Context ("Customer") Sensitive Solutions (CSS)
The Business Case for CSS and Change

A Forum on Integrating CSS in MnDOT Services and Programs


Your Destination... Our Priority
Understanding & Responding To Context

- Interrelated conditions in which something exists
- Constraints and opportunities that you work with
- Connecting elements in more holistic or cohesive ways

What’s Most Important to People ... Places ... Circumstances?
Why Context is Important
Measuring Success & Failure from Customer Perspectives

- Regulatory Compliance
- Needs, Wants & Values
- Public Health & Safety
- Public & Stakeholder Acceptance
- Community Compatibility
- Environmental Compatibility
- Social & Economic Equity
- Costs & Returns on Investments
- Functions, Performance & Longevity
- Timeliness of Responses & Delivery
- Impacts upon Quality of Life
- Preservation of Commitments & Investments
Birth of Context Sensitive Design / Solutions

Since a 1998 Thinking Beyond The Pavement Workshop, FHWA and AASHTO have promoted Context Sensitive Design ... now Context Sensitive Solutions ... as a desired national transportation approach.

1998 National Workshop

Online Resource Center

Articulated 15 Attributes (Principles)

www.contextsensitivelossolutions.org
MnDOT Positioned for Leadership in CSS

FHWA Designation of 5 CSD “Pilot State” DOTs in 1999

CT, KY, MD, MN & UT were selected as CSD “pilot state” DOTs to further regional and national implementation and mainstreaming of CSD.

MnDOT assembled a CSD steering team and advisory group to guide the approach including development and deployment of CSD Training, Policy (Tech Memo) and Marketing in 2000 and emphasis on (6) Core Principles deemed most important for MnDOT.

As a “pilot state”, MnDOT partnered with the FHWA MN Division and the University of Minnesota Center for Transportation Studies in advancing CSD (now CSS) locally & nationally.
MnDOT Positioned for Leadership in CSS
Many Award Winning & Nationally Recognized Successes

Exemplary Project Development

Exemplary Resource Management Programs

Exemplary Partnership Programs & Projects

Exemplary Public Involvement Efforts

Exemplary Guidance & Tools

Exemplary Safety Programs & Initiatives
Understanding CSS

Current FHWA & AASHTO Definition

CSS is a collaborative, interdisciplinary approach that involves all stakeholders in providing a transportation facility that fits its setting. It is an approach that leads to preserving and enhancing scenic, aesthetic, historic, community, and environmental resources while improving or maintaining safety, mobility, & infrastructure condition.

I-90 Thru The Dakota Valley - SE MN

CSAH 3 Excelsior Blvd - St. Louis Park MN
Understanding CSS
Philosophy and Principles applying to Programs, Services, Planning, Project Development, Construction, Operations, and Maintenance ...
FHWA & AASHTO CSS Emphasis

AASHTO/FHWA Peer Exchange: Context Sensitive Solutions
September 6–8, 2006 • The Radisson Lord Baltimore • Baltimore, Maryland

AASHTO/FHWA Context Sensitive Solutions Strategic Plan: Mainstreaming CSS
DRAFT Summary Report
March 2007

2006 National CSS Peer Exchange

2007 National CSS Action Planning
In 2011, Context Sensitive Solutions will:

• Be the way of doing business throughout the life cycle of a project from pre-planning through maintenance.

• Result in solutions that provide a net improvement to the community and environment.

• Meet needs and community goals as defined by a full range of stakeholders including safety and mobility goals.

• Include the full involvement of stakeholders throughout decision making and in a way that is consistent with the broader vision for the community and environment.

• Include teams of multidisciplinary experts who all contribute to developing solutions together with stakeholders.
• Strive towards a shared stakeholder vision to provide a basis for decisions
• Demonstrate a comprehensive understanding of contexts
• Foster continuing communication and collaboration to achieve consensus
• Exercise flexibility and creativity to shape effective transportation solutions while preserving and enhancing community and natural environments
Original CSD (Now CSS) Principles

“Paraphrased”

- Use interdisciplinary teams
- Involve your stakeholders
- Seek broad public involvement
- Use a full range of communication strategies
- Seek consensus in determining purpose and need
- Address alternatives and all modes of transportation
- Seek safe facilities for all users

- Address community and social issues
- Address aesthetic concerns and integrations
- Utilize a full range of design choices and flexibility
- Document project decisions
- Track and meet all commitments
- Use agency resources effectively
- Create lasting value for communities
CSS Benefits Research

Based Upon 33 Case Studies From Across the United States

Published in 2009

Like MN TH 61 Reconstruction (North Shore of Lake Superior)
CSS Benefits - Agency Emphasis

Correlated To Applying CSS Principles (NCHRP Report 642)

01. Improved predictability of project delivery
02. Improved project scoping and budgeting
03. Improved long term decisions and investments
04. Improved environmental stewardship
05. Optimized maintenance and operations
06. Increased risk management and liability protection
07. Improved stakeholder / public feedback
08. Increased stakeholder / public participation, ownership & trust
09. Decreased costs for overall project delivery
10. Decreased time for overall project delivery
11. Increased partnering opportunities
CSS Benefits - User Emphasis

Correlated To Applying CSS Principles (NCHRP Report 642)

12. Minimized impact to human and natural environments
13. Improved mobility for users
14. Improved walkability and bikeability
15. Improved safety (vehicles, pedestrians, and bicyclists)
16. Improved multi-modal options (including transit)
17. Improved community satisfaction
18. Improved quality of life for community
19. Improved speed management
20. Design features appropriate to context
21. Minimized construction related disruption
22. Improved opportunities for economic development
Mn/DOT’s Strategic Vision & Plan

Global leader in transportation committed to upholding public needs and collaboration with internal and external partners to create a safe, efficient and sustainable transportation system for the future.

How Does CSS Fit In?

Strategic Directions (SMILT)
- Safety
- Mobility
- Innovation
- Leadership
- Transparency
CSS & MnDOT’s Strategic Vision & Plan
CSS Elevated as a Flagship Initiative in December 2009

The CSS Flagship Initiative:

Seeks to integrate CSS in Mn/DOT as a business model to improve our processes and to balance competing objectives while enabling Mn/DOT to achieve more of the benefits that are now correlated with applying CSS philosophy and principles together.
CSS & MnDOT’s Strategic Vision & Plan

The CSS Business Case and Approach Supports

• Improving our customer & stakeholder relationships (building confidence and trust)

• Improving our performance and efficiency (reducing costly delays and rework cycles)

• Improving our ability to balance competing objectives (optimizing benefit to cost ratios & flexibility in decision-making)

• Reducing our cost of doing business (delivering collaborative & right-sized solutions)

• Achieving more desired agency & user benefits (benefits correlated by research to applying CSS principles)
Focusing On This CSS & Customer-Centered Forum

Importance of this Next Step and Rationale for the Topical Themes Emphasized …

• To date, CSS outreach, training and integration efforts have resulted in more emphasis, knowledge and skill building related to project planning, development, design, construction, operation and maintenance activities. **This Forum is a critical kick-off and emphasis toward understanding and addressing the challenges, opportunities and critical next steps in further integration of CSS across all MnDOT functions, services and programs. The Customer-Sensitive focus (both internal & external) is a good approach toward understanding and applying CSS across the Department.**

• The first (3) Topical Themes selected for emphasis in the Forum (Diversity & Demographics … Rapid Change & Technology … Fiscal Responsibility & Risk Management) were selected because they represent 3 of 5 Critical Issue / Response areas identified in MnDOT’s Strategic Vision and are (3) areas and hot topics that are equally critical to every function, service, program & employee across the Department.

• The 4th Topical Theme (How We Move Forward with CSS) was selected because it’s the objective of the Forum and the “tying more things together” objective of the CSS Flagship Initiative and business model.
A CSS Case Study With Universal Applicability

1990s Improvements in MnDOT’s Landscape Program & Services

Forget the subject is MnDOT Landscape Programs and consider how CSS strategies, principles & benefits can apply to any MnDOT functions, programs and services as well as the following thoughts …

“Even if you’re on the right track, you’ll get run over if you sit there.” (Will Rogers)

“We are what we repeatedly do. Excellence is not an act but a habit.” (Aristotle)
In the 1990s, following decades of increasing challenges and erratic inconsistencies, MnDOT Landscape Program staff engaged a broad range of internal and external stakeholders and interdisciplinary expertise (industry-wide) to collaboratively identify problems and opportunities and to inform and sanction program, service, quality and cost-effective improvements through consensus decision-making.

Many joint MnDOT - Industry Issues & Procedures Workshops were hosted by MnDOT and proved to be very effective toward enabling and sustaining change management.

MnDOT’s Landscape Program and Services were dramatically improved in the 1990s with an approach that reflected the core strategies and principles and many of the benefits that are now correlated with CSS.
A CSS Case Study With Universal Applicability
1990s Improvements in MnDOT's Landscape Program &
A CSS Case Study With Universal Applicability

1990s Improvements in MnDOT’s Landscape Program & Services

Some key outcomes from collaboratively informed & sanctioned efforts:

- Total revamping of MnDOT’s landscape standards, procedures, specifications, and construction details with clear, flexible and measurable criteria for all decision-making.
- Introduction of monetary incentive and disincentive based performance accountability and requirements for training certification and competency testing.
- Development of an “illustrative” Inspection & Contract Administration Manual tied to the standard specifications as acceptable minimum & maximum criteria for all decision-making.
- Development of a volunteer-based and highly acclaimed MnDOT Community Landscape Partnership Program as another implementation tool in the toolbox.
- Development and deployment of a highly acclaimed and interactive hands-on training program and video to serve all internal and external stakeholders and...
Some key benefits from the collaboratively informed & sanctioned efforts:

- Consistency in landscape project outcomes & cost-effectiveness was markedly improved.
- Landscape projects with 90% plus success rates became common for the first time.
- Available funding was stretched farther in covering many more projects and improvements as hundreds of Community Landscape Partnership Program projects were implemented around the state at roughly 1/3 the cost of traditional landscape contract projects while community partners also took on the responsibility for maintaining the investments.
- Surveys indicated that more than 90% of the transportation users of the Plant Selection Expert System improved their knowledge, proficiency, consistency and...
For Questions & More Info:
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CSS – The Road Best Traveled