Integrating CSS Into System Planning
The Minneapolis Ten-Year Action Plan
2005 Midwest Region CSD&S Workshop
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City of Minneapolis

Project Team
- City of Minneapolis
  - Public Works
  - Community Planning and Economic Development
- Partner Agencies
  - Metro Transit
  - Metropolitan Council
  - Hennepin County
  - Mn/DOT
- Consultants
  - Meyer, Mohaddes Associates
  - Nelson/Nygaard Consulting Associates
  - Short, Elliott, Hendrickson Inc.
  - Richardson, Richter & Associates

History of the Problem
- Project by project resolution of design conflicts
  - Unique to each project
  - Time-consuming
  - Unpredictable
- Frustration levels have been growing
  - Partner agencies
  - Residents
  - Property owners
  - Business operators
Historical Challenges

- Multiple Jurisdictions
  - County or State own the “big” streets

- Conflicting Perceptions of Function
  - Regional movement
  - Functional Class
  - Residents
  - Day to day users

- Design Standards Linked to Funding Source
  - Minnesota State Aid
  - Minnesota Trunk Highway

Comprehensive Plan vs. Regional Plan

- Comprehensive Plan conflicts with the MPO’s approach to Functional Class and funding requirements
  - Emphasizes walkability, transit first, and bicycles
  - Directs growth to major corridors

- Regional Plan reserves major corridors for auto movement
  - Relievers
    - Arterials that provide direct relief for freeways
  - Augmenters
    - Arterials that extend the freeway function

Ten-Year Transportation Plan

- Action Plan – not policy plan
- Short Term – ten-year plan with emphasis on next 1-2 years
- Citywide – focus on primary (arterial) networks
- Multi-modal – pedestrian, bicycle, transit, automobile, freight
- Downtown – transportation strategies
- Place-based approach to street design
Street Planning and Design Framework

- Place-Based
- Multi-Modal
- Responsive to Movement Patterns

Place-Based

- Integrates Movement and Place
- Responds to varied character of districts and neighborhoods in Minneapolis

Multi-Modal

- Addresses emphasis of non-auto modes in street design
- Incorporates design requirements of transit, pedestrians, bicycles, freight and autos
Responsive to Movement Patterns

- Recognizes the central role that Minneapolis plays in the regional economy.
- Recognizes how the mix of local and regional traffic on individual streets affects operational capacity.

Outcomes

- Easier decision making.
- Guidelines that are suitable for a core city.
- Better alignment of Movement / Place, Jurisdiction / Function, Funding / Design Criteria.

System Planning Process

- Select street type.
- Establish modal emphasis.
- Match to places:
  - Context areas.
- Iterative process to:
  - Determine street design criteria.
  - Determine zoning/urban form changes.
- Establish priorities for what to trade off in constrained conditions.
Movement Elements

- More than just the regional function of the roadway
- Each mode has its own network requirements
- Layering of networks necessary to understand what emphasis to give to each mode in the design process

Roadway Jurisdiction

Functional Class
Examples of Street Types

- Boulevard
  - Transit Boulevard
- Avenue
- Mixed-use Street
- Residential Street
- Downtown Street
  - Transit Street
- Industrial Street
- Parkway Street

Place/Context Elements

- Place is about more than land use
- Components comprise activity
- Urban form is one element
- Layering of activities is necessary to understand what emphasis to give to each mode in the design process

Land Use
Places
- Commercial Corridors
- Community Corridors
- Downtown
- Neighborhood
  - Commercial Nodes
- Neighborhoods
- Industrial Districts
- Parks and Open Space

Ten-Year Transportation Action Plan

Framework

<table>
<thead>
<tr>
<th>Places</th>
<th>Functional Class</th>
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<tbody>
<tr>
<td></td>
<td>A Minor Arterial</td>
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<tr>
<td>Commercial Corridors</td>
<td>Boulevard</td>
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<tr>
<td>Community Corridors</td>
<td>Avenue</td>
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<tr>
<td>Downtown</td>
<td>Avenue</td>
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<td>Industrial Districts</td>
<td>Industrial Street</td>
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<tr>
<td>Parks/Open Space</td>
<td>Parkway Street</td>
</tr>
</tbody>
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Design Guidelines
- Each Street Type has unique design criteria to
  - Reflect walkable design
    - Walk width/amenity supportive of community context
  - Reflect modal emphasis
    - Transit/bike/freight
  - Reflect movement patterns
    - Optimize operational capacity
  - Reflect community context
    - Match access and parking patterns to context and regional role
Design Criteria: Streets
- Target speed
- Lane width
- Curb return radii
- Number of travel lanes
- Shoulders
- On-street parking
- Medians
- Mid-block crossings

Design Criteria: Intersections
- Turn lanes
- Signalization
- Design vehicle

Design Criteria: Place
- Land use mix
- Building form and massing
- Building orientation
- Transit integration
- Parking orientation
- Streetscape/amenity

Design Zones

[Diagram of Design Zones]
Vehicle/Pedestrian Zones

- Vehicle Zone
- Pedestrian Zone
- Median/Turn Zone
- Parking/Bicycle/Transit Zone

Pedestrian Design Zones

- Edge Zone: Closest to curb
- Furnishings Zone: Planting zone
- Travel Zone: “Clear” width
- Frontage Zone: Window shopping

Street Guidelines
Action/Implementation

- Functional class changes
- Funding requirements
- Standards
  - Adjust State Aid criteria for core city streets
- Zoning
- Working with partner agencies