RHONDDA CYNON TAF COUNTY BOROUGH COUNCIL

CABINET

16th OCTOBER 2018

HIGHWAYS, TRANSPORTATION AND STRATEGIC PROJECTS – HIGHWAY ASSET INVESTMENT STRATEGY

REPORT OF THE GROUP DIRECTOR CORPORATE AND FRONTLINE SERVICES IN DISCUSSIONS WITH THE RELEVANT PORTFOLIO HOLDER (COUNCILLOR ANDREW MORGAN)

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1. PURPOSE OF THE REPORT

To update Cabinet on the progress made through the ongoing Highways Investment Scheme, and to present costed options for future carriageway and footway maintenance strategies.

2. RECOMMENDATIONS

It is recommended that Members:

2.1 Note the progress made to date, specifically the improvements in the condition of the carriageway network, the reduced numbers of third party claims made against the Council and the reduction in the number of actionable carriageway and footway defects developing on the network.

2.2 Consider the projected funding requirements for the various options and determine which should be progressed.

3 BACKGROUND

3.1 The Highway Network is the Council's most valuable asset with a replacement value of over £3.4 Billion.

3.2 The Council has been heavily engaged with the County Surveyor Society Wales (CSSW) Highway Asset Management Project through which a Highway Asset Management Framework, along with template documents and a number of tools to assist with condition projection, asset valuation and condition inspection amongst others have been developed.

3.3 In order to progress the update of the Council's Highway Asset Management Plan it is necessary to consider and analyse a number of highway maintenance strategies and set target levels of service. Going forward it is necessary for the Council to develop and adopt a set of strategies for the maintenance and management of the highway network. This will involve defining target levels of service, identifying the anticipated cost of delivering those levels of service, and allocating appropriate levels of funding.

3.4 The CSSW condition inspection method and condition projection tools have been used to analyse and cost a number of strategies for future maintenance and to project network condition for those strategies over the next 20 years. Further information on the classification of condition bands is included at Appendix 1.

3.5 The Highway Investment Scheme commenced in 2011/12 with the Welsh Government's Local Government Borrowing Initiative and continued with enhanced levels of funding committed by the Council.

3.6 Due to this investment, the condition of the Council's carriageway and footway network has significantly improved, but continued long term investment is required in order to sustain these improvements and to minimise whole life maintenance costs.

3.7 Since the investment started, we have seen a dramatic decrease in the number of third party insurance claims made against the Council. Approximately 250(35%) less claims per year are being received. The average cost of each claim received by the Council is £3400. This equates to a saving of £800,000 per year.

4. CARRIAGEWAYS

4.1 The Highway Investment Scheme commenced in 2011/12 against a backdrop of the Council's classified road network being among the worst in Wales as measured by the national standard SCANNER surveys.

4.2 Capital investment in carriageways by both the Council and Welsh Government, through the Local Government Borrowing Initiative, has totalled £28M over the last 7 financial years bringing the benefits detailed in table 1 below.

4.3 In 2017 the Council commenced the collection of visual condition data for all of its carriageways and footways using the condition survey method developed by CSSW. The first year's data has now been collected and is currently being analysed and checked. The carriageway results are shown in Table 1 below

TABLE 1	2010/11 (before HIS)	2017/18 (after HIS Ph 7)
% of A Roads requiring maintenance (SCANNER)	16.2%	5.2%
% of B Roads requiring maintenance (SCANNER)	15.2%	6.2%
% of C Roads requiring maintenance (SCANNER)	15.3%	6.2%
THS 012 - % of all classified Roads requiring maintenance (SCANNER)	15.7%	5.7%
% of Classified Roads in Condition Band 3 (CSSW)	Not Available	8.4%
% of Classified Roads in Condition Band 4 (CSSW)	Not Available	1.5%
% of U/C Roads in Condition Band 3 (CSSW)	Not Available	11.1% (16.6%)
% of UC Roads in Condition Band 4 (CSSW)	Not Available	0.74% (3.2%)
% of All Roads in Condition Band 3 (CSSW)	Not Available	13.9%
% of All Roads in Condition Band 4 (CSSW)	Not Available	2.7%
No of Actionable Defects	10142	4962

4.4 The average cost of identifying and repairing an actionable defect was £173 (although this includes some fixed costs for depots and inspections etc). The reduction in the number of actionable defects between 2011 & 2018 represents an annual saving of £692,000/yr. While these savings are not "cashable" the resources freed up by the reduction in workload could be utilised for other works such as larger scale planned patching, overgrowth clearance, etc.

4.5 The SCANNER survey method was developed for the Trunk Road network and is not considered to be the most appropriate condition measure for the Council's mainly evolved carriageway network, especially its low speed, urban classified roads and the rural C roads which are often single lane tracks. The cost and condition projections below have been based on the CSSW visual condition inspection method. Which scores each section of the network from 1 to 4 with 1 being the best condition and 4 being the worst.

4.6 The CSSW Carriageway Condition Projection Tools have been used to analyse the following options:

- Continuance of previous levels of funding at 1.7m/yr
- Steady State funding at 2.8m/yr
- Accelerated investment for 3 years followed by Steady State investment at £2.4m/yr

The option costs and projected condition over the next 20 years can be found in Appendix 2 – Carriageway Options

5 FOOTWAYS

5.1 There is no comparable historic condition data available to identify the improvement in the overall condition of the footway network which has been achieved. The current condition is detailed in Table 2 below along with the measurable benefits in terms of claims numbers and actionable defect numbers.

	2010/11	2017/18
% of footways in Condition Band 1		31%
% of footways in Condition Band 2		60%
% of Footways In Condition Band 3		8%
% of Footways In Condition Band 4		1%
No of Actionable Defects	5365	4847

5.2 The level of investment in footways in recent years is more closely aligned to the projected steady sate cost and consequently we have not experienced the same dramatic improvements in footway condition and consequential reduction in the number of actionable defects developing on the network, as those attributable to carriageways.

5.3 CSSW Footway Condition Projection Tools which have been used to analyse the following options

- Steady State funding at 0.65m/yr
- Accelerated investment for 3 years followed by keeping the network in steady state condition.

The option costs and projected condition over the next 20 years can be found in Appendix 3 – Footway Options

6 Investment Options

Carriageways;

6.1 Whilst a number of target condition assessments have been formulated, the condition of our carriageways and footways is closely aligned to the level of investment that is made on an annual basis. It is therefore more appropriate to consider funding scenarios and implications.

6.2 From the appendices it can be seen that a return to previous levels of investment in our carriageways (Example 1; £1.7M/yr) leads to declining road conditions where 20% of classified roads and 16%+ unclassified roads are in the red zone in 20 years. This represents a significant reduction in carriageway condition when compared with the current situation.

6.3 Example 2 highlights the investment in carriageways that is required to maintain the carriageways in broadly the same condition as they are today. This level of investment is established as £2.8M per annum.

6.4 Example 3 highlights the impacts of accelerated investment in carriageways over a 3 year period and determines the level of investment necessary to

maintain the condition of the carriageway at this new and enhanced condition level.

6.5 Example 3 demonstrates that accelerated investment can significantly improve the condition of carriageways and also shows that the ongoing investment requirement to achieve steady state is reduced to £2.4M per annum. This is a reduction of £0.4M/yr compared with the cost of steady state investment without accelerated funding in the early years.

Footways;

6.6 Asset management analysis has determined that steady state investment in footways is of the order of £0.65M which is broadly the order of investment that has been committed since 2012/13.

6.7 There remains an issue with extensive areas of footway that are either functionally impaired (8% Band 3) or structurally impaired (1% Band 4), but there is also an issue with perception, in that 60% of footways are aesthetically impaired (Band 2).

6.8 There is potential to remedy these issues by early accelerated investment in the same manner as that for carriageways.

6.9 Example 2 Appendix 3 shows the benefits of accelerating investment in our footways in the short term before reverting to steady state, with all Condition Band 4 eradicated.

Combined Overview;

6.10 A reduction in funding will undermine the improvements and the significant highways investment that has been made to date. The example illustrates the detrimental impact an ongoing commitment of £1.7M/yr would have on our carriageways, leading to increased exposure of insurance claims and a return to reactive pot-hole filling. A reduction below £0.65M on footways would result in similar detrimental decline in footway conditions and consequences.

6.11 The investment required to maintain our carriageways and footways in their present condition is of the order of £3.45M (£2.8M carriageways, £0.65M footways). This level of investment will ensure that the improved condition of our carriageways and footways and the reductions in insurance claims and pot-hole filling are established as the new normal.

6.12 There is also an alternative scenario where funding is accelerated in the first 3 years (this assumes a total of £23.5M over the first 3 years) which offers many benefits, subject to affordability. Assuming that the current capital allocations remain constant, and anticipating being successful in gaining additional external and internal investment funding over the period (subject to necessary approvals), an additional £12M investment would be required. The accelerated investment model enhances the condition of the highway asset to the highest standard ever achieved in the history of Rhondda Cynon Taf County Borough Council.

6.13 The ongoing funding required to maintain steady state for this enhanced condition is reduced from £3.45M to £3.05M, a reduction of £0.4M. The situation with reduced insurance claims should be strengthened and commitments to filling pot-holes could be increasingly converted to proactive treatment of the network.

6.14 Highways comprise of a range of assets and investment would need to cover the areas that are traditionally considered (excluding structures assets which due to the scale and complexity are considered separately). The indicative

funding breakdown across the traditional asset sets over a three year period would be as shown in Table 3 at Appendix 4. It should be noted that this indicative allocation may be subject to change due to external factors (e.g. weather).

7 CONSULTATION

7.1 There has not been any public consultation on these scenarios.

8 FINANCIAL IMPLICATIONS

8.1 The report highlights the significant investment that has been made in the highway network and uses Asset Management Techniques to highlight investment options and potential outcomes.

8.2 Whilst there is a logic to maintaining the asset in a steady state, there is a question regarding affordability against competing demands, noting the clear consequences to the integrity of the network if investment drops below a steady state level for an extended period of time.

8.3 The opportunity for early accelerated investment to enhance the asset and to reduce future long term funding requirements is attractive but requires short term capital funding to be allocated.

8.4 An investment of £23.5M for a programme of enhancements over a three year period has the benefit of reducing future steady state funding requirements by £0.4M per annum. In addition to Council core funding together with Welsh Government announcements for additional roads maintenance funding over the next 3 years, an additional investment of £12M would be required to deliver this ambitious strategy. Existing reductions in insurance costs amount to £0.800M per annum. This revenue could be used to fund prudential borrowing amounting to £12M, however this decision to is subject to a separate report to Cabinet on 16th October 2018 and if agreed by Cabinet, subject to a further report to full Council on 24th October 2018.

9 LEGAL IMPLICATIONS

9.1 The Council (as Highway Authority) has a legal duty to maintain the highway network in Rhondda Cynon Taf arising from Section 41 of the Highways Act 1980.

10 LINKS TO CORPORATE AND NATIONAL PRIORITIES AND THE WELL-BEING OF FUTURE GENERATIONS ACT

10.1 Well maintained highways contribute to the Council's Corporate Priorities under the theme of "Place," creating neighbourhoods where people are proud to live and work.

10.2 The report considers the Council's strategy of maintaining its most valuable asset, the highway network, on a long term basis and includes options to enhance the asset for the benefit of all. The long term sustainable maintenance of this asset accords with the main principles of the Well-Being of Future Generations Act.

11 CONCLUSION

11.1 Investment in our highways asset since 2011/12 has improved the condition of the asset considerably as set out in Table 1. This investment has contributed to reducing insurance costs and the incidence of claims for slips, trips and falls on the highway and has consequential benefits to well-being, pressures on health care, productivity, etc.

11.2 Following engagement and close working with CSSW, this Council is now employing evolved asset management techniques to inform investment strategies and future service levels.

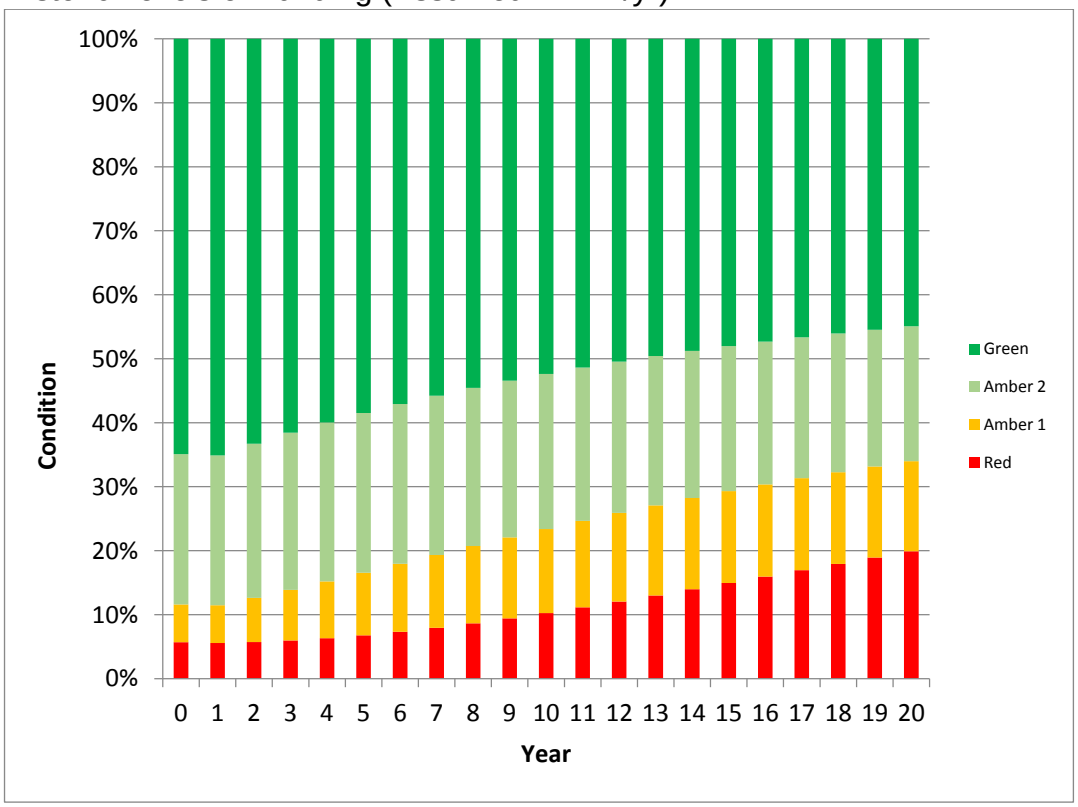
11.3 The report sets out the impact of a range of funding scenarios, including the potential benefits of committing to an accelerated programme of investment. Such a programme can not only improve the condition of the asset, but also reduce the level of funding required to maintain the asset thereafter. This would lead to a reduction in the number of pot-holes requiring filling and an opportunity to reinvest in more proactive maintenance activities.

Appendix 1; Note Regarding Condition Assessments & Scoring

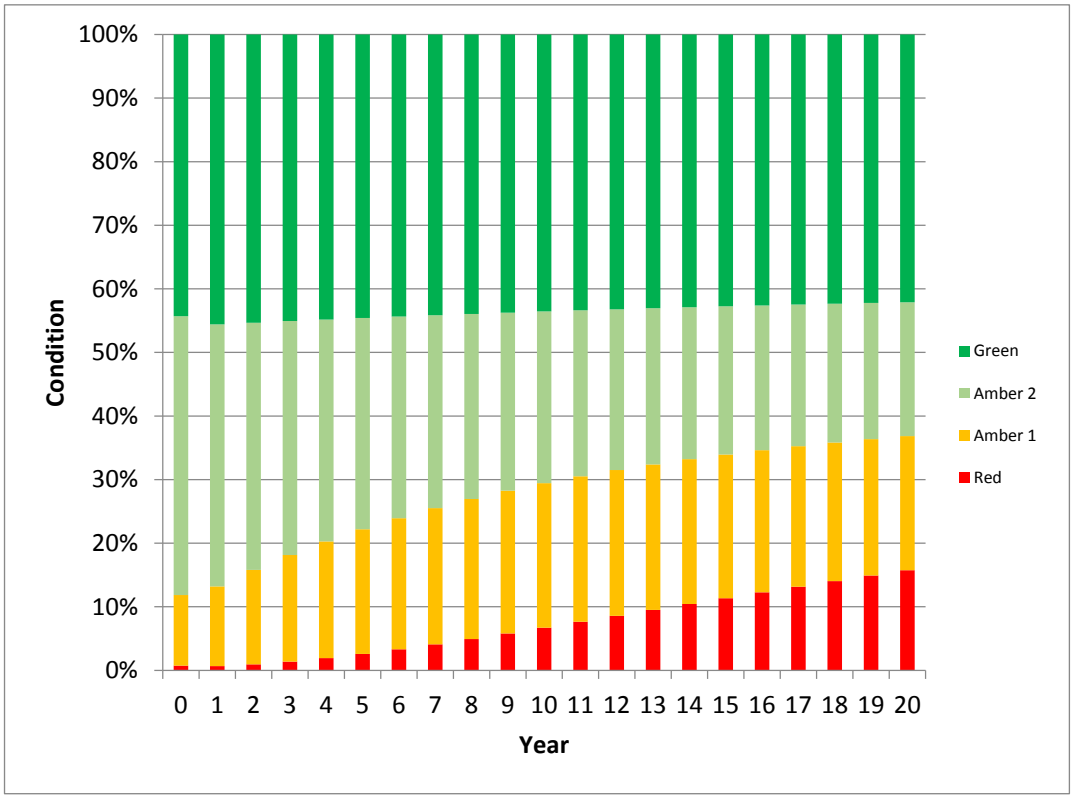
- Now using the CSSW/SCOTS visual condition survey
- All inspectors trained in the survey method
- Condition score for carriageways and footways being collected
- Scores are 1 to 4
    - 1 As new
    - 2 Aesthetically impaired
    - 3 Functionally Impaired
    - 4 Structurally Impaired
- Classified Roads also surveyed with SCANNER

Appendix 2 - Carriageway Options

Example 1 Appendix 2
Classified Roads
Historic Levels of Funding (Assumed £1.7M/yr)

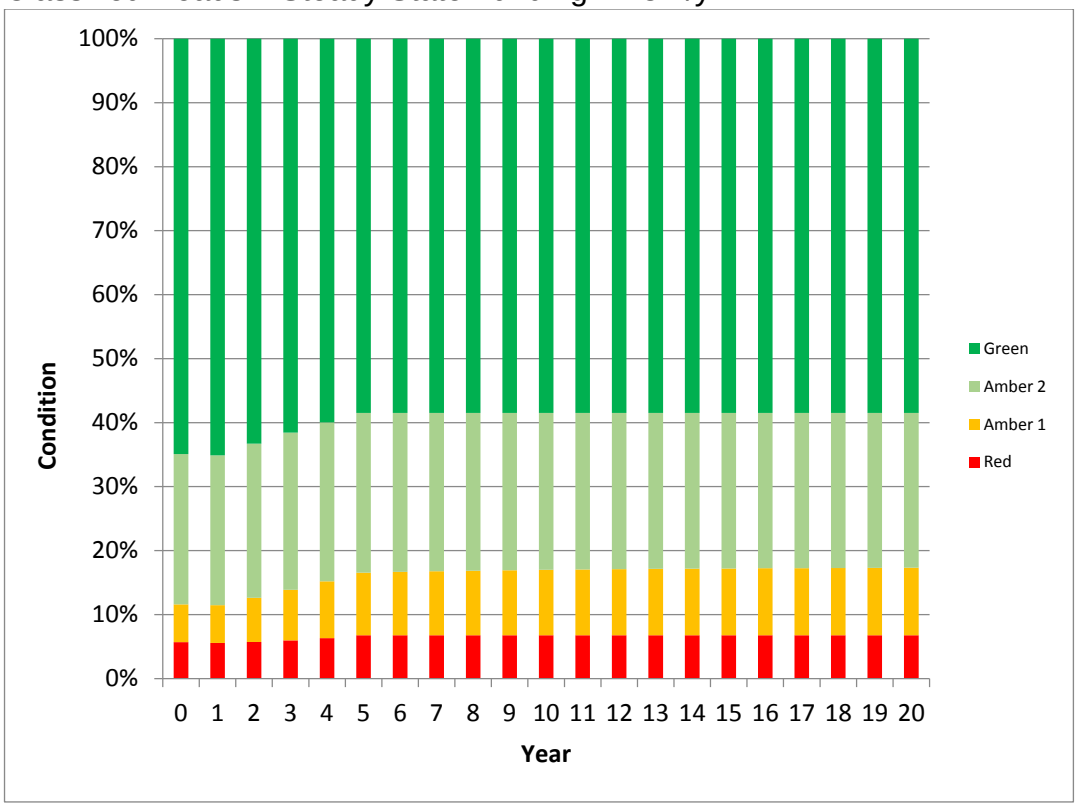


Unclassified Roads

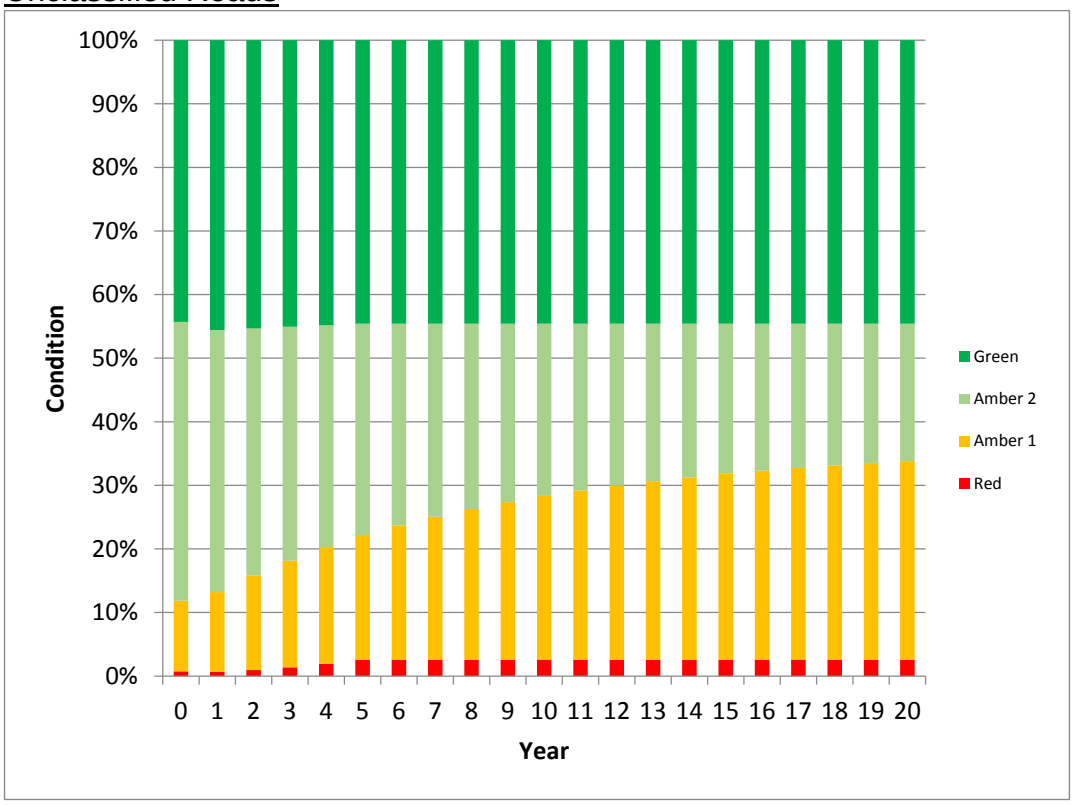


Example 2

Classified Roads – Steady State Funding £2.8M/yr

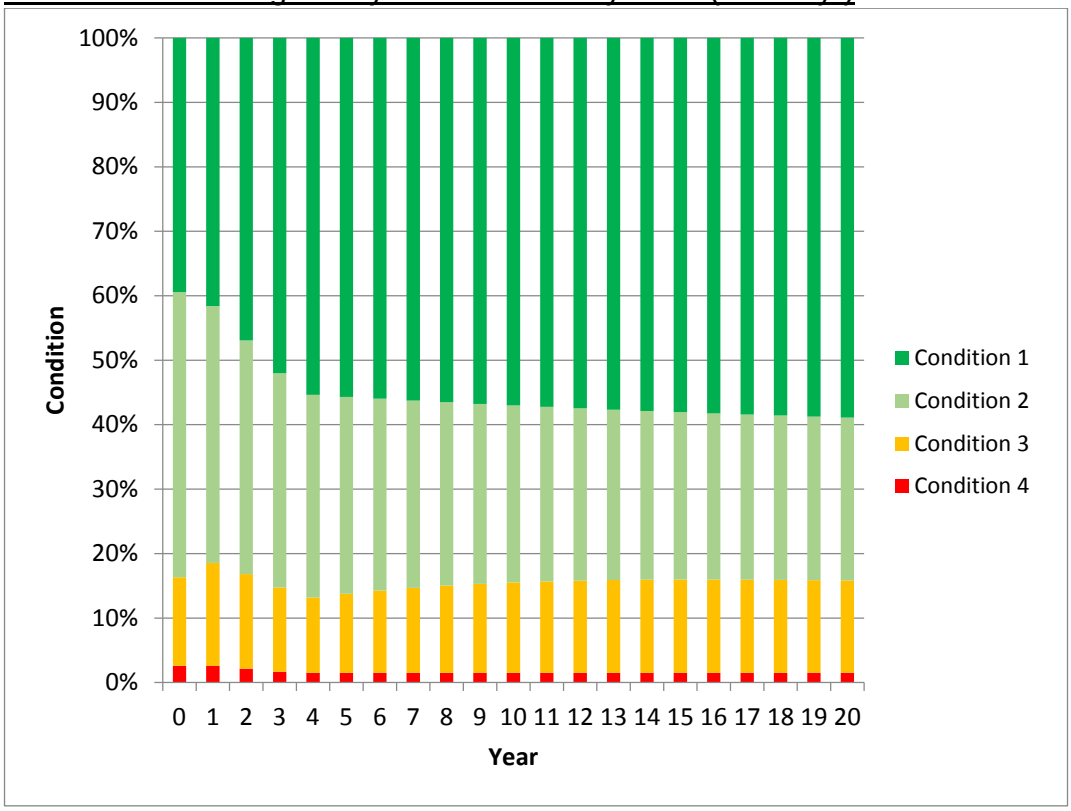


Unclassified Roads



Example 3 - Carriageways

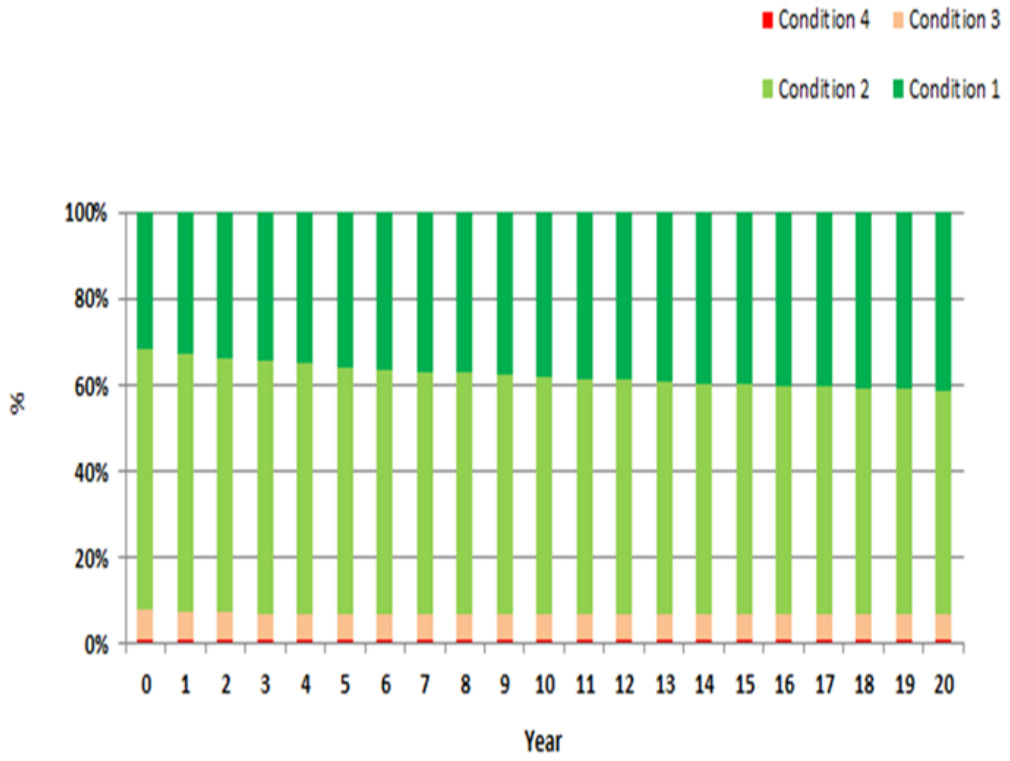
Accelerated funding for 3 years then steady state (£2.4M/yr)



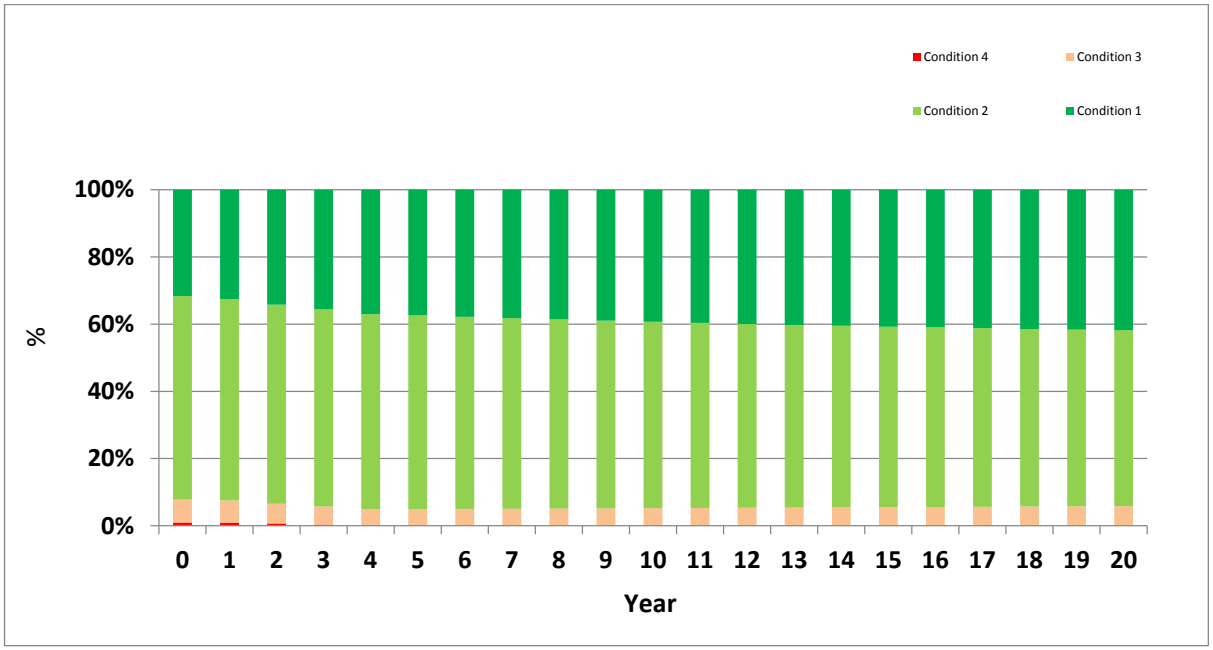
Appendix 3 – Footway Options

Option 1 – Steady State Funding

Appendix 3
Option 1



Option 2 – accelerated funding for 3 years then steady state



Detail of Footway Conditions by Band by Year

Year	Condition 1	Condition 2	Condition 3	Condition 4
0	31.66%	60.57%	6.82%	0.95%
1	32.59%	59.89%	6.62%	0.90%
2	34.19%	59.25%	5.86%	0.70%
3	35.59%	58.66%	5.39%	0.36%
4	37.00%	58.12%	4.79%	0.09%
5	37.41%	57.62%	4.94%	0.02%
6	37.74%	57.15%	5.09%	0.01%
7	38.05%	56.69%	5.24%	0.01%
8	38.34%	56.26%	5.38%	0.01%
9	38.62%	55.84%	5.52%	0.01%
10	38.89%	55.44%	5.66%	0.01%
11	39.15%	55.05%	5.79%	0.01%
12	39.39%	54.67%	5.92%	0.01%
13	39.62%	54.32%	6.05%	0.01%
14	39.84%	53.97%	6.17%	0.01%
15	40.06%	53.64%	6.29%	0.01%
16	40.26%	53.32%	6.40%	0.01%
17	40.44%	53.02%	6.53%	0.01%
18	40.61%	52.72%	6.66%	0.01%
19	40.77%	52.44%	6.78%	0.01%
20	40.92%	52.16%	6.90%	0.01%

Appendix 4 Table 3 Indicative Asset Allocations (£23.5M)

	2019/2020	2020/2021	2021/2022	Totals
Surface Dressing	£1,400,000.00	£ 1,250,000.00	£1,000,000.00	£3,650,000.00
Traditional Surfacing/ Strengthening	£3,800,000.00	£4,000,000.00	£2,800,000.00	£10,600,000.00
Mini Planer (2/2/1 Years)	£ 600,000.00	£600,000.00	£300,000.00	£1,500,000.00
Footways	£1,200,000.00	£1,200,000.00	£1,000,000.00	£3,400,000.00
Special Repairs	£750,000.00	£750,000.00	£500,000.00	£2,000,000.00
Crash barriers	£100,000.00	£100,000.00	£50,000.00	£250,000.00
Drainage	£75,000.00	£ 50,000.00	£50,000.00	£175,000.00
Disabled Access	£25,000.00	£25,000.00	£25,000.00	£75,000.00
Interventions	£150,000.00	£150,000.00	£100,000.00	£400,000.00
Urgent Works	£400,000.00	£350,000.00	£200,000.00	£950,000.00
Totals	£8,500,000.00	£ 8,475,000.00	£6,025,000.00	**£23,000,000.00**

Porth & Aberdare Works 2018/2019	£500,000

Note there may be fluctuations in the allocations from year to year due to external factors – e.g. weather