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**Professional Opinion 18-09
W-Beam to Concrete**

**Roadside Safety Pooled Fund
Engineering Support/Professional Opinion Project**

Prepared by:

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January 2021

Professional Opinion 18-09: W-Beam to Concrete

Pennsylvania Department of Transportation (PennDOT) submitted a detailed drawing (see PennDOT RC-58M, Sheet 3) of a strong post guide rail to concrete precast barrier transition for review under the Roadside Safety Pooled Fund Engineering Support/Professional Opinion project. PennDOT has asked TTI researchers if the transition from strong post guide rail to their proposed precast barrier designs are MASH TL-3 compliant. Due to a lack of previous testing performed on this system or similar systems, TTI researchers could not provide a professional opinion answering this question. TTI researchers believe that detailed Finite Element (FE) simulation analysis and/or crash testing is required to investigate the MASH compliance of this transition system. Therefore, TTI researchers suggest the development of a Research and Development project to properly address the submitted question from PennDOT regarding the strong post guide rail to concrete precast barrier transition.