

Hennepin/First Transportation Study



Evaluation/Screening Process Overview

Process to develop criteria and metrics for the purpose of identifying “leading” concepts is summarized below.

SAC OBJECTIVES

Adapted objectives identified in first SAC meeting into technical metrics as part of initial screening process.

Pedestrian/Biking

- Improve connectivity for pedestrian, bicycling, and transit throughout the corridor
- Bicycle facilities should not be overlooked, part of greater network of connectivity to downtown, regional park system, and University of Minnesota campus
- Evaluate opportunities to address “free-flowing” right turns that encourage speeding and present conflicts with bicyclists and pedestrians

Mobility/Safety

- Allow emergency access and truck operations for businesses
- Enhance non-motorized and motorized safety conflicts
- Reduce the number of complex intersection to increase safety
- Improve sight distances for non-motorized users
- Seek opportunities to address complex intersections (5th/Hennepin/Central, 7th/1st/Central, and 7th/Hennepin)

Streetcar/Transit

- Encourage transit use
- Streetcar is important improvement for the neighborhood and should be implemented in a way that maintain consistency with local and regional visions

Quality of Life

- Expand the pedestrian and bicycling facility
- Improve pedestrian and biking by using traffic calming techniques
- Influence travel behavior to reduce speeds before it enters the study area (e.g., Hennepin Bridge and Central Ave)
- Address signal timing that encourages speeding

Economic Development

- Parking will be accessible for residents and visitors
- Improve connections to businesses with access to and from destinations
- Limit speeding
- Promote traffic calming

Operations

- Reduce complexity of the transportation network
- Address mixture of one-way and two-way streets
- Motorized throughput and congestion should not be driving factor
- Evaluate inconsistencies with parking bays and bump-outs

TECHNICAL AND DESIGN “FATAL FLAWS”

- All day no-parking both sides
- Less than 2 travel lanes (one-way concepts)
- Shared bicycle facilities only
- Less than 11 foot travel lane(s) (through lanes)
- Hennepin Bridge(s) two-way operation
- Does not maintain streetcar “couplet” alignment
- Minimum dimensions for all modes of travel
- Reduction of space in pedestrian zone

SCREENING PROCESS

- Summarized/Reviewed by Categories
 - Quality of Life, Economic Development, Transit, Bike/Ped, Mobility/Safety, Operations
- TAC Reviewed and Discussed Potential Concepts
- TAC Identified “Leading Concepts”
 - Adhere to SAC Objectives, Ability to Phase Improvements, Engineering Viability, Consistency with Adopted Plans, Safe/Attractive Option for All Street Users, Enhance Public Realm, Reduce Travel Speeds

Concept Development Overview

The process to develop concepts and a summary of “leading” concepts is summarized below.

“BALANCED APPROACH”

- Assume same cross-section for Hennepin and First Avenues
- Provide similar benefits to both corridors
 - Quality of life, economic development, traffic calming, circulation, and multimodal mobility

PHASING/STAGING OF CONCEPTS:

- Ability to align with min. (40’) and max (56’) cross-section envelopes along Hennepin Avenue

SMALLER-SCALE SOLUTIONS:

- Potential Short-Term/Interim Project
- Retrofit: Maintain Existing Geometry with Restriping

LARGER-SCALE SOLUTIONS:

- Potential Mid- to Long-Term Project
- Reconstruction: Fill Parking Bays, Modify Curb Extensions, Protected Bikeway, Sidewalk Expansion, Signal/Signage Modifications, etc.

ONE-WAY CONCEPTS

Concept 1-1: If implemented, 1-1A could occur first and allow for 1-1B at a later date.

Short-Term (1-1A): Restripe roadway for one-way operation with two travel lanes and buffered bike lane, while maintaining parking on both sides and existing pedestrian zone.

Mid/Long-Term (1-1B): Reconstruct roadway for one-way operation with two travel lanes and parking on one side, which would accommodate a protected bike lane and an expanded pedestrian zone.

Concept 1-2: If implemented, 1-2A could occur first and allow for 1-2B or 1-2C at a later date.

Short-Term (1-2A): Restripe roadway for one-way operation with three travel lanes and standard bike lane, while maintaining parking on both sides and existing pedestrian zone.

Mid/Long-Term (1-2B): Reconstruct roadway for one-way operation with two travel lanes, parking on one side, protected bike lane, and off-peak parking, which would allow one lane to serve as a travel lane at peak period.

Mid/Long-Term (1-2C): Reconstruct roadway for one-way operation with three travel lanes and parking on one side, which would accommodate a protected bike lane.

Concept 1-3: If implemented this concept would not allow for interim improvements.

Reconstruct roadway for one-way operation with two travel lanes and parking on both sides, which would accommodate a buffered bike lane and an expanded pedestrian zone.

Concept 1-4: If implemented this concept would not allow for interim improvements.

Reconstruct roadway for one-way operation with three travel lanes and parking on one side, which would accommodate a protected bike lane and an expanded pedestrian zone.

TWO-WAY CONCEPTS

Concept 2-1: If implemented, 2-1A could occur first and allow for 2-1B or 2-1C at a later date.

Short-Term (2-1A): Restripe roadway for two-way operation with three travel lanes and standard bike lane, while maintaining parking on both sides and existing pedestrian zone.

Mid/Long-Term (2-1B): Reconstruct roadway for two-way operation with three travel lanes and parking on one side, which would accommodate a protected bike lane.

Mid/Long-Term (2-1C): Reconstruct roadway for two-way operation with three travel lanes and parking on both sides, while providing a protected bike lane.

Concept 2-2: If implemented this concept would not allow for interim improvements.

Reconstruct roadway for two-way operation with three travel lanes and parking on one side, which would accommodate a protected bike lane and an expanded pedestrian zone.