Appendix B

Service Level Risk Assessments

Contents

Highways Asset Management – A Risk Based Approach

"We inspect, repair and maintain our highways to keep them safe and provide the best highway service we can to Kent's residents, visitors and businesses, whilst co-ordinating activities on the highway to minimise disruption to road users and facilitate utility services. We do this by balancing asset management principles, local operational needs and available resource."

Statutory Obligations:	**The Highways Act 1980** - Duty of Care to maintain the highway in a safe condition and protect the rights of the travelling public to use the highway. **Road Traffic Act 1984** – Legislation providing powers to control the movement and usage of roads through traffic regulation orders. **Road Traffic Act 1998** – Duty to promote road safety and act to reduce the likelihood of road casualties from occurring. **Climate Change Act 2008** – Obliges us to reduce greenhouse gas emissions and prepare to adapt to longer term climate change. **Traffic Signs Regulations and General Directions 2016** – Legislation that sets out the conditions and standard for traffic signs and road markings. **The Traffic Management Act 2004** – Requirement to facilitate and secure the efficient movement or traffic on the highway network. **The Equalities Act 2010** – Invokes the Public Equality Duty[1]. **Public Nuisance** – An action without lawful cause or excuse which causes anger, injures health, or damages property. **The Construction (Design & Management) Regulations 2015** – To ensure that health and safety issues are properly considered during a project's life. **New Roads and Street Works Act 1991** – Code of practice for local authorities who have a duty to co-ordinate works on the highway. **Wildlife and Countryside Act 1981** – Protects animals, plants, and habitats within the UK. **Town and Country Planning Act 1990** – Provides planning protection to trees in Conservation Areas or protected by Tree Preservation Orders (TPOs). *Note: this is not an exhaustive list of applicable legislation*
Strategic Objectives:	Given the severe impacts of the COVID-19 pandemic, in December 2020 Kent County Council agreed an interim strategic plan covering the next eighteen months, *Setting the Course*. This recognises the importance of efficient highways asset management and the role it plays both in our short- to medium-term recovery from the effects of the pandemic and our long-term economic prosperity. Looking further forward, KCC will begin developing a new five-year strategic plan in 2021. Part 1 of this overall document describes the likely main themes of any future plan, and how good highways asset management helps to deliver those outcomes.
Business Priorities:	Fewer people killed or seriously injured on Kent's roads. Customer satisfaction by providing 'the right services in the right way for the right people' Maximising lifespan and minimising lifecycle costs of the highway and its assets and improving maintainability by embedding asset management principles into everything we do. Growth and economic prosperity through an efficient highway and transport infrastructure. Everyone can choose to travel safely, efficiently, and pleasantly to employment, education, social, and cultural opportunities.

[1] Public Equality Duty requires us to have due regard for advancing equality by removing or minimising disadvantage, encouraging participation, and taking steps to meet the needs of all people from protected groups where these are different from the needs of other people.

Service Standard Risk Assessment:

Risk Rating Matrix			Impact				
			1	2	3	4	5
			Minor	Moderate	Significant	Serious	Major
Likelihood	1	Very Unlikely	1 Low	2 Low	3 Low	4 Low	5 Low
	2	Unlikely	2 Low	4 Low	6 Low	8 Medium	10 Medium
	3	Possible	3 Low	6 Low	9 Medium	12 Medium	15 Medium
	4	Likely	4 Low	8 Medium	12 Medium	16 High	20 High
	5	Very Likely	5 Low	10 Medium	15 Medium	20 High	25 High

As stated in The KCC Risk Management Policy & Strategy (2018-21), the target residual rating for a risk is expected to be 'medium' or lower. Risks rated as 'high' will be deemed to have exceeded tolerance levels and will be subject to escalation to the Divisional Management Team for review and consideration for action.

It is important to recognise that 'high' risks are not a measure of specific dangers on the highway, but rather a general assessment of overall risk to the network in terms of likelihood and impact. Our statutory and ad-hoc inspection regimes enable us to identify locations that present a danger to road users so that we can take action to maintain the highway in safe condition.

The above scoring methodology is used throughout and so is not repeated in each section below.

We recognise that it is important that due consideration is given to how the impacts of climate change, such as intense or prolonged rainfall, hotter temperatures and higher windspeed will affect the way we manage our highway assets. Our current risk assessments do not fully take into consideration these impacts, as further work is required. As we take this work forward in the coming years it is likely that climate change and other environmental matters will have a significant effect on our assessment of risk.

Service Definition Sheet

Asset Group/Service: **Road Asset Management**

Service Scope

Service Provided:	Service Not Provided:
▪ Making safe road void/collapse sites (including those involving KCC drainage assets) within two hours ▪ Investigation and commissioning of appropriate repairs where there is a void/collapse (Not specifically funded). Funding therefore considered on a case-by-case basis, and potentially resulting in planned renewal or preservation works being postponed to later years.) ▪ Mechanical surveys of A, B, and major C roads to detect areas of low grip/texture ▪ Targeted maintenance of skid deficient sites on A, B, and major C roads, in accordance with KCC's Skid Resistance Strategy, where there is a risk of further accidents due to low grip levels ▪ Road coring and testing to identify condition and data of existing network ▪ Mechanical surveys on A, B and C roads to gain condition data ▪ Visual surveys on U roads to gain condition data ▪ Assessing the condition of the roads with the data obtained and identifying the locations where renewal or preservation works are needed and/or will deliver the best long-term economic value and using this to produce multi-year forwards works programmes ▪ Renewal of sections of road which have reached the end of their service life ▪ Preservation of sections of road to extend their service life	▪ Maintenance of private or un-adopted roads ▪ Actions to reduce road noise or vibration unless caused by a safety defect such as a pothole or defective cover ▪ Use of coloured, specialist high friction surfacing except where only demonstrably justified by safety assessments; where this is not the case, planned maintenance schemes and the repair of potholes and other defects in coloured areas will be carried out using black materials. ▪ Reprofiling of roads to address minor flooding ▪ Reprofiling of roads to address minor dips and bumps ▪ Renewal of roads for aesthetic reasons (e.g. overlaying concrete roads) ▪ Repair of verges unless for safety reasons or if they structural integrity of other highway assets is threatened. ▪ Condition surveys of non-paved areas of highways such as embankments ▪ KCC recognises the importance of conservation but given resource challenges we cannot routinely agree to meet conservation requirements. We therefore liaise with conservation officers on planned maintenance works in conservation areas, and consider conservation issues alongside other factors such as affordability, lifecycle cost and maintainability, before deciding what works we will do and materials we will use

Service Standard Risk Assessment:

Defect Type:	Low road grip or texture	**Means of assessment**:	Regular mechanical surveys

Potential Risks:

- Reduced highway safety due to low texture (grip) [Safety]
- Delayed movement of traffic due to accidents [Traffic]
- Increased disadvantage to people with limited mobility due to delays [Equality]
- Detrimental effect on other highway assets due to accident [Damage]

Scenario: **Unaddressed grip/texture deficiency leads to more collisions and injuries/fatalities**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Main Roads	20	6	1	9	Schemes to resolve grip/texture deficiency identified, investigated, and commissioned	5	3	1	3
Minor Roads					Road classification assessed and considered to be low risk				

Defect Type:	Structural deterioration of roads	**Means of assessment**:	Regular condition surveys

Potential Risks:

- Increase in injuries and fatalities [Safety]
- Decline in roads condition leads to increase in the parts of the network which are at the end of their service life [Damage]
- Increase in safety critical defects requiring urgent intervention [Damage]
- Increase in reactive maintenance costs and additional revenue budget pressures [Damage]
- Increased disadvantage to people with limited mobility due to delays [Equality]
- Reduced highway safety due to condition deterioration [Safety]
- Delayed movement of traffic due to more defects and road closures [Traffic]

Scenario: **Decline in road condition leads to more safety critical defects**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Strategic Roads	20	12	6	15	Data analysis to determine the most appropriate renewal and preservation methods and the timescale for delivery.	15	9	6	12
Locally Important Roads	16	9	6	12		12	8	6	9
Minor Roads	16	6	6	9		12	6	6	9

Defect Type:	Road Collapse	**Means of assessment**:	Ad-hoc inspection

Potential Risks:

- Reduced highway safety due to void [Safety]
- Delayed movement of traffic due to closure [Traffic]
- Increased disadvantage to people with limited mobility due to delays [Equality]
- Detrimental effects on other highway assets [Damage]

Scenario: **Road collapse**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Strategic Roads	15	15	12	15	Road closure, cause identified, and remedial action commissioned (funded on a case-by-case basis)	6	6	6	2
Locally Important Roads	12	12	12	12		4	4	4	4
Minor Roads	10	8	15	9		8	2	2	6

Service Definition Sheet

Asset Group/Service: **Footway and Cycle Track Asset Management**

Service Scope

Service Provided:	Service Not Provided:
▪ Making safe footway and cycle track void/collapse sites (including those involving KCC drainage assets) within two hours ▪ Investigation and commissioning of appropriate repairs where there is a high/medium risk void/collapse (Not specifically funded. Funding therefore considered on a case-by-case basis and resulting in planned renewal or preservation works being postponed to later years.) ▪ Analyse and investigate condition data from surveys alongside local needs to identify future schemes ▪ Producing a forward works programme of priority asset renewal and protection maintenance schemes	▪ Maintenance of private or un-adopted footways and cycle tracks ▪ Use of coloured surfacing and High Friction surfacing where demonstrably justified by safety assessments. Where this is not the case, planned maintenance schemes and repairs of potholes and other defects in coloured areas will be carried out using black material. ▪ Reprofiling of footways and cycle tracks to address minor flooding ▪ Reprofiling of footways and cycle tracks to address minor dips and bumps ▪ Renewal of footways and cycle tracks for aesthetic reasons ▪ KCC recognises the importance of conservation but given resource challenges we cannot routinely agree to meet conversation requirements. We therefore liaise with conservation officers on planned maintenance works in conservation areas, and consider conservation issues alongside other factors such as affordability, lifecycle cost and maintainability, before deciding what works we will do and materials we will use ▪ Investigation of low-risk voids or collapses in the footway or cycle track ▪ Visual surveys of segregated cycle tracks to gain condition data ▪ Cyclic siding out of footways and cycle tracks ▪ Condition surveys of the footway and cycle tracks to gain condition data (though we are designing a new bespoke regime that we will roll out in coming years)

Service Standard Risk Assessment:

Defect Type:	Footway/Cycle Track Collapse	**Means of assessment**:	Ad-Hoc inspections

Potential Risks:

- Reduced highway safety [Safety]
- Delays to movement of traffic due to traffic management requirements aiding pedestrian/cyclist movement [Traffic]
- Increased disadvantage to people with limited mobility [Equality]
- Detrimental effects on other highway assets [Damage]
- Restricting Active Travel in Kent [Equality]

Scenario: **Investigate and repair a "made safe" high/medium risk significant footway or cycle track collapse**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
All foot-ways/ cycle tracks	12	6	12	9	Make immediate area safe within two hours. Identify cause, and commission appropriate remedial action for its high use (funded on a case-by-case basis)	5	3	6	4

Defect Type:	Structural deterioration of footways/cycle tracks	**Means of assessment**:	Scheduled and ad-hoc inspections

Potential Risks:

- Increase in trip injuries [Safety]
- Increase in the number of insurance claims being registered.
- Increased disadvantage to people with limited mobility [Equality]
- Increase in the amount of safety critical defects occurring [Damage]
- Increase in reactive maintenance costs and additional revenue budget pressures [Damage]
- A decline in footway/cycle track condition leading to increase in the length of the network which are at the end of their service life [Damage]
- Restricting Active Travel in Kent [Traffic]

Scenario: **Decline in footway/cycle track condition leads to more safety critical defects**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High use	12	9	16	12	Within funds provided, use good asset management practices and a risk-based approach.	9	9	12	9
Low use	8	9	12	12		8	9	9	9

Service Definition Sheet

Asset Group/Service: **Drainage Asset Management**

Service Scope

Service Provided:	Service Not Provided:
▪ Emergency response where there is deemed to be an immediate or imminent risk to highway safety or of internal property flooding from the highway ▪ Pre-inspection and cyclic maintenance of highway gully pots on main roads including jetting of outlets [yearly] and all highway drainage assets at defined flooding hotspots [twice yearly] ▪ Targeted maintenance of all other highway drainage assets identified via reports of defects or flooding and where there is a high risk to highway safety and/ or the risk of internal property flooding ▪ Investment for investigation and remedy of drainage defects via a like-for-like repair prioritised according to the risk to highway safety and/ or the risk of internal property flooding, impact on disruption for all highway users, impact on other asset groups and available capital investment / budget ▪ Capital investment for drainage renewals and improvements where there is a medium or greater risk to highway safety and/ or the risk of internal property flooding or where there is significant risk of regular disruption for all highway users or to other asset groups as a direct result of flooding or asset deterioration ▪ Enforcement of drainage and highway rights where there is a high or greater risk to highway safety and the risk of internal property flooding ▪ Making safe asset failures relating to KCC highway drainage systems outside of the highway boundary (i.e. collapse around soakaways)	▪ Maintenance of any drainage asset serving non-highway land, sewers, or property even if it drains the highway ▪ Maintenance of highway drainage serving private streets or un-adopted roads ▪ Action to investigate or remediate minor ponding on the highway ▪ Drainage renewals and improvements where there is a less than medium risk to highway safety and the risk of internal property flooding ▪ Provision of highway drainage to drain water from land other than the adopted highway ▪ Provision of property level protection to prevent flooding from the highway or any other source ▪ Installation of additional drainage to compensate for undulations in road or altered profiles ▪ Installation of additional drainage assets to accommodate flows of water from private land, springs or failed third party assets such as water mains or down pipes ▪ Enforcement of drainage and highway rights where there is a medium or low risk to highway safety and the risk of internal property flooding.

Service Standard Risk Assessment:

Defect Type:	Blocked drainage and/or highway flooding	**Means of assessment**:	Visual inspection

Potential Risks:

- Reduced highway safety due to standing water/ice [Safety]
- Delayed movement of traffic due to flooded/impassable roads [Traffic]
- Increased disadvantage to non-vehicular highway users, particularly those with limited mobility therefore discouraging participation and active travel in Kent [Equality]
- Detrimental effect on/risk to other service groups and asset condition [Damage]
- Current funding levels do not allow service to upgrade/renew all high priority locations or invest in the prevention of flooding where the current risk is below the investigation criteria.

Scenario: **Drainage asset management failed or under capacity causing regular flooding**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	25	20	12	16	Engineer inspection (28 days) and site flood risk assessment to determine whether the matter is in highway authority control, whether it meets service level investigation criteria and propose further work to resolve the matter. Drainage improvement schemes (where required) will be brought into the HAMP Forward Works Programme and delivered according to available budgets.	12	12	6	12
Main Roads	20	16	12	16		12	12	6	12
Urban Minor Roads	16	12	12	16		8	6	4	9
Rural Minor Roads	16	12	12	16		8	6	4	12
Private Property			20	20				16	16

Scenario: **Flooding of up to half the road**									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	20	16	9	9	Flood clearance [2 hours] and gully cleansing [2 hours - 7 days]	6	6	4	4
Main Roads	16	12	9	9	Flood warning signs [2 hours] and gully cleansing [7 days – 28 days]	6	6	4	4
Urban Minor Roads	12	6	12	9	Gully cleansing [28 days – 90 days]	6	4	6	6
Rural Minor Roads	9	4	9	12	Gully cleansing [90 days]	6	3	6	6
Private Property			9	9				6	6

Scenario: **Flooding of over half the road**									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	25	20	12	12	Road closure, flood clearance and gully cleansing [2 hours]	6	6	4	4
Main Roads	20	16	12	9	Flood warning signs and / or flood clearance [2 hours] and gully cleansing [7 days]	6	6	4	4
Urban Minor Roads	16	12	16	9	Flood warning signs [2 hours] and gully cleansing [7 days – 28 days]	4	4	6	6
Rural Minor Roads	12	9	12	12	Flood warning signs [2 hours] and gully cleansing [28 days]	4	3	6	6
Private Property			12	12	Gully cleansing [28 days]			6	6

Scenario: **Flooding making the road impassable and causing internal property flooding**									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	25	20	12	16	Road closure, flood clearance and gully cleansing [2 hours]	6	6	4	4
Main Roads	20	16	12	12	Flood warning signs and / or flood clearance [2 hours] and gully cleansing [7 days]	6	6	4	4
Urban Minor Roads	16	12	16	12		4	4	6	6
Rural Minor Roads	12	9	12	16	Flood warning signs [2 hours] and gully cleansing [7 days]	4	3	6	6
Private Property			16	16	Flood clearance [2 hours] and gully cleansing [2 hours - 7 days]			6	6

Scenario: **Repeated flooding over half the road/ making the road impassable and/ or causing internal property flooding**									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	25	20	12	16	Engineer inspection [28 days] and site flood risk assessment to determine whether the matter is in highway authority control, whether it meets service level investigation criteria and propose further work to resolve the matter.	6	6	4	4
Main Roads	20	16	12	12		6	6	4	4
Urban Minor Roads	16	12	16	12		4	4	6	6
Rural Minor Roads	12	9	12	16		4	3	6	6
Private Property			16	16				6	6

Service Definition Sheet

Asset Group/Service: **Structures Asset Management**

Service Scope

Service Provided:	Service Not Provided:
▪ Routine surveillance at the frequencies defined in the KCC Highway Inspectors Manual ▪ 2-yearly General Inspections of all KCC owned highway structures ▪ 2-yearly safety inspections of targeted non-KCC owned highway structures ▪ Ad hoc safety inspections of highway structures following damage reports or extreme events ▪ 6-12 yearly Principal Inspections of KCC owned highway structures (bridges and culverts spanning >900mm and sign gantries) ▪ Special inspections of highway structures planned and programmed on a targeted basis ▪ Structural reviews and assessments of KCC owned highway structures planned and programmed on a targeted basis ▪ General maintenance - prioritised based on the risk to safety and programmed on a targeted basis: – Impact damage repairs – Drainage cleansing – Removal of vegetation – Culvert cleansing – Removal or obliteration of obscene and/or offensive graffiti ▪ Preventative maintenance - prioritised based on the risk of accelerated deterioration: – Repointing – Painting – Minor defect repairs – Repairs of waterproofing ▪ A targeted approach to the management of substandard structures ▪ A targeted approach to component renewal, prioritised based on the risk to safety and the risk of accelerated deterioration ▪ A targeted approach to upgrading and asset replacement, prioritised based on the risk to safety and of accelerated deterioration ▪ Management of low height bridges together with remedial works to bridge signing and liaison with Network Rail and other bridge owners following bridge strikes ▪ Technical approval of new highway structures including those promoted by developers ▪ A planned approach to the management of substandard structures	▪ General Inspections of non-KCC owned highway structures ▪ Principal Inspections of bridges and culverts spanning <900mm, retaining walls, pedestrian subways, certain inaccessible structures or any non-KCC owned highway structures ▪ Routine/ cyclic structural reviews and assessments ▪ Cyclic programmes of general and preventative maintenance ▪ Maintenance and renewals for aesthetic reasons ▪ Removal or obliteration of non-obscene or non-offensive graffiti ▪ Cyclic component renewal ▪ Widening and headroom improvements

Service Standard Risk Assessment:

Defect Type:	Deterioration/failure of KCC -owned Highway Structure	**Means of assessment**:	Visual inspection or Structural Review/Assessment

Potential Risks:

- Reduced highway safety resulting from asset condition [Safety]
- Delayed movement of traffic due to traffic management measures prior to repair [Traffic]
- Increased disadvantage to people with limited mobility therefore discouraging participation [Equality]
- Detrimental effect on/risk to highway asset condition [Damage]

Scenario: **Non-structural defect but with the potential to increase the rate of asset deterioration**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Strategic Routes	8	8	2	10	Repairs to be added to work bank with low priority and monitored for further deterioration at subsequent routine inspections. Repairs to be completed with a low priority or in conjunction with other works planned at the structure.	4	4	2	5
Locally Important Routes	6	6	3	8		3	3	3	4
Minor Routes	6	6	3	8		3	3	3	4
Other (N/A) Routes	6	6	3	8		3	3	3	4

Scenario: **Minor defect/deterioration of a non-critical structural element**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Strategic Routes	12	12	4	15	Repairs to be added to work bank with low priority and monitored for further deterioration at subsequent routine inspections. Repairs to be completed with a low priority or in conjunction with other works planned at the structure.	4	4	4	10
Locally Important Routes	9	9	6	12		3	3	6	8
Minor Routes	9	9	6	12		3	3	6	8
Other (N/A) Routes	9	9	6	12		3	3	6	8

Scenario: **Minor defect/deterioration of a critical structural element**										
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Strategic Routes	16	16	6	16	Make safe repairs completed and ongoing monitoring arranged as appropriate. Repairs to be added to work bank with medium priority. Repairs to be prioritised against works at other structures and planned for completion within two years subject to available resources and funding	8	8	4	12
Locally Important Routes	12	12	9	12		6	6	6	9
Minor Routes	12	12	9	12		6	6	6	9
Other (N/A) Routes	12	12	9	12		6	6	6	9

Scenario: **Significant defect/deterioration of a non-critical structural element**										
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Strategic Roads	20	16	6	16	Make safe repairs completed and ongoing monitoring arranged as appropriate. Repairs to be added to work bank with medium priority. Repairs to be prioritised against works at other structures and planned for completion within two years subject to available resources and funding.	12	8	4	12
Locally Important Routes	16	12	9	12		8	6	6	9
Minor Routes	16	12	9	12		8	6	6	9
Other (N/A) Routes	16	12	9	12		8	6	6	9

Scenario: **Significant defect/deterioration of a critical structural element**									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Strategic Routes	20	20	8	20	Make safe repairs completed and ongoing monitoring arranged as appropriate. Repairs to be prioritised and completed as high priority subject to available resources and funding.	12	12	4	15
Locally Important Routes	16	16	12	16		8	8	6	12
Minor Routes	16	16	12	16		8	8	6	12
Other (N/A) Routes	16	16	12	16		8	8	6	12

Scenario: **Structure classed as sub-standard following Structural Inspection requiring replacement (Principal Bridge Inspections)**									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Major Strategic Routes	25	25	15	25	Structure to be managed in accordance procedures for sub-standard structures including provision of interim measures, regular monitoring, and ongoing reviews. Repairs, or asset replacement, to be prioritised as appropriate	15	15	9	15
Other Strategic Routes	25	25	15	25		15	12	9	15
Locally Important Routes	20	20	25	20		12	12	15	12
Minor Routes	16	16	22	16		8	8	12	8
Other (N/A) Routes	16	16	25	16		8	8	15	8

Scenario: **Total failure of asset**									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Strategic Routes	25	25	15	25	Urgent / emergency measures instigated to make safe as appropriate. Repairs, or asset replacement, to be prioritised and completed as very high priority subject to available resources and funding.	15	15	9	15
Locally Important Routes	20	20	25	20		12	12	15	12
Minor Routes	16	16	22	16		8	8	12	8
Other (N/A) Routes	16	16	25	16		8	8	15	8

Service Definition Sheet

Asset Group/Service: **Crash Barriers Asset Management**

Service Scope

Service Provided:	Service Not Provided:
▪ Safety inspections as part of the wider highway inspection regime and targeted inspections informed by fault reports from customers ▪ Impact damage repairs ▪ Re-tensioning of tensioned corrugated beam safety barriers on a 2-yearly frequency ▪ Service inspections on a 5-yearly frequency and subsequent renewal/replacement of crash barrier on a priority/life cycle planning basis ▪ Updating of crash barrier inventory information on an ad hoc basis with a detailed review every 5 years ▪ Management of road-rail incursion risks ▪ Assessment of future crash barrier provision in response to queries from customers, regular service inspections and proposed changes to the highway network	▪ Provision of crash barrier to protect private property ▪ Provision or maintenance of crash barrier on private streets or highways not maintainable at public expense ▪ Maintenance of crash barrier not owned by KCC ▪ Routine cleaning of crash barrier ▪ Non-structural cosmetic damage repairs to crash barrier ▪ Painting of crash barrier

Service Standard Risk Assessment:

Defect Type:	Damaged or missing crash barrier	**Means of assessment**:	Visual inspection

Potential Risks:

- Reduced highway safety due secondary incidents [Safety]
- Delayed movement of traffic due to traffic management measures prior to repair [Traffic]
- Increased disadvantage to people with limited mobility therefore discouraging participation [Equality]
- Detrimental effect on/risk to highway asset condition [Damage]

Scenario: **Deformed beams and deflected posts but beam generally intact and mounted at correct height**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Strategic Routes	10	5		5	Damage to be repaired alongside other safety barrier in the location at next available opportunity	8	4		4
Locally Important Routes	8	3		3		6	2		2
Minor Routes	8	3		3		6	2		2
Other (N/A) Routes	6	2		2		4	1		1

Scenario: **Damaged crash barrier to limited number of posts but beam generally intact and mounted at correct height**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Strategic Routes	15	15		10	Damage to be repaired within 28 days	10	10		5
Locally Important Routes	12	12		8	Damage to be repaired within 56 days	8	8		4
Minor Routes	12	12		8		8	8		4
Other (N/A) Routes	9	9		6		6	6		3

Scenario: **Damaged crash barrier where beams no longer intact and generally mounted at correct height but without additional risk factors**									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Major Strategic Routes	20	20		15	Damaged area protected by cones (as TM permits) and repaired within 28 days	12	12		8
Other Strategic Routes	20	16		12		12	10		6
Locally Important Routes	16	12		9		10	8		6
Minor Routes	16	8		8		8	6		4
Other (N/A) Routes	16	4		6		8	3		4

Scenario: **Damaged crash barrier on verge where beams no longer intact and generally mounted at correct height together with additional risk factors**									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Major Strategic Routes	25	25		16	Damaged area protected by cones (as TM permits) and repaired within 28 days	15	15		8
Other Strategic Routes	25	20		12		15	12		6
Locally Important Routes	20	15		12		12	9		6
Minor Routes	16	10		8		8	6		4
Other (N/A) Routes	16	5		8		8	3		4

Scenario: **Damaged crash barrier on verge where beams no longer intact and generally mounted at correct height together with additional risk factors and moderate concerns over possible effects of further incidents prior to repair of damage OR damaged crash barrier on central reserve where beams no longer intact and generally mounted at correct height together with additional risk factors**									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Major Strategic Routes	25	25		20	Damaged area protected by cones (as TM permits) and repaired within 7 days	15	15		10
Other Strategic Routes	25	20		16		15	12		8
Locally Important Routes					Scenario N/A				
Minor Routes									
Other (N/A) Routes									

Scenario: **Damaged crash barrier where beams no longer intact and generally mounted at correct height together with additional risk factors and significant concerns over possible effects of further incidents prior to repair of damage**									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Major Strategic Routes	25	25		25	Damaged area protected by cones (as TM permits) OR lane closure and/or speed restriction implemented asap, and damage repaired within 2 days	15	15		15
Other Strategic Routes	25	20		20		15	12		12
Locally Important Routes	20	15		15	Damaged area protected by cones (as TM permits) and repaired within 7 days	12	9		9
Minor Routes	16	10		10		8	6		6
Other (N/A) Routes	16	5		8		8	3		4

Service Definition Sheet

Asset Group/Service: **Street Lighting Asset Management**

Service Scope

Service Provided:	Service Not Provided:
▪ Emergency response where there is deemed to be an immediate or imminent risk to highway safety ▪ Cyclic electrical and structural testing of street lighting assets ▪ Reactive maintenance of street lighting assets identified via reports of defects ▪ Night scouting of assets not on the central management system ▪ Monitoring of performance and energy consumption via a central management system ▪ Street lighting asset renewals and improvements where it is a high risk to highway safety or asset is coming to the end of its life ▪ Provision of general maintenance to some non-KCC owned lights on behalf of the district/borough councils ▪ Assessment of requests for attachments to KCC owned street lighting assets ▪ Assessment and approval of new developments and schemes where lighting assets are included ▪ Works for third parties involving KCC owned street lighting assets ▪ Work for third parties involving their street lighting assets	▪ Maintenance of street lighting assets on non-highway land or non-authority roads with the exception of district lighting maintained by KCC on their behalf ▪ Provision of additional lighting. ▪ Removal of inoffensive graffiti from street lighting assets ▪ Painting of street lights unless in a conservation area ▪ Installation of ornate/heritage style luminaires unless in a conservation area ▪ We only adopt private street lights if the adoption criteria are met in full

Service Standard Risk Assessment:

Defect Type:	Damage to equipment	**Means of assessment**:	Visual Inspection

Potential Risks:

- Reduced highway safety due to structural integrity of asset [Safety]
- Delayed movement of traffic due to structural failure of asset [Traffic]
- Increased disadvantage to people with limited mobility therefore discouraging participation [Equality]
- Detrimental effect on/risk to highway asset condition [Damage]

Scenario: **Low risk faults: e.g. single asset not working in a road**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	1	1	1	1	Attendance at next high-speed road closure	1	1	1	1
Main Roads	1	1	1	1	Attendance within 21 days	1	1	1	1
Urban Minor Roads	1	1	1	1		1	1	1	1
Rural Minor Roads	1	1	1	1		1	1	1	1

Scenario: **Multiple lights in a road not working**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	2	2	1	1	Attendance in 2 days	1	1	1	1
Main Roads	6	2	2	1		1	1	1	1
Urban Minor Roads	6	2	6	1		1	1	1	1
Rural Minor Roads	6	2	4	1		1	1	1	1

Scenario: **Higher risk faults e.g. light at a zebra crossing or conflict area not working**									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	3	2	1	1	Attendance in 2 days	1	1	1	1
Main Roads	8	2	8	1		1	1	1	1
Urban Minor Roads	8	2	10	1		1	1	1	1
Rural Minor Roads	8	2	8	1		1	1	1	1

Service Definition Sheet

Asset Group/Service:	Intelligent Traffic Systems (ITS) Asset Management

Service Scope

Service Provided:	Service Not Provided:
▪ Emergency response where there is deemed to be an immediate or imminent risk to highway safety ▪ Cyclic inspection of all installations [up to three times per year] ▪ Targeted maintenance of all installations identified via reports of defects or damage and where there is a high risk to highway safety. ▪ Investigation of defects where there is a high risk to highway safety ▪ Traffic signal renewals and improvements where there is a high risk to highway safety or obsolete equipment ▪ Technical Approval of all traffic signal designs to ensure compliance with standards. ▪ Advice and approval of suitable sites for electronic speed warning devices on the highway network	▪ Maintenance of any signal installation on non-highway land or non-authority roads ▪ Investigation of any signal installations on non-highway land or non-authority roads ▪ Enforcement of traffic signals under The Traffic Management Act 2004 ▪ Routine replacement of non-statutory and non-safety critical assets ▪ Painting of traffic signal poles, controller cabinets or any other ITS assets ▪ Removal of non-offensive graffiti ▪ KCC recognises the importance of conservation but given resource challenges we cannot always agree to meet conversation requirements but will liaise with conservation officers on new schemes in such areas to consider minor adjustments alongside other factors such as cost, lifecycle, and maintenance

Footnote:

Traffic systems assets are binary in nature: they are either on and working safely, or off and inactive. The various components at a site can be replaced or repaired independently of other elements in order to extend the life of the overall asset. This means that once any faults, damage or other issues have been addressed that the residual risk returns to the minimal level of the original design. The biggest long-term risk to the equipment is the obsolescence of the technology with sufficient availability of spare components.

Service Standard Risk Assessment:

Defect Type:	Asset faulty or damaged	**Means of assessment**:	Visual inspection or system alert

Potential Risks:

- Reduced highway safety due to reduced information to users [Safety]
- Delayed movement of traffic due to lack of co-ordination [Traffic]
- Increased disadvantage to people with limited mobility therefore discouraging participation [Equality]
- Detrimental effect on/risk to highway asset condition [Damage]

Scenario: **Communications failure** (reduces network efficiency but the lights continue to function)

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	8	12	6	6	Engineer to attend site within 2 hours and repair within 4 hours of attendance	2	2	4	4
Main Roads	12	16	6	6		2	2	4	4
Urban Minor Roads	6	9	6	6	Engineer to attend site within 48 hours and repair as soon as possible	2	2	6	6
Rural Minor Roads	6	2	6	6		2	2	6	6

Scenario: **Lamp Fault** (integral safety systems ensure safe operation is maintained or automatically switched off)

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	20	16	8	6	Engineer to attend site within 4 hours and repair within 4 hours of attendance	2	2	4	4
Main Roads	20	16	8	6		2	2	4	4
Urban Minor Roads	12	6	6	6	Engineer to attend site within 48 hours and repair as soon as possible	2	2	6	6
Rural Minor Roads	9	4	6	6		2	2	6	6

Scenario: **Detector fault** (affect network efficiency but may be either above ground detector or carriageway loops)									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	12	25	12	12	Engineer to attend site within 4 hours and repair within 4 hours of attendance	6	6	4	4
Main Roads	12	25	12	9		6	6	4	4
Urban Minor Roads	9	20	12	9	Engineer to attend site within 48 hours and repair as soon as possible	4	6	6	6
Rural Minor Roads	9	12	6	6		4	6	6	6

Scenario: **Road traffic collision damaging ITS assets** (will be made safe and require urgent follow up visit)									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	25	25	16	16	Engineer to attend site within 2 hours and repair as soon as possible	6	6	4	4
Main Roads	25	20	16	12		6	6	4	4
Urban Minor Roads	20	16	16	12	Engineer to attend site within 2 hours and repair as soon as possible	4	4	6	6
Rural Minor Roads	16	16	12	12		4	4	6	6

Scenario: **Asset condition and technology availability** (prioritised based on age, fault rate and availability of spare parts)									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	15	20	15	20	Assessed for inclusion in annual refurbishment programme	10	15	10	15
Main Roads	15	20	20	15		10	15	15	10
Urban Minor Roads	10	15	15	10		5	10	10	5
Rural Minor Roads	10	15	15	10		5	10	10	5

Service Definition Sheet

Asset Group/Service: **Soft Landscape Asset Management**

Service Scope

Service Provided:	Service Not Provided:
▪ Emergency response where there is deemed to be an immediate or imminent risk to highway safety from tree defects and vegetation ▪ Cyclic professional safety inspections of highway trees [every 5 years] following the approach contained within “Highway Trees – Our Approach to Asset Management” ▪ Cyclic maintenance of: – Shrubs, urban hedges, rural swathe, rural hedges, weed treatment, high speed roads (1 pa) – KCC off-road cycle routes (2 pa) – Autumn cut of Conservation, RNR, SSSI and Bee Road verges – Visibility splays (3 pa) – Urban grass (6 pa) – Tree pollarding and epicormic growth ▪ Cyclic management of highway noxious weeds which have the potential to cause a risk to highway safety and/or invoke a statutory conflict ▪ Targeted maintenance of all other highway soft landscape assets identified via reports of defects or where there is a high risk to highway safety and/ or a risk of property damage ▪ Investigation of tree defects where there have been reports of a high risk to highway safety, members of the public or a risk of damage to property ▪ Provision of replacement tree planting for trees within conservation areas or those covered by TPOs ▪ Provision of tree asset improvement schemes based on available Capital Funding ▪ Investigation of bus route tree and vegetation issues and enforcement of notices where there is a high risk to highway safety ▪ Soft landscape renewals and improvements where there is a high risk to highway safety or significant benefit to the asset and wider community ▪ Targeted collaborative maintenance of the soft landscape asset to benefit other highway asset teams	▪ Maintenance of non-highway trees or vegetation ▪ Maintenance of highway trees and soft landscape assets within private streets or un-adopted roads ▪ Investigation of tree reports which are nuisance issues and are low risk ▪ Provision of replacement tree planting outside of conservation areas or those not covered by TPOs ▪ Enforcement of highway rights for non-highway soft landscape assets ▪ Soft landscape enhancements ▪ Clearance of fruit or berry fall, leaves or minor branches ▪ Cutting back of trees or soft landscape for utility cables, TV reception or solar panel issues ▪ Cutting back of trees or soft landscape to abate private shading or right to light issues ▪ Cutting back of highway trees or soft landscape vegetation overhanging private property ▪ Removal of trees or soft landscape to prevent falling leaves, seeds, sap or insect or birds’ droppings ▪ Maintenance of trees or soft landscape for aesthetic reasons ▪ Reduction in height of trees or soft landscape which is perceived as being too large or tall ▪ Removal of dead weeds following programmed weed treatment ▪ Removal of grass cuttings or arisings following programmed works ▪ Litter collection during programmed works. ▪ Carrying out privately funded works to highway trees or vegetation to abate nuisance issues. ▪ Selective weed treatment of grass verges or shrub beds

Service Standard Risk Assessment:

Defect Type:	Overgrown weeds, grass verge, shrubs, or hedges	**Means of assessment**:	Visual inspection

Potential Risks:

- Reduced highway safety due to obstructions/visibility/environmental risks [Safety]
- Delayed movement of traffic due to restricted roads and footways [Traffic]
- Increased disadvantage to people with limited mobility therefore discouraging participation [Equality]
- Detrimental effect on/risk to highway asset condition [Damage]
- Build-up of litter i.e. plastic waste [Environmental]

Scenario: **Encroachment of weeds, grass, shrubs, or hedges onto other highway assets causing degradation**

	Initial Risk					Mitigating Actions	Residual Risk				
	Safety	Traffic	Equality	Damage	Env		Safety	Traffic	Equality	Damage	Env
High Speed Roads	16	15	9	16	9	Annual maintenance visit [12months] or 28-day response	15	12	6	12	4
Urban Main Roads	15	12	12	16	9	Programmed urban maintenance visits [5 weeks] or Swathe [once per year] or 28-day response	12	9	9	12	4
Rural Main Road	12	9	12	16	8		9	6	9	12	3
Urban Minor Roads	12	8	12	16	8		8	4	9	12	4
Rural Minor Roads	9	9	9	16	8		6	4	6	12	4
Off Road Cycle Routes	8	8	8	15	8	Programmed maintenance visits [twice per year] or 28-day response	6	3	6	10	4

Scenario: **Weeds, grass, shrubs, or hedges obstructing road, footway or cycle track preventing pedestrians, cyclists and/or vehicles using highway**											
	Initial Risk					Mitigating Actions	Residual Risk				
	Safety	Traffic	Equality	Damage	Env		Safety	Traffic	Equality	Damage	Env
High Speed Roads	16	16	12	12	9	Annual maintenance visit [12months] or 28-day response	12	12	9	9	6
Urban Main Roads	16	12	16	12	9	Programmed urban maintenance visits [5 weeks] or Swathe [once per year] or 28-day response	12	9	12	9	6
Rural Main Roads	16	12	16	12	8	Programmed urban maintenance visits [5 weeks] or swathe [once per year] or 28-day response	12	9	12	9	6
Urban Minor Roads	12	8	12	9	8		9	6	9	8	6
Rural Minor Roads	9	8	12	9	8		6	4	9	8	6
Off Road Cycle Routes	8	8	9	8	8	Programmed maintenance visits [twice per year] or 28-day response	6	4	6	6	6

Scenario: **Weeds, grass, shrubs, or hedges causing visibility issue**											
	Initial Risk					Mitigating Actions	Residual Risk				
	Safety	Traffic	Equality	Damage	Env		Safety	Traffic	Equality	Damage	Env
High Speed Roads	25	20	16	12	9	Annual maintenance visit [12months] or 28-day response	12	12	12	9	4
Urban Main Roads	20	16	16	12	9	Programmed urban maintenance visits [5 weeks] or visibility cut [three times per year] or 28-day response	12	12	12	9	6
Rural Main Roads	16	12	16	9	8		12	9	12	8	6
Urban Minor Roads	16	12	16	9	8		12	9	12	6	4
Rural Minor Roads	12	9	12	9	8		9	6	9	6	4
Off Road Cycle Routes	9	8	9	8	8	Programmed maintenance visits [twice per year] or 28-day response	6	3	6	6	4

Scenario: **Grass cuttings and or verge catching fire posing risk to public, damaging property and highway asset**											
	Initial Risk					Mitigating Actions	Residual Risk				
	Safety	Traffic	Equality	Damage	Env		Safety	Traffic	Equality	Damage	Env
High Speed Roads	25	20	16	16	12	Annual maintenance visit [12months] or 28-day response	9	8	8	8	4
Urban Main Roads	20	16	16	16	12	Programmed urban maintenance visits [5 weeks] or visibility cut [three times per year or swathe [once pa] or 28-day response	15	12	12	12	6
Rural Main Roads	16	16	16	16	12		12	12	12	12	6
Urban Minor Roads	16	12	16	16	9		12	9	12	12	6
Rural Minor Roads	12	9	12	12	9		9	6	9	9	6
Off Road Cycle Routes	9	4	9	9	9	Programmed maintenance visits [twice per year] or 28-day response	6	3	6	6	6

Defect Type:	Invasive or noxious weeds within highway boundary	**Means of assessment**:	Visual inspection

Potential Risks:

- Reduced highway safety due to obstructions/visibility/environmental risks [Safety]
- Delayed movement of traffic due to restricted roads and footways [Traffic]
- Increased disadvantage to people with limited mobility therefore discouraging participation [Equality]
- Detrimental effect on/risk to highway asset condition [Damage]
- Build-up or litter i.e. plastic waste [Environmental]
- Biodiversity risks from invasive noxious weeds [Environmental]
- Statutory obligation to prevent spread of weeds onto third party property [Equality]

Scenario: **Noxious weeds such as hogweed or Japanese knotweed growing into highway**

	Initial Risk					Mitigating Actions	Residual Risk				
	Safety	Traffic	Equality	Damage	Env		Safety	Traffic	Equality	Damage	Env
High Speed Roads	12	12	9	20	16	Annual treatment programme or 28-day response	9	9	6	9	9
Urban & Rural Main Roads	20	16	9	16	16		9	12	6	8	9
Urban Minor Roads	20	16	9	16	16		9	12	6	8	9
Rural Minor Roads	16	12	9	12	16		9	9	4	6	9
Off Road Cycle Routes	16	9	9	9	16		9	6	4	6	9

Defect Type:	Defective trees	**Means of assessment**:	Visual inspection

Potential Risks:

- Reduced highway safety due to tree defect in highway [Safety]
- Delayed movement of traffic due to restricted roads and footways [Traffic]
- Increased disadvantage to people with limited mobility therefore discouraging participation [Equality]
- Detrimental effect on/risk to highway asset condition [Damage]
- Biodiversity risks from introduction of pests and diseases from outside of the UK [Environmental]
- Poorly managed trees and planned tree works can have a detrimental effect on wildlife due to unforeseen failure and/or timing of works [Environmental]

Scenario: **Imminently dangerous trees at risk of causing personal injury/damage to the highway/damage to private property/traffic delays.**

	Initial Risk					Mitigating Actions	Residual Risk				
	Safety	Traffic	Equality	Damage	Env		Safety	Traffic	Equality	Damage	Env
High Speed Roads	25	25	15	25	8	2 hour emergency response	6	6	4	4	3
Urban Main Roads	25	25	12	25	12		6	6	4	6	12
Rural Main Roads	20	20	12	20	8		6	6	4	6	3
Urban Minor Roads	20	16	8	20	12	2 hour/24 hour emergency response dependent on risk. Low traffic volume roads will be temporarily closed	6	6	4	6	12
Rural Minor Roads	16	16	8	16	8		4	3	4	6	3
Off Road Cycle Routes	16	8	8	8	8		4	4	4	4	3
Private property	20		9	16	8		6		4	4	1

Scenario: **Tree defects discovered on programmed (max 5 years) professional inspections and/or discovered on ad-hoc inspections and in relation to customer enquiries.**											
	Initial Risk					Mitigating Actions	Residual Risk				
	Safety	Traffic	Equality	Damage	Env		Safety	Traffic	Equality	Damage	Env
High Speed Roads	20	20	15	20	8	Driven survey by professional tree inspectors [annually]. Asset inspection [every 3 years] Defects actioned according to level of risk - 2 month default period.	6	6	4	4	3
Urban Main Roads	20	20	12	20	12	Walked survey by professional tree inspectors [max every 5 years]. Defects actioned according to level of risk - 2 month default period.	6	6	4	6	12
Rural Main Roads	16	16	12	16	8	Driven survey by professional tree inspectors [max every 5 years]. Defects actioned according to level of risk - 2 month default period.	6	6	4	6	3
Urban Minor Roads	16	16	8	16	12	Walked survey by professional tree inspectors [every 5 years]. Defects actioned according to level of risk - 2 month default period.	6	6	4	6	12
Rural Minor Roads	16	16	8	16	8	Driven survey by professional tree inspectors [every 5 years]. Defects actioned according to level of risk - 2 month default period.	4	3	4	6	3
Off Road Cycle Routes	15	8	8	8	8	Cycled survey by highway inspector to identify imminently dangerous trees only [every 2 years]. Defects actioned according to level of risk - 2 month default period.	4	4	4	4	3

Scenario: **Trees requiring cyclic pruning (removal of basal & epicormic growth or re-pollarding) maintenance to prevent visibility issues, obstructions to the highway and/or damage to private property.**											
	Initial Risk					Mitigating Actions	Residual Risk				
	Safety	Traffic	Equality	Damage	Env		Safety	Traffic	Equality	Damage	Env
High Speed Roads											
Urban Main Roads	20	20	12	20	12	Defects actioned in response to maximum acceptable extent of re-growth. Range from [1-7 years].	6	6	4	6	6
Rural Main Roads	16	16	12	16	8		6	4	4	6	3
Urban Minor Roads	16	16	12	16	12		6	6	4	6	6
Rural Minor Roads	16	15	8	16	8		4	3	4	6	3
Off Road Cycle Routes											

Defect Type:	Tree Stump	**Means of assessment**:	Visual inspection

Potential Risks:

- Tree stumps within the highway can be a trip hazard and/or cause damage to vehicles when parking. Stumps will ultimately decay and fail potentially leaving unguarded openings in highway [Safety]
- Delayed movement of traffic due to restricted roads and footways [Traffic]
- Increased disadvantage to people with limited mobility therefore discouraging participation [Equality]
- Detrimental effect on/risk to highway asset condition [Damage]
- Excess deadwood below ground can increase the likelihood of honey fungus proliferation and subsequent damage to private woody vegetation and/or highway assets (trees and shrubs). [Damage, Environmental]

Scenario: **Tree stump remaining in highway following tree felling.**

	Initial Risk					Mitigating Actions	Residual Risk				
	Safety	Traffic	Equality	Damage	Env		Safety	Traffic	Equality	Damage	Env
High Speed Roads	6				6	Tree stumps left at approx. 1 metre height to avoid trip hazard. Tree stumps removed in 'soft site verges' to reduce the overall quantity of below ground deadwood and likelihood of honey fungus proliferation. Stumps also removed to meet planning obligations where applicable and in 'hard sites' where advanced stage of decay may result in failure. We do not remove tree stumps on segregated cycle tracks.	2				2
Urban Main Roads	12	6	12	12	12		9	4	9	12	12
Rural Main Roads	6	3	6	6	6		2	1	2	2	2
Urban Minor Roads	12	6	12	12	12		9	4	9	12	12
Rural Minor Roads	6	3	6	6	6		2	1	2	2	2

Defect Type:	Impact from loss of highway tree asset	**Means of assessment**:	Visual inspection

Potential Risks:

- Increased disadvantage to people with breathing disabilities therefore discouraging participation [Equality]
- Detrimental effect on/risk to highway asset condition [Damage]
- Urban tree cover plays an important role in moderating the 'urban heat island effect', which poses threats to human health due to substantially increased temperatures relative to rural areas. The Office of National Statistics (ONS) predicts a 3-fold increase in the number of heat related deaths by 2050. [Environmental]
- The ONS has predicted the NHS in Kent and Medway saved roughly £24 million in avoided health damage costs due to tree cover. Increase in urban sprawl and air pollution met with declining urban tree cover will result in reduction of the benefits currently provided and increased cost to the UK economy. [Environmental]
- Urban tree cover plays an important role intercepting rainfall and reducing surface water flood potential. [Environmental]

Scenario: **New highway trees have not been planted in significant numbers since the 1950s and 60s. The distribution of age classification is now predominated by late middle aged and mature trees nearing the end of their safe useful life expectancies. The highway tree asset is not being replaced at a sufficient rate to maintain urban tree cover.**

	Initial Risk					Mitigating Actions	Residual Risk				
	Safety	Traffic	Equality	Damage	Env		Safety	Traffic	Equality	Damage	Env
High Speed Roads			8		12	Replacement trees are planted to meet obligations under Town & Country Planning Act 1980. Otherwise, felled trees are not replaced due to financial constraints. Wider tree asset improvement schemes to provide local benefits based on available funding in urban areas			8		12
Urban Main Roads			20		20				9		9
Rural Main Roads			8		12				8		12
Urban Minor Roads			20		20				9		9
Rural Minor Roads			8		12				8		12
Off Road Cycle Routes											
Private property			8		8				8		8

Service Definition Sheet

Asset Group/Service: **Non-lit Highway Signs Asset Management**

Service Scope

Service Provided:	Service Not Provided:

▪ Cyclic condition inspections as part of the wider highway inspection regime and targeted inspections informed by fault reports from customers
▪ Emergency response where there is deemed to be an immediate or imminent risk to highway safety
▪ Replacement of the following safety critical signing only where hazard is still present and risk assessment identifies as safety critical. Current funding covers approximately 25% of the A network and 20% of the B road network:
  ○ Warning signs such as junction ahead signs, bend ahead signs and zebra crossing ahead signs
  ○ Regulatory signs – Those signs which place a restriction on the highway such as speed limits, width restrictions and keep left signs Safety Camera signing
  ○ Route directional signing
▪ Installation of new non-lit signs as part of a crash remedial or improvement scheme
▪ Licence attachment of traffic survey equipment to non-lit signs
▪ Targeted non-lit sign cleaning current budget provides for approximately 5% of the A road network for cleaning
▪ Removal of clutter in the form of defunct or redundant signs and posts where there is an identified safety risk to the highway user, where there is an obstruction to inclusive mobility or where signing can be rationalised as part of development or a new highway scheme.
▪ Enforcement action to remove any non-highway signing within the highway where it poses a significant safety risk to highway users
▪ Vegetation clearance around safety critical signing where there is an identified significant risk to the safety of highway users
▪ Review of lorry signing strategies
▪ Installation of tourist destination signing funded by 3rd party
	▪ Replacement of warning signs and regulatory signs on 75% of the A road network, on 80% of the B road network or on the C or unclassified network with current funding levels.
	▪ Replacement of any non-safety critical signing on any part of the network including:
	  ○ Information signs such as no through road signs or unsuitable for lorries signing
	  ○ Non-primary route direction signing
	  ○ Village signs
	▪ Maintenance of any signs which are not highway signs owned by KCC – This includes parking signs which are part of the managed parking services managed by the boroughs or districts
	▪ Maintenance of any signs which are located on private streets or un-adopted roads.
	▪ Installation of any new signs which are not standard highway signs relating to messages for the users of the highway
	▪ Cyclic cleaning of all highway signs
	▪ Removal of non-offensive graffiti
	▪ Cyclic renewal of aging sign stocks not considered to be a risk to the highway user or safety critical.
	▪ Replacement of any non-standard or non-safety critical signing such as village gateways
	▪ Provision of specialist conservation style signing

Service Standard Risk Assessment:

Defect Type:	Damaged/missing non-lit sign	**Means of assessment**:	Visual Inspection

Potential Risks:

- Risk due to hazardous obstruction in the carriageway or footway [Safety]
- Risk to highway users due to lack of warning of mandatory or regulatory restrictions on the highway [Traffic]
- Increased disadvantage to people with limited mobility therefore discouraging participation [Equality]
- Detrimental affect effect on/risk to highway asset condition [Damage]

Scenario: **Damaged safety critical highway sign**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	20	20	9	9	Emergency 2 hour attendance to make safe / remove. Repair within 28 days. Consider repair in line with available funding	16	16	8	8
Main Roads	16	16	12	9		12	12	12	6
Urban Minor Roads	16	12	12	6	Emergency 2 hour attendance to make safe / remove. Unlikely to repair with current funding	16	12	12	6
Rural Minor Roads	16	12	4	4		16	12	4	4

Scenario: **Missing or obscured safety critical highway sign**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	20	16	9	9	Emergency 2 hour attendance to make safe. Repair within 28 days. Consider repair in line with available funding	16	12	9	8
Main Roads	16	12	9	9		12	12	9	8
Urban Minor Roads	12	12	6	6	Attend within 7 days of notification. Unlikely to repair with current funding	12	9	6	6
Rural Minor Roads	9	9	4	4		9	9	4	4

Scenario: **Damaged/unserviceable non-safety critical highway sign**									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	12	16	6	6	Attend within 7 days of notification. Unlikely to repair with current funding	12	16	6	6
Main Roads	12	16	6	6		12	16	6	6
Urban Minor Roads	6	9	4	4	Attend within 28 days of notification. Repair within 90 days. Unlikely to repair with current funding	6	9	4	4
Rural Minor Roads	4	4	2	2		4	4	2	2

Service Definition Sheet

Asset Group/Service: **Pedestrian Guard Rail Asset Management**

Service Scope

Service Provided:	Service Not Provided:
▪ Cyclic condition inspections as part of the wider highway inspection regime and targeted inspections informed by fault reports from customers ▪ Emergency response where there is deemed to be an immediate or imminent risk to highway safety ▪ Targeted assessment for removal of asset ▪ Maintenance/replacement of damaged and hazardous guard rail within public highway ▪ Installation of new guardrail as part of a safety or highway improvement scheme ▪ Removal of guard rail where it is assessed as no longer required	▪ Maintenance of any pedestrian guard rail which is located on private streets or un-adopted roads. ▪ Minor/cosmetic damage ▪ Cyclic replacement of pedestrian guard rail ▪ Installation of new pedestrian guard rail which is not part of a safety or highway improvement scheme ▪ Installation or upgrade of pedestrian guard rail to ornamental guard rail ▪ Painting of guard rail ▪ KCC recognises the importance of conservation but given resource challenges we cannot always routinely agree to meet conversation requirements. We therefore liaise with conservation officers on planned maintenance works in conservation areas and consider conservation issues alongside other factors such as affordability, lifecycle cost and maintainability, before deciding what works we will do and materials we will use.

Service Standard Risk Assessment:

Defect Type:	Damaged pedestrian guard rail	**Means of assessment**:	Visual inspection by a Highway Steward or Inspector

Potential Risks:

- Risk to highway users accessing the carriageway at unsafe locations due to missing or damaged pedestrian guard rail [Safety]
- Obstruction to the movement of pedestrians or carriageway users due to damaged pedestrian guard rail on the footway or encroaching the carriageway [Traffic]
- Increased disadvantage to vulnerable road users discouraging participation [Equality]
- Detrimental affect effect on/risk to highway asset condition [Damage]

Scenario: **Damaged/missing safety critical pedestrian guard rail**									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	25	20	16	12	Emergency 2 hour attendance to make safe. Permanent repair within 28 days to 90 days	9	9	8	6
Main Roads	20	16	20	12		9	8	9	6
Urban Minor Roads	20	16	20	9		9	8	9	4
Rural Minor Roads	9	9	6	6		6	6	4	4

Scenario: **Damaged/missing non-safety critical pedestrian guard rail**									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	12	20	6	4	Attend within 2 hours to make safe. Permanent repair within 28 days to 90 days	4	9	4	2
Main Roads	12	20	6	4		4	9	4	2
Urban Minor Roads	9	12	6	4		4	6	4	2
Rural Minor Roads	6	6	4	2		2	2	2	2

Service Definition Sheet

Asset Group/Service: **Road Markings and Cats' Eyes Asset Management**

Service Scope

Service Provided:	Service Not Provided:
▪ Cyclic condition inspections as part of the wider highway inspection regime and targeted inspections informed by fault reports from customers ▪ Emergency response where there is deemed to be an immediate or imminent risk to highway safety ▪ Targeted renewal of the following safety critical road markings and cats' eyes – Current funding covers approximately 20% of the A road network and 15% of the B road network annually – Centre lining – Junction markings – Pedestrian crossing markings – SLOW markings – Safety critical double yellow line corner protection – Safety critical roundabout markings – Safety critical yellow box junction markings – Safety critical letters, arrows, and symbols ▪ Installation of new road markings and cats' eyes as part of a crash remedial or highway improvement scheme ▪ Review of road markings and cats' eyes for road asset renewal sites and replacement of those considered safety critical only	▪ Maintenance of any of the following safety critical road markings or cats' eyes on 80% of the A network, 85% of the B network or on the C or unclassified road network: – Centre line markings – Junction markings – Pedestrian crossing markings – SLOW markings – Yellow box junction markings – Roundabout markings – Letters, arrows, and symbols – Double white line systems – Double yellow line corner protection ▪ Maintenance of any of the following road markings and associated cats' eyes on all classes of roads: – Edge of carriageway markings – Cycle and bus lane markings – Hatching markings – Non-safety critical letters, arrows, and symbols – KEEP CLEAR markings – Parking bay markings – Non-safety critical yellow box junction markings – Speed limit roundels – Dog bone markings ▪ Maintenance of any road markings or cats' eyes which are located on private streets or un-adopted roads ▪ Installation of parking restriction lining which is not part of a safety related scheme ▪ Amendments to or replacement of yellow parking restrictions which form part of the parking strategy managed by the boroughs or districts ▪ Installation of any road markings which are not standard highway markings (TSRGD 2016)

Service Standard Risk Assessment:

Defect Type:	Worn/missing road markings and cats' eyes	**Means of assessment**:	Visual inspection by a Highway Steward or inspector

Potential Risks:

- Risk to highway users due to lack of warning of a hazard [Safety]
- Risk to highway users due to lack of warning of mandatory or regulatory restrictions on the highway [Traffic]
- Increased disadvantage to people with limited mobility therefore discouraging participation [Equality]
- Detrimental affect effect on/risk to highway asset condition [Damage]

Scenario: **Worn / missing safety critical road markings and cats' eyes**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	20	20	9	16	Emergency 2 hour attendance to make safe. Permanent refresh within 7 to 28 days	9	9	2	6
Main Roads	16	16	16	16		8	6	6	6
Urban Minor Roads	16	16	16	16	Emergency 2 hour attendance to make safe. No replacement	8	8	8	8
Rural Minor Roads	16	16	6	16		8	8	6	8

Scenario: **Worn/missing non-safety critical road markings and cats' eyes**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	12	12	6	6	Attend within 28 days. Refresh / replace within 28 to ninety days	6	6	2	2
Main Roads	12	12	12	6		6	6	6	2
Urban Minor Roads	9	9	12	6	Attend within 28 days to risk assess. Lining will not be routinely replaced.	9	9	9	4
Rural Minor Roads	9	9	6	4		9	9	6	4

Service Definition Sheet

Asset Group/Service: **Highway Improvements**

Service Scope

Service Provided:	Service Not Provided:
▪ Implementation of new highway improvement schemes and KCC's Casualty Reduction Strategy including Road Safety Education – Design and implementation of new highway infrastructure taking into account life cycle costs and future maintainability. Type of schemes: - – New or amended signs and lines – Changes to speed limits – Changes to movement and or weight restrictions – Safety cameras where current criteria are met – New pedestrian crossing points including zebra and push button crossings – Implementation, modification, or removal of vertical and horizontal traffic calming such as road humps, priority working systems, road narrowing, traffic islands, build outs – Traffic signals – Vehicle Activated Signs or Speed Indicator Devices – Junction improvement schemes – New and improvements to existing footways and cycle tracks – Installation of village gateways (if externally funded) – please note Kent County Council do not maintain village gateways therefore a maintenance agreement must be in place prior to installation – Installation of high grip surfacing on approaches to pedestrian crossings ▪ Parking restrictions to mitigate an evidenced road safety issue ▪ 3rd party funded traffic regulation orders (TROs) ▪ 3rd party funded directional and brown tourism signs ▪ Dropped kerbs and tactile paving to provide equal access for mobility impairment ▪ Delivery of new highway infrastructure, considering economic, social, and environmental improvements balanced with Kent's existing highway maintenance service levels	▪ Parking restrictions to address inconsiderate parking or amenity issues ▪ Installation or renewal of street name plates – this is a district/borough function ▪ Installation of private or non-prescribed highway signs ▪ Installation of specialist street furniture ▪ Investigation and testing into complaints of property damage caused by vehicle vibrations ▪ Targeted additional maintenance carried out on the routes and locations where cluster sites are apparent ▪ Reducing road noise with special materials ▪ Coloured surfacing and High Friction Surfacing will only be used when demonstrably justified by safety assessments ▪ KCC recognises the importance of conservation but given resource challenges we cannot always routinely agree to meet conversation requirements. We therefore liaise with conservation officers on planned improvement works in conservation areas, and consider conservation issues alongside other factors such as affordability, lifecycle cost and maintainability, before deciding what works we will do and materials we will use

Service Standard Risk Assessment:

Defect Type:	Casualty Reduction	**Means of assessment**:	Analysis of collision data

Potential Risks:

- Reduced highway safety, increased number of Casualties [Safety]
- Delayed movement of traffic [Traffic]
- Increased disadvantage to people with limited mobility [Equality]
- Detrimental effect on other highway assets [Damage]

Scenario: **Collisions and injuries/fatalities**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Urban	25	16	6	15	Crash cluster site identified, investigated and appropriate action taken. Collaborative working with the Strategic Road Safety Board and education partners including Kent Fire & Rescue.	20	12	4	9
Rural	25	9	6	12		20	6	4	9

Defect Type:	Congestion	**Means of assessment**:	Traffic surveys and modelling

Potential Risks:

- Reduced highway safety [Safety]
- Delayed movement of traffic [Traffic]
- Negative impact on regeneration and economic growth [Economy]
- Increased disadvantage to particular groups, such as poor air quality [Equality]

Scenario: **Highway infrastructure operating below required capacity**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Economy	Equality		Safety	Traffic	Economy	Equality
Major Strategic Roads	12	15	15	16	Site identified, investigated and appropriate action taken	9	9	12	12
Other Strategic Roads	12	15	15	16		9	9	12	12
Locally Important Roads	15	15	12	16		9	9	9	12
Minor Roads	12	12	12	16		9	9	9	12

Defect Type:	Mobility Dropped kerbs	**Means of assessment**:	Visual inspection and assessment of local links

Potential Risks:

- Reduced highway safety [Safety]
- Delayed movement of traffic [Traffic]
- Increased disadvantage to people with limited mobility [Equality]
- Detrimental effect on other highway assets [Damage]

Scenario: **Provision of dropped kerbs to allow easier movement for mobility impaired highway users**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Major Strategic Roads	9	9	16	9	Site investigated, and appropriate action taken and works installed.	6	6	9	6
Other Strategic Roads	9	9	16	9		6	6	9	6
Locally Important Roads	12	9	20	9		6	6	12	6
Minor Roads	12	9	20	9		6	6	12	6

Defect Type:	Specific maintenance for known cluster sites	**Means of assessment**:	Not assessed

Potential Risks:

- Reduced highway safety and increased number of KSIs [Safety]
- Delayed movement of traffic [Traffic]
- Increased disadvantage to people with limited mobility [Equality]
- Detrimental effect on other highway assets [Damage]

Scenario: **No higher maintenance regime on cluster sites and highest risk routes (in terms of KSIs)**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Entire road network	25	20	12	25	There is not a programme of specific additional maintenance on known cluster sites which have been subject to remedial measures. These sites are included within the routine inspections and actioned within present investigatory levels.	25	20	12	25

Defect Type:	Major Highway Infrastructure Projects	**Means of assessment**:	Not assessed

Potential Risks:

- Reduced highway safety [Safety]
- Delayed movement of traffic [Traffic]
- Negative impact on regeneration and economic growth [Economy]
- High profile schemes with significant impact to existing network [Reputational]

Scenario: **Major Capital Projects**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Economy	Reputation		Safety	Traffic	Economy	Reputation
Entire road network	20	25	20	25	Major capital infrastructure projects bid for and receive government funding to deliver schemes that look to tackle existing congestion, improve journey time reliability and safety.	3	6	4	4

Service Definition Sheet

Asset Group/Service: **Winter Service**

Service Scope

Service Provided:	Service Not Provided:
▪ Delivers a winter service on Kent County Council maintained highways ▪ Carries out precautionary salting on defined primary routes - Class A and B roads; other roads included in the top three tiers of our current maintenance hierarchy – Major Strategic, Other Strategic and Locally Important ▪ Snow clearance on roads will be carried out on a priority basis on primary routes and other roads as specified in the winter service policy ▪ Maintenance of salt bins that are provided to give motorists and pedestrians the means of salting small areas of road or footway where ice is causing difficulty on highways not covered by primary precautionary salting routes ▪ The Winter Duty Officer will be responsible for issuing forecast updates and any revised salting instructions when necessary. The Kent Road Weather Forecast will be sent to KCC Highway Operations, contractors, neighbouring highway authorities, and other relevant agencies ▪ Agreements are in place whereby snowploughs are provided and maintained by Kent County Council and assigned to 114 local farmers and plant operators for snow clearance operations, generally on the more rural parts of the highway. ▪ Spot salting may be carried out on roads and footways beyond the scheduled precautionary salting routes ▪ District council resources are used during snow emergencies to clear snow and ice in town centres under agreements made with the County Council	▪ Motorways and trunk roads are managed and treated by Highways England ▪ Roads not in the top three tiers of the maintenance hierarchy are not precautionary salted unless identified in local winter plan/s or policy ▪ Footways and cycle tracks are not precautionary salted ▪ Snow clearance is not carried out on minor roads unless on agreed predetermined routes with farmers not included in the top three tiers of the maintenance hierarchy ▪ Private roads, car parks etc. not covered by the KCC winter service ▪ Increase in salt bins on the network in line with the policy

Service Standard Risk Assessment:

Defect Type:	Hoar frost, ice, and snow on road highway network during winter months October to April	**Means of assessment**:	Road surface temperature forecasts provided by road weather stations and road weather forecast

Potential Risks:

- Reduced highway safety due to hoar frost, snow, or ice [Safety]
- Increased disadvantage to people with limited mobility therefore discouraging participation [Equality]
- Detrimental affect effect on/risk to highway asset condition due to freeze/thaw impact leading to increase in potholes [Damage]
- Inability of traffic to move freely along roads [Traffic]
- Reduced movement of pedestrians and cyclists in ice or snow conditions [Safety]

Scenario: **Hoar frost widespread across the network leading to reduced grip**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	16	16	8	8	Precautionary salting	4	4	6	4
Main Roads	16	16	8	8		4	4	6	4
Urban Minor Roads	16	16	8	8	Precautionary salting on selected roads	4	4	6	4
Rural Minor Roads	12	8	8	8	No intervention	12	8	8	8
Footways & cycle tracks			8	6				8	6

Scenario: **Snow on highway leading to loss of grip, limiting movement, increasing hazards to drivers**									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	25	25	12	20	Snow ploughing, salting, patrolling, district council town centre snow clearance	9	9	4	15
Main Roads	25	25	12	20		9	9	4	15
Urban Minor Roads	25	25	12	20		9	4	6	15
Rural Minor Roads	25	25	12	20	Farmers snow ploughing, local district plan hand clearance priorities, parish salt bags	12	12	6	15
Footways & Cycle tracks	16	16	12	15	District and parish and local action on footways and cycle tracks	12	9	6	6

Scenario: **Ice on highway reducing grip and presenting a hazard to highway users**									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	25	20	12	12	Precautionary and post salting	9	9	4	12
Main Roads	20	16	12	9	Precautionary and post salting	9	9	4	12
Urban Minor Roads	16	12	16	9	Precautionary and post salting on selected roads	9	4	6	12
Rural Minor Roads	16	9	12	12	Local district plan hand clearance priorities, parish salt bags on selected roads	12	12	6	15
Footways & Cycle tracks	25	16	16	16	Parish and local action on footways and cycle tracks	9		6	15

Service Definition Sheet

Asset Group/Service:	Highway Routine and Reactive Maintenance Management

Service Scope

Service Provided:	Service Not Provided:
▪ Emergency response where there is deemed to be an immediate or imminent risk to highway safety ▪ Investigation of road and footway defects where there is a high risk to highway safety ▪ Ad hoc investigation of road and footway defects reported by members of the public ▪ Assessments of immediate area around a defect to identify other potential defects ▪ Permanent repairs to be carried out on all temporary repairs ▪ Driven, walked and cycled inspections of the highway ▪ Removal of dead animals 'bigger than a badger' from the highway	▪ Maintenance of any defects on private land or not publicly maintainable highway ▪ Automatic replacement of specialist materials. ▪ Routine verge maintenance due to vehicular damage ▪ Routine programmed haunching of roads. ▪ Removal of small dead animals from the highway ▪ Repairs for aesthetic reasons ▪ KCC recognises the importance of conservation but given resource challenges we cannot always routinely agree to meet conversation requirements. Our priority will be to make the highway safe. On larger reactive maintenance works, we may liaise with conservation officers, and consider conservation issues alongside other factors such as affordability, lifecycle cost and maintainability, before deciding what works we will do and materials we will use

Service Standard Risk Assessment:			
Defect Type:	See table	**Means of assessment**:	Visual inspection

Item	**Types of defect**
Road[1] (including laybys)	Potholes Edge deterioration of the running surface Surface erosion Heave/subsidence in the running surface Gap/cracks Rutting Displaced, worn or broken ironwork Sunken ironwork
Footway[1]	Rocking slab or abrupt difference in levels between slabs Pothole Open joints Tree root damage Surface erosion Raised/sunken/broken manhole covers Missing/dislodged/broken cross rainwater channel Defective coal plate/basement light etc. Consideration given for use of wheelchair users
Kerbing	Displaced/misaligned kerbs or where there is substantial vehicular damage Visibly loose/rocking Missing - part or complete
Cycle track	As road and footway but consider the 'vulnerable user issue'

Potential Risks:

- Reduced highway safety due to defect in highway [Safety]
- Delayed movement of traffic due to defect/ impassable roads [Traffic]
- Increased disadvantage to people with limited mobility therefore discouraging participation [Equality]
- Detrimental effect on/risk to highway asset condition [Damage]

Priority Rating	Response Times
A defect which presents an immediate high risk and potential for harm to pedestrian / road user	2 hour response P0/P1
A defect which is not an immediate high risk but likely to cause significant harm to pedestrian / road user or susceptible to short term deterioration	By end of next working day P2
A defect which is deemed not to present an immediate or imminent hazard or risk of short-term deterioration. Such defects have safety implications although of a lesser significance than P1 & P2	7 day response P3
A defect of a minor nature that might deteriorate before the next inspection but is not considered an immediate hazard. Includes non-urgent defects initiated by a CSM	28 days P4
A non-safety critical condition	Over 28 days, variable up to one year P5
For works with a start and end date.	Replacing P5S for schemes P6
An urgent closure but where we have agreed a date and want to monitor the date	P7
Risk assessed – No action required	An insignificant defect of little or no consequence that warrants no action, but will need to be recorded

Scenario: **Defect which presents an immediate high risk and potential for harm to pedestrian/ road user (P0 & P1)**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	25	25	25	25	2 hour response, repair or make safe	9	9	12	9
Main Roads	25	25	25	20		9	9	12	9
Urban Minor Roads	25	20	20	16		9	6	9	6
Rural Minor Roads	25	16	16	16		9	4	6	4
Urban Footway	25	16	25	16		6	6	6	6
Rural Footway	25	16	15	12		6	4	4	4
Cycle track	25	16	12	12		6	4	6	4

Scenario: **Defect which is not an immediate/high risk but likely to cause significant harm to pedestrian/ road user or susceptible to short term deterioration (P2)**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	20	25	20	20	Respond by end of next working day, repair or make safe. *In some instances, permanent solution will be made within 28 days or within timescales set out for Programmed Works.*	9	9	12	9
Main Roads	20	25	20	20		9	9	12	9
Urban Minor Roads	20	20	20	16		9	6	9	6
Rural Minor Roads	20	16	16	12		9	4	6	4
Urban Footway	20	16	20	16		6	6	6	6
Rural Footway	15	12	12	12		6	4	4	4
Cycle track	16	12	12	12		6	4	6	4

Scenario: **Defect which is deemed not to present an immediate or imminent hazard or risk of short-term deterioration (P3)**

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	16	16	16	16	7 - day response, the timescale for repair will be determined by the type of road and the volume of traffic	9	6	6	4
Main Roads	16	16	16	16		9	6	6	4
Urban Minor Roads	12	12	12	9		6	6	6	4
Rural Minor Roads	12	9	9	9		6	4	6	4
Urban Footway	12	9	12	9		9	6	6	6
Rural Footway	9	4	6	6		4	4	4	4
Cycle track	9	4	6	6		4	4	4	4

Scenario: **Defect of a minor nature that might deteriorate before next inspection but is not considered an immediate hazard (P4)**									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	8	9	8	2	28-day response, repairs to be actioned prior to the next inspection or those that can be joined together with others in the area as part of programmed works.	4	6	4	2
Main Roads	8	9	8	2		4	6	4	2
Urban Minor Roads	8	4	8	2		4	4	4	2
Rural Minor Roads	4	4	6	2		4	4	6	2
Urban Footway	8	4	8	2		4	2	4	2
Rural Footway	4	2	6	2		2	2	4	2
Cycle track	8	2	2	2		2	2	2	2

Scenario: **P5 /P7 – Non-safety critical condition**									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
High Speed Roads	6	6	2	2	Over 28 days – variable up to one year. Programmed works only	4	4	2	2
Main Roads	6	4	2	2		4	4	2	2
Urban Minor Roads	6	4	2	2		4	4	2	2
Rural Minor Roads	4	4	2	2		2	4	2	2
Urban Footway	6	2	2	2		2	2	2	2
Rural Footway	2	2	2	2		2	2	2	2
Cycle track	4	2	2	2		2	2	2	2

[1] Currently, our inspection regime does not specifically cater for the use of eScooters, but this may need to be revised later.