



OREGON DEPARTMENT OF TRANSPORTATION

Research Section  
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**SPR Quarterly Progress Report**  
July 1, 2009 through September 30, 2009

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Date November 4, 2009

**TO:** Technical Advisory Committee Members:

Matthew Stucker, ODOT  
Jon Rooper, ODOT  
Craig Shike, ODOT  
Steve Soltesz, ODOT  
Tim Rogers, FHWA

**FROM:** Steve Soltesz, ODOT Research Coordinator, Phone: (503) 986-2851

**1. Project**

Near-Surface Mounted CFRPs for Shear Strengthening  
SPR # 712

**2. Key Dates**

Start Date for ODOT:  
Completion Date for ODOT:

**3. Principal Investigator**

Dr. Christopher Higgins  
School of Civil and Construction Engineering  
Oregon State University  
Corvallis, OR 97331 (541) 737-8869

**4. Progress**

- Literature review complete
- Alternative CFRP strip materials identified for NSM application
- Adhesives identified
- Bond testing method using split cylinder test underdevelopment

5. **Problems**

- No significant problems encountered

6. **Work Planned for Next Quarter**

- Prepare summary of literature and identify gaps
- Conduct proof of concept tests for bond evaluation using split cylinder tests
- Compare alternative CFRP materials and adhesives in bond tests
- Arrange TAC meeting to discuss alternatives for specimen design after above proof testing

7. **Finances**

SPR Project Summary

| <b>VENDOR</b>          | <b>FY'10</b>      | <b>FY11</b> | <b>FY'12</b> | <b>FY'13</b> | <b>TOTALS</b> |
|------------------------|-------------------|-------------|--------------|--------------|---------------|
| ORIGINAL BUDGET        |                   |             |              |              | \$ -          |
| <b>REVISED BUDGET</b>  | <b>\$ 187,360</b> | \$ 186,081  | \$ 26,559    |              | \$400,000     |
| EXPENDITURES - VENDOR  | \$ -              | \$ -        | \$ -         | \$ -         | \$ -          |
| <b>BALANCE</b>         | <b>\$ 187,360</b> | \$ 186,081  | \$ 26,559    | \$ -         | \$400,000     |
|                        |                   |             |              |              |               |
| <b>ODOT</b>            | <b>FY'10</b>      | <b>FY11</b> | <b>FY'12</b> | <b>FY'13</b> | <b>TOTALS</b> |
| ORIGINAL BUDGET        | \$102,500         | \$205,000   | \$102,500    |              | \$410,000     |
| <b>REVISED BUDGET</b>  | <b>\$4,000</b>    | \$4,000     | \$2,500      |              | \$ 10,500     |
| EXPENDITURES - ODOT    | \$ 1,879          | \$ -        | \$ -         | \$ -         | \$ 1,879      |
| <b>BALANCE</b>         | <b>\$ 2,121</b>   | \$ 4,000    | \$ 2,500     | \$ -         | \$ 8,621      |
|                        |                   |             |              |              |               |
| <b>PROJECT</b>         | <b>FY'10</b>      | <b>FY11</b> | <b>FY'12</b> | <b>FY'13</b> | <b>TOTALS</b> |
| ORIGINAL BUDGET        | \$ 102,500        | \$ 205,000  | \$ 102,500   | \$ -         | \$410,000     |
| <b>REVISED BUDGET</b>  | <b>\$ 191,360</b> | \$ 190,081  | \$ 29,059    | \$ -         | \$410,500     |
| EXPENDITURES - PROJECT | \$ 1,879          | \$ -        | \$ -         |              | \$ 1,879      |
| <b>BALANCE</b>         | <b>\$ 189,481</b> | \$ 190,081  | \$ 29,059    | \$ -         | \$408,621     |