

## **JANUARY 2007 MEETING**

Wednesday, January 10, 2007

### **TECHNICAL PROGRAM**

#### **Geosynthetic Subsurface Drainage Systems for Pavements**

*Speaker:* [Gregg S. Williams](#) of [Contech Construction Products Inc.](#), Houston TX., Tel. 281-893-6012.

#### **PRESENTATION SUMMARY**

To a room of about 35, Gregg Williams, a geosynthetic specialist for Contech Construction Products Inc. with 25 years of experience in the geosynthetic industry and a Bachelor of Science degree in Civil Engineering from Texas A&M University gave a slide presentation entitled, "Geosynthetic Subsurface Drainage Systems for Pavements".

According to Mr. Williams, the primary cause of distress in pavements is moisture, saying, "If it does not drain, it is not a road." He said if the pavement remains wet just 10 percent of the time, the design life is reduced to half. Specifically, standing water on pavement leads to joint faulting which leads to joint deterioration, which leads to loss in bearing capacity, which then leads to pavement failure.

Mr. Williams said that since 1993, AASHTO has included drainage as part of the pavement design equations. This opened up a market for his company's geosynthetic drainage membranes, which have now been in use for 10 years. He presented a geosynthetic membrane called, "Tri-Planar", an HDPE mat sandwiched between two layers of loosely woven polypropylene. The membrane is laid just below the base course with a slope toward the pavement edge where a French drainage type system is installed to move the water away from the pavement.



Mr. Williams said that a normal discharge volume with this Tri-Planar system is about 15 gallons/minute/ft roadway during some months. Mr. William's company sells about 10 million SF/year and the material cost is around \$1/SF. To download Mr. William's slide presentation, [click here](#)

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