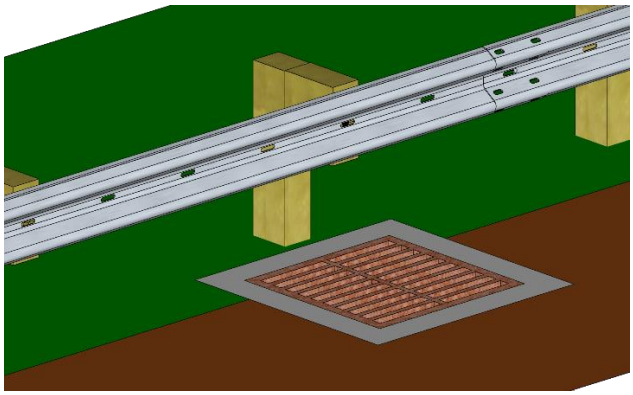
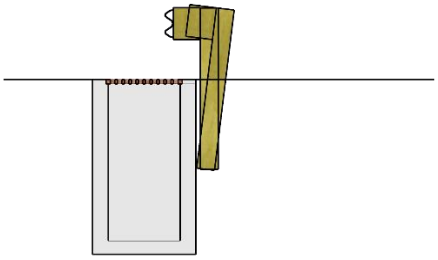
Roadside Safety Pooled Fund

Research Problem Statement

Project Title:	**Placement of Underground Obstruction by Posts (**2023-03-LSRB**)**
Project Synopsis:	Beam Guard posts occasionally need to be placed close to underground obstruction. When does the placement of an underground obstruction interfere with post operation?  
Project Goal(s):	1.) How close an object can be to a beam guard post without interfering with post operation? 2.) Is there a different offset depending on which side of the post the underground obstruction (impact side, backside, left, right)? 3.) Is there a different post responses depending on elevation of underground obstruction?
Project Background:	Occasionally utilities, drainage features are placed close to beam guard posts. Some examples are: • A utility may run parallel with a beam guard installation. • A pipe may intersect a beam guard run. • An inlet may be close to a post.
Proposed Work Plan:	1.) Task 1 -- Literature 2.) Task 2 – Computer modeling of different underground obstruction 3.) Task 3 – Bogie testing 4.) Task 4 – Calibrated simulations
Deliverables:	1. A range of offsets from difference post faces to underground obstruction that will not interfere with beam guard operation. 2. Approximate force imparted at a given distance from post.
Urgency and Expected Benefit:	States will have a better understanding of how close underground obstructions can be to a post. States can provide information to a utility what forces will be imparted to their equipment at a given offset.
Problem Funding and Research Period:	**Total Estimated Cost = $XX,XXX**

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