

## Committee on Repurposing Plastics Waste in Infrastructure

### Information Gathering Session #9

Web-meeting via Zoom

#### Agenda

November 18, 2022

11:00am-2:00pm Eastern Time

#### Meeting Purpose

Gather information on applications and research of the use of recycled plastics in asphalt pavements and polymer and composite marine pile and lumber applications.

#### OPEN SESSION

- 11:00 am      **Opening Remarks and Introductions**  
➤ David Dzombak, *Committee Chair*
- 11:05 am      **Compatibilization of Waste Plastic to Enhance Mechanical Properties of Asphalt Cement**  
➤ Andrew Peters, *Louisiana Tech*  
➤ Nazimuddin "Wasi" Wasiuddin, *Louisiana Tech*
- 12:15 pm      **Panel on Polymer and Composite Marine Piles and Lumber**  
*The panelists will provide a 20-minute presentation. The briefings will be followed by Q&A.*
- Marine Piles and Lumber  
➤ Marc Hollahan, *Tangent Materials*  
➤ Thomas Spear, *Schrader Co.*
- Research on Composite and Plastic Lumber  
➤ TBD
- 1:30 pm      **Adjourn Open Session**

## Presenter Biographies

### Andrew Peters



Dr. Peters is an assistant professor in Chemical Engineering at Louisiana Tech University. His research focuses on structural, thermodynamic, and dynamic phenomena in ordered soft matter systems using advanced simulation methods. The fundamentals of block copolymer phase separation and polymer dynamics are applied to facilitate nanoscale control in various contexts. He also has applied projects in thermoset shape memory polymers for 3D printing, plastic modified asphalt, and nanoscale hydrogels.

He earned his doctorate in chemical engineering at the Georgia Institute of Technology with Professor Clifford Henderson, where he investigated diblock copolymer phase separation and directed self-assembly using coarse-grained molecular dynamics models. After leaving Georgia Tech, he was a postdoctoral associate at the University of Minnesota where he studied chain exchange and relaxation times in micelle forming triblock systems with Professor Timothy Lodge

### Nazimuddin “Wasi” Wasiuddin



Dr. Wasiuddin is a Professor in the Department of Department of Civil Engineering at Louisiana Tech University. His research interests includes Rheology of Emulsions and Polymer Modified Asphalt Binders, Asphaltic Surface Treatments, Physico-Chemical Characterization of Asphalt Materials.

**Marc Hollahan**



Marc Hollahan is Product Manager for SeaPile™ and SeaTimber™ at Tangent Materials. Mr. Hollahan has been in the recycling industry for over 18 years, having founded and owned EcoSteel, a steel recycling company in 2005, before working with Bedford Technologies and now Tangent. Tangent manufactures hundreds of sizes and styles of extrusions, including structural lumber engineered with a focus on specific applications for customers from bridge fendering systems to marine pilings and more.

**Tom Spear**



Mr. Spear is Owner/CEO of Schrader Co Sales LLC and manages a team of five that includes a European Sales Manager/Korean Sales Manager and East Coast Sales Manager. Schrader Co Sales LLC was founded in 2005 and for the last 17 years has been one of the leaders in providing “Safe Berthing” materials to the industrial marine community. Schrader Co Sales LLC proudly works for and with over 15 different companies who manufacture and sell into this industry. In addition to all major and small Ports in the United States, Schrader also provides materials to the Navy, Coast Guard, Army Corp of Engineers as well as both Alaska Marine Highway and Washington State Ferries.