


GEOGRID STABILIZATION BASICS

2016 North Central Regional Local Road Conference


Tensar International Corporation
 Nick Nuttbrock – Sioux Falls, SD
 Scott Whaley – Bismarck, ND




AGENDA



- Geogrid Mechanisms in Roadway Applications
- Design Methodologies/Usage Protocols
- Roadway Applications



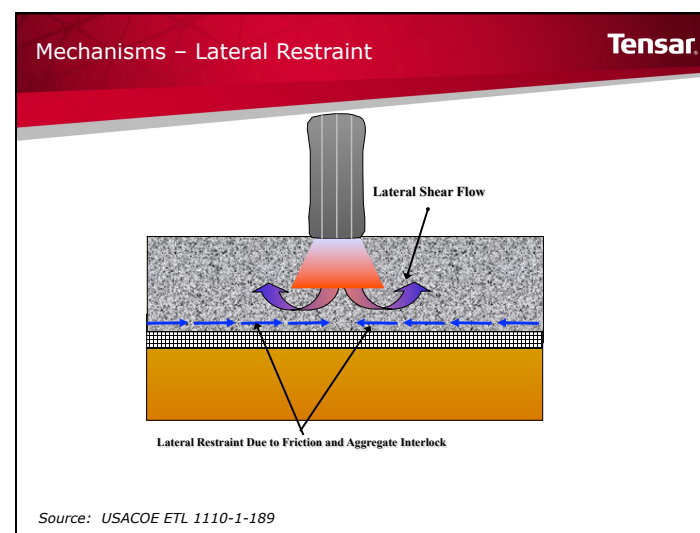
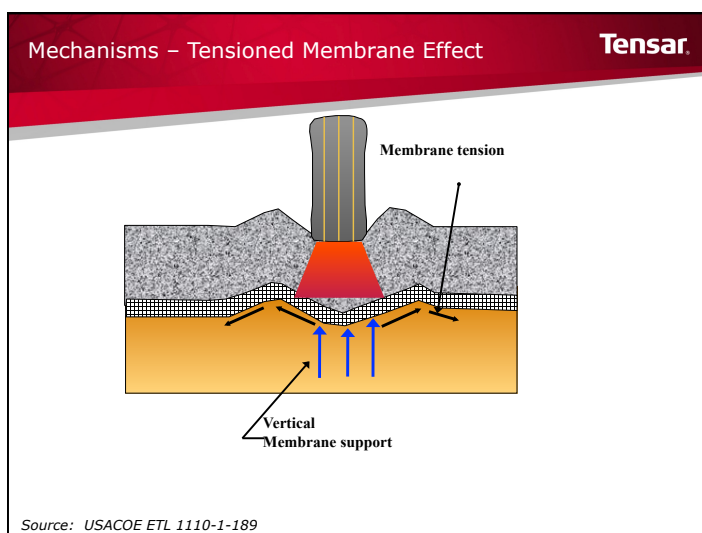
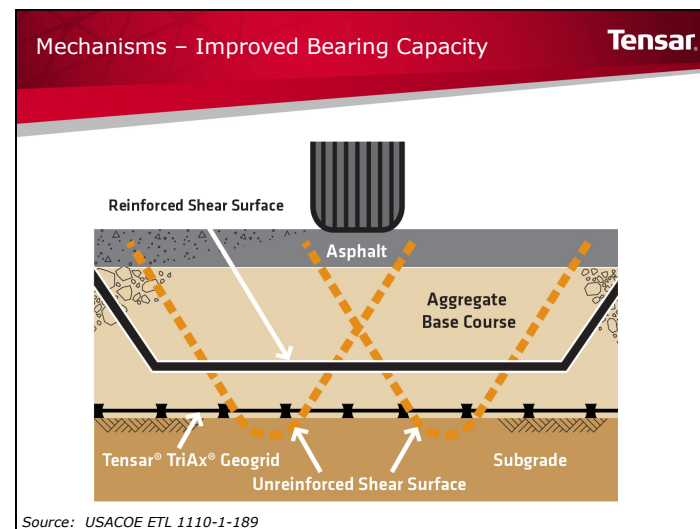
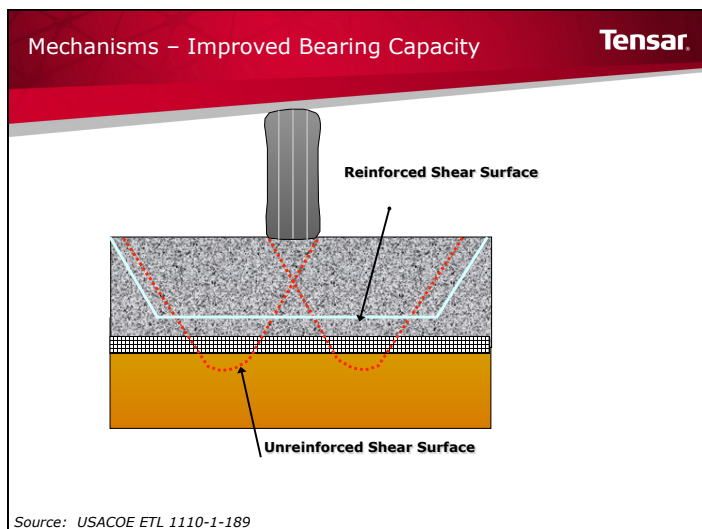
Geogrid Mechanisms in Roadways

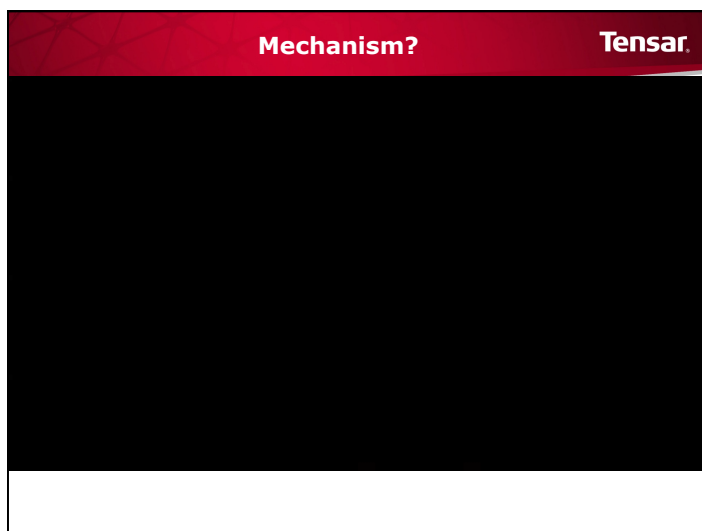
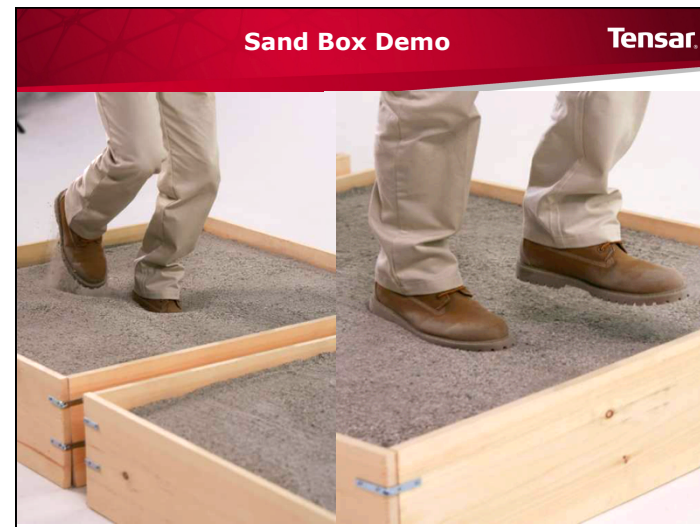
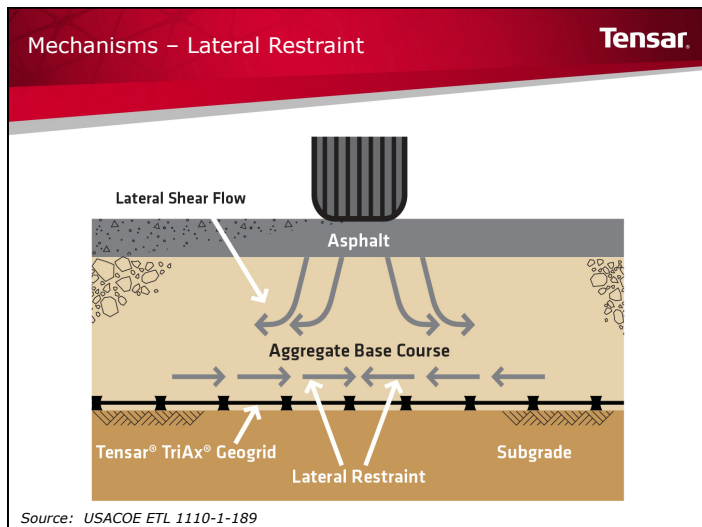


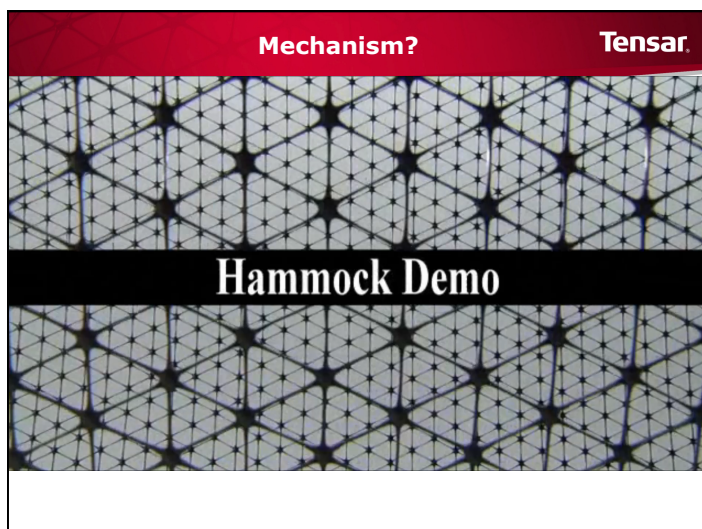
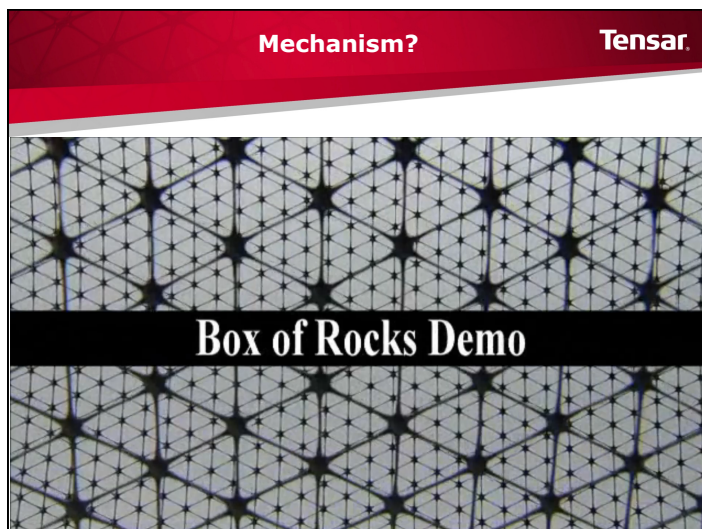
Prizes?



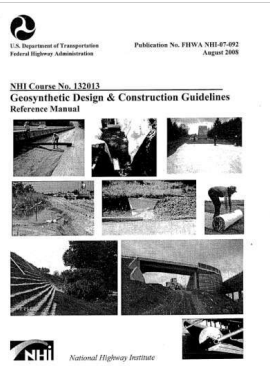






FHWA Geosynthetic Design and Construction Guidelines
Tensar



- Updated in 2008 to include a section on Geogrids
 - Chapter 5 – Geosynthetics in Roadways and Pavements
 - Explains mechanisms
 - Endorses geogrid - subgrade improvement / base reinforcement applications
- Design Methods/Usage Protocols
 - AASHTO R50-09 (2009) – Empirical: Paved
 - Giroud-Han (2004) – Serviceability Method: Unpaved / Working Platform
 - Gravel Roads Manual / SDLTAP



Geogrid Applications in Roadways



Roadway Applications
Tensar

- Reduce undercut
- Decrease section thickness
- Replace chemical stabilization
- Fortify a typical section

- Lower construction cost
- Improve reliability
- Avoid buried utilities
- Account for the unexpected
- **BUILD BETTER ROADS**

