

Considering context in road planning and design

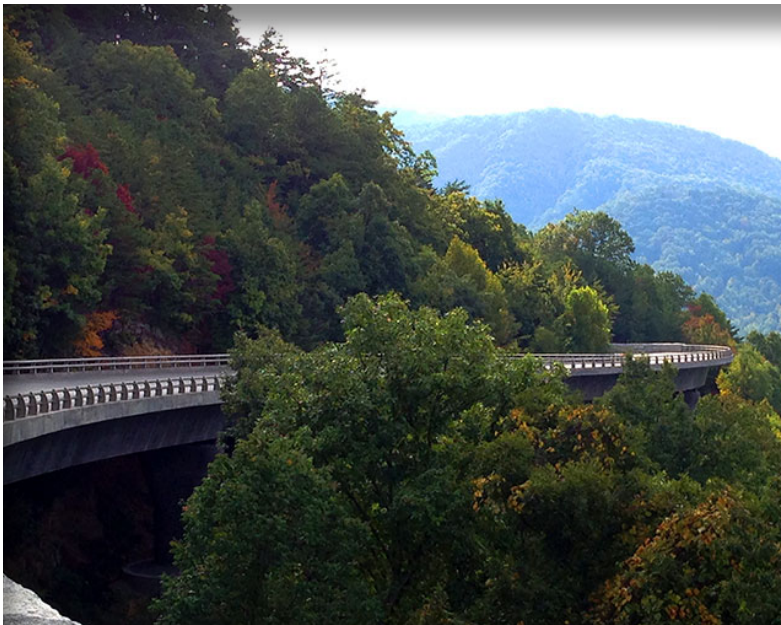


Image courtesy of Federal Highway Administration

Tennessee DOT designs its roads according to national guidance while encouraging holistic design and engineering judgment.

SCAN FOCUS

In recent years, road design practices across the country have evolved to consider the needs of all road users, including motorists, pedestrians and bicyclists, as well as the surrounding community. Updated national design guidance now recognizes five land-use contexts: rural, rural town, suburban, urban, and urban core classes. These classifications can help states identify appropriate design solutions to improve safety, mobility and accessibility for everyone. However, how states apply the contexts to their road designs can vary. Domestic Scan 21-02 sought to compile states' best practices for implementing these context classifications into their road planning and design procedures.

PERSON-TO-PERSON RESEARCH

The team invited 10 state departments of transportation (DOTs) to participate in a four-day virtual discussion in March 2022 that examined different approaches for incorporating context classifications. The scan team members then synthesized their findings and identified opportunities to disseminate the successful strategies to a broad audience.

NEXT STEPS Put It into Practice

EXPLORE NEW IDEAS

The strategies that have worked well for other public and private organizations may suit your agency's needs as well.

GET INVOLVED

Help problem-solve with AASHTO's Technical Committee on Design at design.transportation.org.

READ MORE

The full report on Scan 21-02 is available at domesticscan.org/scan-studies.

SUGGEST FUTURE SCANS

What topic do you have for an NCHRP Domestic Scan? See domesticscan.org/.

PRELIMINARY FINDINGS

Politics, organizational structure and leadership support all contribute to how an agency implements context classifications, and each of the 10 participating agencies has developed its own unique approach. Despite these differences, the scan team identified several common themes and practices; chief among these is encouraging engineering judgment and flexibility so that roads are designed to accommodate users as opposed to forcing users to adapt to road designs.



Image courtesy of Caltrans

Caltrans' Complete Streets initiative focuses on disadvantaged communities, safety, and local alignment with current plans.

PUTTING IT TO WORK

The team developed recommendations to help states define, develop and implement context classifications:

- Collaborate with a variety of stakeholders to define policies and projects.
- Consider agency priorities and goals when developing a process for applying context to designs.
- Document design decisions and develop tools and training programs to ensure engagement and expectations are consistent across the agency.

SHARING THE RESULTS

Several states, including Utah and Tennessee, have already begun to incorporate context classifications into their design standards. Scan team members will help other states in various stages of the process by sharing their findings at a variety of state, local and national gatherings of transportation professionals. The collected information will also be shared with AASHTO's Committee on Design as it updates national design guidance.

ABOUT THE PROGRAM: The NCHRP U.S. Domestic Scan Program (NCHRP Project 20-68, domesticscan.org) recognizes the value of firsthand sharing of new technologies and practices. Launched in 2006, the program typically sponsors two or three scans per year, putting state and federal DOT practitioners who need solutions in touch with innovative peers around the country, speeding the transfer of technology and know-how. During the intense experience of the scan (typically one to two weeks), participants see how a new technology or practice works in the real world. They also develop close professional relationships that remain readily available to them years later.

SCAN PARTICIPANTS



Image courtesy of Washington State DOT

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