

PERTH AND KINROSS COUNCIL**Enterprise and Infrastructure Committee****2 April 2014****ROAD MAINTENANCE STRATEGY****Report by Depute Director (Environment)**

This report seeks approval to implement a Road Maintenance Strategy aimed at arresting the continued deterioration of the road condition. The Road Maintenance Strategy is new, formalises activities currently carried out, and details a sustainable approach for road repairs across all classes of publicly maintained roads within the Perth and Kinross Council area. It is also intended to support decision-making by targeting resources to where the greatest need is identified.

1. BACKGROUND / MAIN ISSUES

- 1.1 The road network is the highest value asset the council has responsibility for with a gross replacement cost of £2,398,212,000 and is the only asset relied upon every day by every citizen and visitor alike. The Council has a statutory duty under the Roads (Scotland) Act 1984 to maintain the road in a condition to ensure its safety for users.
- 1.2 For many years, it has been easy to cut back on road maintenance as the effects were not immediately apparent and other priorities took precedence. Due to the lack of investment and more recent severe weather events, the condition of the network is deteriorating across the entire country as demonstrated by the Scottish Road Maintenance Condition Survey (SRMCS). The impact of this has resulted in failures now becoming more apparent and a resultant increase in temporary repair works. The aim of the strategy is to reduce the spend on temporary work and re-invest this in the network on areas such as permanent repairs, lining and gully emptying, recognising that this will take a period of years.
- 1.3 The SRMCS shows that the average percentage of Local Authority (LA) network requiring attention has risen from 34.2% in 2007 to 36.20% in 2012. PKC is currently above average (i.e in better condition) and sits 17th in the table with the percentage rising from 32.15% to 35.30% over the same period. However, of concern is the condition of the A class network in comparison to others (29.40% LA average against PKC 36.50%) This part of the road network carries the majority of local strategic traffic and requires maintenance works to reach the national average.
- 1.4 The Council has a backlog of maintenance works directly related to this percentage equating to £62,788,330 (2011 figure). This work would bring the network up to an acceptable standard. However this is not achievable within the current financial climate and, does not meet the recommendations in the Well Maintained Highways Code of Practice which is not achievable within current resources. As such, there is a need for the Council to adopt a Roads Maintenance Strategy based on available resources. The Strategy attached in Appendix 1 is designed to support robust decision making, clarify user expectation and ensure that expenditure is undertaken consistently across the whole network.

2. PROPOSALS

- 2.1 The attached Strategy details a proposal to achieve a sustainable approach to road maintenance. It includes the following “Statement of Objectives” and covers all aspects of road hierarchy, road condition, budget considerations, value for money and treatment proposals. Its objectives are to:
- deliver the statutory obligations of the local authority under the Roads (Scotland) Act 1984 and maintain reliability of the actual condition of the road surface
 - be responsive to the needs of users and the community in the target time for attending to inspections and user concerns
 - contribute to effective road asset management, maintain the asset value and enhance the public realm
 - provide a clear, consistent, cost effective and appropriate response to road treatment needs across the Council area
- 2.2 It is proposed that the Strategy is implemented commencing financial year 2014/15.
- 2.3 It is proposed to use annual SRMCS results and historical figures defining what the budget has historically delivered from 2001 to 2012 (Appendix 2 of Strategy document) to measure success in implementing this strategy.

3. CONCLUSION AND RECOMMENDATION(S)

- 3.1 The Road Maintenance Strategy details a sustainable approach for road repairs across all classes of publicly maintained roads within the Perth and Kinross Council area. It is underpinned by the well maintained Highways Code of Practice but reflects the current financial position and local priorities.
- 3.2 It is recommended that the Committee;
- (i) Approve the attached Road Maintenance Strategy.
 - (ii) Request the Depute Director (Environment) to produce an Annual Status Report, including network condition data as defined by SRMCS, for this Committee to monitor improvements resulting from the implementation of the Strategy.

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Approved

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If you or someone you know would like a copy of this document in another language or format, (on occasion only, a summary of the document will be provided in translation), this can be arranged by contacting Stuart D'All



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1. IMPLICATIONS, ASSESSMENTS, CONSULTATION AND COMMUNICATION

Strategic Implications	Yes / None
Community Plan / Single Outcome Agreement	Yes
Corporate Plan	Yes
Resource Implications	
Financial	Yes
Workforce	None
Asset Management (land, property, IST)	Yes
Assessments	
Equality Impact Assessment	Yes
Strategic Environmental Assessment	Yes
Sustainability (community, economic, environmental)	Yes
Legal and Governance	Yes
Risk	Yes
Consultation	
Internal	Yes
External	None
Communication	
Communications Plan	None

1. Strategic Implications

Community Plan / Single Outcome Agreement

- 1.1 The road is the only asset relied upon every day by every citizen and visitor alike. None of the key themes below can be achieved without a safe serviceable road network from enabling attendance at school, hospital, care homes to tourism and commercial activity. This report subsequently assists all outcomes.

- (i) Giving every child the best start in life
- (ii) Developing educated, responsible and informed citizens
- (iii) Promoting a prosperous, inclusive and sustainable economy
- (iv) Supporting people to lead independent, healthy and active lives
- (v) Creating a safe and sustainable place for future generations

Corporate Plan

- 1.2 The road is the only asset relied upon every day by every citizen and visitor alike. None of the key themes below can be achieved without a safe serviceable road network from enabling attendance at school, hospital, care homes to tourism and commercial activity. This report subsequently assists all outcomes.

- (i) Giving every child the best start in life
- (ii) Developing educated, responsible and informed citizens
- (iii) Promoting a prosperous, inclusive and sustainable economy

- (iv) Supporting people to lead independent, healthy and active lives
- (v) Creating a safe and sustainable place for future generations

2. Resource Implications

Financial

- 2.1 The Head of Finance has been consulted and has indicated agreement with the proposals.

Capital

- 2.2 The Capital structural maintenance allocation over the next 6 years is:

Year	2014/15	2015/16	2016/17	2017/18	2018/19	2020/21
Budget	£6.886m	£6.549m	£6.742m	£6.800m	£6.800m	£6.800m

- 2.3 At current rates to achieve the replacement standard recommended in the Nationally Approved Well Maintained Highways - Code of Practice, resurfacing 4% of the road network annually, would require annual Capital investment of £12.569 million. The strategy has been based on budget availability and works will therefore be contained within the current allocation over the next 6 years. This will result in significant lengths of road remaining requiring maintenance treatment, which is unaffordable.
- 2.4 As described in the Strategy, road surfacing works are heavily dependant on bitumen which is oil based. The failure to include an inflationary increase may result in the strategy being unsustainable. The Annual Status Report will demonstrate whether the strategy remains affordable at the allocated levels, advise on the implications of any inflationary increases and recommend options to contain expenditure within budget.

Revenue

- 2.5 Revenue allocations currently sit at £1.942 million. To achieve the standard recommended in the Code of Practise would require annual Revenue investment of £3.316million. The strategy has been based on current budget availability. As with the capital allocation, the Annual Status Report will demonstrate whether the strategy remains affordable at the allocated levels, advise on the implications of any inflationary increases and recommend options to contain within budget.

Asset Management

- 2.6 The principals contained within the Draft Roads Asset Management Plan both correlate to, and complement, the Strategy. Further development of both documents may result in further alterations and amendments.

Workforce

- 2.7 There are no workforce implications arising from this report

3. Assessments

Equality Impact Assessment

- 3.1 Assessed as **not relevant** for the purposes of EqIA

Strategic Environmental Assessment

- 3.2 The Environmental Assessment (Scotland) Act 2005 places a duty on the Council to identify and assess the environmental consequences of its proposals.
- 3.3. The matters presented in this report were considered and no further action is required as it does not qualify as a PPS as defined by the Act and is therefore exempt.

Sustainability

- 3.4 None.

Legal and Governance

- 3.5 Projects will be assessed and procured in accordance with Council procurement regulations. Works will be awarded to Tayside Contracts in accordance with the 2002 Best Value Report which requires a minimum of 25% of works under £150, 000 to be exposed to competitive tender

Risk

- 3.6 The Council is at risk if no Strategy is implemented as the document is designed to ensure a sustainable approach to road maintenance across Perth and Kinross.
- 3.7 Without an agreed strategy, the Council is at potential risk of an increase in accidents, resulting in an increase in insurance claims.

4. Consultation

Internal

- 4.1 All Road Service areas of activity have been consulted in the preparation of the Road Maintenance Strategy. The Heads of Finance and Legal Services have been consulted on this strategy and have indicated agreement with it.

External

- 4.2 None

5. Communication

- 5.1 None

2. BACKGROUND PAPERS

Road Maintenance Backlog Report 2011
Road Surfacing statistics 2001/2012
Road Maintenance Expenditure 2011/12
Road Condition Survey results 2007-2011
Well Maintained Highways – Code of Practise 2005
Road Inspection Manual
Road (Scotland) Act 1984

3. APPENDICES

Appendix 1 – Road Maintenance Strategy.

Perth and Kinross Council

Road Maintenance Strategy



April 2014 – V1.0

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1. Introduction and Context

The policy framework for road maintenance is integral to other transport and wider policies of the local authority's work and the road network underpins every aspect of that. The needs of our communities are dependent on an available and reliable road network.

This Road Maintenance Strategy is written in accordance with the principles of Nationally Approved document Well-Maintained Highways - Code of Practice for Highway Maintenance Management. It is however based on current available budget allocations and reflects a move away from the Code of Practice standards which are unaffordable.

It is designed to support robust decision-making, clarify user expectation and ensure that expenditure is undertaken consistently across the network.

This Strategy is concerned with the delivery of the operational aspects of road maintenance, as provided by the Council's Road Maintenance Partnership (RMP). It is entirely focussed on maintenance of the road infrastructure, and will cover the legal responsibility the Council has as "Roads Authority", what we do to discharge this obligation, how we do it, issues surrounding our ability to discharge these duties including budget provision and rationale for future spend prioritisation.

The Strategy is based on the principles of best value and continuous improvement but **does not** cover:

- Road Safety and Improvements – Improvements to the network necessary to meet performance and reduction targets in relation to road safety and congestion as set out in the overall context of local traffic management and road safety requirements:
- Network Management where the network is managed to meet the requirements of the Transport (Scotland) Act and improve co-ordination between stakeholders in delivering work programmes.

The public road network is the biggest capital asset that the Council has responsibility for. The duty to maintain the road network falls to the Council, as the Roads Authority, under the Roads (Scotland) Act 1984.

Within the Council area, the road length maintainable by the Road Maintenance Partnership (RMP) is in the region of 2,500km.

The RMP is also responsible for the following which is also covered in this Strategy:

- Paths through parks
- Housing Revenue account footways that have been transferred to The Environment Service (but not added to LoPR)
- Public roads and footways formerly maintained by Property Services (excluding areas bounded by secure fencing e.g. school grounds)

Private, or Unadopted Roads, Core Paths and Public Rights of Way are **not** included in this strategy.

Mirroring the national position, a long term lack of investment has resulted in failures now becoming more apparent and a resultant increase in temporary repair works. The aim is to reduce the £1.25 million spend on temporary work and re-invest this in the network on permanent repairs, lining, gully emptying etc – however this will take a period of years.

2. Statement of Objectives

This Strategy aims to provide a sustainable solution, to arrest the level of deterioration of the road network in light of these recent years budget reductions.

The objectives of this Strategy are:

- ☐ to deliver the statutory obligations of the local authority under the Roads (Scotland) Act 1984 and maintain reliability of the actual condition of the road surface
- ☐ to be responsive to the needs of users and the community in the target time for attending to inspections and user concerns
- ☐ to contribute to effective road asset management, maintain the asset value and enhance the public realm
- ☐ to provide a clear, consistent, cost effective and appropriate response to road treatment needs across the Council area

3. Budget

The road maintenance budget is split into Capital and Revenue monies.

The Capital spend reflects the items indicated in Appendix 2 and are principally replacement activities carried out when the asset is no longer fit for purpose.

The overall budget can be split in line with need and the current need is to patch more roads than resurface. The application of the strategy will shift the spend over time from “reactive” structural patching to planned overlay and resurface. Previously retaining walls and embankments have been repaired as necessary, using funding diverted from other Capital budget headings such as resurfacing however as part of the revenue budget process in 2014/15 an additional £200,000 has been allocated for this purpose on a recurring basis.

The Revenue spend reflects the items in Appendix 2 and are principally housekeeping activities that maintain the asset in a safe and serviceable condition. A further additional non-recurring allocation has been provided with £800,000 in 2014/15 and £1m in 2015/16.

4. Road Condition

The impact of budget allocations has resulted in failures becoming more apparent and funding levels (in real terms taking into account inflation) combined with recent severe weather, has resulted in a reactive approach to maintenance rather than proactive.

The Scottish Road Maintenance Condition Survey (SRMCS), a collaborative venture with the other 31 local authorities, reports the annual road condition. This shows the trend over 6 years from 2007 to 2012 and the table below demonstrates this deteriorating condition and indicates the percentage of the network requiring attention.

Comparison with Scotland as a whole shows the Perth and Kinross Council road network to be currently above average condition but sits 17th out of the 32 Councils. **(Source: SOLACE benchmarking information 2012/13)**

	Overall Network		A Class roads		B Class roads		C Class roads		U Class roads	
Year	2007	2012	2007	2012	2007	2012	2007	2012	2007	2012
PKC % requiring attention	32.15	35.30	32.82	36.50	32.49	36.00	29.75	33.60	33.28	36.30
LA average % requiring attention	34.2	36.20	28.49	29.40	33.63	35.00	33.07	34.80	36.63	40.10

Table 1

35.3% of the PKC road network equates to 856km (532 miles).

The Code of Practice recommendations for resurfacing (top 40 to 70mm of road) are that 4% of the carriageway network should be resurfaced annually. This equates to 98km in PKC and would ensure that the entire network surface is replaced every 25 years. Currently in PKC we are resurfacing 17 km or 0.65% annually, thus equating to resurfacing the entire network every 154 years.

Structural patching is the highest road maintenance spend and a more sustainable option could be achieved if this resource was shifted to re-surfacing. Reactive carriageway repairs are a reactive short term measure to ensure a safe network, which whilst protecting the Council liability by reducing loss and /or injury for users also needs a more proactive solution.

The table in Appendix 3 details what the budget historically has bought in terms of resurfacing and surface dressing. This baseline information will be used to assess the success of this strategy over a period of 10 years and will be reported in an annual status report to committee.

The Council have a road maintenance backlog of £62,788,330 (2011 SCOTS Backlog Report). Whilst this strategy is aimed at slowing the deterioration of the road network, without significant investment it won't improve the overall condition in the short to medium term nor reduce the backlog figure.

5. Road Network Hierarchy

The Roads (Scotland) Act 1984 requires the keeping of a List of Public Roads (LoPR), including footways, that are maintainable at public expense.

The LoPR is then broken down further into a road network hierarchy and this is the foundation of a coherent, consistent and auditable Road Maintenance Strategy. The PKC hierarchy reflects the need, priorities and actual use of each road in the network and has been in place since 1996 .

In some cases, footway priorities conflict with carriageway priorities. As a result, it is necessary to define separate footway and cycle route hierarchies.

The Winter Service hierarchy correlates with the inspection/maintenance hierarchy. However some winter routes on lower hierarchy roads are included in higher priority gritting routes for route optimisation and efficiency purposes.

Hierarchy	PKC Inspection Frequency	PKC Length (km)	Examples
2 - Strategic Route	1 month	7	A94 Perth to Balbeggie
3(a) Main Distributor	1 month	427.1	A977 Kinross to boundary, A94 Perth to Coupar Angus, Glasgow Road Perth, A91 Carnbo, Atholl St Perth, A827 Aberfeldy, B9099 from C406 to Luncarty
3(b) Secondary Distributor	1 month	366.8	Low Carse Road, Broich Road Crieff, Kinnoull Street Perth, Bridge Lane Perth, South Kinclaven Road
4(a) Link Road	3 months	637.8	C410 Madderty Road, Connaught Terrace Crieff, Muirhall Rd, Carpenter St Perth, Sutherland dr Kinross, Abbey Rd Auchterarder, Duchally, Priimrose Cr Perth, Stewart Towers Road,
4(b) Local Access	1 year	988.2	Inchbraikie Dr Crieff, Falkland Pl Invergowrie, Balhousie Av Perth, Bridgefauld Rd Milnathort, Oakbank Road Guildtown.
Table 2 Road Hierarchy		2 426.9	

Asset	Category	PKC Inspection Frequency	PKC Length (est km)	Examples
Footways/ paths	1(a) - Prestige Area	1 week	0.5	Perth High Street pedestrianised section St. John Street, Perth
	1 - Primary Walking Route	1 month	86	South Street, Perth High Street, Kinross Wellmeadow, Blairgowrie Atholl Road, Pitlochry - Tourist Office to Rie Achan Road
	2 - Secondary Walking Route	3 months	235	A94 in Coupar Angus Beeches Road/park Drive/Perth Street, Blairgowrie Stormont Road, Scone Muir, Kinross York Place, Perth West Moulin Road (Atholl Rd to Co-op), Pitlochry Crieff Road (Bank St to School access), Aberfeldy
	3 - Link Footway	6 months	452	Ferguson Park Road/Hatton Road/Balmoral Road, Rattray Bogside Road/ Causwayend, Coupar Angus Perth Street/Percy Street/Store Street, Stanley Orchill Road, Auchterarder West Moulin Road (Co-op to Moulin), Pitlochry Old Crieff Road , Aberfeldy
	4 - Local Access Footway	1 year	429	Most footways will fall into this category (we should also categorise Housing Footways and these will normally fall into this category Short footway Strathmore Ave to George Street, Coupar Angus Cavendish Avenue, Perth Alexander Place, Kinross
Cycle routes	A - Part of Carriageway	as for Roads		Glasgow Road Perth
	B - Remote from carriageway Shared Use footway	6 months As for footway		Arlary to Glenlomond Milnathot,
	C - Cycle trails	1 year		
Car Parks	P2 – Important Pay and Display	1 month		
	P3 – Other	3 month		
Table 3 Footway and Cycle Way Hierarchy				

6. How we Maintain the Road Network

Each of these maintenance types contribute to the core objectives of safety, serviceability and sustainability.

The main types of road maintenance are as follows:

Reactive – This is defined as responding to inspections, complaints or emergencies

- all assets - provide permanent repair for safety purposes
- or sign and/or make safe for safety purposes
- or provide initial temporary repair for safety purposes

Routine – This is defined as:

- regularly scheduled activities
- carriageways, footways and cycle routes - minor works and patching
- drainage systems - cleansing and repair
- embankments and cuttings – stability
- self-seeded landscaped areas and trees – management
- verges – grass cutting is considered in this strategy but carried out by the Community Greenspace team within The Environment Service
- fences and barriers – tensioning and repair
- traffic signs and bollards - cleansing and repair
- road markings and studs – refreshing and replacement
- culverts within the road boundary less than 1.5m high/diameter - cleansing and minor works
- structural walls excluding bridges less than 1.5m high - cleansing and minor works

Programmed – This is defined as:

- flexibly planned schemes primarily of resurfacing, patching/reinstatement, drainage or reconstruction
- carriageways - minor works, resurfacing, patching or reconstruction
- footways - minor works, resurfacing, patching or reconstruction
- cycle routes - minor works, resurfacing, patching or reconstruction

Winter Service – This is defined as:

- pre-treatment
- de-icing and gritting
- snow clearing

Emergency response – This is defined as:

- weather and other emergencies - the RMP will primarily provide a 24/7 response to issues on the road network affecting the safety of the travelling public, within available labour resources.
- flooding - signing, pumping water and/or deploying sand bags to protect the road user, Operating Council maintained flood alleviation assets.
- Limited assistance in emergency events although the primary responsibility remains with the individual to protect and preserve their property
- high winds - signing road closures or removing fallen trees where the landowner cannot be readily traced
- other emergencies - in conjunction with partner organisations reacting to road traffic collisions or other traffic related emergencies on the Council network

Regulatory – This is defined as:

- overhanging bushes/trees, encroachment, illegal signs

Bridges and other Structures –

- excluded from this Strategy - managed and maintained by the Structures and Flooding team of the Council

7. How we will deliver the Strategy

The team of 9 Road Supervisors will continue to inspect the road network for safety defects and submit details of the areas that require structural repairs. This will continue to be the primary means of identifying required repairs for future years works programmes. The submissions will be checked against insurance claim data and the SRMCS annual prioritisation of the sections of the network that require treatment, to ensure a correlation exists.

There will be occasions where professional judgement will over ride the systems recommendations, and in such cases the reasons for any departure will be formally recorded.

This will ensure that funding is targeted within the Council area to those roads most in need.

Project lists will be compiled in February of each year detailing planned works for the subsequent financial year to the level of budget allocation. These will be shared with senior management and elected members to ensure the works tie in with other Council initiatives, do not interfere with local events and/or unnecessarily adversely affect the local economy as a result of road closures etc.

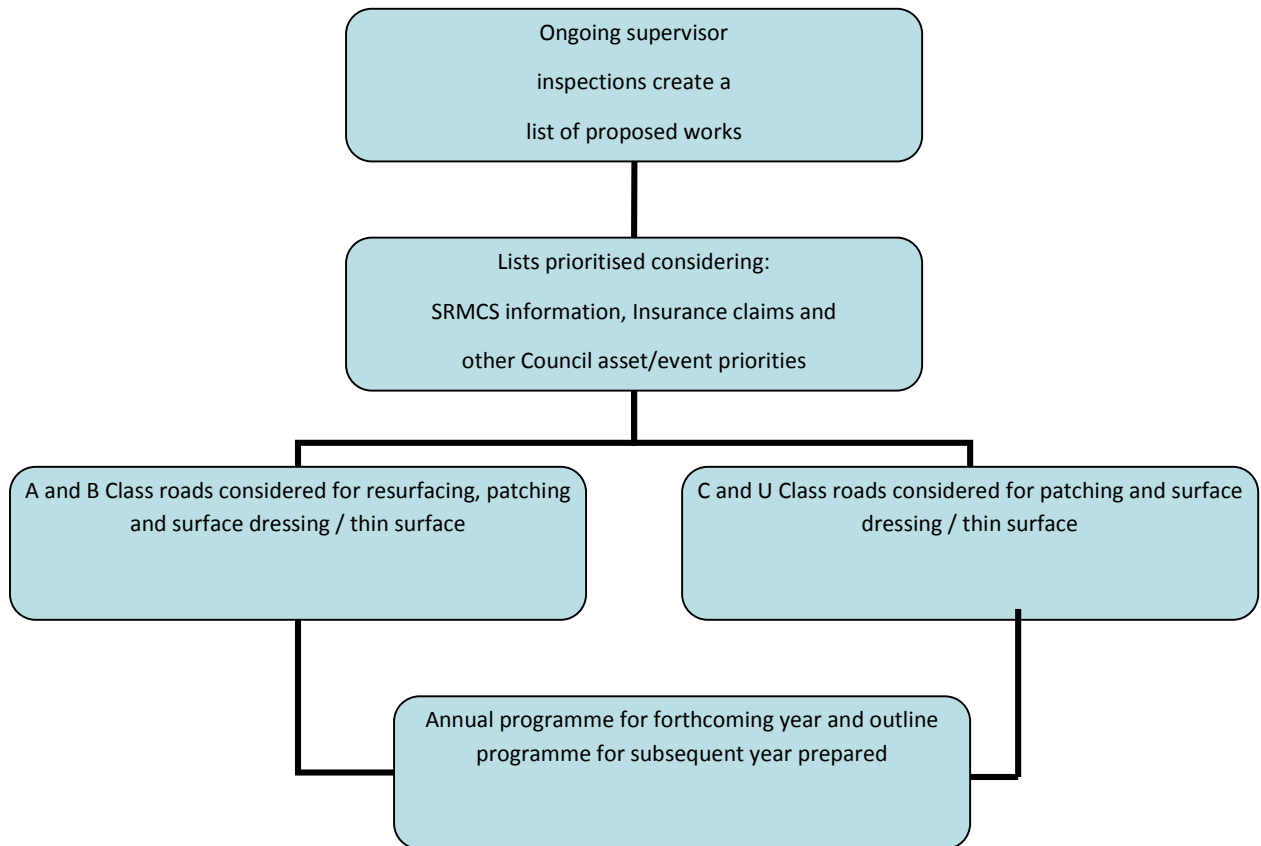
A move to patching lower classifications of roads only, using less expensive appropriate materials, will allow the release of funds for resurfacing of higher classification routes and achieve the shift outlined in section 4.

The following photographs and comment, read in conjunction with Appendix 1 Overall Asset Treatment Strategy, outline the rationale and intervention standard across the various assets.

Please refer to table 2 on page 6 for information and examples on each category.

Road Surfacing

The diagram below outlines the process undertaken when assessing the future programme of road works.



The A Class network which is generally 3A in the Council hierarchy will only be resurfaced or overlaid if more than 30% of the area under consideration requires attention. Only Hot Rolled Asphalt (HRA) will be considered as this is the most durable material available for the network.

In order to extend their life A Class roads may be patched and surface dressed if appropriate.

Urban 3A – Include in future overlay programme



The B Class network, Generally 3B within the Council hierarchy, will be resurfaced only if more than 60% of the area being considered needs treatment. This will, in reality, mean it is patched using HRA or modified macadam type material and may subsequently be surface dressed or receive a proprietary surface treatment.



Urban 3B – Include in future overlay programme

C and U Class or 4A and 4B will only be patched and may receive a surface dress or proprietary surface in an urban area. Exclusions to this will only be considered if more than 75% of the surface area is considered to need patched.



Urban 3B –patch and proprietary surface in future programme

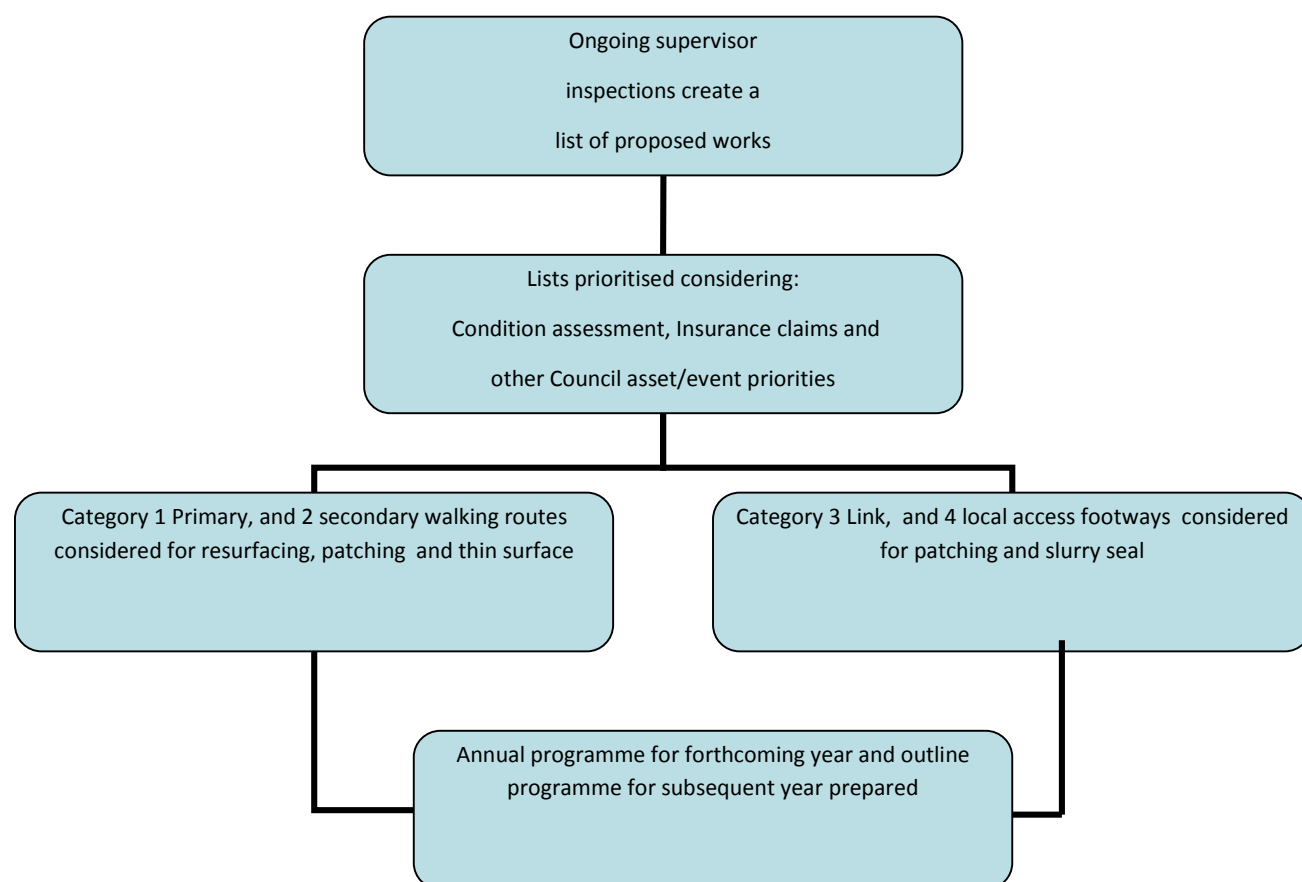


Rural 4A – no action

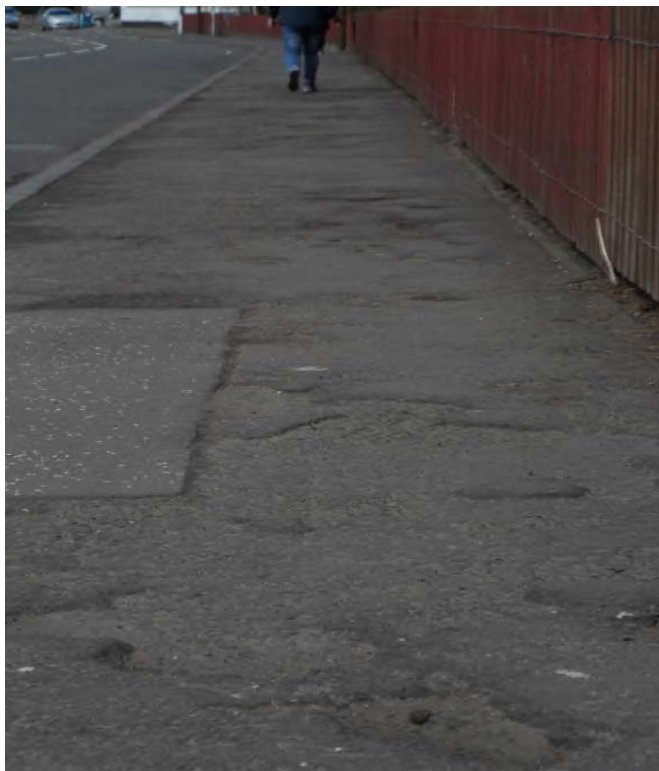
Surface dressing is utilised to seal the road to prevent water ingress and restore texture and therefore extend the roads life. It does not add structural strength or shape to the road and will principally be used in rural locations

(i) Footways

The diagram below outlines the process undertaken when assessing the future programme for footways work.



Only those footways with a high incidence of defects liable to cause a fall will be considered for treatment. Aesthetic considerations cannot be accommodated.



1 Primary walking route –
Include in future overlay
programme

Category 3 and 4 in link paths in rural areas and urban housing areas patched in DBM and put forward for subsequent slurry seal programme.



3 Link Footway – no
treatment

iii) Structural Patching

Structural patching programmes are drawn up where regular reactive/temporary patching has been implemented over a period of time. Whilst it covers large areas of the network a patchwork effect with weak points in the carriageway remains.



Rural 4A – Structural Patching to replace numerous localised reactive pathces

(iv) Retaining walls

RMP maintain retaining walls supporting the road less than 1.5m in height. Pointing and minor repairs to accident damage will be carried out, but any rebuild requirement will be funded from a separate source and/or will form part of a specific project request to the Service Management Team

(v) Embankment Repairs

RMP maintain embankments supporting the road but carry out no preventative treatment. Failure of embankments will necessitate a specific project request to the Service Management Team for consideration and prioritisation.

(vi) Drainage

Removal of water from the road surface prevents ingress of water to the road and reduces deterioration of the surface. A pro-active approach to achieving this will, over time, reduce the reactive defect repairs required and so reduce costs which can be diverted elsewhere.

Ditches - a programme of ditch clearing will be undertaken aimed at clearing all ditches over a 10 year cycle. Installation of positive drainage systems – piped drainage systems are installed to alleviate standing surface water. These will continue to be assessed and implemented as required and as the budget will permit. Priority will be given to higher speed limit roads as the consequence of hitting standing water at speed is higher. Gully emptying - the Council currently have over 37,000 road gullies and aim to empty them on an annual frequency. More frequent cleaning may be required at specific locations due to known issues.



Gully requires clearing but self help by public in removing leaf cover would assist pending attendance

(vii) Lining

Line refresh is currently carried out reactively and should last 3 years. It is estimated that it would cost £400k to refresh a third of the network but this is not achievable within current budget allocations. It is proposed to aim to refresh all markings over a 4 year period on an area basis. Lining is heavily weather dependant and will not normally be carried out over the Winter period.

Yellow lining is the responsibility of Parking Services, however the RMP will carry this out on their behalf and at locations as directed by them.



Junction requires a refresh. Will be programmed with other junctions in the area – during appropriate weather

(viii) Sign Replacement

Road signs – will be replaced when illegible following cleaning. RMP will work with unpaid work colleagues to facilitate this work.

Street name plates – will be replaced where illegible after cleaning and only where none exist. If one of two signs at a road end becomes damaged it will be removed for safety purposes but not replaced.

Milestones - receive no maintenance having been superseded by modern road signs

Only signs designed and erected in accordance with the Traffic Signs Regulations and General Directions are permitted, in law, to be erected within the road boundary.



Road sign will be cleaned
but not replaced

(ix) Kerbing

Kerb replacement will only be undertaken when there is a serious risk of falling /tripping by the public. In most cases an appropriate temporary repair will be undertaken and added to a programme of replacement that will be carried out as funding permits. Installation of new kerbing is not a maintenance function but will be considered when carrying out major footway/surfacing works.

If kerbs are being replaced within 1km of an amphibian breeding pond, the use of wildlife kerbs will be considered. This is a low cost/high benefit solution to the problem of small animals/mammals falling into gully pots and assists the Council to fulfil its biodiversity duty.

(x) Reactive repairs

Reactive repair squads are managed on a day to day basis by road supervisors. Proprietary repair materials are being used in an attempt to obtain a more durable temporary repair, to reduce repeat visits, and in many instances achieve a first time permanent repair. The aim is to reduce the £1.25 million spend on temporary work and re-invest this in the network on items such as lining – however this will take a period of years.

Defects requiring repair will identified through regular safety inspections and reports by the public.



Temporary repair required

Not all “defects” reported meet the intervention levels set down by the Council in the Inspection Manual and as such will receive no repair

The Council are **not** responsible for utility apparatus (BT/SSE/SGN etc) and these reported defects will be passed to the appropriate utility. The Council will however make safe, if the defect is imminently dangerous, pending a full repair by the utility. Rocking covers etc will be passed direct to the utility.



Made safe by
plating and
coning - notify
utility

(xi) Sweeping

Sweeping will not routinely be undertaken but reports will be passed on to Waste Services.

(xii) Tree / Scrub Cutting – it is the responsibility of owners of the trees etc. to maintain overhanging branches so they do not interfere with the safe passage of pedestrians and vehicles. The RMP will serve notice under the Roads (Scotland) Act if they fail to do so



Owner will be contacted
and asked to cut
overhanging branches.
Failure will result in
notice being served

(xiii) Safety / Pedestrian Barriers

These assets will only be repaired when they are no longer serviceable and any repairs may require to be prioritised over a period of time. No aesthetic repairs will be carried out and bent/damaged sections that remain serviceable will not be replaced.

(xiv) Flood Alleviation Maintenance and Operation

The RMP maintain the flood alleviation schemes constructed by the Council. This does not include altering or adding to them but merely the maintenance of the infrastructure in an operational condition. Only offensive graffiti will be removed from flood gates as a matter of urgency, non-offensive graffiti will be painted over during routine painting.

8. Materials and Processes

Engineering judgement is of paramount importance in determining materials suitability and durability as well as the time of intervention – i.e. early intervention will often permit a cheaper option that will extend the life of the asset.

Generally Hot Rolled Asphalt (HRA) will be utilised on the 3A and 3B road network and Category 1 footways – this being a proven durable material. Proprietary Polymer Modified Macadams have been developed, to provide an enhanced performance to traditional dense base macadams, and will be used on lower categories in both road and footway, but may also be used on 3A/3B as deemed appropriate.

Traditional Dense Bitumen Macadams (DBM) have been shown to deteriorate quicker as a result of heavier traffic or inclement laying conditions and whilst still a suitable material for certain conditions will be selectively used.

Proprietary thin surfacing materials or surface dressing will be used to seal lower category urban roads and extend their life.

Slurry sealing will be used on footways and minor roads/parking areas.

Many proprietary patching processes are available and these may be used selectively appropriate to the location eg velocity spray patching, infra-red heating and sealing, overband sealing etc.

9. Recycling and Sustainability

Much of the excavated materials from road maintenance works are bitumen based and suitable for recycling into re-useable road building material.

Recyclable waste from all contractors will be co-ordinated by the Council for all road maintenance works targeting zero waste disposal. This will be monitored and reported on annually.

All bitumen based material will be taken to Collace Quarry, or another approved recycling centre. Collace Quarry will recycle the material into a proprietary patented cold lay material, or recycled Type 1 that is certified for use in sub surface road construction layers.

Cold Lay Material – will be used as appropriate in sub surface layers in both carriageways and footways. It cannot be used in wet conditions and laying must be strictly in accordance with the manufacturers specification in order to be successful. But this material does have the benefit of being able to be stored longer thus minimising the potential for waste.

Deep recycling (>70mm thick) – recycling will be utilised as appropriate, where a road needs reconstructed due to deep structural failure. This process involves pulverising the existing material, rejuvenating by the addition of a filler (cement/lime), reshaping the surface and applying a new surfacing coat. It reduces lorry movements involved in disposal and delivery, reduces quantities of virgin material and also tipping charges. While cost savings are minimum the process is quicker than conventional reconstruction and so disruption to the public is minimised.

Shallow recycling (<70mm thick) – this involves heating the existing surface regrading and applying a thin surfacing coat (25mm). It is used where deformation or wear is only within the surfacing layer and has all the benefits of the above deep recycling process. It does generate high temperatures that can affect the surrounding environment and so cannot be used in all situations.

Re-tread – is used in rural situations to restore shape, surface texture and seal the road from water ingress. It is a supplementary process to surface dressing but is generally limited to quiet rural locations.

The above generic type recycling processes have recently been re-introduced to the toolbox of treatments used and will, through time be added to or superseded by new processes. The RMP will continue to strive to utilise all suitable processes available.

Gully waste is treated at Loan Leven where the waste feeds through reed beds cleansing the water and retaining the solids. These solids require disposal at an approved tip however the tipping charges are greatly reduced as it is only solids. The longer term aim is to build up management data to establish which gullies need cleansed less frequently and which more frequently in order to ensure resources are targeted more effectively

Overall Asset Treatment Strategy

The table below details the elements of work undertaken by the RMP and types of intervention that will be considered.

General Maintenance Standards Target - Attributed to Road Category			
Category	Structural	Routine	Cyclic
3A C/way 1 F/ways A Cycle Routes	Reconstruction / Resurface or Overlay if >30% of overall area needs treatment and a target frequency of 30 years Structural Patching from inspections included in prioritised programme following reactive patching or compensation claim clusters Proprietary surface for urban sections or Surface Dressing for rural sections at target frequency of 30 years Installation of positive drainage as identified through defect notice or frequent flooding issues Retaining wall/embankment <1.2m - rebuild as required and funded additionally to annual allocation Kerbing repaired/ replaced when likelihood of loss or injury to the public Safety Barrier replacement as identified through defect notice or target frequency of 30 years Pedestrian Barriers replacement as identified through defect notice or target frequency of 30 years	Ditch clearing 1 in every 10 years. Pipe cleansing as required by defect notice Reactive patching as identified by defect notice Grip/offlet cutting as required by defect notice Sign replacement as required by defect notice Overhanging branch etc removal as required – owner contacted when private Retaining wall <1.2m – pointing as required by inspection Tensioned barriers checked annually	Monthly inspection Gully emptying once per annum Manhole/catchpits 1 as required Lining 3 year cycle Road studs as required by defect notice

3B C/way 2 F/ways P2 Car Parks A Cycle routes	Reconstruction / Resurface or Overlay if >60% of overall area needs treatment and a target frequency of 50 years Structural Patching from inspections included in prioritised programme following reactive patching or compensation claim clusters Proprietary surface for urban sections or Surface Dressing for rural sections at target frequency of 30 years Annual programme of edge strengthening as appropriate Installation of positive drainage as identified through defect notice or frequent flooding issues Retaining wall/embankment <1.2m - rebuild as required and funded additionally to annual allocation Kerbing repaired/ replaced when likelihood of loss or injury to the public Safety Barrier replacement as identified through defect notice or target frequency of 30 years Pedestrian Barriers replacement as identified through defect notice or target frequency of 30 years	Ditch clearing 1 in every 10 years. Pipe cleansing as required by defect notice Reactive patching as identified by defect notice Grip/offlet cutting as required by defect notice Sign replacement as required by defect notice Overhanging branch etc removal as required – owner contacted when private Retaining wall <1.2m – pointing as required by inspection	Monthly inspection Gully emptying once per annum Manhole/catchpits as required Lining 3 year cycle Road studs as required by defect notice
4A c/way 3 F/ways P3 Car Parks A & B – Cycle routes	Reconstruction / Resurface or Overlay by exception if >80% of overall area needs treatment and a target frequency of 70 years Structural Patching from inspections included in prioritised programme following reactive patching or compensation claim clusters Proprietary surface for urban sections or Surface Dressing for rural sections at target frequency of 30 years	Ditch clearing 1 in every 10 years. Pipe cleansing as required by defect notice Reactive patching as identified by defect notice Grip/offlet cutting as required by defect notice	3 Monthly inspection Gully emptying once per annum Manhole/catchpits as required Lining 4 year cycle Road studs as required by defect notice

	Annual programme of edge strengthening as appropriate Installation of positive <u>localised</u> drainage as identified through defect notice or frequent flooding issues Retaining wall/embankment <1.2m - rebuild as required and funded additionally to annual allocation Kerbing removed and patched unless vehicle access or specific edge restraint Safety Barrier replacement as identified through defect notice or target frequency of 50 years Pedestrian Barriers replacement as identified through defect notice or target frequency of 50 years	Sign replacement as required by defect notice Overhanging branch etc removal as required – owner contacted when private Retaining wall <1.2m – pointing as required by inspection	
4B c/way 4 F/ways C -Cycle trails	Reconstruction / Resurface or Overlay by exception only if un-navigable by car and >75% of overall area needs treatment and a target frequency of 100 years Structural Patching from inspections included in prioritised programme following reactive patching or compensation claim clusters Proprietary surface for urban sections or Surface Dressing for rural sections at target frequency of 30 years Annual programme of edge strengthening as appropriate Installation of <u>localised</u> positive drainage as identified through defect notice or frequent flooding issues Retaining wall/embankment <1.2m - rebuild as required and funded additionally to annual allocation Kerbing removed and patched unless vehicle access or specific edge restraint	Ditch clearing 1 in every 10 years. Pipe cleansing as required by defect notice Reactive patching as identified by defect notice Grip/offlet cutting as required by defect notice Sign replacement as required by defect notice Overhanging branch etc removal as required – owner contacted when private Retaining wall <1.2m – pointing as required by inspection	Annual inspection Gully emptying once per annum Manhole/catchpits as required Lining 4 year cycle Road studs casing hole patched – not replaced

	Safety Barrier replacement as identified through defect notice Pedestrian Barriers replacement as identified through defect notice		
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Capital and Revenue budget split

Capital	2011/12 Spend (‘000)	2013/14 Budget (‘000)	Shift in Annual Spend Required to Maintain to recommended strategy standard (‘000)	Annual Budget Required to Maintain to recommended Code of Practice replacement standard (‘000)
Overlay / Resurfacing	1,264	900	2,832	9,930
Surface Dressing	431	982	948	629
Structural Patching	3,583	3100	1,600	unknown
Kerbing	15	0	0	0
Retaining walls	57	60	20	unknown
Embankment Repairs	228	288	0	See note
Drainage	449	623	700	600
Fences	9	0	0	10
Footways	386	513	700	1,400
Total	6,411	6,466	6,800	12,569

Revenue	2011/12 Spend (£000)	2013/14 Budget (£000)	Shift in Annual Spend Required to Maintain to recommended strategy standard (‘000)	Annual Budget Required to Maintain to recommended Code of Practice standard (‘000)
Planned gully emptying	269	284	284	568
Clean signs and bollards	0	0	0	20
Sweeping and cleansing	10	3	2	10
Reactive carriageway repairs	1,473	727	800	1,000
Reactive footway repairs	51	90	70	50
Kerbing	52	5	10	150
Safety Barrier repairs	6	6	Unknown	60
Pedestrian Barrier repairs	5	4	Unknown	30
Signs and Bollard replacement	22	60	60	60
Road Markings and Studs	204	200	300	425
Fences	2	0	3	8
Drainage	265	250	210	350
Flood response	95	0	90	70
Flood Alleviation Maintenance and Operation	166	113	113	170
Total	2,610	1,942*	1942	3,136

Table 2 – Revenue Allocation

Value for Money

The table below details what the budget has bought in terms of resurfacing and surface dressing. The downward trend demonstrates why there is a backlog of works and the continuing deterioration shows the current way of working is unsustainable. This information will be used as a baseline to measure improvement going forward following implementation of the strategy.

Year	Length of Network – Proprietary thin surface (Km)	% of Network	Length of Network Surfacing Other Treatments (Km)	% of Network km	Total Length of Surfacing (Km)	% of Surfacing	Length of Network Surface Dressed (Km)	% of Network Surface Dressed
2001/2002	4.787	0.18	24.042	0.92	28.829	1.11	63.896	2.46%
2002/2003	2.515	0.10	29.636	1.14	32.151	1.24	76.361	2.94%
2003/2004	3.782	0.15	25.535	0.98	29.317	1.13	61.376	2.36%
2004/2005	2.033	0.08	19.237	0.74	21.270	0.82	60.993	2.35%
2005/2006	6.833	0.26	22.533	0.87	29.366	1.13	56.127	2.16%
2006/2007	6.596	0.25	10.934	0.42	17.530	0.67	56.041	2.16%
2007/2008	9.533	0.37	14.907	0.57	24.440	0.94	40.287	1.55%
2008/2009	11.922	0.46	14.804	0.57	26.726	1.03	27.769	1.07%
2009/2010	15.278	0.59	4.898	0.19	20.176	0.78	61.447	2.36%
2010/2011	3.285	0.13	19.57	0.75	22.855	0.88	57.18	2.20%
2011/2012	7.599	0.29	9.293	0.36	16.892	0.65	34.24	1.32%