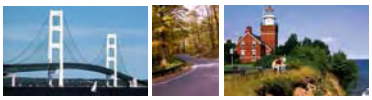


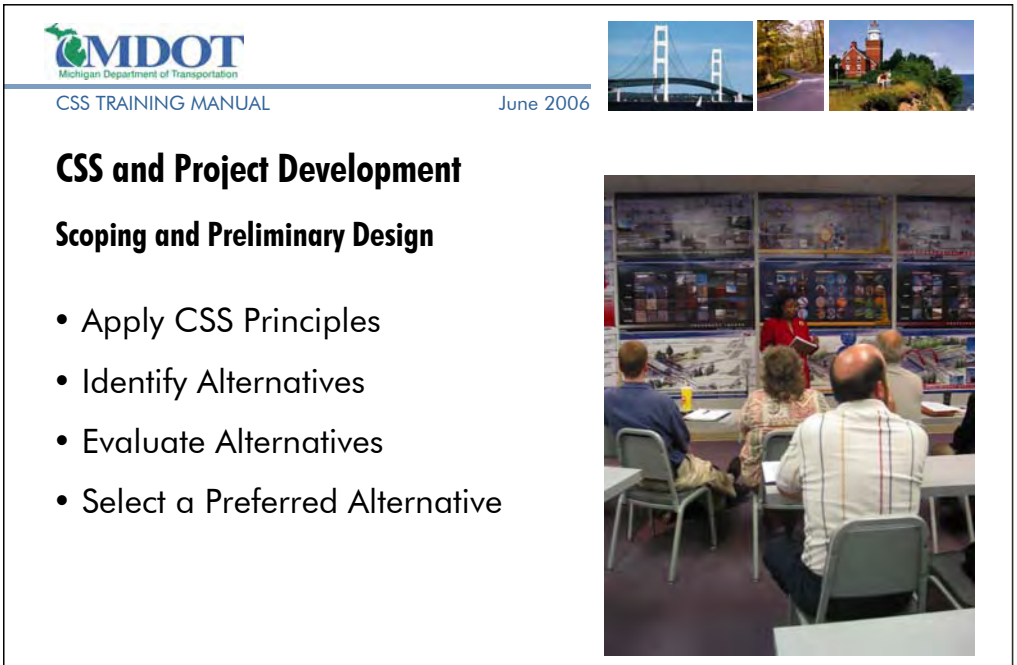
Session 11:

CONTEXT SENSITIVE SOLUTIONS IN TRANSPORTATION DESIGN

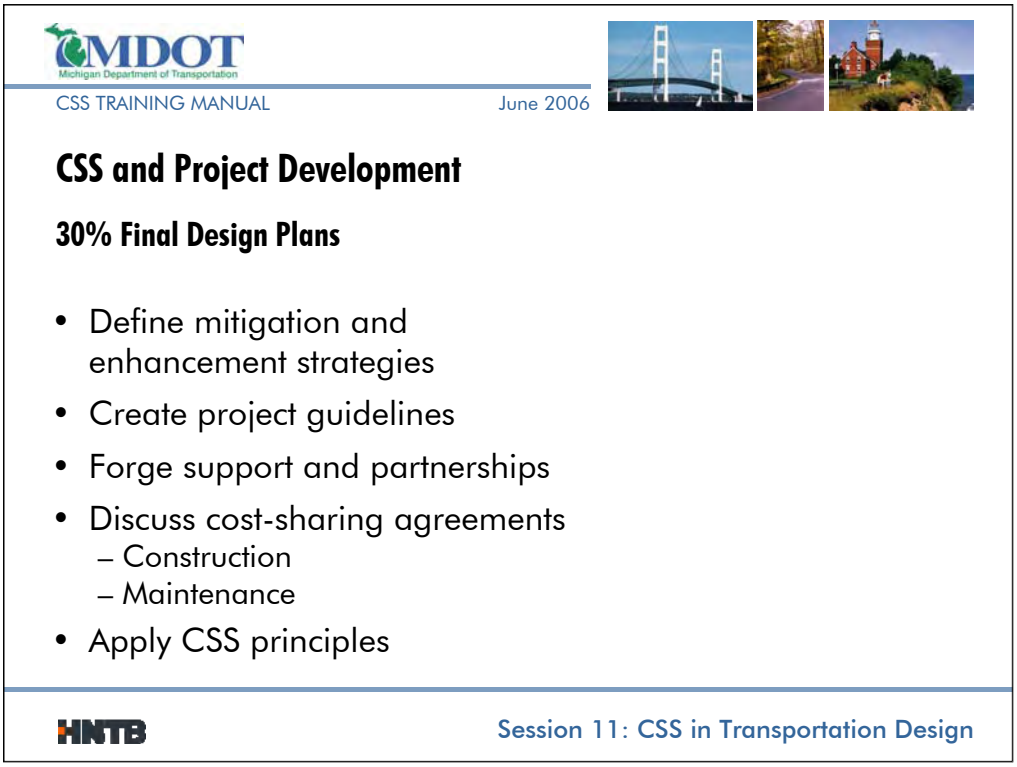
Merrick Street Bridge, Adrian, MI

CSS principles continue to be applied during the design phase of a project.

CSS should be applied early, at the very beginning of the design process, when defining the project's purpose and need. It is critical that the designer identify all stakeholders, determining who can best represent them and the best way to communicate with them. Once the stakeholders have been engaged, the designer will harness their interests in defining issues, establishing a vision for the corridor, and setting goals and objectives for the project.

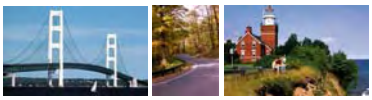


During preliminary design, the stakeholders will help MDOT identify and evaluate alternatives. The evaluations will be based on a comparative analysis of how well the various alternatives meet the corridor's vision and accomplish the project's goals and objectives. From this analysis, MDOT and the stakeholders will select a preferred alternative.



Final design is typically subdivided into three sub-phases which result in 30%, 60%, and 90% plans.

The first sub-phase, 30% plans, involves significant public engagement. Even as the preferred alternative is being selected it is important for the designer to have stakeholders assist in developing design guidelines that incorporate any mitigation and enhancement strategies that were identified during the purpose and need phase. Additional mitigation and enhancement strategies may emerge in conversations with stakeholders. All ideas that emerge should be documented in a design guide, and the designs in the guide must reflect the interest of all involved stakeholders, as well as include the engineering judgment of MDOT. It is critical to forge support and partnerships at this point, being clear about where cost-sharing with partners may need to occur.

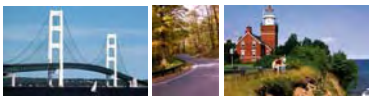


CSS and Project Development

60% Final Design Plans

- Apply mitigation and enhancement strategies
- Apply design guidelines
- Resolve construction schedule
- Create cost-sharing agreements
  - Construction
  - Maintenance
- Implement CSS principles

During the development of 60% plans, the design guidelines that have incorporated the mitigation and enhancement strategies should be applied by the designer. Any deviation from the guidelines due to unforeseen circumstances or simply as a result of additional studies (engineering, environmental, or other ongoing examinations) must be shared with stakeholders and the deviation agreed to specifically. Documenting continuous stakeholder involvement is critical. This is a good time to identify and resolve construction scheduling issues and create cost-sharing agreements both for construction, operations, and maintenance.



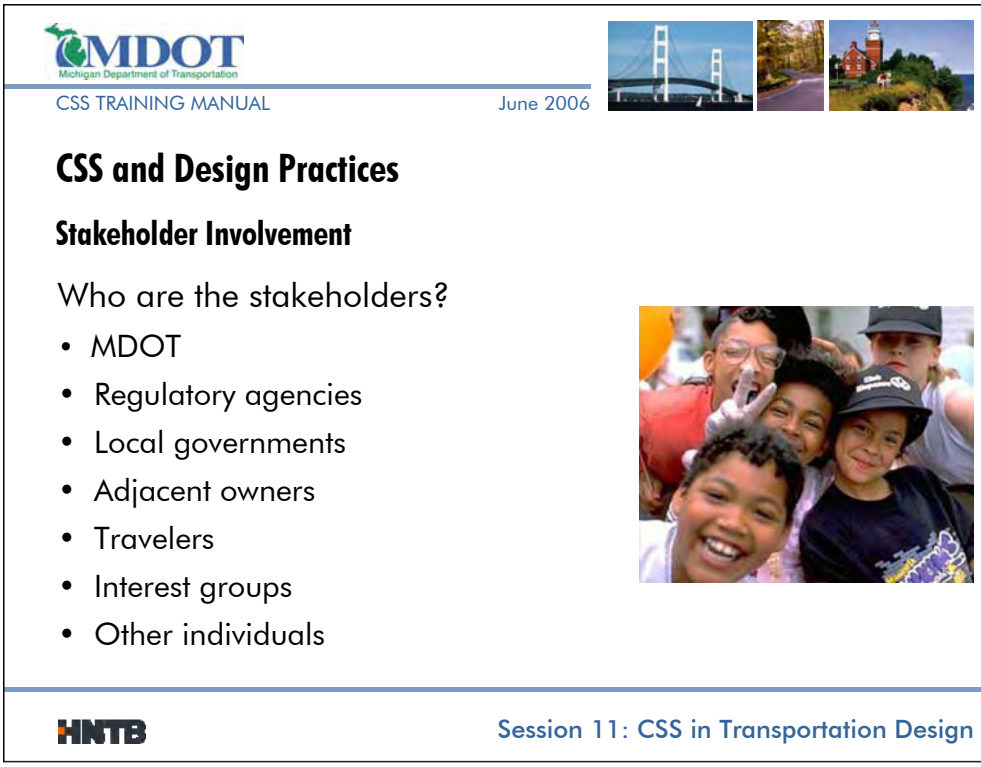
CSS and Project Development

90% Final Design Plans

- Secure approvals and permits
- Secure signed cost-sharing agreements
  - Construction
  - Maintenance
  - Consequences of non-compliance
- Confirm construction schedule
- Confirm CSS implementation

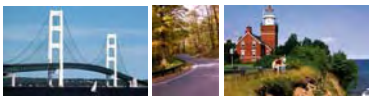
By the time the designer is completing final plans for the project, MDOT should be enjoying the relationships it has developed with its regulatory-stakeholder-partners, and thus able to readily secure the necessary approvals and permits. Using CSS makes the regulatory process move much more smoothly, since the regulators know the constraints and opportunities afforded by the project. (In fact, regulators have helped MDOT define the appropriate solutions.) Similarly, cost-sharing agreements must be finalized and the construction schedule confirmed with other stakeholders.

It is critical that cost-sharing agreements be fully executed before plans are made available for bidding.



For a CSS process to be successful, stakeholders mean anyone and everyone who has an interest in the project area, including MDOT, regulatory agencies, local units of government, interest groups, and individuals.

Interest groups are typically commercial, environmental, or civic. They can be proponents or opponents of the proposed project. All should be invited. Don't be afraid to have opponents inside the tent with you. Often, opposing individuals have been misinformed, and including them in the process is less disruptive than having them outside the tent, waiting for an opportunity to stop or slow down the design process.



Stakeholder Engagement

Use a decision-making process, such as the ***Systematic Development of Informed Consent***, that is:

- Inclusive (includes all stakeholders)
- Transparent (decisions are made publicly)

Create ***Informed Consent*** where all stakeholders:

- concur with the need for the project
- concur that the proposed solution is reasonable and effective
- concur that the proposed project should proceed

Note that ***Informed Consent*** is neither compromise nor consensus.

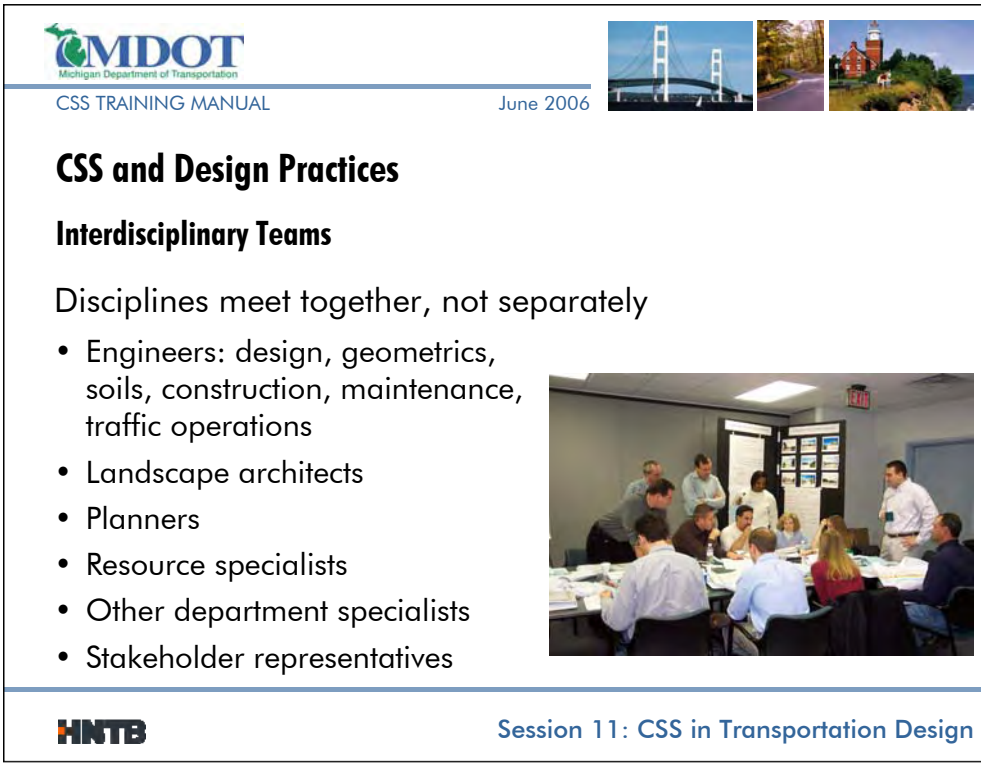
What CSS tries to create is *informed consent.* We want all stakeholders to get to "yes," as in, "Yes, you can build this road."

They don't need to get to "yippee!" only to "yes."

A CSS process can get stakeholders to "yes" by helping them understand and concur with the need for the project; understand and concur that the preferred alternative is reasonable and effective; and understand and concur that it is in the best interests of society to have the project proceed, even if it is not in their best personal interest.

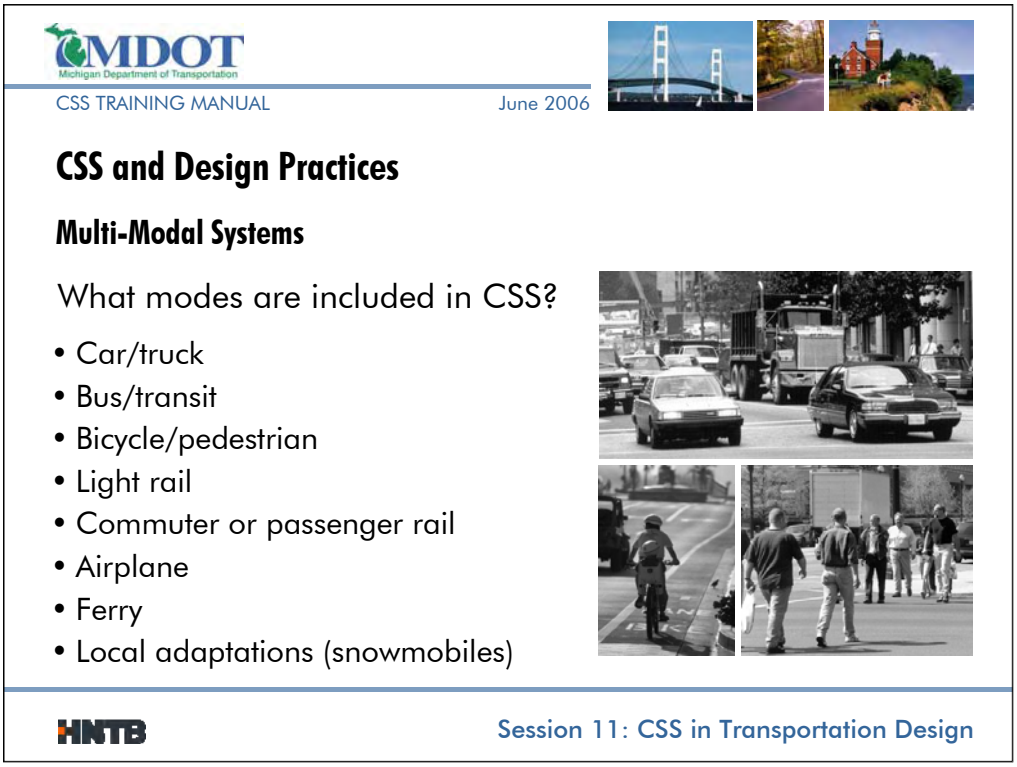
This can only be accomplished if the design process is inclusive, transparent, and fair.

Informed consent is not about compromise or consensus, it is about understanding and consenting to a particular action that it is the responsibility of the government (in this case the Department of Transportation) to take.

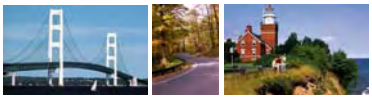


CSS requires a very wide professional perspective. It is important to include a variety of professionals, including engineers, landscape architects, planners, resource scientists, managers, and other design specialists such as architects, urban designers, and artists. Many of these specialists can be found among the project's stakeholders.

Utilizing the resources within MDOT is prudent, especially involving operations and maintenance staff. Including these groups in the design process may avert many future headaches for the department.



All modes of transportation can be designed using a CSS process.



CSS is Appropriate for:

- Defining purpose and need
- Identifying a wide range of alternatives
- Selecting an alternative
- Attaining public support

Effective design using Context Sensitive Solutions will lead to community and political support for MDOT's design and project development processes.

During the design phase of a project, it is appropriate to use CSS principles and practices to define the project's purpose and need, identify and select alternatives, and attain public (as well as political and financial) support.