PlanIt

Webinar Series for Comprehensive Plan Updates

Transit Planning Basics, Market Areas, and Comprehensive Planning

Presented by Mike Larson and Michael Mechtenberg
August 18, 2016
Webinar Overview

- Transit Planning Basics
- Transit Market Areas
- Regional Planning for Transit Improvements
- Comprehensive Planning for Transit
Fundamentals of Service Planning

• Trade-off in allocating limited resources
Fundamentals of Service Planning

• Trade-off in allocating limited resources
• Maximize ridership
Fundamentals of Service Planning

- Trade-off in allocating limited resources
- Maximize ridership
- Maintaining coverage
Transit Planning Basics

Encourage population and activity density

Density supports transit because there are more people and activities within walking distance of nodes. Additionally, people living in dense areas are more likely to use transit because better transit options can be provided in order to be more competitive with driving.
Transit Planning Basics

Encourage population and activity density

More transit supportive

Less transit supportive
Transit Planning Basics

Design for a pedestrian-friendly environment

All transit users are pedestrians for at least some portion of the beginning and end of their trip. A pedestrian-friendly environment encourages transit use by providing a comfortable walking environment and minimizing the walking distance from the transit stop to front doors.

More Transit Supportive

Less Transit Supportive
Transit Planning Basics

Design for a pedestrian-friendly environment

More transit supportive    Less transit supportive
Transit Planning Basics

Encourage a mixed-use land use pattern

Transit is most effective when it serves a variety of trip purposes and destinations. Mixed-use development patterns encourage travel patterns with many origins and destinations throughout the day, making transit more effective and easy to provide for a variety of purposes.

More Transit Supportive

Less Transit Supportive
Transit Planning Basics

Encourage a mixed-use land use pattern

More transit supportive  Less transit supportive
Transit Planning Basics

Develop an interconnected street network that maximizes pedestrian and bicycle access and allows for simple route design.

An interconnected street network minimizes barriers and maximizes the area that is accessible within a short walk or bike to a transit stop, allowing each stop to serve more people. In addition, it supports the design of simple, direct routes that are efficient and easy to understand.

More Transit Supportive

Less Transit Supportive
Transit Planning Basics

Develop an interconnected street network

More transit supportive  Less transit supportive
Transit Planning Basics

Support travel options that encourage or complement using transit

Transit is more effective in areas where the cost of driving and parking are comparable to the cost of using transit, and alternatives like car-sharing, bicycling, and walking are available and convenient.
Transit Planning Basics

Support travel options that encourage or complement using transit

More transit supportive

Less transit supportive
Transit Planning Basics

Plan for linear growth in nodes along corridors

A linear pattern of development along corridors is easier to serve with transit. Transit routes that are linear and consistent are most effective to provide and easier for customers to understand. This also requires coordination across community boundaries.

More Transit Supportive

Less Transit Supportive

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Transit Planning Basics

Plan for linear growth in nodes along corridor

More transit supportive

Less transit supportive
Other Design Factors

• Park and rides create artificial density
• Reduce variables for better service (traffic, stops, signals, etc.)
• Frequency matters!
  • Reduces waiting
  • Facilitates connections
  • Backstop for problems of reliability
• Network effect
Summary

• Maximize public investment
  • Efficient, productive routes serve the most riders
  • Always looking for refinements
  • Seek new funding to improve service
• Flexible approach to service planning
  • Know market, goals
  • Transit is a public service, not a business
Transit Market Areas
Transit Market Areas

- Population density
- Employment density
Transit Market Areas

- Population density
- Employment density
- Intersection density
- Automobile availability
## Transit Market Areas

<table>
<thead>
<tr>
<th>Market Area</th>
<th>Typical Transit Service</th>
<th>Community Designations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Dense network</strong> of local routes with <strong>highest levels of service</strong> accommodating a <strong>wide variety of trip purposes.</strong></td>
<td>Core of Minneapolis / St. Paul</td>
</tr>
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PlanIt
Transit Market Areas
# Transit Market Areas

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<tr>
<td>II</td>
<td>Similar network structure to Market Area I with <strong>reduced level of service</strong> as demand warrants.</td>
<td>Urban Center Urban</td>
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## Transit Market Areas

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<td>III</td>
<td>Primary emphasis is on <strong>commuter express</strong> bus service. Suburban local routes providing <strong>basic coverage</strong>.</td>
<td>Urban Suburban Suburban Edge</td>
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<td>Peak period express service is appropriate as local demand warrants.</td>
<td>Suburban Edge Emerging Suburban Edge</td>
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<td>V</td>
<td>Dial-a-Ride only</td>
<td>Diversified Rural</td>
</tr>
<tr>
<td></td>
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<td>Rural Residential</td>
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<td>Rural Center</td>
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<td></td>
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<td>Agricultural</td>
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<tr>
<td>Freestanding Town Center</td>
<td>Dial-a-Ride / limited potential for other service</td>
<td>Forest Lake</td>
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<td></td>
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<td>Hastings</td>
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<td></td>
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<td>Scandia</td>
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<td>Stillwater</td>
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Emerging Market Areas

- Stronger for transit than surrounding area
  - Historic development patterns
  - Recent intensification
- Focus on further development and connections
Emerging Market Areas

- Stronger for transit than surrounding area
  - Historic development patterns
  - Recent intensification
- Focus on further development and connections
What is Metro Transit’s Service Improvement Plan (SIP)?

• Bus service expansion plan
  • Builds on existing network
  • Identifies potential new routes, frequency and span improvements on existing routes

• Prioritized, specific list of how to grow and improve local and express bus service in both near and long-term

• Establish a framework of when and how to expand the bus network

• Implementation requires additional operating funds

• Informs the legislative program, regional SIP, and other transit funding opportunities
Regional Transit Providers
Metro Transit SIP Evaluation Criteria

- **Productivity** criteria demonstrate the ridership potential of service improvements using land use and density factors (50% weight)

- **Social equity** criteria evaluate how well improvements serve people most reliant on transit (25% weight)

- **System connectivity** criteria establish how well projects improve connections and service throughout the Metro Transit service area (25% weight)
Metro Transit SIP Scoring

• Three project priority categories
  • High – 75 percent of possible points or greater
  • Medium – 55 percent of possible points or greater
  • Low – less than 55 percent of possible points

• High and Medium projects prioritized for implementation
  • Represent resource requirements and ridership growth in SIP
  • Arterial BRT included in resources but not evaluated under SIP

• Implementation Phases
  • 2015-2017; 2018-2020; 2021-2030
Evaluation Results

50 High projects
- 9.7 Million new rides

87 Medium projects
- 8.8 Million new rides

11 Arterial BRT projects
- 10.2 Million new rides

148 projects on 94 routes
- 58 expand coverage/ improve connectivity
- 71 improve frequency on existing service
- 52 expand span of service
- 7 add reverse commute service

Recommended for Implementation

48 Low projects
- 2.7 Million new rides
Metro Transit SIP Project by Score

SIP Project by Score
- Green: High
- Blue: Medium
- Red: Low
Sample Service Improvement

Route 721
- Increase weekend frequency to every 30 minutes
- Project scored well in subsidy, productivity, access to low wage jobs, access for people of color, and connections to key destinations and educational institutions
- Implemented December 2015
Service Expansion Considerations

Ensure existing service works
- Correct running time, trip times, bus type
- Maintain connections
- Long-term detours, routing changes

Incremental expansion of service
- Add service where it’s warranted
- Careful consideration for entirely new service
Current Revenue Scenario
Increased Revenue Scenario
Comprehensive Planning

• General requirements for transit
• How to get more out of your plan
• Requirements for transitways and high frequency routes
• New policy requirements and timing
Comp Plan Requirements

TRANSPORTATION

The 2040 Transportation Policy Plan (2040 TPP) outlines the plans for regional facilities including principal arterial highways, metropolitan transit services and facilities, and the region’s aviation facilities that communities should reflect in updating their local comprehensive plan. It includes chapters on the characteristics of the existing transportation system; goals, objectives and strategies; transportation finance and the plans and policy direction for each mode. The appendices also provide important resources.

The 2040 Transportation Policy Plan describes two funding scenarios for the highway and transit improvements to the metropolitan transportation system.

- Current Revenue Scenario: This is the adopted metropolitan transportation system plan which includes affordable improvements. Local comprehensive plans will be reviewed for conformance with this “fiscally constrained” plan.
- Increased Revenue Scenario: This scenario includes regional projects that could be implemented if additional revenues are made available for transportation. While the local comprehensive plans can include these improvements, they must be described as unfunded and the uncertainty of their implementation clearly distinguished from the rest of the plan.

Transportation Plan

- TRANSPORTATION ANALYSIS ZONES
- ROADWAYS
- TRANSIT

A strong system of public transit is an essential part of a prosperous, livable, sustainable, and equitable region. Transitway investments are being made in corridors where there is likely to be significant ridership, as well as the potential for future concentrations of growth. Other types of transit services complement that investment, including local bus service. To ensure a cost-effective regional transit system, it is a policy of the 2040 Transportation Policy Plan (2040 TPP) that communities guide growth at higher densities near stations for light rail, bus rapid transit, commuter rail, and high-frequency bus corridors.

Minimum Requirements:
Comp Plan Requirements

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Transportation Plan

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Comp Plan Requirements

Map and describe transit services
Comp Plan Requirements

Map and describe transit services

Discussion of Transit Market Area
Comp Plan Requirements

Map and describe transit services

Discussion of Transit Market Area

Corridor and station area planning
Comp Plan Requirements

- Map and describe transit services
- Discussion of Transit Market Area
- Corridor and station area planning
- Transit station area density and activity level policies
Comp Plan Requirements

- Map and describe transit services
- Discussion of Transit Market Area
- Corridor and station area planning
- Transit station area density and activity level policies
- Access by bicycling and walking
Comp Plan Requirements
Transit System Mapping
Transit Market Areas
Transit Market Areas
Transit Market Areas
Transit Market Areas
Getting More Out of Your Plan
Getting More Out of Your Plan

- Improve conditions related to Transit Market Area
Getting More Out of Your Plan

• Improve conditions related to Transit Market Area

• Creating a more walking- and bicycling-friendly community
Getting More Out of Your Plan

• Improve conditions related to Transit Market Area
• Creating a more walking- and bicycling-friendly community
• Partnering with other communities
Getting More Out of Your Plan

- Improving mobility and reducing cost of living for low- and moderate-income households
Getting More Out of Your Plan

- Improving mobility and reducing cost of living low- and moderate-income households
- Economic competitiveness
Getting More Out of Your Plan

- Improving mobility and reducing cost of living low- and moderate-income households
- Economic competitiveness
- Resilience and sustainability
TRANsitway Station Guidance
Local Planning Handbook

Transitway Station Status:
Definitions and Expectations Guidance for Local Comprehensive Planning

The purpose of this matrix is to outline expectations for communities around station-area planning during different phases of developing a regional transitway. Because the process often takes many years, the nature of local planning and support moves from general planning to specific implementation efforts, and the expectations of the Council and the Federal Transit Administration follow a similar path. Corridor planning and local land use planning provide guidance for early design and engineering. Over time, aspects of the transitway become more certain, including the alignment, the number and location of stations, the certainty of funding commitments, the scheduling of construction, and the opening of transitway service. As the transitway and its station locations become more certain, communities must adopt local plans, policies, and programs that support these important regional investments. The 2040 Transportation Policy Plan identifies requirements and guidance on station-area planning and policies. This matrix attempts to clarify the timing of those expectations for local governments. The Metropolitan Council is also developing resources, such as the Transit-oriented Development Guide, to provide more-specific guidance to local government about how to best plan for and implement land use that supports transitway investments.

### Milestone Statuses

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<th>Engineering</th>
<th>Construction and Operation</th>
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<tbody>
<tr>
<td>Planning, analysis of modes and alignments, before or including early environmental work</td>
<td>Early design environmental work in progress or complete</td>
<td>Final design construction bid packages</td>
<td>Final design and begin operation of transitway service</td>
</tr>
<tr>
<td>Recommendation of locally preferred mode and alignment, including preliminary station locations</td>
<td>Completion of environmental review and progression of design and engineering from 1% to 30% completion</td>
<td>Submission of final New Starts or Small Starts application for funding (if applicable)</td>
<td>Completion of construction and begin operation of transitway service</td>
</tr>
<tr>
<td>Adoption of locally preferred alternative in Transportation Policy Plan</td>
<td>Submit first New Starts application for entry into engineering (if applicable)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corridor mode and alignment (LPA) recommendation included in Transportation Policy Plan</td>
<td>Preliminary designs of station locations by lead agency working with communities</td>
<td>Station locations and designs finalized for construction</td>
<td>Stations constructed and transitway service operational</td>
</tr>
<tr>
<td>General station locations proposed through LPA adoption</td>
<td>Communities asked for municipal approval for station locations to advance into final design</td>
<td>Agreements for local financial participation in transitway finalized (e.g. local enrichments)</td>
<td>Future infill stations, extensions, or reconfiguration of stations would need to be considered through separate projects</td>
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## Milestone Status for the Corridor

- Recommendation of locally preferred mode and alignment, including preliminary station locations
- Adoption of locally preferred alternative in Transportation Policy Plan

## Milestone Status for the Stations on the Corridor

- Included in Transportation Policy Plan
- General station locations proposed through LPA adoption
- Working with communities
- Communities asked for municipal approval for station locations to advance into final design
- Construction Agreements for local financial participation in transitway finalized (e.g., local enrichments)
- Operational Future infill stations, extensions, or reconfiguration of stations would need to be considered through separate projects

Continue to next page →
#### Council Expectations for Communities at Milestone - Station-Area Planning

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<th>Details</th>
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<td>- Incorporate small area plan into comprehensive plan and submit amendment to Council for review</td>
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<td>Request forecast changes and adjust forecast allocations in conjunction with comp plan amendment</td>
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<td>Begin implementing elements of station-area plan, such as updating zoning ordinances, adopting overlay districts, and updating Capital Improvement Plans</td>
<td>- If undertaking FTA Joint Development project, finalize agreement with partner jurisdictions and developers on participation</td>
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<td>Identify potential FTA Joint Development opportunities</td>
<td>- Local opening-day, station-supportive improvements completed, including LRCIs</td>
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<td>- Ongoing implementation of the adopted zoning and regulatory changes</td>
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<td>- Completion of Joint Development projects</td>
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Council Expectations for Communities at Milestone – Station-Area Planning

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- Complete zoning studies and adopt zoning and other regulatory changes supportive of station-area plan implementation
- Schedule improvements in local Capital Improvement Plan; coordinate opening-day, station-supportive capital improvements with transitway construction, including Locally Requested Capital Investments (LRCIs)
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Growth Near Transit
Growth Near Transit
Residential Density

• Applicable Transit Types
  • Light Rail Transit (LRT)
  • Commuter Rail
  • Highway Bus Rapid Transit (BRT)
  • Arterial BRT
  • High Frequency Bus Routes

• Does Not Apply
  • Local bus routes
  • Express bus routes
Residential Density

- Existing transitways and high frequency routes
Residential Density

- Existing transitways and high frequency routes
- Transitways under construction
Residential Density

- Existing transitways and high frequency routes
- Transitways under construction
- Current Revenue Scenario
  - Alignment certainty
  - Station certainty
  - Funding certainty
Residential Density

• ½ mile or 10-minute walk
  • Fixed-Guideway Transit
  • Highway BRT
Residential Density

- ½ mile or 10-minute walk
  - Fixed-Guideway Transit
  - Highway BRT

- ¼ mile or 5-minute walk
  - Arterial BRT
  - High Frequency Bus Route
Residential Density

- ½ mile or 10-minute walk
  - Fixed-Guideway Transit
  - Highway BRT

- ¼ mile or 5-minute walk
  - Arterial BRT
  - High Frequency Bus Route

- Only areas identified for new development or redevelopment
Residential Density

• Where It Doesn’t Apply
  • Established areas not guided for change
  • Areas guided for non-residential uses
# Residential Density (du/acre)

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<th>Urban Center</th>
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<tbody>
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<td>10</td>
<td>20</td>
</tr>
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<tr>
<td><strong>High Frequency Bus</strong></td>
<td></td>
<td></td>
<td>10</td>
<td>15-60+</td>
</tr>
</tbody>
</table>
Activity Levels for Station Areas

• Stations as focal points of activity
• Encourage a mix of uses
• Meet multiple needs of transit riders
• Maximize return on transitway investment
• Guideline of 7,000 residents, employees, or students
• Informed by market demand or readiness for redevelopment
TRANSIT ORIENTED DEVELOPMENT GUIDE

Investing in transit and supporting transit oriented development (TOD) are priorities for the region. These efforts support the five outcomes of Thrive MSP 2040: Stewardship, Prosperity, Equity, Livability, and Sustainability.

The Metropolitan Council’s TOD Policy states that the Metropolitan Council will play a leadership role in planning and implementing TOD. We will continue to support local communities to ensure that growth supports a reliable and cost-effective transit system, help cities leverage private investment, and advance regional equity.

Purpose of TOD Guide
For local planners, elected officials, planning commissioners, and others interested in planning, this TOD Guide is intended to:

- Explain the roles and responsibilities of each level of government in planning and implementing TOD.
- Address the importance of market demand and the needs of people most dependent on transit.
- Emphasize implementation.
- Share case studies and best practices that demonstrate how cities overcame challenges and achieved successful outcomes.
- Help local planners build and share knowledge of TOD planning and implementation.
- Reflect topics of interest to local planners working on TOD planning and implementation.

Suggestions on Resources
We want this resource to be current and constantly improving. Can you suggest resources that you think would help others? Do you have ideas about how this guide could be more helpful? Contact us at TODGuide@metc.state.mn.us

Sign up for email updates when new information and resources become available in the TOD Guide.
Resources


http://www.metrocouncil.org/Handbook/PlanIt.aspx

http://www.metrocouncil.org/Transportation/Planning-2/Key-Transportation-Planning-Documents/Transportation-Policy-Plan-(1).aspx

http://metro council.org/Communities/Planning/TOD.aspx

https://gisdata.mn.gov/
Questions?

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Michael Mechtenberg, Senior Planner
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Upcoming Events

Local Planning, the Regional Bicycle Transportation Network & Regional Trails
Presented by Steve Elmer and Jan Youngquist
Thursday, October 13, 2016

Housing Requirements Discussion
Presented by Lisa Barajas
Thursday, October 27, 2016