

Pavement Preservation

Chip Seal

Scrub Seal

FiberMat®

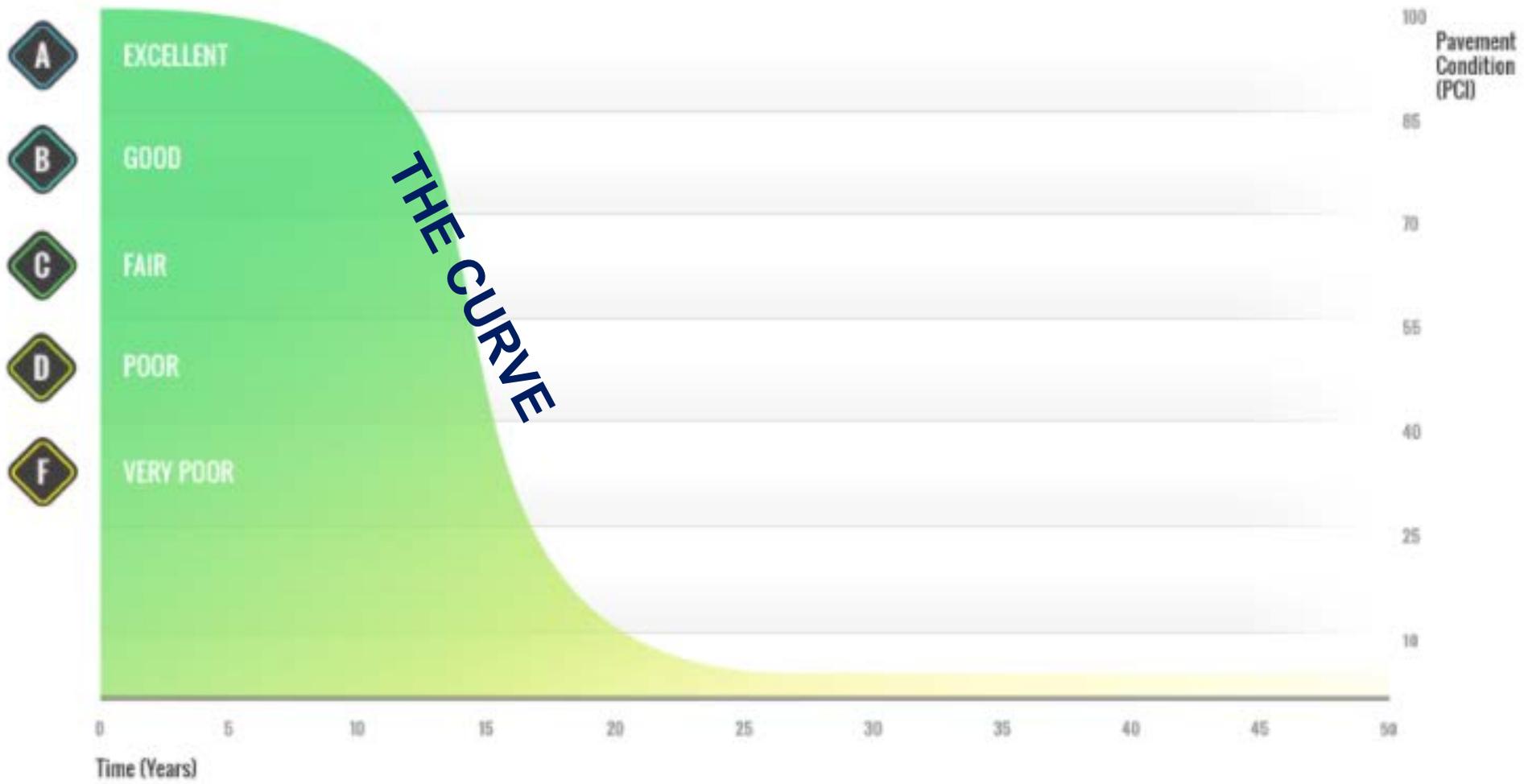
Cold Recycled Mix

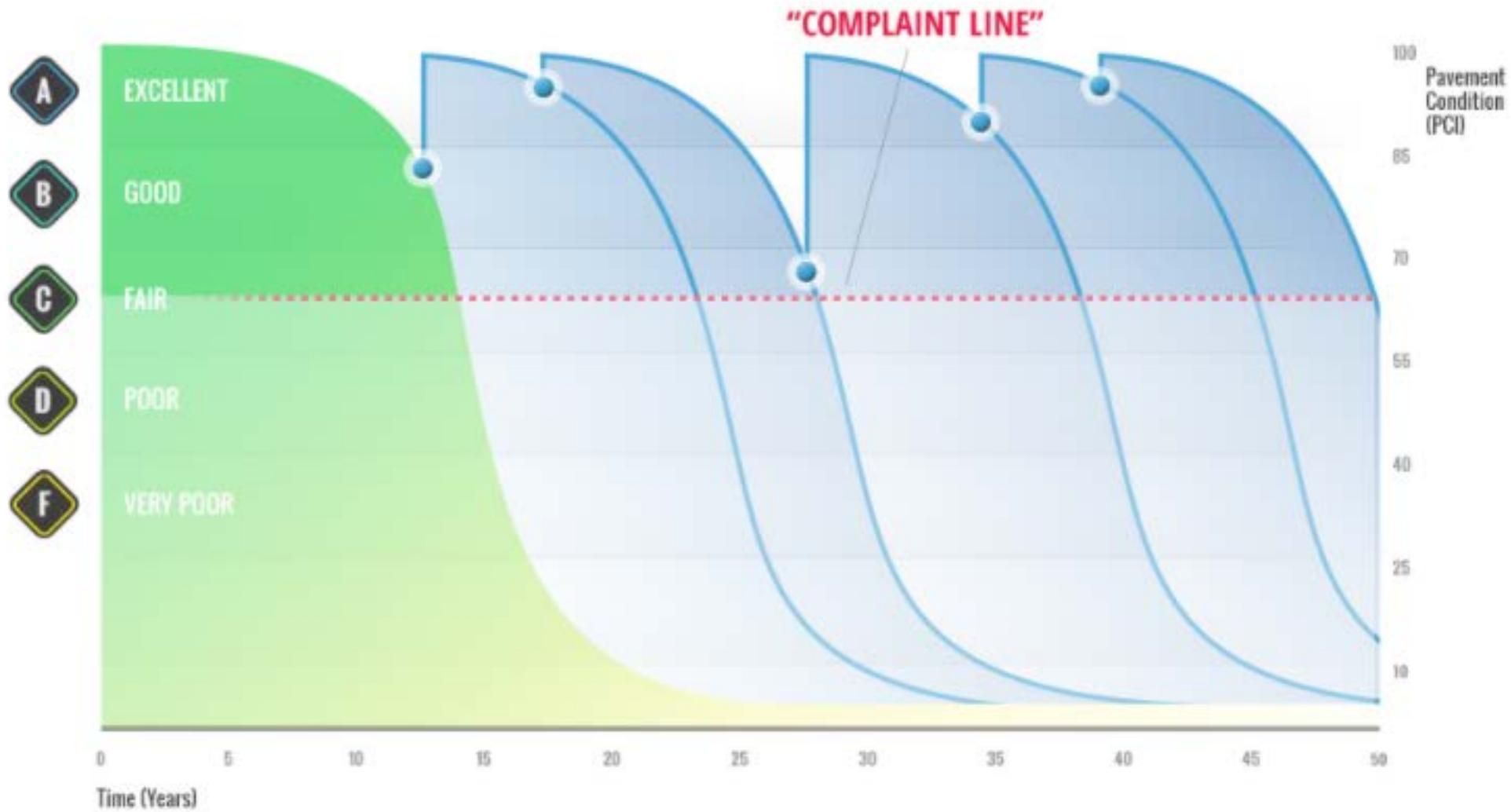
Surface Treatment

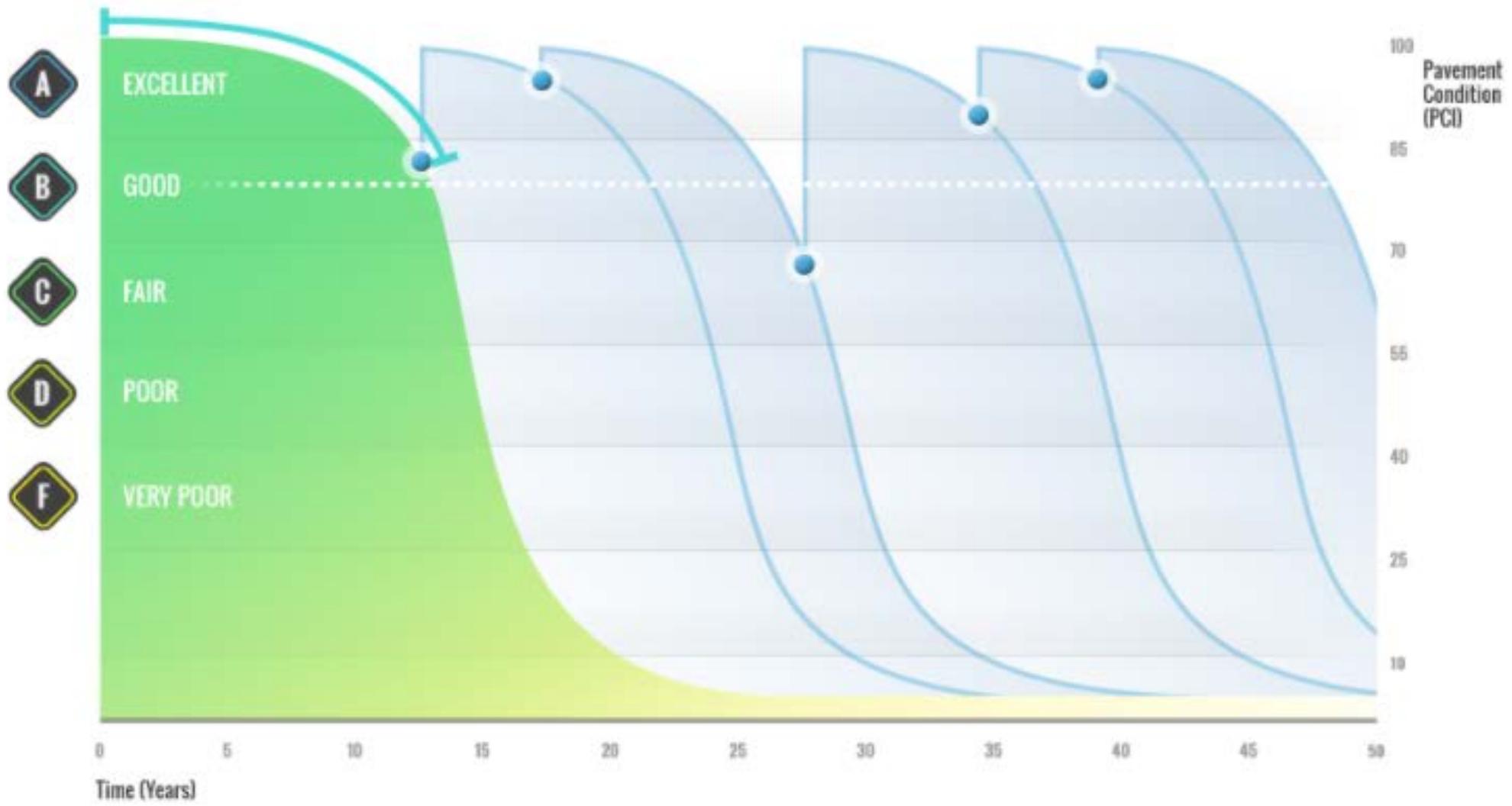
Open Graded Cold Mix

Bonded Wearing Course

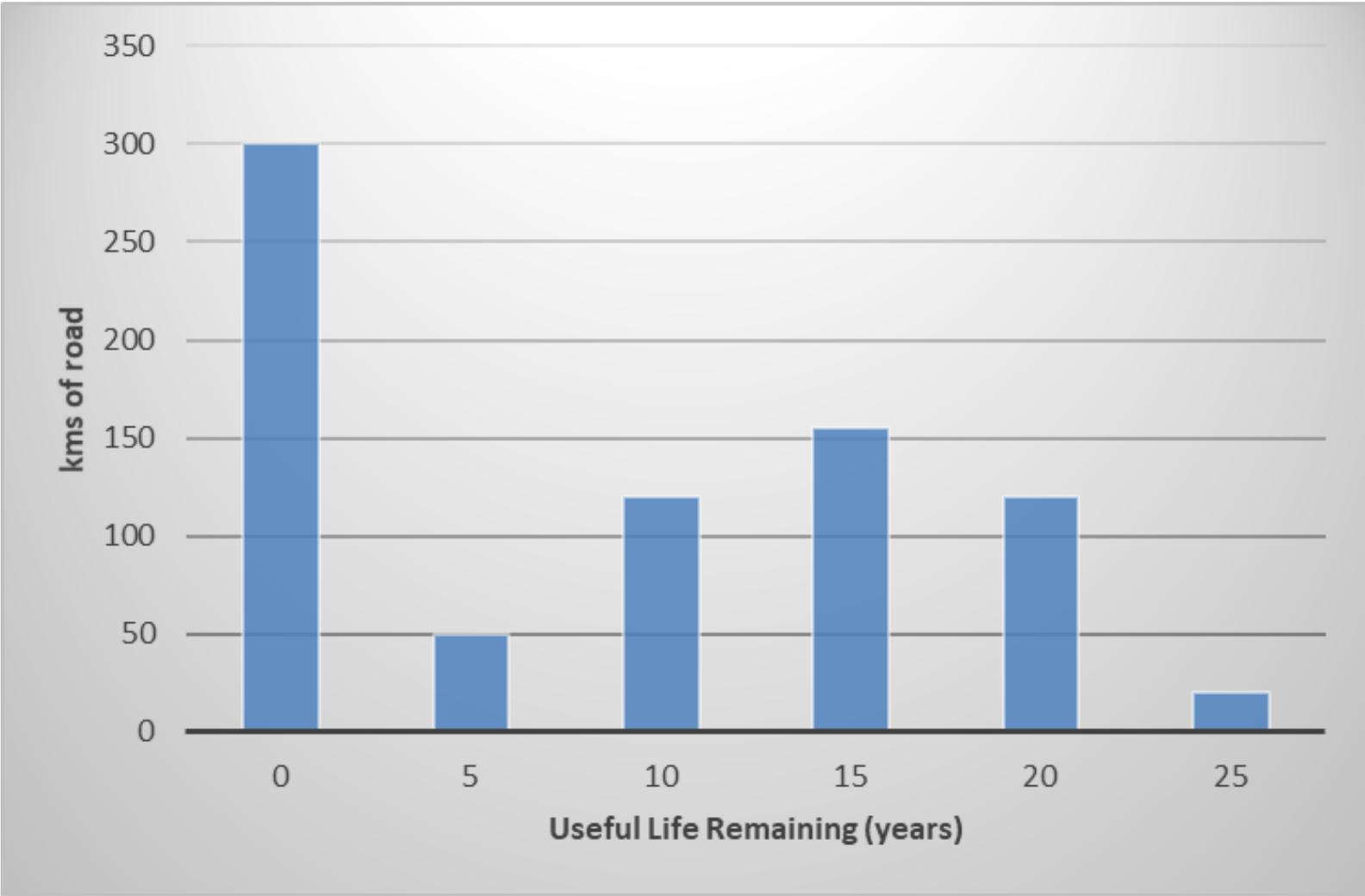








Typical Rural Network (gravel roads)



Rural Network Spending

Huron-Kinloss Network		765 lane kms			
	Design Life	Lane-km	Lane-km-years	Lane-km Cost	Total Cost
Capital Construction					
Project A	25	3	75	\$ 600,000	\$ 1,800,000
Project B	25	3	75	\$ 600,000	\$ 1,800,000
Project C	20	3	60	\$ 500,000	\$ 1,500,000
		Total	210		\$ 5,100,000
Maintenance - 2 Projects					
Gravel	1	190	190	\$ 15,000	\$ 2,850,000
Crack Seal	2	50	100	\$ 1,000	\$ 50,000
		Total	290		\$ 2,900,000
Preservation - 1 Project					
BWC	10	20	200	\$ 35,000	\$ 700,000
		Total	200		\$ 700,000
Programmed Activity		Lane-km-years		Total Cost	
Construction		210		\$ 5,100,000	
Maintenance/Rehab.		290		\$ 2,900,000	
Preservation		200		\$ 700,000	
Total		700		\$ 8,700,000	
Network Needs		765			
Surplus/(Deficit)		(65)			



Rural Network - finding savings

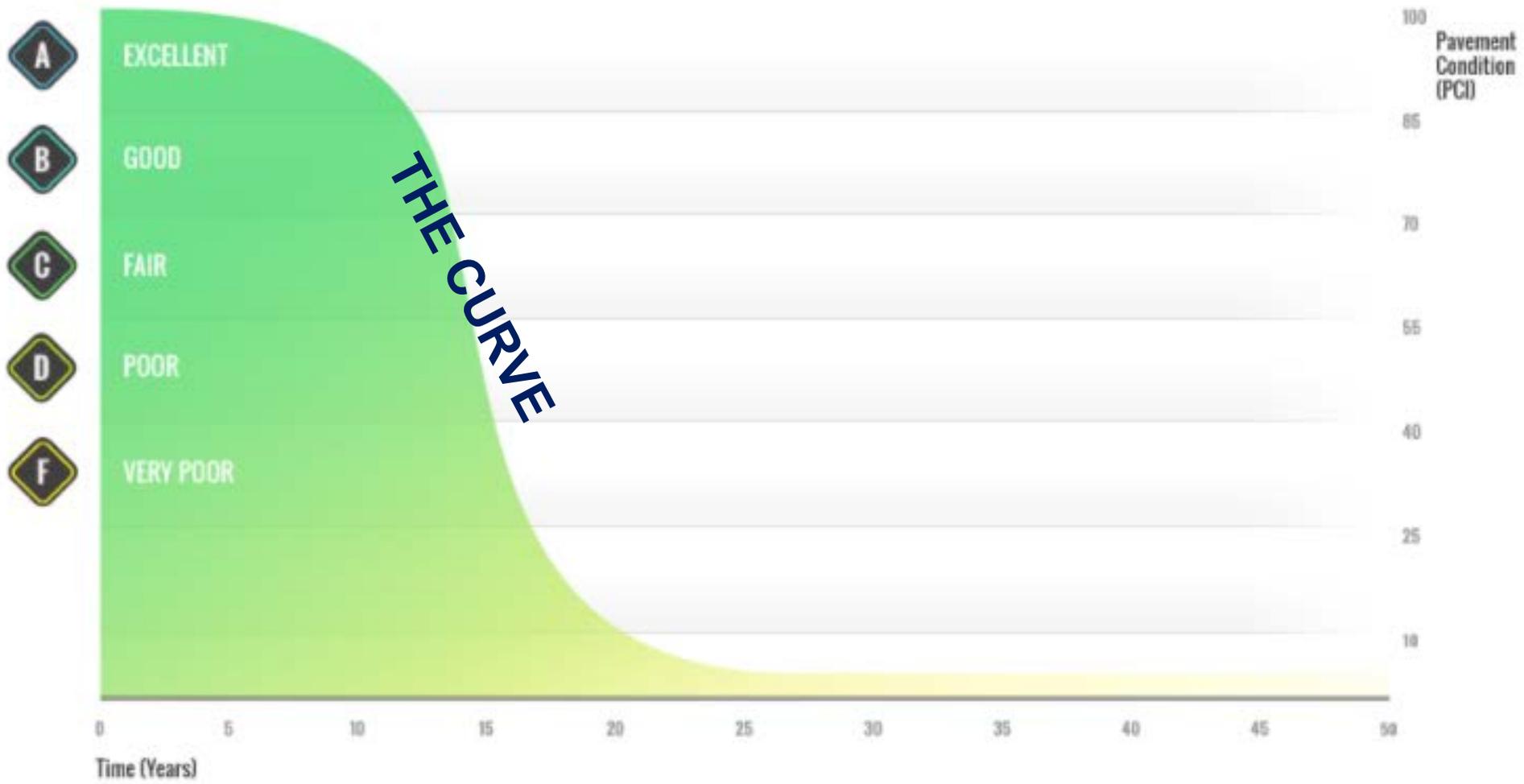
Program Modification			\$/lane-km-years	Cost Savings
Construction	30	\$	24,286	\$ 728,571
Maintenance	0	\$	10,000	\$ -
Preservation	0	\$	3,500	\$ -
	<hr/>		30	<hr/>
				\$ 728,571



Rural Network (revised spending)

Huron-Kinloss Network		765 lane kms			
	Design Life	Lane-km	Lane-km-years	Lane-km Cost	Total Cost
Capital Construction			180	\$ 24,286	\$ 4,371,429
Maintenance/Rehab.			290	\$ 10,000	\$ 2,900,000
Crack Seal	2	50	100	\$ 1,000	\$ 100,000
Chip Seal	5	12	60	\$ 3,000	\$ 180,000
Scrub Seal	6	8	48	\$ 3,500	\$ 168,000
FiberMat	7	10	70	\$ 3,000	\$ 210,000
BWC	10	20	200	\$ 3,500	\$ 700,000
Preservation			478		\$ 8,629,429
			948		
		Network Needs	765		
		Surplus/(Deficit)	183		
Programmed Activity		Lane-km-years		Total Cost	
Construction		180		\$ 4,371,429	
Maintenance		290		\$ 2,900,000	
Preservation		478		\$ 1,358,000	
Total		948		\$ 8,629,429	
		Network Needs		765	
		Surplus/(Deficit)		183	





Pavement Preservation Selection Guide

Pavement Condition	Parameters	Thin Hot Mix Overlay	Bonded Wearing Course	Fog Seal	Sand Seal	FiberMat™ Reinforced Chip Seal	Chip Seal	Slurry Seal	Micro-Surfacing	FiberMat™ Reinforced Interlayer (SAMI) ²	Cold Recycled Mix ²	Open Graded Mix
Traffic (ADT) ^{1,2}	<1000	●	●	●	●	●	●	●	●	●	●	●
	1000 - 4000	●	●	●	●	●	●	●	●	●	●	●
	>4000	●	●	◐	○	●	●	◐	●	●	◐	●
Ruts	<5mm	●	●	●	●	◐	●	●	●	◐	◐	◐
	5mm - 25mm	◐	◐	○	◐	○	◐	◐	●	○	◐	◐
	>25mm	○	○	○	○	○	○	○	◐	○	◐	◐
Cracking Fatigue ³	Low	●	●	○	●	●	●	◐	◐	●	●	●
	Moderate	●	●	○	◐	●	●	○	○	●	●	●
	High	◐	◐	○	○	◐	○	○	○	◐	◐	◐
Cracking Longitudinal	Low	●	●	◐	●	●	●	◐	◐	●	●	●
	Moderate	●	●	○	◐	●	●	○	○	●	●	●
	High	◐	◐	○	○	◐	○	○	○	◐	◐	●
Cracking Transverse	Low	●	●	◐	●	●	●	●	●	●	●	●
	Moderate	●	●	○	◐	●	●	◐	◐	●	●	●
	High	◐	○	○	○	◐	○	○	○	◐	◐	●
Surface Conditions	Dry	●	●	●	●	●	●	◐	●	●	◐	●
	Flushing	●	●	○	◐	●	●	◐	●	●	◐	●
	Bleeding	●	◐	○	○	◐	◐	◐	◐	◐	◐	●
	Concrete	●	●	○	○	◐	○	○	◐	◐	○	○
Ravelling	Low	●	●	●	●	●	●	●	●	●	○	●
	Moderate	●	●	◐	●	◐	●	●	●	◐	○	●
	High	●	●	◐	◐	◐	◐	◐	◐	◐	○	●
Potholes	Low	●	●	○	●	○	●	●	●	○	○	●
	Moderate	●	◐	○	◐	○	◐	○	◐	○	○	●
	High	●	◐	○	○	○	○	○	○	○	○	◐
Texture	Rough	●	●	○	◐	●	◐	●	●	●	◐	◐
Ride	Poor	●	◐	○	○	●	○	◐	◐	○	◐	◐
Drainage	Poor	○	●	○	○	○	○	○	○	○	◐	●
Snow Plow Damage	High	●	●	●	●	●	◐	●	●	○	○	○
Skid Resistance	Low	●	●	○	●	●	●	●	●	n/a	n/a	◐

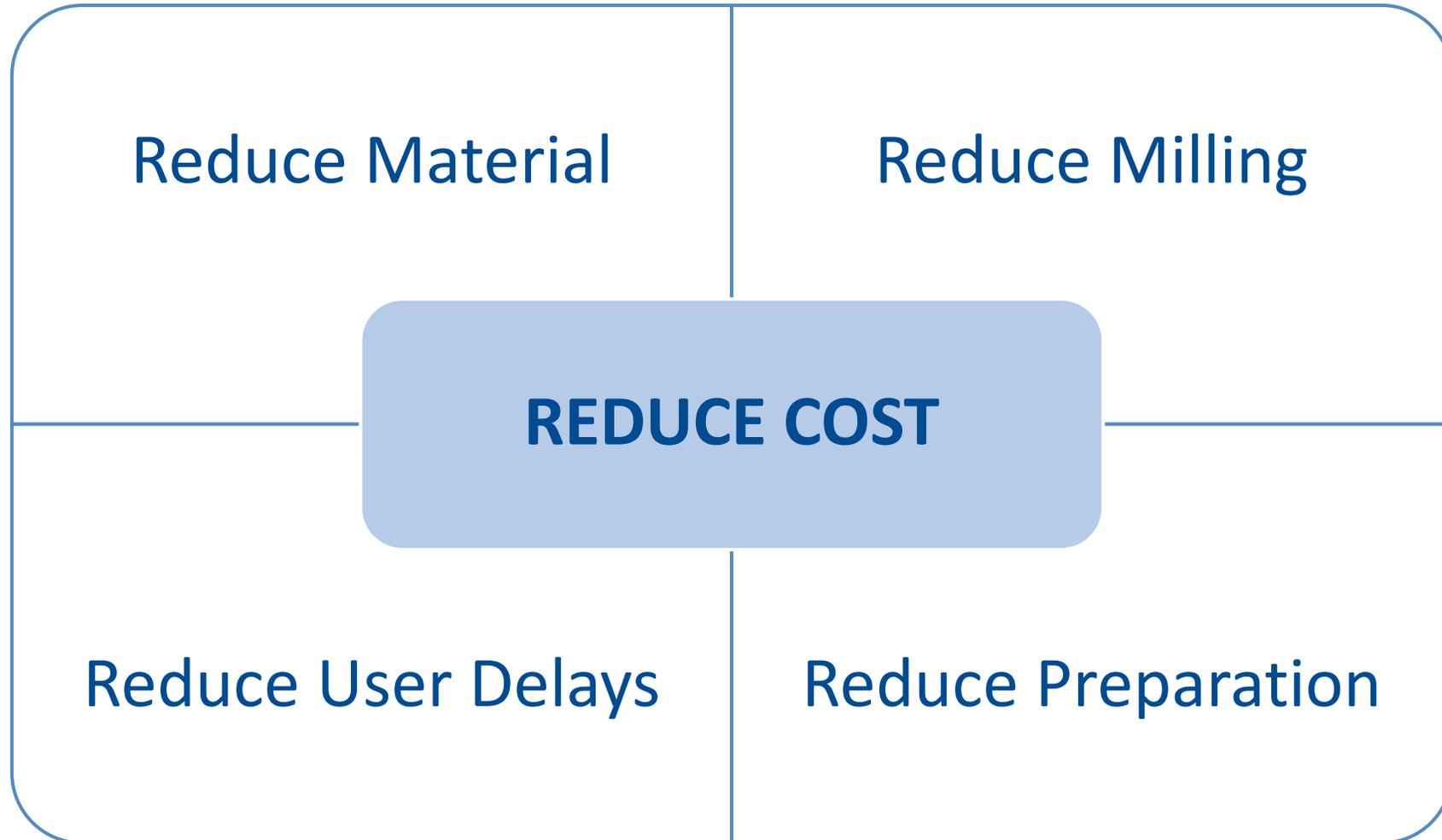




Bonded Wearing Course

Ultra-Thin Hot Mix
Paving

Bonded Wearing Course

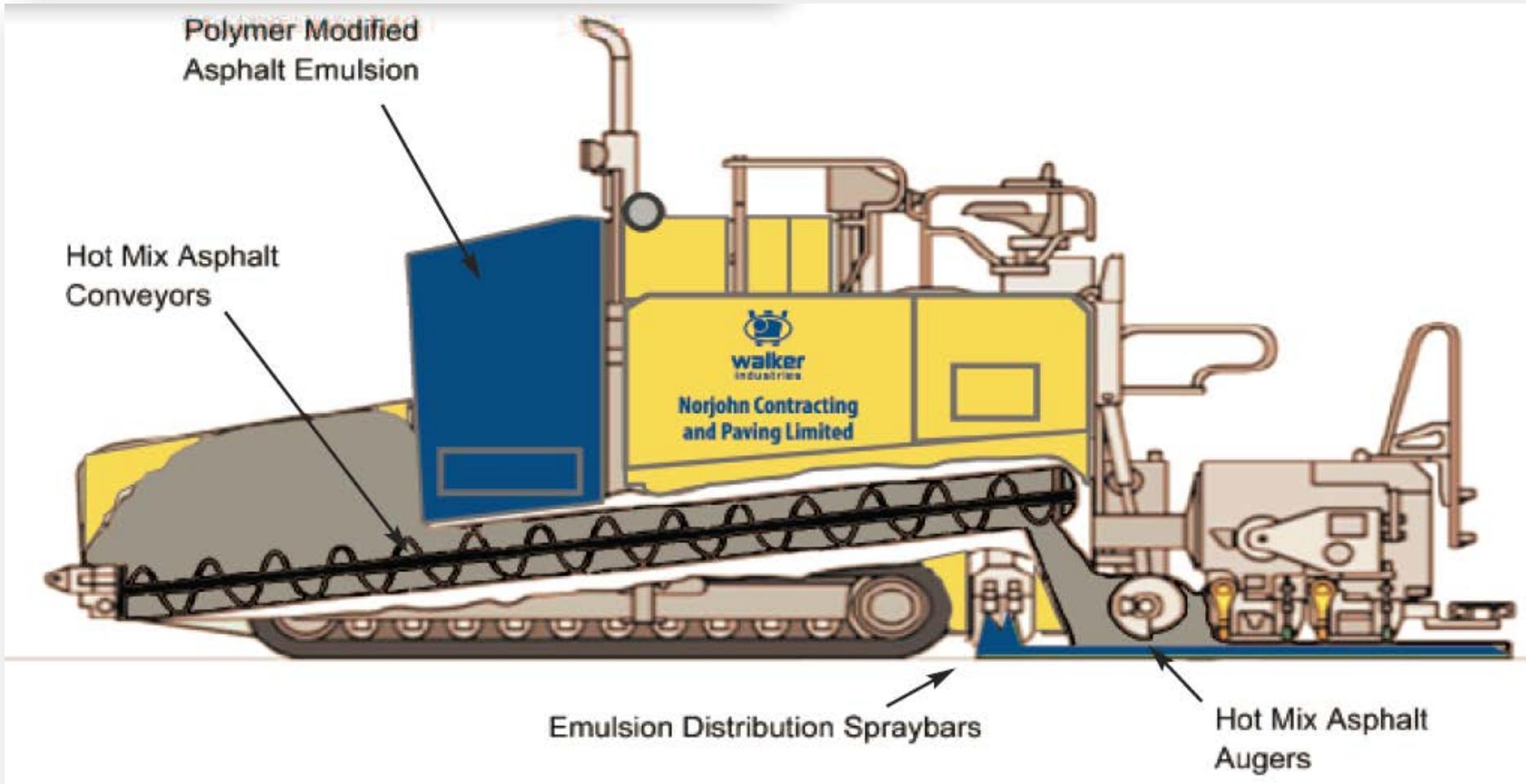


Bonded Wearing Course

Bonded Wearing Course (BWC) is a gap graded, ultra thin hot mix asphalt (HMA) applied over a thick polymer modified asphalt emulsion membrane with a specialized paver



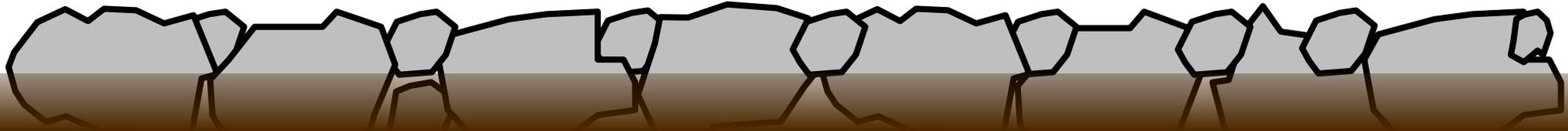
“Spray” Paver







Bonded Wearing Course



The polymer modified asphalt emulsion adheres to the existing pavement with a superior waterproofing bond and “wicks” up and around the coated HMA aggregate.







Thank You

Derek Nunn

289-257-1079

dnunn@walkerind.com

