

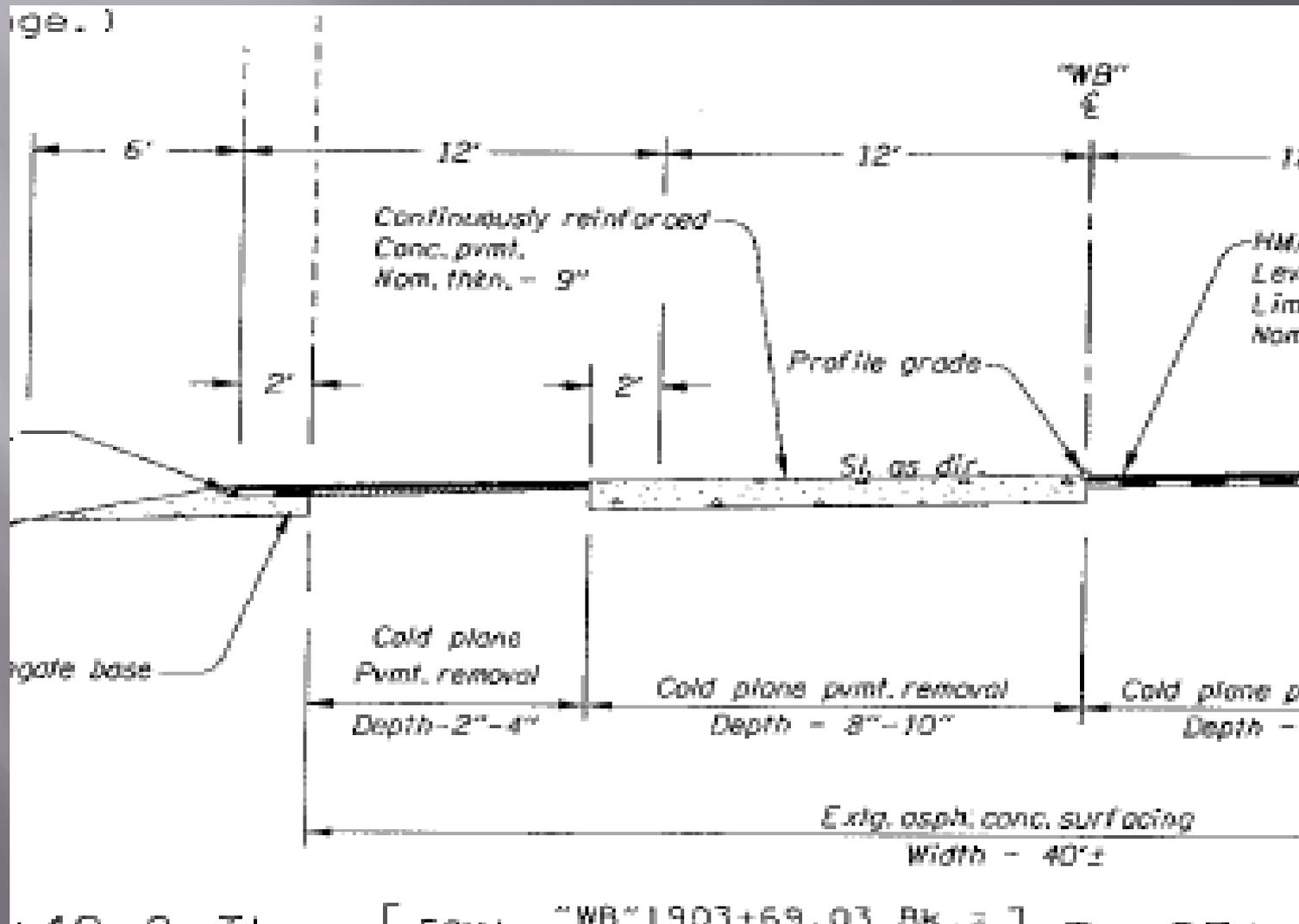
# AMG FOR COLD PLANING & CONCRETE PAVING REGION 5 EXPERIENCE

Mike Remily, PE  
La Grande/Pendleton PM

# AMG for Cold Planing & Concrete Paving

- ▣ Overview of Two Projects
- ▣ Process, Pre Construction
- ▣ Process, Construction
- ▣ Pros & Cons
- ▣ Lessons Learned

# I-84: Baldock Slough - South Baker Contractor - OMP (2011)



# I-84: Baldock Slough – South Baker

- ▣ Control network in bad shape
  - PM office established at 1000 ft
  - OMP surveyor supplemented to 250 ft +/-
- ▣ ODOT supplied model in xml
- ▣ OMP surveyor modified to fit Trimble system

# I-84: Baldock Slough – South Baker

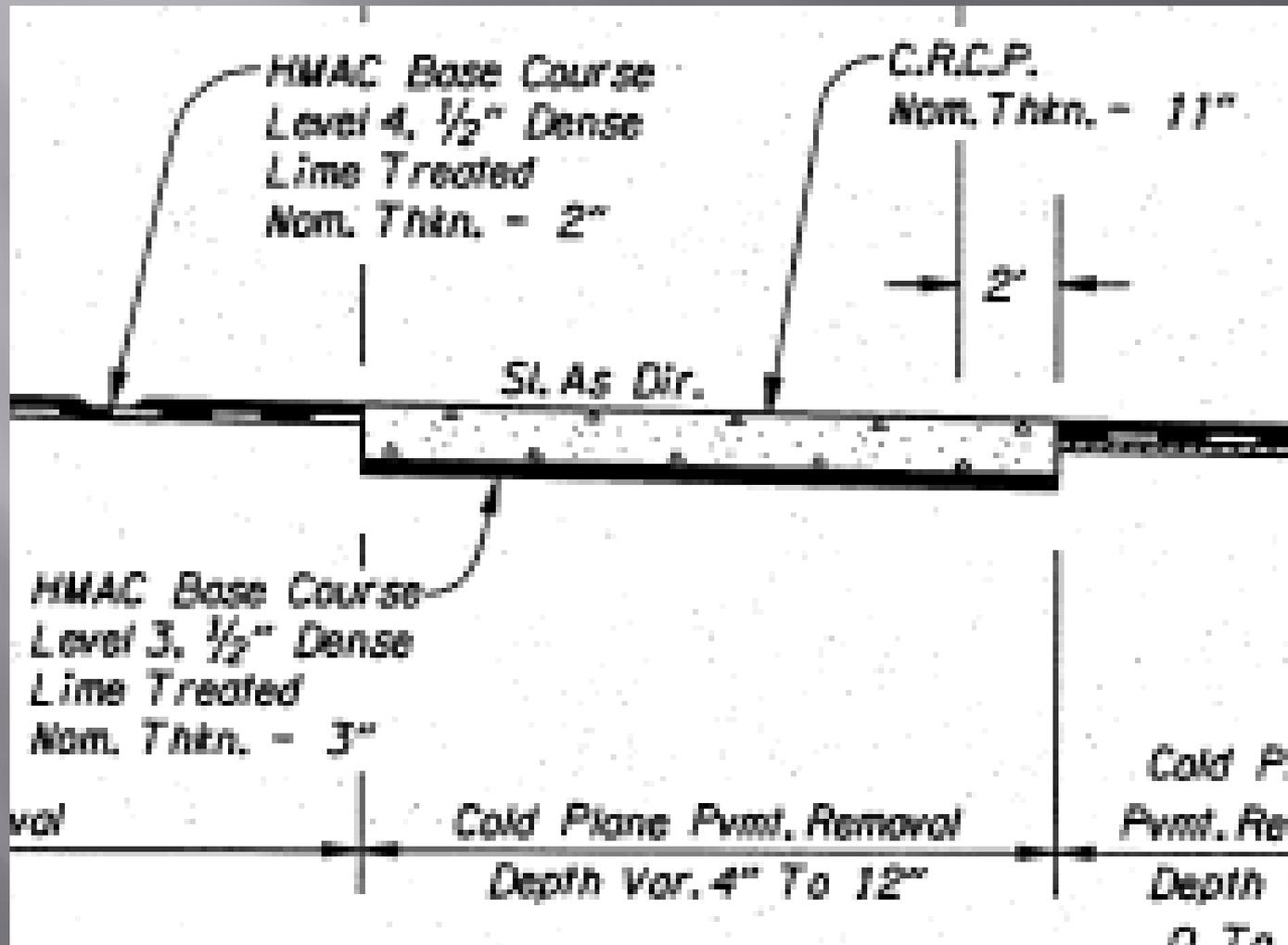
- ▣ PM office not around AMG before
- ▣ AMG used for cold planing
  - Depth only for “bulk” grinding
  - AMG for final pass to grade
  - ODOT checked in typically +/-0.01 ft
- ▣ Wireline used for concrete paving

# I-84: Baldock Slough – South Baker

## Lessons Learned

- ▣ AMG works
- ▣ Control network MUST be solid
- ▣ ODOT needs survey staff to check contractor's work
  - ODOT uses original design surface
  - Check with Contractor early and often

# I-84: Kamela - 2<sup>nd</sup> St (La Grande) Contractor - OMP/CPC (2014-15)



# I-84: Kamela – 2<sup>nd</sup> St (La Grande)

- ▣ OCRS Coordinate System & Control Network in Good Shape
  - PM office supplemented to 1000 ft
  - Contractor surveyor supplemented to 200 ft
  - 5-6% grades, 6 deg curves, up to 10% supers
- ▣ ODOT supplied model in xml
  - Designer designing up to NTP
  - PM Staff x-sections every 50 ft
  - Cleaned up & created new surface (retriangulated)

# I-84: Kamela – 2<sup>nd</sup> St (La Grande)

- ▣ 3 Contractor Surveyors & 2 Modelers
  - OMP, Modeler & 2 surveyors, Trimble system
  - CPC, Modeler & surveyor, Leica system
  - Provided initial “check” on design
- ▣ PM office first experience with “wireless” concrete paving
- ▣ PM survey crew substantial verification

# I-84: Kamela – 2<sup>nd</sup> St (La Grande)

- ▣ OMP – AMG for Cold Planing
  - Depth only for “bulk” grinding
  - AMG for final cut
  - Also used AMG grinder for top of ACP base
- ▣ CPC – AMG for concrete paving
- ▣ PM survey crew substantial verification
  - Within +/-0.02 ft, usually 0.01 ft





G&Z  
guntert.com

**CP**  
CONCRETE PLACING CO.  
www.cpcboise.com

**CP**

11-22

WARNING  
STAY BACK  
200 FEET!

WE ARE NOT  
RESPONSIBLE  
FOR DAMAGES  
OR INJURIES

06.22.2014

10



06.09.2014



06.22.2014

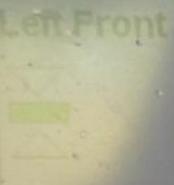
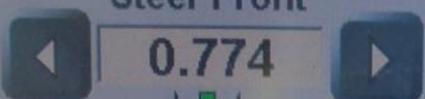
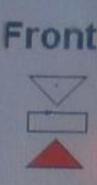


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Steer Offsets

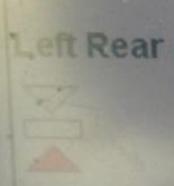
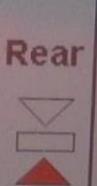
Units: ft./min. %

**Steer Front**

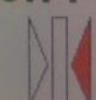
Left Front   Right Front 



0.002

Left Rear (LR)   Right Rear 

**Steer Rear**



-0.030

Station 543+37.08

Speed 0.0

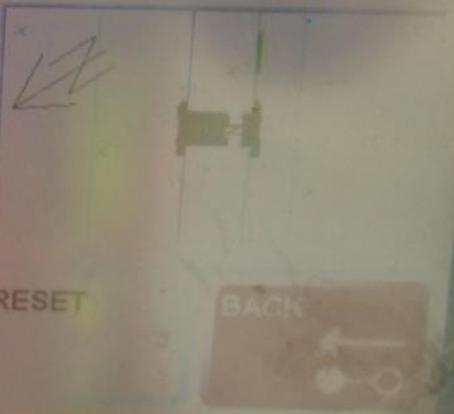
Design Slope -2.0

Next Action ---

Pri 1 

Sec 2 

Slope  



ELEVATION 

TRIM MOLD

RESET

BACK 



AMES EN  
Pavemen

# I-84: Kamela – 2<sup>nd</sup> St (La Grande)

## PROS

- ▣ No wireline
  - Limited workspace
  - Workzone access
  - Time
  - Safety
- ▣ Multiple looks at design models



Oregon Trail  
Visitors Park  
1000 - 1100

FedEx  
LONG LOAD

EXIT 100  
RIGHT

### Power Spectral Density

Analyze Navigate

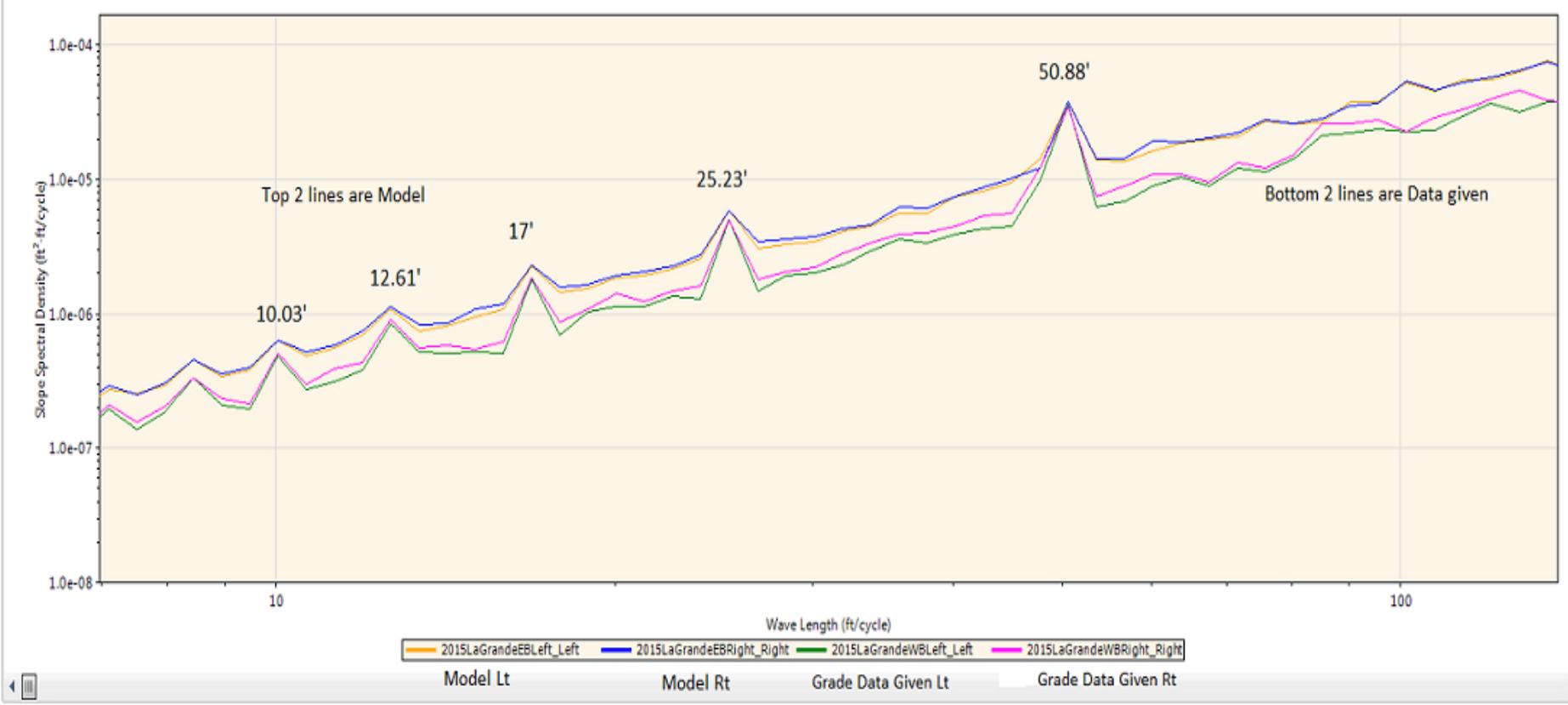
Use Octave Bands

Bands Per Octave:

Constant Frequency Interval (cycle/ft):

File	Profile	Section	Filter
2015LaGrandeEBLeft	<input checked="" type="checkbox"/> Left	Full	None
2015LaGrandeEBRight	<input checked="" type="checkbox"/> Right	Full	None
2015LaGrandeWBLeft	<input checked="" type="checkbox"/> Left	Full	None
2015LaGrandeWBRight	<input checked="" type="checkbox"/> Right	Full	None

Log Scale



# I-84: Kamela – 2<sup>nd</sup> St (La Grande)

## LESSONS LEARNED

- ▣ Model MUST be complete & right
- ▣ Appropriate chord lengths in model
- ▣ Matching at existing bridges
- ▣ Survey checks
- ▣ Communication between modelers & designer

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**OCT 28 2002**