



February 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

Nicollet-Central Transit Alternatives

What: The Nicollet-Central Transit Alternatives study will identify a preferred transit enhancement in the study corridor which could serve as a first phase of a longer-range vision for transit service throughout the 9.2 mile study corridor. The study will evaluate the benefits, costs, and impacts of implementing a variety of transit modes and service types, including streetcar and enhanced bus, to identify the locally preferred alternative for inclusion in the Metropolitan Council's 2030 Transportation Policy Plan.

Who: The City of Minneapolis is leading the study

When: Summer 2012 to Summer 2013

Where: The study corridor extends from the 46th Street/I-35W transit station and Nicollet Avenue on the south, through downtown Minneapolis on Nicollet Mall, to the Columbia Heights Transit Center on the north via Central Avenue.



LEGEND

- Nicollet — Central Alignment
- Transit Station
- Green Line LRT (Central and Southwest)
- Blue Line LRT (Hiawatha)
- Orange Line BRT (35W)
- Northstar Commuter Rail

0 1/4 1/2 1 Mile



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						

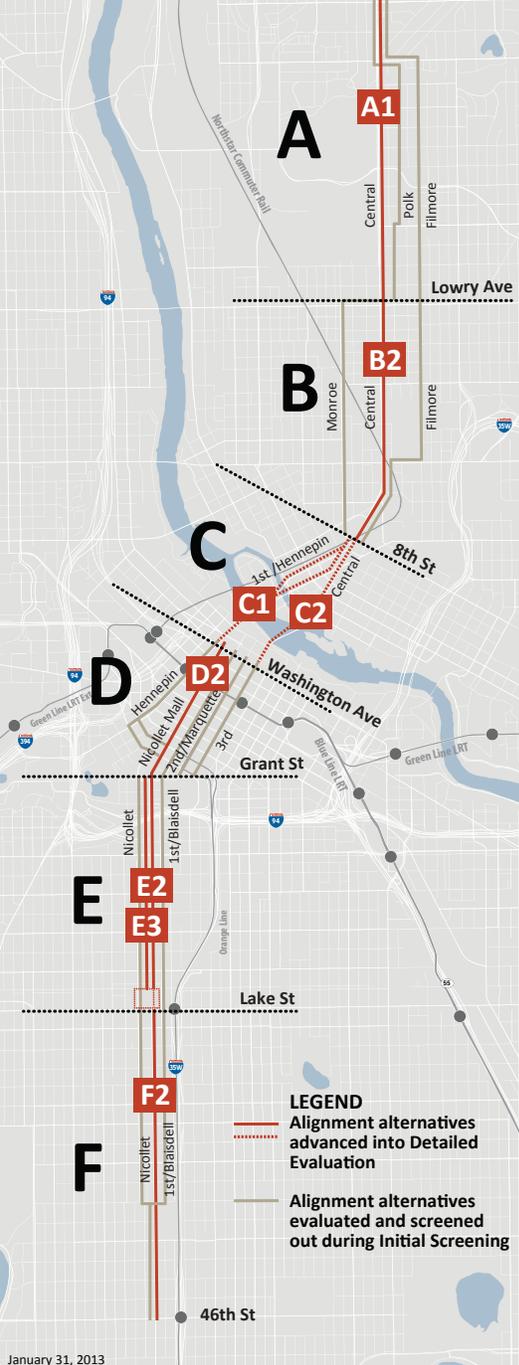
*Potentially at-grade or with grade separation (subway/elevated tracks)

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						
		Good	Best	Best	Good	Best	Best	
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						
		Good	Best	Best	Good	Best	Best	
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						
		Good	Good	Good	Good	Good	Good	
C1	1st/Hennepin	Good	Good	Good	Good	Good	Good	C1
C2	Central	Good	Good	Good	Good	Good	Good	C2
		Washington Ave						
		Good	Fair	Fair	Fair	Good	Fair	
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						
		Good	Fair	Fair	Fair	Fair	Fair	
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						
		Good	Fair	Fair	Fair	Fair	Fair	
F1	1st/Blaisdell	Good	Fair	Fair	Fair	Fair	Fair	
F2	Nicollet	Best	Best	Best	Best	Best	Best	F2
		46th St						

Results of Initial Screening of Alignments



January 31, 2013



Common Elements of Enhanced Bus and Modern Streetcar

Use Same Lanes as Cars and Trucks



Tacoma



Portland

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)



Portland (Modern Streetcar)

Seattle (Modern Streetcar)



Everett, WA (Bus)

Common Elements of Enhanced Bus and Modern Streetcar

Better Stop Amenities

Curb extensions



Raised curb / Platform



Easily recognizable stops



Real time information



Faster Boarding

Pay fares before you get on the vehicle



Enter through any door



How Do Enhanced Bus and Streetcar Differ?

Infrastructure

Tracks



Route Flexibility

Kansas City

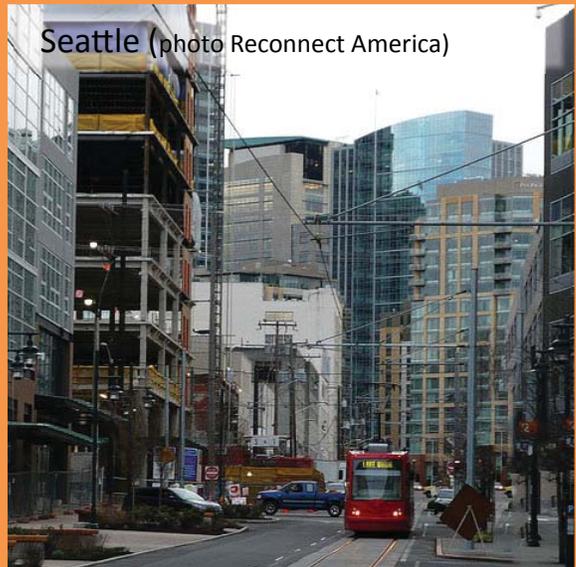


Electrical power supply



Economic Development

Seattle (photo Reconnect America)



Separate storage and maintenance facility



Cost to Build

Modern streetcar costs more build than enhanced bus.

	City	Opening Year	Construction Cost*	Route Miles
Modern Streetcar • Higher cost • Shorter line	Portland Phases 1-4	2001-2007	\$103 million	4.0
	Portland - Phase 5	2012	\$148 million	3.3
	Seattle – South Lake Union	2007	\$52 million	1.3
	Seattle – First Hill	2014	\$134 million	2.5
	Tucson	2013	\$199 million	3.9
	Atlanta	2014	\$69 million	1.3
	Dallas	2014	\$62 million	1.6
Enhanced Bus • Lower cost • Longer line	Salt Lake City	2014	\$56 million	2.0
	Cincinnati	2015	\$125 million	3.6
	Oakland	2004	\$25 million	18
	Kansas City	2005	\$21 million	6
	New York City	2008	\$10 million	8.5
	Cleveland	2008	\$200 million	6.8
Everett, WA	2009	\$29 million	17	

How do Modern Streetcar and Light Rail Differ?

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
- \$30-60 million per mile

Light Rail Transit

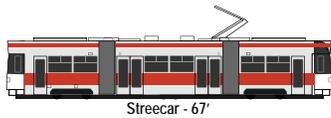
- Tracks separate from cars
- 2-3 car trains (each ~90' long)
- Stations 270' long
- ½ to 1 mile stop spacing
- Long route distance
- Regional, long-haul service
- More extensive construction
- \$80-125 million per mile



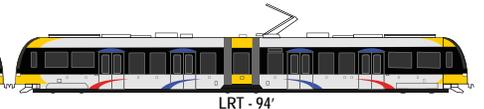
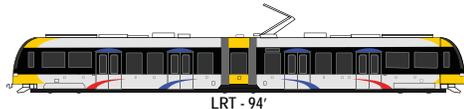
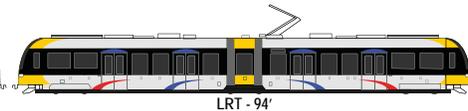
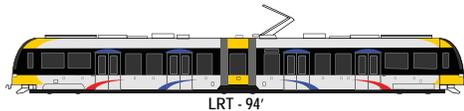
Size of Platform



Construction Impacts



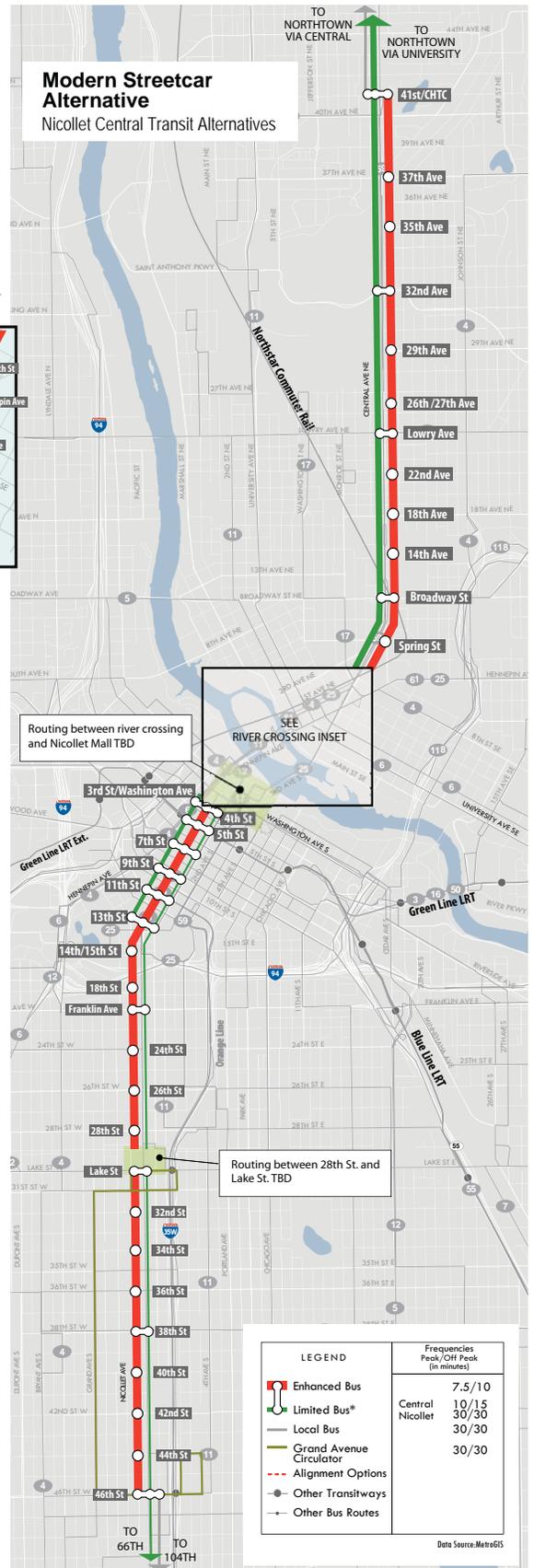
Vehicle Length



Proposed Alignment, Stop Location and Service Frequency

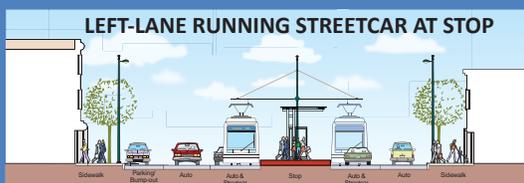
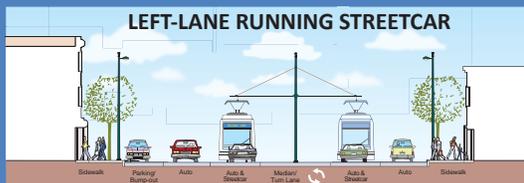
Enhanced Bus

Modern Streetcar

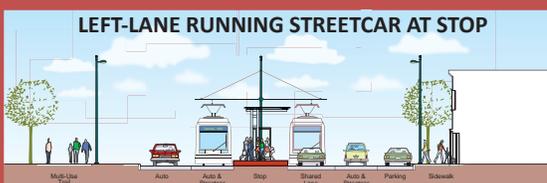
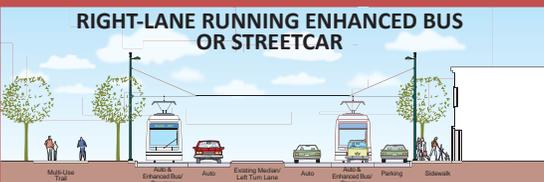
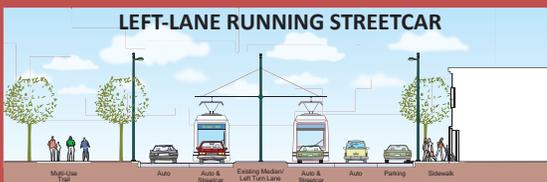
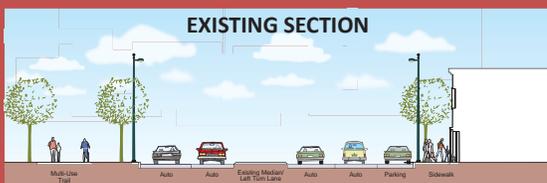


Central Avenue

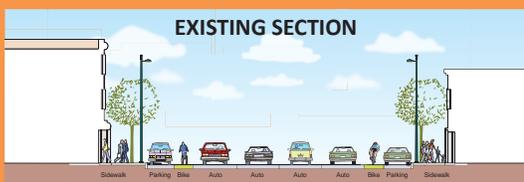
37th Ave NE to 41st Ave NE



27th Ave NE to 37th Ave NE

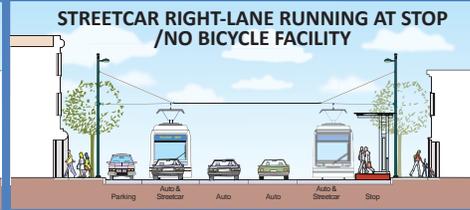
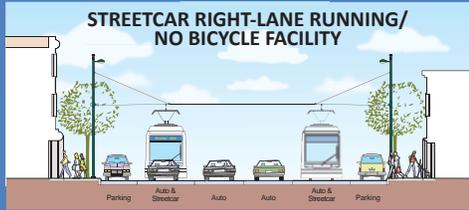
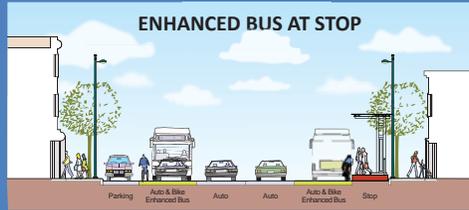
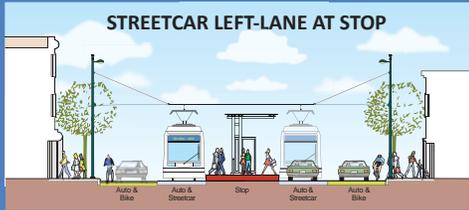
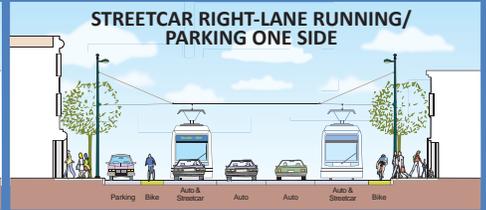
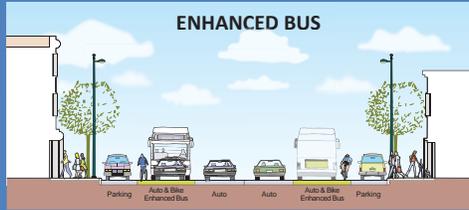
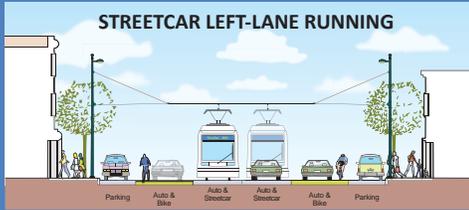
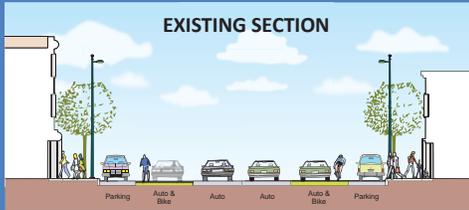


18th Ave NE to 27th Ave NE

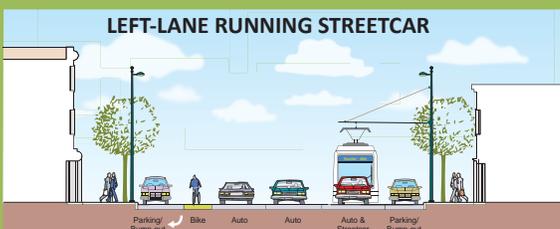
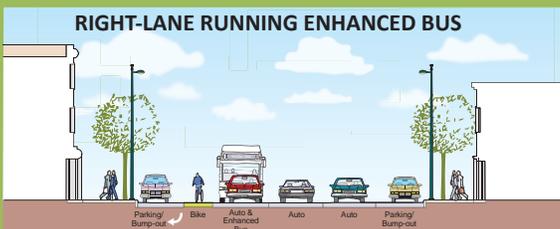
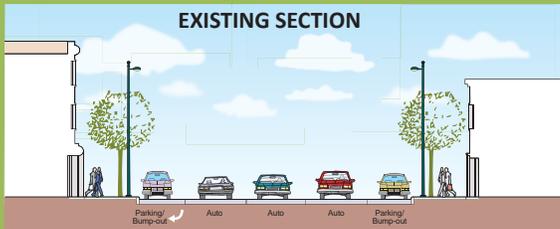


Downtown and Near Northeast

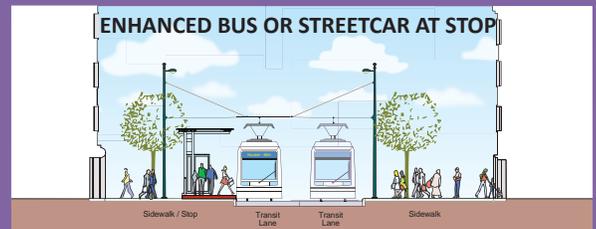
Central Ave (University to 8th)



1st and Hennepin Avenues (Main St to Central)

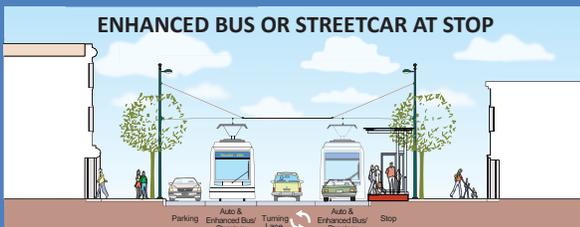
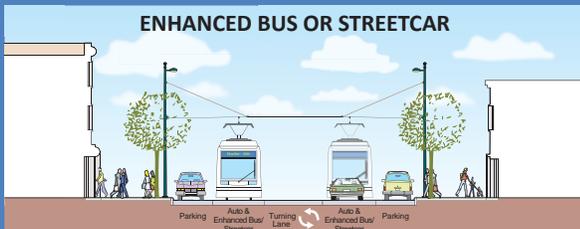


Nicollet Mall



Nicollet Avenue

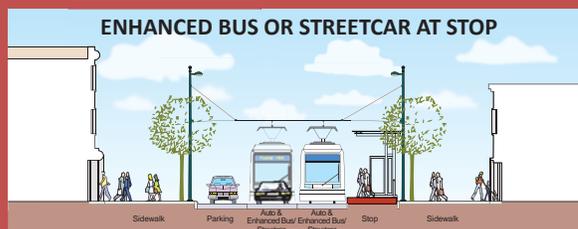
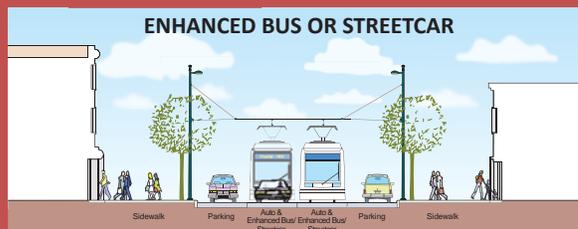
Franklin Ave to 28th St



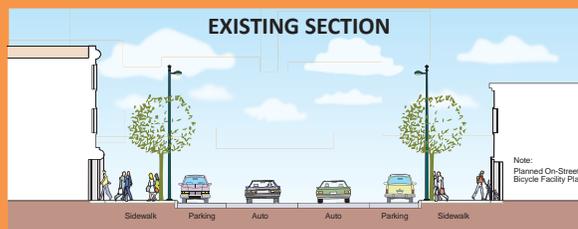
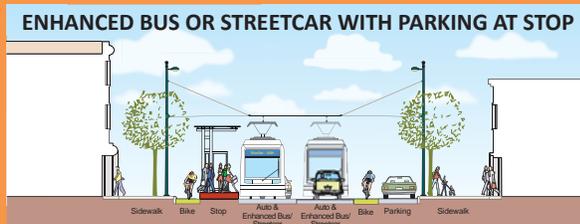
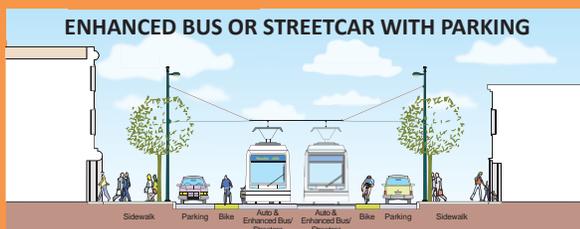
SECTION AFTER 2012/2013 RECONSTRUCTION



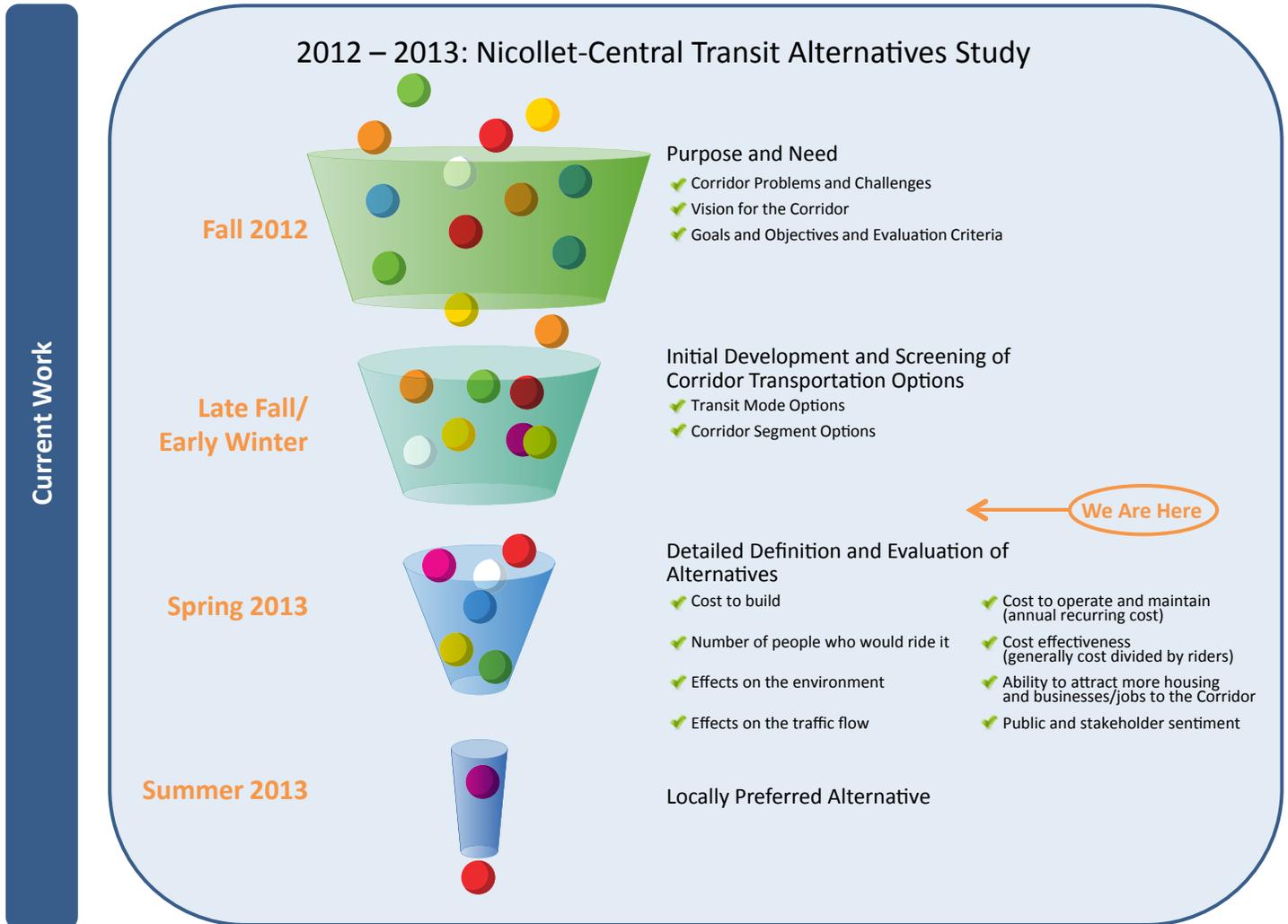
Lake St to 40th St



40th St to 46th St



Project Development Process



Metropolitan Council - Approval of LPA

Next Steps

Design and Environmental Review

Construction

Operations

Secure Funding