

Non – Destructive Airport Pavement Testing

Technology Update

Presented to: FAA Working Group

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Branch

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Federal Aviation
Administration

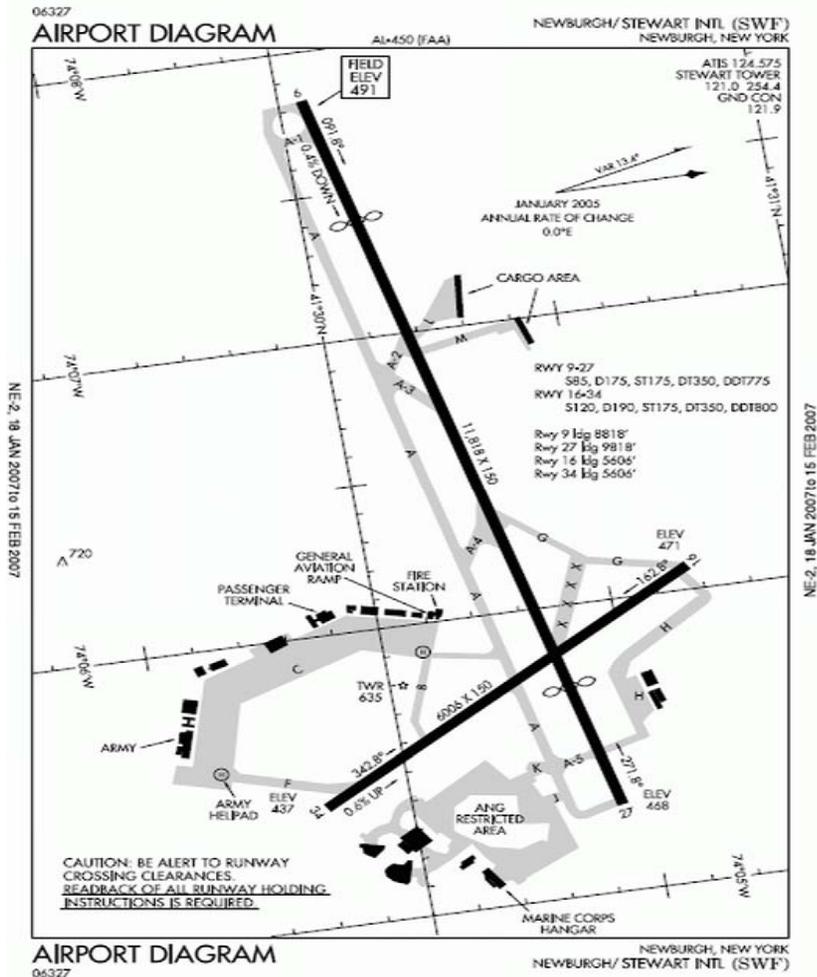


NDT Presentation Outline

- **Pavement Imaging**
- **High Tire Pressure Grooving and Trafficking**
- **Improvements to BAKFAA – J. Davis, SRA**
- **Heavy Weight Deflectometer Roundup
Update to Follow this Presentation – J.
Davis, SRA**



Imaging Pavement at Stewart International Airport

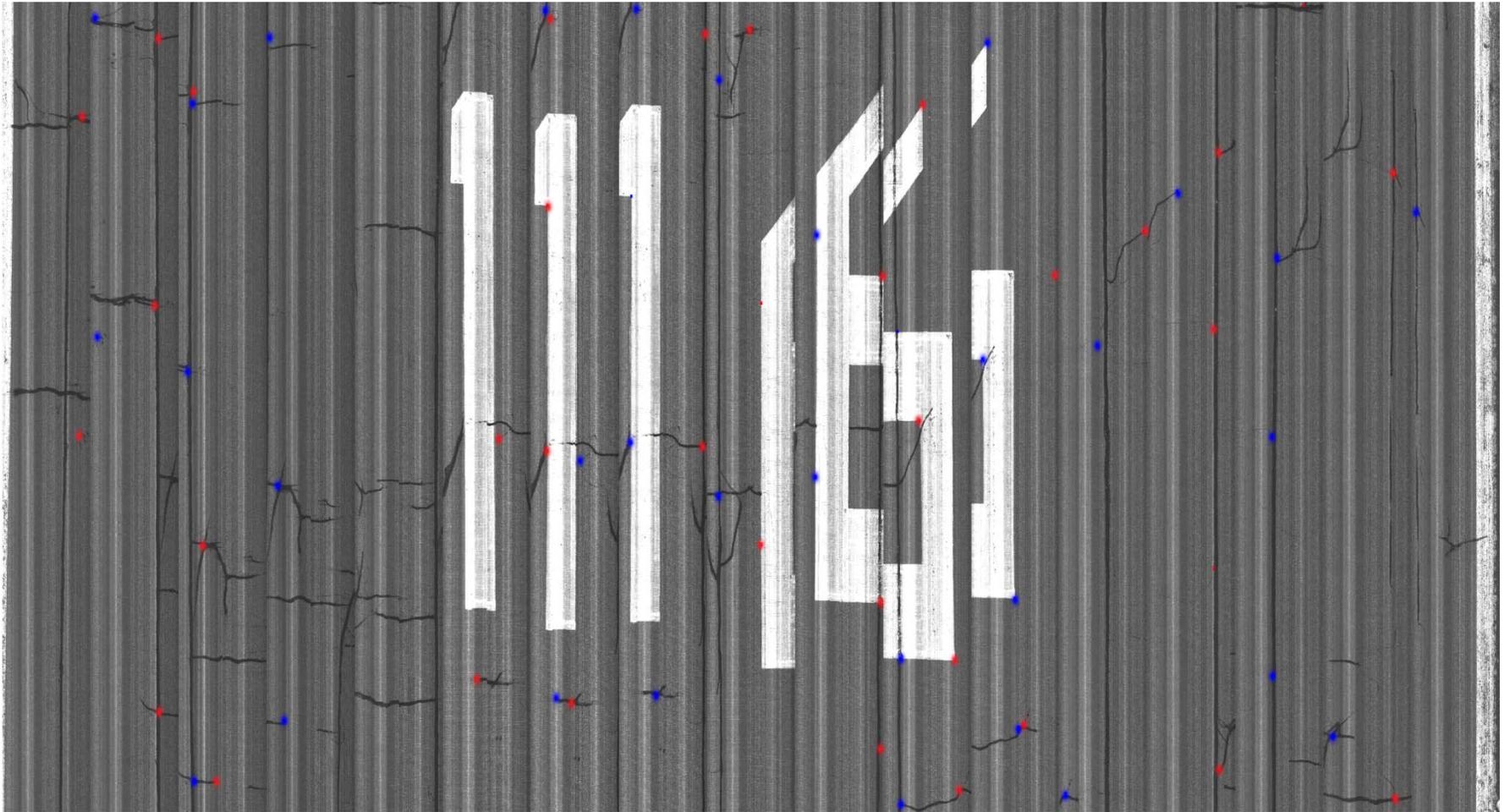


- On July 11, 2012 three representatives from the Tech Center traveled to Stewart to image runway 16 – 34.
- Crosswind runway 16-34 is 6,006 feet long by 150 feet wide.
- This runway is asphalt surface course approximately 18 years old and is scheduled for rehabilitation in 2013.

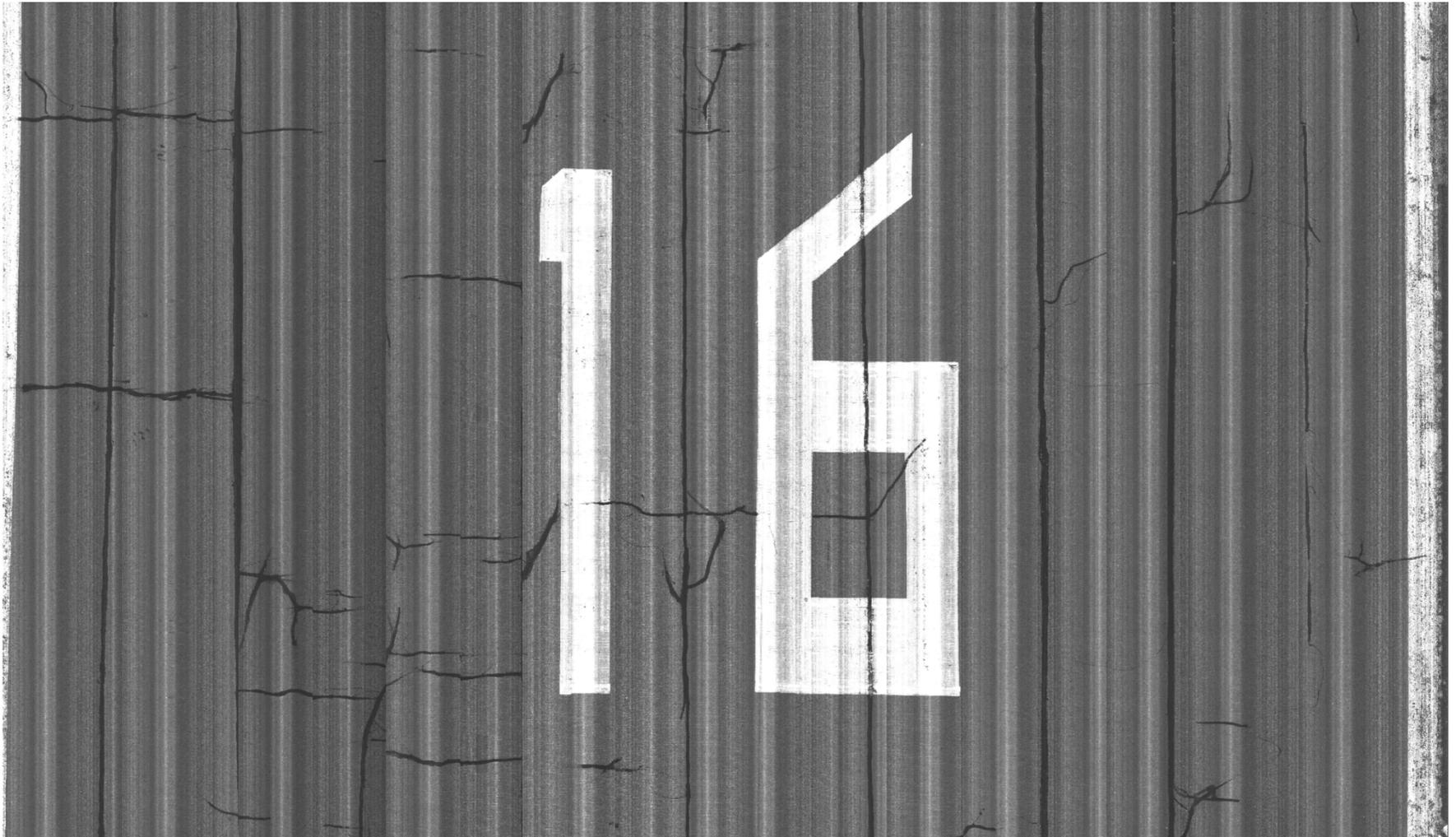
Pavement Imaging at Stewart IAP



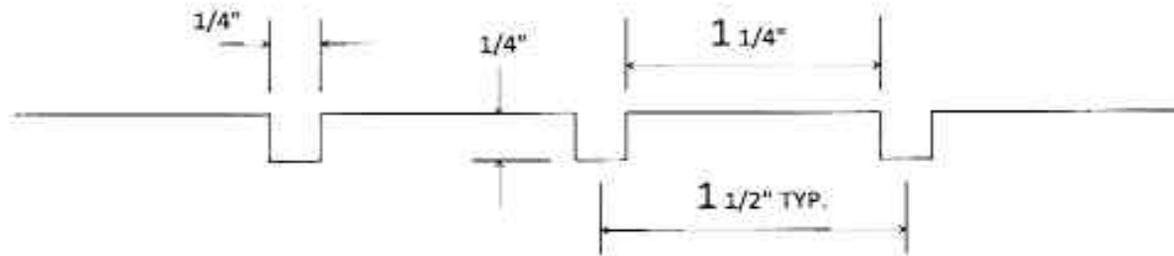
Unstitched Image of Runway 16-34



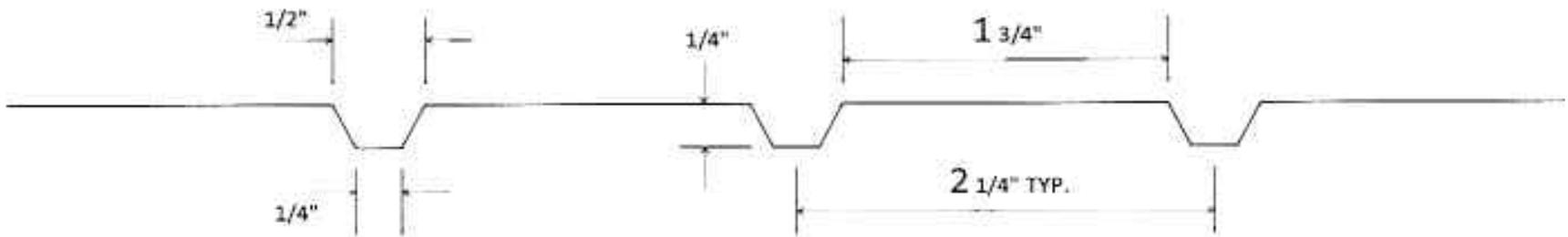
Stitched Image of Runway 16-34



FAA Groove Dimensions



STANDARD FAA GROOVE PATTERN



TRAPEZOIDAL GROOVE PATTERN

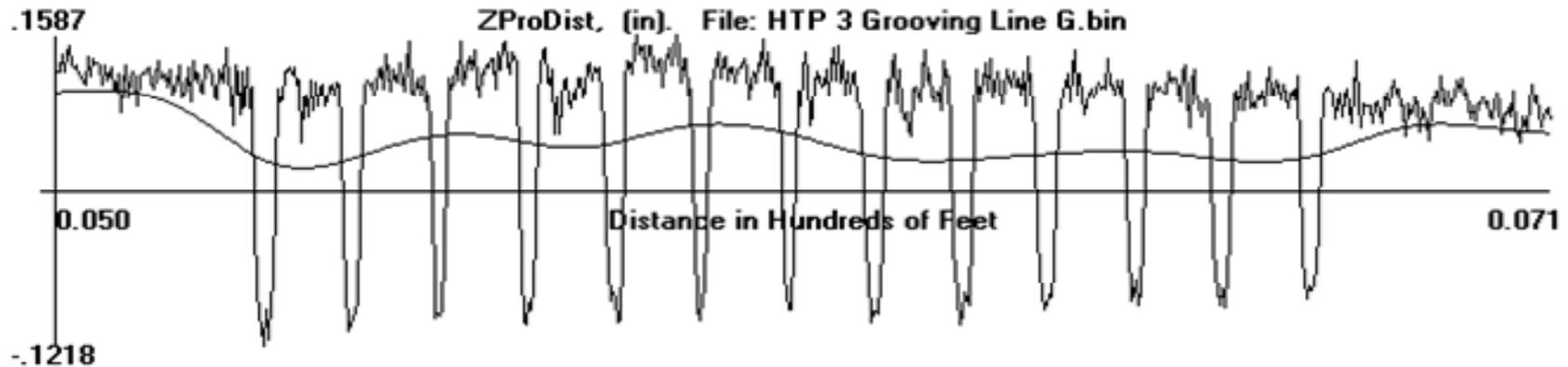
High Tire Pressure Grooves



Unheated Rectangular Grooves

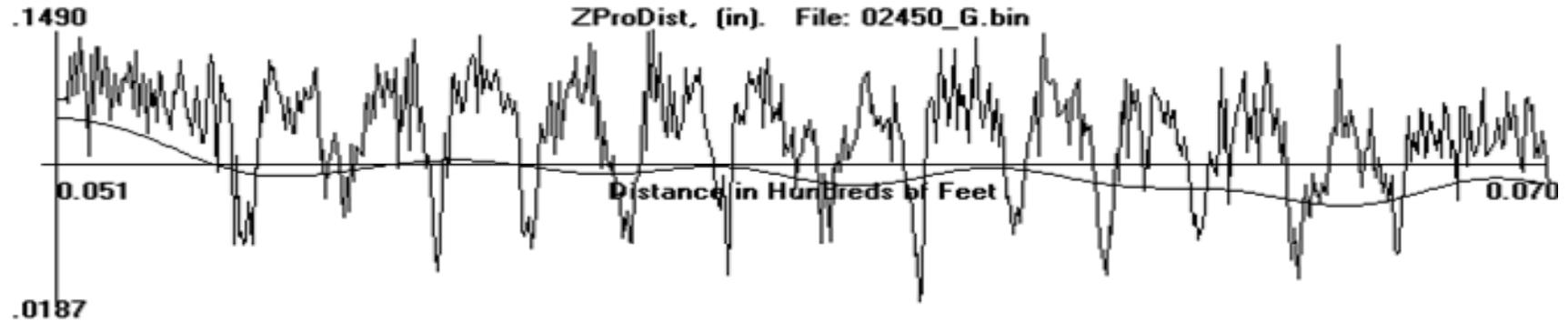
June 6, 2012

0 passes



August 3, 2012

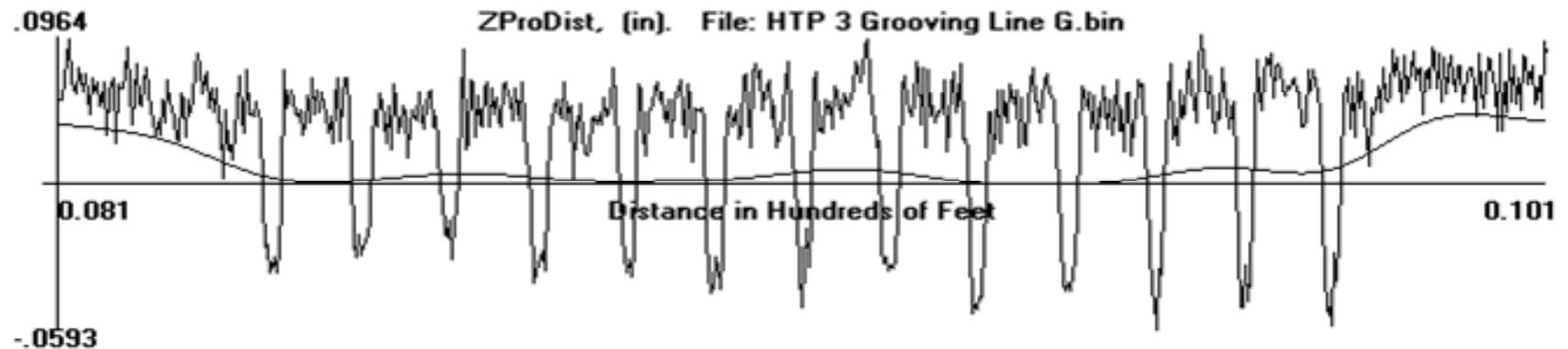
2555 Passes



Heated Rectangular Grooves

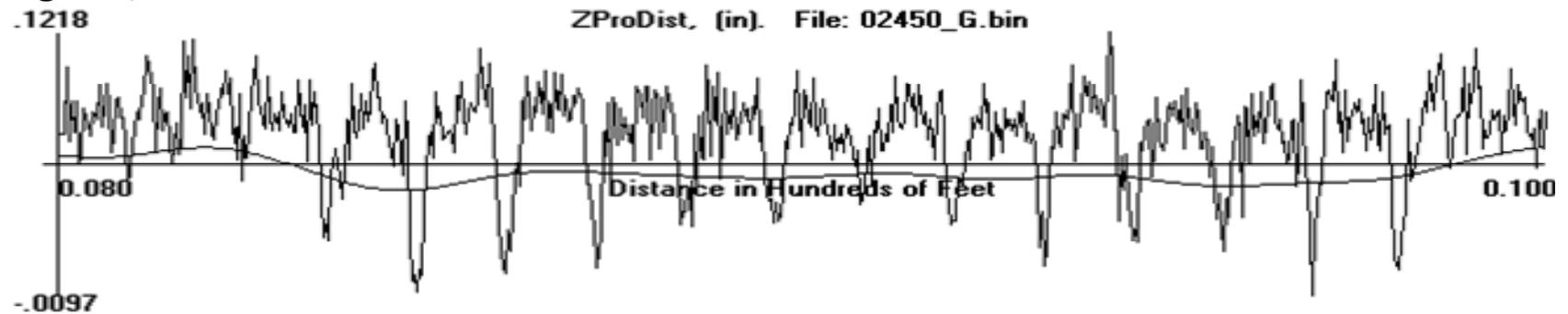
June 6, 2012

0 passes



August 3, 2012

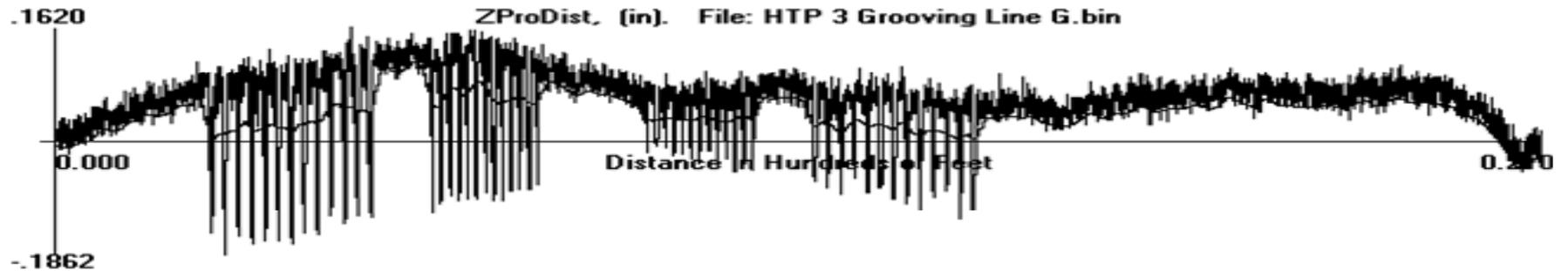
2555 Passes



ProGroove Plot at 0 and 2555 Passes

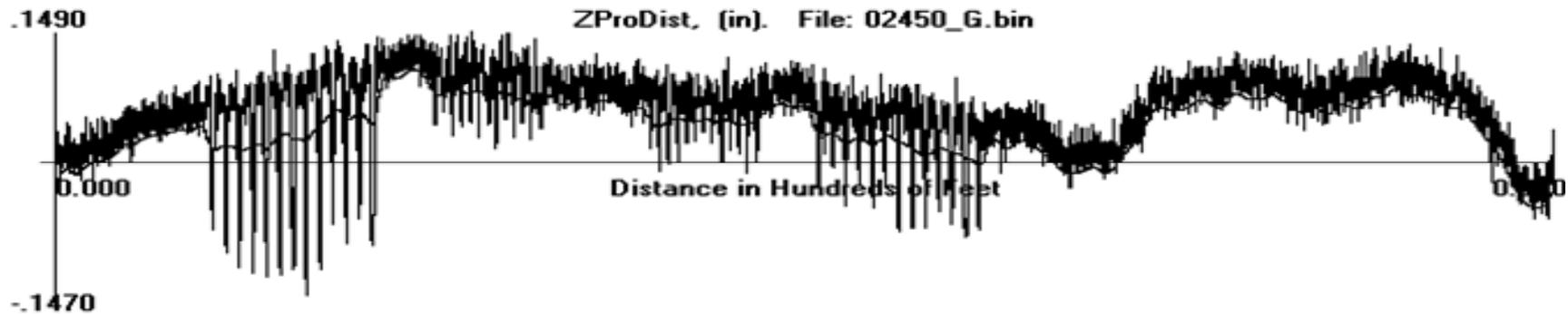
June 6, 2012 Pre – Traffic Grooves

0 Passes



August 3, 2012

2555 Passes



Groove Analysis Summary

Average Depth (in.)

	<u>0 Passes</u>		<u>2,555 Passes</u>	
Unheated Rect.	0.197 in	0.063	$\Delta = 0.134$ in.	(68%)
Heated Rect.	0.1021	0.075	$\Delta = 0.0271$ in.	(26.5%)
Unheated Trap.	0.237	0.180	$\Delta = 0.057$ in.	(24.1%)
Heated Trap.	0.135	0.111	$\Delta = 0.024$ in.	(17.8%)

Note: FAA Groove Deterioration Criteria is 1/8 in loss of width and/or depth. 1/8 in = 0.125 in

