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FULL DEPTH RECLAMATION SUCCESS STORY

Cook County Saves Approximately 50% with FDR

Cook County needed to rebuild 2 miles of deteriorating roadway, representing 27,000 square yards of road surface in the city of Orland Park. The existing pozzolanic base was rigid and contributing to reflective cracking, which meant that a simple asphalt overlay would not provide the best long term outcome.

- 45-55% Cost savings over mill, remove, and replace
- Hauling was reduced by 98-99%
- Reused/recycled 27,000 square yards of material
- 4 days to complete compared to 5-10 days using conventional methods

BACKSTORY:

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PROBLEM:

Facing costs upwards of $800,000 to remove and replace the roadway, the city was anxious to find a more suitable and effective solution to address repairing the entire pavement cross section.

SOLUTION:

After consideration of all the available options, full-depth reclamation was chosen over a more traditional remove and replace approach because it meant that deep, underlying pavement problems could be resolved and structural performance targets met at a fraction of the cost.

The result was a significantly shorter project timeline, taking only 4 days to complete compared with 5-10 days for traditional methods, and a savings of between $310,000-$428,000, 45-53% of the cost of the original remove and replace specifications. In total, Full-Depth Reclamation required only 17 semi-truck loads of material to be hauled on-site, compared with 1,198-2,538 loads of material that would have been needed if traditional methods had been employed.

Core samples of the pavement were obtained to perform mix designs that addressed the challenges of the inconsistent subgrade and varying pavement width. Throughout the project, the contractor employed quality control processes that included having field representatives on-site, performing moisture content and field density testing to ensure all structural property targets were verified upon completion of construction.

PHOTOS: