



ABOUT THIS PROJECT

PROJECT NAME: Best Practices for Joint Sawing

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PROJECT CHAMPION:

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RESEARCH IN PROGRESS

Modernizing guidance for sawing concrete pavement joints

Joint sawing is a critical part of concrete pavement construction because it has a significant impact on concrete pavement performance and service life. Varying types of coarse aggregates in Iowa's concrete paving mixtures, such as quartzite and limestone, respond very differently to saw cutting. Available guidance for concrete joint sawing provides some information on accepted practices but falls short of addressing how best to deal with these different mix types.

Agencies and contractors have had to rely on a combination of long-standing methods and informal experimentation to try to find the right saw blade and best approach to different types of aggregates. Issues to consider include proper timing, depth, and spacing of saw cuts, as well as materials, climate,

and equipment, which all affect the time window for sawing. Updated guidance on saw cutting will help prevent issues that lead to early deterioration of the pavement.

This research will identify problems and survey the industry, including contractors, equipment providers, and agency personnel in Iowa and neighboring states, to identify the best methods and equipment for successful joint sawing of different mix types. The research team may also conduct field testing on pavement construction projects if contractors are trying new approaches to adapt to changes in mixtures and materials.

The result will be a best practices guide for concrete pavement joint sawing in Iowa that includes optimized workflows for different

aggregate materials, including types of saw blades to use, timing, and techniques. "The main goal is to soften the learning curve for all contractors by giving them the guidance they need to saw better joints for all materials," said Todd Hanson, PCC materials engineer at Iowa DOT's Construction and Materials Bureau.

The research is expected to conclude in November 2025.

To learn more about this project and subscribe to updates, visit [Idea #3413](#).

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