



OREGON DEPARTMENT OF TRANSPORTATION

Research Unit
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SPR Quarterly Progress Report
April 1, 2008 through June 30, 2008

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Date August 5, 2008

TO: Technical Advisory Committee Members:
Rene Renteria, Oregon Department of Transportation
Norris Shippen, Oregon Department of Transportation
Jim Huddleston, Asphalt Paving Association of Oregon
Anthony Boesen, Federal Highway Administration

FROM: Norris Shippen, Research Coordinator (ph: (503) 986-3538)

1. Project

Mechanistic Pavement Design Instrumentation
SPR # 672

2. Key Dates

Start Date for ODOT:
Completion Date for ODOT:

3. Principal Investigator

Todd Scholz
School of Civil and Construction Engineering
100 Merryfield
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Corvallis, OR 97331

4. Progress

- Installed nine strain gages (six longitudinal and three traverse) on the base course of US 97 (Redmond Bypass project). Took strain readings during construction (trucks rolling over the gages with only a thin layer of cold mix protecting them and during compaction of the first lift of HMA). Installed an aluminum box on the side of the highway to house the computer and data acquisition units during data collection. Dug a trench and routed the cables for the strain gages through PVS conduit to the aluminum box.

- Significant work towards automating the data collection process was made by the new OSU lab manager. This involved developing custom electronic circuitry and programming LabView (data acquisition software) to collect the data.

5. Problems

- Nothing significant.

6. Work Planned for Next Quarter

- Install the WIM instruments and axle sensors at the US 97 (Redmond Bypass) project and take initial measurements at the site.
- Continue development of the automated data collection process.
- Instrument another project if one becomes available.

7. Finances

SPR Project Summary

VENDOR	FY'08	FY'09	FY'10	FY11	TOTALS
ORIGINAL BUDGET					\$ -
REVISED BUDGET	\$ -	\$ 48,500	\$ 28,281		\$ 76,781
EXPENDITURES - VENDOR	\$ -	\$ -	\$ -	\$ -	\$ -
BALANCE	\$ -	\$ 48,500	\$ 28,281	\$ -	\$ 76,781

ODOT	FY'08	FY'09	FY'10	FY11	TOTALS
ORIGINAL BUDGET	\$ 87,500	\$ 87,500			\$ 175,000
REVISED BUDGET	\$ 2,205	\$ 3,000	\$ 2,500		\$ 7,705
EXPENDITURES - ODOT	\$ 2,205	\$ -	\$ -	\$ -	\$ 2,205
BALANCE	\$ -	\$ 3,000	\$ 2,500	\$ -	\$ 5,500

PROJECT	FY'08	FY'09	FY'10	FY11	TOTALS
ORIGINAL BUDGET	\$ 87,500	\$ 87,500	\$ -	\$ -	\$ 175,000
REVISED BUDGET	\$ 2,205	\$ 51,500	\$ 30,781	\$ -	\$ 84,486
EXPENDITURES - PROJECT	\$ 2,205	\$ -	\$ -		\$ 2,205
BALANCE	\$ -	\$ 51,500	\$ 30,781	\$ -	\$ 82,281