Iowa DOT’s relentless pursuit of excellence

At Iowa DOT, every new research result from NCHRP represents an opportunity for improvement. “We judge the value of NCHRP—or any research program—by how it makes a difference in the way we do business,” says Sandra Larson, director of Iowa DOT’s Research and Technology Bureau.

The verdict is in on NCHRP, and it’s a good one.

“NCHRP continues to pay dividends for Iowa,” says Larson. “All across our agency, we’re innovating and improving by implementing NCHRP research.”

We are confident we can trust NCHRP results.

Research Iowa can use—and trust

Mitchell Dillavou, director of the Engineering Bureau, has examples close at hand. “Iowa is working to improve our process estimation and risk analysis processes,” says Dillavou, “and we’re relying heavily on the material in NCHRP Report 658: Guidebook on Risk Analysis Tools and Management Practices to Control Transportation Project Costs and NCHRP Report 574: Guidebook on Estimation and Management for Highway Projects During Planning, Programming, and Preconstruction. These have been instrumental in developing our cost estimation techniques and management tools.”

John Selmer, director of the Statewide Operations Bureau, expands on the value of these NCHRP resources: “Having served on NCHRP panels, I understand the work and commitment that go into developing useful and impartial research. We are confident we can trust NCHRP results.”

Iowa DOT’s Bob Younie (left) and John Selmer rely on NCHRP research to help answer the agency’s most pressing operations and maintenance questions.

That’s a sentiment shared by former state transportation safety engineer Tom Welch. “NCHRP Report 650: Median Intersection Design for Rural High-Speed Divided Highways opened the range of intersection design alternatives available to Iowa,” says Welch.

Another example comes from NCHRP Report 641: Guidance for the Design and Application of Shoulder and Centerline Rumble Strips, which supported expanded use of these safety features in Iowa. Steve Gent, director of Iowa’s Office of Traffic and Safety, says, “This fiscal year we will install well over 100 miles of centerline rumble strips on two-lane primary highways in Iowa.” Gent concludes, “We wouldn’t be where we are—and couldn’t get where we need to be—without the practical research results that NCHRP provides.”

Smart consumers of NCHRP

Iowa DOT’s Office of Materials is also making excellent use of NCHRP findings. “We have incorporated recommendations from NCHRP Report 691: Mix Design Practices for Warm Mix Asphalt into Iowa’s mix design manual,” says office director James Berger. “Overall, NCHRP offers great value in the technical guidance it provides, especially for emerging technologies.” Berger looks beyond research reports for solutions: “NCHRP Research Results Digests are also extremely helpful in supporting changes to our specifications.”

Bob Younie, Iowa’s director of the Office of Maintenance, notes too the wide variety of NCHRP resources making a broad impact for Iowa, from pavement preservation (NCHRP Report 680: Manual for Emulsion-Based Chip Seals for Pavement Preservation) to best practices for intelligent transportation hardware (NCHRP Synthesis Report 383: Changeable Message Sign Displays During Non-Incident, Non-Roadwork Periods).

Younie finds NCHRP syntheses of state practices particularly valuable. “NCHRP Synthesis Reports do a tremendous job of capturing the national state of practice,” he says, “and show us how well Iowa is aligned with practices in other states.”

Chip Seals for Pavement Preservation.

Iowa drew from NCHRP Report 641 in developing designs for shoulder and centerline rumble strips.

National participation pays off

These examples deliver a clear message: Iowa will do what it takes to find and implement the most relevant solutions NCHRP has to offer. That’s one reason why Larson is so active in AASHTO’s Research Advisory Committee, currently serving as its chair.

“NCHRP research addresses issues of common concern, but every state has unique challenges,” she says. “Looking at how different states make the most of NCHRP provides an invaluable perspective. At the end of the day, we take home what will help make the most difference for transportation users in Iowa.”

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