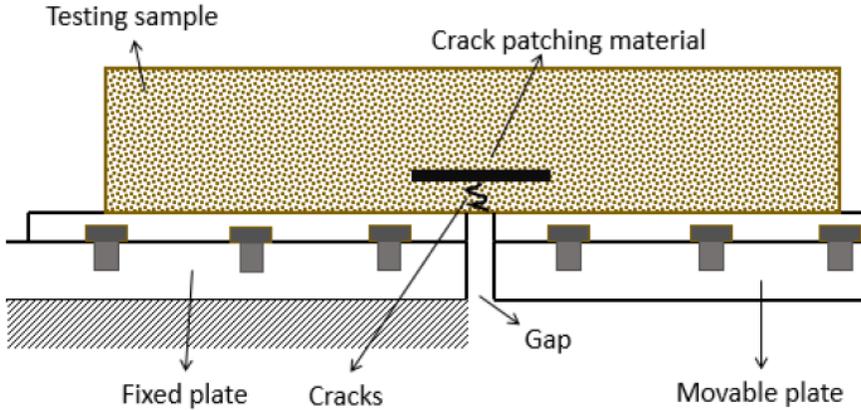


UTC Project Information	
Project Title	Performance of Tencate Paving Fabrics in Asphalt Concrete Pavements
University	University of Alaska Fairbanks
Principal Investigator	Jenny Liu
PI Contact Information	Jenny Liu, Ph.D, P.E. Professor, Department of Civil and Environmental Engineering University of Alaska Fairbanks Fairbanks, AK 99775-5900 Tel: 907-474-5764; Fax: 907-474-6030 Email: jliu6@alaska.edu
Funding Source(s) and Amounts Provided (by each agency or organization)	CESTiCC: \$60,020 Tencate:\$34,150
Total Project Cost	\$94,170
Agency ID or Contract Number	1510
Start and End Dates	August 16, 2015 – August 15, 2017
Brief Description of Research Project	Paving interlayers have been used in asphalt overlays in a variety of design and construction situations for more than three decades. A recent project conducted by researchers from University of Alaska Fairbanks (UAF) identified a number of engineering benefits of using various types of paving fabrics in AC pavements. Further, preliminary field evaluation of test sections reinforced with paving interlayers showed better performance than the control section. However, there is a concern whether interlayers can continuously perform well in the long run. Thus there are needs for more years of field monitoring and evaluation. In addition, the UAF research team continues the paving fabric research by introducing two new products, modified Mirapave and PGM30, which are developed by Tencate and designed to be placed over a pavement crack only with/without overlay paved above. This new technique needs laboratory evaluation to verify its feasibility for pavement crack mitigation. Therefore, the objectives of this study are to: 1) further evaluate the performance of paving interlayer-reinforced AC pavements in Alaska through two more years' field monitoring; and 2) investigate the effects of modified Mirapave and PGM30 on mitigating cracking distress for roadways through laboratory tests.
Describe Implementation of Research Outcomes (or why not implemented)	Upon completion, anticipated research outcomes will include: 1) the engineering properties of asphalt mixtures with modified paving interlayers; and 2) field performance data of paving interlayer reinforcement in preservation/rehabilitation of AC pavements. The results will be compared and correlated with those from the previous project and recommendations will be provided for use of paving fabrics in preserving and repair Alaskan AC pavements. Proposed technology transfer activities will include: 1) periodic presentations of project updates to the sponsors; 2) a comprehensive technical report to the research sponsors, 3) publication of technical articles in peer-reviewed

journals, and 4) presentation of research findings in classes, professional meetings, workshops, and Center website.

Place Any Photos Here



Impacts/Benefit of Implementation (actual, not anticipated)

The proposed research will address the theme of the CESTiCC on advancing innovative sustainable materials and design for transportation infrastructure use in cold regions. Expected benefits will be increased durability and sustainability of transportation infrastructure by use of innovative paving fabrics to further enhance crack resistance of AC pavements. Cost savings in terms of the State highway construction and maintenance budgets as well as user costs in delays and accidents can be achieved associated with the reduced need for pavement repair/rehabilitation.

Web Links

- Reports
- Project website