



# CASE STUDY



## HULCHER SERVICES ENGINEERS SOLUTION TO REUSE RAIL FOR GRADE STABILIZATION

### Scope

The railroad was concerned about a 100-foot stretch of track along a highway where the embankment was crumbling into the road. They quickly determined that grade stabilization was needed, and proposed a unique solution: they would use pieces of recycled rail to stabilize the soil rather than invest in new H-beams or sheet pile.

The railroad looked to Hulcher Services to assist with this unconventional approach to lift and drive recycled rail.

### Solution

Hulcher's operations team engineered a modification to their pile driver unit to allow it to pick up and drive the recycled rail. After testing to ensure the modification was effective, Hulcher's pile driver began work on the right-of-way. Because this stretch had a high volume of train traffic, the Hulcher crew communicated frequently with the railroad, driving pile when the track was not in use and clearing the right-of-way prior to each train's approach.

### Outcome

Over a period of seven days the crew drove more than 1,600 feet of rail into the ground, stabilizing the hillside beneath the right-of-way. With the ground stability restored, the hillside was safer for train and motorist traffic alike.

The railroad reduced their project costs significantly by reusing pieces of rail they already owned rather than investing in new sheet pile. This project also supported the railroad's green program by reusing more than 38 tons of steel rail.



### KEY FACTS

**PROJECT SUMMARY:** Stabilize hillside between right-of-way and highway.

**RECYCLING RAIL:** Railroad wanted to use existing rail stock instead of H-beams or sheet pile.

**INNOVATION:** Hulcher modified their pile driver to drive rail into the hillside.

**RESULTS:** Hillside stabilized to improve train and motorist safety; railroad saved money and supported its green program by reusing old rail.

