STATEMENT OF NEED: LED Traffic Signal lamps (TSL) are being used to replace incandescent traffic signal lamps because of the long term cost saving associated with reduced energy consumption.

RESEARCH OBJECTIVES: To verify whether or not current production LED TSLs satisfy the electrical compatibility requirements of the incandescent lamp in traffic signal which allow detection by the signal monitor.

RESEARCH TASKS: Determine normal state impedance; determine failed state impedance and design-identifier data for acceptance testing.

RESEARCH DELIVERABLES: Recommended to use testing method for LED lamps.

RESEARCH RECOMMENDATIONS: A testing procedure is established and LED testing should be carried out.
PROJECT PANEL COMMENTS: LED Traffic Lamps are comparable to Incandescent lamps and will provide a service lifetime in excess of five years.

IMPLEMENTATION STEPS & TIME FRAME: None

EXPECTED BENEFITS: None

EXPECTED RISKS, OBSTACLES, & STRATEGIES TO OVERCOME THEM: N/A

OTHER ODOT OFFICES AFFECTED BY THE CHANGE: N/A

PROGRESS REPORTING & TIME FRAME: N/A

TECHNOLOGY TRANSFER METHODS TO BE USED: The final report has been posted on the ODOT Office of Research & Development website and the hard copy of this report was distributed to other national libraries.

IMPLEMENTATION COST & SOURCE OF FUNDING: N/A

Approved By: (attached additional sheets if necessary)

Office Administrator(s):
Signature: ___________ Dave Holstein Office: Traffic Engineering Date: __6/2/2006______

Division Deputy Director(s):
Signature: ___________ Tony Vogel Division: Highway Operations Date: __6/2/2006______