

## Treatment Selection - Sustainability Analysis

Locations / Area		Footways Standing Way to Whaddon Way / Bletchley	Projected Programme Date	2016/2017	
Existing Material Type		Tarmac	Area of Treatment (Condition Amber)	c. 28,000 m2	
Preferred Option / Initial Scheme Cost		Option 3 / £280,000	Projected Available Budget / Source	c. £280,000 / Dft Incentive Fund Grant	
Alternatives		Year 1	Year 10	Year 20	Whole Life Cost
<p>Initial Scheme Cost Year 1 28,000 m2 X £60.00 = £1,680,000</p> <p>Total Lifecycle Scheme Cost 28,000 m2 X £70.00 = £ 1,960,000</p>	<p style="text-align: center;"><b>Option 1</b></p> <p>Reconstruct Tarmac Footways to full depth (215mm)</p>	<p>Tripping hazards removed.. Visual improvement, improvement in texture. Surface sealed from water ingress. Minor structural issues addressed</p> <p><b>£ 60.00 per m2</b> initial cost (this cost is for labour and materials)</p>	<p>Minimal repairs required due to general wear and tear. Utility works will produce some deterioration minor maintenance will have to be carried out.</p> <p><b>£ 2.00 per m2</b></p>	<p>Surface deterioration caused by oxidisation Tripping hazards increase which could potentially lead to pothole formation and claims. Apply 1<sup>st</sup> micro asphalt surface treatment</p> <p><b>£8.00 per m2</b></p>	<p>Whole life cost</p> <p><b>£70.00 per m2</b></p> <p>(this excludes the cost of an decrease in insurance claims)</p>
<p>Initial Scheme Cost Year 1 28,000 m2 X £45.00 = £1,260,000</p> <p>Total Lifecycle Scheme Cost 28,000 m2 X £55.00 = £ 1,540,000</p>	<p style="text-align: center;"><b>Option 2</b></p> <p>Resurface surface and binder course only (75mm)</p>	<p>Improvement in texture. Visual improvement. Tripping hazards removed. Surface sealed from water ingress. Localised minor structural issues resolved.</p> <p><b>£ 45.00 per m2</b> initial cost (this cost is for labour and materials)</p>	<p>Minimal repairs required due to general wear and tear. Utility works will produce some deterioration minor maintenance will have to be carried out.</p> <p><b>£ 2.00 per m2</b></p>	<p>Surface deterioration caused by oxidisation Tripping hazards increase which could potentially lead to pothole formation and claims. Apply 1<sup>st</sup> micro asphalt surface treatment</p> <p><b>£ 8.00 per m2</b></p>	<p>Whole life cost</p> <p><b>£55.00 per m2</b></p> <p>(this excludes the cost of an decrease in insurance claims)</p>
<p>Initial Scheme Cost Year 1 28,000 m2 X £10.00 = £280,000</p> <p>Total Lifecycle Scheme Cost 28,000 m2 X £20.00 = £ 560,000</p>	<p style="text-align: center;"><b>Option 3</b></p> <p>Localised structural repair plus Micro Asphalt surface treatment (10-15mm)</p>	<p>Improvement in texture. Visual improvement. Tripping hazards removed. Design faults solved.. Surface sealed from water ingress. Localised structural repairs only prior to treatment.</p> <p><b>£ 10.00 per m2</b> initial cost (this cost is for labour and materials, including localised structural repairs)</p>	<p>Minimal repairs required due to general wear and tear. Utility works will produce some deterioration minor maintenance will have to be carried out across whole area.</p> <p><b>£ 2.00 per m2</b></p>	<p>Surface deterioration caused by oxidisation Tripping hazards increase which could potentially lead to pothole formation and claims. Apply 2<sup>nd</sup> micro asphalt surface treatment</p> <p><b>£ 8.00 per m2</b></p>	<p>Whole life cost</p> <p><b>£20.00 per m2</b></p> <p>(this excludes the cost of an decrease in insurance claims)</p>

## Comments :

- Projected available extra budget from DfT incentive funding circa £280,000. Decision to use this funding to trial a proven surface treatment with an approved SCP to principal contractor Ringway to establish future footway programmes and evidence good 'Asset Management' for future DfT Incentive Funding bids and ensure future awards in line with Asset Management Strategy.
- Micro Asphalt treatment suitable for Amber condition footways only. West Bletchley has highest area of amber footways of any estate from 2012 survey, hence selection. 2015 FNS survey confirms 2012 survey that the footway condition is poor and in need of treatment.
- With this available budget :
  - Option 1 would allow 4,666 m<sup>2</sup> to be treated.
  - Option 2 would allow 6,222 m<sup>2</sup> to be treated.
  - Option 3 would allow 28,000 m<sup>2</sup> to be treated.
- Option 3 selected as this is appropriate sustainable treatment we are able to treat >70% more footways with the same outcome for the highway user, this is also sustainable over a 20 year lifecycle with interventions and a 2<sup>nd</sup> treatment between 15-20 years and will still produce a lifecycle cost approx. 65% lower than conventional treatments.
- Efficiencies for combining works in one geographical area in order to minimise mobilisation costs and keep unit rates lower to maximise available budget.
- Areas of footways that are still paving slabs not included in assessment and projected programme.