

2040 Transportation Policy Plan Update

Modal Investment Chapters 5-9

Modal Chapters Overview of Changes

- Chapter 5 Highway Investment Direction and Plan
- Chapter 6 Transit Investment Direction and Plan
- Chapter 7 Bicycle and Pedestrian Investment Direction
- Chapter 8 Freight Investment Direction
- Chapter 9 Aviation Investment Direction and Plan

Chapter 5 Highways

Highways Investment Prioritization Factors

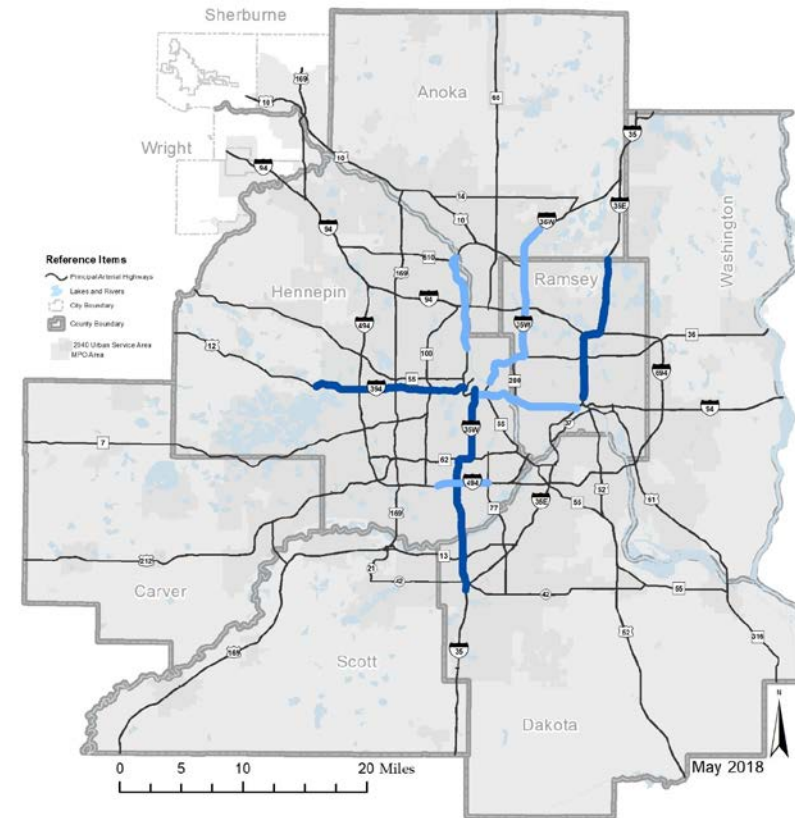
- Safety and security
- Operate, maintain and rebuild
- Improve critical system connectivity
- Improve travel time reliability and provide options in congested corridors
- Support growth and local comprehensive plans
- Regional balance of investments

Highways Investment Direction

- Operate, maintain & rebuild the existing system – catalyst to address other needs (safety, mobility, freight, bike, pedestrian, etc.)
- Mitigate congestion
 - Traffic management technologies
 - Spot mobility improvements
 - MnPASS
 - Strategic capacity enhancements
- Consider lower cost/higher return projects that address most of the problems for a fraction of the cost of high-cost projects that try to eliminate all problems
- Focus on today's problems, utilize existing infrastructure and ROW
- Coordinate regional and local projects

Current Revenue Scenario Highways Investments

- I-94 Minneapolis to St. Paul MnPASS (ReThinking I-94)
- I-35W NE Gateway MnPASS
- MN 252/I-94 freeway conversion and MnPASS
- I-494 MnPASS
- Spot mobility, strategic capacity (not shown)

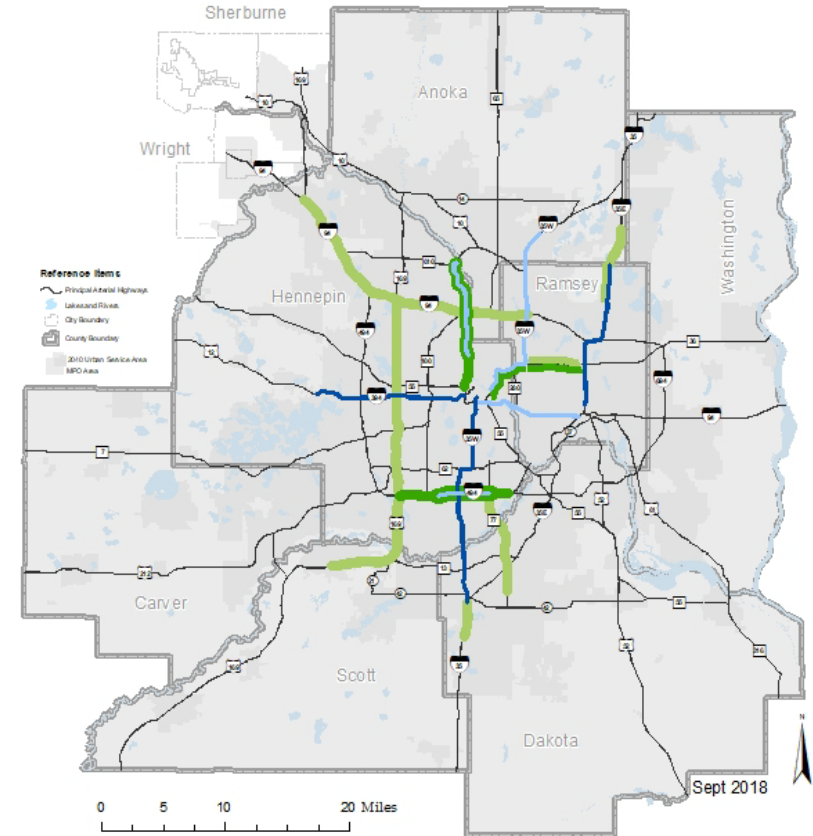


MnPASS

- Existing / Under Construction
- Tier 1 Current Revenue Scenario

Increased Revenue Scenario Highways Investments

- Operations and maintenance
- Rebuild and replace
- Safety
- Regional mobility
 - Traffic management technologies
 - MnPASS
 - Principal Arterial Interchange Conversion Study
 - Freeway System Interchange Study
- Multimodal



Highways – Expected Changes

- Projects from 2018 Regional Solicitation, Counties, etc.
- Future to past tense, removed constructed projects, etc.
- Congestion free -> less congested, more reliable
- Freeway System Interchange Study results
 - < \$10m & < 4-year return period in Current Revenue Scenario
 - Remaining in Increased Revenue Scenario
- Pavement and safety, measures and targets
- Regional significant definition added
- *Population and VMT estimates/forecasts*
- *Nearly all maps*

Highways – Work Program Items

- Congestion Management Process Plan
- Highways Performance Measures and Funding Decisions
- Assessment of Regional Congestion Mitigation Philosophy (new)
- Regional Solicitation Projects Before and After Analysis
- Connected and Autonomous Vehicles
- Electric Vehicles Planning Study

Questions?

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Highways and Regional Solicitation
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Chapter 6 Transit

Current Transit Policies in the TPP

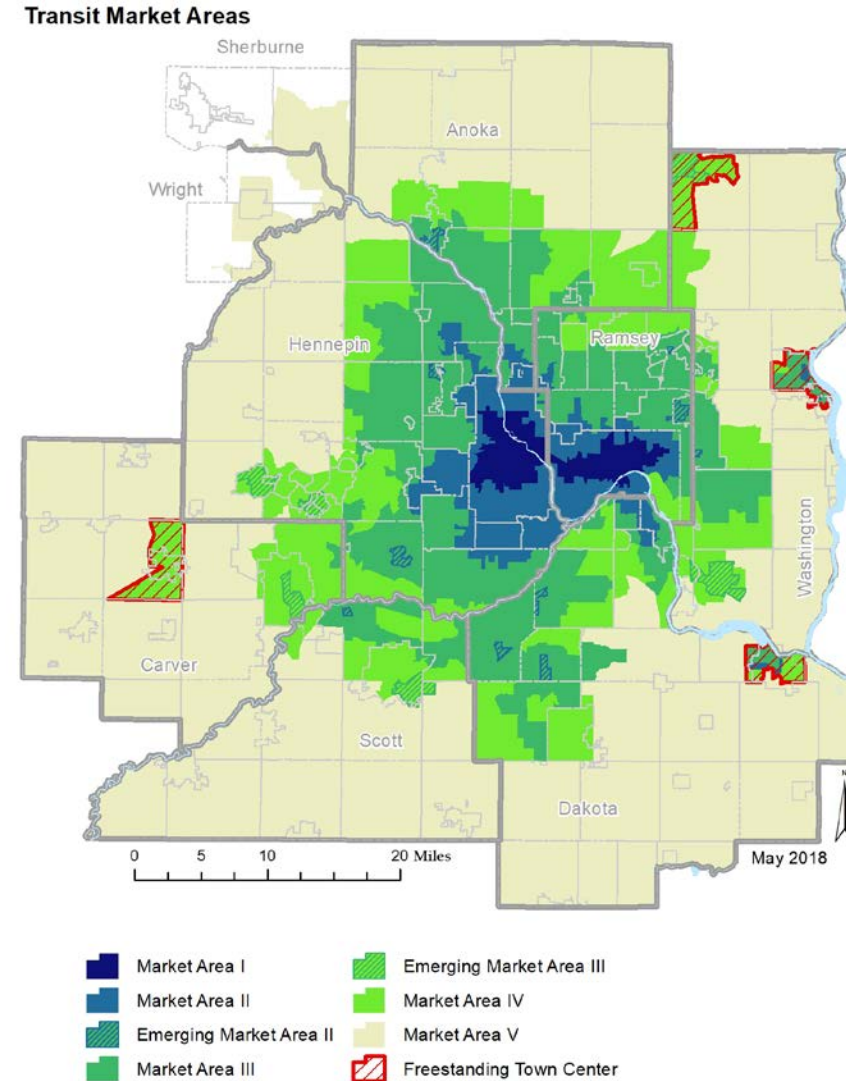
- Transit Investment Direction and Plan (Transit Chapter)
- Regional Transit Design Guidelines and Performance Standards (Appendix G)
- 4-Year Work Program for Regional Planning Studies (Work Program Chapter)
- Financial Summary of Transit Investment Plan (Finance Chapter)
- Local Government Land Use Policies Supporting Transit (Land Use Chapter)

Transit Investment Direction

- Able to maintain existing bus system provided:
 - Regular fare increases to maintain fare recovery ratio
 - Motor vehicle sales tax (MVST) continues to grow with inflation
 - Ongoing state general funds and regional transit bonding authority provided by Legislature
 - Federal formula funding grows moderately
- Regional Solicitation Funds:
 - Provide very limited expansion funding for bus system and arterial bus rapid transit funding
- Transitway capital funding provided through:
 - New/Small Starts Federal competitive grants
 - County sales tax provides majority of local funding share
 - County Regional Railroad Authority funding

Transit Investment Direction (cont.)

- Bus and Support System Direction provides overall transit policies for:
 - Transit service opportunities and expectations (Transit Market Areas and Appendix G)
 - Regional Solicitation
 - Service Improvement Plans
 - Service performance monitoring



Transit Investment Direction (cont.)

- Transitway Direction provides policies for:
 - Definitions of transitway modes
 - Transitway prioritization factors, corridor and system planning considerations
 - List of funded transitway investments
 - List of potential transitway investments (unfunded)



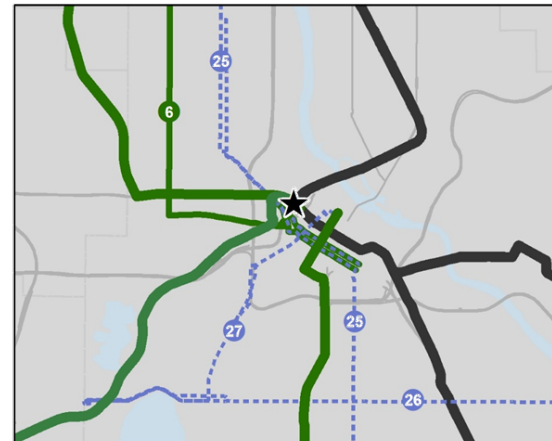
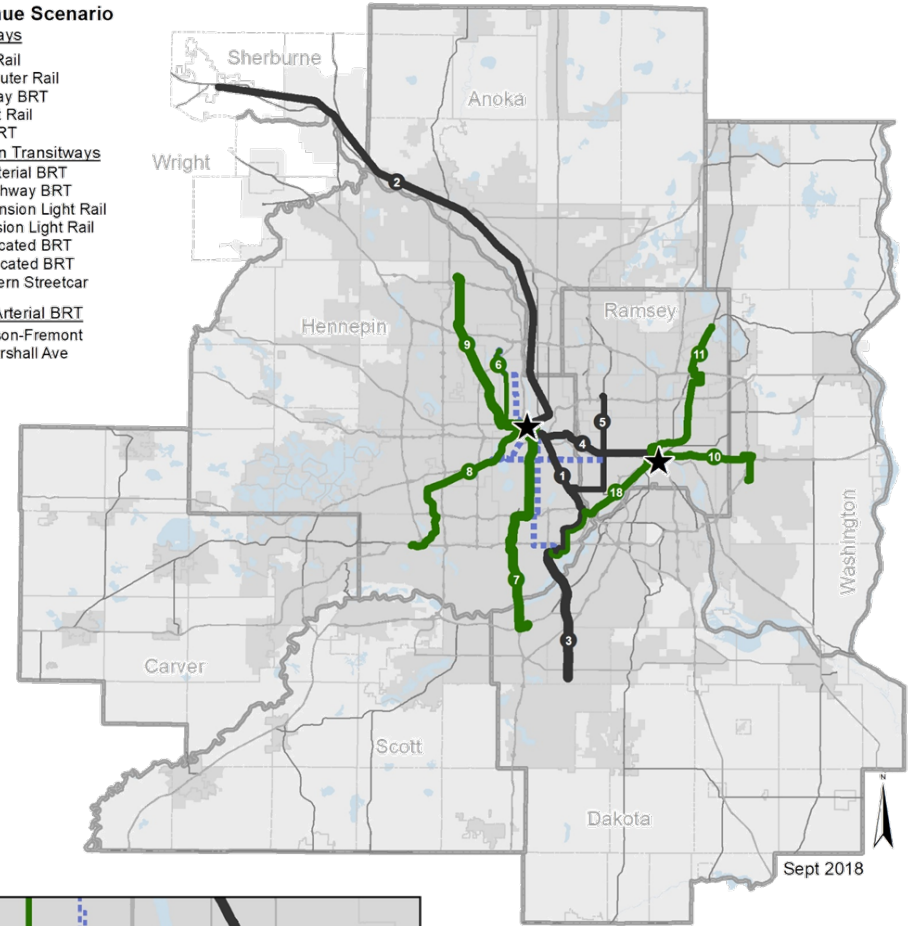
Transit Design Guidelines & Performance Standards

- Appendix G
 - Defines Route Types and Transit Market Areas
 - Transit Design Guidelines
 - Stop Spacing
 - Route Spacing
 - Span of Service
 - Minimum Frequency
 - Accessibility
 - Facility Amenities
 - Transit Performance Standards
 - Productivity – Passengers per in Service Hour
 - Cost Effectiveness – Subsidy per Passenger

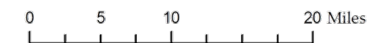
Route Type	Weekday Peak	Weekday Midday	Weekday Evening	Weekday Owl	Weekend Saturday	Weekend Sunday
Core Local Bus*	●	●	●	○	●	●
Supporting Local Bus	●	●	●	○	⊙	⊙
Suburban Local Bus	●	●	⊙	○	○	○
Arterial BRT	●	●	●	○	●	●
Highway BRT	●	●	●	○	●	●
Light Rail	●	●	●	○	●	●
Commuter Express Bus	●	○	○	○	○	○
Commuter Rail	●	○	○	○	○	○

Existing Transitways and Expansion Transitways

- Current Revenue Scenario**
- Existing Transitways
1. Blue Line Light Rail
 2. Northstar Commuter Rail
 3. Red Line Highway BRT
 4. Green Line Light Rail
 5. A Line Arterial BRT
- Funded Expansion Transitways
6. Penn Avenue Arterial BRT
 7. Orange Line Highway BRT
 8. Green Line Extension Light Rail
 9. Blue Line Extension Light Rail
 10. Gold Line Dedicated BRT
 11. Rush Line Dedicated BRT
 18. Riverview Modern Streetcar
- Partially Funded Arterial BRT
25. Chicago/Emerson-Fremont
 26. Lake Street/Marshall Ave
 27. Hennepin Ave



*Numbers are for map reference only and do not indicate any planning purpose or priority



Reference Items

- Principal Arterial Highways
- Other Trunk Highways
- Lakes and Rivers
- City Boundary
- Regional Multimodal Hub
- County Boundary
- 2040 Urban Service Area MPO Area



Transitway System in the Increased Revenue Scenario

Building an Accelerated Transitway Vision

Current Revenue Scenario

Existing Transitways

1. Blue Line Light Rail
2. Northstar Commuter Rail
3. Red Line Highway BRT
4. Green Line Light Rail
5. A Line Arterial BRT

Funded Expansion Transitways

6. Penn Avenue Arterial BRT
7. Orange Line Highway BRT
8. Green Line Extension Light Rail
9. Blue Line Extension Light Rail
10. Gold Line Dedicated BRT
11. Rush Line Dedicated BRT
18. Riverview Modern Streetcar

Increased Revenue Scenario

Projects with Study Recommendations

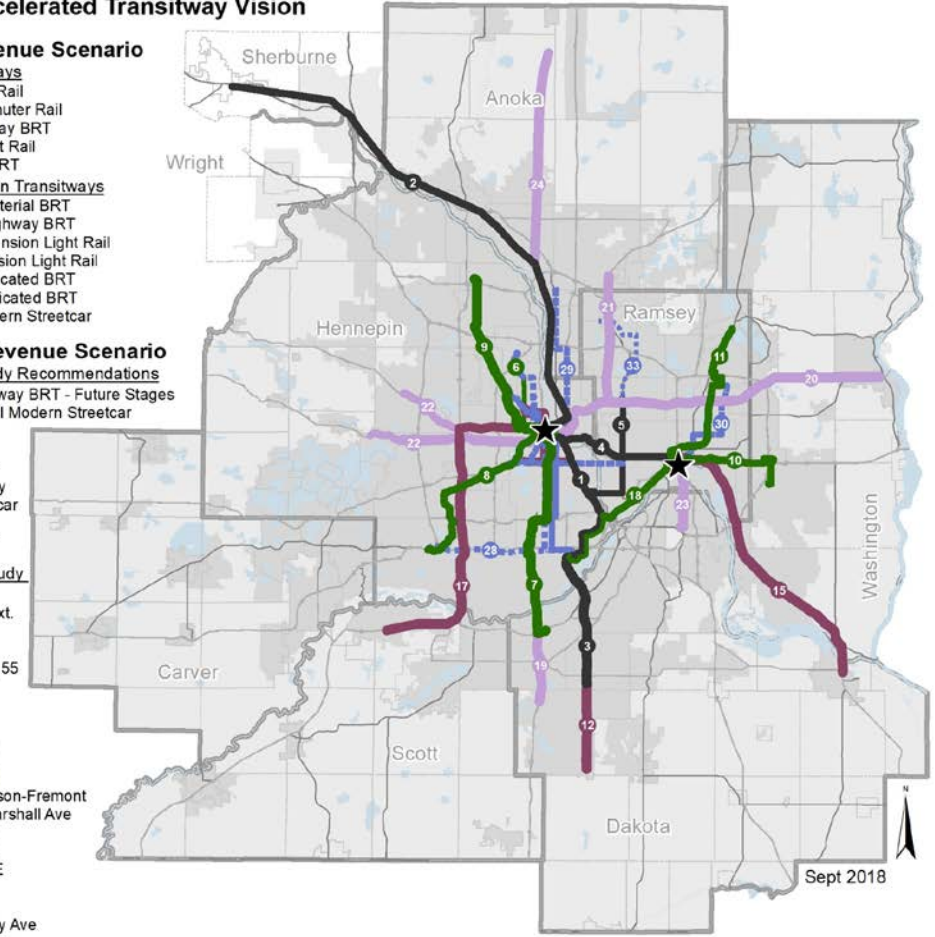
12. Red Line Highway BRT - Future Stages
13. Nicollet-Central Modern Streetcar
14. Midtown Rail
15. Red Rock Highway BRT
16. West Broadway Modern Streetcar
17. Highway 169 Highway BRT

Projects Under Study or to be Studied

19. Orange Line Ext.
20. Highway 36
21. I-35 W North
22. I-394/Highway 55
23. Robert St
24. North Central

Accelerated Arterial BRT

25. Chicago/Emerson-Fremont
26. Lake Street/Marshall Ave
27. Hennepin Ave
28. American Blvd
29. Central Ave NE
30. East 7th St
31. Nicollet Ave
32. West Broadway Ave
33. A Line Extension



Increased Revenue Scenario would also include at least 1% average annual bus expansion.

*Numbers are for map reference only and do not indicate any planning purpose or priority



Reference Items

- Principal Arterial Highways
- Other Trunk Highways
- Lakes and Rivers
- City Boundary
- County Boundary
- 2040 Urban Service Area MPO Area
- Regional Multimodal Hub

Transit – Expected Changes

- Updating known information about existing system, recent improvements
- Park-and-ride system and text updates, as needed (e.g. Gold Line impacts)
- Updated discussion of transit advantages (e.g. bus lane pilots)
- Updated 2020 Regional Solicitation discussions
- Updated statuses of:
 - Shared mobility, emerging technology, and microtransit
 - Electric buses
 - Metro Mobility
- Updated discussions of Work Program in chapter

Transit – Expected Changes

- Transitway status updates and changes
 - C Line, Red Line Stage 2 completed
 - Incorporate amendments for planned Riverview and Gold Line
 - D Line (Chicago-Fremont) assume fully funded in plan
 - E Line alignment updated (still partially funded)
 - I-94 West added to Increased Revenue Scenario
 - Minor updates to status of others
- Financial plan updates still a work in progress

Transit – Work Program

- Comprehensive Transit Finance Report
- Bus Service Allocation Study
- Network Next
 - Local Bus Speed and Reliability Improvements
 - Arterial Bus Rapid Transit Network Update
- Downtown Transit Capacity and Transit Advantages Analysis
- Microtransit and Shared Mobility Access to Transit (New)
- Mobility Hub Planning Guide (New)

Transit Work Program – Shared Mobility/Microtransit

- TPP has yet to define role for Shared Mobility and Microtransit in the region; policy limited to defining them as potential alternative to fixed route transit
- Need for policies and strategies to define how Shared Mobility and Microtransit can help achieve regional goals
- Work program item is purposefully open-ended to allow for further definition in an area of fast-evolving strategies

Transit Work Program – Mobility Hub Planning Guide

- Develop a planning guide for places where travelers can easily access to connect among multiple transportation options (including shared mobility)
- Mobility hub designs and implementation options that fit various land use contexts, but provide consistent user experience
- Analysis of land use and transportation contexts for areas that best suit mobility hub implementation

Transit Feedback for 2050 TPP Update

- Significant Review of Appendix G
 - Consider recommendations from Service Allocation Study
 - Transit design guidelines
 - Service performance standards
- Further definition of role of emerging modes (e.g. microtransit)
- Provide further clarification on how local land use planning decisions can affect transit investments

Questions?

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Chapter 7 Bicycle and Pedestrian

Bicycle Policy/Investment Direction

- Regional Bicycle Transportation Network (RBTN)
 - A regionally prioritized bikeway network integrating on-street bikeways and off-street/street-adjacent trails that connect to and between regional destinations
 - Established in 2014 TPP Update as regional transportation network vision, setting region's priorities for bikeway planning and investment
 - Based on data-driven analysis of regional bicycle corridors in Regional Bicycle System Study
 - Applied as prioritizing criterion in Regional Solicitation since 2014

Bicycle Policy/Investment Direction

- Major River Bicycle Barriers/Regional Bicycle Barriers
 - Established in 2018 TPP Update as regional priorities
 - Developed through Regional Bicycle Barriers Study
 - Incorporated in 2020 Regional Solicitation as prioritizing criteria

Bicycle – Expected Changes

- Updates to Regional Bicycle Transportation Network (RBTN)
 - Include administrative changes accepted for Regional Solicitation
 - Include planned Gold Line BRT bikeway accepted by TAB
 - Adding section “Updating the RBTN” to
 - Acknowledge new process will allow for more significant updates to RBTN elements aligned w/Regional Solicitation 2-year cycle
 - Describe need for RBTN Bikeway Facility Guidelines and Measures Study

Bicycle – Expected Changes

- Incorporate results of Technical Addendum Update to Regional Bicycle Barriers Study (RBBS)
 - Updating Figure 7-3, Regional Bicycle Barriers map
 - Replacing Figure 7-4, Example Sub-regional Map of Regional Barrier Crossing Improvement Areas with:
 - Regional Barrier Crossing Improvement Areas: Freeways & Expressways
 - Regional Barrier Crossing Improvement Areas: Railroads & Streams

Bicycle – Expected Changes

- Updating Table 7-2, RBTN Implementation Status to reflect latest additions and modifications
- Updating Table 7-5, Regional Solicitation Project Funding Summary with 2018 Solicitation values
- Adding text to acknowledge need for increasing opportunities for more collaboration in bicycle transportation and regional trails planning, consistent with Regional Parks Policy Plan

Bicycle & Pedestrian – Investment Direction

- Other Investment Factors Used in Regional Solicitation (Bicycle & Pedestrian)
 - Opportunities for pedestrian improvements, especially connecting to transit, job concentrations, or improving accessibility for people with disabilities
 - Cost effectiveness
 - Continuity & connections between jurisdictions
 - Safety
 - Multimodal projects
 - Bike connections to transit
 - Reconstruction of existing facilities

Pedestrians – Expected Changes

- Updates to data for both modes (crash data and counts)
- Added references to work done in region since the 2018 TPP
 - MnDOT Pedestrian and Bicyclist Data Program – Statewide taskforce, strategic plan
 - Strategic Highway Safety Plan and Vision Zero work in the region
 - Safe Routes to School

Bicycle and Pedestrian – Work Program Items

- Regional Bicycle System Inventory Update
- RBTN Bikeway Facility Guidelines and Measures Study
- Regional Bicycle and Pedestrian Count Program
- Regional Sidewalk Inventory Development
- Pedestrian Safety Action Plan

Bicycle – Work Program Items

- Regional Bicycle System Inventory Update
 - First compiled in 2016 in collaboration with 7 counties
 - Primary attributes compiled include existing and planned, on-street and off-street facilities
 - Purpose is to assist in regional and cross-jurisdictional network planning
 - Update to incorporate:
 - New agency bicycle plan networks
 - More current data on facility type throughout region
 - Process will be developed for coordinating regular updates

Bicycle – Work Program Items

- RBTN Bikeway Facility Guidelines and Measures Study two primary purposes:
 1. Provide recommendations for preferred facility types on RBTN alignments in urban, suburban areas and in rural areas hosting RBTN
 2. Develop recommended guidelines for applying quantifiable measures when evaluating requests for new or re-aligned RBTN corridors and alignments

Questions?

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Chapter 8 Freight

Freight Policy/Investment Direction

- Regional Truck Freight Corridors
 - Prioritized segments of Principal and Minor Arterials
 - Based on truck usage and land use factors
 - HCAADTs
 - Truck % of total traffic
 - Proximity to freight clusters (business establishment data-based from 4 freight-generating economic sectors)
 - Proximity to regional freight terminals (i.e., TPP Metropolitan Freight System)
 - Regional Truck Corridors designated as regional priorities and have been incorporated into Regional Solicitation (priority criterion) and MnDOT-administered Federal Highway Freight Program (qualifying criterion)

Freight – Expected Changes

- Adding text describing development of process to update Regional Truck Freight Corridors
 - States intention to develop process to apply new data that relates to original analysis factors from Regional Truck Highway Corridor Study
 - Process to be in place in time for 2022 Regional Solicitation
 - Will require updating Study analysis tool to allow for local data refinements and adjustments to local truck corridor segment scores
- Adding text describing intention to develop Industrial Land Atlas Mapping Tool
 - To make Industrial-Manufacturing Land Inventory database publicly available

Freight – Work Program Items

- Industrial Land Atlas Mapping Tool
- Regional Truck Data Collection Framework

Freight – Work Program Items

- Industrial Land Atlas Mapping Tool
 - Industrial land inventory compiled in 2017 as a Thrive MSP 2040 initiative
 - Determined supply of industrial/manufacturing-zoned land with freight rail and Mississippi River Waterway access
 - Industrial Land Atlas will be developed
 - On-line, interactive mapping tool
 - Facilitates identification/prioritization of industrial sites for development
 - Assists cities in identifying where land should be preserved for industrial uses

Questions?

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Chapter 9 Aviation

Current Aviation Policies in the TPP

- Safety and Security of the Regional Aviation System
- Maintain MSP as a Hub Airport
- Support growth of the Aviation system, while ensuring compatible land use with cities near airports.

Aviation – Expected Changes

- Very few changes in the Aviation Chapter and Appendices
- MSP Long Term Comprehensive Plan (LTCP) is scheduled to be completed by the end of 2020.
- Minimal changes to the planned projects at other regional airports.
- Potential administrative amendments in 2021 for:
 - Crystal Airport Project
 - Airlake Airport Runway Extension
 - MSP LTCP Projects

Questions?

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