

What is Micro Surfacing? What are it's uses

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Micro Surfacing



What is Micro Surfacing

- Mixture of crushed aggregate, polymer modified emulsion, mineral filler, water, and control additive
- Mixed at ambient temperature
- Spread with spreader box
 - Scratch course has steel strike off plate
 - Surface course rubber strike off plate
- Cures in 1 hour to rolling traffic

What is Micro Surfacing

- Slurry cure by air drying
 - Top down
 - Should only be placed 1 layer thick
- Micro Surfacing chemical cure
 - Cures from bottom up
 - Will cure and set at night
- Used for Surface treatments
- Rut filling
- Ride improvement
- Improve Friction

Good Candidate





Not A Good Candidate



Uses



Ride Improvement



Ride Improvement



In Place of Thin Overlay



Ride Improvement Cupped Cracks



Rut Filling



Rut Filling Scratch Course



Finished Rut Filling



Micro Milling Followed By Micro Surfacing



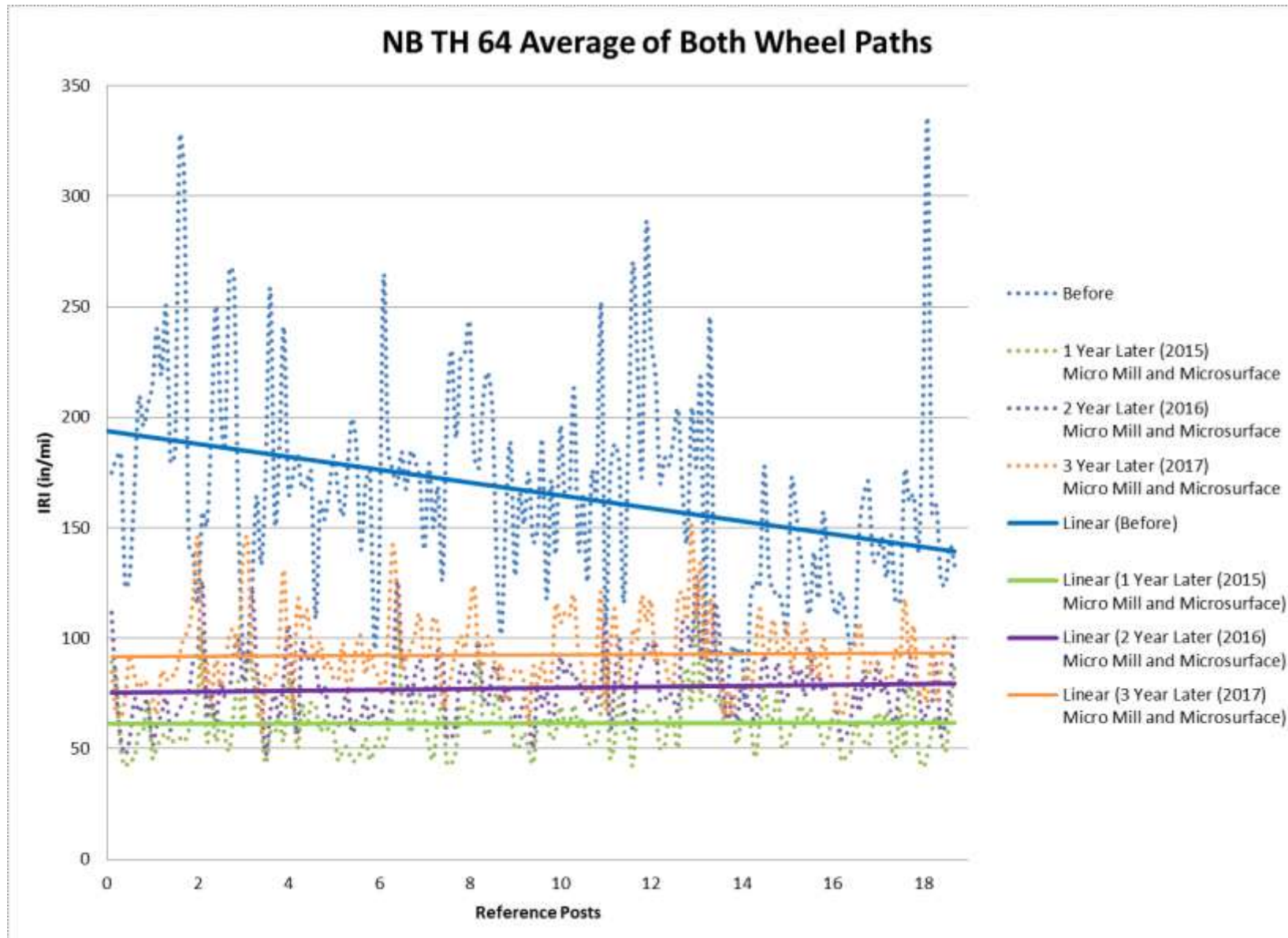
Micro Milling Followed By Micro Surfacing

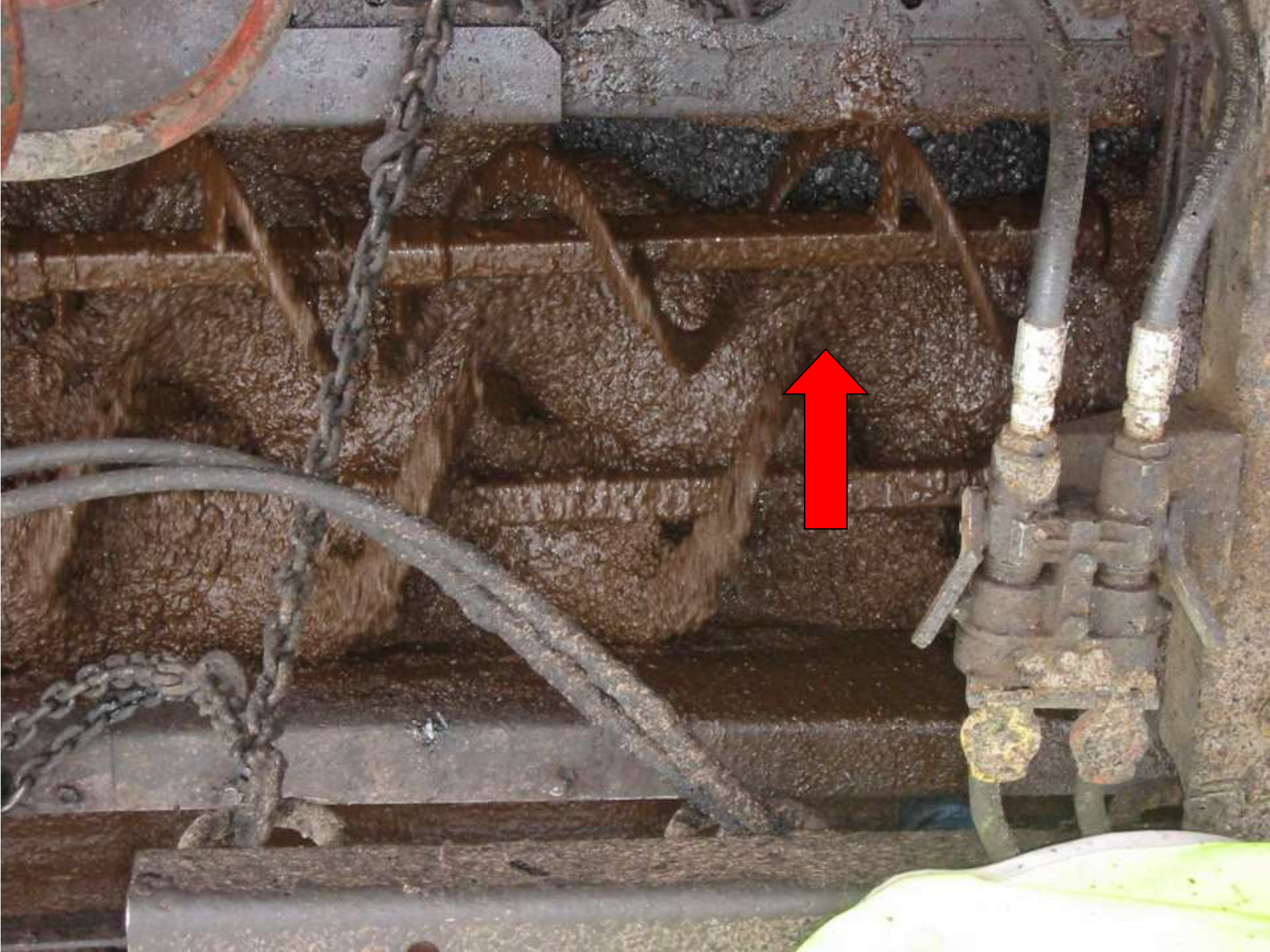


Why Micro Mill?



Results













How to Design Your Project

- Determine what issues you are wanting to fix
- Plan on 2 course
 - Scratch course
 - Surface course
- For PM 34 to 40 lbs. per sq/y
- For ride improvement give me a call

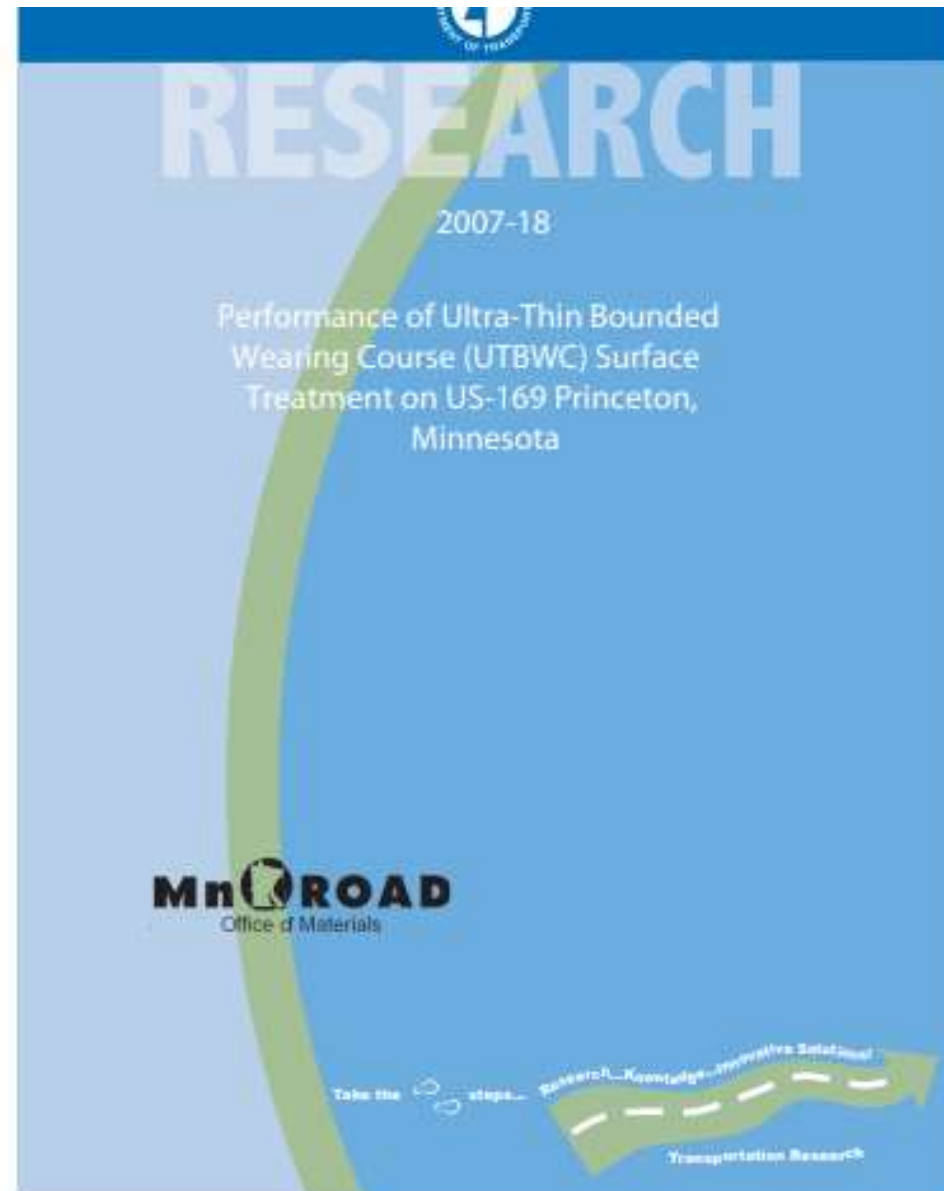
Bad Edge Line - Highway



Good Straight Edge Centerline



Performance



Why Pavement Preservation

Table 5.1 Weibull parameters obtained for various treatments overlaid on different substrates.

Type of Treatment	Type of Substrate	Threshold Time to Failure, t_o	Failure Mode, β	Remaining Service Life, μ
UTBWC	BOB ¹	0	Wear-out failures	13
	BOC ¹	2		8
Chip Seals	BOB	0	Wear-out failures	9
	BOC ¹	0		8
	BAB	0, 2		8 - 10
Micro-surfacing	BOB	0, 2	Wear-out failures	10 - 11
	BOC	0		9 - 15 ²
	BAB	0		8 - 9

¹ NDDOT does not have substrates that have been overlaid with this type of treatment.

² Significant difference observed between two data sets from t-test analysis.

Thank You

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