

**Session 10:****CONTEXT SENSITIVE SOLUTIONS  
IN TRANSPORTATION PLANNING**

I-70 interchange, St Louis, MO

Planning is considered the first step in the CSS chain — or at least that is how we have been presenting the development of transportation projects, starting with planning, moving on to design, construction, operations, and maintenance. However, the process is not necessarily that linear. A person, or project, could start anywhere. It is actually a circular process, with operations and maintenance ideally offering feedback into planning.

Let's start with planning while recognizing that we didn't have to start there.



## All Projects Contain Planning Elements

Planning is typically associated with big, complex projects where it is essential. But most MDOT projects are Categorical Exclusion projects, smaller and less complex. Nonetheless, they contain the same planning elements, usually accomplished much more quickly with much less documentation, during initial scoping and design

In MDOT, planning is sometimes considered an activity only used for large, complex projects. However, it is also used on smaller, simpler projects. The planning steps for a large and a small project might be identical. We just tend to go through the steps more quickly on the small project, so quickly that sometimes we forget that planning occurred at all.

Since most MDOT projects are not large and complex, it is important to remind ourselves that planning is still critical. Small projects may require much less documentation and planning may only occur during the initial stages of scoping and design, but it is still crucial to integrating CSS into MDOT's project development process.



## CSS and Planning Process

- **System Planning**  
Integrated, Responsive, Multimodal
- **Program Development**  
Priorities, Funding, Schedule
- **Individual Projects**  
Scope, Coordination, Support

CSS is beneficial  
during each activity



MDOT can integrate CSS into the planning process at three different levels:

1. The statewide system planning level
2. The regional transportation program development level
3. The corridor and project level

We can integrate CSS into the statewide system planning level by being responsive to stakeholders. Stakeholders' identified transportation needs can then be integrated into the overall vision, goals, and objectives for the state's transportation system. This piece of the process is especially important for determining system priorities and modal mixture.

MDOT will integrate CSS into the development of the regional transportation program by engaging stakeholders, particularly in identifying project partners, project funding, and project scheduling priorities within the region.

MDOT will incorporate the fundamental principles of CSS for each individual corridor and project through a program of extensive local public involvement that identifies a project's scope (both geographical and topical) and its concept (purpose and need).



## CSS and Planning Tasks

- Identify Affected Environment
- Identify Affected Population
- Identify and Invite Stakeholders
- Identify Issues



During planning, MDOT will use CSS to identify four items:

1. The affected environment
2. The affected population
3. The stakeholders
4. The issues

The following four slides will examine each of these items separately.



## CSS and Planning Tasks

### Identify the Affected Environment

- Natural Landscape
- Cultural Landscape
- Transportation Corridor



M-22, Glen Arbor, MI

For transportation projects, the affected environment can be divided into three main categories, (1) the natural environment, (2) the cultural environment, and (3) the transportation corridor. The natural environment includes all of the elements found in the landscape not constructed by people, such as land form, water bodies, vegetation, and wildlife. The cultural environment includes all elements created by people, including buildings, other structures, and artifacts.

In the past, except for visual impacts, MDOT would not typically have considered the transportation corridor a part of the affected environment. However, it is quite possible, using the more thorough public involvement techniques of CSS, that the public or even regulatory agencies such as the State Historic Preservation Office, will find the transportation corridor itself a significant part of the cultural environment.

Although it is essentially part of the cultural environment, the transportation corridor is considered separately because MDOT exerts total control over it.



## CSS and Planning Tasks

### Identify the Affected Population

- Travelers
- Neighbors
- Communities



From the perspective of transportation projects, a person is either a traveler (a user of the system) or a neighbor (someone who resides, works, shops, or recreates adjacent to the transportation corridor). Typically, travelers are determined by their reason for using the corridor—commuting, hauling, or touring, for example. Neighbors can be determined by their reason for being adjacent to the corridor. This can be readily determined by researching land use.

The reasons that people are travelers or neighbors greatly affect their relationship to an existing or proposed transportation corridor. Since the reasons vary widely, it is critical to have representatives of all these reasons involved in the planning process.



## CSS and Planning Tasks

### Identify and Invite Stakeholders

- Inclusive
- Early
- Often
- Continuous



The first principle is stakeholder involvement, which must be initiated early, and practiced often and continuously throughout the transportation planning process. It will also be inclusive, that is, it must be widespread among population groups. Representatives from all affected groups of travelers and neighbors must be part of the planning process. MDOT will strive to incorporate a balance of interests, not allowing one group or one person to dominate at the expense of other interests.

Stakeholder Involvement can be achieved through a variety of techniques, from one-on-one meetings to large community charrettes, or design workshops.



## CSS and Planning Tasks

### Identify Issues

- Add scope and cost for issue you expect might arise
- Use stakeholders' input from previous projects
- Use stakeholders' input to this project

Typically, one of the first tasks a stakeholder group handles is to define the issues related to a particular transportation corridor.





## CSS and Planning Principles

### Interdisciplinary Teams

Disciplines meet together, not separately

- Engineers: design, geometrics, soils, construction, maintenance, traffic operations, others
- Landscape architects
- Planners
- Resource specialists
- Other department specialists
- Stakeholder representatives



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.



## CSS and Planning Principles

### Multimodal Systems

- Responsive
- Integrated
- Balanced



Supporting all modes of transportation is considered vital by the state government and people of Michigan. MDOT will, in all of its planning activities, incorporate a multimodal perspective. It will encourage a multimodal transportation network that includes pedestrians, bicyclists, transit, and motorized vehicles.



## Conclusion

Effective planning using Context Sensitive Solutions will lead to community and political support for MDOT's plans and planning processes.



It is essential that CSS practices be incorporated into the planning stages of Michigan's transportation system.