

# Design Flexibility Toolbox

## Training, Services and Resources

### Training

#### Minnesota Department of Transportation

- Essential Skills for Project Managers Training
- Design Institute Training
- Environmental Stewardship & Streamlining Workshops
- Context Sensitive Solutions Workshops
- Advanced Flexibility in Design Workshop



**Toolbox**

### Websites and Programs

- [www.contextsensitivesolutions.org](http://www.contextsensitivesolutions.org)
- [www.fhwa.dot.gov/context/index.cfm](http://www.fhwa.dot.gov/context/index.cfm) (FHWA)
- [www.cts.umn.edu/education/csd](http://www.cts.umn.edu/education/csd) (Minnesota)
- [www.sha.maryland.gov/events/oc/thinkingbeyondpavement/thinking.asp](http://www.sha.maryland.gov/events/oc/thinkingbeyondpavement/thinking.asp) (Maryland)
- [www.engr.uky.edu/ktc](http://www.engr.uky.edu/ktc) (Kentucky)

### Services/Resources

#### National Highway Institute

Website: [www.nhi.fhwa.dot.gov](http://www.nhi.fhwa.dot.gov)

- #14228 Managing the Environmental Process
- #14211 Historic and Archaeological Preservation
- #14235 Improving the Aesthetic Design Elements of Urban, Suburban and Rural Roads
- #14226 Visual Impact Assessment for Highway Projects
- #14236 Public Involvement in NEPA and Transportation Decision-Making
- #13342 Human Factors: Principles for Highway, Traffic and Design Engineers
- #480 A Guide to Best Practices for Achieving Context Sensitive Solutions

#### Institute of Transportation Engineers (ITE)

- Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities (2006)

#### Transportation Research Board (TRB)

- Assessing the Effectiveness of Project-Based Public Involvement Processes: A Self-Assessment Tool for Practitioners (1999)

#### American Association of State Highway and Transportation Officials (AASHTO)

- A Guide for Achieving Flexibility in Highway Design (2004)
- Subcommittee on Design – working on revisions to the “Green Book.” Website: [www.aashto.org](http://www.aashto.org)
- PROAAC, Accessible Public Rights-of-Way Planning and Design for Alterations, 2007.

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### U.S. DOT

- Public Involvement Techniques for Transportation Decision-making (1996)
- Flexibility in Highway Design (1997) – [www.fhwa.dot.gov/environment/flex](http://www.fhwa.dot.gov/environment/flex)
- Context Sensitive Design/Thinking Beyond the Pavement Publications  
Website: [www.fhwa.dot.gov/context/pubs.cfm](http://www.fhwa.dot.gov/context/pubs.cfm)
- Innovations in Public involvement for Transportation Planning (1994)
- Interactive Highway Safety Design Model (IHSDM), FHWA. Software tool to evaluate the safety impacts of design decisions. – [www.tfhrc.gov/safety/ihsdm/ihsdm.htm](http://www.tfhrc.gov/safety/ihsdm/ihsdm.htm)
- “Mitigation Strategies for Design Exceptions” –  
[http://safety.fhwa.dot.gov/geometric/mitigationstrategies/fhwa\\_sa\\_07011.pdf](http://safety.fhwa.dot.gov/geometric/mitigationstrategies/fhwa_sa_07011.pdf)
- Highway Safety Manual – [www.highwaysafetymanual.org](http://www.highwaysafetymanual.org)

### Minnesota Department of Transportation

- Context Sensitive Design “Pilot State” Resources (Contact Scott Bradley)
- Landscape Architectural Resources & Services (Contact Scott Bradley)
- MnMODEL, a predictive database used to establish the likelihood of archeological resources being present in a project area. Developed in cooperation with the State Historic Preservation Office.
- Computer Visualization services from Mn/DOT’s Districts and Central Office Landscape Architecture Unit (Contact Dennis Moline)
- “Hear Every Voice” Mn/DOT Public Participation Guidance (being updated - Contact Ginny Crowson)  
Website: [www.dot.state.mn.us/planning/publicinvolvement](http://www.dot.state.mn.us/planning/publicinvolvement)
- Aesthetic Initiative Measurement System (AIMS) (Contact David Larson)
- Visual Impact Assessment Guidelines (Contact David Larson)
- Visual Quality Management Process (Contact Scott Bradley)
- Mn/DOT guidance on design standards flexibility. (Contact Jim Rosenow for more information.)
- Highway Project Development Process (HPDP) Manual (Contact Steve Ryan) Website:  
[www.dot.state.mn.us/planning/hpdp/scoping.html](http://www.dot.state.mn.us/planning/hpdp/scoping.html)
- Design Exception information (Contact Jim Rosenow) –  
[www.dot.state.mn.us/design/geometric/formal-design.html](http://www.dot.state.mn.us/design/geometric/formal-design.html)
- Cost Participation Policy – “Mn/DOT Policy Guidelines for the Policy and Procedures for Cooperative Construction Projects with Local Units of Government (contact Mary Anne Kelly-Somek) Website:  
[www.dot.state.mn.us/stateaid/res\\_downloads.html](http://www.dot.state.mn.us/stateaid/res_downloads.html)

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### Others

- University of Minnesota's Human Factors Lab ( contact John Carmody or Kathleen Harder)
- “Drive-thru” feature of Geopak design software
- “Inventories” of architectural and environmental resources by state agencies (see HPDP manual for listings)
- Highway Safety Manual – [www.highwaysafetymanual.org](http://www.highwaysafetymanual.org)
- McCann, Barbara, *Complete the Streets!* Planning, May 2005, pp. 18-23.
- LaPlante, John, P.E. and McCann, Barbara. *Complete Streets: We Can Get There from Here.* ITE Journal, May 2008, pp. 24-28.
- National Complete Streets Coalition. *Let's Complete America's Streets.* [www.completethestreets.org](http://www.completethestreets.org).