Flintshire County Council

Skid Resistance Operational Manual

Issue No.:	2.0
Status:	Revised Version
Date:	November 2019

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Contents

1 Introduction

1.1 Purpose

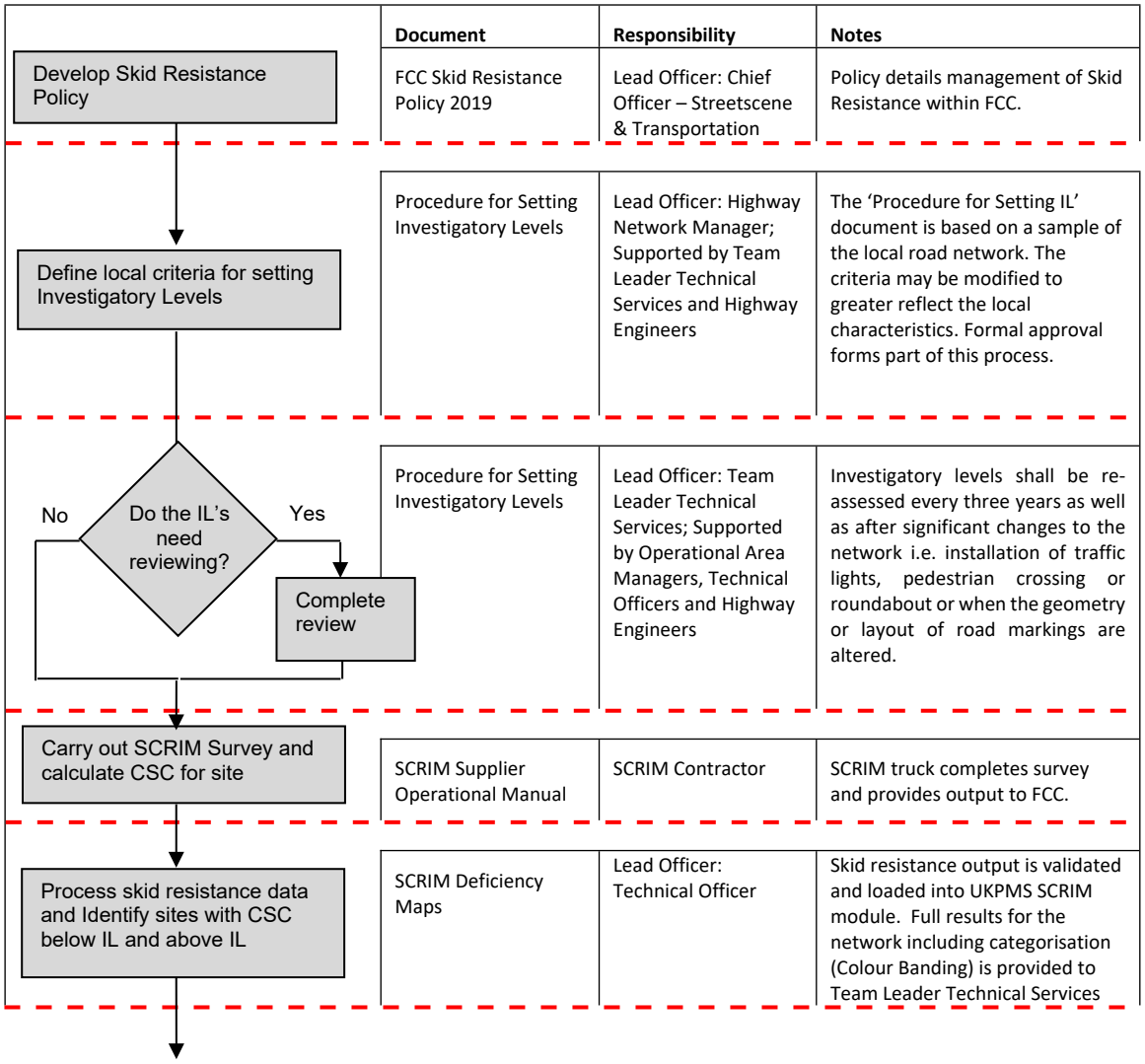
1.1.1 The purpose of this Operational Manual is to provide detailed processes for managing the appropriate levels of skid resistance on Flintshire County Council roads.

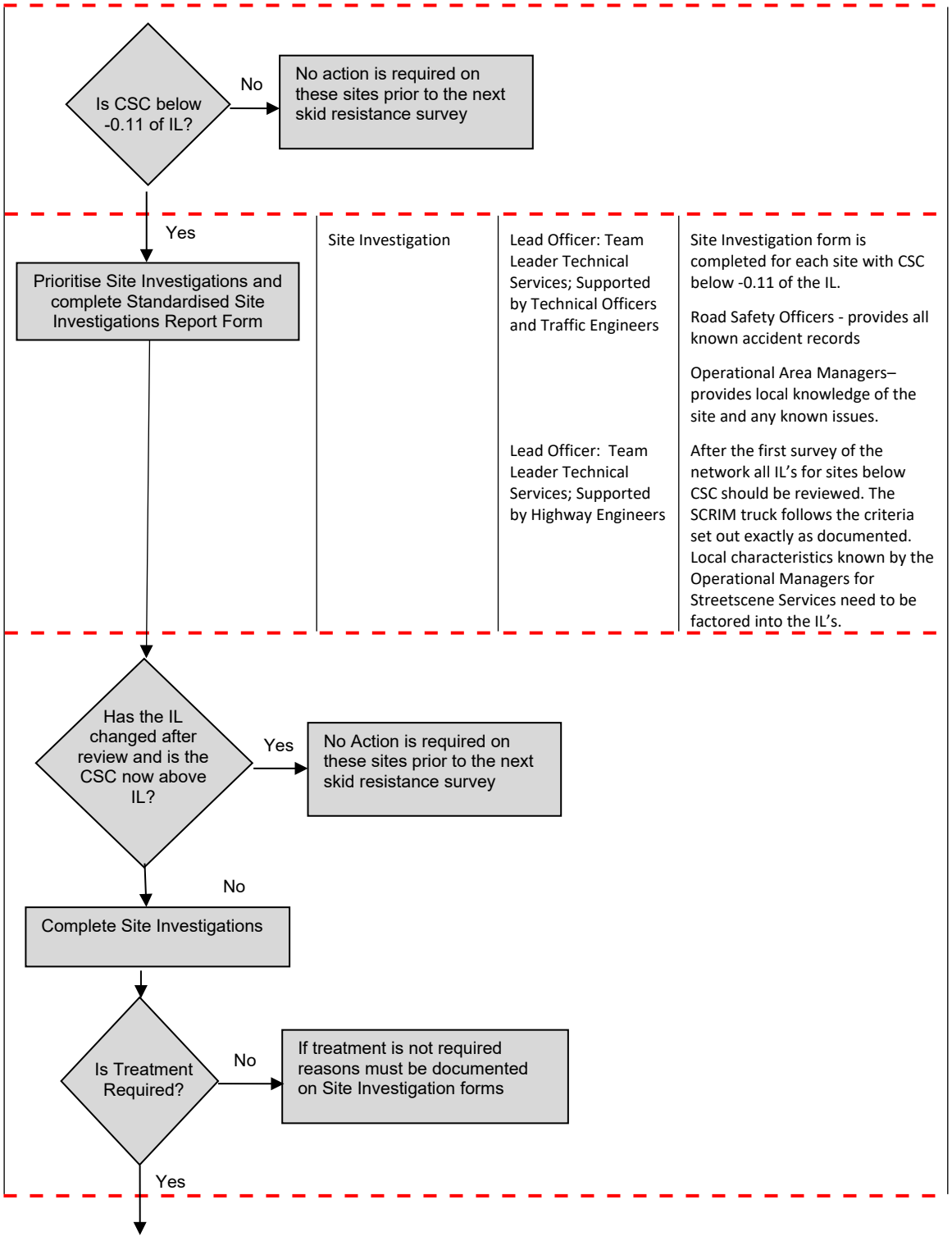
1.2 Application

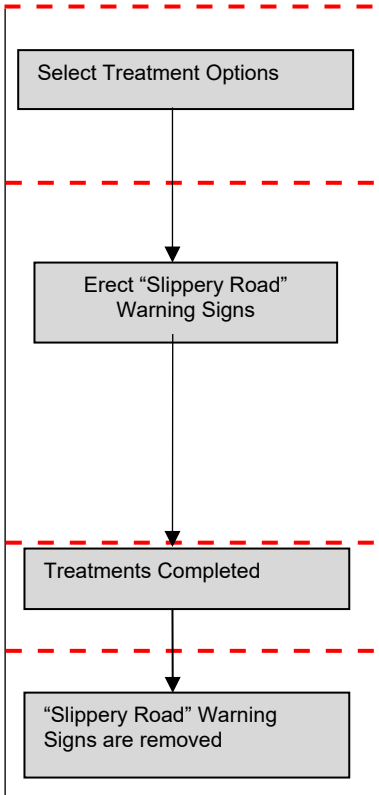
1.2.1 This policy will apply to all surfaced roads and surfaces designed to be shared with pedestrians managed by Flintshire County Council. This doesn't include trunk roads as they are managed by North & Mid Wales Trunk Road Agency (NMWTRA) or surfaces used only by pedestrians. This policy will be implemented, monitored and managed by the Highway Network Manager.

2 Process Summary

Figure 2.1 shows the skid resistance process from start to finish, including all relevant documents and responsible personnel.




Is CSC below -0.11 of IL?
No
No action is required on these sites prior to the next skid resistance survey
Yes
Prioritise Site Investigations and complete Standardised Site Investigations Report Form
Site Investigation
Lead Officer: Team Leader Technical Services; Supported by Technical Officers and Traffic Engineers
Site Investigation form is completed for each site with CSC below -0.11 of the IL.
Road Safety Officers - provides all known accident records
Operational Area Managers– provides local knowledge of the site and any known issues.
Lead Officer: Team Leader Technical Services; Supported by Highway Engineers
After the first survey of the network all IL's for sites below CSC should be reviewed. The SCRIM truck follows the criteria set out exactly as documented. Local characteristics known by the Operational Managers for Streetscene Services need to be factored into the IL's.
Has the IL changed after review and is the CSC now above IL?
Yes
No Action is required on these sites prior to the next skid resistance survey
No
Complete Site Investigations
Is Treatment Required?
No
If treatment is not required reasons must be documented on Site Investigation forms
Yes



	Lead Officer: Team Leader Technical Services; Supported by Technical Officers and Highway Engineers	Treatment options are selected jointly by Team Leader Technical Services and Technical/Highway Engineers/Officers. It is important to consider non-surfacing treatments.
FCC Skid Resistance Policy 2019	Lead Officer: Operational Area services/ Highway Network Manager	“Slippery Road” warning signs will be erected as soon as practicable at all sites where remedial measures have been determined as being necessary. These signs will only be removed when the remedial action has been taken and Team Leader Technical Services is satisfied that skidding resistance levels have been returned to an appropriate level.
	Lead Officer: Team Leader Technical Services	The treatments are designed and constructed to the required standards
FCC Skid Resistance Policy 2019	Lead Officer: Team Leader Technical Services	Warning signs are removed when the surface achieves the appropriate level of skid resistance. This can take between 6 and 12 months to happen. The decision maker needs to be able to interpret the standard of skid resistance on the site.

Figure 2.1: Skid Resistance Management Process

3 Measurement of Skid Resistance

3.1 Background

3.1.1 Flintshire County Council has adopted the Single Annual Survey Method of measuring SCRIM. This approach is based upon a single annual survey of the network. The method uses measurements from the preceding 3 years to characterise the long-term skid resistance of the network. This value is used with the mean network skid resistance in the current year, to calculate a correction factor, which is applied to the current year's data to make current values consistent with the long-term average. This overall level of skid resistance is referred to as the Characteristic Skid Coefficient (CSC) as described in CS 228.

3.1.2 The network is surveyed once during the Testing Season in each year. Surveys shall be planned so that they will occur during the required survey period (early, middle or late) to allow for the determination of CSC values. The early, middle and late parts of the season are defined, respectively, as: May to mid-June, mid-June to mid-August and mid-August to the end of September.

3.1.3 For example, a route tested in the early part of the season in year 1 could be tested in the late part of the season in year 2 and in the middle part of the season in year 3. In year four, it must be tested in the early part of the season again, etc.

4 Procedure for Setting Investigatory Levels

4.1 Background

4.1.1 Table 4.1 lists the intervention levels that are to be considered on the council's county roads. They are based on those contained in "CS 228 - Skidding Resistance Guidance Document" (formerly HD 28/15). This document allocates a band of two or three acceptable limits for each road event. The table shows the banded limits with the preferred values for Flintshire.

4.1.2 It is important that the Investigatory Level is not set too low. If, during the site investigation process the Investigatory Level of a site is found to be too high then it can be lowered. However, if the Investigatory Level is initially set at too low a level then the need to improve the skid resistance may not be detected until it has already fallen further than is desirable.

4.1.3 Site Categorisation and SCRIM Investigatory Levels for the council's network are as shown in the Table 4.1.

4.1.4 Investigatory levels shall be re-assessed every three years as well as after significant changes to the network i.e. installation of traffic lights, pedestrian crossing or roundabout or when the geometry or layout of road markings are altered.

Site Category & Description			Investigatory Level at 50km/h						
		CSC	**0.30**	**0.35**	**0.40**	**0.45**	**0.50**	**0.55**	**0.60**
		Grip No.	**0.35**	**0.41**	**0.47**	**0.53**	**0.59**	**0.65**	**0.71**
B	Dual carriageway non-event			**X**					
C	Single carriageway non-event				**X**				
Q	Approaches to and across minor and major junctions, approaches to roundabouts					**X**			
K	Approaches to pedestrian crossings and other high risk situations						**X**		
R	Roundabout					**X**			
G1	Gradient 5-10% longer than 50m					**X**			
G2	Gradient >10% longer than 50m						**X**		
S1	Bend radius <500m – dual carriageway					**X**			
S2	Bend radius <500m single carriageway						**X**		

Table 4.1: Investigatory Levels for Flintshire County Council

Legend: X Investigatory Levels selected by FCC

Investigatory Levels detailed in CS 228 - Skidding Resistance Guidance Document" (formerly HD 28/15)

Notes:

1. Investigatory Levels are for the mean skidding resistance within the appropriate averaging length.
2. Investigatory Levels for site categories A, B and C are based on 100m lengths or the length of the feature if shorter.
3. Investigatory Levels and averaging lengths for site categories Q and K are based on 50m approach to the feature but shall be extended when justified by local site characteristics.
4. Investigatory Levels for site category R are based on 10m lengths.
5. Categories G1 and G2 must not be applied to uphill gradient on dual carriageways.
6. Categories S1 and S2 must not be applied to bends with a speed limit below 50 mph.
7. Residual lengths less than 50% of a complete averaging length may be attached to the penultimate full averaging length, providing the site category is the same.
8. As part of the site investigation, individual values within each averaging length should be examined and the significance of any values that are substantially lower than the mean value assessed.

4.2 Choosing the Appropriate Site Category

4.2.1 Identify which site category from Table 4.1 is most appropriate to the road layout at each point on the network.

4.2.2 Only one site category can be assigned at each point; if there is more than one category that is applicable then

- If IL values are different - choose the one that allows a higher IL
- If IL values are the same – choose the one highest up the table

4.3 Selecting an Investigatory Level

4.3.1 For each Site Category, allocate an Investigatory Level from within the range shown in Table 4.1. The IL corresponding with the lowest value is selected in all cases except:

- Where there are identifiable hazards present, as listed below, that aren't acceptably mitigated
- Where there is more than one type of event present, unless acceptably mitigated.
- In both of these exceptions higher ILs are selected.

4.3.2 The following factors need to be considered when assessing the IL. All forms of local knowledge should be accounted for in this review.

- Hazards present or conflicts between road users that could lead to a vehicle losing control or to sudden braking or avoidance manoeuvres.

- The likelihood of an accident situation occurring, considering:
  - Traffic flow and speed
  - Road layout
  - Presence of warning signs or other measures that reduce the risk

- The severity of the outcome in the event of an accident, giving particular attention to the following situations, which are the main mechanisms of death and serious injury:
  - Head-on or side impacts at speed.
  - Accidents involving vulnerable road users.

A. Non-event Site Categories

A non-event site category (B or C) should be assigned to any length of road where there are no junctions, roundabouts, crossings, bends or gradients present.

A.1. Category B: Dual Carriageway Non-Event Selection Criteria

A.1.1. Site Category B is allocated to

a) All non-motorways, dual carriageways and other lengths with one-way traffic.

b) Junction areas where traffic merges or diverges if:
- the junction layout allows traffic leaving or joining the mainline to match the speed of the mainline traffic,
- there is adequate taper length for merging to occur.

A.1.2. Investigatory Level

Table 4.2 and 4.3 are used to allocate Investigatory Levels for Category B sites. Table 4.2 shows that a minimum IL of 0.35 is required on the Flintshire road network before further investigation is required. A list of circumstances for selecting the higher IL of 0.40 is provided in Table 4.3.

CATEGORY B: DUAL CARRIAGEWAYS NON-EVENT		**Investigatory Level at 50km/h**						
	CSC	**0.30**	**0.35**	**0.40**	**0.45**	**0.50**	**0.55**	**0.60**
	GN	**0.35**	**0.41**	**0.47**	**0.53**	**0.59**	**0.65**	**0.71**
			x					

Table 4.2: Category B Investigatory Levels for Flintshire County Council

	Lower Investigatory Level	**Higher Investigatory Level**
Category B	IL = 0.35	IL = 0.40
Circumstances	All except where a higher IL is justified	Considerations for raising IL to the higher value include: • Hazards on roads where the speed limit is 50mph or above where category Q is not appropriate, including: o Junctions where the geometry does not justify using category Q. o Bus stops, laybys etc. o Other accesses, e.g. houses. • Bends on roads with a speed limit below 40mph if they present a particular hazard in spite of the lower speed. • Uphill sections that give rise to a speed differential between vehicles, but category G1 or G2 is not appropriate.

Table 4.3: Category B Investigatory Level Circumstances

A.2. Category C: Single Carriageway Non-Event Selection Criteria

A.2.1. Site Category C is allocated to:

a) All carriageway sections with two-way traffic.

b) Junction areas where traffic merges or diverges if:
- the junction layout allows traffic leaving or joining the mainline to match the speed of the mainline traffic,
- there is adequate taper length for merging to occur.

A.2.2. Investigatory Level

Table 4.4 and 4.5 are used to allocate Investigatory Levels for Category C sites. Table 4.4 shows that a minimum IL of 0.40 is required on the Flintshire road network before further investigation is required. A list of circumstances for selecting the higher IL of 0.45 is provided in Table 4.5.

CATEGORY C: SINGLE C/WAY NON-EVENT		**Investigatory Level at 50km/h**						
	CSC	**0.30**	**0.35**	**0.40**	**0.45**	**0.50**	**0.55**	**0.60**
	GN	**0.35**	**0.41**	**0.47**	**0.53**	**0.59**	**0.65**	**0.71**
				x				

Table 4.4: Category C Investigatory Levels for Flintshire County Council

	Lower Investigatory Level	**Higher Investigatory Level**
Category C	IL = 0.40	IL = 0.45
Circumstances	All except where a higher IL is justified	Considerations for raising IL to the higher value include • Areas where pedestrians or other vulnerable road users are common but category K is not appropriate • Hazards on roads where the speed limit is 50mph or above where category Q is not appropriate, including: o Junctions where the geometry does not justify using category Q. o Bus stops, laybys etc. o Other accesses, e.g. houses. • Bends on roads with a speed limit below 40mph if they present a particular hazard in spite of the lower speed. • Uphill sections that give rise to a speed differential between vehicles, but category G1 or G2 is not appropriate. • Popular overtaking areas

Table 4.5: Category C Investigatory Level Circumstances

B. Event Site Categories

For all event site categories, consider carefully how far the category needs to extend upstream and downstream.

B.1. Category Q: Approaches to Junctions and Roundabouts Selection Criteria

B.1.1. Site Category Q is allocated to

a) Approaches to Junctions
   i. On the major road (where traffic has permanent priority):
      - Apply site category Q across the extent of the junction between throat limits and continue for a further 50m in the direction of oncoming traffic on each side.
        Note:
        - For roads with a speed limit of 50mph or above, consider extending this distance to 100m, depending on the risk of traffic having to brake unexpectedly.
        - On roads with two-way traffic, consider both directions separately to determine the overall extent of the site category

   ii. On the minor road (where traffic is required to give way):
      - Apply site category Q to the 50m approach to the stop / give way line.
        Note: Extend the distance, if necessary, to take into account likely queues.

b) Approaches to other significant accesses
   i. Where the volume of traffic using the access warrants it (eg. Petrol stations, superstores etc) treat as for major / minor priority junctions, above.
      Note: If the volume of traffic is low, use the appropriate non-event categories instead.

c) Approaches to roundabouts and traffic signals (except for high risk circumstances).
   i. Apply site category Q to the 50m approach to the stop / give way line.
      Note: Extend the distance, if necessary, to take into account likely queues.

B1.2. Investigatory Level

Table 4.6 and 4.7 are used to allocate Investigatory Levels for Category Q sites. Table 4.6 shows that a minimum IL of 0.45 is required on the Flintshire road network before further investigation is required. A list of circumstances for selecting the middle IL of 0.50 is provided in Table 4.7.

For major / minor priority junctions, the risks are greater on the major road. Drivers on the major road have permanent priority and are not expecting to give way, but may have to brake sharply if a vehicle emerges unexpectedly from the minor road or turns right across their path. Factors to consider are:

a) Right turning vehicles are at risk of a side impact with traffic on the major road, and the outcome of this type of crash is likely to be severe.
b) The risks increase where the speed of traffic joining or leaving the main carriageway differs greatly from those continuing straight on. This is heavily influenced by the taper length, provision of dedicated lanes for right-turning traffic, etc..

On the minor road, the risk of having to brake unexpectedly is lower since the need to give way is indicated clearly in advance of the junction.

CATEGORY Q: APPROACHES TO JUNCTIONS AND ROUNDABOUTS		**Investigatory Level at 50km/h**						
	CSC	**0.30**	**0.35**	**0.40**	**0.45**	**0.50**	**0.55**	**0.60**
	GN	**0.35**	**0.41**	**0.47**	**0.53**	**0.59**	**0.65**	**0.71**
					x			

Table 4.6: Category Q Investigatory Levels for Flintshire County Council

	Lower Investigatory Level	**Middle Investigatory Level**
Category Q	**IL = 0.45**	**IL = 0.50**
Circumstances		
On the major road (traffic with permanent priority)	• The speed limit is below 50mph • The speed limit is 50mph or above but the traffic volume and speed differential between the major and minor traffic streams results in an acceptably low risk	• The combination of speed differential and traffic volume result in a moderate level of risk • Sight lines on the minor road are poor, leading to the possibility of driver error • Right-turning traffic is not adequately catered for High levels of traffic on the mainline may induce drivers joining it to take risks when pulling out.
On the minor road (traffic required to give way)	All except where a higher IL is justified	Considerations for raising IL to the higher value exist if the sight lines on the minor road approaching the junction are poor, leading to the possibility of a driver changing their mind at a late stage
Significant Accesses	Treat other significant accesses as for major / minor priority junctions.	
Roundabouts & Traffic Signals	• Where speed limit is below 50mph • Roads where speed limit is 50mph or above if there is a higher speed limit but actual traffic speeds are low, e.g. because the road layout does not lend itself to higher speed.	Where speed limit is 50mph or above.

Table 4.7: Category Q Investigatory Level Circumstances

C. Category K: Approach to Pedestrian Crossings and High Risk Situations Selection Criteria

C.1. Site Category K is allocated to

a) All signal controlled pedestrian crossings and zebra crossings
b) Railway crossings
c) Other situations where there is both a likelihood vulnerable users in the road and a high risk of injury in the event of a crash.

Site category K is to be applied for the 50m approach to the event. Consider extending this distance for roads with speed limits of 50mph or above, depending on the likelihood of traffic having to brake unexpectedly.

C.2. Investigatory Level

Table 4.8 and 4.9 are used to allocate Investigatory Levels for Category K sites. Table 4.8 shows that a minimum IL of 0.50 is required on the Flintshire road network before further investigation is required. A list of circumstances for selecting the higher IL of 0.55 is provided in Table 4.9.

CATEGORY K: APPROACHES TO PEDESTRIAN CROSSINGS AND OTHER HIGH RISK SITUATIONS		**Investigatory Level at 50km/h**						
	CSC	**0.30**	**0.35**	**0.40**	**0.45**	**0.50**	**0.55**	**0.60**
	GN	**0.35**	**0.41**	**0.47**	**0.53**	**0.59**	**0.65**	**0.71**
						X		

Table 4.8: Category K Investigatory Levels for Flintshire County Council

	Lower Investigatory Level	**Higher Investigatory Level**
Category K	IL = 0.50	IL = 0.55
Circumstances	All except where a higher IL is justified	Considerations for raising IL to the higher value exist where there is reason to believe pedestrians or other vulnerable road users may misjudge the speed of oncoming traffic, e.g. • Near schools or other facilities for children • Near public houses • Where the speed of approaching traffic is high

Table 4.9: Category K Investigatory Level Circumstances

D. Category R: Roundabout Selection Criteria

D.1. Site Category R is allocated to:

a) Roundabout circulation areas
b) Approaches to traffic lights on roundabouts

D.2. Investigatory Level

Table 4.10 and 4.11 are used to allocate Investigatory Levels for Category R sites. Table 4.11 shows that a minimum IL of 0.45 is required on the Flintshire road network before further investigation is required. A list of circumstances for selecting the higher IL of 0.50 is provided in Table 4.11.

CATEGORY R: ROUNDABOUT		**Investigatory Level at 50km/h**						
	CSC	**0.30**	**0.35**	**0.40**	**0.45**	**0.50**	**0.55**	**0.60**
	GN	**0.35**	**0.41**	**0.47**	**0.53**	**0.59**	**0.65**	**0.71**
					X			

Table 4.10: Category R Investigatory Levels for Flintshire County Council

	Lower Investigatory Level	**Higher Investigatory Level**
Category R	IL = 0.45	IL = 0.50
Circumstances	All except where a higher IL is justified	Considerations for raising IL to the higher value include • High speed of circulating traffic • High incidence of cyclists or motorcyclists • Absence of signalised control on roundabouts at grade separated interchanges.

Table 4.11: Category R Investigatory Level Circumstances

E. Category G1/G2: Gradient Selection Criteria

E.1. Site Category G1 is allocated to

a) Dual carriageways, with lengths of at least 50m with an average downhill gradient of between 5 and 10%.
b) Single carriageways, with lengths of at least 50m with an average downhill gradient of between 5 and 10%.

E.2. Site Category G2 is allocated to

a) Dual carriageways, with lengths of at least 50m with an average downhill gradient of 10% of higher.
b) Single carriageways, with lengths of at least 50m with an average downhill gradient of10% or higher.

This assessment will be based on gradient information obtained from the machine condition survey.

E.3. Investigatory Level

Table 4.12 and 4.13 are used to allocate Investigatory Levels for Category G sites. Table 4.12 shows the minimum IL requirements for meeting the skid resistance needs of the Flintshire road network. A list of circumstances for selecting the higher IL is provided in Table 4.13.

SITE G: GRADIENTS		**Investigatory Level at 50km/h**						
	CSC	**0.30**	**0.35**	**0.40**	**0.45**	**0.50**	**0.55**	**0.60**
	GN	**0.35**	**0.41**	**0.47**	**0.53**	**0.59**	**0.65**	**0.71**
G1: Gradient 5-10% longer than 50m					**x**			
G2: Gradient >10% longer than 50m						**x**		

Table 4.12: Category G Investigatory Levels for Flintshire County Council

	Lower Investigatory Level	**Higher Investigatory Level**
Category G1	IL = 0.45	IL = 0.50
Category G2	IL = 0.50	IL = 0.55
Circumstances	All except where a higher IL is justified	Considerations for raising IL to the higher value • High approach speeds • Injury potential if vehicle loses control – eg large drop off into valley, solid feature, bend at the end of the grade.

Table 4.13: Category G Investigatory Level Circumstances

F. Category S1/S2: Bend radius < 500m Selection Criteria

F.1. Site Category S1 is allocated to

a) bends on dual carriageway roads where the speed limit is 50mph or above where the radius of curvature is less than 500m for at least 100m.

F.2. Site Category S2 are allocated to

a) bends on single carriageway roads where the speed is 40mph or above where the radius of curvature is less than 500m for at least 50m.

Note:

This category should not be used for:

- Roundabout exits
- Bends on roads below 40mph, use the non-event site category B or C

The site category should be extended upstream and downstream to where the road is essentially straight.

This assessment will be based on gradient information obtained from the machine condition survey.

F.4. Investigatory Level

Table 4.14 and 4.15 are used to allocate Investigatory Levels for Category S sites. Table 4.14 shows the minimum IL requirements for meeting the skid resistance needs of the Flintshire road network. A list of circumstances for selecting the higher IL is provided in Table 4.15.

CATEGORY S: BEND RADIUS <500m		**Investigatory Level at 50km/h**						
	CSC	**0.30**	**0.35**	**0.40**	**0.45**	**0.50**	**0.55**	**0.60**
	GN	**0.35**	**0.41**	**0.47**	**0.53**	**0.59**	**0.65**	**0.71**
S1: Bend radius <500m – dual carriageway					**x**			
S2: Bend radius ,500m – single carriageway						**x**		

Table 4.14: Category S Investigatory Levels for Flintshire County Council

	Lower Investigatory Level	**Higher Investigatory Level**
Category S1	IL = 0.45	IL = 0.50
Category S2	IL = 0.50	IL = 0.55
Circumstances	All except where a higher IL is justified	Considerations for raising IL to the higher value due to the particular potential for loss of control include: • The geometry of the bend is particularly hazardous, taking into account the traffic speed • Traffic needs to slow down to safely negotiate the bend • Adverse camber is present.

Table 4.15: Category S Investigatory Level Circumstances

5 Prioritisation and Site Investigation

Sites with a skid resistance deficiency are identified during the SCRIM testing process and all site CSC results are provided by the survey provider. This list of sites is sub-divided into bands of CSC measured against the benchmark ILs. There are 7 coloured bands that range from a positive sufficient/presence of >0.9 CSC above IL, through to the deficient/absence of <-0.15 CSC below IL.

5.1 Prioritisation

5.1.1 These results are prioritised for site investigations by identifying those sites as follows:

- Where the measured skid resistance deficiency is greater than 0.15 CSC units or more (Band Red) below the IL values required by Table 4.1 within this Operational Manual, and there is a record of accidents in wet conditions or involving skidding over the previous 3 year period.

- Where the measured skid resistance deficiency is between 0.11 and 0.15 CSC units (Band Yellow) below the IL values required by Table 4.1 within this Operational Manual, and there is a record of accidents in wet conditions or involving skidding over the previous 3 year period.

- All other sites where there is a record of a cluster of accidents in wet conditions or involving skidding over the previous 3 year period.

5.1.2 Site investigations will be completed in a prioritised order with sites with accidents within the previous three years having the highest priority. The remainder of the sites will be completed initially based on the amount by which the skid resistance is below the Investigatory Level and this will refined to take into account the efficiency of conducting investigations, and to ensure best value from available resources.

5.1.3 Skid resistance is a 'Safety' aspect of highway management and therefore the prioritisation of site investigations needs to reflect an intention to reduce known accident risk on the highway network, and in turn reduce the number of people killed or seriously injured on the County's roads.

5.2 Site Investigation

5.2.1 Sites requiring investigation shall be identified as soon as practicable on receipt of the CSC values, in conjunction with the accident history across the network.

5.2.2 Site investigation results in the identification of lengths of pavement where treatment may be warranted to improve the skid resistance. Treatments in this context include both surface treatment and or other safety measures which are shown to reduce the accident risk.

5.2.3 DMRB gives advice about the choice of surfacing materials to provide the appropriate level of skid resistance and about the use of re-texturing treatments to provide short-term improvements to skid resistance. Other aspects of pavement condition must also be taken into account in selecting the most appropriate form of treatment.

5.2.4 The most appropriate form of treatment shall be identified for each treatment length taking account of current advice.

5.2.5 The objective of the site investigation is to determine whether a surface treatment, or any other form of action, will reduce the risk of accidents in wet conditions or those involving skidding. This investigation is an important part of the Skid Resistance Operational Manual. In conjunction with the process of setting Investigatory Levels, the objective is to promote effective targeting of treatments.

5.2.6 Site investigations shall be completed jointly by Engineers/Technical Officers from Streetscene. Evidence will be gathered which will include Accident Reports, safety inspection reports and Customer complaints records. They will be able to identify broadly the difference between good and poor skid resistance to enable confirmation of SCRIM data. An understanding of how local surface material wears under local traffic conditions will be of benefit to the process. A site investigation standard form is provided at the end of this procedure. Each site investigation requires the full completion of this form. The Highway Network Manager is responsible for approving each form.

5.2.7 Engineers and persons with relevant local experience on the history of the site may be consulted if appropriate, during the site investigation process. These may include adjacent landowners, local policeman and local ambulance drivers. These people may be aware of activities such as farm vehicles leaving slippery debris on the road surface or areas where standing water after rainfall causes surface slipperiness.

5.2.8 The results of the site investigation, including whether further action is required, shall be documented and retained together with the identity of the assessor and other parties consulted.

6 Performance Management & Benchmarking

6.1 In order to measure the outcomes of this Policy, the following "local" performance indicators for skid resistance will be introduced. The following performance measurement will be regularly reported to Highway Network Manager:

A. Site Investigation progress:

Percentage of Completed Site Investigations

B. Skid Resistance Indicator:

Percentage of the A & B road network with skid resistance above the investigatory level

C. Invention Indicator:

Percentage of Highway Network covered by "Slippery Road" signs

Flintshire County Council
Standardised Site Investigations Report Form

SCRIM Site Investigation Report			**Survey year:**
Unit	**Route**	**Site ID**	**Location**
Business and Strategy			
Site Location and Use			
Location and Nature of Site			
Current Site Category and Investigatory Level			
Pavement Condition			
Skid Resistance and texture depth			
Other aspects of pavement condition			
Accident Data			
3 year review			
	No	%	
Wet No:			
Dry No:			
Total			
Site Inspection			
Inspected by:	Weather:	Date:	Time:
Method: **Walked**			

Visual Assessment		
Type and condition of surfacing		
Any inconsistencies with survey data		
Presence of debris or other contamination		
Local defects (potholes, fatting-up etc.)		
Is drainage adequate?		
Road Users		
Volume and type of traffic		
Traffic speeds in relation to road layout		
Type of manoeuvres and consequences of driver error		
Road Layout		
Appears to meets current design spec.?		
Layout appropriate for vulnerable road users?		
Junctions appropriate for turning manoeuvres?		
Markings Signs and Visibility		
Markings and signs clear and effective in all conditions		
Signs etc. protected from vehicle impact?		
Clear sight lines / visibility of queues / vegetation		
Additional Information and Other Observations		
Recommendation		
Surface treatment required	Y/N	
Change IL	Y/N	
Other action required	Y/N	
No action required	Y/N	
Approval		
Print name	*Signature*	*Date*