

Appendix B - The basis of the extra over investment being set at £20 Million (and proportions thereof)

The following table details the calculation that forms the basis for the level of the extra-over investment to be considered through the strategic modelling and then on through the development of the detailed business case. The premise of the calculation is the cost of treatment needed to cover the length of road in each class that has been identified as in need of maintenance. A risk factor is then applied on the basis that the survey techniques that are used to quantify the condition of the asset do not translate directly to sites for treatment i.e. a treatment site will practically include the lengths of the road that is identified as in need of maintenance together with short sections between that are not currently identified as in need of maintenance, but will have deteriorated from a 100% good condition. The calculation arrives at a sum that is just under £20 Million and as such this figure has been taken forward as the basis for the extra over investment to be explored through the strategic carriageway lifecycle condition modelling.

Road Classification	R199B Length	Carriageway	Calculated Area				Commentary on treatment option	Treatment cost / m2	Treatment %age	Total treatment cost
	(Km)			(m)	(m ²)	% defective		defective length	defective area	
M (All)	0.00	10.8	-		0.00	0	NA		100%	£0.00
A Urban	66.44	8.7	578,028	9.00%	5.98	52,023	Treatment is micro asphalt. Treat 100%of defective carriageway	£5.47	100%	£284,676.59
A Rural	314.69	8.0	2,517,520	9.00%	28.32	226,577	Treatment is plane & pave. Treat 100%of defective carriageway	£13.45	100%	£3,046,809.95
B Urban	59.00	7.2	424,800	8.00%	4.72	33,984	Treatment is micro asphalt. Treat 100%of defective carriageway	£5.27	100%	£179,189.95
B Rural	257.00	52	1,336,400	8.00%	20.56	106,912	Treatment is plane & pave. Treat 100%of defective carriageway	£13.34	100%	£1,426,322.61
C Urban	75.50	7.2	543,600	8.00%	6.04	43,488	Treatment is micro asphalt. Treat 100%of defective carriageway	£4.39	100%	£190,932.76
C Rural	996.50	52	5,118,000	8.00%	79.72	4,14,544	Treatment is overlay. Treat 100%of defective carriageway	£9.94	100%	£4,19,279.85
U/C Urban	295.60	6.4	1,891,840	18.00%	53.21	340,531	Treatment is micro asphalt. Treat 100%of defective carriageway	£4.25	100%	£1,448,144.68
U/C Rural	1,208.10	3.8	4,590,780	18.00%	217.46	826,340	Treatment is: 50%overlay plus surface dressing; 50% surface dressing only. Treat 100%of defective carriageway	£6.67	100%	£5,507,759.15
TOTALS	3,272.83		17,064,768		416.01	2,044,399				
									Total	£16,203,040.77
									Risk	£3,240,608.15
									TOTAL	£19,443,648.92