



#### CASE STUDY

## Illinois State Toll Highway Authority I-294 Project

### BACKGROUND

The Illinois State Toll Highway Authority (ISTHA) is responsible for building, operating, and maintaining all toll roads in the state of Illinois - covering a total of 294 miles of tollways in 12 counties of Northern Illinois. Historically, ISTHA has always used lime kiln dust (LKD) on their projects.

### THE CHALLENGE

With consistently wet soils and rigorous compaction standards to meet, chemical stabilization was required to keep the project on time and up to specification. Tollway projects have a need for lower dust, so pulverized quicklime proved to be the best product for this project of roadway widening and bridge reconstruction on I-294.

### SOLUTION

The contractor, Bedrock Stabilization, recommended pulverized quicklime to ISTHA due to the reduced dust during application and their historically great results and experience with pulverized quicklime. Bedrock Stabilization worked diligently to ensure proper application and compaction onsite and was satisfied with the results. For this project, pulverized quicklime was the best product for the job.

#### PROJECT OVERVIEW

### ILLINOIS STATE TOLL HIGHWAY AUTHORITY I-294



**Construction  
Modification & Stabilization  
Dose Rate: 2.5% – 3%**

- Illinois State Toll Highway Authority was tasked with a roadway widening and bridge reconstruction job
- Pulverized quicklime was the best option for the job due to reduced dusting in a high traffic area
- The contractor was able to achieve high compaction to meet specification

## IMPLEMENTATION

Pulverized quicklime was delivered by pneumatic trucks and placed into spreader trucks for application. The approximate application rate was 2.5% - 3% by dry weight of the sediment and soil.

## RESULTS

The contractor was able to achieve high compaction and moisture reduction to meet tollway specifications thanks to pulverized quicklime.

**The ISTHA is very satisfied with the results and excited for possible future projects using pulverized quicklime.**



Aerial view of the I-294 job



The contractor, Bedrock Stabilization, laying the pulverized quicklime

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**THIS TOLLWAY PROJECT HAS REALLY IMPRESSED EVERYONE WITH THE PULVERIZED QUICKLIME THAT WE USED. IT WORKS GREAT, WAS A PERFECT FIT FOR THIS PROJECT, AND TESTING PROVED THAT STRENGTH GAINS WERE EVEN GREATER THAN WHAT WE HAD ANTICIPATED.**

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-Christopher Hogan,  
Bedrock Stabilization