August 2013

IMPROVING TRANSIT IN THE CORRIDOR

On October 25, 2012, the Policy Advisory Committee approved the following purpose for improving transit in the Corridor:

The purpose of the Nicollet-Central Transit Alternatives Project is to improve transit connectivity, enhance the attractiveness of transit service, and catalyze development through an investment in transit infrastructure within the Nicollet-Central Corridor.

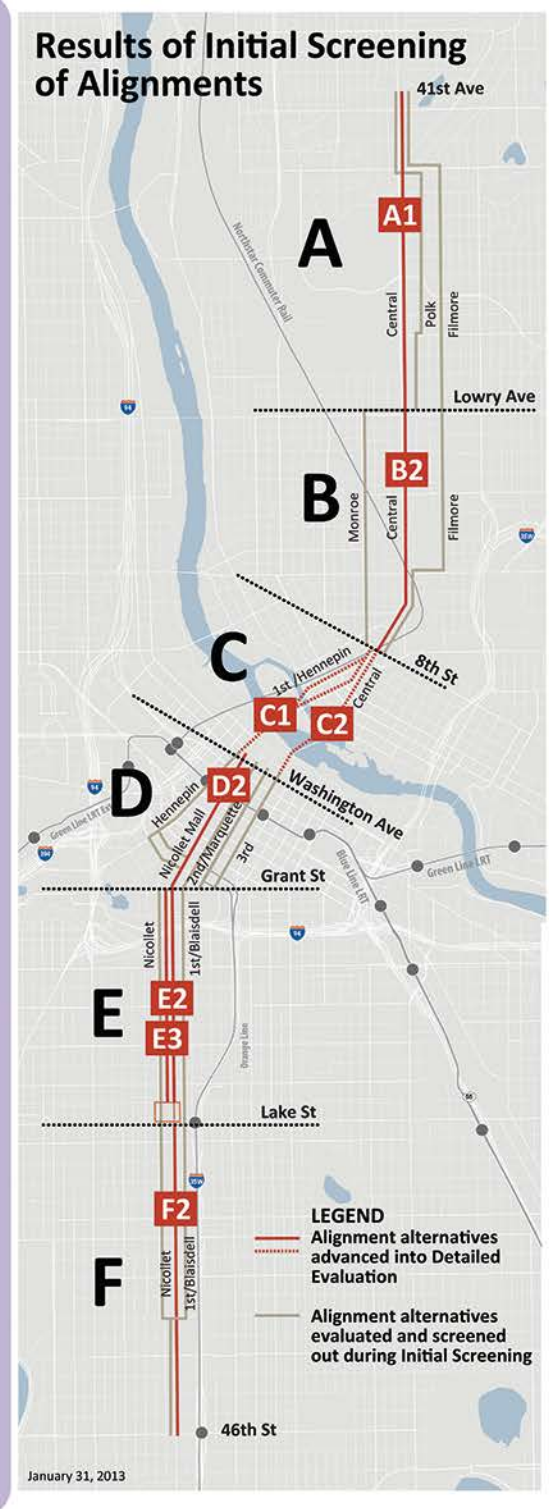
The goals of the Project are to:

- *Connect people and places*
- *Increase the attractiveness of transit*
- *Catalyze and support economic development*
- *Integrate with the transportation system*
- *Support healthy communities and environmental practices*
- *Develop an implementable project with community support.*

Overall Study Area

Initial Screening of Alignments

		Connects activity centers	Compatible with local and regional plans	Community and stakeholder sentiment	Effective alignment that provides for direct access	Consistent with existing community character	Overall Rating	Advanced into Detailed Evaluation
41st Ave								
A1	Central	Good	Best	Best	Good	Best	Best	A1
A2	Polk	Good	Fair	Fair	Poor	Fair	Fair	
A3	Filmore	Best	Fair	Fair	Fair	Fair	Fair	
Lowry Ave								
B1	Monroe	Best	Fair	Fair	Poor	Fair	Fair	
B2	Central	Good	Best	Best	Best	Best	Best	B2
B3	Filmore	Fair	Fair	Fair	Poor	Fair	Fair	
8th St								
C1	1st/Hennepin	Good	Good	Good	Good	Good	Good	C1
C2	Central	Good	Good	Good	Good	Good	Good	C2
Washington Ave								
D1	Hennepin	Good	Fair	Fair	Fair	Good	Fair	
D2	Nicollet Mall	Good	Best	Good	Best	Best	Best	D2
D3	2nd/ Marquette	Good	Fair	Fair	Fair	Fair	Fair	
D4	3rd	Good	Fair	Fair	Fair	Fair	Fair	
Grant St								
E1	1st/Blaisdell	Good	Fair	Fair	Fair	Fair	Fair	
E2	Nicollet (reconnected at Lake)	Best	Best	Best	Best	Good	Best	E2
E3	Nicollet (assuming no reconnection of Nicollet)	Good	Good	Good	Good	Good	Good	E3
Lake St								
F1	1st/Blaisdell	Good	Fair	Fair	Fair	Fair	Fair	
F2	Nicollet	Best	Best	Best	Best	Best	Best	F2
46th St								



Initial Screening of Modes

Screening Criteria	Local Bus	Enhanced Bus	Bus Rapid Transit	Modern Streetcar	Light Rail Transit*	Heavy Rail*	Commuter Rail	Maglev	Monorail	Personal Rapid Transit
										
Potential right-of-way impacts	Best	Good	Poor	Good	Poor	Poor	Poor	Poor	Poor	Poor
Provides access to community	Good	Best	Good	Best	Fair	Fair	Poor	Poor	Fair	Good
Compatible with local and regional plans	Good	Best	Fair	Best	Fair	Poor	Poor	Poor	Poor	Poor
Consistent with existing community character	Best	Best	Fair	Good	Fair	Poor	Poor	Poor	Poor	Poor
Provides appropriate level of transit capacity	Best	Best	Good	Best	Good	Poor	Fair	Poor	Fair	Poor
Community and stakeholders sentiment	Poor	Good	Fair	Best	Fair	Poor	Poor	Poor	Poor	Poor
Overall Rating	Good	Best	Fair	Best	Fair	Poor	Poor	Poor	Poor	Poor
Advanced into Detailed Evaluation	Local Bus	Enhanced Bus		Modern Streetcar						

*Potentially at-grade or with grade separation (subway/elevated tracks)

Alternatives for Detailed Evaluation

No Build
(existing bus)

Enhanced Bus
(9-mile)

Streetcar
(9-mile)

Streetcar
(Preliminary starter line)

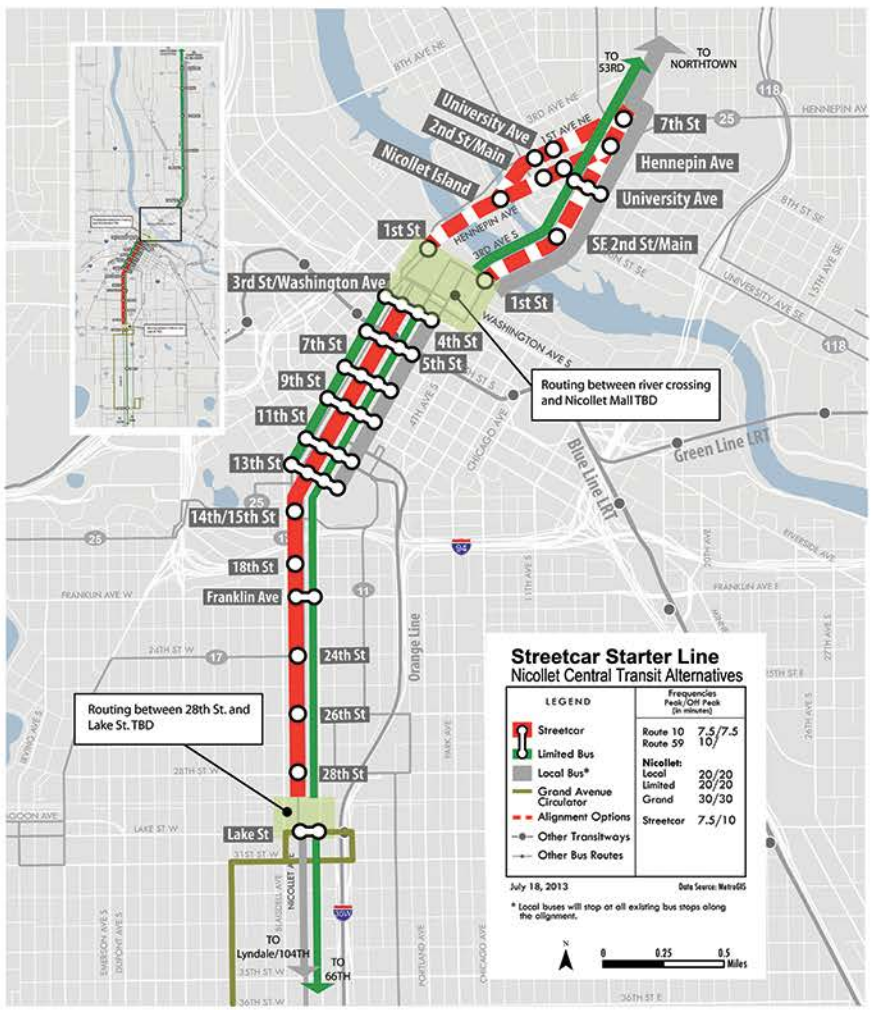
Proposed Alignment, Stop Location and Service Frequency

Enhanced Bus

* Limited bus stops approximately every half-mile where enhanced bus North of 41st and South of 46th

Modern Streetcar

Streetcar Starter Line



Common Elements of Enhanced Bus and Modern Streetcar

Use Same Lanes as Cars and Trucks


Portland


Tacoma

Fewer Signal Delays

Transit signal priority

A little more green time or a little earlier green time for transit

Not transit signal preemption, as on Hiawatha LRT

Larger, More Easily Recognizable Vehicles


Seattle


Seattle (photo credit zargoman)


Portland


Cleveland


Kansas City
(Bus)


Seattle
(Modern Streetcar)


Portland
(Modern Streetcar)


Everett, WA
(Bus)

Common Elements of Enhanced Bus and Modern Streetcar

Better Stop Amenities

Curb extensions

Portland


Boston

Raised curb / Platform


Portland

Easily recognizable stops

Kansas City


Tacoma

Real time information

Kansas City

Faster Boarding

Pay fares before you get on the vehicle

Enter through any door


Everett, WA


Seattle

Enhanced Bus Differs from Arterial BRT

Enhanced Bus
- Short trips/local circulation
- Slower speed
- Frequent stops (~¼ mile)

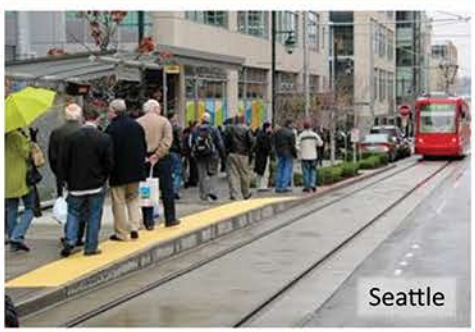
Arterial BRT
- Long trips/regional nature
- Higher speed
- Limited stops (½ mile +)

Everett, WA

Modern Streetcar Differs from Light Rail Transit

Modern Streetcar
- Mixed traffic lanes with cars
- Single car trains (~70' long)
- Stops ~60' long
- ¼ to ½ mile stop spacing
- Short route distance
- Activity center circulation
- Less construction impacts

Light Rail Transit
- Tracks separate from cars
- 2-3 car trains (each ~90' long)
- Stations 270' long
- ½ to 1 mile stop spacing
- Long route distance
- Regional, long-haul service
- More extensive construction


Seattle


Minneapolis

...yet similar in these ways:

- Frequent service
- Reliable service
- Improved passenger experience

Evaluation of Enhanced Bus and Modern Streetcar indicate the alternatives are similar in in these ways:

Dense Growing Corridor

- More than 90,000 people lived in the corridor 2010; expected to add 25,000 more residents by 2030
- More than 125,000 people work in the corridor; employment is expected to grow to over 175,000 by 2030

High Development Potential Under current Zoning

- Capacity for an additional 118.5 million square feet
- Estimated value of development: $4.8 billion (year 2013 dollars)

Select Features

- Approximately 9.2 Miles
- 39 Proposed Stops

Corridor Residents Rely On Transit

- 4,600 legally binding affordable housing units
- 1 in 4 residents is living in poverty, compared to 1 in 9 in the region
- 1 in 6 residents do not have access to an automobile

Diverse Community

- 1 in 4 residents are non-white, compared to 1 in 5 in the region

Integration with Transportation System

- Dense urban environment with extensive sidewalk grid that encourages walking
- Numerous connections to the region's extensive bicycle network
- Minimal impacts to corridor traffic on-street parking, and freight railroad operations

Evaluation of Enhanced Bus and Modern Streetcar indicate the alternatives are different in these ways:

Enhanced Bus

Kansas City, MO

Modern Streetcar


Seattle, WA

2030 Projected Ridership		
Project Boardings	13,400	19,900
Boardings by Transit-Reliant Persons	4,800	7,500
Annual Operating and Maintenance Costs (Year 2013 $)	$13.6 million	$20.1 million
Capital Cost (Year 2013 $)	$94 million	$393 million
Potential to Spur Development	Moderate	High

How do the River Crossings Differ?


Hennepin Avenue Bridge
(facing north)


Central Thrid Avenue Bridge
(facing south)


Hennepin Avenue Bridge
(north approach/facing north)


Central Thrid Avenue Bridge
(facing south)


Hennepin Avenue @ University
(facing south)


Central Thrid Avenue Bridge
(facing north)

Hennepin/First Avenue Bridge

- More riders
- Faster travel time
- Lower cost
- More options for pedestrian and bicycle access to Riverfront, Nicollet Island and St. Anthony Main
- Existing roadway width north of the River would accommodate traffic, bike land, streetcar tracks and on-street parting
- Would increase walk time for current Route 10 riders
- Would not preclude conversion of Hennepin/First Avenue two-way traffic

Central/Third Avenue Bridge

- Historic bridge; built in 1916
- Longer route, bridge design and historic designation add to cost
- Mostly indirect pedestrian and bicycle access to Riverfront, Nicollet Island and St. Anthony Main
- Existing roadway width north of the River limits ability to accommodate traffic, bike land, streetcar tracks and on-street parking
- Same walk time for current Route 10 riders
- No effect on conversion of Hennepin/First Avenue to two-way traffic

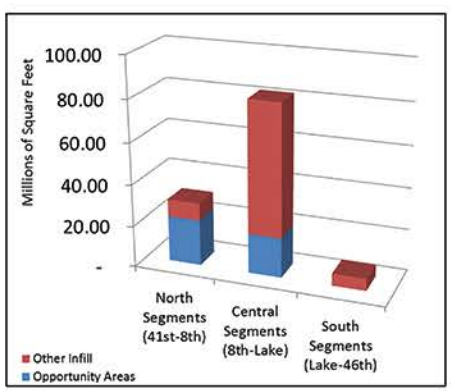
What is the Streetcar Starter Line?

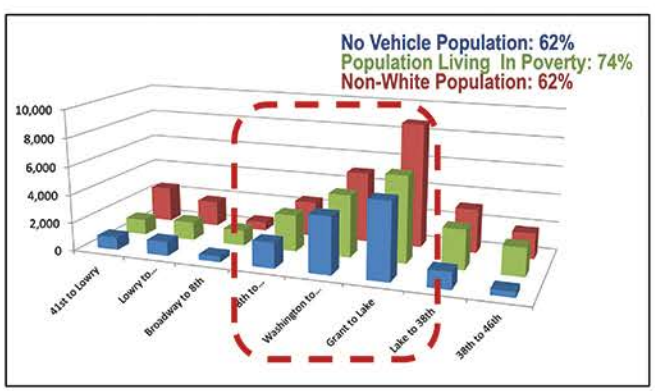
The evaluation indicates that a starter line between Lake and Eighth St NE would capture the most benefits

Features of a streetcar starter line between Eighth Street NE and Lake:

- 3.4 miles long (one-way)
- Serves over 90% of corridor's population and employment
- 9,200 boardings per day in 2030 (50% of 9.2-mile streetcar)
- 69% of corridor's development potential (82.2 billion SF or or $3.3 billion)
- Serves two-thirds or more of transit-reliant population
- 91 percent of affordable housing
- Competitive for federal funding
  - Estimated capital cost: $182 million*
  - Estimated annual operating and maintenance cost: $10.6 million*

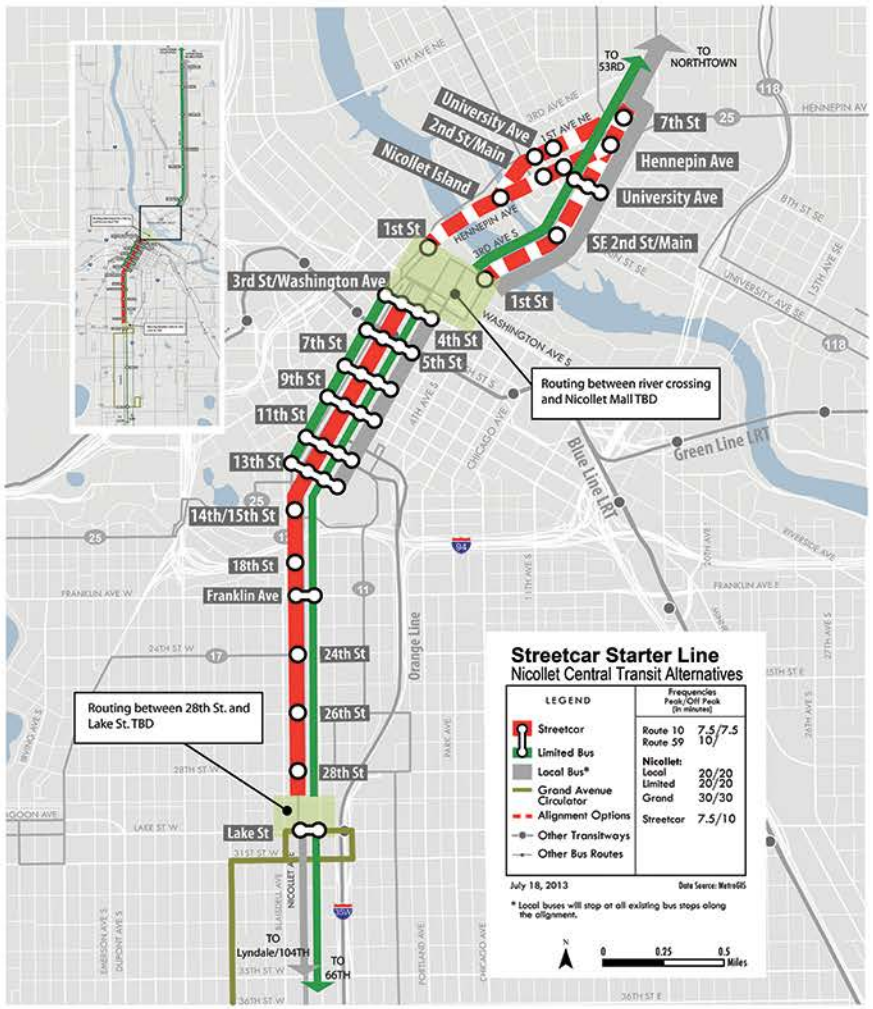
** In Year 2013 dollars*





Priorities for Identifying the Starter Line

- Serve as the downtown spine for future streetcar lines
- Capture the majority of the benefits of a 9.2-mile streetcar investment
- Strong existing and future development anchors
- Strong east-west transit connections
- Potential to replace existing buses



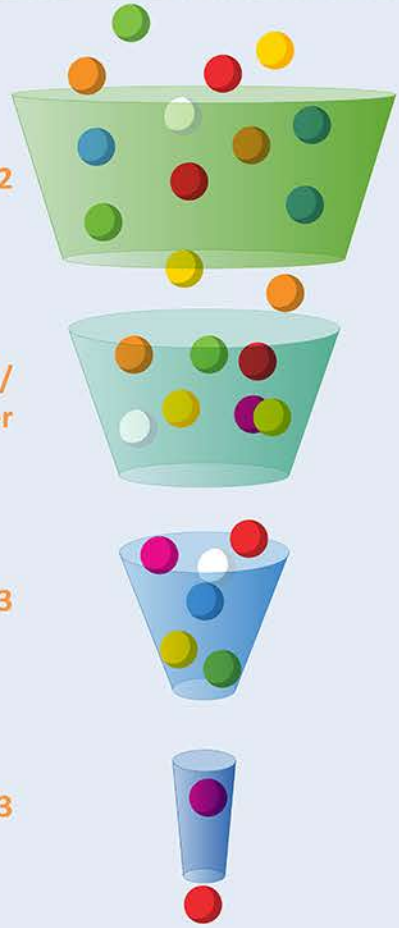
Why Study a Streetcar Starter Line?

- Most starter lines in the U.S. have been 1 to 3 miles long
- To compete for federal funding, define construction cost of $200 million (2013 dollars)

Project Development Process

Current Work

2012 – 2013: Nicollet-Central Transit Alternatives Study



Fall 2012

Purpose and Need
- Corridor Problems and Challenges
- Vision for the Corridor
- Goals and Objectives and Evaluation Criteria

Late Fall/ Early Winter

Initial Development and Screening of Corridor Transportation Options
- Transit Mode Options
- Corridor Segment Options

Spring 2013

Detailed Definition and Evaluation of Alternatives
- Cost to build
- Number of people who would ride it
- Effects on the environment
- Effects on the traffic flow
- Cost to operate and maintain (annual recurring cost)
- Cost effectiveness (generally cost divided by riders)
- Ability to attract more housing and businesses/jobs to the Corridor
- Public and stakeholder sentiment

We Are Here

Summer 2013

Locally Preferred Alternative

Metropolitan Council - Approval of LPA

Next Steps

- Design and Environmental Review
- Construction
- Operations

Secure Funding