

CDOT's Performance and Life Cycle Cost of Recycling

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Projects



Performance



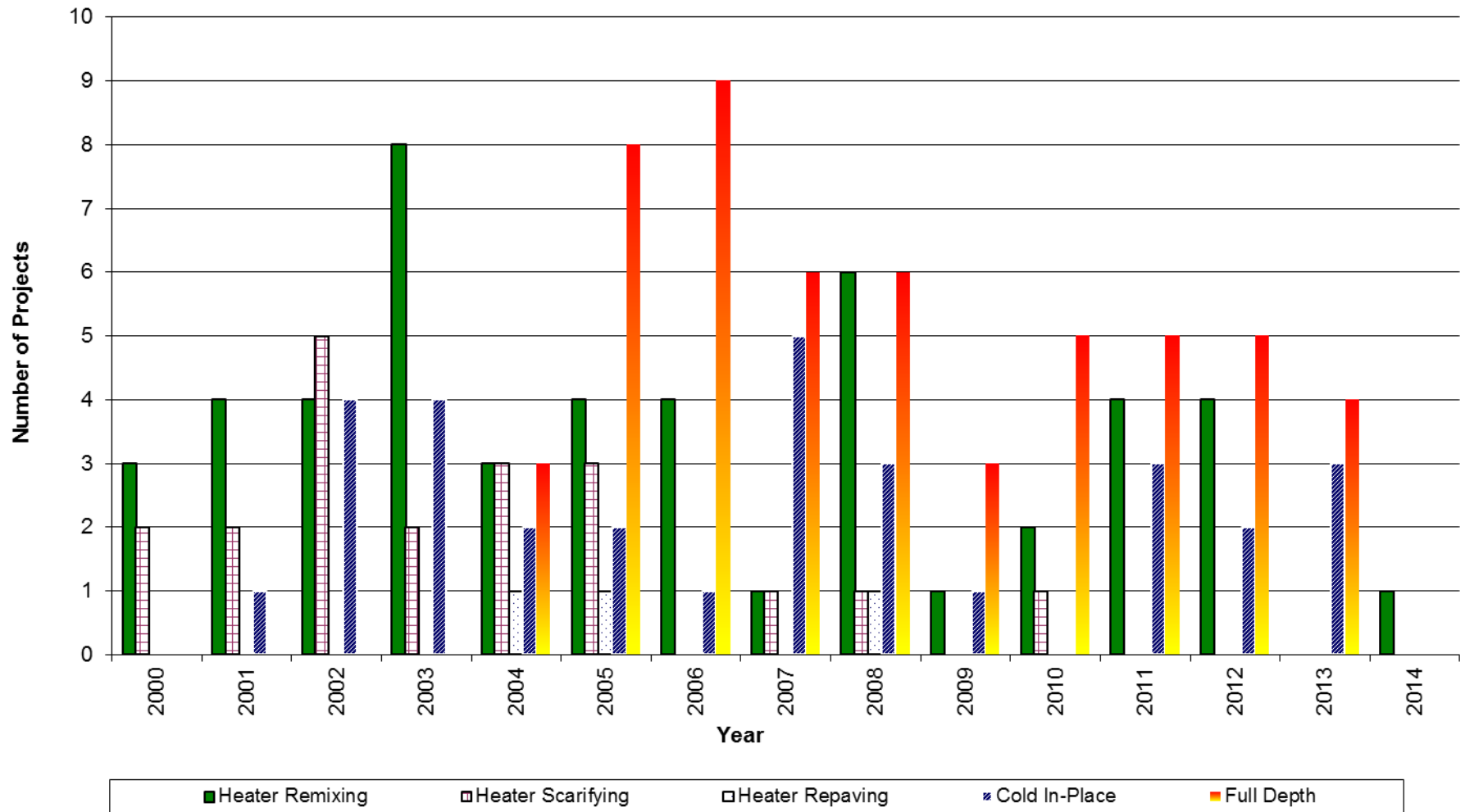
Life Cycle Cost

Projects

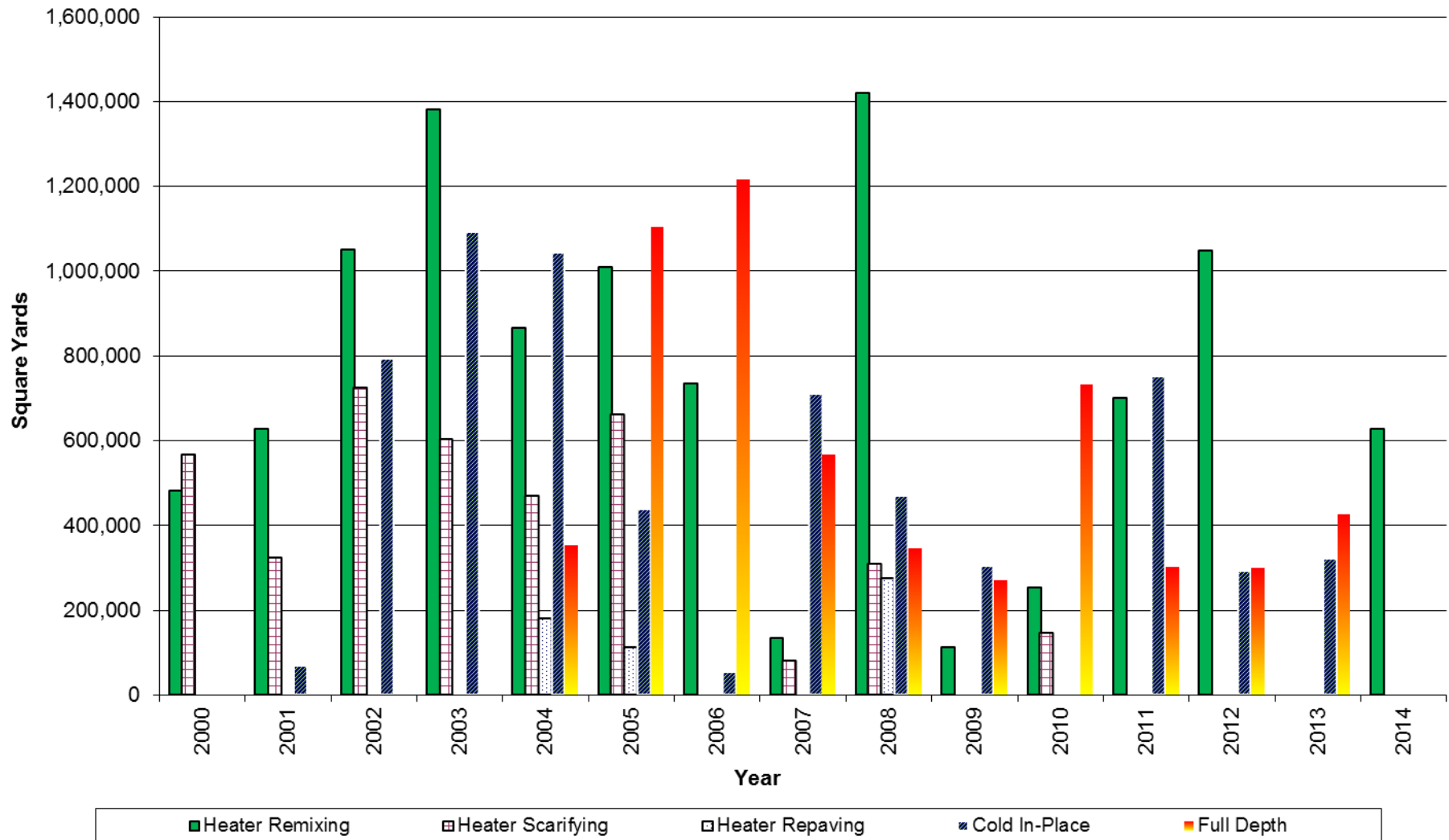
Since January 1, 2000 to the beginning of July 2014, CDOT has constructed projects which recycled almost 27 million square yards (3,819 lane-miles).

- 20 Heater scarifying projects recycling 3,890,412 sq. yds.
- 49 Heater remixing projects recycling 10,448,936 sq. yds.
- 3 Heater repaving projects recycling 570,156 sq. yds.
- 31 Cold in-place recycling projects 6,342,534 sq. yds.
- 54 Full depth recycling projects 5,620,699 sq. yds.

CDOT Projects



CDOT Quantities





Projects

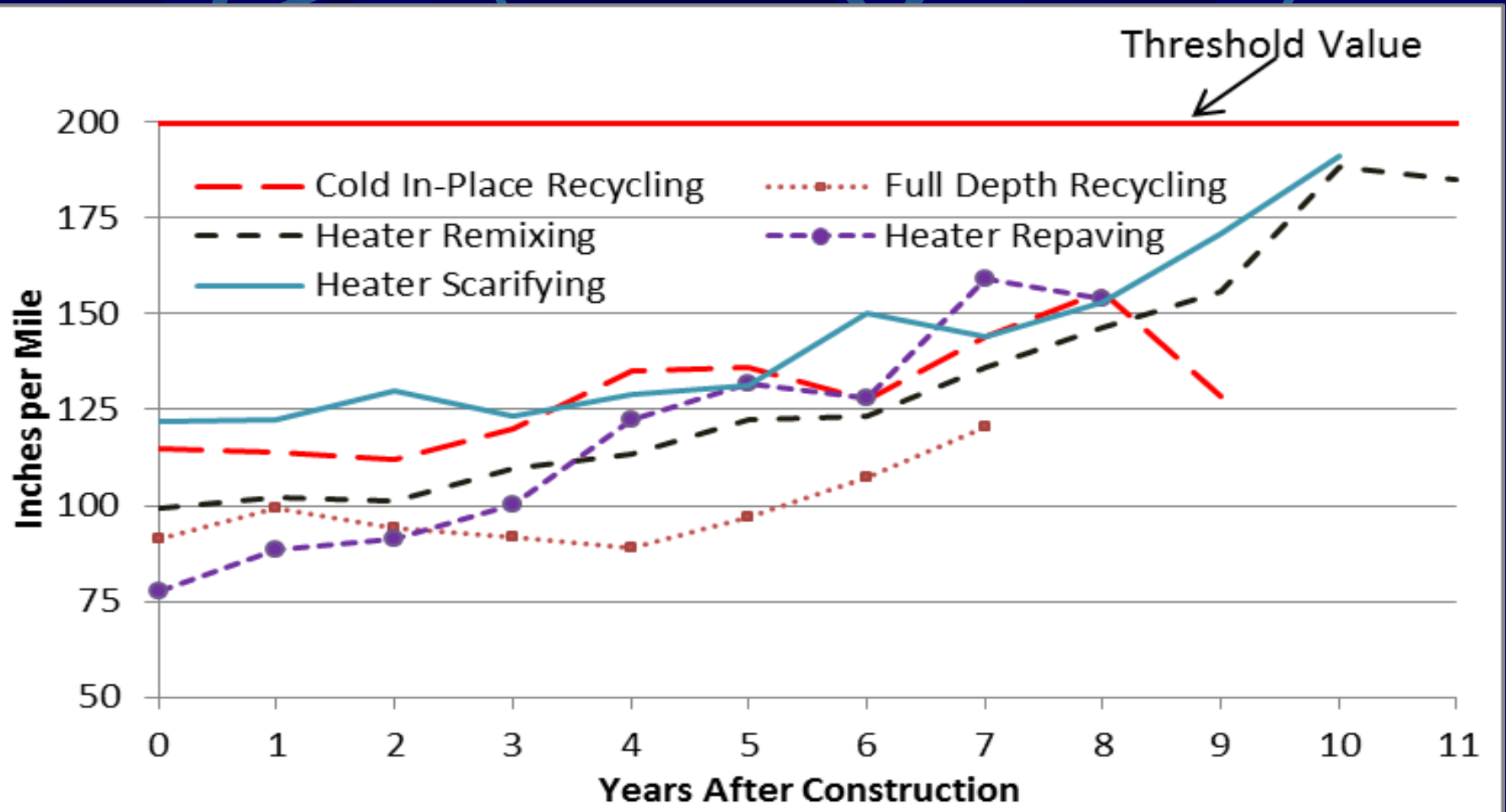


Performance

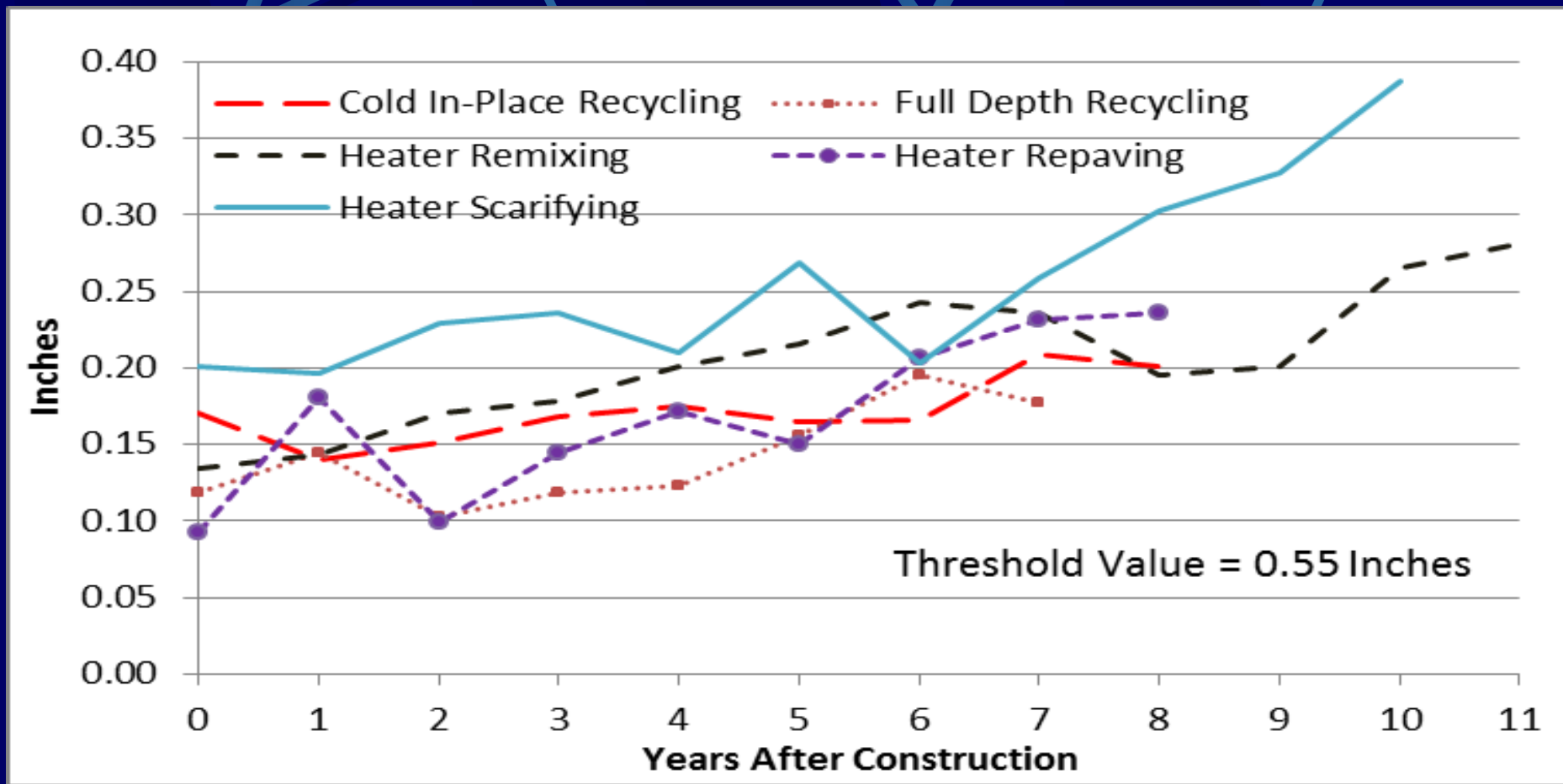


Life Cycle Cost

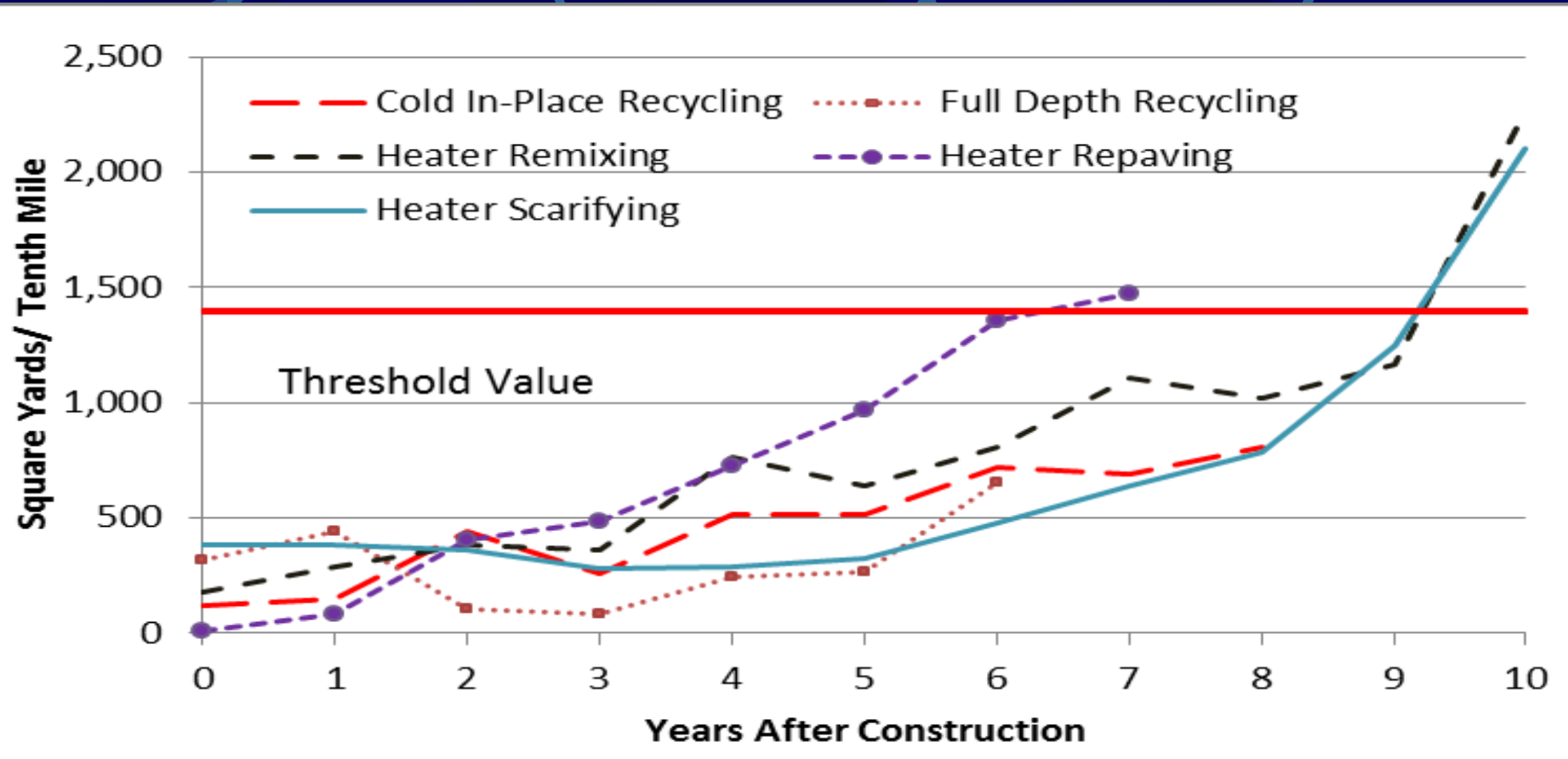
Smoothness Performance



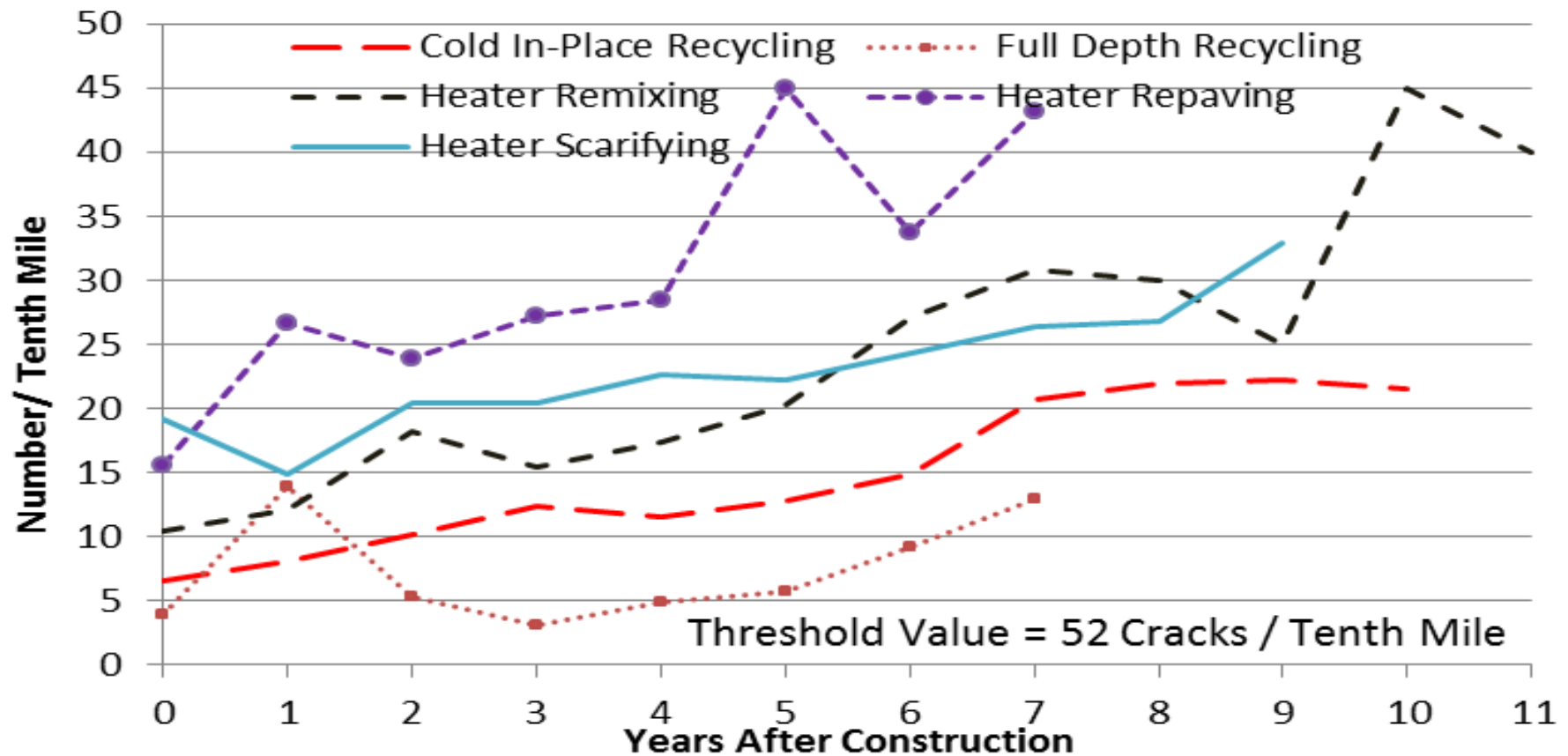
Permanent Deformation (Rut) Performance



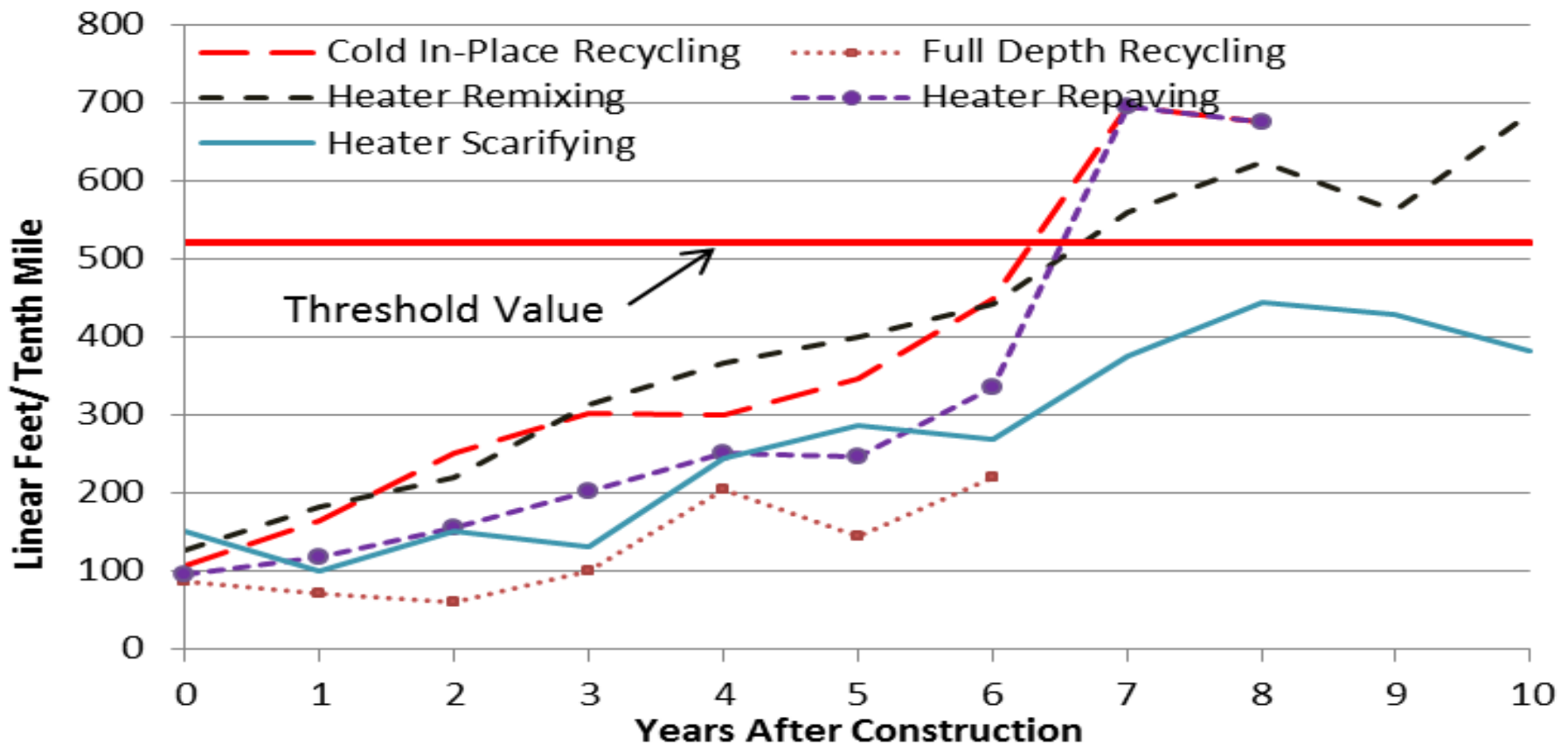
Fatigue Cracking Performance



Transverse Cracking Performance



Longitudinal Cracking Performance



Performance Life

		Average Years
Heater Remixing	IRI	11
	Permanent Deformation (Rutting)	27
	Fatigue Cracking	9
Heater Scarifying	IRI	19
	Permanent Deformation (Rutting)	25
	Fatigue Cracking	9
Heater Repaving	IRI	10
	Permanent Deformation (Rutting)	13
	Fatigue Cracking	5
Full Depth Reclamation	IRI	15
	Permanent Deformation (Rutting)	27
	Fatigue Cracking	20
Cold In-Place Recycling	IRI	14
	Permanent Deformation (Rutting)	40
	Fatigue Cracking	12



Projects



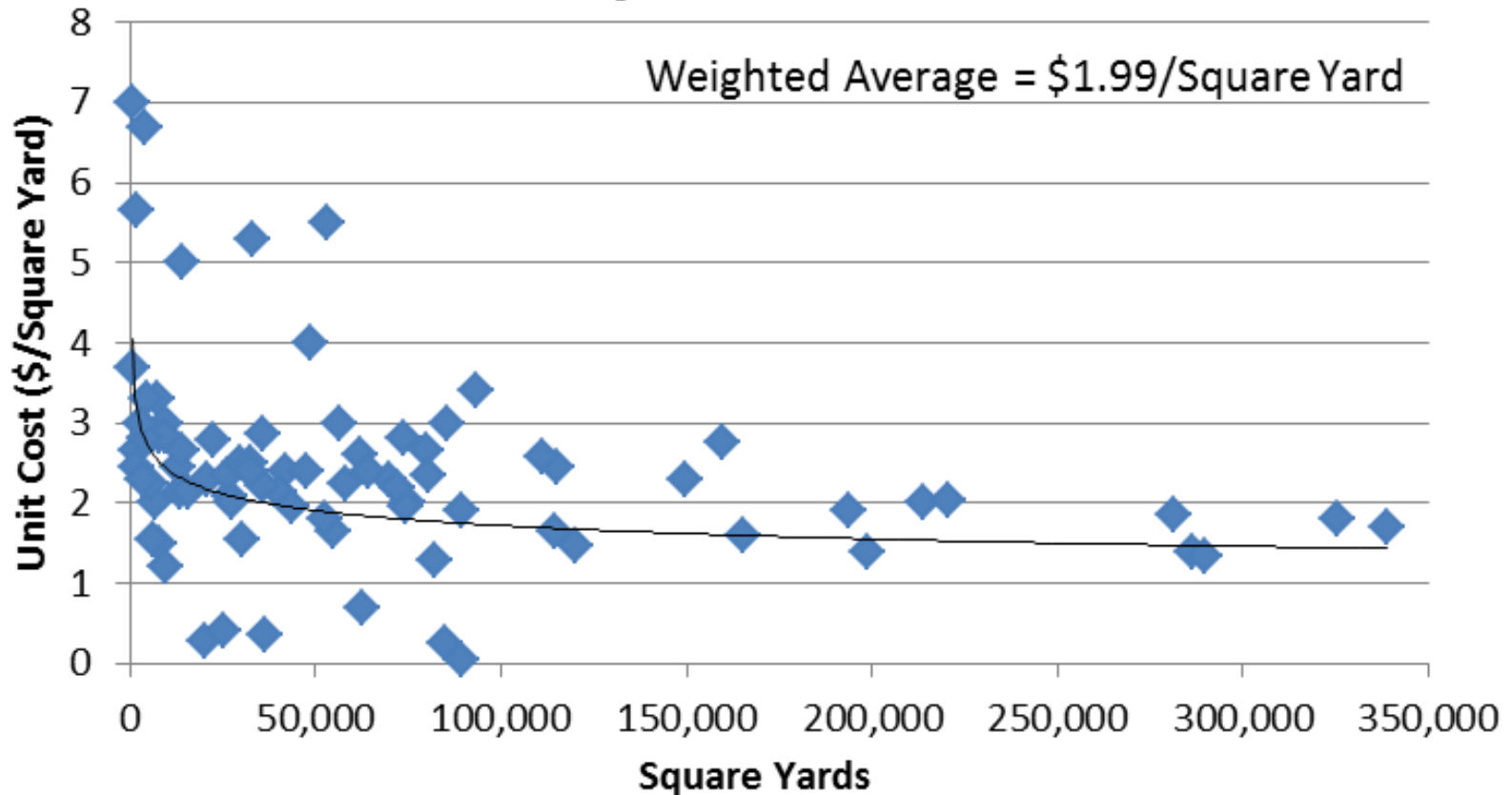
Performance



Life Cycle Cost

Bid Prices

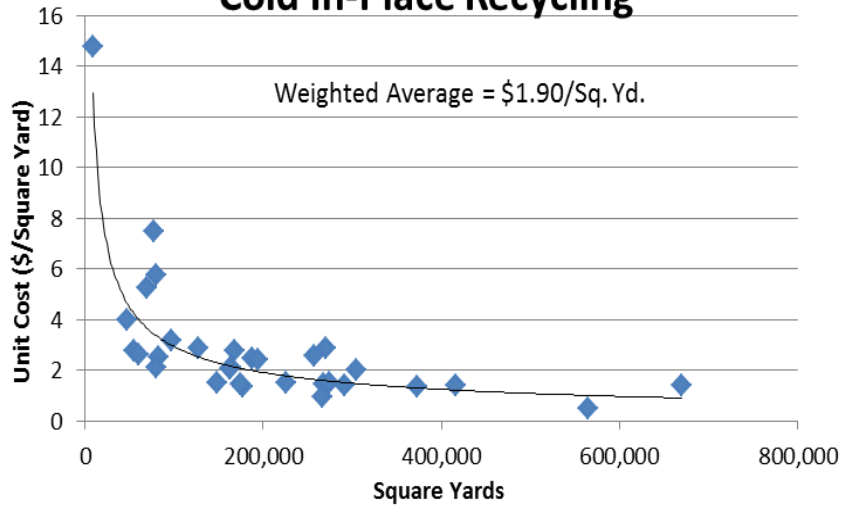
Full Depth Reclamation



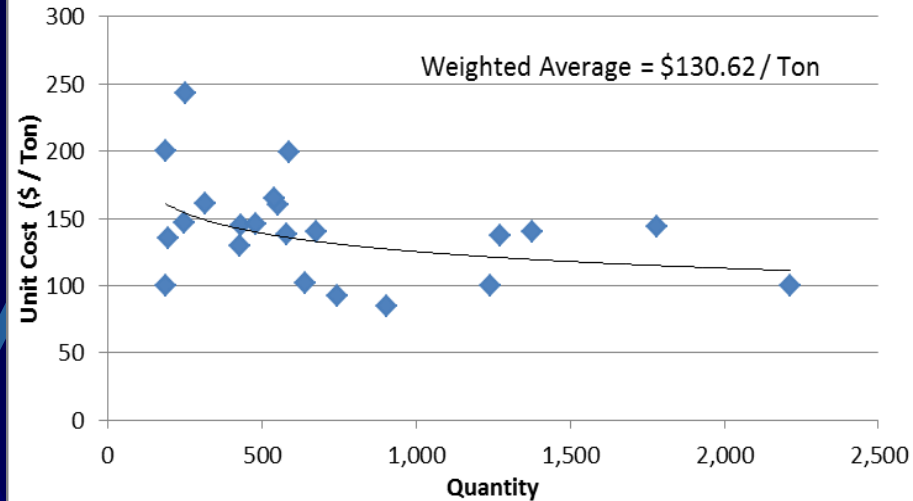
Does Not Include 4.0" HMA Overlay

Bid Prices

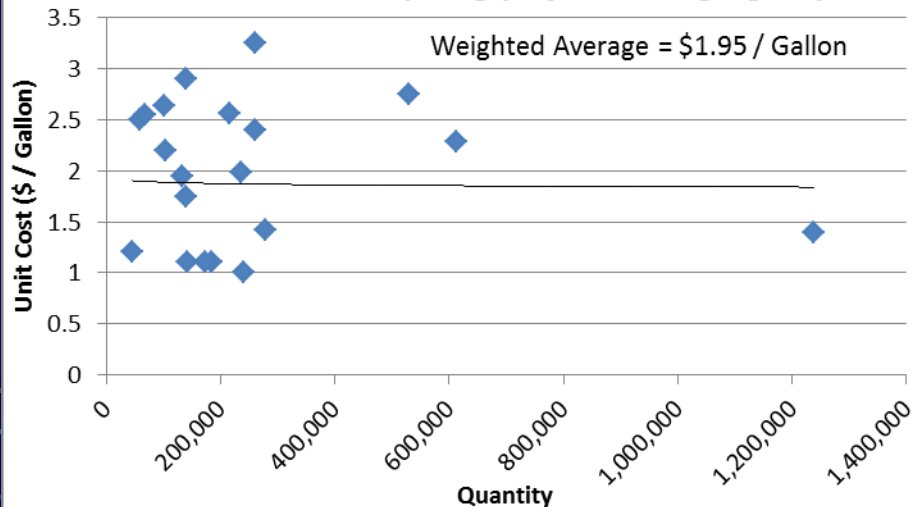
Cold In-Place Recycling



Cold In-Place Recycling (Hydrated Lime)



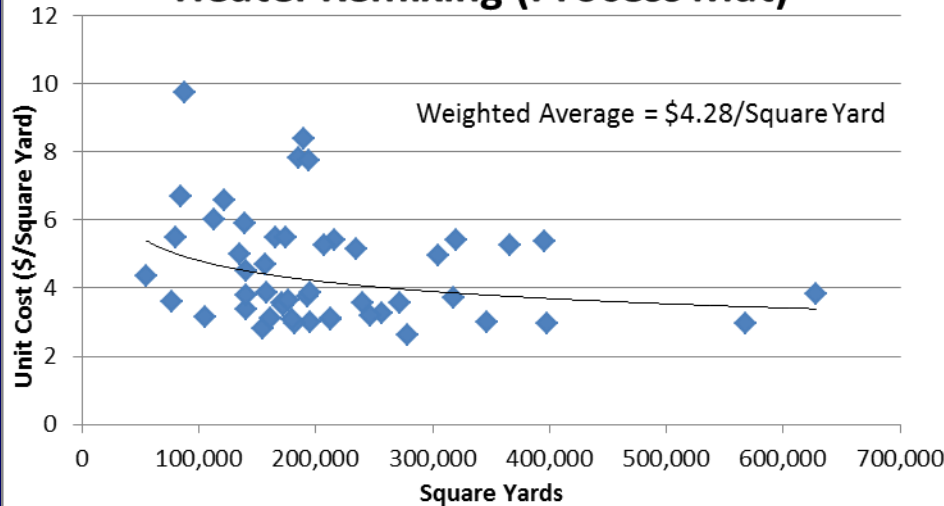
Cold In-Place Recycling (Rejuvenating Agent)



**Does Not Include
3.0" HMA Overlay**

Bid Prices

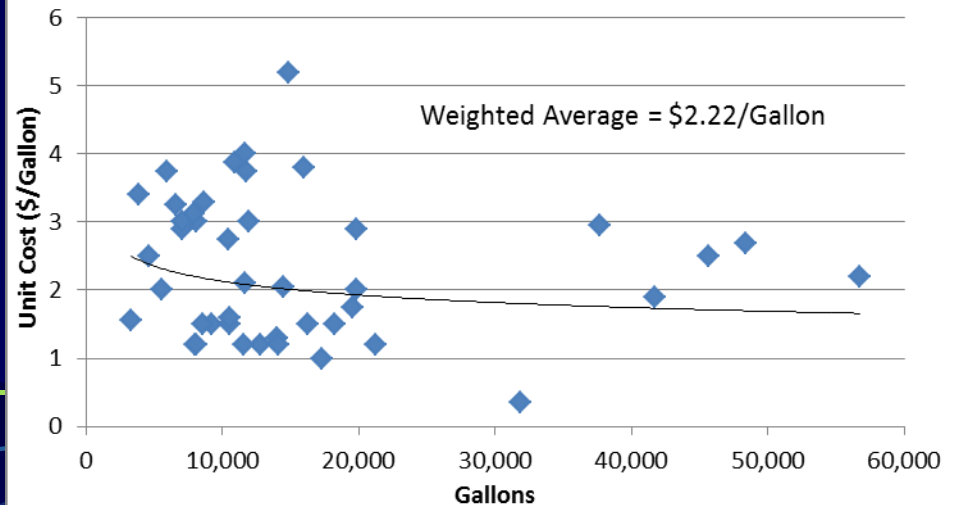
Heater Remixing (Process Mat)



**Does Not Include
2.0" HMA Overlay**

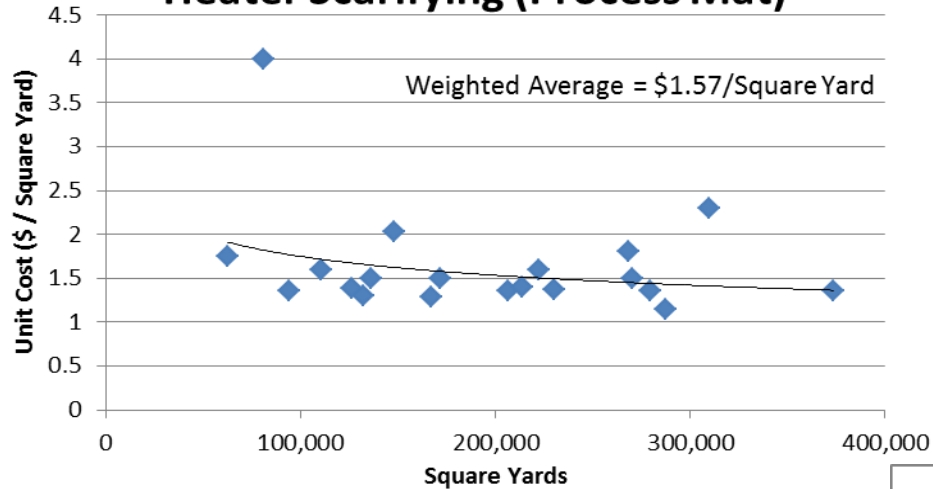
**Does Not Include
10 pounds of
HMA/Square Yard**

Heater Remixing (Rejuvenating Agent)



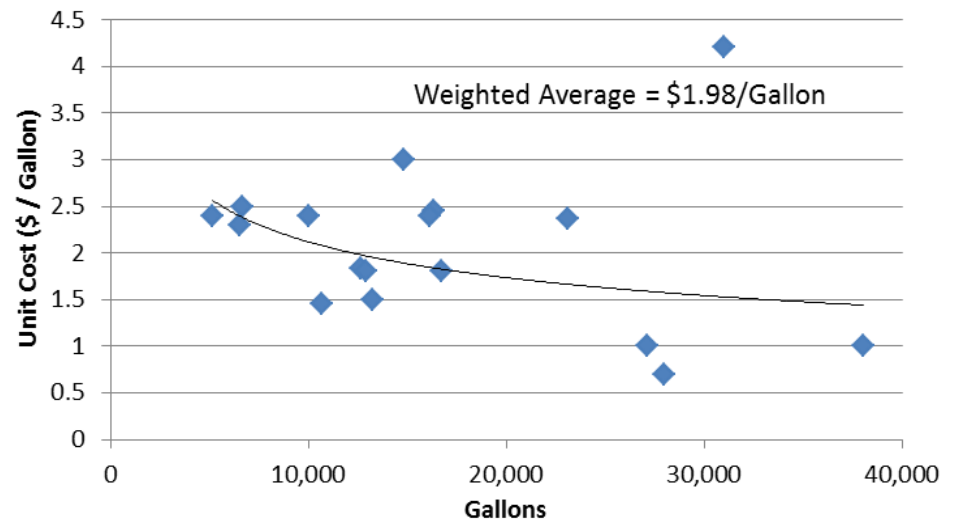
Bid Prices

Heater Scarifying (Process Mat)



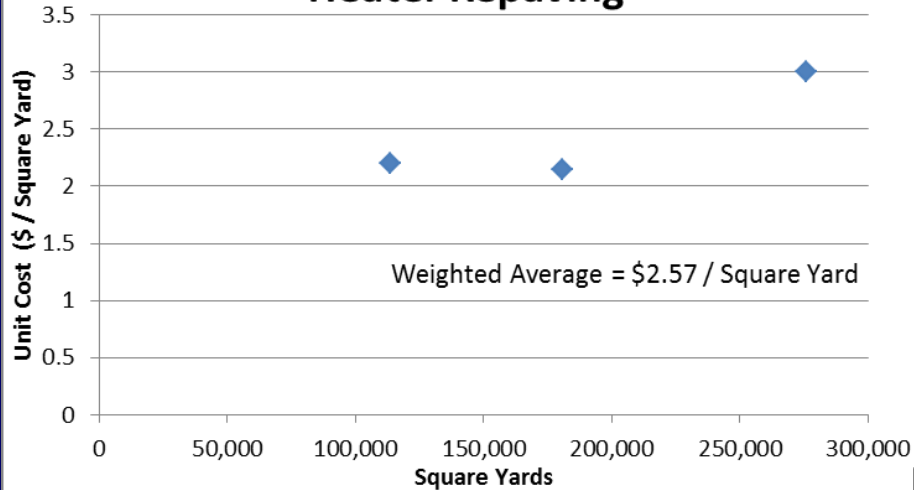
**Does Not Include
2.0" HMA Overlay**

Heater Scarifying (Rejuvenating Agent)



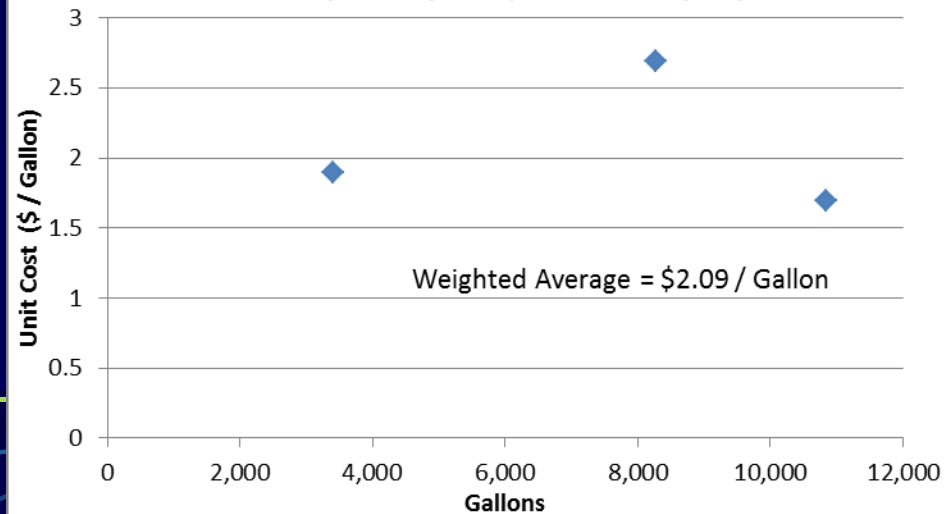
Bid Prices

Heater Repaving

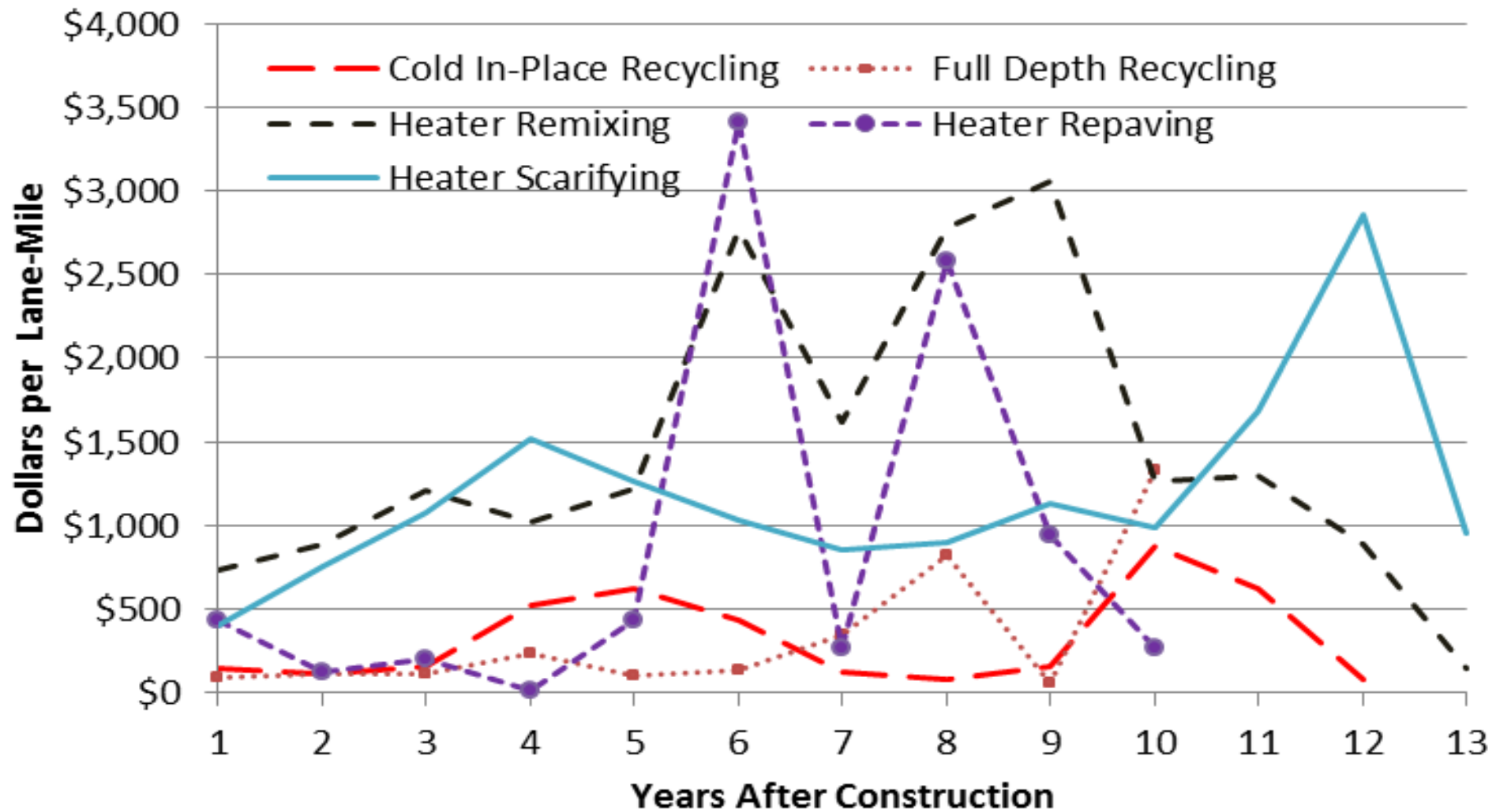


**Does Not Include
1.25" HMA/Square
Yard**

Heater Repaving (Rejuvenating Agent)



Annual Maintenance Cost



Equivalent Uniform Annual Cost

10 Lane-mile project (70,400 Square Yards) and
\$75/ton for HMA

- Full Depth Reclamation (15) - \$90,100/year
- Heater Scarifying (9) - \$91,800/year
- Cold In-Place Recycling (12) - \$100,900/year
- Heater Remixing (9) - \$117,200/year
- Heater Repaving (5) - \$123,400/year

Questions?

