

## Well-managed Highway Infrastructure

### A Risk Based Approach –

Version	Author	Date	Comment
1.0	Rebecca Bailey	December 2018	For ETCC approval

### Service Level Risk Assessments

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## Highways, Transportation & Waste - Service Definition Sheet



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“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.”

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Statutory Obligations:	<p><b>The Highways Act 1980</b> - Duty of care to maintain the highway in a safe condition and protect the rights of the travelling public to use the highway.</p> <p><b>Road Traffic Act 1984</b> – Legislation providing powers to control the movement and usage of roads through traffic regulation orders</p> <p><b>Road Traffic Act 1988</b> – Duty to promote road safety and act to reduce the likelihood of road casualties from occurring.</p> <p><b>Climate Change Act 2008</b> – Obliges us to reduce greenhouse gas emissions and prepare to adapt to longer term climate change</p> <p><b>Traffic Signs Regulations and General Directions 2016</b> – Legislation that sets out the conditions and standards for traffic signs and road markings</p> <p><b>The Traffic Management Act 2004</b> - Requirement to facilitate and secure the efficient movement of traffic on the highway network</p> <p><b>The Equalities Act 2010</b> – Invokes the Public Equality Duty<sup>i</sup></p> <p><b>Public Nuisance</b> - An action without lawful cause or excuse which causes anger, injures health or damages property.</p> <p><b>The Construction (Design &amp; Management) Regulations 2015</b> - To ensure that health and safety issues are properly considered during a project's life</p> <p><b>New Roads and Street Works Act 1991</b> - Code of practice for local authorities who have a duty to co-ordinate works on the highway</p> <p><b>Wildlife and Countryside Act 1981</b> – Protects animals, plants and habitats within the UK</p> <p><b>Town and Country Planning Act 1990</b> – Provides planning protection to trees in Conservation Areas or protected by Tree Preservation Orders (TPOs)</p>
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*NB – this is not an exhaustive list of applicable legislation*

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Strategic Objectives:	<p>Kent communities feel the benefits of economic growth by being in work, healthy and enjoying a good quality life.</p> <p>Children and young people in Kent get the best start in life.</p> <p>Older and vulnerable residents are safe and supported with choices to live independently.</p>
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Business Priorities:	<p>Fewer people killed or seriously injured on Kent's roads.</p> <p>Customer satisfaction by providing 'the right services in the right way for the right people'</p> <p>Maximising lifespan and minimising lifecycle costs of the highway and its assets and improving maintainability by embedding asset management principles into everything we do.</p> <p>Growth and economic prosperity through an efficient highway and transport infrastructure.</p> <p>Everyone can choose to travel safely, efficiently and pleasantly to employment, education, social and cultural opportunities.</p>
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<sup>i</sup> 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.

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## Highways, Transportation & Waste - Service Definition Sheet



Asset Group/ Drainage Asset Management

Service:

### Service Scope

#### Service 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
- Cyclic maintenance of highway gully pots on main roads [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 of drainage defects where there is a high risk to highway safety and/ or the risk of internal property flooding
- Capital investment for drainage renewals and improvements where there is a high risk to highway safety and/ or the risk of internal property flooding
- Enforcement of drainage and highway rights where there is a high risk to highway safety and the risk of internal property flooding
- Making safe collapses relating to KCC highway drainage systems outside of the highway boundary (i.e. soakaways)

#### Service Not Provided:

- 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
- Investigation of drainage defects where there is a medium or low risk to highway safety and the risk of internal property flooding
- Action to investigate or remediate minor ponding on the highway
- Drainage renewals and improvements where there is a medium or low 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 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:

<b>Defect Type:</b>	Blocked drainage and/ or highway flooding	<b>Means of assessment:</b>	Visual inspection
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		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

**Potential Risks:**

- Reduced highway safety due to standing water/ ice [Safety]
- Delayed movement of traffic due to flooded/ impassable roads [Traffic]
- Increased disadvantage to people with limited mobility therefore discouraging participation [Equality]
- Detrimental affect effect on/risk to highway asset condition [Damage]
- Current funding levels do not allow service to upgrade/ renew all high priority locations

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

**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 after flood clearance Risk assessments completed to determine if works meet intervention levels. If so CCTV investigation before scheme design and implementation budget depending.	12	12	6	12
Main Roads	20	16	12	16	Engineer inspection after flood clearance Risk assessments completed to determine if works meet intervention levels. If so CCTV investigation before scheme design and implementation budget depending.	12	12	6	12
Urban Minor Roads	16	12	12	16	Engineer inspection after flood clearance Risk assessments completed to determine	8	6	4	9



Well-managed Highway Infrastructure, A Risk Based Approach – Service Level Risk Assessments

					if works meet intervention levels. If so CCTV investigation before scheme design and implementation budget depending.				
Rural Minor Roads	16	12	12	16	Engineer inspection after flood clearance Risk assessments completed to determine if works meet intervention levels. If so CCTV investigation before scheme design and implementation budget depending.	8	6	4	12
Private Property			20	20	Engineer inspection after flood clearance Risk assessments completed to determine if works meet intervention levels. If so CCTV investigation before scheme design and implementation budget depending.			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	Gully cleansing [90 days]			6	6

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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	Flood warning signs and / or flood clearance [2 hours] and gully cleansing [7 days]	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

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Private property			16	16	Flood clearance [2 hours] and gully cleansing [2 hours - 7 days]			6	6
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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 further work	6	6	4	4
Main Roads	20	16	12	12	Engineer inspection [28 days] and site flood risk assessment to determine further work	6	6	4	4
Urban Minor Roads	16	12	16	12	Engineer inspection [90 days] and site flood risk assessment to determine further work	4	4	6	6
Rural Minor Roads	12	9	12	16	Engineer inspection [90 days] and site flood risk assessment to determine further work	4	3	6	6
Private property			16	16	Engineer inspection [90 days] and site flood risk assessment to determine further work			6	6

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## Highways, Transportation & Waste - Service Definition Sheet



Asset Group/ Service: Footway and Cycleway Asset Management

### Service Scope

#### Service Provided:

- Making safe footway and cycleway void/collapse sites (including those involving KCC drainage assets) within two hours
- Investigation and commissioning of appropriate repairs where there is a high-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.)
- Visual surveys of the footway network to gain condition data
- Visual surveys of the cycleway network where linked to roads or footways to gain condition data
- Analyse and investigate condition data from surveys alongside local needs to identify future schemes
- Produce a forward works programme of priority asset renewal and protection maintenance schemes

#### Service Not Provided:

- Maintenance of private or un-adopted footways and cycleways
- Coloured surfacing and High Friction Surfacing will only be used when demonstrably justified by safety assessments
- Reprofiting of footways and cycleways to address minor flooding
- Reprofiting of footways and cycleways to address minor dips and bumps
- Renewal of footways and cycleways for aesthetic reasons
- Cyclic renewal of specialist or coloured road surface materials
- Potholes and other defects in coloured areas will be repaired using black materials
- 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
- Investigation of medium or low-risk voids or collapses in the footway or cycleway.
- Visual surveys of segregated cycleways to gain condition data
- Cyclic siding out of footways and cycleways

## Service Standard Risk Assessment:

<b>Defect Type:</b>	Footway/Cycleway Collapse	<b>Means of assessment:</b>	Visual inspection (except segregated cycleways)
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		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

### 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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

### Scenario: Investigate and repair a “made safe” high risk significant footway or cycleway collapse

	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
All footways/cycleways	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

## Service Standard Risk Assessment:

<b>Defect Type:</b>	Structural deterioration of footways/cycleways	<b>Means of assessment:</b>	Condition surveys (except segregated cycleways)
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		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

**Potential Risks:**

- Increase in trip injuries [Safety]
- Increase in the amount 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/cycleway condition leads to increase in the parts of the network which are at the end of their service life [Damage]
- Restricting Active Travel in Kent [Traffic]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

**Scenario: Decline in Footway/Cycleway 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. With the decline in funding the result is minimal change to the residual risk on the entire network.	12	9	16	12
Low use	8	9	12	12	Within funds provided, use good asset management practices. With the decline in funding the result is minimal change to the residual risk on the entire network.	8	9	12	12

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## Highways, Transportation & Waste - Service Definition Sheet



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

### Service Scope

#### Service Provided:

- Emergency response where there is deemed to be an immediate or imminent risk to highway safety
- Cyclic inspection of all installations [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

#### Service Not Provided:

- 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 conservation 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 fully working, or off and inactive. The various components at a site can be replaced or repaired independently of other aspects 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 and the availability of spare components.

## Service Standard Risk Assessment:

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

		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

**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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

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	Engineer to attend site within 4 hours and repair within 4 hours of attendance	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	Engineer to attend site within 48 hours and repair as soon as possible	2	2	6	6

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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	Engineer to attend site within 4 hours and repair within 4 hours of attendance	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	Engineer to attend site within 48 hours and repair as soon as possible	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	Engineer to attend site within 4 hours and repair within 4 hours of attendance	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	Engineer to attend site within 48 hours and repair as soon as possible	4	6	6	6

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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	Engineer to attend site within 2 hours and repair as soon as possible	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	Engineer to attend site within 2 hours and repair as soon as possible	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	Assessed for inclusion in annual refurbishment programme	10	15	15	10
Urban Minor Roads	10	15	15	10	Assessed for inclusion in annual refurbishment programme	5	10	10	5
Rural Minor Roads	10	15	15	10	Assessed for inclusion in annual refurbishment programme	5	10	10	5



## Highways, Transportation & Waste - Service Definition Sheet

Asset Group/ Service: New Highway Assets

### Service Scope

#### Service 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 is 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 cycleways
  - 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
- 3<sup>rd</sup> party funded traffic regulation orders (TROs)
- 3<sup>rd</sup> 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

#### Service Not Provided:

- 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 conservation 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:

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

		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

**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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

**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	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	6	4	9

**Service Standard Risk Assessment:****Service/Defect Type:**

Congestion

**Means of assessment:**

Traffic surveys and modelling

		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

**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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

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	Site identified, investigated and appropriate action taken	9	9	12	12
Locally Important Roads	15	15	12	16	Site identified, investigated and appropriate action taken	9	9	9	12
Minor Roads	12	12	12	16	Site identified, investigated and appropriate action taken	9	9	9	12

## Service Standard Risk Assessment:

<b>Service/ Defect Type:</b>	Mobility Dropped kerbs	<b>Means of assessment:</b>	Visual inspection and assessment of local links
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		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

**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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

**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	Site investigated, and appropriate action taken and works installed.	6	6	9	6
Locally Important Roads	12	9	20	9	Site investigated, and appropriate action taken and works installed.	6	6	12	6
Minor Roads	12	9	20	9	Site investigated, and appropriate action taken and works installed.	6	6	12	6



## Service Standard Risk Assessment:

<b>Service/ Defect Type:</b>	Specific maintenance for known cluster sites	<b>Means of assessment:</b>	Not assessed
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		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

### 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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

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

## Service Standard Risk Assessment:

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

		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

**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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

**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



## Highways, Transportation & Waste - Service Definition Sheet

Asset Group/ Service: Non-lit Highway Signs

### Service Scope

#### Service 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 highway 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 3<sup>rd</sup> party

#### Service Not Provided:

- 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:  
Informatory 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:

<b>Defect Type:</b>	Damaged / missing non-lit sign	<b>Means of assessment:</b>	Visual inspection
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		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

**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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

**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	Emergency 2 hour attendance to make safe / remove. Repair within 28 days. Consider repair in line with available funding	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	Emergency 2 hour attendance to make safe / remove. Unlikely to repair with current funding	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	Emergency 2 hour attendance to make safe. Repair within 28 days. Consider repair in line with available funding	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	Attend within 7 days of notification. Unlikely to repair	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	Attend within 7 days of notification. Repair within 90 days. Unlikely to repair with current funding	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	Attend within 28 days of notification. Repair within 90 days. Unlikely to repair with current funding	4	4	2	2

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## Highways, Transportation & Waste - Service Definition Sheet

Asset Group/ Service: Pedestrian Guardrail

### Service Scope

#### Service 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 guardrail within public highway
- Installation of new guardrail as part of a safety or highway improvement scheme
- Removal of guardrail where it is assessed as no longer required

#### Service Not Provided:

- Maintenance of any pedestrian guardrail which is located on private streets or un-adopted roads.
- Minor / cosmetic damage
- Cyclic replacement of pedestrian guardrail
- Installation of new pedestrian guardrail which is not part of a safety or highway improvement scheme
- Installation or upgrade of pedestrian guardrail to ornamental guardrail
- Painting of guardrail
- KCC recognises the importance of conservation but given resource challenges we cannot always 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:

<b>Defect Type:</b>	Damaged pedestrian guardrail	<b>Means of assessment:</b>	Visual inspection by a Highway Steward or inspector
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		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

**Potential Risks:**

- Risk to highway users accessing the carriageway at unsafe locations due to missing or damaged pedestrian guardrail [Safety]
- Obstruction to the movement of pedestrians or carriageway users due to damaged pedestrian guardrail 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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

**Scenario: Damaged / Missing Safety Critical Pedestrian Guardrail**

	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	Emergency 2 hour attendance to make safe. Permanent repair within 28 days to 90 days.	9	8	9	6
Urban Minor Roads	20	16	20	9	Emergency 2 hour attendance to make safe. Permanent repair within 28 days to 90 days	9	8	9	4
Rural Minor Roads	9	9	6	6	Emergency 2 hour attendance to make safe. Permanent repair within 28 to 90 days	6	6	4	4



Well-managed Highway Infrastructure, A Risk Based Approach – Service Level Risk Assessments

Scenario: **Damaged / Missing Non-Safety Critical Pedestrian Guardrail**

	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	Attend within 2 hours to make safe. Permanent repair within 28 days to 90 days	4	9	4	2
Urban Minor Roads	9	12	6	4	Attend within 28 days. Permanent repair within 90 days.	4	6	4	2
Rural Minor Roads	6	6	4	2	Attend within 28 days. Permanent repair within 90 days.	2	2	2	2

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## Highways, Transportation & Waste - Service Definition Sheet

Asset Group/ Service: Road Asset Management

### Service Scope

#### Service 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 future 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

#### Service Not Provided:

- Maintenance of private or un-adopted roads
- Reducing road noise with special materials
- Coloured surfacing and High Friction Surfacing will only be used when demonstrably justified by safety assessments
- Reprofiting of roads to address minor flooding
- Reprofiting of roads to address minor dips and bumps
- Renewal of roads for aesthetic reasons (e.g. overlaying concrete roads)
- Cyclic renewal of specialist or coloured road surface materials
- Potholes and other defects in coloured areas will be repaired using black materials
- 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
- Visual surveys of non-paved areas of highways

## Service Standard Risk Assessment:

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

		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

**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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

**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				

## Service Standard Risk Assessment:

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

		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

**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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

**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	Data analysis to determine the most appropriate renewal and preservation methods and the timescale for delivery.	12	8	6	9
Minor Roads	16	6	6	9	Data analysis to determine the most appropriate renewal and preservation methods and the timescale for delivery.	12	6	6	9

## Service Standard Risk Assessment:

**Defect Type:** Road collapse      **Means of assessment:** Visual inspection

		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

**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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

**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	Road closure, cause identified, and remedial action commissioned (funded on a case-by-case basis)	4	4	4	4
Minor Roads	10	8	15	9	Road closure/barrier, cause identified, and appropriate action taken (funded on a case-by-case basis)	8	2	2	6

## Highways, Transportation & Waste - Service Definition Sheet



Asset Group/ Service: Street Lighting Asset Management

### Service Scope

#### Service 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

#### Service Not Provided:

- 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

		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

**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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

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	Attendance within 21 days	1	1	1	1
Rural Minor Roads	1	1	1	1	Attendance within 21 days	1	1	1	1



Well-managed Highway Infrastructure, A Risk Based Approach – Service Level Risk Assessments

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	Attendance in 2 days	1	1	1	1
Urban Minor Roads	6	2	6	1	Attendance in 2 days	1	1	1	1
Rural Minor Roads	6	2	4	1	Attendance in 2 days	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	Attendance in 2 days	1	1	1	1
Urban Minor Roads	8	2	10	1	Attendance in 2 days	1	1	1	1
Rural Minor Roads	8	2	8	1	Attendance in 2 days	1	1	1	1

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## Highways, Transportation & Waste - Service Definition Sheet

Asset Group/ Service: Highway Structures

### Service Scope

#### Service 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 only)
- 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 the risk 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

#### Service Not Provided:

- 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
- A planned approach to the management of substandard structures
- 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:

<b>Defect Type:</b>	Deterioration / failure of KCC -owned Highway Structure	<b>Means of assessment:</b>	Visual inspection or Structural Review / Assessment
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		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

**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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

**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

Well-managed Highway Infrastructure, A Risk Based Approach – Service Level Risk Assessments

Scenario: <b>Significant defect / deterioration of a non-critical structural element</b>									
	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: <b>Significant defect / deterioration of a critical structural element</b>									
	Initial Risk				Mitigating Actions	Residual Risk			
	Safety	Traffic	Equality	Damage		Safety	Traffic	Equality	Damage
Strategic Roads	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

Well-managed Highway Infrastructure, A Risk Based Approach – Service Level Risk Assessments

Scenario: <b>Structure classed as sub-standard following Structural Inspection requiring replacement (Principle Bridge Inspections)</b>									
	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

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## Highways Transportation & Waste - Service Definition Sheet



Asset Group/ Service: Winter Service

### Service Scope

#### Service 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 the maintenance hierarchy as defined in Kent's Highway Asset Management strategy documents
- 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
- Salt Bins 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

#### Service Not Provided:

- 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
- Footways and cycleways 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

## 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

		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

### 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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

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	4	8	Precautionary salting	4	4	4	4
Main Roads	16	16	4	8	Precautionary salting	4	4	4	4
Urban Minor Roads	16	16	6	8	Precautionary salting on selected roads	4	4	4	4
Rural Minor Roads	12	8	4	8	No intervention	12	8	4	8
Footways & cycleways			4	6	No intervention			4	6

Well-managed Highway Infrastructure, A Risk Based Approach – Service Level Risk Assessments

**Scenario: Snow on roads 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	9	20	Snow ploughing, salting, patrolling	9	9	4	15
Main Roads	25	25	9	20	Snow ploughing, salting, patrolling, district council town centre snow clearance	9	9	4	15
Urban Minor Roads	25	25	12	20	Snow ploughing, salting, patrolling, district council town centre snow clearance	9	4	6	15
Rural Minor Roads	25	25	9	20	Farmers snow ploughing, local district plan hand clearance priorities, parish salt bags	12	12	6	15
Footways & Cycleways			9	15	District and parish and local action on footways and cycleways	9		6	6

**Scenario: Ice on roads 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	15
Main Roads	20	16	12	9	Precautionary and post salting	9	9	4	15
Urban Minor Roads	16	12	16	9	Precautionary and post salting on selected roads	9	4	6	15
Rural Minor Roads	16	9	12	12	Local district plan hand clearance priorities, parish salt bags on selected roads	12	12	6	15
Footways & Cycleways	25		16	16	Parish and local action on footways and cycleways	9		6	15

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## Highways, Transportation & Waste - Service Definition Sheet

Asset Group/ Service: Crash Barrier (Vehicle Restraint Systems {VRS})

### Service Scope

#### Service 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

#### Service Not Provided:

- 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

		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

**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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

**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	Damage to be repaired alongside other safety barrier in the location at next available opportunity	6	2		2
Minor Routes	8	3		3	Damage to be repaired alongside other safety barrier in the location at next available opportunity	6	2		2
Other (N/A) Routes	6	2		2	Damage to be repaired alongside other safety barrier in the location at next available opportunity	4	1		1

Well-managed Highway Infrastructure, A Risk Based Approach – Service Level Risk Assessments

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	Damage to be repaired within 56 days	8	8		4
Other (N/A) Routes	9	9		6	Damage to be repaired within 56 days	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	Damaged area protected by cones (as TM permits) and repaired within 28 days	12	10		6
Locally Important Routes	16	12		9	Damaged area protected by cones (as TM permits) and repaired within 28 days	10	8		6
Minor Routes	16	8		8	Damaged area protected by cones (as TM permits) and repaired within 28 days	8	6		4
Other (N/A) Routes	16	4		6	Damaged area protected by cones (as TM permits) and repaired within 28 days	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	Damaged area protected by cones (as TM permits) and repaired within 28 days	15	12		6
Locally Important Routes	20	15		12	Damaged area protected by cones (as TM permits) and repaired within 28 days	12	9		6
Minor Routes	16	10		8	Damaged area protected by cones (as TM permits) and repaired within 28 days	8	6		4
Other (N/A) Routes	16	5		8	Damaged area protected by cones (as TM permits) and repaired within 28 days	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	Damaged area protected by cones (as TM permits) and repaired within 7 days	15	12		8
Locally Important Routes					Scenario N/A				
Minor Routes					Scenario N/A				
Other (N/A) Routes					Scenario N/A				



Well-managed Highway Infrastructure, A Risk Based Approach – Service Level Risk Assessments

**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	Damaged area protected by cones (as TM permits) OR Lane closure and/or speed restriction implemented asap, and damage repaired within 2 days	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	Damaged area protected by cones (as TM permits) and repaired within 7 days	8	6		6
Other (N/A) Routes	16	5		8	Damaged area protected by cones (as TM permits) and repaired within 7 days	8	3		4

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## Highways, Transportation & Waste - Service Definition Sheet



Asset Group/ Service: Road Markings and Road Studs

### Service Scope

#### Service 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 Road Studs – 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 Road Studs as part of a crash remedial or highway improvement scheme
- Review of road markings and road studs for road asset renewal sites and replacement of road markings and studs considered safety critical only

#### Service Not Provided:

- Maintenance of any of the following safety critical Road Markings or Road studs 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 Road Studs 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 Road Studs 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:

<b>Defect Type:</b>	Worn / Missing Road Markings and Road Studs	<b>Means of assessment:</b>	Visual inspection by a Highway Steward or inspector
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		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

**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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

**Scenario: Worn / Missing Safety Critical Road Markings and Road Studs**

	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	Emergency 2 hour attendance to make safe. Permanent refresh within 7 to 28 days	8	6	6	6
Urban Minor Roads	16	16	16	16	Emergency 2 hour attendance to make safe. No replacement	8	8	16	8
Rural Minor Roads	16	16	6	16	Emergency 2 hour attendance to make safe. No replacement	8	8	8	8

Well-managed Highway Infrastructure, A Risk Based Approach – Service Level Risk Assessments

Scenario: **Worn / Missing Non-Safety Critical Road Markings and Road Studs**

	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	Attend within 28 days. Refresh / replace within 28 to ninety days	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	Attend within 28 days to risk assess. Lining will not be routinely replaced.	9	9	6	4

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## Highways, Transportation & Waste - Service Definition Sheet

Asset Group/ Service: Soft Landscape Asset Management

### Service Scope

#### Service 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 maintainable Off-road cycle routes (2 pa)
  - 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
- 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

#### Service Not Provided:

- 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:

<b>Defect Type:</b>	Overgrown weeds, grass verge, shrubs or hedges	<b>Means of assessment:</b>	Visual inspection
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		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

**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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

**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	Programmed Urban maintenance visits [5 weeks] or Swathe [once per year] or 28-day response	9	6	9	12	3
Urban Minor Roads	12	8	12	16	8	Programmed Urban maintenance visits [5 weeks] or Swathe [once per year] or 28-day response	8	4	9	12	4



Well-managed Highway Infrastructure, A Risk Based Approach – Service Level Risk Assessments

Rural Minor Roads	9	9	9	16	8	Programmed Urban maintenance visits [5 weeks] or Swathe [once per year] or 28-day response	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 cycleway 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	Programmed Urban maintenance visits [5 weeks] or Swathe [once per year] or 28-day response	9	6	9	8	6
Rural Minor Roads	9	8	12	9	8	Programmed Urban maintenance visits [5 weeks] or Swathe [once per year] or 28-day response	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

Well-managed Highway Infrastructure, A Risk Based Approach – Service Level Risk Assessments

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	Programmed Urban maintenance visits [ 5 weeks] or Visibility Cut [Three times per year] or 28-day response	12	9	12	8	6
Urban Minor Roads	16	12	16	9	8	Programmed Urban maintenance visits [ 5 weeks] or Visibility Cut [Three times per year] or 28-day response	12	9	12	6	4
Rural Minor Roads	12	9	12	9	8	Programmed Urban maintenance visits [ 5 weeks] or Visibility Cut [Three times per year] or 28-day response	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

Well-managed Highway Infrastructure, A Risk Based Approach – Service Level Risk Assessments

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	Programmed Urban maintenance visits [5 weeks] or Visibility Cut [Three times per year or Swathe [once pa] or 28-day response	12	12	12	12	6
Urban Minor Roads	16	12	16	16	9	Programmed Urban maintenance visits [5 weeks] or Visibility Cut [Three times per year or Swathe [once pa] or 28-day response	12	9	12	12	6
Rural Minor Roads	12	9	12	12	9	Programmed Urban maintenance visits [5 weeks] or Visibility Cut [Three times per year or Swathe [once pa] or 28-day response	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

## Service Standard Risk Assessment:

**Defect Type:**

Invasive or noxious weeds within highway boundary

**Means of assessment:**

Visual inspection

		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

**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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

**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	Annual Treatment Programme or 28-day response	9	12	6	8	9
Urban Minor Roads	20	16	9	16	16	Annual Treatment Programme or 28-day response	9	12	6	8	9
Rural Minor Roads	16	12	9	12	16	Annual Treatment Programme or 28-day response	9	9	4	6	9
Off Road Cycle Routes	16	9	9	9	16	Annual Treatment Programme or 28-day response	9	6	4	6	9

## Service Standard Risk Assessment:

Defect Type:

Defective trees

Means of assessment:

Visual inspection

		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

### 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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

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	2 hour emergency response	6	6	4	6	12
Rural Main Roads	20	20	12	20	8	2 hour emergency response	6	6	4	6	3
Urban Minor Roads	20	16	8	20	12	2 hour emergency response	6	6	4	6	12
Rural Minor Roads	16	16	8	16	8	2 hour emergency response	4	3	4	6	3

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Off Road Cycle Routes	16	8	8	8	8	2 hour emergency response	4	4	4	4	3
Private property	20		9	16	8	2 hour emergency response	6		4	4	1

Scenario: **Tree defects discovered on programmed 5 yearly 'duty of care' professional inspections and/or discovered on adhoc 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 [every 5 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 [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 [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	Walked survey by professional tree inspectors [every 5 years] Defects actioned according to level of risk - 2 month default period.	4	4	4	4	3



## Service Standard Risk Assessment:

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

		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

**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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

**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 cycleways.	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



**Service Standard Risk Assessment:**

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

		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

- 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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

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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.			8		12
Urban Main Roads			20		20				15		15
Rural Main Roads			8		12				8		12
Urban Minor Roads			20		20				15		15
Rural Minor Roads			8		12				8		12
Off Road Cycle Routes											
Private property			8		8				8		8



## Highways, Transportation & Waste - Service Definition Sheet

Asset Group/ Service: Highway Routine Maintenance Management

### Service Scope

#### Service 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

#### Service Not Provided:

- 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 conservation 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 (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	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
Cycleway	As road and footway but consider the 'vulnerable user issue'

		Impact				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

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]

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 action. **The target residual rating for a risk is expected to be ‘medium’ or lower – The KCC Risk Management Policy & Strategy (2018-21)**

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

	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	2 hour response, repair or make safe	9	9	12	9
Urban Minor Roads	25	20	20	16	2 hour response, repair or make safe	9	6	9	6
Rural Minor Roads	25	16	16	12	2 hour response, repair or make safe	9	4	6	4
Urban Footway	25	16	25	16	2 hour response, repair or make safe	6	6	6	6
Rural Footway	25	16	15	12	2 hour response, repair or make safe	6	4	4	4

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Cycleway	25	16	12	12	2 hour response, repair or make safe	6	4	6	4
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Scenario: **P2 – defect which is not an immediate high risk high risk but likely to cause significant harm to pedestrian/ road user or susceptible to short term deterioration**

	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. <i>In some instances, permanent solution will be made within 28 days or within timescales set out for Programmed Works.</i>	9	9	12	9
Main Roads	20	25	20	20	Respond by end of next working day, repair or make safe. <i>In some instances, permanent solution will be made within 28 days or within timescales set out for Programmed Works.</i>	9	9	12	9
Urban Minor Roads	20	20	20	16	Respond by end of next working day, repair or make safe. <i>In some instances, permanent solution will be made within 28 days or within timescales set out for Programmed Works.</i>	9	6	9	6
Rural Minor Roads	20	16	16	12	Respond by end of next working day, repair or make safe. <i>In some instances, permanent solution will be made within 28 days or within timescales set out for Programmed Works.</i>	9	4	6	4
Urban Footway	20	16	20	16	Respond by end of next working day, repair or make safe. <i>In some instances, permanent solution will be made within 28 days or within timescales set out for Programmed Works.</i>	6	6	6	6

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Rural Footway	15	12	12	12	Respond by end of next working day, repair or make safe. <i>In some instances, permanent solution will be made within 28 days or within timescales set out for Programmed Works.</i>	6	4	4	4
Cycleway	15	12	12	12	Respond by end of next working day, repair or make safe. <i>In some instances, permanent solution will be made within 28 days or within timescales set out for Programmed Works.</i>	6	4	6	4

Scenario: P3 – defect which is deemed not to present an immediate or imminent hazard or risk of short term deterioration

	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 determine by the type of road and the volume of traffic.	9	6	6	4
Main Roads	15	12	12	12	7-day response, the timescale for repair will be determine by the type of road and the volume of traffic.	9	6	6	4
Urban Minor Roads	12	12	12	9	7-day response, the timescale for repair will be determine by the type of road and the volume of traffic.	6	6	6	4
Rural Minor Roads	12	6	9	6	7-day response, the timescale for repair will be determine by the type of road and the volume of traffic.	6	4	6	4
Urban Footway	12	9	12	9	7-day response, the timescale for repair will be determine by the type of road and the volume of traffic.	9	6	6	6
Rural Footway	9	4	6	6	7-day response, the timescale for repair will be determine by the type of road and the volume of traffic.	4	4	4	4

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Cycleway	9	4	6	6	7-day response, the timescale for repair will be determined by the type of road and the volume of traffic.	4	4	4	4
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Scenario: **P4 – defect of a minor nature that might deteriorate before next inspection but is not considered an immediate hazard**

	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	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
Urban Minor Roads	8	4	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	4	4	2
Rural Minor Roads	4	4	6	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	4	6	2
Urban Footway	8	4	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	2	4	2
Rural Footway	4	2	6	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.	2	2	4	2
Cycleway	8	2	2	2	28-day response, repairs to be actioned prior to the next inspection or those that	2	2	2	2



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					can be joined together with others in the area as part of programmed works.				
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Scenario: **P4E enquiry – A non-urgent defect that has been initiated by a customer enquiry**

	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 will be managed in accordance to the investigation criteria and response time associated with that defect type	4	6	4	2
Main Roads	8	9	8	2	28-day response, repairs will be managed in accordance to the investigation criteria and response time associated with that defect type	4	6	4	2
Urban Minor Roads	8	4	8	2	28-day response, repairs will be managed in accordance to the investigation criteria and response time associated with that defect type	4	4	4	2
Rural Minor Roads	4	4	6	2	28-day response, repairs will be managed in accordance to the investigation criteria and response time associated with that defect type	4	4	6	2
Urban Footway	8	4	8	2	28-day response, repairs will be managed in accordance to the investigation criteria and response time associated with that defect type	4	2	4	2
Rural Footway	4	2	6	2	28-day response, repairs will be managed in accordance to the investigation criteria and response time associated with that defect type	2	2	4	2
Cycleway	8	2	2	2	28-day response, repairs will be managed in accordance to the investigation criteria and response time associated with that defect type	2	2	2	2

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Scenario: **P5 – 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	Over 28 days – variable up to one year. Programmed works only	4	4	2	2
Urban Minor Roads	6	4	2	2	Over 28 days – variable up to one year. Programmed works only	4	4	2	2
Rural Minor Roads	4	4	2	2	Over 28 days – variable up to one year. Programmed works only	2	4	2	2
Urban Footway	6	2	2	2	Over 28 days – variable up to one year. Programmed works only	2	2	2	2
Rural Footway	2	2	2	2	Over 28 days – variable up to one year. Programmed works only	2	2	2	2
Cycleway	4	2	2	2	Over 28 days – variable up to one year. Programmed works only	2	2	2	2