LIFECYCLE PLAN:

FOOTWAYS

Version 0.2

February 2012

Version	Date	Signed	Checked	Status
0.1	May 2011			Draft
0.2	February 2012			Final Draft

Contents

LIFECYCLE PLAN: FOOTWAYS, FOOTPATHS AND CYCLE TRACKS

1. Summary of Current Status (February 2012)

1.1. Current Issues

It has been identified that there is currently a significant lack of funding with regard to the maintenance of the footway, footpath and cycle track asset. This asset however did benefit from significant investment in the late 1980's to early 1990's and this has helped to minimise the effect of under investment in recent years.

It has been estimated that it would cost in excess of £81m to replace all adopted footways, footpaths and cycle tracks with an equivalent modern asset. In the current financial year (2011 – 2012), £139k is being invested on maintenance of these assets. In the last 5 years there has been only limited resurfacing / reconstruction of footways, footpaths and cycle tracks, with some 3 km of work completed. On average our footways are now only receiving this structural maintenance once in every 931 years. A recent maintenance regime has been to increase usage of slurry seal surface treatment to extend the life of surfaces. Approximately 38 km of footways and footpaths have been slurry sealed in the last 5 years. On average our footways have been receiving this treatment once in every 73 years.

Cycle tracks and footways are increasingly important as the public are encouraged to switch to more active forms of travel. New cycle tracks have been constructed to minimum standard to gain maximum length. Where these cycle tracks have been adopted, the Council are left with an increased maintenance liability.

The proportion of population over 65 years of age is forecast to increase over the next few years. The elderly and infirm are perhaps more at risk from defects on pedestrian surfaces so there is a need for higher service standards especially in central areas and near essential services.

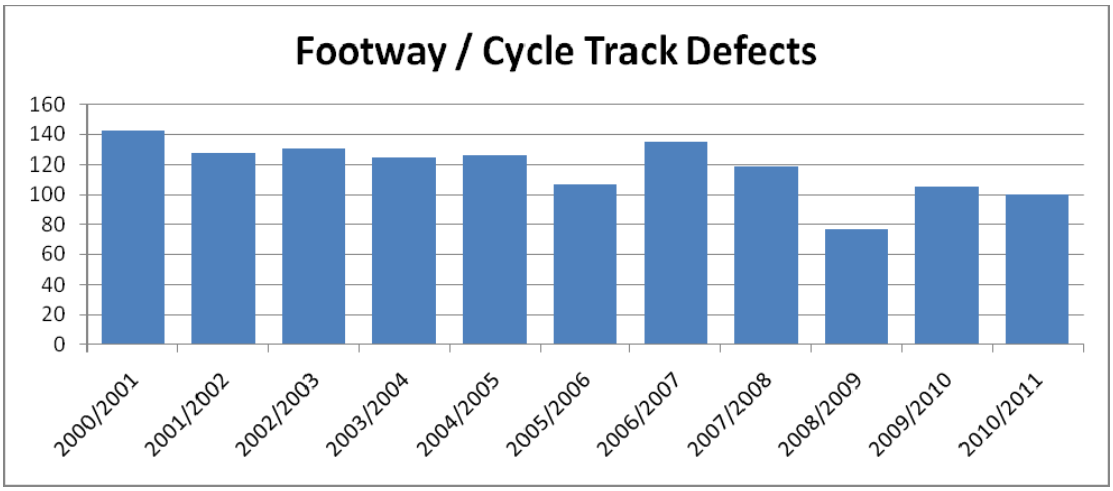
Higher car ownership in residential areas is leading to more people parking their cars on footways that were never designed for that purpose, leading to increased deterioration.

Lack of specific lorry parking provision in several Moray towns has led to HGV's using footways, particularly in industrial areas for overnight parking. These footways were never intended for that purpose and this has led to increased deterioration.

The increased use of bus boarders, tactile paving and high amenity pedestrianised areas is adding to the cost of maintaining this special surfacing element of the asset.

Apart from routine safety inspections and candidate schemes included in the reserve list of works, there is no formal assessment of footway / cycle track condition undertaken.

The number of telephone calls received from the public to report footway defects has remained relatively consistent with an average of about 118 per annum over the period 2000 – 2011.



1.2. Current Strategies

There are no formal strategies associated with footways, footpaths and cycle tracks except that there has been some funding in the last few years to promote active travel. Funding for planned work on footways was increased over the years 2008 to 2010, by reallocating money originally intended for Capital carriageway resurfacing to supplement the Revenue budget allocation for footways.

In 2010 – 2011 planned works were funded from

- Capital (resurfacing) allocation - £84k
- Revenue allocation - £16k

2. The Asset: Physical Parameters

The footway, footpath and cycle track asset is comprised of;

- Footways – pedestrian facilities contiguous with a carriageway or contained within a carriageway verge.
- Footpaths – pedestrian facilities remote from the carriageway but still forming part of the public road network.
- Cycle tracks – Shared cycle/pedestrian facilities off carriageway, but may be either contiguous with carriageway or remote, but specifically excluding on carriageway cycle lanes. There are segregated cycle tracks in Moray.

These are split in Moray as:

Table 2.1 Footway / Footpath / Cycle track Split

Asset	East Area (km)	West Area (km)	Total (km)
Footways	178.107	332.985	**511.092**
Footpaths	2.649	16.163	**18.812**
Cycle Tracks*	3.210	26.030	**29.240**
Total	**183.966**	**375.178**	**559.144**

Lengths from List of Public Roads (LoPR) as at 10/02/12

*This refers to adopted routes the majority of which are shared facilities with pedestrians.

Construction types include bituminous, concrete paving and in-situ concrete. Kerbs are associated with this asset rather than with the adjacent carriageway.

Many of our housing estates were built in the 1960's or 1970's. Little maintenance has been carried out on these footways and footpaths since they were constructed and a growing number of them will be in need of resurfacing over the next 5 years.

2.1. Inventory

The footways, etc asset is made up of different types, ranging from busy pedestrian areas to countryside style footways to cycle tracks between major communities. To enable the appropriate management of this network, individual lengths of these pedestrian facilities have been designated against a hierarchy of types.
The Code of Practice for Maintenance Management (4) defines hierarchies as listed in table below.

Table 2.2 Hierarchy Descriptions for Footways, Footpaths & Cycle tracks

Category	Route	Description
1(a)	Prestige Walking Zones	Very busy areas of towns and cities with high public space and streetscape contribution.
1	Primary Walking Routes	Busy urban shopping and business areas and main pedestrian routes.
2	Secondary Walking Routes	Medium usage routes through local areas feeding into primary routes, local shopping centres etc.
3	Link Footways	Linking local access footways through urban areas and busy rural footways.
4	Local Access Footways	Footways associated with low usage, short estate roads to the main routes and cul-de-sacs.

The footways, footpaths & cycle tracks asset is split into four classifications as illustrated below:

Table 2.3 Footway, Footpath and Cycle track Hierarchy

Category	Description	Urban Length (km)	Rural Length (km)	Total Length (km)
1a	Prestige Walking Zones	0.377	0.000	**0.377**
1	Primary Walking Routes	24.513	0.000	**24.513**
2	Secondary Walking Routes	104.892	0.000	**104.892**
3	Link Footways	418.560	10.802	**429.362**
4	Local Access Footways**	0.000	0.000	**0.000**
	Total	**548.342**	**10.802**	**559.144**

Lengths from List of Public Roads (LoPR) as at 10/02/12

**Currently only categories 1a to 3 are used in Moray, therefore some of the footways in category 3 could be category 4.

Other Paved Area Categorisations

- Traffic Sensitive Footways, etc.
  This categorisation informs utility owners about when they can carry out works on footways (and footways). This data is under review [IA8].

- Footways, etc. with Special Engineering Difficulty
  This categorisation informs utility owners about lengths of road that have non-standard construction and require early liaison with the roads authority.

Quality of Inventory Held

The records of the footways, etc. asset are stored electronically within various computer applications :-

- Roads Database (in-house MS Access database)
- WDM RMS (Road Management System)
- Arcview GIS
- WDM NSG

Currently the database identifies the category of footway, footpath or cycle track. It does not however separate them into rural and urban.

Work is ongoing to migrate as much of this data as possible into the recently installed WDM RMS system.

Where the asset is a footway or contiguous parking area, it is associated with the adjacent carriageway.

Data currently held within the above systems include road numbers, names and descriptions, Unique Street Reference Numbers, lengths, average widths, areas, adoption dates, maintenance hierarchies, winter priorities, inspection frequencies and histories etc. together with spatial data within GIS showing the extent of the adopted other hard paved area.

As part of the development of this plan, an assessment of the current data held was undertaken. The information is not considered to be very reliable. There are gaps in the data, relating to width of asset, height and type of kerbs, visual condition, construction, surface type and previous treatments. Information is available on previous treatments back to 2000 and will be transferred from paper records into the roads asset management system as resources allow.

2.2. Asset Register

The primary record of the roads asset is the statutory list of public roads – those roads for which the roads authority have a duty to maintain. This is held

in electronic format in the List of Public Roads database held and maintained by the Transportation Section.

Most of these records only describe the length of the carriageway but not its width or details of associated other hard paved areas.

This, supplemented with the inventory records described above, provides the asset register for this asset group.

There is also a computerised mapping system of digitised polygons representing the extent of the Footway, Footpath and Cycle Track asset held within the Arcview GIS.

It is intended that the national street gazetteer will become the primary data source, in effect the statutory list of roads.

2.3. Asset Growth

Asset growth over the last 5 years

Over the last 5 years the asset has grown by 4.3% (24km). This growth has occurred primarily due to the adoption of new roads built by developers as well as the rapid rise in construction of cycle tracks.

Predicted Asset Growth

It is expect that the asset will continue to grow over the duration of this plan. This is based on the following assumptions:

- Continued adoption of roads from new development.
- Continued investment in sustainable and active travel, leading to more need to cater for pedestrians and cyclists.
- Construction of the Fochabers and Mosstodloch By-pass (the existing Trunk road footways will become Moray Council responsibility)

3. Service Expectations

3.1. Customer Perceptions

The Moray Council Roads Maintenance section sought public feedback via an online questionnaire over a 5-year period from 2005/06 to 2009/10. Unfortunately the questionnaire was not very prominent on the website and consequently the level of response was very low. Only 45 responses were received over the 5-year period with 14 being the highest in any single year.

Up to 2008/09 questionnaires were often sent out to properties in the vicinity of road or lighting works. Usually forms were sent out immediately prior to road works and shortly after lighting works. Typically, out of over 600 forms issued, road works would receive a return rate of about 10% whereas lighting schemes had a return rate of around 30%.

There is clearly an opportunity for more effectively capturing the perceptions of road users and this has been reflected as a specific task in the Council's "Customer Satisfaction Improvement Plan" to ascertain customer opinions and priorities to inform asset management plan during Q1/2 2012/13 and report to service committee thereafter. [IA1].

The Roads Maintenance Section has a significant amount of information on the Council's public website to advise road users of its Capital and Revenue Roads Budgets, the Winter Maintenance Policy as well as providing a facility to report faults and defects.

3.2. Goals & Objectives

The Single Outcome Agreement and Community Plan highlight the need for Moray's road network to be maintained and developed in order to encourage development and business.
This follows through into the updated Local Transport Strategy (2010) which also identifies the importance of asset management planning for roads.

3.3. Use

There is no accurate traffic data on the use of this asset type; except for cycle counters on two inter urban cycle routes. The footway hierarchy has been developed by Moray Council based on an assessment of use in order to prioritise safety inspections and winter maintenance treatments.

3.4. Safety Considerations

The only record of accidents associated with the footway and footpath are those that are reported as part of the 3rd party claims procedure as detailed in 3.6 below.

The asset group has not been identified as being expected to deliver any specific contribution to safety however the condition of these assets can be a major factor in trip and fall accidents. It is recognised that the provision of footway safety is underpinned by the inspection, repair and renewal activities, ensuring a base level of safety.

3.5. Utilities

Utility activity can have an effect on the maintenance and management of the footway, footpath and cycle track asset, although not yet quantified it is believed that there is an increase in the number of defects found following the disturbance of the surface due to utilities. This can be apparent even when the utility has reinstated the surface to the required standard within the Code of Practice for the reinstatement of openings.

Additionally, a large number of utility covers are located on footways and footpaths. Although Utility companies are required to inspect the condition of their apparatus, it his become apparent through legal judgement that Roads Authorities also have a duty of care as the maintainers of public roads to ensure that utility surface assets are kept in a reasonable condition.

Coordination of utility works is undertaken by a Traffic and Transportation team in accordance with the New Roads and Street Works Act, as amended by the Transport (Scotland) Act 2005. Utility Works and Road Authority Works are required to be recorded in the Scottish Road Works Register (SRWR). The detailed coordination of utility activity is carried out by the Traffic and Transportation Team on a daily basis interfacing with the SRWR online.

The coordination of major utility projects often looking ahead to future financial year projects are undertaken at Local RAUC level where utility companies and the road authority can table their future programmes of work to enable open discussion and exploration of the opportunity for any joint working, early progression of utility work in advance of major footway projects or more likely the delay of major footway projects until after utility work is completed. The frequency of these local RAUC meetings has unfortunately been allowed to slip in recent years and an improvement on frequency of meetings should be achieved as a priority.

In the main both utility companies and the road authority in Moray are abiding by the noticing requirements as set down in the Transport Scotland Act. One failing of Moray Council is the number of early starts required for major projects undertaken early in the financial year especially with Surface

Dressing. The limited timescale between the Council budget setting exercise and the requirement to give 3 months advance notice of major works means that this is unlikely to be entirely resolved in the near future.

At present the Authority enforces a 2-year guarantee period on all reinstatements with 3 years for those including deep excavations.

3.6. 3rd Party Claims

The interrogation of third party claims can aid in the determination of recurrent faults within the road network. Although the details presently held record the location and details of the claim the numbers of claims received within Moray are low and this information is not used when identifying or prioritising works.

The numbers of third party claims relating to footways against the Council over the last 10 years are shown in Table 3.2 below. The table shows the total number of claims, the claims refuted without the need to pay compensation, the number of claims that remain outstanding and the number of claims that have been paid.

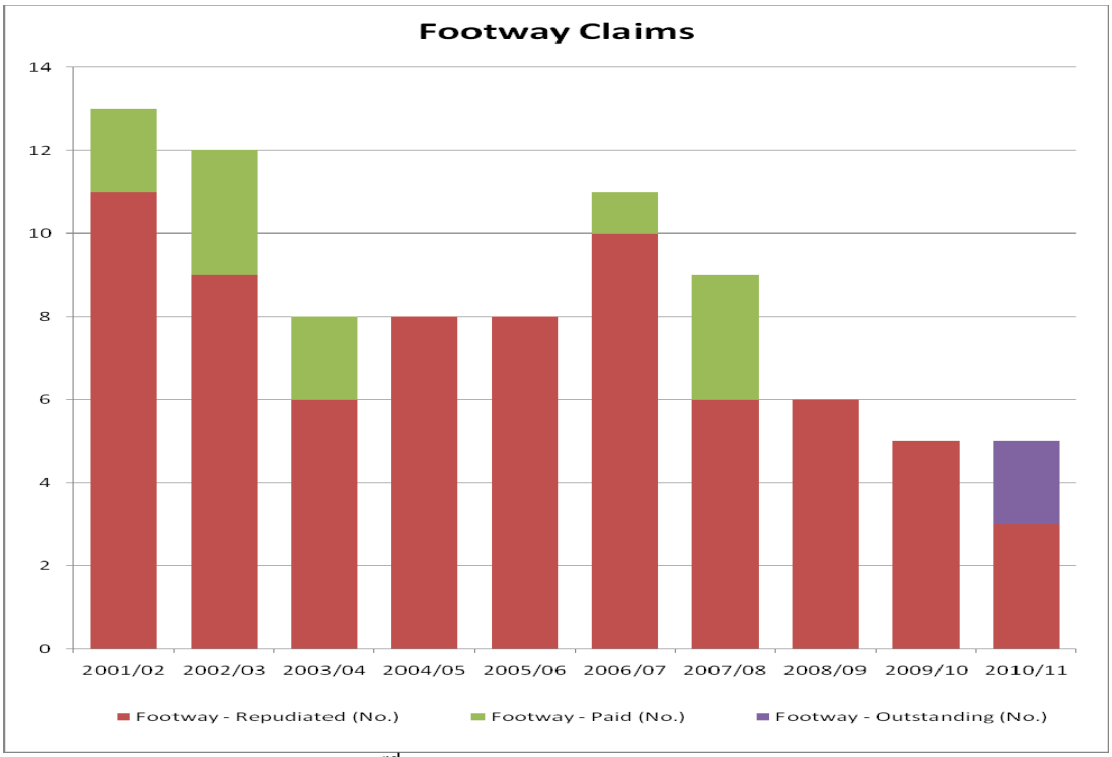


Table 3.2 – 3rd Party Footway Claims 2001 – 2011.

Most carriageway related claims submitted to the Council's insurers are repudiated. Robust safety inspection and defect repair processes are vital to defending such claims.

3.7. Environmental Considerations

When undertaking a project environmental considerations are taken into consideration, including for example Controlled Activities Regulations (CAR) and potential impact on areas such as Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI).

The Council is keen within footway asset maintenance to maximise recycling and use of recycled materials especially within foundation layers.

3.8. Network Availability

There are a limited number of footways within Moray which have been designated as traffic sensitive. These are detailed in Table 3.3 below

Road No.	Burgh	Road Name	Section	T.S. Times
A98	Cullen	Seafield Street	From junction Seafield Place to A98 Bayview Road	Restricted on Weekdays and Saturdays from 09:00 to 17:30
A941	Lossiemouth	Clifton Road	(part), From Seatown Road to Pitgaveny Street (North side only)	Restricted on Weekdays and Saturdays from 09:00 to 17:30
A941	Lossiemouth	Pitgaveny Street	(part), From Clifton Road to junction Commerce Street (North side only)	Restricted on Weekdays and Saturdays from 09:00 to 17:30
A942	Buckie	High Street	(part), From junction East Church Street to junction East Cathcart Street	Restricted on Weekdays and Saturdays from 09:00 to 17:30
B9010	Forres	Tolbooth Street	(part), From junction High Street to junction Fulton Road	Restricted on Weekdays and Saturdays from 09:00 to 17:30
B9011	Forres	Bridge Street	From High Street to roundabout at A940 St Catherine's Road	Restricted on Weekdays and Saturdays from 09:00 to 17:30
B9011	Forres	High Street	(part), From junction South Street to Bridge Street	Restricted on Weekdays and Saturdays from 09:00 to 17:30
B9040	Lossiemouth	Queen Street	(part), From junction A941 Pitgaveny Street to junction Argyle Street	Restricted on Weekdays and Saturdays from 09:00 to 17:30
C30E	Elgin	South Street	(part), From junction A96(T) Northfield Terrace to junction Moss Street	Restricted on Weekdays and Saturdays from 09:00 to 17:30
C31L	Buckie	West Church Street	(part), From junction A942 High Street to junction South Pringle Street	Restricted on Weekdays and Saturdays from 09:00 to 17:30
C39E	Elgin	High Street	From junction A96(T) Alexandra Road to junction A96(T) South College Street	Restricted on Weekdays and Saturdays from 09:00 to 17:30
C43L	Buckie	East Church Street	(part), From junction A942 High Street to junction Harbour Street	Restricted on Weekdays and Saturdays from 09:00 to 17:30
C117H	Keith	Mid Street	(part), From junction A96(T) Church Street to junction Reidhaven Square	Restricted on Weekdays and Saturdays from 09:00 to 17:30
U171E	Elgin	Batchen Street	From junction High Street to junction South Street	Restricted on Weekdays and Saturdays from 09:00 to 17:30
U171E	Elgin	Commerce Street	From High Street to junction South Street	Restricted on Weekdays and Saturdays from 09:00 to 17:30

Table 3.3 – List of Traffic Sensitive Footways

3.9. Amenity Value Considerations

Moray Council does not at present have a formal policy with regard to construction or material standards for differing amenity areas. There is an internal ad hoc recognition that in town centre areas, particularly

pedestrianised areas, that sympathetic use of natural stone can enhance the appearance or amenity of the area. Higher specifications of materials have an impact on the cost of maintaining these amenity areas and historically this has not been formally recognised before projects are approved.

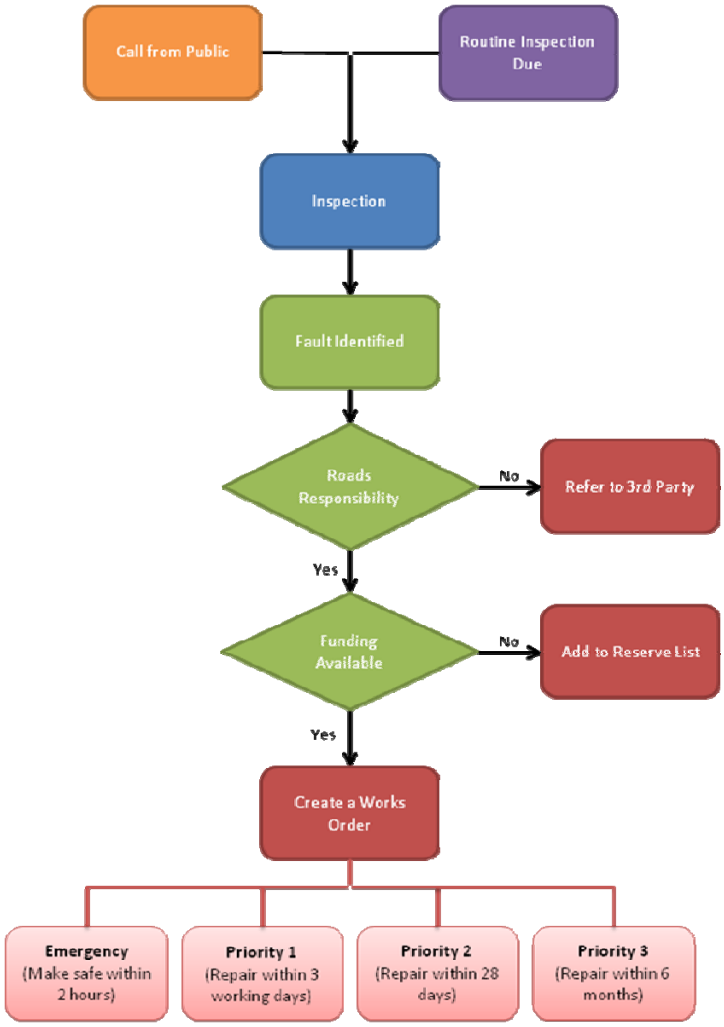
4. Management Practices

4.1. Policies

The management of the footway/footpath asset is governed by the following policies.

- Roads Asset management Plan (RAMP) – Hierarchy, Inspection intervals, intervention limits, Defect Categories and Response Times
- Winter Maintenance Plan – Priority and Route Plans
- Revenue and Capital Programme
- Local Transport Strategy
- Design Guidelines and Construction Standards

4.2. Inspection Regime



Inspection Regime for Footways, Cycle tracks and Steps

Safety Inspections

Safety inspections are carried out to identify maintenance defects on the asset and ensure that the Council is complying with our duty of care in respect of public safety. The following table details the frequency with which these walked inspections are undertaken. The frequency of inspection is related to the footway and footpath hierarchy shown previously in Table 2.3

Category	Route	Safety Inspection Frequency
1(a)	Prestige Walking Zones	Fortnightly
1	Primary Walking Routes	Monthly
2	Secondary Walking Routes	3 Monthly
3	Link and Local Access Footways	Annually

Table 4.1 Safety Inspection Regime for Footways, Footpaths & Cycle tracks

The inspection regime is based upon the recommendations of the Code of Practice for Highway Management.

Service Inspections

Visual Inspections

Service inspections are designed to identify deficiencies that compromise the reliability, quality, comfort and ease of use of the network. Although not intended for identifying defects that could compromise user safety, any such defects observed during service inspections will be recorded and dealt with in the same way as safety inspections. Service inspections are not currently formally undertaken. Maintenance staff do however record such deficiencies as they are identified and these appear on the 'Reserve' List.

Reserve list

The reserve list is a list of treatments to lengths of footway, etc. (or carriageway, or bridges, etc) that would need to be applied to bring that part of the asset back to an ideal condition. The reserve list has been compiled by technical staff over a number of years and forms a pool of works to be considered when compiling annual planned works programmes.

Reactive Inspections

Reactive inspections are undertaken when a defect or issues are reported by the public or another authority. Reactive inspections are recorded in the same way as safety inspections and the defects are categorised and repairs instructed as described below.

The public are able to notify the council of footway, etc defect by the following means :-

- Website
- Email
- Phone
- Personal contact at council office
- Via their Community Council

Road Inspectors

Inspections are undertaken by a small team of road inspectors. Inspectors are in the process of gaining their Roads & Highways Inspectors Award (Credit rated at SCQF Level 6).

Inspection Records

Inspection results are currently recorded on paper on site, then entered into the WDM system in the office afterwards. Inspection dates are recorded in the 'Roads database' which is used to generate blank inspection forms each month and calculate the quarterly inspection performance indicators.
Inspections will soon be undertaken using hand-held devices. This will mean that defects are recorded electronically at source, then simply downloaded in the office afterwards. As well as saving time, these will have the added advantage of GPS positioning and the ability to take a digital photograph at the time of inspection which will remain with the defect record for evermore.

The inspection records provide a valuable resource in enabling maintenance works to be planned. They also form the basis of the council's defence against 3rd party liability claims.

4.3. Condition Assessment

At present Moray Council do not have any formal condition assessment in place for footways, footpaths or cycle tracks, although an extensive list of desirable works is contained within the reserve list. This is kept updated and reprioritised by technical staff on an annual basis as Inspections are undertaken. The introduction of a formal condition assessment should be identified as an improvement action, with appropriate training given to Inspectors to enable them to carry this out as part of their normal routine [IA2].

4.4. Construction/Asset Acquisition

New footway, footpath or cycle track assets are acquired in four ways.

- Private developers are required to obtain Construction Consent prior to building new or extending existing roads. Any footway, footpath or cycle track built in accordance with construction consent must be adopted by the Council on request.
- The Council receives requests to adopt existing private footpaths. The condition of these roads is taken into account and, if appropriate, a report is made to Committee with a recommendation to adopt.
- Trunk roads can become local public roads following an improvement to the trunk road network, i.e. Fochaber's Bypass or following a review of trunk roads. In the latter case local roads can become trunk roads.
- The Council commissions improvement works which add to the roads asset.

Every addition to the list of roads inevitably means increased liability for maintenance. It is rare for there to be a formal assessment of the long term cost of acquiring additional assets. This can lead to the addition of new assets that have onerous ongoing maintenance requirements.

It is the responsibility of the Transportation Manager to formally adopt new assets onto the List of Public Roads. The amount of detail provided in this process is currently minimal and significant improvements could be made in this area, so that the Roads Maintenance Manager is aware of the full extent of future maintenance liability [IA3].

It is the responsibility of the Road Maintenance Manager to inform safety inspectors of any newly acquired assets so they are included in inspection and other programmes. Although no documented process exists for this process, the introduction of the Roads Asset Management system has reinforced this process although further improvement should be implemented to allow circulation of this information to both the front line workforce and other interested parties.

4.5. Routine Maintenance

Once Inspectors or other staff identify a defect, a works order is raised and the work allocated a priority which determines how quickly the defect should be made safe or repaired. The determination of priority is based on an assessment of risk, ranging from immediate risk with emergencies, down through high and medium risk to a low level of risk at Priority 3.

Service Standard

The service standard applied to safety defects identified within the footways, etc. are detailed in the Roads Maintenance Plan and outlined below:

Emergency	Make safe at the time of inspection by coning or signing. If it is not practicable to do this then repair within 2 hrs and carry out a permanent repair within 28 days should this be considered necessary.
Priority 1	Permanent or temporary repair within 3 days, with all permanent repairs completed within 28 days, if necessary.
Priority 2	Permanent repair within 28 days
Priority 3	Permanent repair within 6 months

Pothole, sunken track, subsidence or other trip hazard	**Footpath Category 1a**	**Footpath Category 1**	**Footpath Category 2**	**Footpath Category 3**
> 40mm	Emergency	Emergency	Emergency	Emergency
>20mm<40mm	Emergency	Emergency	P1	P2
<20mm	P2	P3	P3	P3

Other Footway Defects	**Footpath Category 1a**	**Footpath Category 1**	**Footpath Category 2**	**Footpath Category 3**
Missing ironwork	Emergency	Emergency	Emergency	Emergency
Kerb Defects >40mm	Emergency	Emergency	Emergency	Emergency
Kerb Defects 20-40mm	Emergency	Emergency	P1	P2
Kerb Defects < 20mm	P2	P3	P3	P3

Some defects are linked to utility apparatus and works within the footway or footpath, etc. and these are notified to the appropriate utility where they are the responsible authority. If this is considered to be an Emergency intervention, the site will be made safe by the Moray Council.

The authority's performance in relation to defect repair targets is regularly reported to committee. Performance indicators over the last few periods are:

Year	**Total Defects**	**Total Complete on Time**	**Percentage**
2009/10	192	175	91.15
2010/11	245	221	90.20
2011/12 *	236	206	87.29

* still ongoing and orders may be complete but paperwork not handed in

4.6. Operational / Cyclic Maintenance

The only cyclical maintenance activity undertaken on footways, footpaths and cycle tracks is the treatment of weed growth undertaken twice during the growing season and the cyclical cleaning of gullies. In most cases the cleaning of drainage channels is only undertaken when a specific need for intervention has been identified.

4.7. Planned Maintenance: Renewals

Service Standards

Currently the Council has not been asked to agree any serviceability standards for these other paved areas. In future these might specify minimum standards related to surface properties as well as ponding for different hierarchies of pedestrian and cycle way.

Most of the planned maintenance of footways, etc can be considered as preventative maintenance to arrest or recover from deterioration of the carriageway rather than to maintain a service standard i.e. the application of the preventative measure prevents large future costs having to be incurred to achieve the same outcome. Ultimately, if no maintenance was carried out the whole of the footway or cycle track would disintegrate. It is very rare for that to happen with some intervention to replace some of the pavement layers occurring before then. That is not to say that all our actions are truly economically preventative since the planned maintenance could be to recover from a situation that might have been avoided with an earlier (and probably less costly) intervention. To better evaluate least whole life cost options required the application of lifecycle cost analysis (LCA), a process which is still being developed in Moray as in many authorities in Scotland.

There is no formal approach to developing a planned maintenance strategy for this asset group. It therefore competes for budget from the general allocation every year. [IA9]

A budget is recommended based on:

- Historical spend
- Value of schemes in the reserve list
- Available budget and competing priorities

Technical staff allocate planned works up to the budget allocation based on a detailed knowledge of their respective areas and information contained within the reserve list.

The type of criteria that are considered are:

- Observed Condition / Engineers Assessment – will a treatment applied now stop the need for a more expensive treatment in a few years, or, is the pavement going to deteriorate significantly in the next year

- Safety Inspections – does this site have a history of safety defects which can be linked to poor condition
- Hierarchy – more important footways, etc. get a higher priority
- Accessibility / Land Use – assets utilised by a high proportion of the public get a higher priority than a residential street
- Customer Complaint Levels – customers generally only complain when there is a real problem.
- Cost – the financial outcome always needs to be assessed.

4.8. Disposal

The disposal of footway, footpath or cycle track assets is relatively rare from the perspective of a council disposing of an entire section of road. This section is therefore included for completeness and to enable documentation of the practices used for those occasions when an asset is disposed of.

The main reason to consider disposing of a road asset would be in association with an adjacent upgrade; a new road construction, or other change which results in very little traffic on the affected asset. The important consideration is what other uses the footway has. Most often, the old road would remain a public road but downgraded to an appropriate category commensurate with its new function. The change would lead to a change in the maintenance strategy.

Footways that are no longer considered to act as “roads” can be ‘stopped up’ in which case the old road reverts to the owner of the solum on which the road was built. However, consideration has to be given to utilities that may be in or adjacent to the road, including street lighting.

5. Investment

5.1. Historical Investment

Over the last several years, the total budget allocated to planned maintenance of footways has remained broadly static. However, the effect of construction inflation means that budgets have reduced in real terms. In Scotland, during 2009/10, the overall expenditure on road maintenance saw an increase of 5% over that in 2004/05. In purchasing terms however councils spent 13% less than they did in 2004/05. (Audit Scotland, Feb 2011).

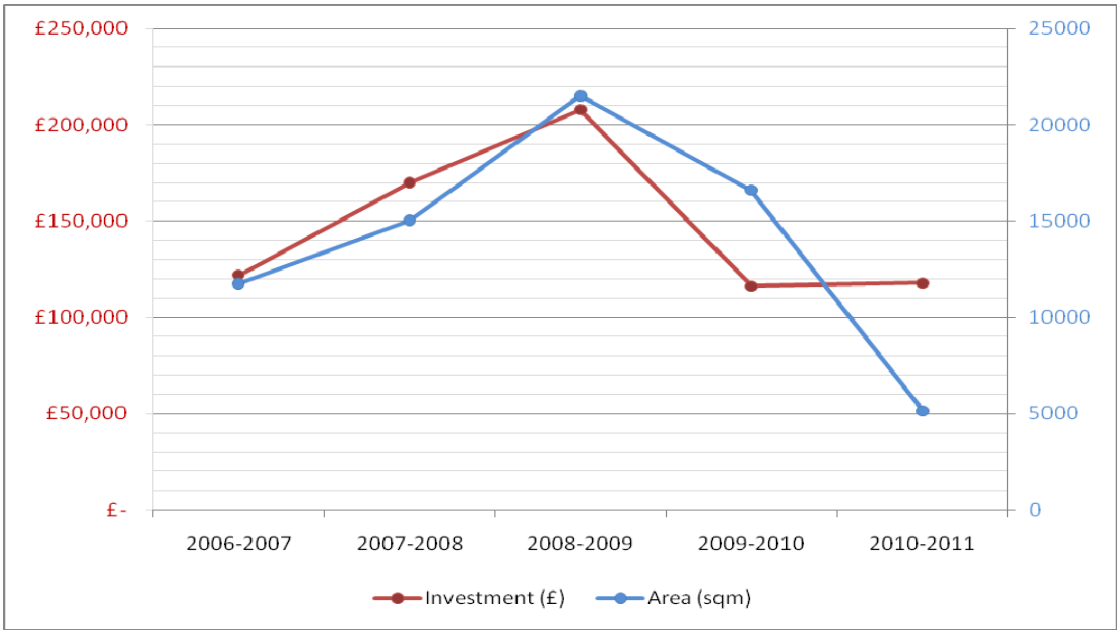
Cost Category	**2006-07** £,000	**2007-08** £,000	**2008-09** £,000	**2009-10** £,000	**2010-11** £,000
3rd party claim payouts					
Reactive maintenance: safety related	80	71	60	60	40
Routine maintenance: non safety related	Incl. above	Incl. above	Incl. above	Incl. above	Incl. above
Planned maintenance: asset renewals – resurfacing	137	154	203	225	100
Planned maintenance: asset renewals – structural maintenance: (Overlay and reconstruction)					
Asset upgrading: improvement schemes					

Breakdown of Expenditure on Footways, Footpaths and Steps

Information not collated at this time.

5.2. Output from Investment

The investment levels above have been able to purchase the following outputs:



Footway Surfacing Output from Investment

5.3. Forecasting Financial Need

In Moray a 'reserve list' of desirable works has been maintained since 1991. The value of the footway, footpath and steps reserve list is currently £3,591,000.

Industry inflation

Roads maintenance material costs are very much influenced by the price of oil. Fuel is obvious but at least the price of fuel does occasionally come down. Bitumen prices regularly rise and less often come down.

The rise in cost of key products is:

Product	2009 to 2010 % rise	2010 to 2011 % rise
Diesel	18.3%	18.5%
Gas Oil	37.8%	27.4%
Surface dressing chips	13%	7.9%
Surface dressing K1-70 binder	32.5%	22.9%
Surface dressing intermediate	40%	15.3%
Hot rolled asphalt surfacing	6%	17%
Bitumen macadam surfacing	15%	15%

In 2010/11, Roads Maintenance purchased some £2,277,000 of materials and paid £316,000 for transport fuel. These price rises are significant.

5.4. Valuation

An exercise to calculate the value of the footway asset has been undertaken as required by new Whole Government Accounting procedures.

The Gross Replacement Cost (GRC) for the footway, footpath and cycle track asset has been determined as £81.4m. This figure is based on the lengths and areas given above in Section 2 and unit replacement costs calculated from historic rates.

The Depreciated Replacement Cost (DRC) of the footway asset has been calculated at £58.4 million. This represents the value of the asset in its current condition.

6. Forward Works Programmes

6.1. Existing Programmes

The allocation of budget to both Revenue and Capital Budgets is decided by the Council in February each year. Recently, the Council approved a 10 year capital plan (2012 – 2022).

Once budgets are known, a report is made to the Economic Development and Infrastructure Services Committee covering a review of the previous year and more detailed expenditure proposals for the coming year.

Subsequently, engineering staff develop their annual Works Programme and update the Reserve List

The reserve list and works programme is collated using an in-house database known as Futures. This is published annually, in early spring, and is made available to members and the general public on the Council website. Futures is updated throughout the year, reflecting progress against planned work.

The Futures database allows many details of schemes to be recorded including Unique Scheme ID, Asset Type, Maintenance Process, Budget Heading, Location with either Urban Town and Street or rural Road Number references, Description of Works, Council Area, Council Ward, Chart References, Assessment of Priority, Date of Entry to Futures, Identity of Officer who added entry, Length, Area, Unit Rate, Estimated Cost and has recently had the As Built and Archive information expanded to include details of materials used, etc.

The Futures database should be looking at identifying all footway schemes at least 3 years into the future. Although a priority assessment is required and in an ideal world this priority assessment would reflect Year 1, Year 2, etc priorities, the budget allocation over recent years has not been sufficient to fulfil the engineering need. There is always substantially more schemes identified than budget to undertake these schemes, so the proportion of higher priority schemes is continually increasing.

Scheme Identification is undertaken mainly by Technicians within pre-determined geographic areas of responsibility. The Technicians are regularly kept up to date by Inspectors, Supervisors etc on subjective priority. Annually in late winter or early spring, Technicians prepare a wish list of schemes at roughly twice the value of the allocated budget. These individual schemes are then assessed by Area Engineers and the Final Works Programme agreed between Area Engineers and Technicians.
There is currently no documented prioritisation method [IA5]. Engineering judgement taking the following into consideration is used;

- Footway hierarchy
- Traffic volumes
- Proximity to public facilities
- Levels of public service requests
- Previous maintenance history and cost
- Sensible packages of work
- Reasonable coordination with others

The allocation of budget for the footway asset has historically been split 60/40 (West/East) between the two Area Engineers geographic areas of responsibility on the basis of footway length.

There is some flexibility within the Final Works Programme to vary the programme to reflect out-turn prices, re-prioritisation, utility involvement or other unforeseen obstacles. The objective of the Area Engineer is to spend as close as possible to the budget allocation figure without exceeding the bottom line budget for both Capital and Revenue works.

6.2. Programme Coordination

The Annual Works Programme and the reserve "Futures" works programme are made available internally to Consultancy, Transportation and Street Lighting teams. As the "Futures" programme is available for use by all teams, the potential conflict or indeed opportunity for coordination of works can be identified at an early stage.
Coordination works reasonably well between some sections, but less so between other sections where less use is made of the Futures database. There is room for improvement perhaps using the roads asset management system that provides a map based interface.

There have historically been efforts to coordinate works over longer time periods, for example, undertaking lighting works in advance of or coordinated with footway resurfacing. This more holistic approach to road maintenance is desirable, however with current budget allocations delivering less on the ground; it is increasingly difficult to justify this approach to the detriment of higher priority asset types on other sites.

Planned works for road purposes should be coordinated with utility organisation plans through locally organised meetings. Those meetings have not been held for a number of years. The extension of the Scottish Road Works Register (SRWR) by requiring road works to be registered in advance (as well as utility works) has improved information flow, but there is little evidence in Moray that utility organisations have an appetite for joint working and any coordination has simply been agreement that major works for Roads Maintenance are delayed until utility works have been completed or delay of non emergency utility work until restrictions placed on planned utility work has been concluded.

6.3. Option Appraisal

There are no formal documented option appraisal processes. The identification of the appropriate treatment required is at present based on the experience and knowledge of engineering staff. This engineering judgement is applied to consider possible treatment options, associated costs, anticipated life of the treatment and available budgets. Tools are being developed, through the SCOTS asset management programme for example, to assist with option appraisal.

Full option appraisal needs to be developed as part of the outcomes to asset management for carriageways. [IA7]

7. Risk

7.1. Risk Identification

Details of the major risks associated with this asset group are included within the RAMP Risk Register which is still under development. These consider risks relating to H&S, finance, reputation, environmental, etc and are based on the corporate Moray Council risk management guidelines.

7.2. Risk Evaluation and Control

The evaluation and control of risk follows the guidelines produced by Moray Council.
Details of these guidelines are given in the RAMP document.

7.3. Risk Control and Reporting

The evaluation and control of risk follows the guidelines produced by Moray Council.
Details of these guidelines are given in the RAMP document.

8. Works Delivery and Procurement

The majority of reactive maintenance works on the footway asset are carried out in house by the Roads Maintenance workforce. Reactive maintenance is responding to defects that need relatively urgent intervention. Use of sub contractors particularly during periods of peak demand for the internal workforce is sometimes required. In general, reactive works are paid for at actual cost although a Schedule of Rates is adopted for patching type works. Actual cost works require a pre-works estimate of cost. An explanation is required where out-turn cost significantly exceeds estimate and this is required to be approved by either the Technician or Area Engineer dependant upon the severity of any overspend.

The vast majority of planned works on the footway asset are also carried out in house by the Roads Maintenance workforce. Planned Works are normally subject to the preparation and acceptance of a priced Bill of Quantities, which allows benchmarking opportunities, and the work is subject to re-measurement on completion.

The in house road maintenance workforce resource is the minimum necessary to deliver the Council's Winter Service policy. In recent years (up to 2011/12) the whole of the roads maintenance revenue and capital budgets has only just been sufficient to provide the work needed to sustain the workforce out-with winter, so utilisation of external contractors to maintain the carriageway asset have been limited to specialist works e.g. Carriageway recycling, which was procured through the Public Contracts Scotland portal.

Procurement for any works is governed by the Council's Procurement Regulations. These currently require the following:

- Works up to £5,000 – a written quotation.
- Between £5,000 and £30,000 – 3 quotes.
- Over £30,000 – formal tender.

These limits apply to both main contracts and sub-contracts.

9. Performance Measurement

9.1. Performance Measurement

The performance of Environmental Services is measured nationally by Statutory Performance Indicators (SPI's)

9.2. Performance Indicators : National

There are currently no national SPI's applicable to the footway, footpath and cycle track asset.

9.3. Performance Indicators : Local

The Council is currently undertaking a review of PIs.

10. Future Strategies

The development of a Lifecycle Plan should enable the evolution of improved strategies for the management of this asset group. Focusing on achieving a better long term outcome may identify a need to invest in different treatments or in different parts of the network.

11. Service Improvement Actions

Improvement Actions - Footways			
No.	**Action**	**Proposed Implementation Date**	**Responsibility**
IA1	Customer perception and satisfaction questionnaire.	Q1/2: 2012/13	Roads Maintenance Manager
IA2	Introduce a formal condition assessment for footways, footpaths and cycle tracks.	Take forward	Area Engineers
IA3	Ensure processes are in place to allow proper consultation and advice on the adoption of new assets.	Take forward	Transportation
IA4	Ensure processes are in place to advise of new assets.	Take forward	Support Section
IA5	Set up a documented process for prioritising improvement schemes.	Will follow on from IA2.	
IA6	Formalise a process to improve co-ordination within the Roads sections.	Take forward	All
IA7	Formalise a documented procedure on option appraisal for treatments.	Not in year one.	
IA8	Review list of traffic sensitive footways	To be agreed	
IA9	Develop a strategy for planned maintenance.	In association with National RAMP project	

Table 11.1 Improvement Actions