

a. Proposed Research Tasks

*The ranking (1 being the highest, 12 the lowest) is derived from the aggregate priority score from a “SurveyMonkey” on-line survey of all FCMG members undertaken in May 2018.

Reference	Item	Description	LINK TO UKRB PRIORITIES	Ranking*	Indicative Cost	Duration (months)	Deliverables	Links to Research by others	Status
FC 15	Cycle Risk Assessment Guidance for Defect and Safety Inspections	Development of guidance for inspectors on assessing risk to cyclists in assessing and prioritising defects as part of service and safety inspections.	1.1 2.2 5.1 5.3	1	£35k	6	Guidance and training material for inspectors to enable them to adequately assess risk to cyclists when considering defects both on dedicated cycle infrastructure and on carriageways.		Awaiting funding

Reference	Item	Description	LINK TO UKRB PRIORITIES	Ranking*	Indicative Cost	Duration (months)	Deliverables	Links to Research by others	Status
FC 10	Tree Roots and Footways	Street trees and trees adjacent to the street are acknowledged as making a positive contribution to the attractiveness of the street environment and in improving the air quality in and near to streets. This notwithstanding, street trees are one of the most significant contributors to trip hazards and other defects in footways. The FCMG (Footways and Cycletrack Management Group) are seeking to undertake research to identify good practice, in Scotland, around the UK and in other countries, in the management the effect of street trees on footways.	1.1 2.2 4.1 5.1 6.2	2	£45k	12	<p>The project will result in guidance for highway authorities for designing, maintaining and managing footways near to trees in order to ensure that the benefits of both healthy trees and of attractive, well-maintained footways are balanced and realised, and to determine an approach to risk management for the impact of trees on footways consistent with the recommendations of Well-Managed Highway Infrastructure.</p> <p>Guidance will be developed that covers:</p> <ul style="list-style-type: none"> • Aspects of footway design and street tree planting to avoid future maintenance issues, including choice of footway materials, choice of tree species, location of trees, tree pits and other features to minimise footway defects arising from trees. • Choice of materials and maintenance techniques that can be applied in locations where there are existing and mature trees post-design to minimise issues from trees. • A suggested approach to risk management and assessment for footways with street and street-adjacent trees. • Advice on asset management and life-cycle management of footways and street trees to minimise whole life cost and to maximise value. • Examples of good practice, with photos and reference sites. 	Industry Suppliers and Construction Industry Groups Arboricultural Specialists and Organisations	Awaiting funding

Reference	Item	Description	LINK TO UKRB PRIORITIES	Ranking*	Indicative Cost	Duration (months)	Deliverables	Links to Research by others	Status
FC 14	Risk-based Deterioration Modelling for Footways	Development of a risk model for assessing likely future deterioration of footways and networks of footways based on user configurable risk factors. <i>Note: Scope to combine with FC5?</i>	2.1 2.2 5.1 5.2 6.1 6.2	3	TBA	6	Report, guidance and model with default values and risk factors that can be assigned and updated by users.		Awaiting funding
FC 5	Inclusion of risk in assessing the planned maintenance provision of footways and cycleways.	This project will build upon and complement project 6 (Footway and Cycleway Risk Modelling), by developing an approach to lifecycle management and forward work programmes, applying risk management modelling as part of an asset management approach. The focus of the risk management in this case will be wider than just safety risks, and will consider risks to serviceability, environmental risks, risk of asset failure and risks to the realisation of asset management benefits and cost savings. <i>Note: Scope to combine with FC14?</i>	2.1 2.2 5.1 5.2 6.2	4	£50k	12	Inclusion of risk assessment in the planned maintenance provision of footways and cycleways. Extended risk model, guidance document and training documentation, project report.	HMEP UKRLG Statistics and Research Agencies	Awaiting funding

Reference	Item	Description	LINK TO UKRB PRIORITIES	Ranking*	Indicative Cost	Duration (months)	Deliverables	Links to Research by others	Status
FC 9	Review of FNS Survey and requirements for Network Condition of Footways and Cycletracks	7-year review of the FNS survey, to assess whether the original objectives of the survey were met, how widely and consistently the survey has been adopted, and whether the survey meets current requirements for condition assessment of the footway network. The research will assess user experiences and requirements for the FNS and will make recommendations for condition assessment of footways going forward, taking to account issues such as cost, survey speed, need for consistency and information and decision support needs at local and national levels.	2.2 5.1 5.2 6.2	5	£40k	12	Report setting out the findings of the consultation and a proposed new approach to the condition assessment of footways. The report will set out what the intended benefits are, will identify the implications of the new survey for authorities, for national reporting and for UKPMS and other asset management systems. It will propose a regime for the ongoing maintenance and support of the survey.	RCMG Visual Survey Sub-Group and Survey Industry	Awaiting funding
FC 8	Cycle Levels of Service (on Carriageway)	Follow-up to Project 2. (Cycleway Condition Assessment and Service Levels) which is limited to dedicated cycle infrastructure to widen application to cycling on carriageways.	2.1 2.2 5.1 5.2 6.2	6	£55k	12	Method of assessing cycleway condition and serviceability from a cyclist perspective, extended to include cycling on carriageways without cycle lanes	Sustrans TfL RCMG	Awaiting funding

Reference	Item	Description	LINK TO UKRB PRIORITIES	Ranking*	Indicative Cost	Duration (months)	Deliverables	Links to Research by others	Status
FC 4	Review of the national cost of pedestrian and cycle - accidents. Including a cost benefit analysis of maintenance vs accident savings	Review of the national costs following accidents on the footway and cycleway network (specifically trip) and determination of potential cost savings if they were kept in better condition, to include broader costs such as cost to NHS, Insurance companies, employers etc.	1.1 2.1 2.2 5.2 6.1 6.2	7	£50k	9	Prediction of cost savings through avoidance of footway and cycleway accidents	HMEP NHS Groups Road Safety Groups Cycling Groups DfT TfL	Awaiting funding
FC 13	Further Development of FCMG Risk Model	Enhancements to FCMG risk model to include: 1. multiple investigation levels (cf Cat 1, Cat 2 etc.); 2. modelling of the relationship between general condition and occurrence of safety defects.	1.1 2.1 2.2 5.1 6.2	8	£50k	8	Report and updated risk model, to include additional features to further enhance the model developed as part of FC2.		Awaiting funding

Reference	Item	Description	LINK TO UKRB PRIORITIES	Ranking*	Indicative Cost	Duration (months)	Deliverables	Links to Research by others	Status
FC 12	Reinstatement Standards for Cycle Infrastructure	Review of reinstatement standards for cycle infrastructure in liaison with HAUC and other stakeholders to ensure maintenance of levels of service and appropriate management of risk for cyclists.	1.1 2.2 5.1 5.2 6.2	9	£50k	12	Report setting out current standards, how they impact upon levels of service for cycle infrastructure, highlighting issues and practical considerations, stakeholder views and recommending a way forward.	HAUC DfT HE Cycle Proofing Working Group Sustrans	Awaiting funding
FC 11	Skidding Resistance Policies for Cycletracks	Development of guidance on development and implementation of skid resistance policies for cycle infrastructure, including proposed methods for risk assessment and routine monitoring.	1.1 2.2 5.1 5.2 6.2	10	£50k	8	Guidance note giving specific guidance to highway authorities on appropriate policies and monitoring for cycle infrastructure, taking into account relevant risk factors.		Awaiting funding
FC 7	Winter service – risk based route selections, treatments and spread rates for footways and cycle tracks	Develop guidance to help practitioners undertake a risk based approach to route selection for undertaking winter maintenance of footways and cycleways. This guidance would relate to the considerations for the selection of treatment types, locations, trigger levels, timing and spread rates.	1.1 2.2 5.2	11	£50k	12	Guidance on risk based approach to route selection for undertaking winter maintenance on footways and cycleways	NWSRG Adept	Awaiting funding

Reference	Item	Description	LINK TO UKRB PRIORITIES	Ranking*	Indicative Cost	Duration (months)	Deliverables	Links to Research by others	Status
FC 6	Winter service – types of de-icers for footways and cycleways	Review the types of de-icers used for footways and cycle tracks. Develop guidance on the most effective de-icer for footway cycleway applications.	1.1 2.2	12	£50k	9	Guidance on the most effective de-icer for footway and cycleway application	NWSRG Adept	Awaiting funding

b. Completed Research Tasks

Reference	Item	Description	LINK TO UKRB STRATEGIC PRIORITIES	Ranking	Indicative Cost	Duration (months)	Deliverables	Links to Research by others	Owner	Status
FC 1	Review of new footways and cycleways construction materials	To determine the most appropriate materials and techniques for footway and cycletrack construction, in terms of providing acceptable levels of service and of minimising cost over the whole lifecycle of those assets and to produce guidance on their use and likely performance.	2.1 2.2 4.1 5.1 6.2	NA	£43k	12	Updated guidance for asset managers and maintenance practitioners on the use and performance of footways and cycleways materials including those that are sustainable and recyclable, examination of the whole life cost including design process and materials	Construction Industry Groups Road Contractors Highways England ADEPT DfT TfL	Stuart Giddings	Complete

Reference	Item	Description	LINK TO UKRB STRATEGIC PRIORITIES	Ranking	Indicative Cost	Duration (months)	Deliverables	Links to Research by others	Owner	Status
FC 2	Footway and Cycleway Risk Modelling	To assess how risk modelling might contribute to asset management planning for footways and cycle infrastructure, to determine what models and tools are required to support risk-based asset management planning for footway and cycle infrastructure and to update the existing risk model to meet those updated requirements.	1.1 2.1 2.2 5.1 5.2 6.2	NA	£50k	18	Updated footway and cycleway risk model and guidance	HMEP Statistics and Research Organisations TfL	Stuart Giddings	Complete
FC 3	Cycleway Condition Assessment and Service Levels	To determine whether current methods of assessing and determining levels of service for cycling infrastructure (both dedicated and shared) are most appropriate and reflect aspects of condition and usability that are important to cyclists, and which impact on safety and take up of cycling	2.1 2.2 5.1 5.2 6.2	NA	£80k	18	Method of assessing cycleway condition and serviceability from a cyclist perspective.	HMEP Cycling Groups TfL DfT	Stuart Giddings	Complete

Theme	Strategic Priority	FCMG Project														
		FC1	FC2	FC3	FC4	FC5	FC6	FC7	FC8	FC9	FC 10	FC 11	FC 12	FC 13	FC 14	FC 15
		Review of new footways and cycleways construction materials	Footway and Cycleway Risk Modelling	Cycleway Condition Assessment and Service Levels	Review of the national cost of pedestrian and cycle accidents. Including a cost benefit analysis	Inclusion of risk in assessing the planned maintenance provision of footways and	Winter service – types of de-icers for footways and cycleways	Winter service – risk based route selections, treatments and spread rates for footways and	Cycle Levels of Service (on Carriageway)	Review of FNS Survey and requirements for Network Condition of Footways and Cycletracks	Tree Roots and Footways	Skidding Resistance Policies for Cycletracks	Reinstatement Standards for Cycle Infrastructure	Further Development of FCMG Risk Model	Risk-based Deterioration Modelling for Footways	Cycle Risk Assessment Guidance for Defect and Safety Inspections
Theme 1 – Safety	1.1 Health, Safety and Welfare		Y		Y		Y	Y			Y	Y	Y	Y		Y
Theme 2 Accessibility	2.1 Transport asset management plan	Y	Y	Y	Y	Y			Y					Y	Y	
	2.2 Footways and cycleways	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Theme 3 – Congestion	3.1 Promulgating best practice															
Theme 4 - Environmental	4.1 Sustainability	Y									Y					
Theme 5 – Economy	5.1 Highway condition	Y	Y	Y		Y			Y	Y	Y	Y	Y	Y	Y	Y
	5.2 Highway performance Management		Y	Y	Y	Y		Y	Y	Y		Y	Y		Y	Y
	5.3 Training and development															Y
Theme 6 - Efficiency	6.1 Financial requirements				Y										Y	
	6.2 Pavement Condition	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y	Y

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