

PAC Meeting #2

October 29, 2012

Agenda

- Completing the Purpose and Need
- Peer Review
- Initial Screening of Alternatives

Public and Stakeholder Feedback



Nicollet-Central Transit Alternatives | October 2012

Engagement Activities To-Date

- Stakeholder interviews
 - Completed in August 2012
 - Interviewed 14 stakeholders; mix of public, private and community/non-profit interests along the corridor
- Individual meetings conducted by City
 - Have talked to over 300 people before September open houses
 - Neighborhood, business, faith-based, Latino groups/organizations
- Public open houses on September 26-27, 2012
 - Three venues, 115 attendees signed in
 - Downtown: 46
 - South: 29
 - NE: 40
- Surveys



Nicollet-Central Transit Alternatives | October 2012

Open House – Common Themes

- Strong support for streetcar
- Need to improve speed of transit service (shorter travel time)
- Concern for bicycle safety
- Support for reopening Nicollet Avenue at Lake Street
- Desire to encourage redevelopment/enhance neighborhoods

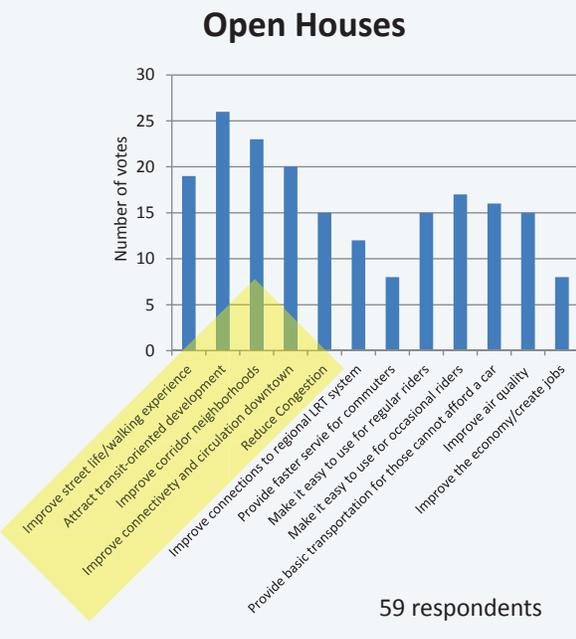
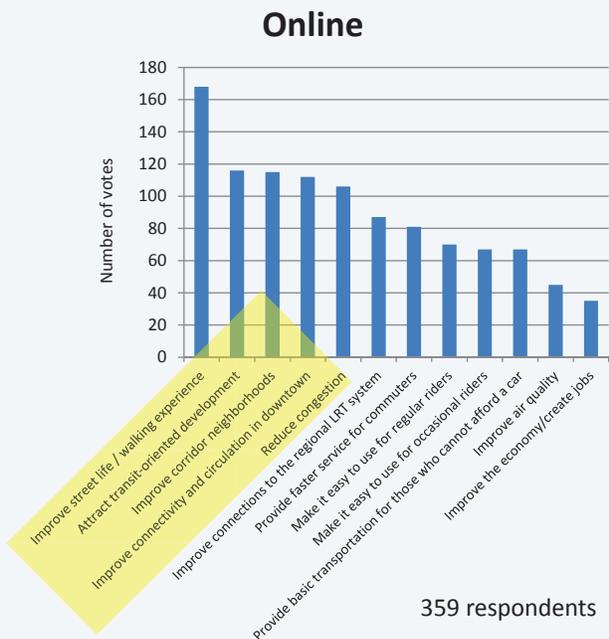


Open House – Common Themes

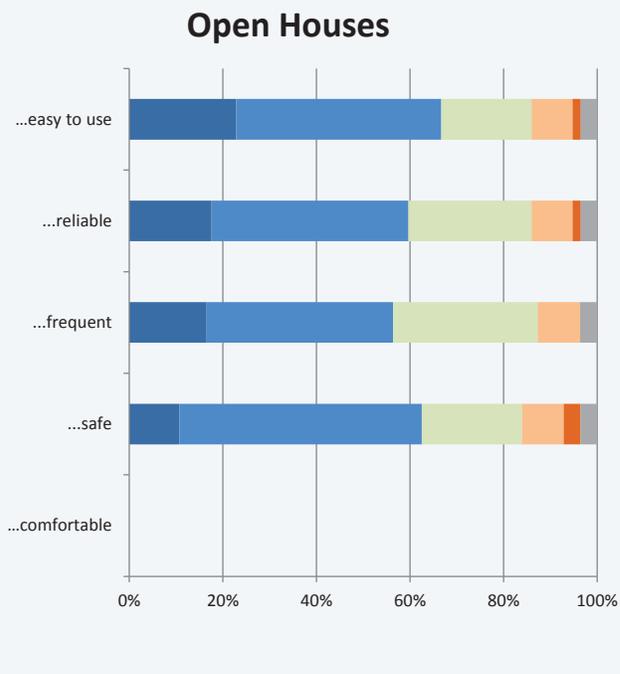
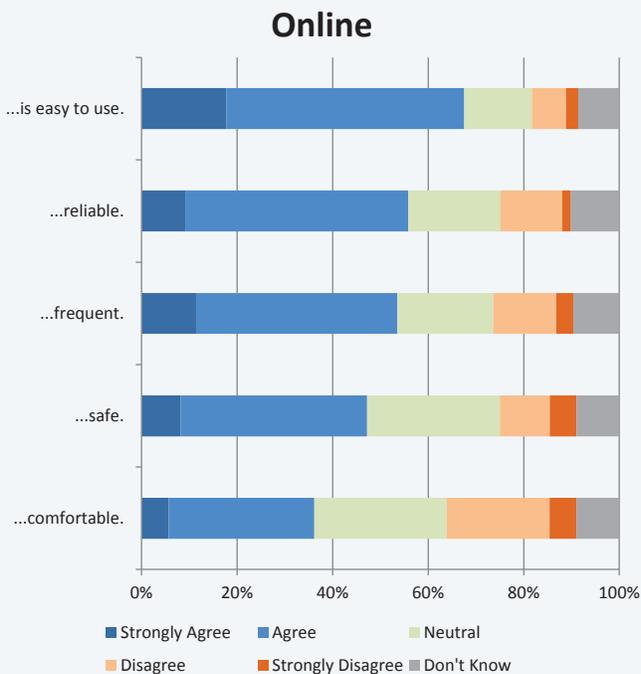
- Interest in reducing dependence on cars
- Grow the City around transit
- Improve transit reliability
- Cost effectiveness
- Preserve/improve the pedestrian character of Nicollet Mall



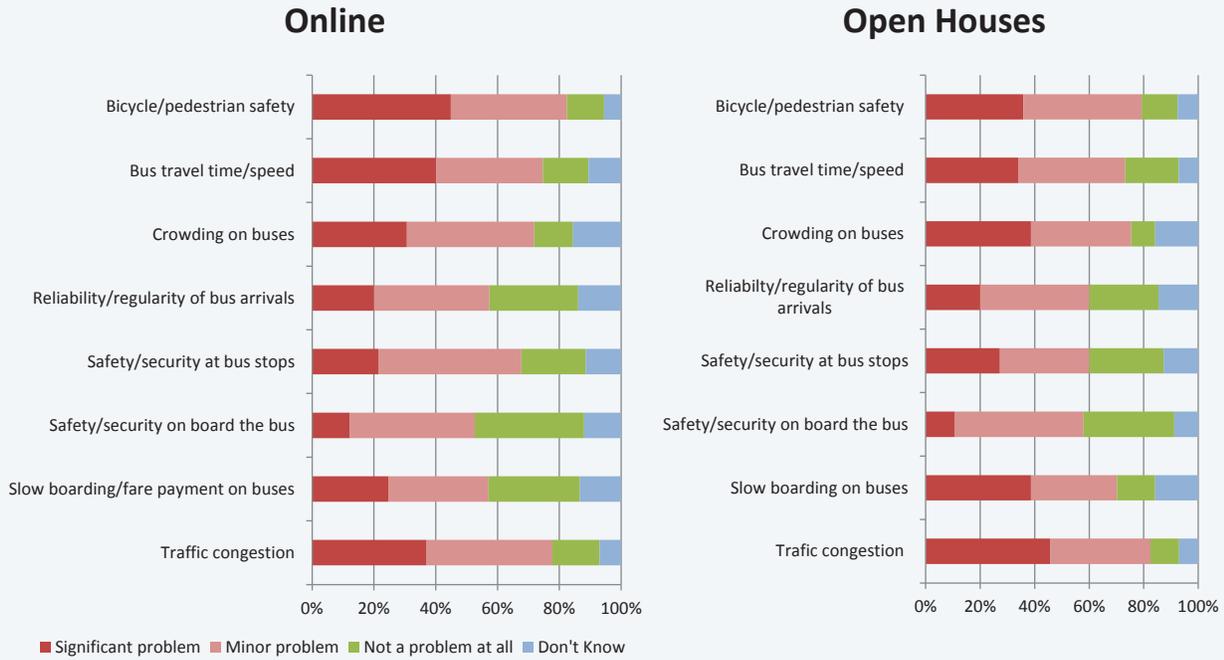
What are the 3 most important reasons to improve transit in this corridor?



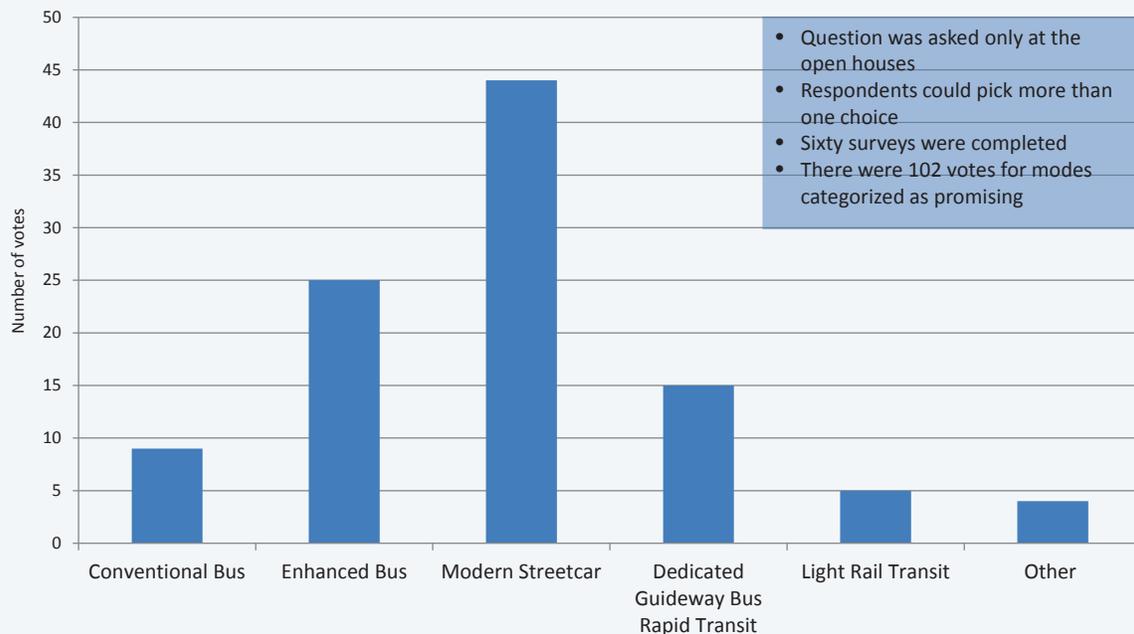
What is your opinion of existing bus service in the Nicollet-Central Corridor? The transit service is...



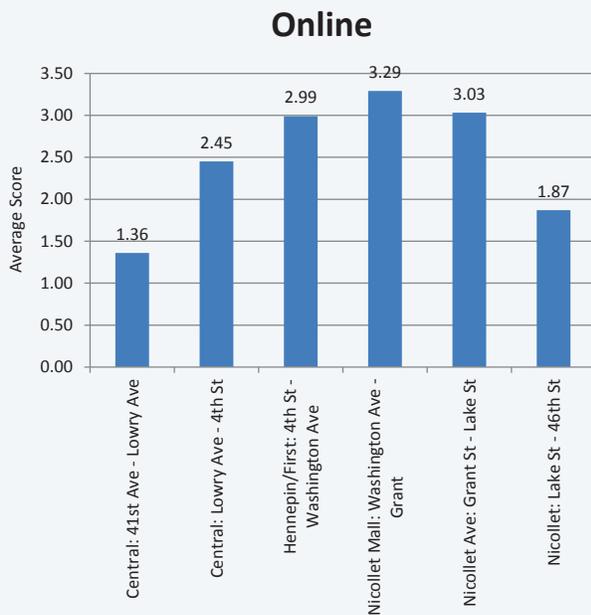
What are the major transportation problems in the corridor?



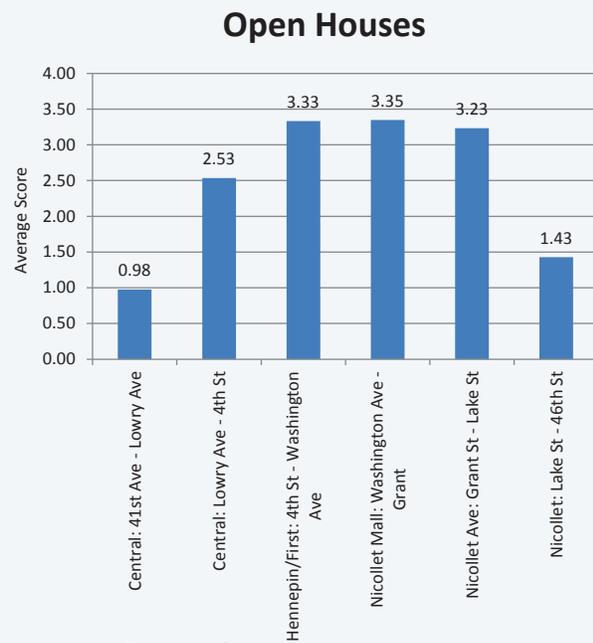
Which of these modes listed below do you think are most promising in the Nicollet-Central Corridor and why?



What are the highest priority segments for implementing transit improvements in the short term? (Higher scores mean higher priority)



344 respondents

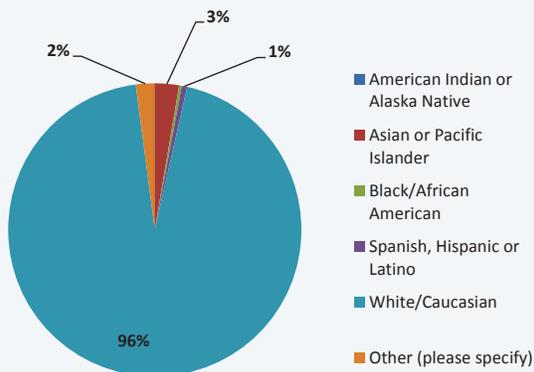


45 respondents

Who participated in the online survey?

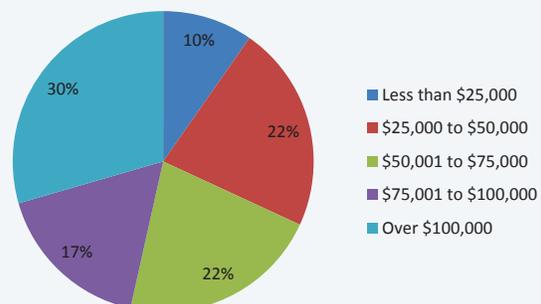
- 395 respondents
- Primarily Caucasian and affluent

Race/Ethnicity:



334 respondents

Annual Household Income:



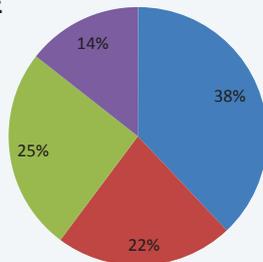
329 respondents



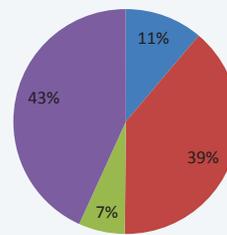
Where survey respondents live and work by zip code

AREA	ZIP CODES	RESIDENCE	EMPLOYMENT
North of Mississippi River	55421, 55418, 55413, & 55414	145	37
Downtown Minneapolis	55401, 55402, 55403, 55404, & 55415	85	129
South of Downtown Minneapolis	55405, 55408, 55409, 55419	97	22
Other		55	143
Total		382	331

RESIDENCE



EMPLOYMENT



- North of Mississippi River
- Downtown Minneapolis
- South of Downtown Minneapolis
- Other

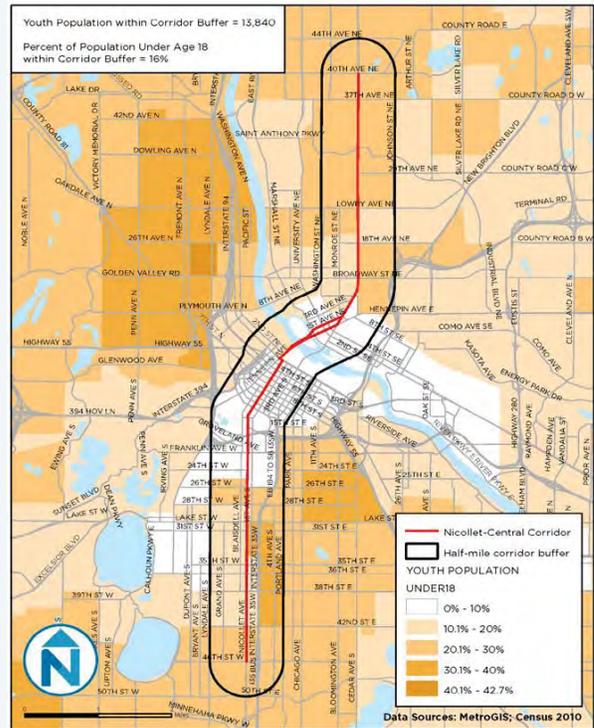


Outreach to Underrepresented Communities



Underrepresented Communities

- Areas of special concern:
 - Youth
 - Senior
 - Somali Speakers
 - Spanish Speakers
 - Low-income households
 - Zero-car households



We have met with:

Organization	Type	Meeting Date	Status	Number of Attendees
Downtown Minneapolis Neighborhood Association	neighborhood-D	Tuesday, August 14, 2012	completed	30
Downtown Minneapolis Transportation Management Organization	other	Thursday, August 23, 2012	completed	20
Citizens for a Loring Park Community Land Use Committee	neighborhood-D	Monday, August 27, 2012	completed	35
Stevens Square Community Organization Neighborhood Development Meeting	neighborhood-S	Tuesday, September 04, 2012	completed	10
Whittier Alliance Community Issues Committee	neighborhood-S	Monday, September 10, 2012	completed	25
Beltrami Neighborhood Council	neighborhood-N	Monday, September 10, 2012	completed	10
Northeast Minneapolis Chamber of Commerce	business-N	Tuesday, September 11, 2012	completed	10
Business Association of Whittier	business-S	Wednesday, September 12, 2012	completed	10
Kingfield Neighborhood Association	neighborhood-S	Wednesday, September 12, 2012	completed	25
Midtown Greenway Coalition	other	Thursday, September 13, 2012	completed	10
Columbia Park Neighborhood Association	neighborhood-N	Monday, September 17, 2012	completed	14
Minneapolis Bicycle Advisory Committee Infrastructure Subcommittee	other	Tuesday, September 18, 2012	completed	12
Marcy Holmes Neighborhood Association	neighborhood-N	Tuesday, September 18, 2012	completed	12
Windom Park Citizens in Action	neighborhood-N	Tuesday, September 18, 2012	completed	30
Nicollet East Harriet Business Association	business-S	Wednesday, September 19, 2012	completed	25
Lake Street Council	business-S	Thursday, September 20, 2012	completed	15
Minneapolis Pedestrian Advisory Committee Infrastructure Subcommittee	other	Thursday, September 20, 2012	completed	8
St Anthony East Neighborhood Association	neighborhood-N	Monday, September 24, 2012	completed	8



Outreach Toolkit

- Raise awareness for the Project and obtain feedback on alternative modes and alignments
- “Piggyback” on existing meetings
 - “Go to where the people are”
- “Deputize” community members and agency staff to represent the Project
- Working with City NCR Department to identify groups

TRANSIT MODES TO BE EVALUATED
 The three primary modes to be evaluated all typically share lanes with traffic, but are different in other ways:

	CONVENTIONAL BUS Minneapolis, MN	ENHANCED BUS Kansas City, MO	MODERN STREETCAR Portland, OR
Vehicle	Bus	Bus	One-Car Train
Power Source	Diesel, Electric (overhead wires) or Hybrid	Diesel or Hybrid	Electric
Typical Line Length	Varies	5-20 miles	2-5 miles
Distance Between Stops	1-3 blocks	1/4-1/2 mile	1/4-1/3 mile
Capital Cost per Mile	< \$1 million	\$1-6 million	\$30-60 million



Purpose and Need



Purpose Statement

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.



PEER REVIEW



Peer Review

- [Modern Streetcar](#)
- [Rapid Bus](#)
- [Modern Streetcar Funding](#)





Minneapolis
City of Lakes

2011 STREETCAR PEER REVIEW

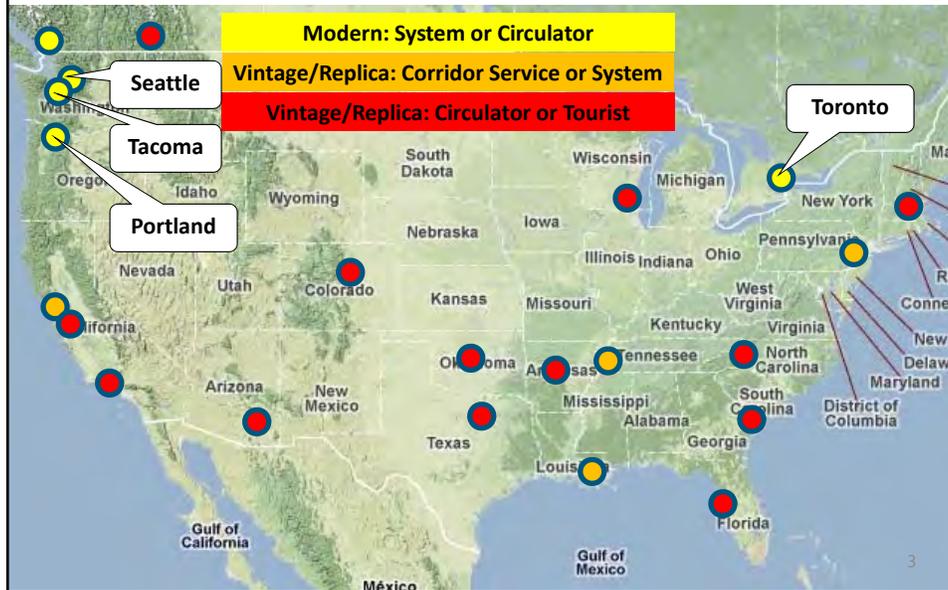
Updated for Oct. 29, 2012
Policy Advisory Committee Meeting,



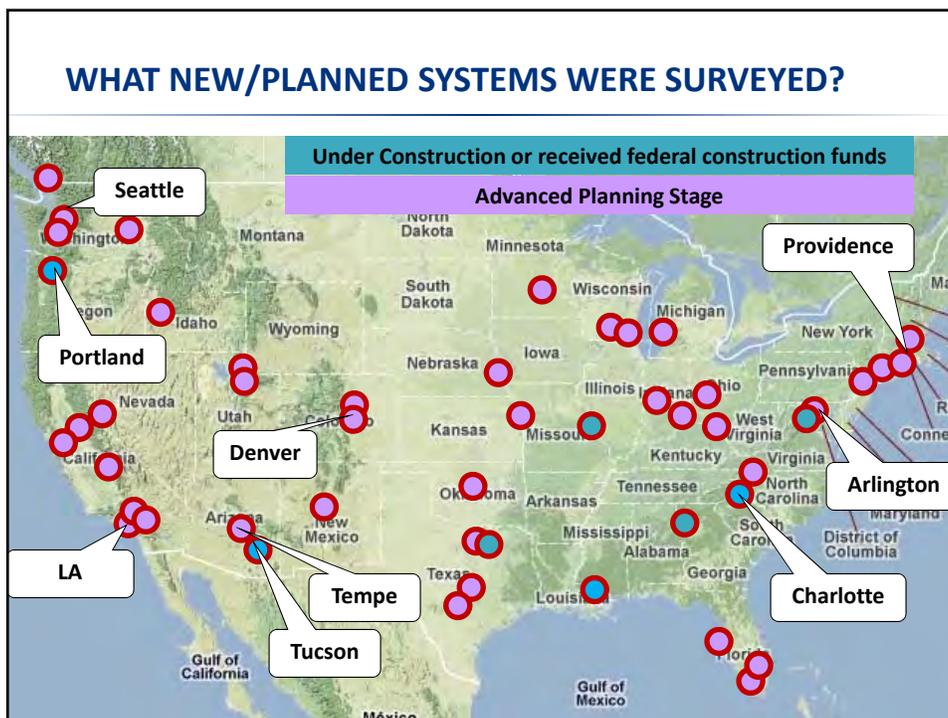
ISSUES EXPLORED

- Streetcar integration with existing bus service in same corridor
- Streetcar's effect on ridership (ridership numbers and type of rider)
- Streetcar's impacts on economic development, business/retail vitality, and quality of life.

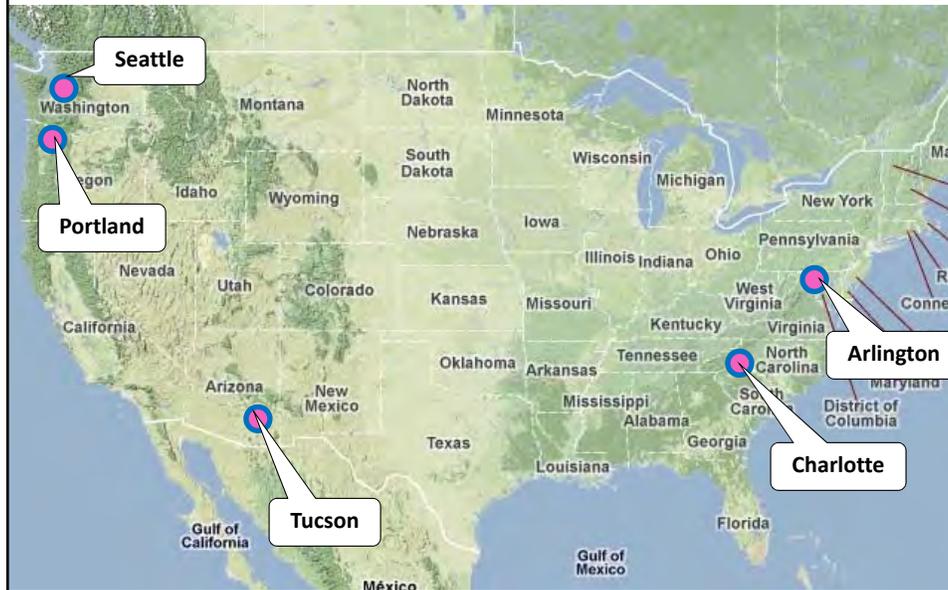
WHAT EXISTING SYSTEMS WERE SURVEYED?



WHAT NEW/PLANNED SYSTEMS WERE SURVEYED?



SYSTEMS HIGHLIGHTED IN THIS PRESENTATION



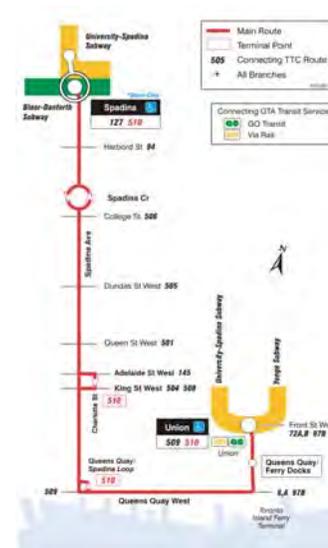
TORONTO

510 Spadina Streetcar (Existing)

- 1 of 11 streetcar lines
- 3.2 miles long
- Opened in 1997, replacing route 77-Spadina bus
- 0.2 mile stop spacing
- 43,800 daily riders on Spadina



Spadina Streetcar, Flickr, Diego3336



TORONTO

510 Spadina Streetcar (Existing)

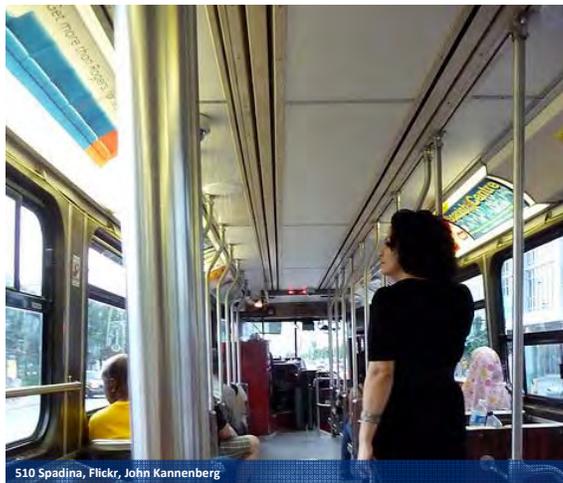
- Ridership has grown from 26,350/day in 1997 to 35,730 in 2004 to 43,800 today
- Exclusive, curbed lanes and direct access to subway
- Streetcar provides faster and more reliable service than previous bus service
- Streetcar works better than bus in tight right-of-way
- Evaluated enhanced bus but chose streetcar because “it lasts longer”



TORONTO

510 Spadina Streetcar (Existing)

- Transit agency estimates that 60% of existing streetcar passengers are “choice” riders
- Quality of service is key factor



TORONTO

510 Spadina Streetcar (Existing)

- Streetcar was first opposed by merchants
- Primary concerns were loss of parking, loading impacts, and construction
- Surveys taken after project indicate that businesses overwhelmingly believed streetcar helped business
- Still have concerns about parking availability



SPADINA AVENUE, Flickr – wyliepoon

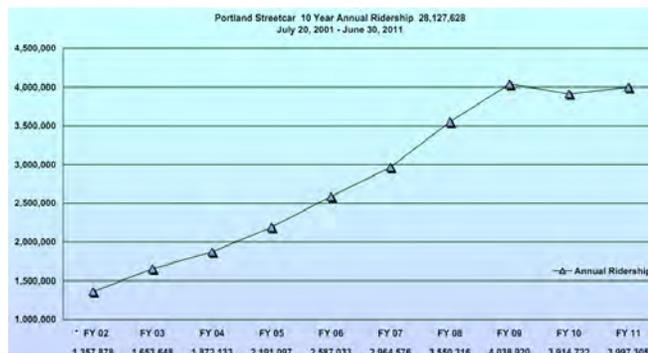


SPADINA AVENUE, Flickr – jeku arce

PORTLAND

PSU-South Waterfront (Existing)

- 4.0 miles long
- Opened in 2001 (extensions in 2005, 2006, 2007)
- 0.16 mile stop spacing
- 12,000 daily riders in 2011
- Mixed traffic



PORTLAND

PSU-South Waterfront (Existing)



Relatively seamless connections between streetcar and MAX light rail.

PORTLAND

PSU-South Waterfront (Existing)

- Businesses now generally very supportive – but some were very vocal opponents
 - (e.g., Powell's Books)
- \$19m of funding from property assessment
- Flip side of economic growth is higher assessments on property owners



Powell's Books on Streetcar Line, Flickr, paulcole



Portland Streetcar, Flickr, sfcityscape

PORTLAND

PSU-South Waterfront (Existing)

- Standards developed to better integrate bike/streetcar
- Perhaps one of the biggest design challenges
 - Flangeway hazard
 - Managing left turns
 - Integration with stops



NW Lovejoy Street, Nelson\Nygaard



9th Street, Portland, Nelson\Nygaard

PORTLAND

Eastside Loop (Existing)

- 3.3 miles long
- Opened in September 2012
- 0.23 mile stop spacing
- Mixed traffic
- Will operate on corridor with Route 6



Future Eastside Loop Corridor



Portland Streetcar Loop Project

SEATTLE



Seattle Streetcar, Flickr, Lightpattern Productions



Seattle Streetcar, Flickr, kosmoskipo

SEATTLE STREETCAR NETWORK



SEATTLE

South Lake Union (Existing)

- 1.3 miles
- Opened in 2007
- 0.25 mi. stop spacing
- Mixed traffic
- Ridership far exceeded projections:
 - 346,000 (2009)
 - 565,000 (2010)
 - 683,000 (2011)




16

SEATTLE

South Lake Union (Existing)

- Strong mix of commuters and choice riders
- Peak commuters + midday “choice” riders
- Recent survey:
 - 55% commute trips
 - 45% were “choice”
- Mix may have changed with Amazon moving to SLU



SLU Streetcar, Flickr - Bejan

amazon.com

SEATTLE

South Lake Union (Existing)

- Huge amount of growth in SLU area, north of downtown
- Industrial and biotech starting to attract retail and commercial uses
- Streetcar was a key factor for attracting Amazon



South Lake Union Streetcar

SEATTLE

1st Hill Line (Construction)

- 2.2 miles
- Opening in 2014
- 0.25 mi. stop spacing
- Mixed traffic
- First Hill streetcar initial projection is 3,000-3,500 riders/day



SEATTLE

1st Hill Line (Construction)

- Two-way cycle track planned in effort to “reclaim the street” from cars
- Hope to attract more bicyclists to corridor
- “Copenhagen” lefts to accommodate left turns across track



TUCSON

Tucson Streetcar (Construction)

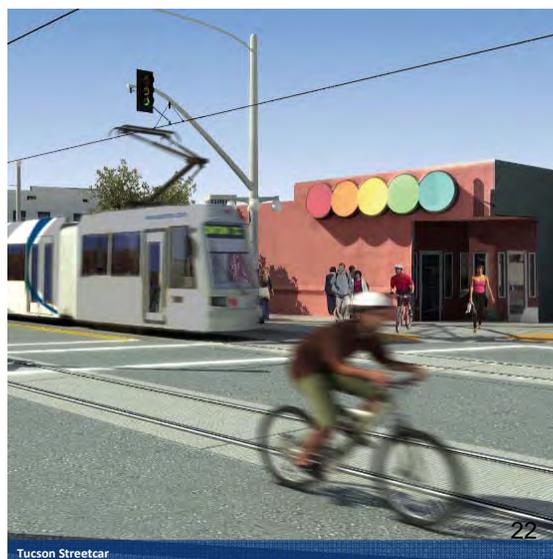
- 3.9 miles
- Opens 2013
- 0.23 mile stop spacing
- Connect downtown with university
- Bus route changes TBD



TUCSON

Tucson Streetcar (Construction)

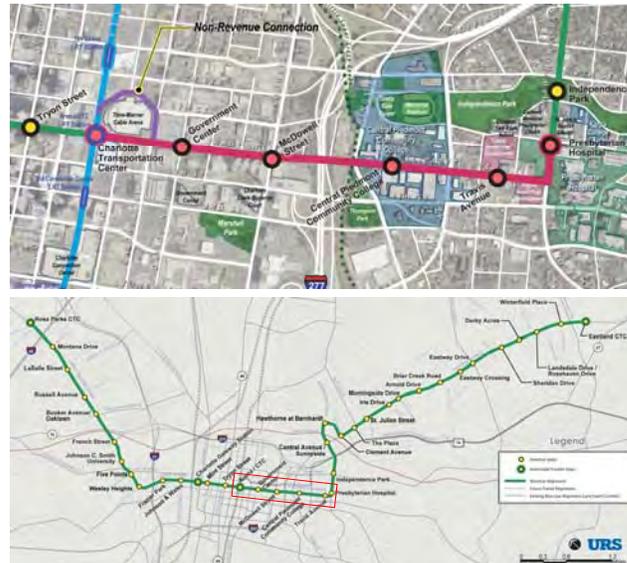
- Designed to minimize impact on bikes and diagonal parking
- Center platform stations outside downtown
- Left side curbside stations downtown
- Bike community not entirely satisfied – safety issues with tracks



CHARLOTTE

Charlotte Streetcar (Construction)

- 1.5 mile starter segment underway
- 10.0 mile corridor planned
- 0.27 mile stop spacing
- Connects dwtn, 4 transit centers, 2 rail lines, 2 colleges, 1 hospital
- 9,000 existing riders in corridor



CHARLOTTE

Charlotte Streetcar (Construction)

- Corridors selected for enhancement due to capacity issues
- Streetcar also seen as way to enhance development on Beatties Ford Road
- Streetcar selected over enhanced bus due to permanence of the mode

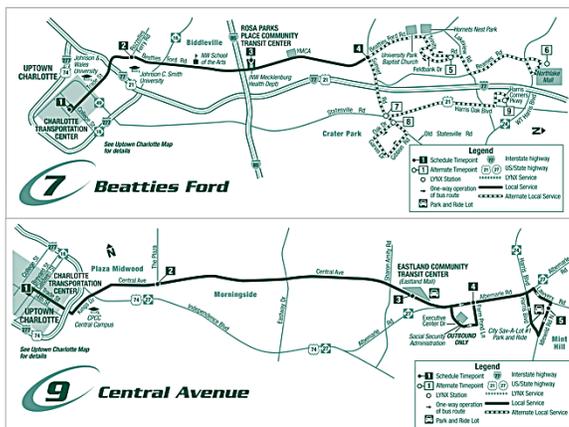


Elizabeth Avenue, Flickr, Atlantiquon

CHARLOTTE

Charlotte Streetcar (Construction)

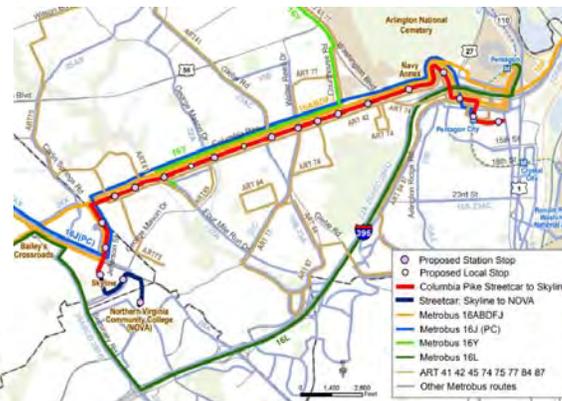
- 3 of highest volume routes: route 7, route 9, free dwtm circulator
- Bus changes TBD
 - Eliminate buses (unlikely)
 - Terminate & force transfer
 - Express buses with local streetcar
 - Reduce bus frequency & modify service



ARLINGTON

Columbia Pike (Planning)

- 5 miles
- 0.27 mile stop spacing
- 16,000 existing riders in corridor
- Crowded buses, delays
- Streetcar LPA July 2012
- \$250M capital cost



ARLINGTON

Columbia Pike (Planning)

- Streetcar selected to address demand in the corridor
- Buses are limited in ability to improve existing transit service
- Enhanced bus evaluated in AA, but “what do we get with more buses? More of the same.”
- Desire to diversify service and improve operations
- Streetcar seen as way to catalyze and support existing growth

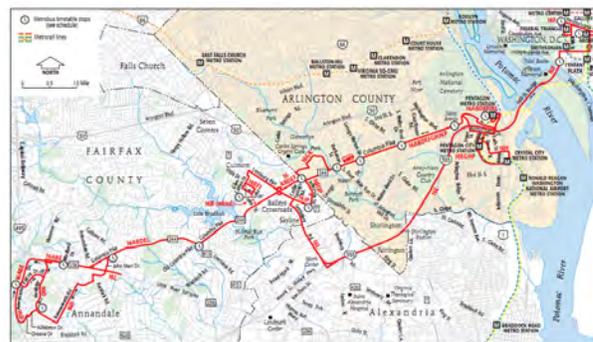


Arlington Streetcar, Arlington County

ARLINGTON

Columbia Pike (Planning)

- Streetcar will replace routes 16G and 16H
- Some bus service to remain – 16Y express, ART local
- Streetcar will not serve entire corridor; transfer required for longer trips



ROLE OF TRANSIT AGENCY

City	Lead Planning Agency	Other Major Agencies Involved
Denver	City of Denver	RTD, DRCOG
Providence	RIPTA	City of Providence, Mayor's Office
Charlotte	City Eng. & Prop. Management	CATS, CDOT, City planning, utilities, etc.
Arlington	Arlington and Fairfax Counties (joint lead)	WMATA, Metro, ART
Los Angeles	Los Angeles Streetcar, Inc. 503(c)(3)	LA Metro
Toronto	TTC	Various stakeholders
Tacoma	Sound Transit	City of Tacoma, Pierce Transit
Tucson	City Department of Transportation	U of A (Cat Tran), Regional Transportation Authority (RTA), Arizona DOT
Tempe	Valley Metro	City of Tempe
Seattle	City of Seattle	Sound Transit
Portland	City of Portland	Portland Streetcar Inc, Trimet, Metro

OVERALL FINDINGS

- **Key Themes:**
 - Modern streetcar is a new mode, and there are few operating systems – most peers in construction/planning
 - Streetcar systems vary in their function (circulation vs. corridor level service)
 - Multiple project motivations
 - Economic development/growth
 - Improve transit system
 - Economics is a major driving factor in each city
 - Streetcar is all about permanence – much greater economic development potential than enhanced bus

OVERALL FINDINGS (CONT.)

- **Key Themes:**

- Almost all streetcar systems are operated by transit agencies
 - sometimes non-profits are established
- Streetcar can better accommodate corridors with heavy demand (due to higher capacity) – important for corridor projects
- Speed and reliability comparable (or better) on enhanced bus unless in dedicated right-of-way
- But why add more buses when can “diversify” the transit system, attract “choice” riders, and accomplish multiple goals?



Enhanced Bus Projects in Other Regions



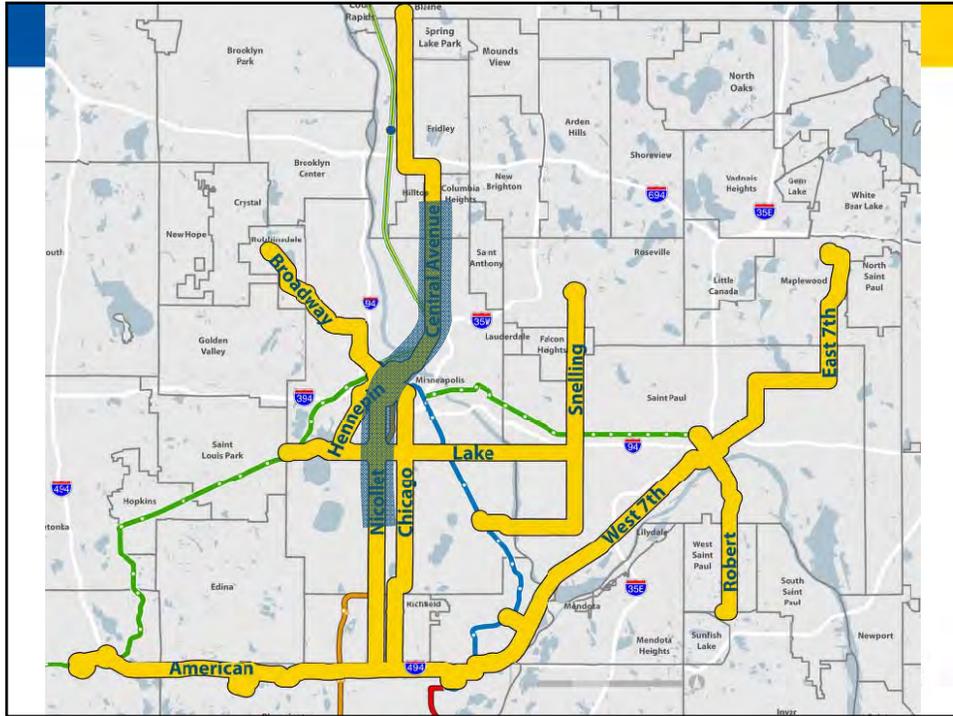
2. Scope

Systems Studied in 2010 by Metro Transit

Implementation Year

- New York Select Bus Service
2008 
- Cleveland Healthline
2008 
- Kansas City MAX
2005 
- Los Angeles Metro Rapid
2000 
- Oakland Rapid
2004 
- Las Vegas ACE
2010 



3. Characteristics

Service & Operations

	Service	Ridership (Avg. Wkdy.)	Peak (Min.)	Off-Peak (Min.)	Station Spacing (miles)	Local Service?
	New York	44,000	3-4	10	.5	X
	Cleveland	14,200	5	15	.17	
	Kansas City	4,200	9	30	.25	X
	Los Angeles*	10,100	5	10	1	X
	Oakland	6,133	10-12	No Night, Weekend Service	.41	X
	Las Vegas	---	10	---	---	X
	Twin Cities**	12,500	10	10	.41	X



* Ventura Blvd. Metro Rapid 750



** Average Corridor in Arterial Transitway Corridors Study

3. Characteristics T

Runningway

	Service	Length (mi)	Stations	Mixed-Traffic	Dedicated Right-of-Way	TSP
	New York	8.5	18	X	Downtown	X
	Cleveland	6.8	36		X	X
	Kansas City	6	20	X	Peak-Only	X
	Los Angeles	16.7	15	X		X
	Oakland	18	35	X		X
	Las Vegas	---	---	X	Downtown	X
	Twin Cities Average	9.2	22	X	Downtown (some)	X

 a service of the Metropolitan Council







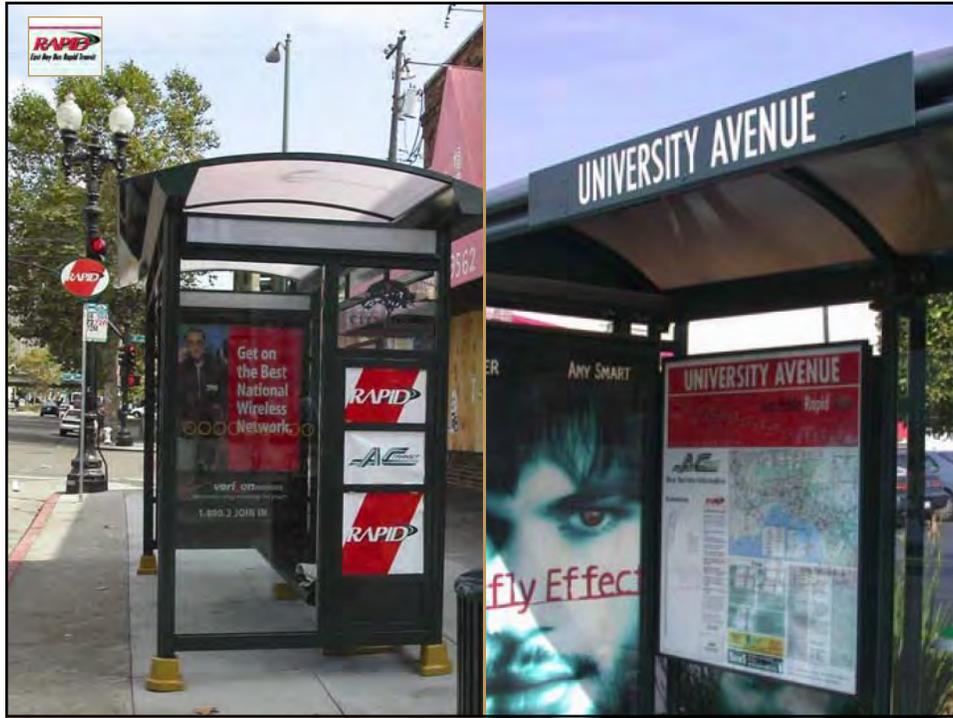
3. Characteristics



Stations

	Service	Stop Location	Level Boarding	Shelter	Real-Time Signs	Shared w/ Local
	New York	Curbside, farside	Level near-level	Standard	X	X
	Cleveland	Curbside/median farside	Level	Custom Designed	X	
	Kansas City	Curbside, farside	Near-level	Custom Designed	X	X
	Los Angeles	Curbside	Near-level	Custom Designed	X	X
	Oakland	Curbside	Near-level	Standard	X	X
	Las Vegas	Curbside/median	Level	Custom Designed	X	X
ABRT	Twin Cities	Curbside w/ some bumpout	Near-Level	Custom Designed	X	X Typical





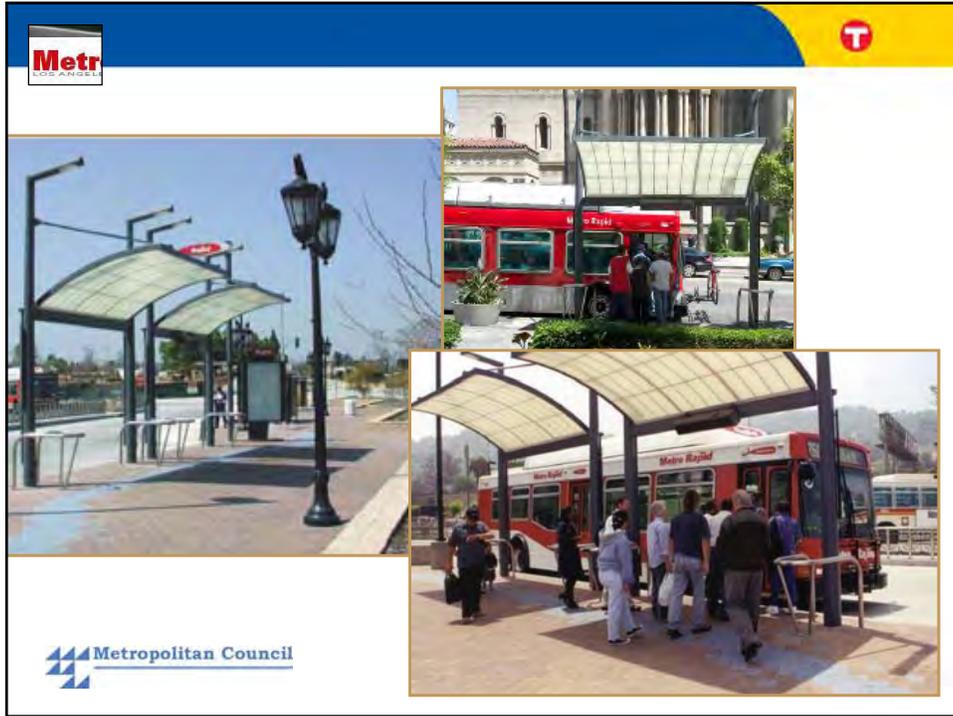
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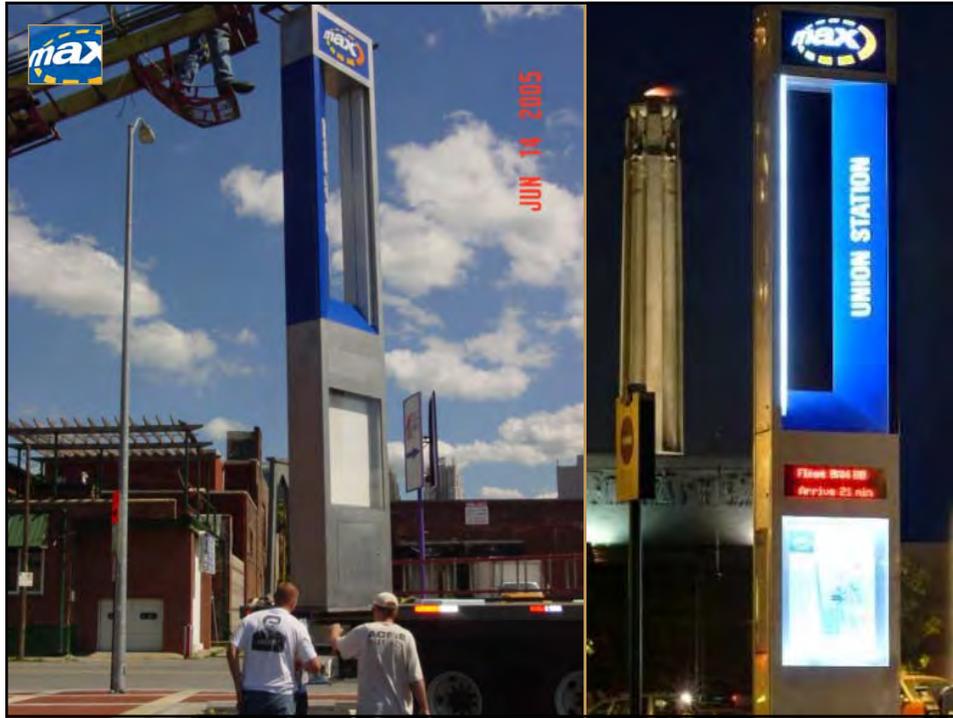
T

Metropolitan Council

Metro Transit
a service of the Metropolitan Council

The complex block contains a collage of images and logos. At the top left is the '+se' logo. At the top right is the 'T' logo. The main collage includes three images: a bus stop shelter with blue and white branding and a 'se' logo; a close-up of a shelter's glass panel with the text 'this service' and a 'T' logo; and a group of people waiting at a bus stop. At the bottom left is the 'Metropolitan Council' logo, and at the bottom right is the 'Metro Transit' logo with the tagline 'a service of the Metropolitan Council'.







3. Characteristics: Stations



Real Time Signage



Cleveland Healthline



Las Vegas ACE



Los Angeles Metro Rapid



Kansas City MAX



3. Characteristics Vehicles

	Service	Brand	Length	Low-Floor	Doors	Seats	Propulsion
		Nova	62'	½ fleet	3	38	Standard
		New Flyer	63'	X	5	38	Hybrid-Electric
		Gillig	42'	X	2	39	Standard
		NABI	40'	X	2	39	Standard
		Van Hool	40.5'	X	3	28	Standard
		Wright Bus	62'	X	3	44	Hybrid-Electric
	Twin Cities	?	40' & 60'	X	2-3	?	Std. and Hybrid

 a service of the Metropolitan Council







3. Characteristics



Fare Collection

	Service	On-Board	Off-Board	Enforcement	Smart Card Option
	New York		X	Proof-of-Payment	X
	Cleveland	X	X	Proof-of-Payment Bus Operator	X
	Kansas City	X		Bus Operator	
	Los Angeles	X		Bus Operator	X
	Oakland	X		Bus Operator	X
	Las Vegas		X	Proof-of-Payment	X
	Twin Cities		X	Proof-of-Payment	X







4. Outcomes



Service Performance

	Service	Capital Cost	Cost/mile	Ridership increase	Travel Time Savings
	New York	\$10.5 million	\$1.2 million	7%	19%
	Cleveland	\$200 million	\$29.4 million	40%	24%
	Kansas City	\$21 million	\$3.5 million	50%	20%
	Los Angeles	\$3.3 million	\$197,000	27%	23%
	Oakland	\$25 million	\$1.4 million	16%	23%
	Twin Cities ABRT (ATCS)	\$32 million	\$3.5 million	30%**	19%

* Excludes Cleveland & Los Angeles

** Over 2030 Baseline, System Average. 80%+ over existing





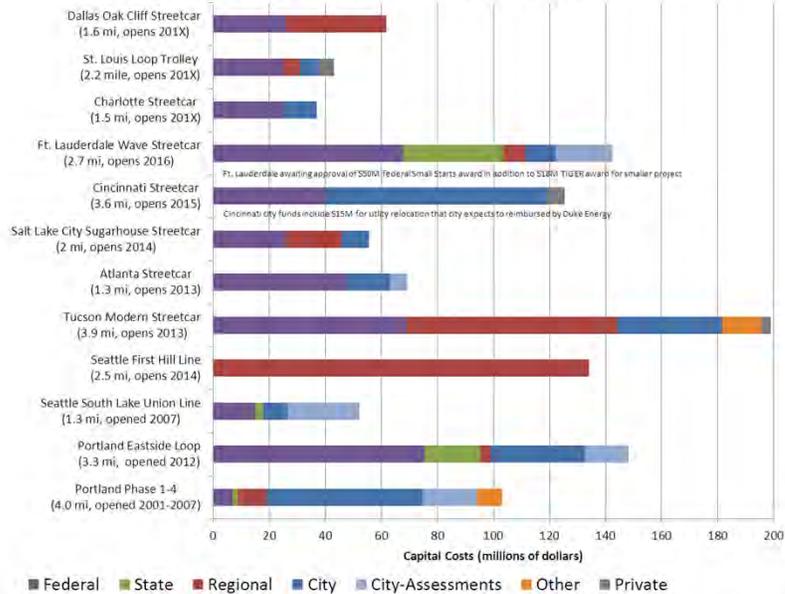
Minneapolis
City of Lakes

STREETCAR FUNDING REVIEW

October 2012



Streetcar Capital Funding - Selected Peer Cities



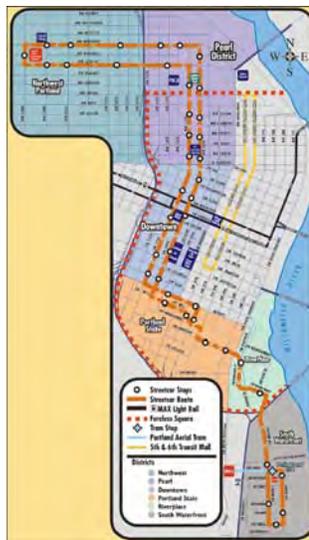
STREETCAR FUNDING REVIEW

PORTLAND PHASE 1-4

4.0 mile, \$103 M, opened 2001-7

Capital Funding Sources

- Federal (7%)
 - \$5M federal transportation funds
 - \$2M HUD
- State (2%)
 - \$2M Connect Oregon
- Regional (10%)
 - \$10 M Regional Transportation Funds
- City (54%)
 - \$2M general fund
 - \$29M parking bonds
 - \$2M parking fund
 - \$2M transportation fund
 - \$22M tax increment financing
- City – Property Assessments (19%)
 - \$19M local improvement district
- Other/Unknown (9%)
 - \$9M



PORTLAND EASTSIDE

3.3 mile, \$148 million, opened 2012

Capital Funding Sources

- Federal (51%)
 - \$75M Small Starts
 - <\$1M stimulus funds
- State (13%)
 - \$20M (locally manufactured streetcar vehicles)
- Regional (2%)
 - \$4M regional funds
- City (23%)
 - \$28M Portland Development Commission
 - \$6M SDC/other city funds
- City – Property Assessments (10%)
 - \$16M local improvement district



TUCSON

3.9 mile, \$199 million, opens 2013

Capital Funding Sources

- Federal (35%)
 - \$63M TIGER grant
 - \$7M New Starts “Exempt” appropriations
- Regional (38%)
 - \$75M Regional Transportation Authority (part of the \$2.1 billion Regional Transportation Plan, approved by Pima County voters in May 2006)
- City (19%)
 - \$11M public utilities
 - \$27M other city funds
- Private (2%)
 - \$3M The Gadsden Company
- Other/Unknown (7%)
 - \$14M bridge funding

Serves the University of Arizona (UA), Main Gate Square, the Fourth Avenue entertainment and shopping district, Downtown, and the Mercado District.



ATLANTA

1.3 mile, \$69 million, opens 2013

Capital Funding Sources

- Federal (69%)
 - \$48M TIGER grant
- City (23%)
 - \$16M city capital
- City-Property Assessments (9%)
 - \$6M Atlanta Downtown Improvement District (\$20M commitment over 20 years)

Connects the Centennial Olympic Park area to the Martin Luther King Jr. National Historic Site.



SALT LAKE CITY

2 mile, \$56 million, opens 2014

Capital Funding Sources

- Federal (47%)
 - \$26M TIGER grant
- Regional (36%)
 - \$6M value of land and \$12M value of vehicles already purchased by transit agency
 - \$2M transit agency
- City (17%)
 - \$5M Salt Lake City
 - \$4M South Salt Lake

Connects Sugar House Business District to the regional TRAX light rail system.



CINCINNATI

3.6 mile, \$125 million, opens 2015

Capital Funding Sources

- Federal (32%)
 - \$11M TIGER grant
 - \$25M Urban Circulator grant
 - \$4M CMAQ
- City (63%)
 - \$28M property tax capital bond proceeds
 - \$11M TIF bond proceeds
 - \$26M Blue Ash Airport sale (includes \$15M for utility relocation that city expects to be reimbursed by Duke Energy)
 - \$14M other development fund revenue
- Private (5%)
 - \$7M Duke Energy/Streetlight Sale Proceeds & Private Contributions

Connects Downtown to Findlay Market and the Over-the-Rhine Historic District.



FT LAUDERDALE WAVE 2.7 mile, \$143 million, opens 2016

Capital Funding Sources

- Federal (47%)
 - \$18M TIGER grant
 - \$50M *anticipated* Small Starts award
- State (25%)
 - \$36M Florida new starts program
- Regional (6%)
 - \$8M Broward MPO
- City (7%)
 - \$11M capital improvement funds and land donation for O&M facility
- City-Property Assessments (14%)
 - \$21M special assessments



CHARLOTTE 1.5 mile, \$37 million, opening ????

Capital Funding Sources

- Federal (68%)
 - \$25M urban circulator grant
- City (32%)
 - \$12M capital funds

1.5 mile starter line



10 mile long-term vision



ST LOUIS LOOP TROLLEY 2.2 mile, \$43 million, opening ????

Capital Funding Sources

- Federal (58%)
 - \$25M FTA urban circulator grant
- Regional (14%)
 - \$6M regional MPO (federal funds)
- City (16%)
 - \$3.5M tax increment funds
 - \$3.5M new market tax credits
- Private (12%)
 - \$5M philanthropic donations



Connects two existing MetroLink Stations to cultural institutions and shopping/office/entertainment district in The Loop.

DALLAS OAK CLIFF 1.6 mile, \$62 million, opening ????

Capital Funding Sources

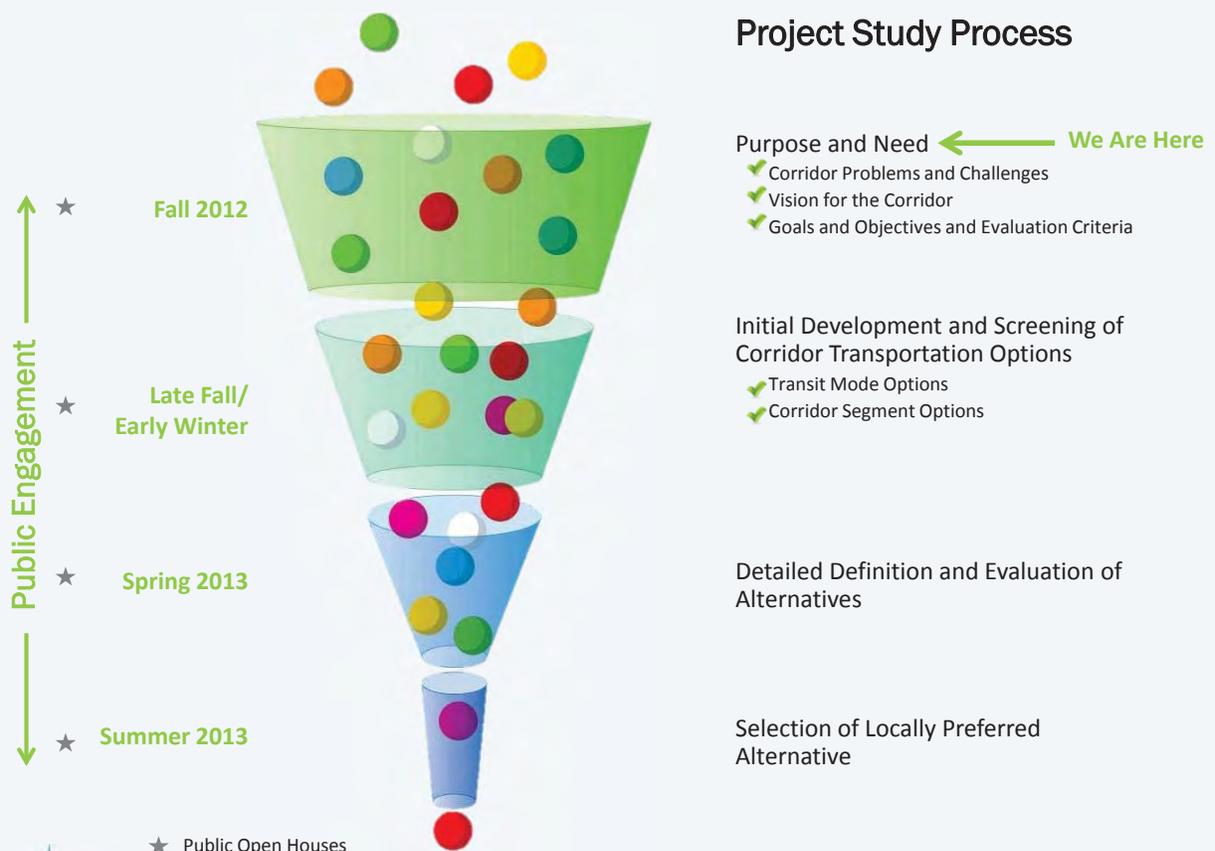
- Federal (42%)
 - \$26M TIGER grant
- Regional (58%)
 - \$20M transit agency (1-cent sales tax)
 - \$16M MPO (toll road revenue)



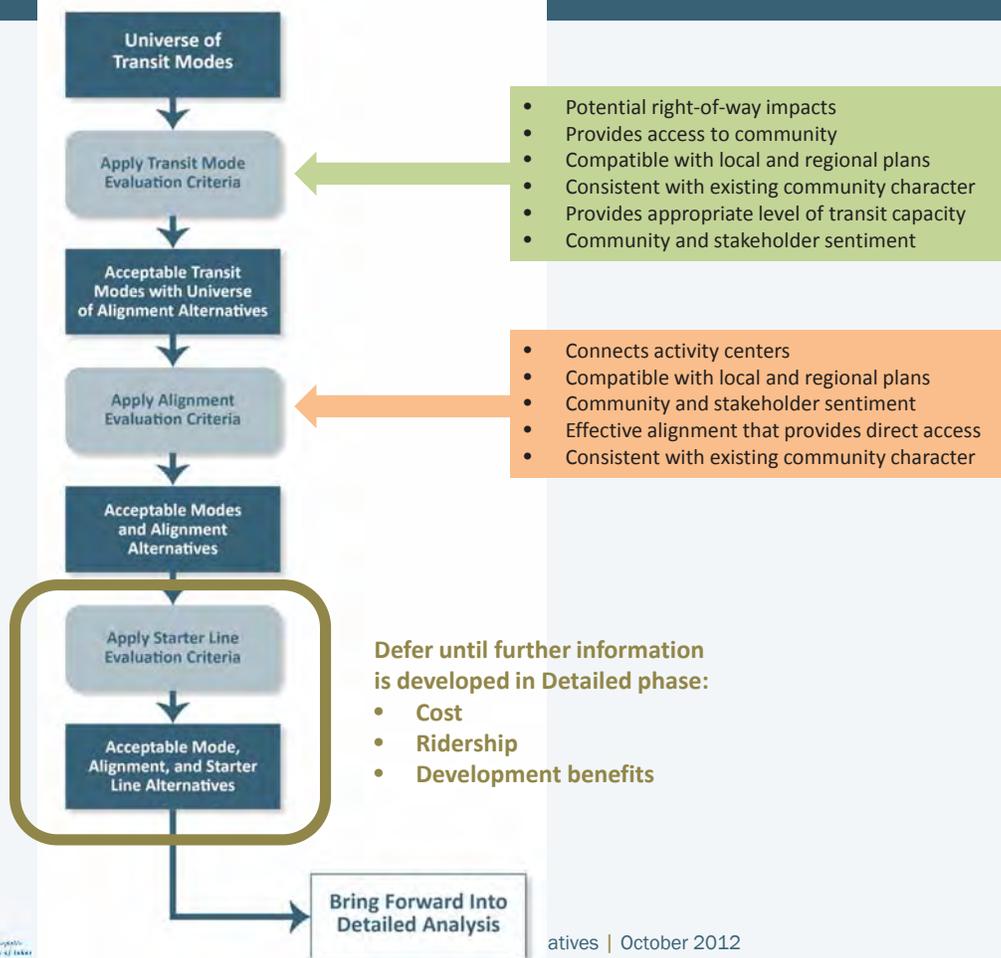
INITIAL DEVELOPMENT AND SCREENING OF ALTERNATIVES



Nicollet-Central Transit Alternatives | October 2012



Nicollet-Central Transit Alternatives | October 2012



Initial Screening – Schedule

- November 13, 2012 (T/CAC)
 - Present preliminary results
- December 2012 (T/CAC)
 - Present alternatives recommended for detailed development and evaluation
- Early January 2013 Open Houses
 - Present results and recommendations
- Mid-January 2013 PAC
 - Approve alternatives for detailed development and evaluation