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CONTEXT SENSITIVE DESIGN

A Normal Way of Doing Business



Context Sensitive Design Workshop

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Zan Associates

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In this session:

- Definition of Context Sensitive Design
- Principles of CSD
- Critical Skills
- Public Involvement
- Project Development Process

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The Road to Hana



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What Is Context Sensitive Design?

- **FHWA** calls it “Thinking Beyond the Pavement”.
- **ITE** calls it “Harmonization”.
- **Mn/DOT** says it is a project that is “in harmony with the community and the environment”.

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It Fits: “Lies Gently on the Land”



It Looks Good!

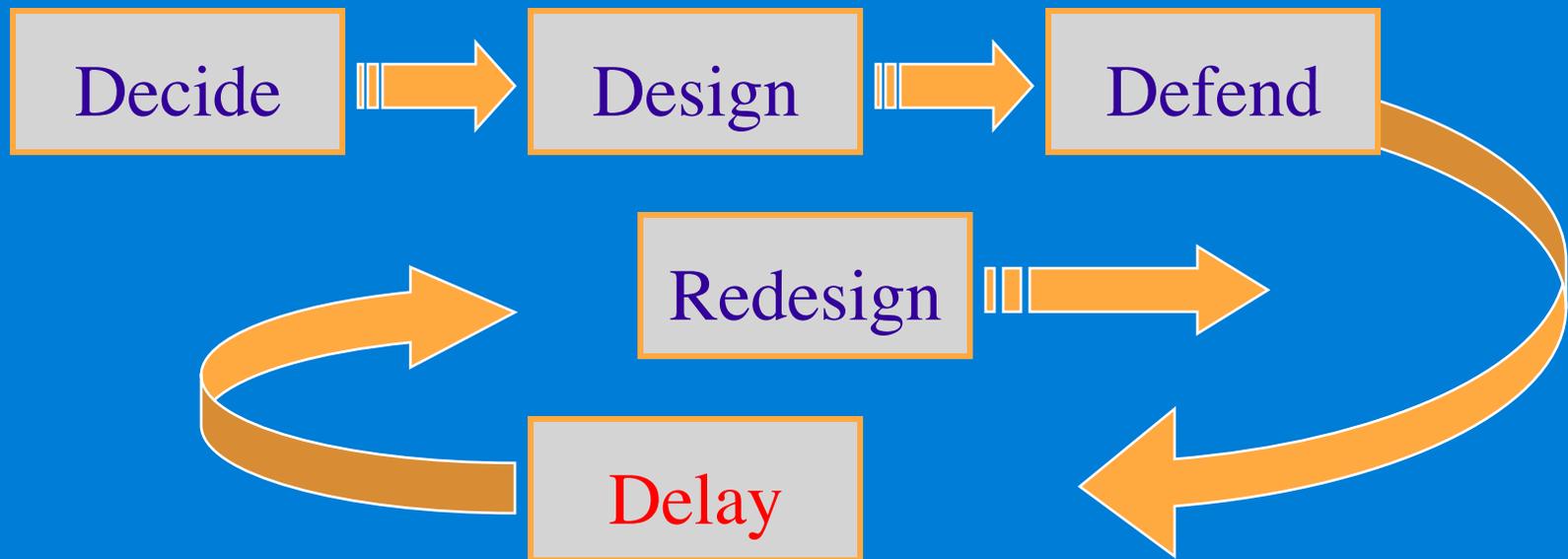


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Why?

- **Enhances livability and sustainability of communities**
- **Builds community support**
- **Creates an asset for the community**

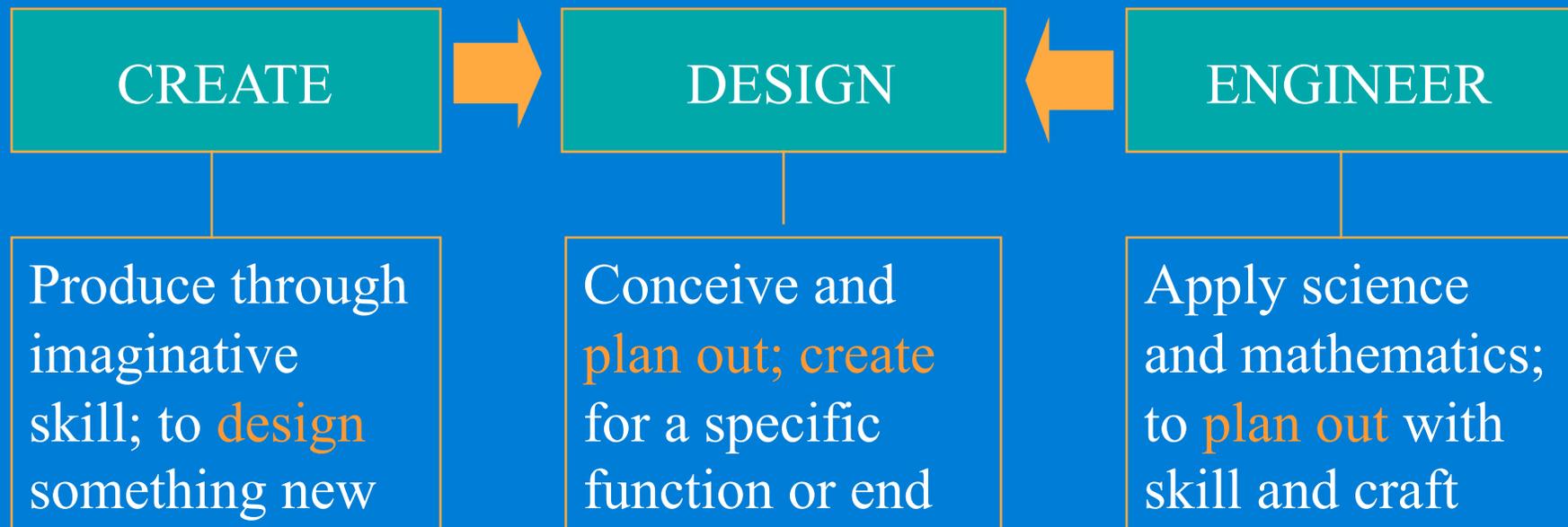
“Avoid the Rework Cycle”



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CSD is good design practice

(Values change by minute degrees)



Source: Webster's Dictionary

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People Will Accept No Less!!



- **Societal Changes Have Created the Public Demand for a More Context-Sensitive Approach.**

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Mn/DOT's SIX PRINCIPLES

Balance

Interdisciplinary
Team

All Modes



Public Involvement

Aesthetics

Design Flexibility



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Building Critical Skills

- Understanding context
- Communicating
- Designing with flexibility
- Integrating aesthetics
- Accommodating bikes, walkers and transit
- Building and maintaining the project
- Documenting decisions

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Principles of CSD

1. Balance safety, mobility, community and environmental goals in all projects.



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Critical Skill: Understanding Context

What is context?

- “the interrelated condition in which something exists”
- “weaving parts into a whole”
 - Webster’s Dictionary

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What's the Context?



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What's the Context?



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Natural Resources: Elm Creek Parkway



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Types of Historic Properties

- Individual structures
- Historic districts
 - Contributing elements
 - Non-contributing elements
- Historic corridors
- Cultural landscapes
- Archaeological sites



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Cultural Resources – Archaeological



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Cultural Resources - Architecture



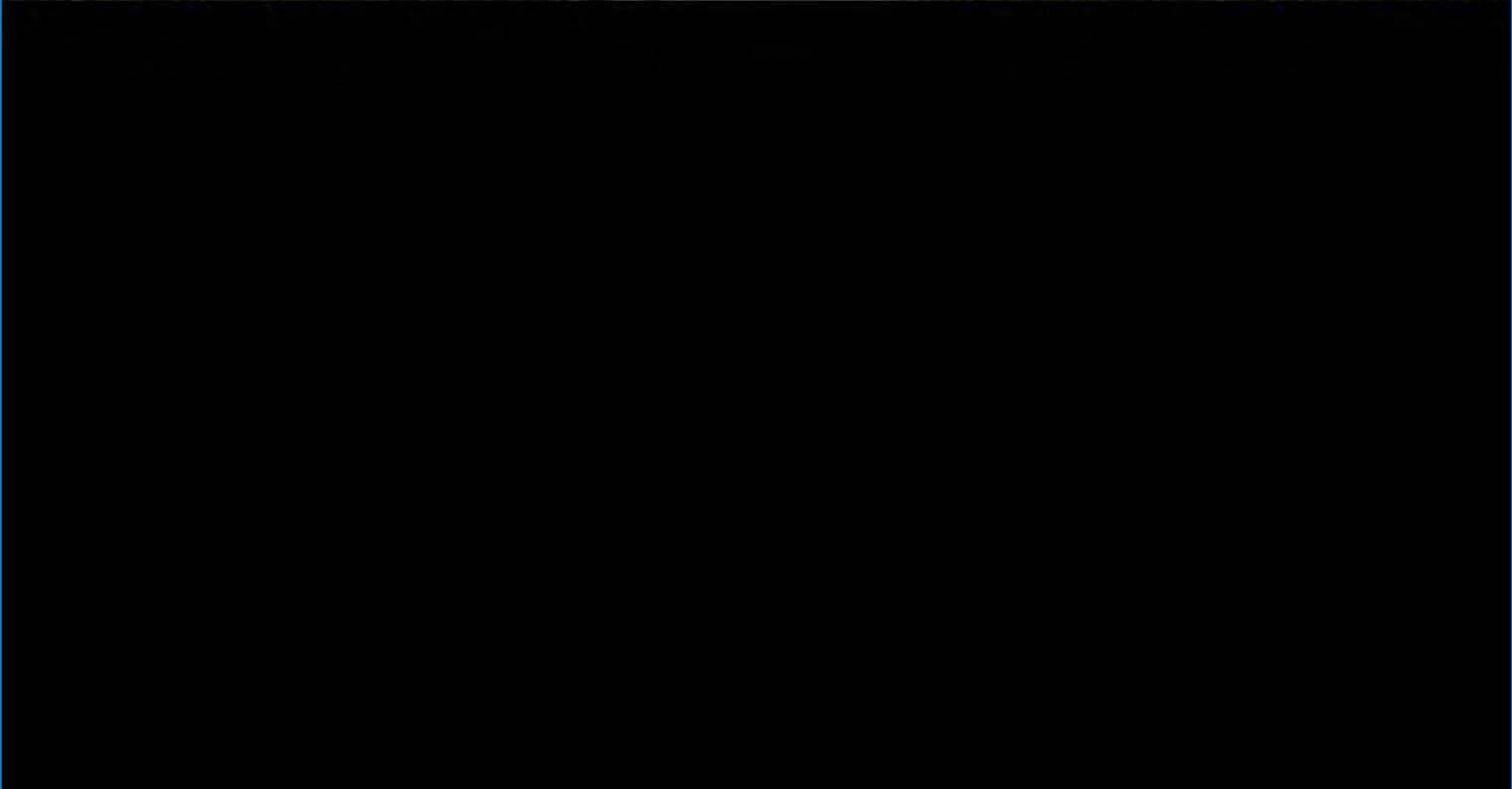
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Community Resources - Parks



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Community Resources - Trails



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Community Resources – Main Street



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Community Resources – Land Uses



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Community Resources-Future Land Uses



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High Bridge, St. Paul



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Environmental Justice

Disproportionate impacts on **concentrations**

- Minority populations
- Low income populations

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Who Decides What Is Important?

- Laws (NEPA and MEPA)
- Regulatory agencies
- The people in the community
- The transportation agency

Resources for Identifying Context

- Extension office
- Chamber of Commerce
- City / County planning
- Local business associations

Economic

**Social
Cultural**

- Local planning agency
- County planning office
- Parks departments (local/county)
- State historic President's office / city planning agency

**Transportation
Needs**

- Met Council
- Local transit provider
- City / County public works
- City / County planning

Environmental

- Department of Natural Resources
- NPS / US Forest Service
- Watershed district

Aesthetic

- City / County planning

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Principles of CSD

2. Involve the public and affected agencies early and continuously.



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Critical Skill: Communicating

Why?



- It's the democratic way.
- People like to know they matter.
- They have good ideas.

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Participatory Design

Is Like Designing in a Fishbowl



Build a Multi-Disciplinary Team

- Find “**cooperative individualists**” - people who think creatively but work collaboratively.



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Identifying the Stakeholders

- Look at the physical context
- Talk to elected officials
- Find the “rainmakers”
- Be systematic and inclusive
- Revisit stakeholder lists periodically



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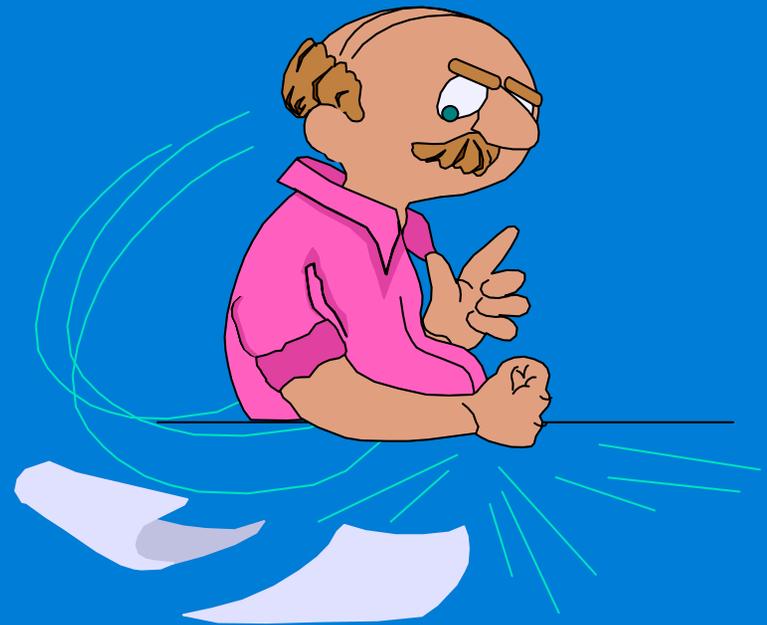
Involving People

It is not so much the involvement technique that makes the difference as **HOW** the technique is carried out.



Four Ways to Negotiate

- Righteousness of cause
- **Trusted emissary**
- Eyeball to eyeball
- Take no prisoners



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Principle #1

LISTEN!

LISTEN!

LISTEN!

Public involvement is two-way
communication.

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Principle #2

BE HONEST!

Public involvement without integrity is worse than no public involvement at all.

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Principle #3

ATTITUDE IS EVERYTHING

Believe in involving the public and
treat everyone with respect - no matter
what.

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Principle #4

BUILD OWNERSHIP

“I became a team player because I was on the team.”

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Stumbling Blocks

- History
- Time and schedule
- Funding and cost
- Fear of public speaking
- Internal disbelief (not valued)
- Already know the solution

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Some Rules of Thumb

- You have to speak their language.
- Public opinions will conflict.
- Constituencies will change.
- People participate if it is in their interest.
- You can control the process but not the outcome.

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People Must Agree on Purpose and Need



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Resolution of Issues

- Small discussion groups (informal)
- One on one meetings (informal)
- Citizen advisory committees (community)
- Technical advisory committees (agencies)
- Design charrettes

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Example: Silver Lake Road



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Some Basic Tools

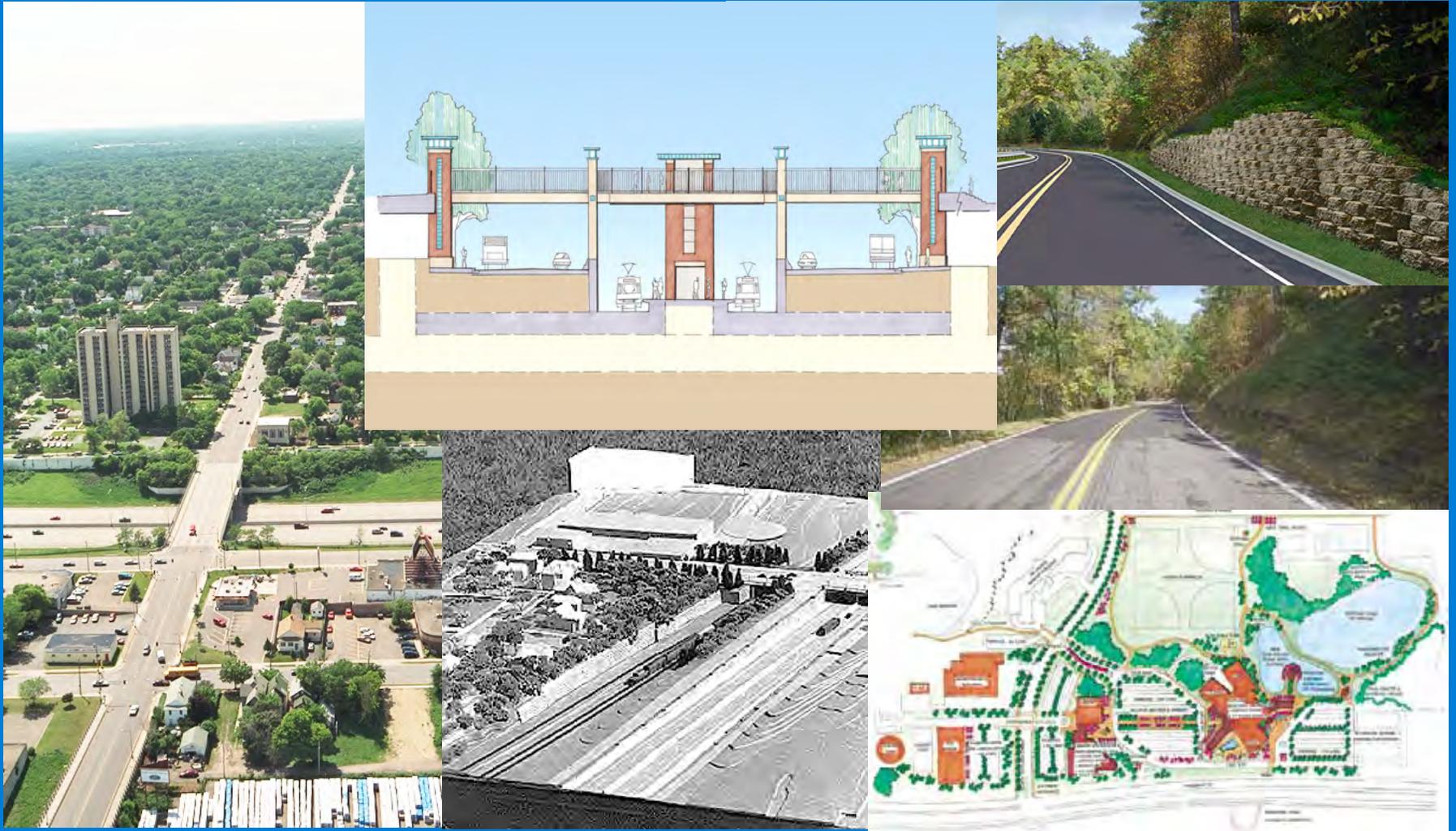
- Start and end on time
- Make sure key people are there
- Use an agenda
- Stick to team business/check progress
- Keep track of decisions/use flip charts
- Summarize

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One good picture is worth 10,000 words!!



Many Options



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Some Processes

- Structured Go-Around (gets ideas out)
- Polling (organizes or ranks ideas)
- Flowchart (identifies sequence of events)
- Matrix (examines options)

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Good Facilitators

- Are good communicators (nothing to teach)
- Ask questions (proactive listening)
- Listen and restate when necessary
- Maintain control but empower the group

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Good Facilitators

- Ensure that all views are placed on the table
- Chill dominators and encourage shy ones
- Apply structured tools to build consensus
- Know when a break would be useful

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Example: Williston Road



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Dealing with Elected Officials

- Follow local protocol (rely on local staff)
- Use proper titles and show respect for office
- Speak when recognized/spoken to
- Tell the story

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Dealing with Elected Officials

- Listen - don't argue or defend every point
- Share the process – No surprises
- Find a project champion
- Give a little extra attention

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Dealing with the Media

- “Mass Media” is an Oxymoron
- It’s Your Agenda, not the Media’s
- Keep Communicating
- Build Relationships

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Media Tools

- Personal Visits – Build Relationships
- Media Kits – Content, Not Glitz
- Press Release - Newsworthy
- Press Conference – Last Resort

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If You Succeed in Public Involvement

- Focus Shifts from Problems to Solutions
- You and Community Share an Agenda
- Community has a Stake in Process
- You have Created “Rainmakers”

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Principles of CSD

3. Address all modes of travel.



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Critical Skill: Designing for Transit



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... For Pedestrians



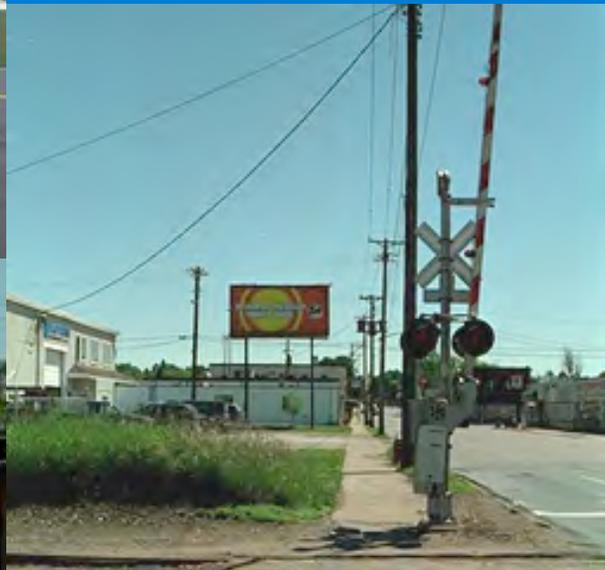
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... For Bicycles



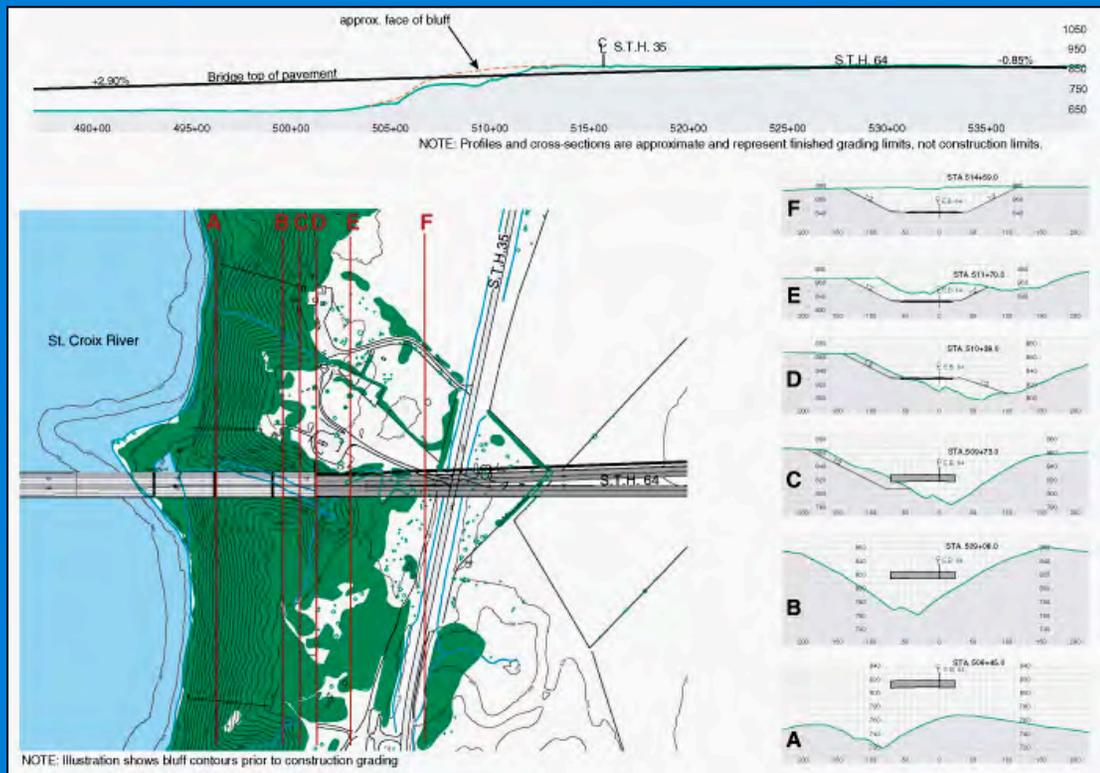
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... Intermodal Connections



Principles of CSD

5. Apply flexibility inherent in design standards.



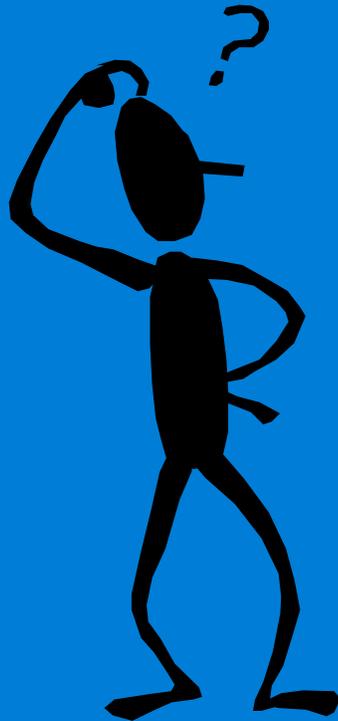
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Critical Skill: “Think Method of Design”

- A WAY OF THINKING – NOT A SEPARATE PROCESS OR PRODUCT
- Design process for all projects
- Varying levels of application
- Extends throughout project development process



Defining the “Problem”



- Transportation needs
- Community needs
- Environmental protection requirements
- Other needs



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Scoping the Alternatives



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During Pre Design

- How can alignment and section be adjusted to maximize benefit for all goals ?
- How can aesthetic design and landscaping be incorporated to enhance goals?
- How can impacts be avoided, minimized, mitigated?
- What will it look like in three dimensions?

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Example: CR “S” in Polk County



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Mitigation Sequencing

- Avoid
- Minimize
- Repair or restore
- Reduce over time
- Replace

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AVOIDING IMPACT THROUGH ALIGNMENT CHOICE



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Minimizing Impacts through Design





During Final Design



- How can the goals/
values identified be
best implemented
in the selected
alternative?



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Keeping the Faith

DOCUMENT!

DOCUMENT!

DOCUMENT!

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Document All Design Decisions



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During Right-of-Way Acquisition



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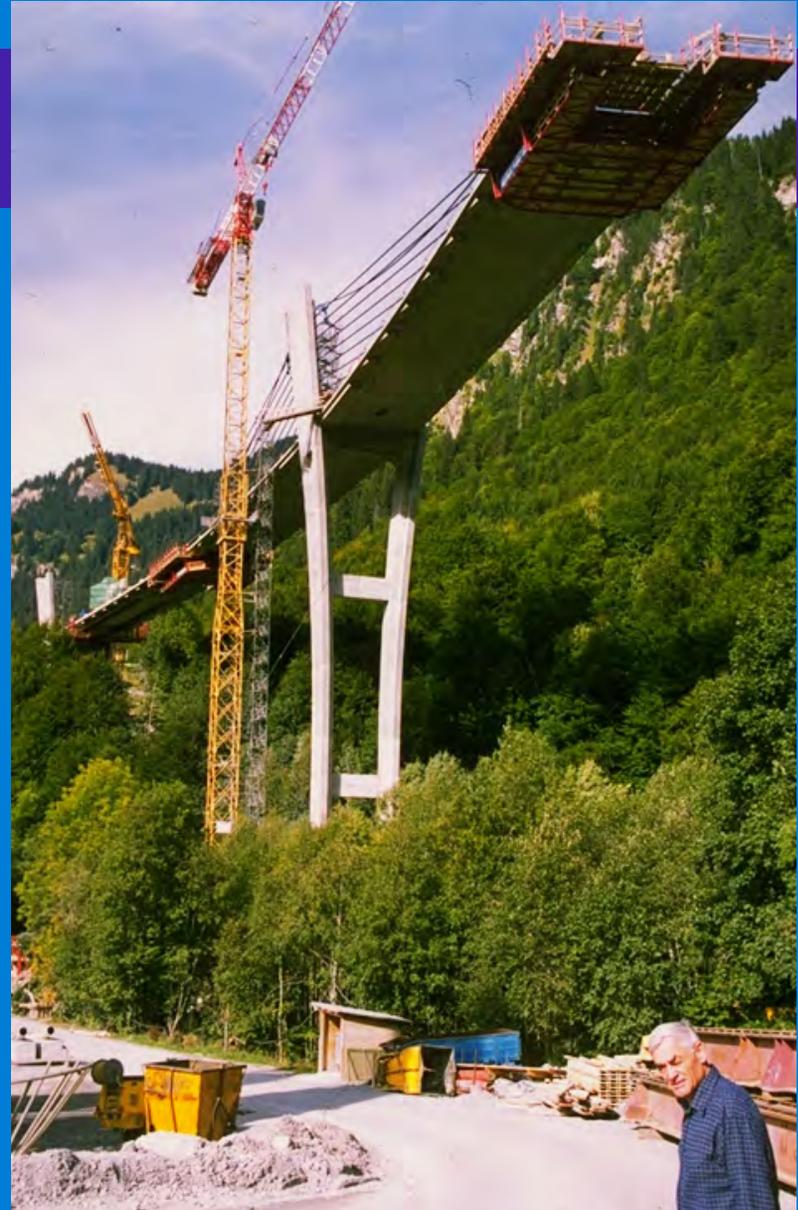
During Construction

- How can we best carry out the design and decisions made in the previous phases?



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During Construction

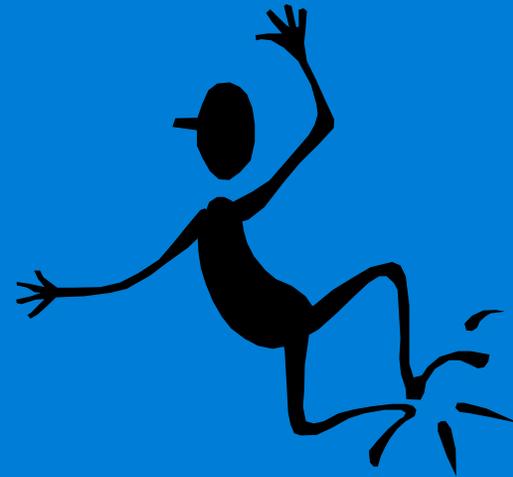


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Maintenance Issues

- How can we foster continued commitment to the chosen design?
- How can we minimize unintended maintenance impacts through design?



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Principles of CSD

4. Use an interdisciplinary team tailored to project needs.



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Critical Skill: Collaboration

- Internal and external resources
- Training opportunities
- T² - UM Center for Transportation Studies
- Internet
- Bibliography
- Visualizations



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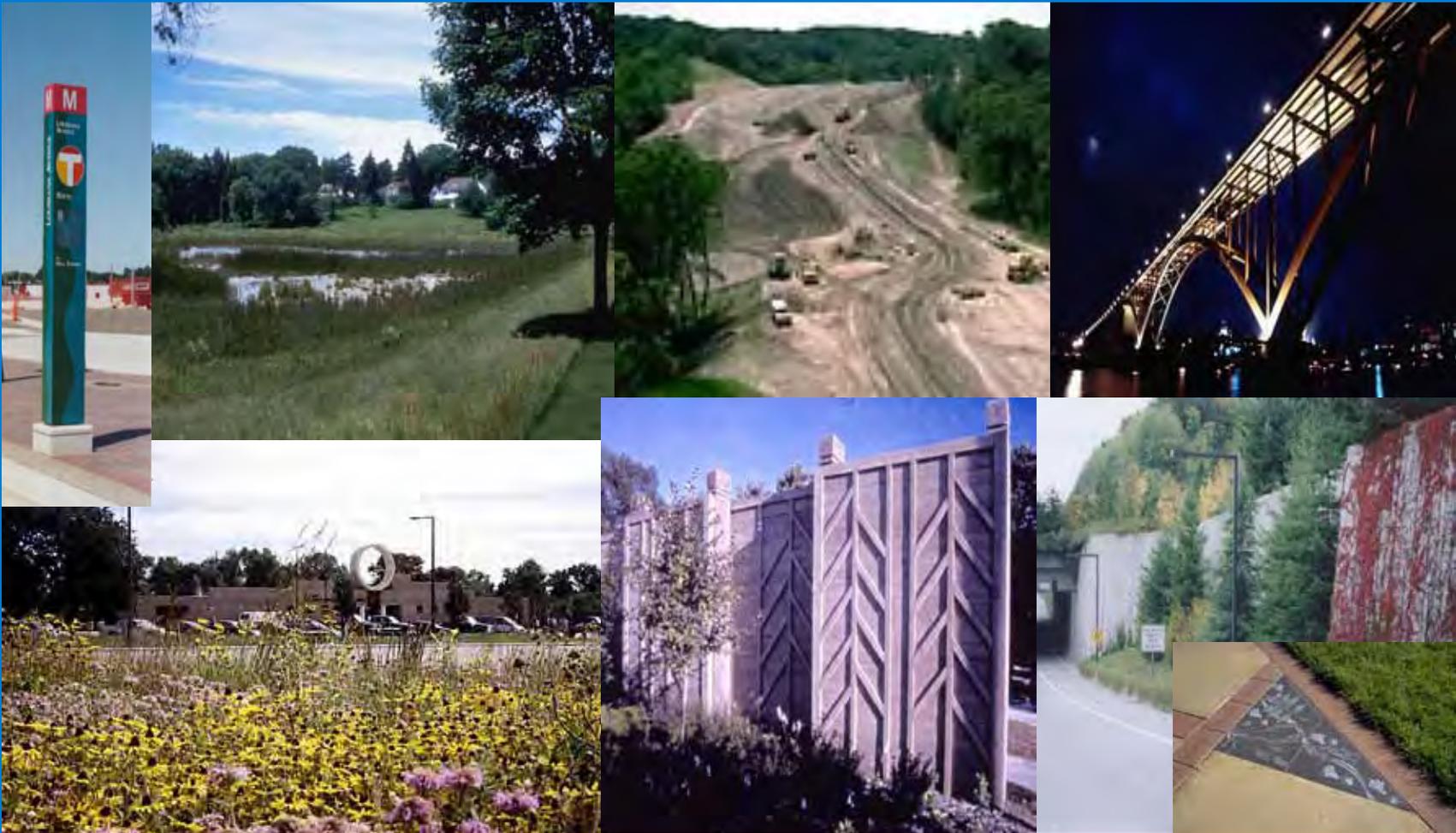
Principles of CSD

6. Incorporate aesthetics as an integral part of good design.



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Critical Skill: Aesthetic Design



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Fundamentals of Aesthetic Design

- Form
- Character
- Detail
- Scale
- Proportion

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Another Critical Skill: Funding

- Context Sensitive Design does not necessarily cost more!
- Sometimes requires creative assembly of funding sources.



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Learning from Successes and Failures



Monitor the Results



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Remember: The Objective is Balance

Safety and mobility
with
Scenic, aesthetic,
historic, environmental
and community values

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A Successful Project. . .

- Has community acceptance
- Is compatible with the environment
- Has engineering/functional credibility
- Is financially feasible

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Factors That Shape Success

- Planning and public involvement
- **Perseverance of the individual**
- Visionary leadership
- Maximizing funding opportunities
- Integration of interdisciplinary experts



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Factors That Shape Success

- Flexible and innovative design
- Learning from successes and failures
- Visual and environmental quality
- Reasonable cost
- Presenting and promoting the results
- **Attitude and Tradition of Excellence**

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Benefits of Pro-Active Posture

- Derive timely decisions
- Obtain decisions that stick
- Develop partners - not opponents
- **Generate public trust and support**
- Build positive relationships with resource agencies
- Improve project delivery

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Next Session

- Flexibility in Design Standards
- System and Network Relationships
- Design-Safety Relationship
- Tort Liability