

# PROJECT SPOTLIGHT: AGRICULTURAL COUNTY ROAD

## *Unpaved Road Stabilization - NaturalPave*

|                                              |                                                                          |                                                           |
|----------------------------------------------|--------------------------------------------------------------------------|-----------------------------------------------------------|
| <b>140%</b><br>Improvement in<br>Initial CBR | <b>115%</b><br>CBR Improvement<br>Maintained After<br>Freeze-Thaw Cycles | <b>&gt;90%</b><br>Reduction<br>in Required<br>Maintenance |
|----------------------------------------------|--------------------------------------------------------------------------|-----------------------------------------------------------|

### CHALLENGES

- Heavy agricultural traffic (100–250 trucks/day during peak season) generated high dust levels, accelerated surface degradation and substantial aggregate loss.
- The road's profile, with adjacent farmland at higher elevations, created drainage and ponding issues, leading to rutting and soft spots.
- Limited county resources made frequent grading and repairs unsustainable.

### SOLUTION

- Placed a 2" layer of base course aggregate on top of the existing road surface to improve the in-place material's engineering characteristics.
- Stabilized the upper 4" of the road with Midwest's Soil Sement Engineered Formula®.
- Contracted a third-party engineering firm to conduct independent assessments and testing to validate the performance of the stabilized road.

### RESULTS

- **140% Increase in Initial Load-Bearing Capacity:** Delivered reliable support for heavy agricultural vehicles year-round.
- **Maintained Strength Through Freeze/Thaw Cycles:** Maintained a 115% increase in bearing strength through multiple freeze-thaw cycles, planting seasons, and harvest operations.
- **Improved Durability and Safety:** Substantial decrease in fugitive dust emissions, surface degradation, and aggregate loss.
- **>90% Reduction in Maintenance Activities:** Minimal maintenance work has been required on the stabilized road – allowing the PWD staff and resources to address other maintenance needs.



### PROJECT BACKGROUND

**Product:** Soil Sement Engineered Formula®

**Location:** Oregon

**Industry:** County Roads

**Customer:** Public Works Department

The Public Works Department (PWD) is responsible for maintaining all county roads and bridges, which includes managing roughly 1,200 miles of unpaved roads. Funding for the Road Department comes from sources such as gas taxes, vehicle registration fees, and local timber harvests. However, with timber sales dropping in recent years, the County has shifted into a maintenance-focused approach and is always seeking new opportunities to improve infrastructure. Midwest's Soil Sement Engineered Formula® offers an economic alternative to traditional paving while delivering the performance needed to support agricultural and pedestrian traffic.

### LOOKING FORWARD

The success of this county road stabilization, using Soil Sement Engineered Formula®, provides the foundation and sound engineering data for expansion to other unpaved roads within the County and similar regions. Continued collaboration between Midwest Industrial Supply, county engineers, and independent engineering firms will ultimately help increase sustainability, reduce costs, and improve performance.