage together with improvements in the quality of our public places. Public places should be safe and enjoyable for all to use responsibly. Public places should also remain safe through all seasons of the year. The infrastructure that is vital to a functioning county should be resilient to the impacts of weather and climate. The transport assets should provide a network that facilitates the efficient and safe movement of people and goods whilst protecting the quality of life within communities .Through this approach the council will encourage and enable delivery within localities. This is part of a delivery model that is affordable now and proves to be value for money now and in the future. The council will encourage and support the growth of competitive local business and enterprise through works to enhance and maintain public places and by the way that work is delivered. Our Highway Asset Management Strategy has the following key components:*

1. Sustained Investment over the whole life of the highway asset – an ongoing programme of works that is targeted at treating roads as they are showing signs of deterioration, fixing roads before they need larger, more costly repairs.

2. Reduce the need for reactive 'temporary' pothole repairs as a response to safety defects. We will aim to deliver a high proportion of our routine pothole repairs using permanent fixes that not only make the road safe, but improve the condition of the road and extends its useful life.
3. Shift our routine resources further towards preventative activities, such as the clearance of drainage. Well-drained roads decline at a slower rate and are more resilient to damage from severe weather

The TAMP enables decisions to be made about how and which areas to focus the available resources to reduce this rate of decline for certain assets.

Our service delivery will also support HC's TAMP objectives, which are outlined in the LTP.

The TAMP and Lifecycle Plans will be used:

- As a tool to establish a clear relationship between works programmes and performance targets
- To provide detailed information on the location and condition of assets
- To support the need of the whole of Government Accounting (WGA)
- To assess value for money
- To enable key decisions on service delivery, levels and performance to be agreed and monitored
- To carry out a gap analysis of asset data to review asset risk against asset capture strategy

The programme of carriageway surfacing schemes is developed using the PMS and AMX asset management software. The condition of the carriageway is established via cyclical surveys that occur between two and four years, depending on the road classification. PMS considers the condition of each 10m section of the highway, the most suitable treatment for each section of highway, the condition of neighbouring sections of highway to develop a viably sized scheme, the most cost effective time to undertake the treatment (now or in future years) prior to a more expensive treatment being needed, the condition targets that are set for the network and the available budget. Schemes are also prioritised based on the following factors, in order of importance:

- If the scheme is at or near an Accident Crash Site and the severity of the crash
- Whether Locality Stewards have raised the site as an issue during their monthly carriageway safety inspections or stemming from customer led enquiries.
- Whether reactive potholing filling or patching has been carried out at the site
- Whether 3<sup>rd</sup> party claims have been made about the site
- If the site has had flooding problems

These priorities have been established via a consultation process with Members and are reviewed annually, as well as the resulting programme of annual schemes as part of the Annual Plan Consultation process with Members.

The programmes of reactive carriageway maintenance, structure, street lighting and drainage maintenance schemes is developed in the AMX software package, more detail can be found about how the specific annex's for these areas and their respective life cycle plans.

The programme of Drainage maintenance schemes is developed using a prioritisation system based on HMEP's Drainage Asset Management Guidance Document. Further details on this can be found in the Managing Water on the Network, Annex 7, and the Drainage LCP.

## Non Major Assets

Other public realm assets will not have a specific asset management approach employed, instead a general risk based approach as outlined in the TAMP and HMP will be utilised. As opportunities arise to capture additional asset information this will be utilised to inform further development of formal management plans. These non-major asset types include:

- Public Rights of Way
- Park and Ride facilities
- Bus stops
- Pedestrian crossings
- Road signs
- Road markings
- Trees
- Retaining Walls

Investment need and priorities between asset groups will vary on a year-to year basis. The process detailed in the TAMP, based on data, risk assessment and strategic priorities set by stakeholders, is established to accommodate changes in priority. This will result in budgets for individual asset groups fluctuating annually.

SERVICE OUTCOMES	
OUTCOMES	HOW WILL THE OUTCOME BE ACHIEVED
Improved access to services	<p><u>Measured by SPI 9 - Flooding resilience</u></p> <ul style="list-style-type: none"> <li>• Supporting colleagues in Annex 7 to improve flood resilience by provision of asset management services such as appropriate software, process, GIS capability etc</li> </ul>
Improved network asset	<p><u>Measured by SPI 2 - Principal road condition, SPI 3 - Non Principal B road condition, SPI 4 - Non Principal C road condition, SPI 5 - Unclassified road condition, and SPI 8 - Third party claims reduction</u></p> <ul style="list-style-type: none"> <li>• Collect Asset Data both condition and inventory to improve knowledge of the asset</li> <li>• Develop subsequent year programmes for Highways, Structures and Drainage. Provisional programmes developed for the subsequent 3 years.</li> <li>• Prioritise programmes according to importance to reduce claims</li> <li>• Quality site audit and review of completed schemes</li> </ul>
Safer network	<p><u>Measured by SPI 1- Killed and seriously injured.</u></p> <ul style="list-style-type: none"> <li>• SCRIM surveys and inspections to detect and mitigate issues on the network.</li> <li>• Issues are prioritised according to a risk based approach that encompasses safety</li> </ul>
Contribution to the local economy	<p><u>Measured by SPI 11 Local Spend</u></p> <ul style="list-style-type: none"> <li>• The asset management team strives where possible to use local resources with local knowledge.</li> </ul>

Sustainable delivery	<u>No measurable SPI direct to this Annex</u> <ul style="list-style-type: none"> <li>Whole life cycle approach to maintenance will reduce long term impact on the environment over future decades.</li> </ul>
Value for money	<u>Measured by SPI 16 - Continuous improvement</u> <ul style="list-style-type: none"> <li>Undertake regular review with HC of TAMP, HMP, resilience network; and updated if required.</li> <li>Continue to work to strengthen current service against latest Incentive Fund Band 3 requirements. Note Band 3 is currently the highest achievable rating.</li> <li>Identify opportunities for external funding and bids</li> </ul>
Satisfied public	<u>Measure by SPI 15 - Customer satisfaction</u> <ul style="list-style-type: none"> <li>Contribute to customers satisfaction based on the annual national highways and public transport satisfaction (IPSOS MORI) Survey</li> </ul>
Engaged communities	<u>No measurable SPI direct to this Annex</u> <ul style="list-style-type: none"> <li>Provision of locality stewards to engage with communities</li> <li>Contribute towards OPI for complaint handling</li> </ul>

## ASSUMPTIONS

The following are key assumptions we have made when developing the planned levels of service detailed in this Annex:

- The DFT's Incentive Fund requirements do not increase over and above those published in 2015.
- The number of enquires relating to highway and drainage assets do not markedly increase over 2019/20
- TAMP, LCP and HMP document updates do not require significant further works during this period, other than a brief review and update in-year.
- TAMP Budget & HC staff time is made available to enable the points raised in the Herefordshire Incentive Fund Action Plan to be progressed.
- HC's existing inventory information and data will continue to be reviewed and gaps in knowledge and information, where they exist, will only be addressed should a need be identified.
- HC's current and historic data is available to support the development and delivery of the service, e.g. Historic records.
- WGA: The Department for Transport will issue WGA toolkits in accordance with their published programme, enabling us to have sufficient time to process our data and undertake valuations. The DFT do not require additional asset data over what has been required in prior years.

- We have only limited capacity within the TAMP Team to deal with Freedom of Information requests and will set aside £1,500 to deal with responding. This covers all services areas supported/provided by the TAMP Team (e.g. Structures, Drainage, Carriageways, etc.)

**THE SERVICE**

**SERVICE DELIVERY**

	SERVICE	RESOURCE	DELIVERY
Programmed	Asset Management Services	Management of TAMP Team Annual review of TAMP & LCPs Improvements in the Service required by Incentive Fund. Limited Confirm Development Capability Development.	On-going annually
	Asset Data Management & GIS Services	GIS mapping service to support and enable TAMP. Mapping service supporting the Contract's operation. Mapinfo GIS Software Licence Asset Data Inventory Development.	On-going annually
	Carriageway and Footway Annual Programme development	Horizons and WDM Pavement System utilised Prioritised Programme Highway enquiries dealt with Concept Highway Schemes Developed	On-going annually



	Highway Network Survey	Scanner Surveys completed CVI of U Roads completed Footway survey completed	Late Summer Season Survey Autumn Season review and sign updates
	SCRIM	Survey and subsequent investigation, prioritisation	Late Summer Season Survey Autumn Season review and sign updates
	Steward Asset Inspections	HMP inspections of the Highways Asset	Monthly to Annually (depending on road)
	Commercial Support	Support with pricing, QS activity	On-going annually
	Software	Provision of asset management tools	On-going annually
React	N/A	N/A	N/A

Delivery of Software is described in more detail below

SPECIFIC UTILISED	SOFTWARE	AREA OF SERVICE	NOTES
WDM - Pavement Management System		Highway Condition Reporting (Utilised in Horizons and Whole of Government Account valuation submissions)	Established and mature system
Yotta - Horizons		Carriageway and Footway Scheme prioritisation, selection and determination of extents	Introduced in 2015. Comprehensive programme developed in 2015. Review to be taken place in 20/21 and possible procurement of contract. Validation of candidate schemes is undertaken by engineers on site.
Pitney Bowes - Confirm		Enquiry management, routine and reactive works planning and ordering. Drainage inspection recording Drainage scheme prioritisation	Established and mature system for operational and customer interface. 2015 saw development of system for drainage asset management.
AMX – AMX		Structures Inspections Condition analysis, prioritisation, maintenance lifecycle planning. Forward programme Risk Register	AMX is the next generation of the current BMX software that is utilised, which was installed at the end of 2015. 2016/17 saw the development of this system to improve condition and budget forecasting. Review of web hosting for 20/21 and functionality to aid closer collaboration.

<p>Pitney Bowes – MapInfo QGIS</p>	<p>GIS Mapping, spatial data analysis, database and viewing.</p>	<p>Established and mature system. Replacing ARC Reader that was used previously. On-going effort to improve the quality and width of our data in areas needing attention.</p>
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**SERVICE SCOPE**

SERVICE	SCOPE
<p><i>Green Claims</i></p>	<p><b>IN SCOPE</b></p> <ul style="list-style-type: none"> <li>▪ <i>The Asset Management Team will work with the commercial and insurance teams to produce the technical information to enable recovery of monies expended on repairs of the HC asset that have stemmed from the fault of third parties (Green Claims)</i></li> </ul> <p><b>NOT IN SCOPE</b></p> <ul style="list-style-type: none"> <li>▪ <i>Actual recovery is undertaken by the regional insurance team working with specialist legal professionals. This is detailed in the LMO Annex.</i></li> </ul>
<p><i>Resilience Review</i></p>	<p><b>IN SCOPE</b></p> <ul style="list-style-type: none"> <li>▪ <i>Regular review and validation of the Herefordshire Resilience Network. Any recommendations for change will be communicated to the client</i></li> <li>▪ <i>Prepare an approach to local involvement in these reviews.</i></li> </ul> <p><b>NOT IN SCOPE</b></p> <ul style="list-style-type: none"> <li>▪ <i>Complete re-write of existing document</i></li> </ul>
<p><i>Life Cycle Plans</i></p>	<p><b>IN SCOPE</b></p> <ul style="list-style-type: none"> <li>▪ <i>Regular review of LCPs for Highways, Footways, Cycleways, Structures, Drainage, Traffic Management Systems and Street Lighting – Note that a dependency exists between procurement of asset management systems</i></li> </ul> <p><b>NOT IN SCOPE</b></p> <ul style="list-style-type: none"> <li>▪ <i>Major re-writes of LCPs</i></li> <li>▪ <i>Lifecycle Plans for non-major asset groups as defined by HMEP/DfT in 2015.</i></li> </ul>

<p>Incentive Fund</p>	<p><b>IN SCOPE</b></p> <ul style="list-style-type: none"> <li>Leading the implementation of an asset management approach as required by Herefordshire Council's established policies and plans for areas of the service we are responsible.</li> </ul> <p><b>NOT IN SCOPE</b></p> <ul style="list-style-type: none"> <li>We expect the HC Client Team to lead in the achievement of the Incentive Fund sections that are focused at the client level in the Local Authority. These are sections: 15, 16, 17 and 22.</li> </ul>
<p>Challenge Fund (or equivalent)</p>	<p><b>IN SCOPE</b></p> <ul style="list-style-type: none"> <li>Preliminary identification of potential schemes in the forward programme</li> <li>Development of a bids in conjunction with HC</li> </ul>

**RISK MANAGEMENT**

High level risks will be managed through the Partnership risk management process and listed on the partnership risk register.

	KEY RISK	CAUSE	CONSEQUENCE	MITIGATION
Strategic Risks	TAMP proposed schemes do not include schemes desired by Councillors	Political pressure. Unaware of asset management principals	Dissatisfaction with Public Realm contract	Ensure full engagement with Councillors, residents and communities and include local needs factor in prioritisation process.
	Deterioration Assumptions	Predictions of future asset condition is based upon deterioration curves.	Asset condition may deteriorate faster/slower than anticipated.	On-going review deterioration curves against actual performance. Programmed inspection of critical assets to check condition.
	Maintenance interventions	Funding constraints, particularly on revenue.	Low cost/high benefit pre-emptive maintenance not being possible. Reliance on capital funding to rebuild	Make use of pre-emptive maintenance with low cost/high benefit as much as possible.

			following expiry of asset.	
Unplanned works arise in-year due to bridge strikes or flood events	Funding constraints, unplanned works are not budgeted	High Benefit works not funded which may cause extended road closures		Re-allocate funding away from lower-priority annual plan works but also taking into account the benefits of preventative maintenance techniques to the wider asset and whole life cost. Schemes not taken forward will be deferred to the following year.
Network Risk Register*	Insufficient funding to address all identified issues. Assumptions level of risk may be incorrect.	Issues may impact earlier than anticipated. Consequences materialise.		Quarterly Review meeting with network risk status with HC.

(\*) - A network risk register is utilised to monitor and manage current and potential issues on the network that may require work beyond financial capacity of the programmed maintenance works or routine/reactive service. This register will be maintained as a live document throughout the year, to be reviewed at quarterly meetings with the HC Contract Team and a snapshot provided of its current status in the annual plan.

A common risk scoring system is utilised across the service so that risks can be compared and prioritised against one another across the network. This is detailed in Appendix A.

It is proposed that the highest scoring risk issues are planned to be addressed each year, with the aim of addressing or mitigating the largest risks in the network. However, a number of risks will remain on the network as there are insufficient resources to address all of the identified risks. These will be tracked, mitigated as far as possible and monitored as highlighted above.

The network risk register and forward programme will be reviewed quarterly; any defect that could score above the current risk level and affect our annual programme for 2020/21 will be raised by the contractual mechanism. Any defect below the current risk level, will be added to the forward programme. The latest risk register is included in the Appendix E of this Annex.

In addition a smaller budget is allocated to resolve issues identified that have a high cost/benefit ratio. This will be calculated and prioritised via the risk score being divided by the cost to resolve the problem.

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## PART 2

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### ORGANISATION

#### STRUCTURE

The asset management service will be delivered through the Design and Build section that encompasses Asset Management capabilities alongside our Structures, Highways and Drainage teams. Managing these service areas under an Asset Management Team Leader enforces the importance a whole life approach for the management and maintenance of highways infrastructure that supports Herefordshire's local economy.

The Asset Management Team will focus on the scope of services outlined in this document.

Once maintenance works have been identified, if the works are simple then the Asset Management Team will take 'walk-talk-build' approach to developing scopes of work. The responsibility for carrying out the works will then be passed to the Delivery Team. For maintenance that requires a more formal design to be developed then this will be undertaken by either by the Major/Minor Project Engineers or specialist consultants as appropriate. Following development of design through our project stage gate process the works will then carried out by the Delivery Team. Records of all works then return back to Asset Management for asset records to then be updated.

The local asset management service resources are further enhanced by the strategic support provided through BBLP's central Highway Asset Management resources and key sub-consultants. Staff on contract will focus primarily on day-to-day operational issues. Strategic projects or improvements will be undertaken by on-contract staff where possible, but external resources will be drafted in where required.

**ROLES AND RESPONSIBILITIES**

Asset management impacts on a wide range of the service activities we deliver at strategic, tactical and operational levels.

Asset Management Policy is set by Herefordshire Council’s Local Transport Plan, the responsibility for developing and maintaining this policy sits with the HC’s Highway Service Manager. BBLP supporting where requested. BBLP is responsible for the implementation of this policy.

BBLP currently manage the complete cradle to grave highway service in Herefordshire bringing in learning from other local authority contracts such as Southampton Highway Service Partnership.

The following table identifies the roles and responsibilities that support this service area:

Job Role	Responsibility
Design and Build Manager	Provides strategic leadership and direction for the Asset Management team
Team Leader Asset Management	<p>Responsible for managing delivery of asset management service for the contract in line with the service outlined in this Annual Plan, the TAMP, Life Cycle Plans, the Incentive Fund operational delivery requirements and the Highway Maintenance Plan.</p> <p>Ensuring the most cost effective maintenance service is achieved via the implementation of an asset management approach.</p> <p>Commercial accountability for this service area, including budget forecasts, cost monitoring, commissioning and managing external consultants and specialist Sub-contractors.</p> <p>Drives a coordinated asset management strategy for BBLP. Provides support where required in delivery of the TAMP programme of works.</p>

<p>Drainage/Highways/Structures Senior Engineers</p>	<p>Contribute the development of contract wide Asset Management approach and the development and implementation of asset management approach for their specific area. Managing a team of technicians to enable the condition of the network to be monitored and maintenance works prioritised.</p> <p>Development of maintenance solutions.</p> <p>Contributes to development and delivery of major design for maintenance schemes identified and requested by the TAMP team. Assists by extracting existing asset data from TAMP team and updated information on proposed scheme locations, extents, asset information collected &amp; proposed. Including updates on scheme completion for any new or modified assets.</p>
<p>Asset Management Engineer</p>	<p>Coordination or highway condition surveys, analysis of condition data utilising the asset management information database systems to enable reporting of condition and valuation statistics. Development of the information systems to enable a forward programme of works to be developed inline with the LTP, TAMP and Lifecycle Plans. Undertaking inspections of the network where investigations are needed. Support the Asset Manager as required. Support Schemes described in other Annual Plan Annexes.</p>
<p>GIS Technician</p>	<p>Provides local GIS data and mapping of assets, annual programme, locality information, data analysis to support the Herefordshire Public Realm Contract. Development and implementation of a formal approach to Data Management.</p>

**KEY DELIVERY INTERFACES**

	Who are the dependencies	What is the nature of the dependency
Public Realm PRLD Partnership	Other internal BB teams	LTP, Major projects
	Delivery Team	Inputs for proposed locations and treatments and feedback of works complete for annual records
	LTP Team	Inputs on asset data to assist design of proposed of works and receiving asset data on completion of works
	Major Project Team	Inputs on asset data to assist design of proposed of works and receiving asset data on completion of works
	Locality Stewards	Inputs into records of assets from inspections and interventions Resolving customer queries Informing and liaising with stakeholders
	Knowledge Centre	Coordination with other asset management IT system users, including enquiries from the public.
	Business Management Team	Providing information for the Client
	Routine Maintenance Team	Updating/review of routine maintenance assets/routes including grass cutting, winter maintenance, gully cleansing and any assets not previously recorded or removed or assets that require a programme for replacement
	Operations teams	Inputs on asset data to assist proposed works and receiving asset data on completion of works
	External consultants	To supplement technical expertise and provide appropriate strategic guidance and data collection
	Drainage Team (Annex 7)	Co-ordinated value management to produce annual programmes. Inputs and outputs to records of assets including condition of assets, new additional assets and any assets removed/ modified
	Structures Team (Annex 14)	Co-ordinated value management to produce annual programmes. Inputs and outputs to records of assets including condition of assets, new additional assets and any assets removed/ modified
	Highways Maintenance Design team	Co-ordinated value management to produce annual programmes. Inputs and outputs to records of assets



		including condition of assets, new additional assets and any assets removed/ modified
Herefordshire Council	Local Members	Keeping them abreast of strategy, justification of annual plan schemes and locations.
	HC Transportation, Major Projects Client Manager, and LTP	Keeping them abreast of strategy ,justification of annual plan schemes and locations
	HC Legal Services	Promotion of Temporary TROs and engagement in land acquisition. Complete purchase orders
	HC Emergency Planning	Asset data on emergency incidents
External Organisations	Local Businesses (including schools)/Chambers of Commerce/Transport Operators	Adhoc information
	Land Owners( incl National trust, E Heritage, EA	Adhoc information
	Special interest groups (accessibility groups, cycling etc.),	Adhoc information
	Neighbouring local authorities	Adhoc information
	Bus Companies, Transport Operators	Adhoc information
	Highways Agency and agents	Adhoc information
	Police and other Emergency Services	Adhoc information

**FOUR YEAR PLAN**

**2019-2020 SERVICE REVIEW AND LESSONS LEARNT**

**Asset Management System Developments**

In February 2017 we attained Band 3 status in the DfT’s incentive fund, securing the full possible funding allocation for the county.

In the 2019/20 Annual Plan we planned to make several improvements to the TAMP service principally around improvement of data and combining with other parts of the service to operate in an integrated manner.

Our previous work creating a 'D-road' network, has been useful in the creation of the annual programme of surfacing schemes. SCANNER condition surveys of this network is continuing to be completed each year. Further development work will be undertaken to establish deterioration curves and treatment triggers, so the network has a similar set up to the other sections. As part of this work, revised weightings will be considered.

### In Year Developments

Due to the diversion of funds to major projects by HC during the year, BBLP were forced to reassess a number of preventative maintenance schemes that had been included within the 19-20 Annual Plan. The number and size of issues that required reactive maintenance arising on the network meant that lower priority preventative schemes were unfortunately put on hold, to enable funding to be diverted. This further highlights BBLP previous reports to the Council that, with current available funding levels, planned preventative maintenance for roads at risk schemes is not possible. There is therefore risk that should an asset fail, a highway may be closed for an extended period whilst it is reactively repaired.

### Efficiency Review

Discussions are ongoing to review and procuring systems to improve decision making and efficiency, optimise the appropriate time for maintenance and to increase value for money using the latest technology that appears and is available to the industry.

### Maintenance Funding

The below table has been included to demonstrate the current condition and maintenance funding for the asset base. The asset base experienced, as a whole, £15.7m of depreciation in the last financial year. The 2019/20 annual plan, after other costs have been deducted, will invest less in capital maintenance works leaving a shortfall. The asset management service will seek to allocate this money to the best effect. However, this is a significant shortfall that, without substantial further investment, will result in continued deterioration of asset condition across the network.

**Table 1: Asset Valuation, Depreciation and Maintenance Investment**

Asset Type	Carriageway	Footways Cycle tracks	Structures	Lighting	Traffic Mgmt.	Street Furniture	Total
	Figures below £,000s						
Gross Replacement Cost Closing Balance 2019	2,719,152	179,474	248,500	8,309	9,419	24,410	3,189,264
Closing Net Book Value (DRC)	2,631,382	77,441	104,878	3,765	3,376	24,410	2,845,404
Accumulated Depreciation Closing Balance 2019: (i.e. the sum needed to restore the asset to new condition)	87,770	102,033	143,622	4,561	5,874	0	343,860
In year Depreciation (amount needed to be invested to keep	8,626	3,629	2,687	275	488	0	15,705

asset condition at a steady state)							
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Structures

This asset group’s condition is currently deteriorating at a faster rate than carriageways and the need for additional investment is increasing. In previous years, we have requested consideration for additional funding into this group. Figure 2 below indicates where the County’s assets sit in their lifecycle and the reasons for the higher than average deterioration.

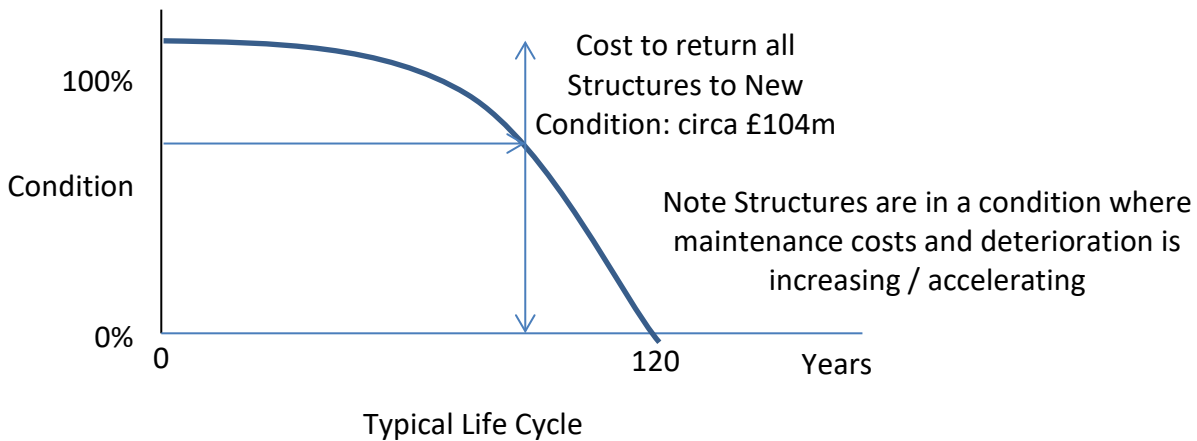


Fig 2: Structures Life Cycle Status

The condition of the structures assets mean that a number of risks exist on the network as a result of bridges requiring significant maintenance works, should these risks be realised in year it may result in funds destined for other areas requiring to be reallocated to enable the network to remain open. In any case should closures be required this may result in extended closures whilst repairs are designed and constructed. This is mitigated as far as reasonably practical via the identification of issues and the preparation of designs for repair in advance. We are managing this risk as described in the Structure’s Annex (14), via Structure’s Life Cycle Plan and the Network Risk Register detailed below. It should be noted that significant investment in structures may arise in the short to medium term and an expression of interest has been submitted for central government funding.

Carriageways

The County’s carriageways have been subject to a number of major investment programmes:

- 2014-2015 where an additional £20m was invested in the U and C road network.
- 2017 Challenge Fund another £8m was invested in three A roads.
- 2018 A44 Corridor & A Roads: £4.4m, plus £2.5m C Road’s

Recent condition surveys have indicated that this has made an improvement in the condition of these roads, which are gradually filtering into the below condition as surveys as they are carried out over a four year period. The latest condition statistics shown below do however show an improvement, although there are fluctuations that can occur between annual surveys.

The annual depreciation figure for the prior year is circa £8-9m. The latest investment should reduce this figure, in the coming year. However, the current typical annual plan base allocation of typically £1.6m is insufficient to sustain the condition of the carriageway network at its present post-investment condition.

It should be noted that the 'backlog' of work to bring the carriageway up to new condition stood at circa £100m.

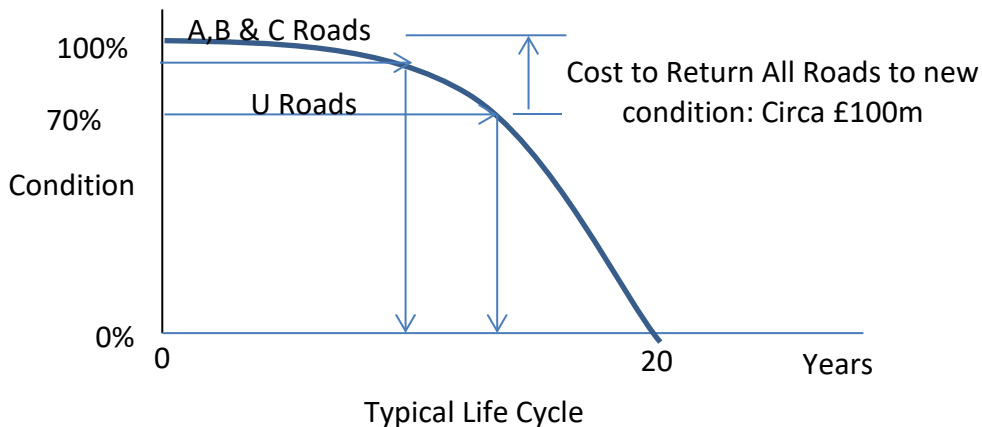
In 2018 BBLP raised with the Council that the decision making for allocating additional funding in carriageway maintenance has over the course of the contract been in the majority made by the Council. For example, with of the above major investments the Council decided when and the type of road that the funds should be allocated to. BBLP advising on which schemes and treatment type within this framework could be possible. The amount of carriageway surfacing funding available through normal annual plan funds has been small relative to these major investment programmes. In addition, the limited annual plan surfacing funding available has often been required to address sections of carriageway that have deteriorated badly and are no longer possible to patch repair. This has resulted programmes for preventative surfacing maintenance being increasingly constrained.

In summary HC has in the main led on the decision making for where and how additional investment in carriageway surfacing is allocated. Subsequently, BBLP have queried the validity of measuring their performance via a carriageway condition KPI.

For the capital carriageway maintenance which BBLP advises on, programmes of work have been developed using the Horizons lifecycle planning and prioritisation software for carriageway surfacing to identify maintenance needs and allocate funding to the most appropriate schemes. However, given the base levels of investment anticipated this means that a managed decline in carriageway condition is the reality at present. The programmes of surfacing works have been included in Appendix 3 – End to End Network Improvements.

**Table 2: Roads where 'Planned Maintenance Should be Considered Soon'**

Road Network	2014 (%)	2015 (%)	2016 (%)	2017 (%)	2018 (%)	Change (% points)
A	8	7	6	7	7	0
B	7	6	5	7	7	0
C	8	7	8	8	6	-2
D	-	-	-	9*	9	-
U	32	31				
*D Road Scanner surveys have only started in 2017						



**Fig 2: Carriageway Life Cycle Status**

## INNOVATION AND CONTINUOUS IMPROVEMENT

The Asset Management Service will continue to be developed in line with the DfT's requirements to sustain Band 3 status for the Incentive Fund.

The 2016 implementation of AMX has established that this is a powerful tool that could be utilised across more asset fields than just structures. To date we have developed this software to assist with the running of the Asset Management Service such as the inclusion of streetlighting and we will continue to develop it in 2020-21. This may include the inclusion of the footway survey condition data and lifecycle planning.

Highway drainage will continue to be an area of focus. In particular the collection of gully and grip location information to enable improved routine maintenance to be carried out. We utilise Confirm for this service supported by our GIS analysis. BBLP continues to locate a significant number of unrecorded gullies.

In 2020/21 we will continue the embedment of the Asset Management approach into the service. We will continue to assist the Operations, Knowledge Centre and Locality Steward Teams by developing Confirm to enable them to work more effectively. This will involve improving the asset and network knowledge available to them, as well the routes and information resources. Ongoing themes include:

- Continue to selectively collect asset data to enable refinement of lifecycle planning and asset valuation tools.
- Review our prioritisation options and weightings as part of the annual life cycle plan and annual plan process.
- Keep abreast of current recommended best practice, implementing where appropriate new techniques.

In 2020/21, our main focus will be to review our pavement management system and approach to condition surveys to enable the LTP bespoke objectives to be realised, as well as take account of more detailed prioritisation considerations. This review will also consider the appropriate data fields necessary to enable our proactive planning activities.

In future years, our resources will instead be focused on ensuring the other major asset groups have systems and asset management approaches in place of equal standing.

#### **FOUR YEAR PLAN**

In addition to the LTP Capital allocations of works outlined in this Annual Plan, there are also additional potential sources of investment funds available that may become available to supplement the budget. Recent examples include the challenge fund and the November 2018 budget announcement. A key focus of the asset management team is to submit bids together with HC when these opportunities reveal themselves over future years.

**2020/21** - Review our pavement management system and approach to pavement condition surveys to capture industry innovation

**2021/22** – Extend to Footways

**2022/23** – Extend to other Assets

**2023/24** – Extend to other Assets

## **APPENDICES**

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### **APPENDIX A: POLICY & PROCESSES**

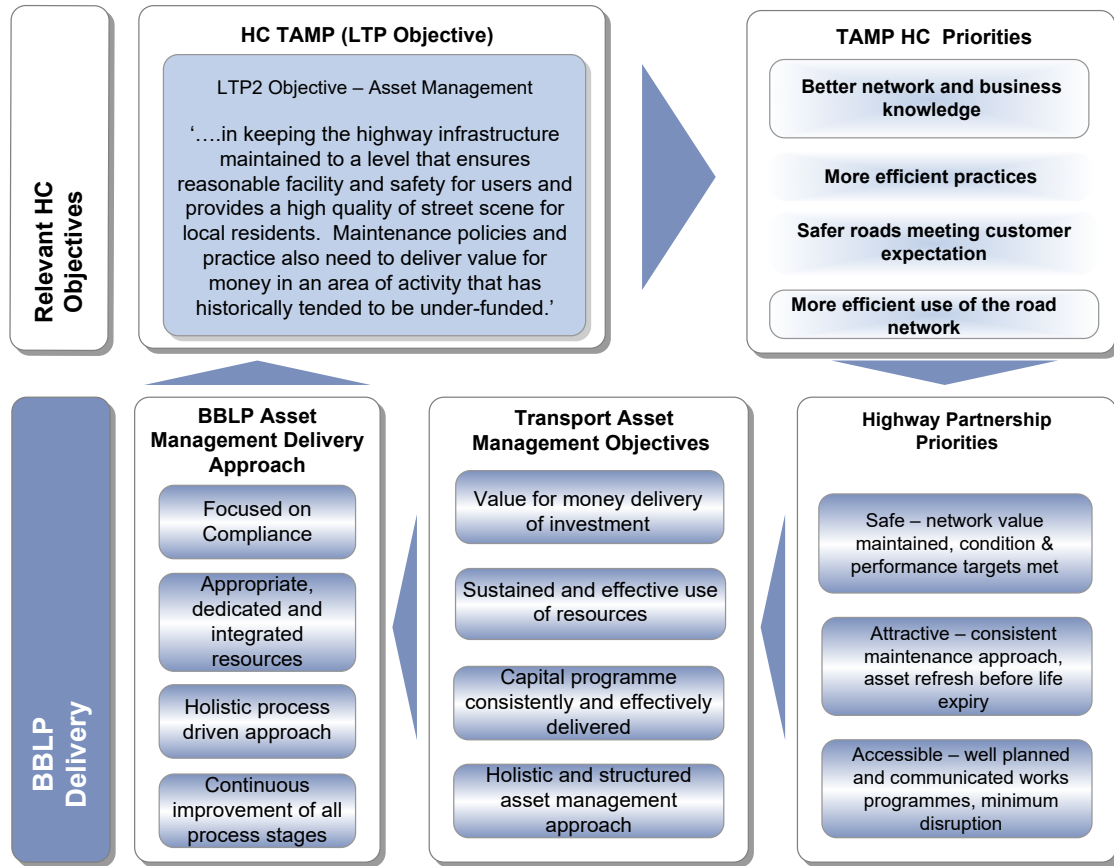


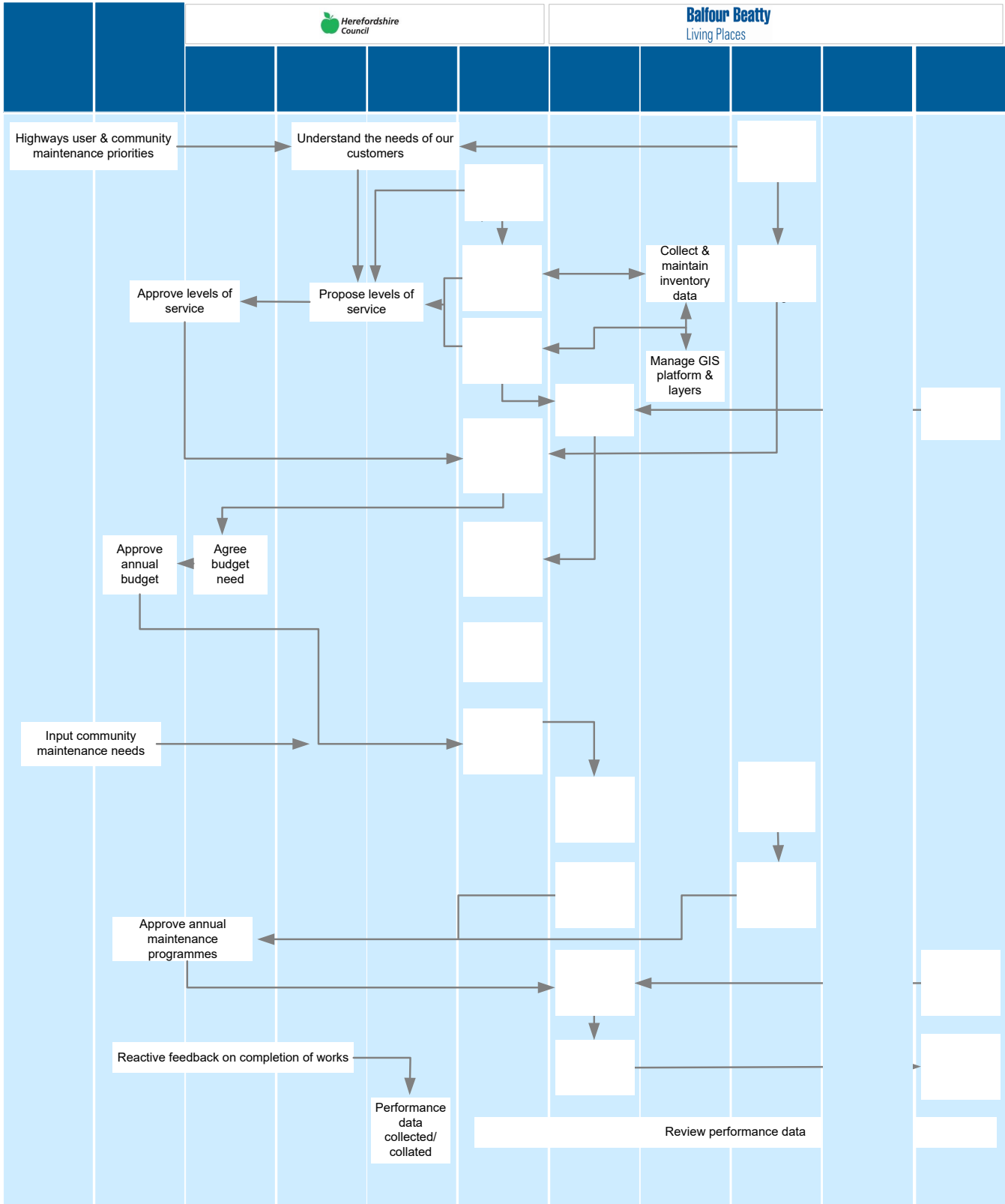
Fig 3 - Asset Management Service Plan Context: Objectives to Delivery Approach

Network Risk Scoring System				
<b>Likelihood</b>	<b>Likelihood score</b>			
Very Low	0.1	Expected to occur within 20 years		
Low	0.2	Expected to occur within 10 years		
Moderate	1	Expected to occur within 5 years, Estimated 10% chance of occurring in any year,		
Quite Likely	2	Expected to occur within 2 years, Estimated 20% chance of occurring in any year		
High	5	Estimated 50% chance of occurring in any year		
Very High	7.5	Likely to occur within a year		
Almost Certain	10	Expected to occur within a year		
<b>Consequence</b>				
<b>Consequence</b>	<b>Consequence Score</b>	<b>Political, Social and Economic</b>	<b>Financial Impact</b>	<b>Safety</b>
			<i>In terms of budget to fix the issue, legal or regulatory fines</i>	<i>Of the public or employees</i>
Negligible	1	Minor Disruption or potential reputational damage	<500	
Marginal	3	Significant Disruption or reputational damage within local community	£2,000<X<£10,000	
Considerable	5	Road Closure with minor diversion or reputational damage county wide	£10,000<X<£20,000	Minor Injuries
Significant	7	Road Closure with significant diversion	£20,000<X<£100,000	Serious injuries
Critical	9	Home or Business Isolated for an extended period or Multi properties for a number of days	£100,000<X<£500,000	Death
Catastrophic	10	Community or Businesses Isolated for an extended period that would cause hardship	X>£500,000	Multiple Deaths
<b>Priority</b>				
<b>Priority</b>	<b>Priority Score</b>	<b>Description</b>		
Critical	80 to 100	Represents a high risk to service, safety and/or durability and must be rectified as a matter of urgency		
High	60 to < 80	Should be investigated further as it is likely that work is required on safety and/or durability grounds		
Medium	40 to < 60	Should be investigated further to identify if proactive and/or preventative works would reduce whole life costs and to assess if the defect can be packaged with higher priority needs		
Low	< 40	Likely that no action is required		

Fig 4 – Risk Scoring Matrix



Asset Management



## APPENDIX B: REFERENCE DOCUMENTS

### LEGISLATIVE DOCUMENTATION

### HEREFORDSHIRE COUNCIL DOCUMENTATION

### CONTRACT DOCUMENTATION

- Herefordshire Transport Asset Management Plan (TAMP)
- Herefordshire Highway Maintenance Plan (HMP)
- NRSWA 1991
- Traffic Management Act 2001
- Well Maintained Highways' Code of Practice 2005
- Well Managed Highways 2016
- CIPFA latest guidelines
- UK roads Liaison Group Highway Maintenance Efficiency Programme Infrastructure Asset Management Guidance Documents
- Herefordshire Local Transport Plan
- HMEP Guidance
- Flood and Water management Act 2010

## APPENDIX C: DEFINITIONS

BBLP	Balfour Beatty Living Places
DfT	Department for Transport

## APPENDIX D: PROGRAMME OF WORKS

Within the scope of the following indicative programme there will be more specific tasks and functions that support the delivery of the Asset Management functions including:

### On-going Tasks throughout Year

- Selected asset data collection
- Asset Inspections
- Programmed and Reactive maintenance – Perform a review of data for previous year for driving improvement and project future years strategy
- Monthly progress and performance reporting
- Inventory data – Perform an review of data and report gap analysis findings

### Seasonal Tasks:

Activity	Period
Undertake asset valuation and depreciation	April-June

calculations for WGA returns	
Commission carriageway condition survey programme	April-June
Undertake Carriageway Condition Surveys	July-September
Develop and review ranked list of potential schemes for Capital Investment Programme	October-December
Develop following years Annual Plan	October-December
SCRIM review and actions stemming from	October-December
Review objectives to remain in line with LTP asset management objectives	January-March

## APPENDIX E: SUPPORTING DOCUMENTATION

The below file is the latest version of the highway network risk register as of January 2020.



AMX carriageway  
20200123.csv

This programme also acts as a forward programme of works that will identifies defects that are planned to be addressed over medium term (5years), subject to budgetary availability.

Note this register does not include highway structures or drainage/flooding related issues that can be found in their appropriate Annexes.



Annex 8 - TAMP  
DRAFT.xlsx