



Arterial Bus Rapid Transit



System Policy Oversight Committee
April 7, 2014

- Welcome and Introductions
- A Line - Project Status
- Shelter and Pylon Development
- Arterial BRT Branding Update
- Anticipating Future Corridors
- Next Meeting and Next Steps

A LINE PROJECT STATUS UPDATE

A Line Project Progress



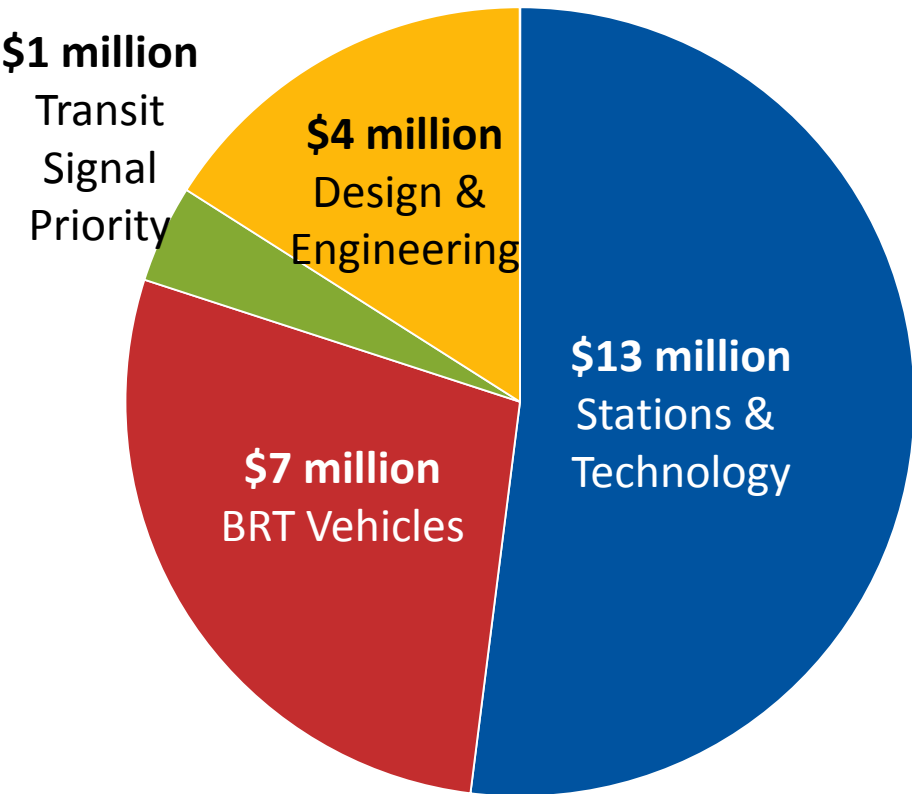
- \$10 million for A Line in Governor's proposed bonding bill
- \$1.9 million design contract with Kimley-Horn authorized 1/22/14
 - A Line design
 - Pilot station
 - Prototypical arterial BRT shelter & pylon



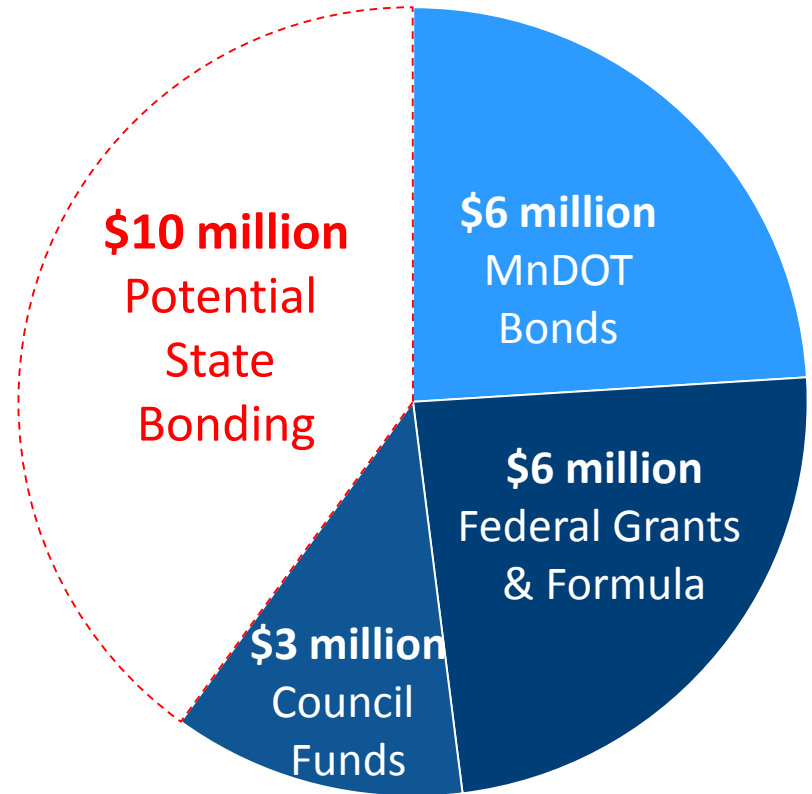
A Line Project Costs & Identified Funding



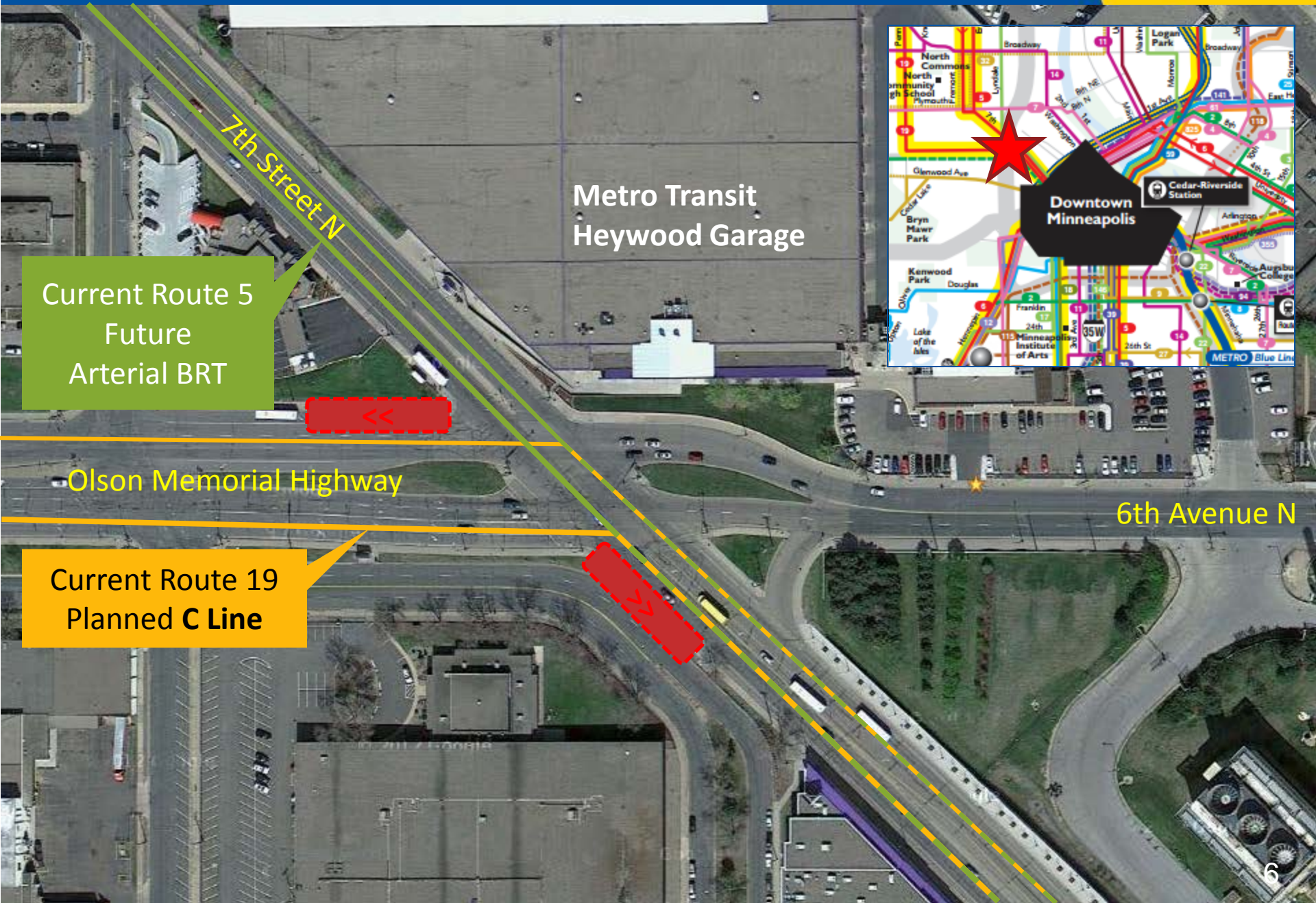
Project Costs: \$25 million



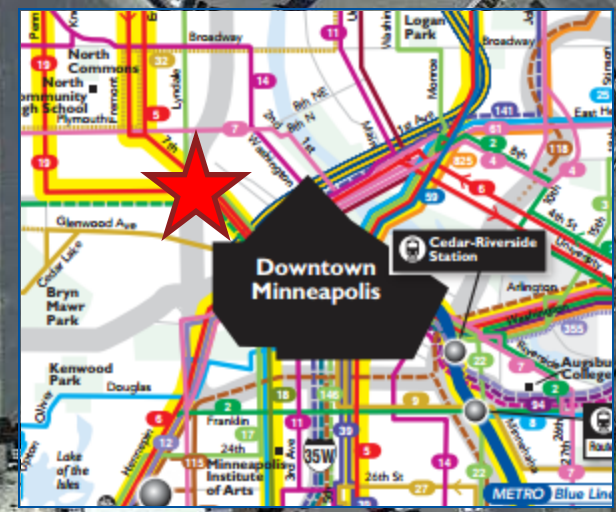
Secured Funds: \$15 million



2014: Pilot Station at 7th & Olson



Metro Transit
Heywood Garage



Current Route 5
Future
Arterial BRT

Olson Memorial Highway

Current Route 19
Planned C Line

6th Avenue N

A Line (Snelling Avenue) BRT Corridor Design & Prototype Station Design

DRAFT 2014 MILESTONE SCHEDULE

	2014											
	J	F	M	A	M	J	J	A	S	O	N	D
Design Input	█	█	█	↑								
Inventory, Survey, Site Investigation		█	█	█	█							
PILOT STATION (7th & Olson, Minneapolis)												
50% design			█	█								
90% design & final bid documents				█	█	█						
Bidding, award & construction						█	█	█	█	█		
PROTOTYPICAL BRT SHELTER												
Design input & concepts		█										
50% design & Bid documents			█	█	█							
Bidding & award to manufacturer						█	█	█	█	█		
Shelter fabrication & installation at pilot site											█	█
A LINE												
30-50% design			█	█	█	█	█					
90% design				█	█	█	█	█	█	█	█	
Final bid documents												█
Review & major public outreach period					◆					◆		

Current Activities

Ongoing: Project Outreach



July 2013, January 2014: Open Houses



January: 25 Business Owner Meetings



March: Staff Corridor Tour

**NEXT STEP:
PRELIMINARY
DESIGN OUTREACH**

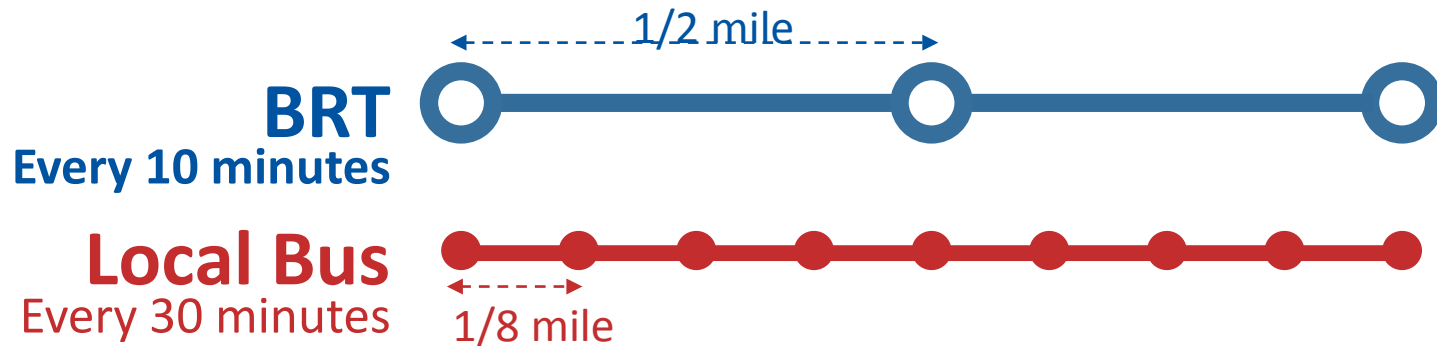
May 2014: Broad Outreach & Open Houses

- Limited stop service with better frequency
- Pre-boarding fare payment & faster all-door boarding
- Transit signal priority
- Transit stations at high ridership locations with station amenities
- Distinct, identifiable brand

➤➤ *BRT would become the primary route in the corridor, with increased service on evenings & weekends.*

Stations would be sited about every 1/2 mile, compared to local stops every 1/8 mile

Local bus would continue to run serve local trips and off-corridor branches.



Pre-Boarding Fare Payment



& Faster All-Door Boarding

»» *For speedier boarding through all doors of the bus, BRT vehicles won't have on-board fareboxes. Customers will either purchase a ticket at the station or tap a Go-To card to pay fares.*

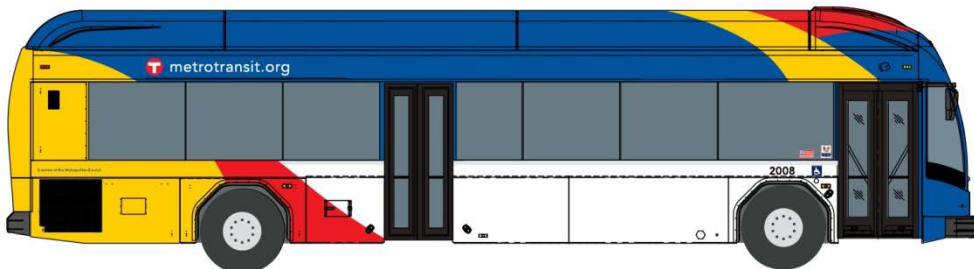
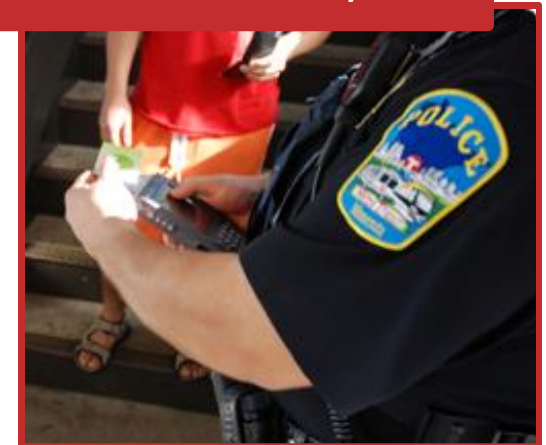
Each station will have a ticket machine, where customers can buy tickets with cash or credit.



Customers with Go-To cards or passes can tap their card before boarding through any door.



Metro Transit police—not drivers—will ensure customers have paid.

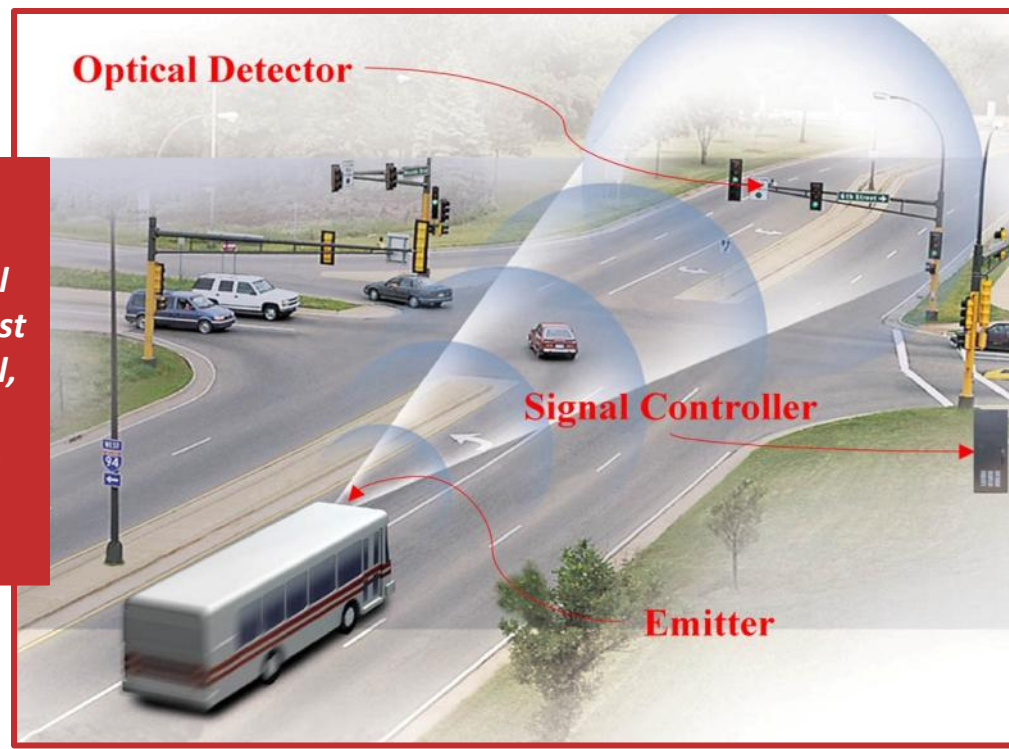


- **Transit Signal Priority (TSP)**

➤➤ *During rush hours today, local buses spend about 25% of their scheduled time stopped at red lights.*

With transit signal priority buses can “ask” traffic signals for early or extended green lights to help buses keep moving.

As a BRT vehicle approaches an intersection, it will send a green request to the traffic signal, which chooses whether or not to lengthen a green light for BRT.



Station Amenities



Stations



Waste bins



Ticket machines



Bike parking



Real-Time Info



Lighting



Snow removal



Maps & info



Security cameras



Radiant heat

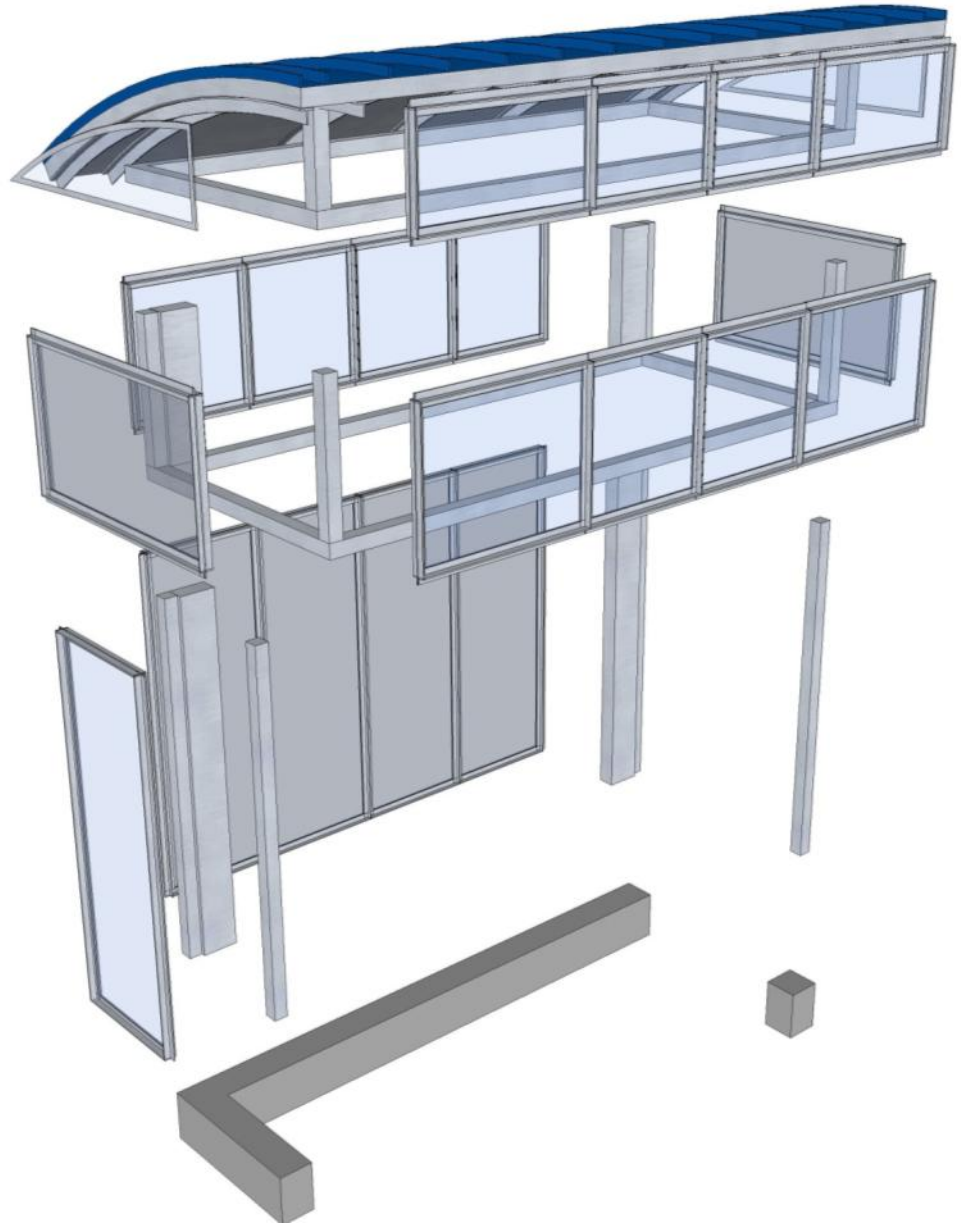


Emergency phone

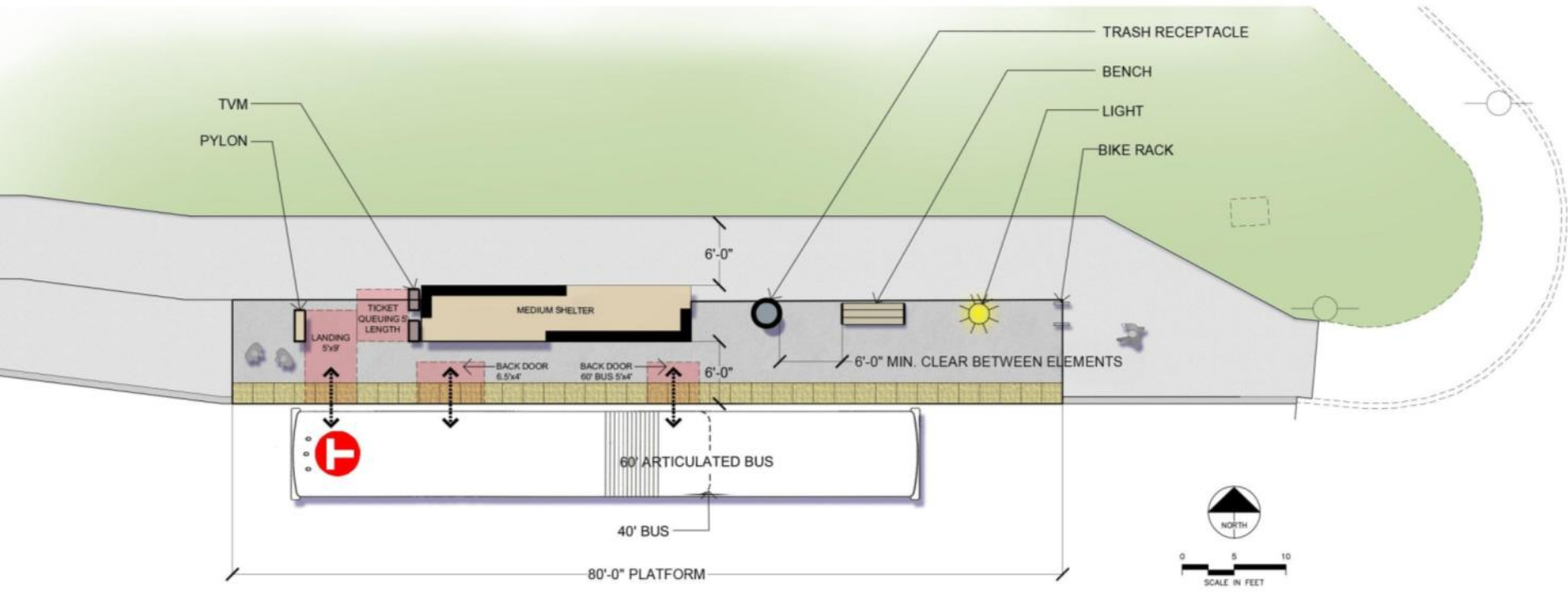


*Stations will be equipped with more amenities for a **safe and comfortable** customer experience, similar to light rail.*

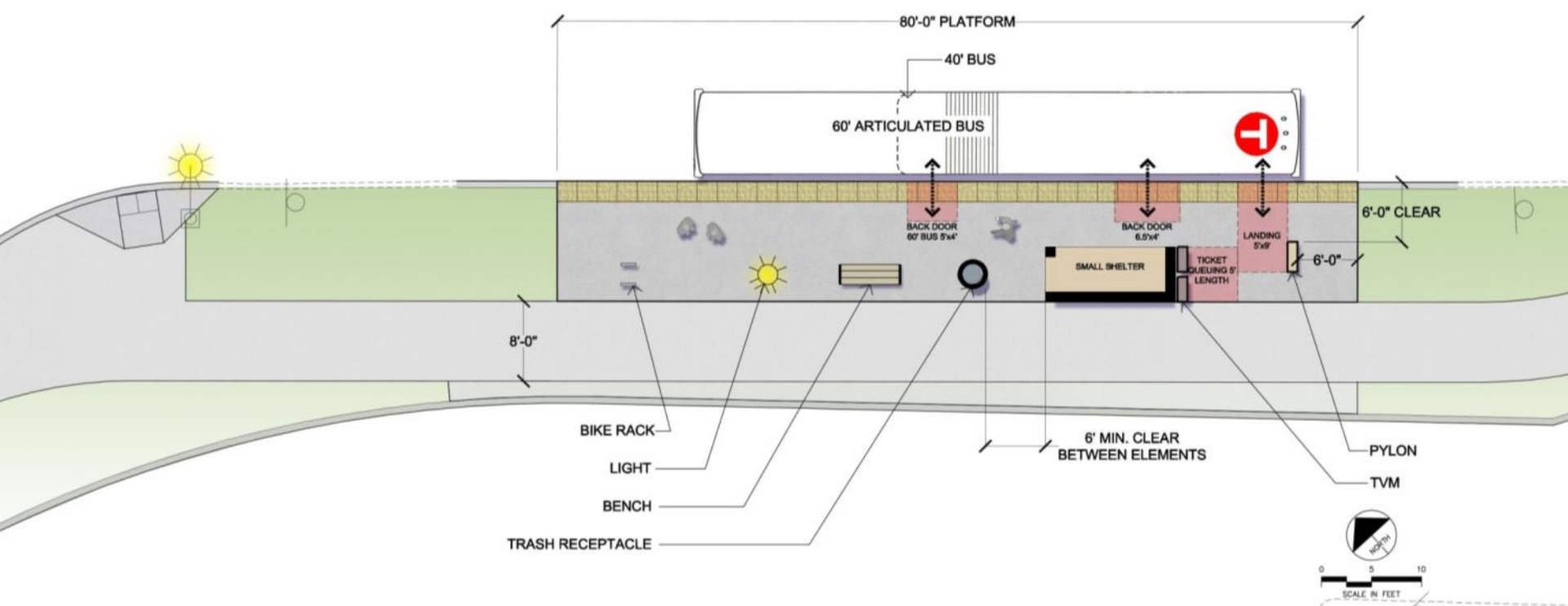
- Establishes standard design components, features and materials
- Provides a consistent, high-level customer experience at stations across the Arterial BRT service network
- Building blocks to create the shelters/stations of different sizes
- Interchangeable parts for effective and efficient maintenance
- Scalable approach – from dozens to hundreds of stations
- Utilized across the country



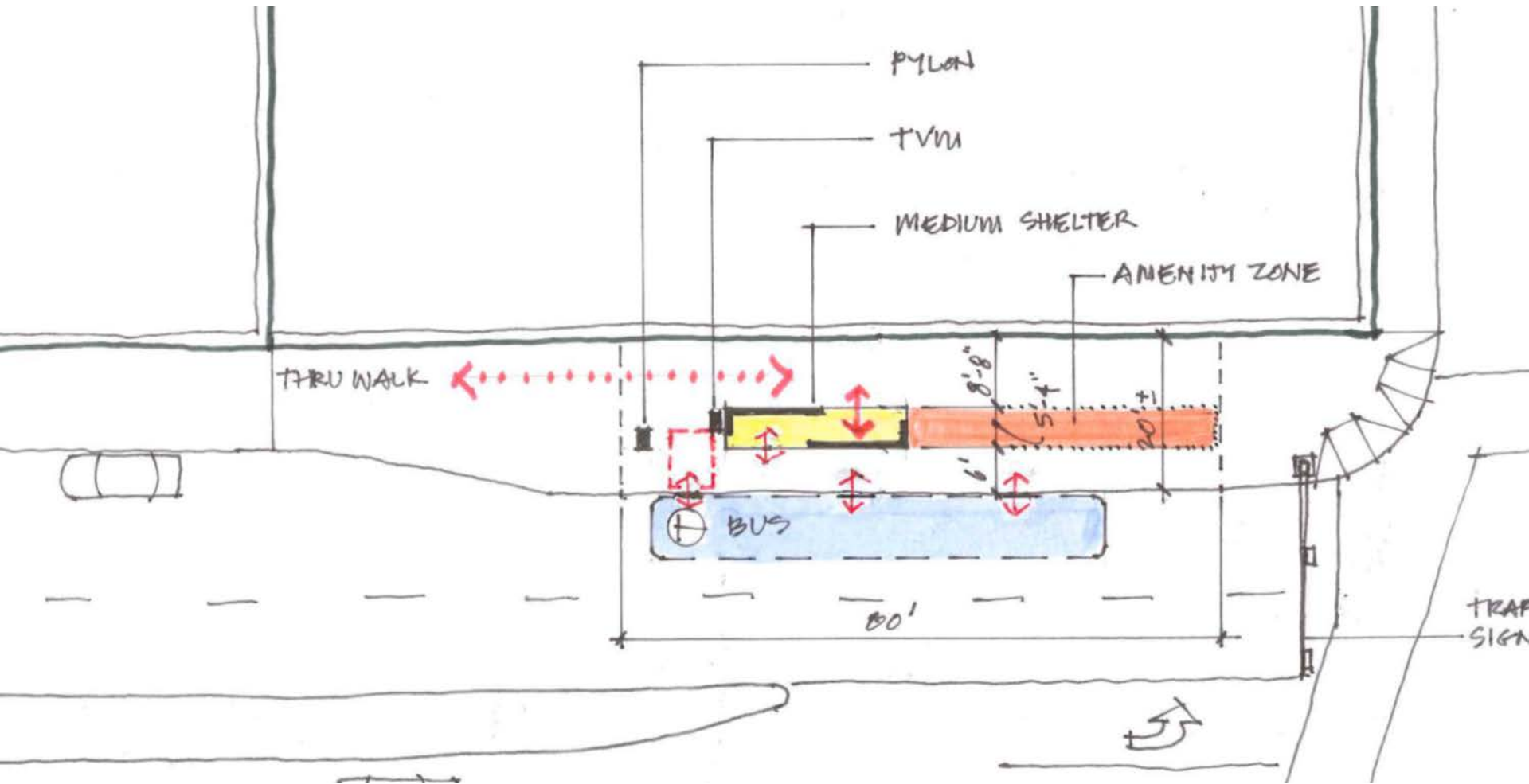
Example of Approach at "Medium" Station



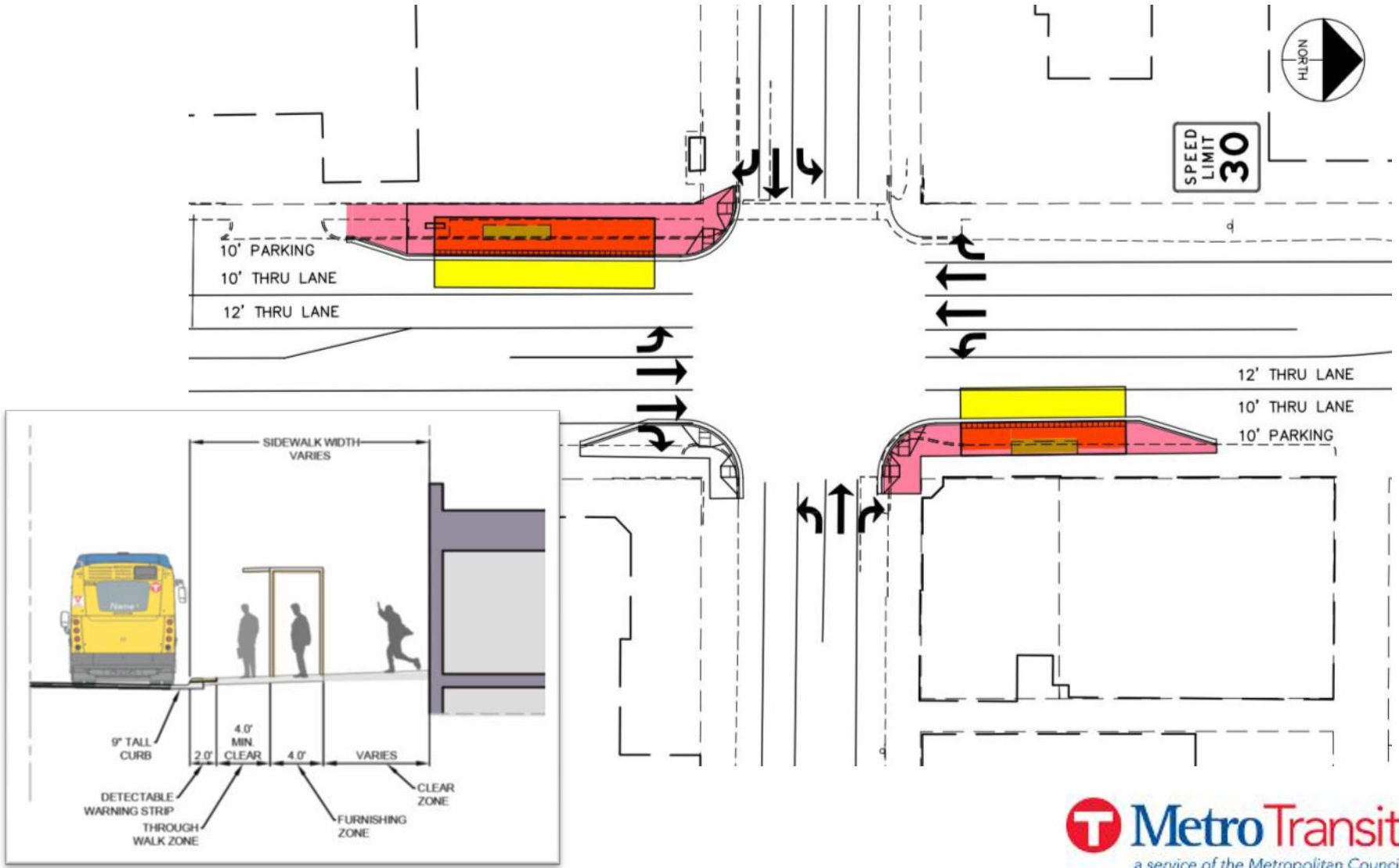
Example of Approach at "Small" Station



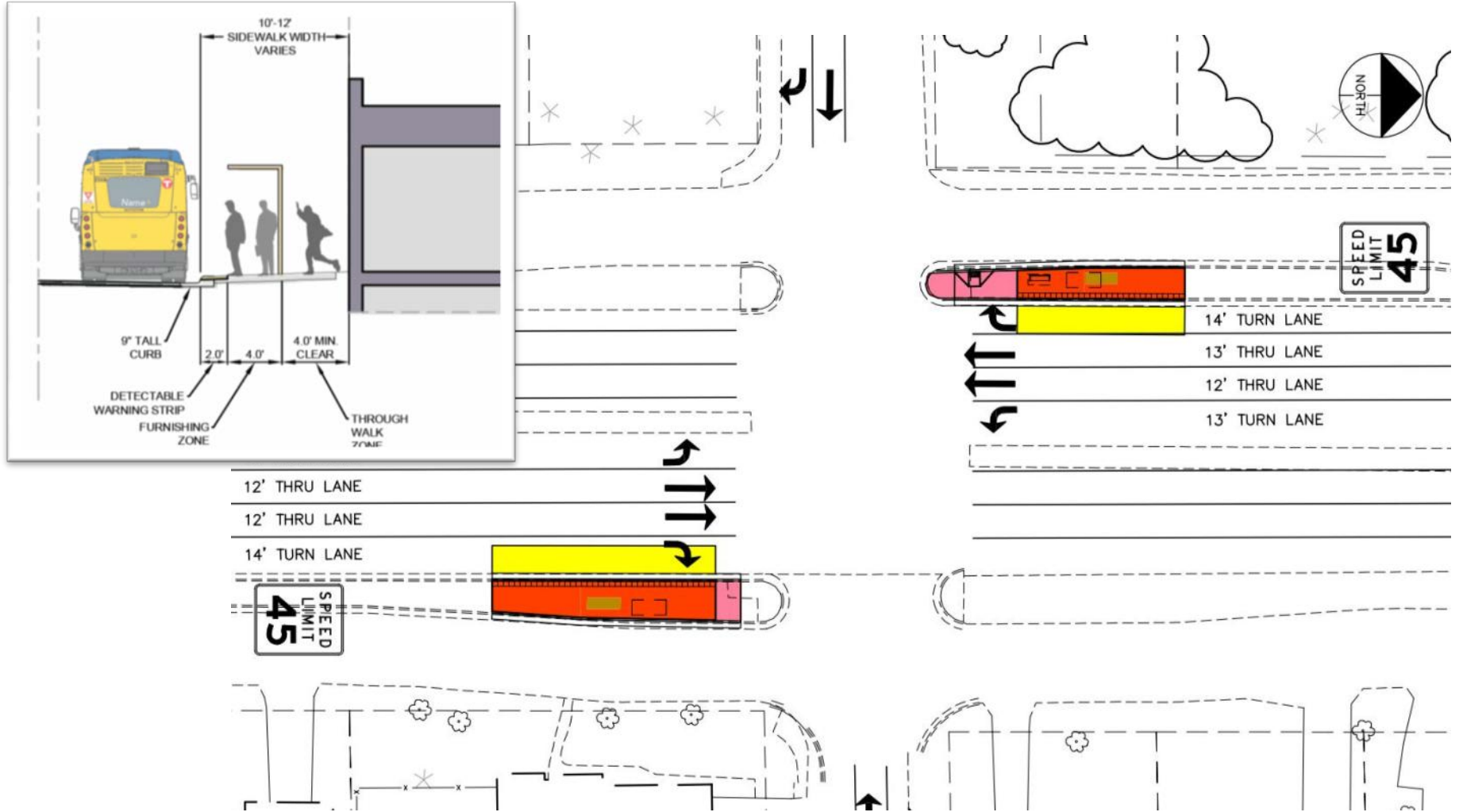
- Creating “station” level improvements
 - Sizing of station shelter based on ridership demand
 - Place what is needed to meet the Arterial BRT service network in the context of station location
- Coordination with local business owners and stakeholders



Bumpout Curb Locations



Within-Curb Locations



Example of Within-Curb/Bumpout Location

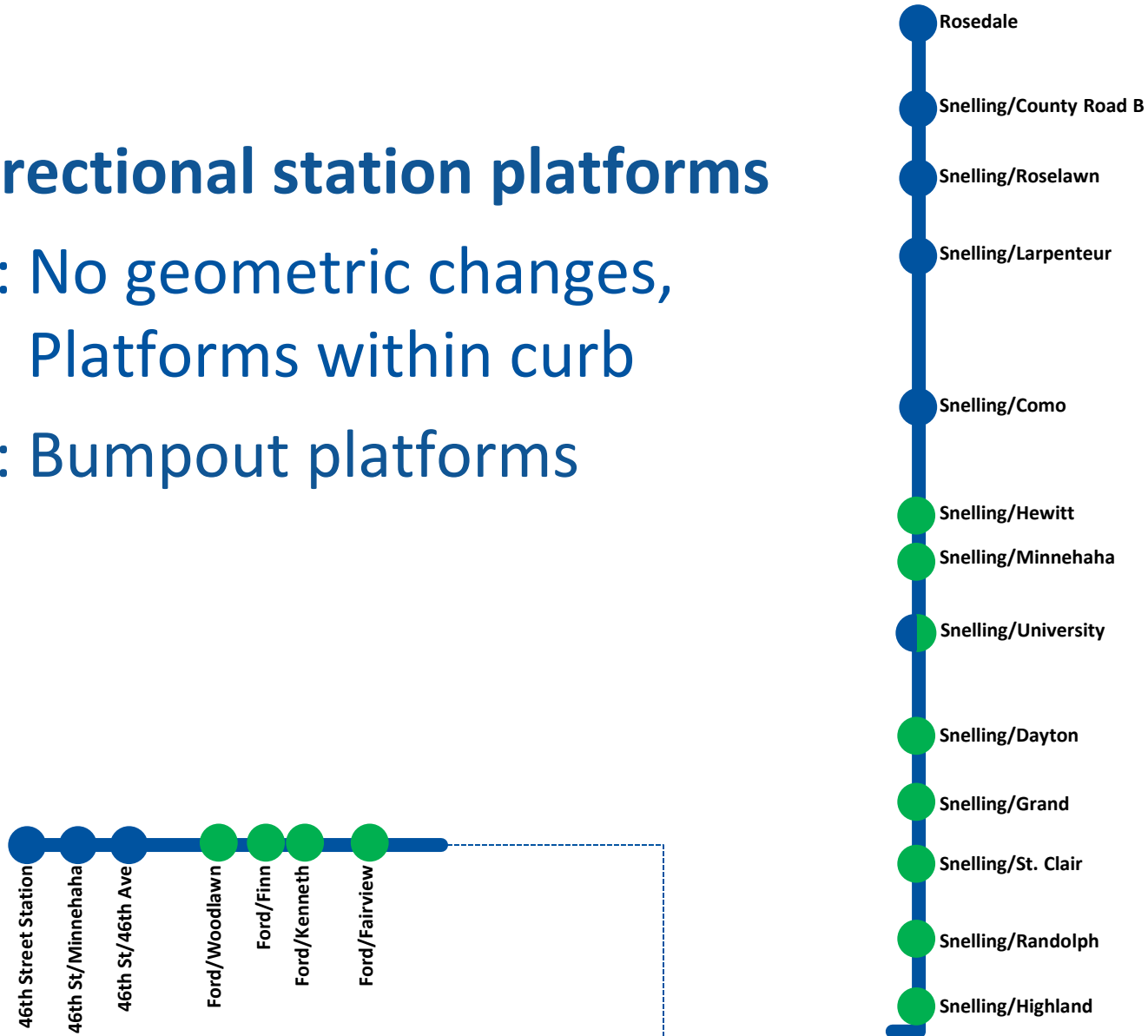


Example of Within-Curb/Bumpout Location



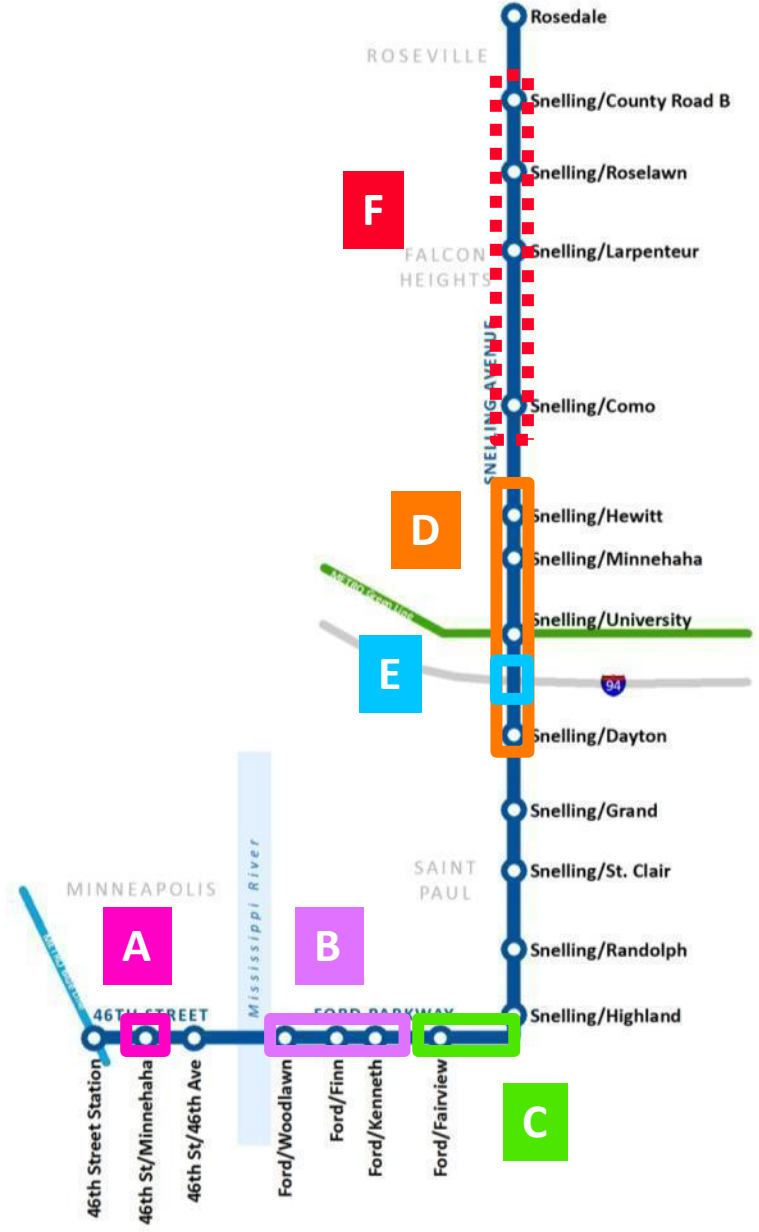
38 directional station platforms

- 15: No geometric changes, Platforms within curb
- 23: Bumpout platforms



INTEGRATION WITH COORDINATED INITIATIVES

	Project	Lead
A	Minnehaha Avenue Reconstruction <i>Minnehaha/46th intersection</i>	Hennepin County
B	Highland Village Streetscape <i>Mississippi River Boulevard to Howell</i>	Saint Paul
C	Ford Parkway Reconstruction <i>Howell to Snelling</i>	Ramsey County
D	Snelling Mill & Overlay + Additional Improvements <i>Selby to Pierce Butler</i>	MnDOT/ City of Saint Paul
E	I-94 Bridge Redeck <i>Snelling/I-94 interchange</i>	MnDOT
F	ADA Improvements <i>To be Determined</i>	MnDOT

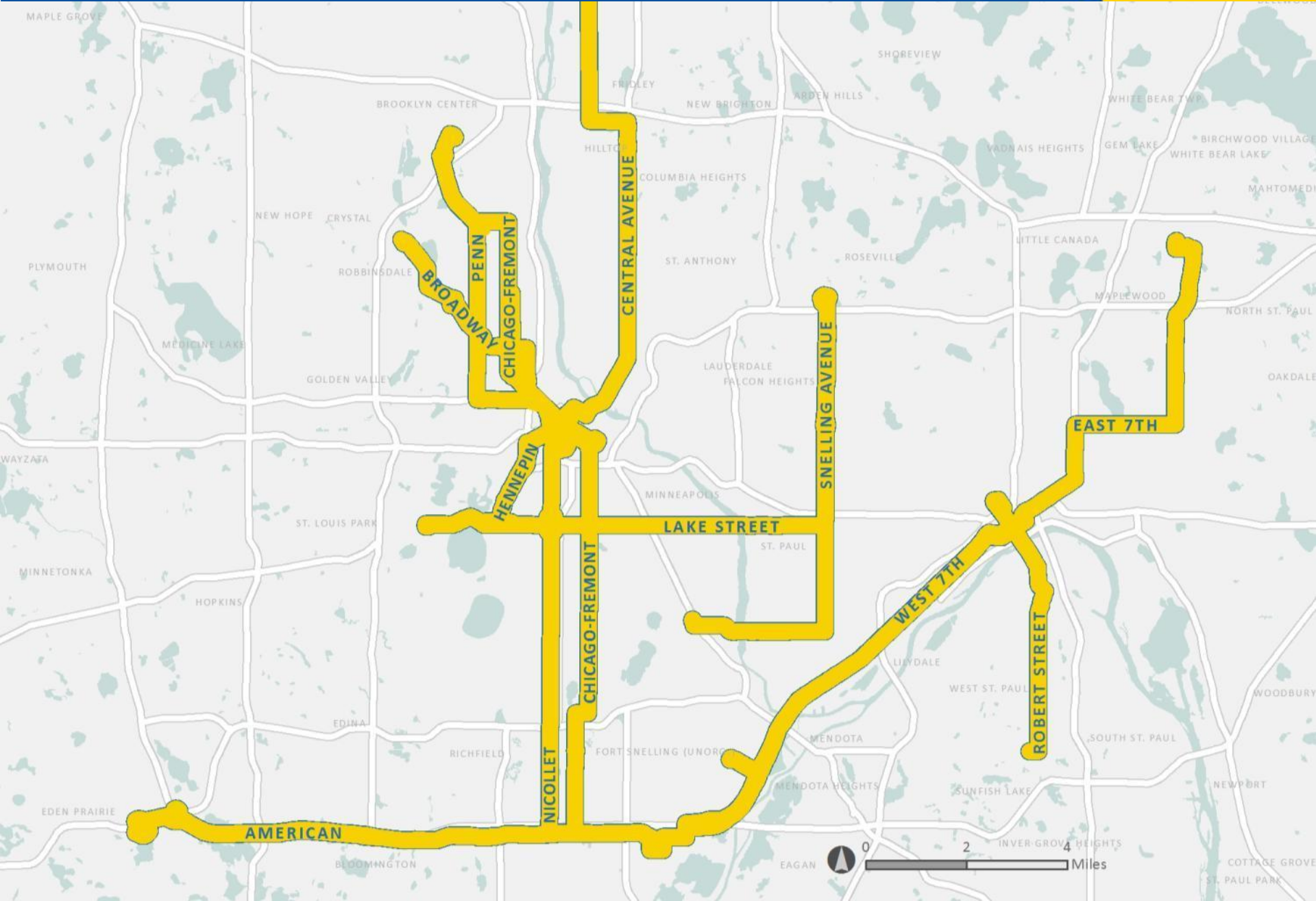


STANDARD BRT SHELTER & PYLON DEVELOPMENT

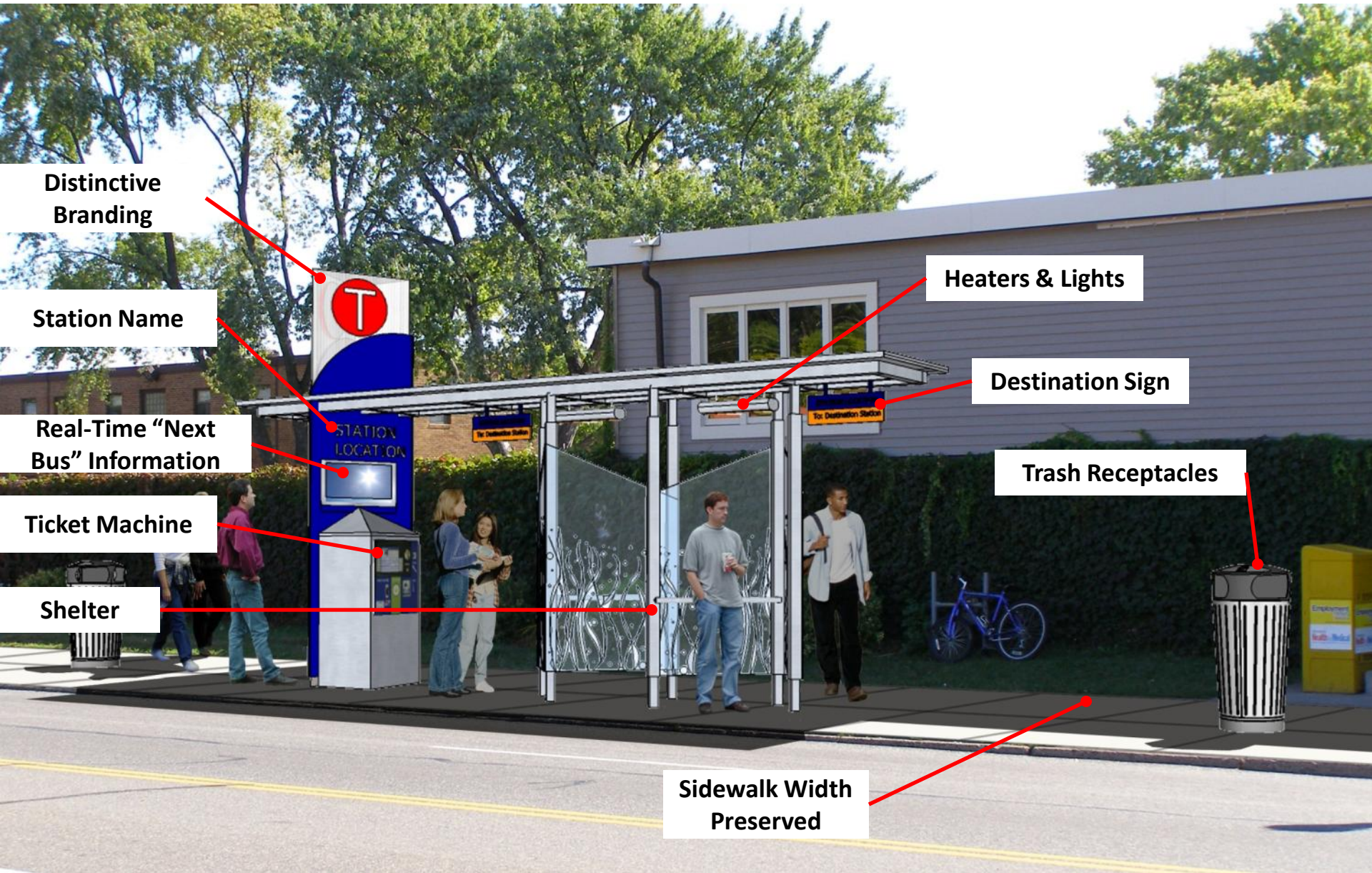
Current Standard Bus Shelter



12 corridors, 400+ stations



Initial Concept: Incorporating the Elements



Distinctive Branding

Station Name

Real-Time "Next Bus" Information

Ticket Machine

Shelter

Heaters & Lights

Destination Sign

Trash Receptacles

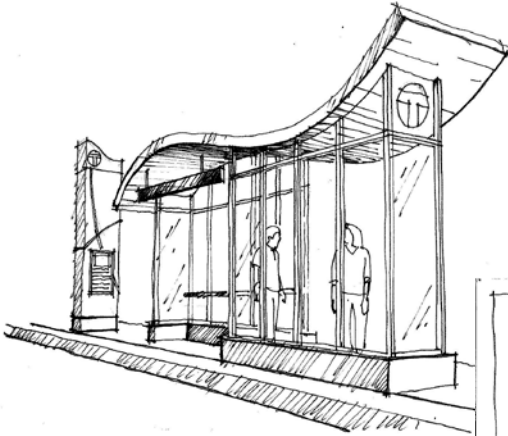
Sidewalk Width Preserved

Considering Identities

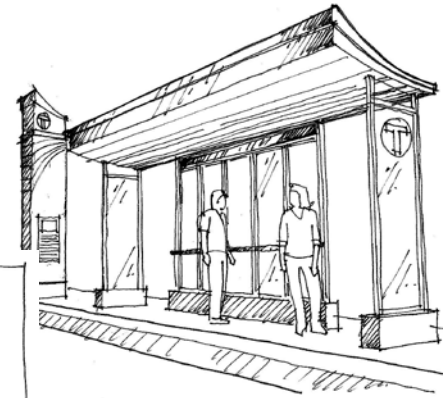


<p>ARTERIAL BRT "MOTION" WORD ASSOCIATION DIAGRAMS</p>	<p>ROLL</p>	<p>GUST</p>	<p>WEAVE</p>
<p>CIRCUIT</p>	<p>PULSE</p>	<p>RISE</p>	<p>LIFT</p>
<p>HOP</p>	<p>SWING</p>	<p>GLANCE</p>	<p>SRF CONSULTING GROUP</p>

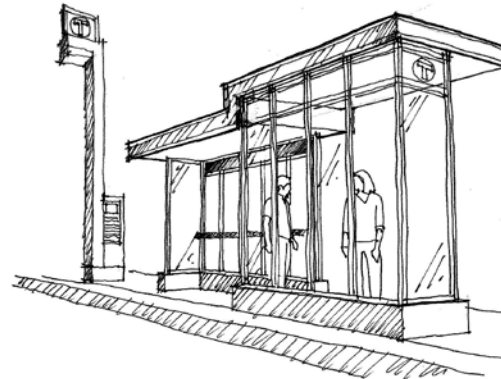
10 Sketch Concepts



CONCEPT 1 - "ROLL"
MIDTOWN ALT. ANALYSIS
LAKE ST. ARTERIAL BRT SHELTERS AND PYLON

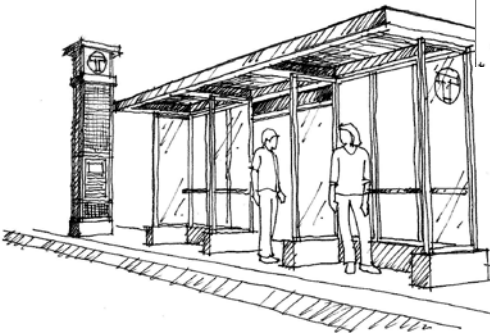


CONCEPT 2 - "PULSE"
MIDTOWN ALT. ANALYSIS
LAKE ST. ARTERIAL BRT SHELTERS AND PYLON



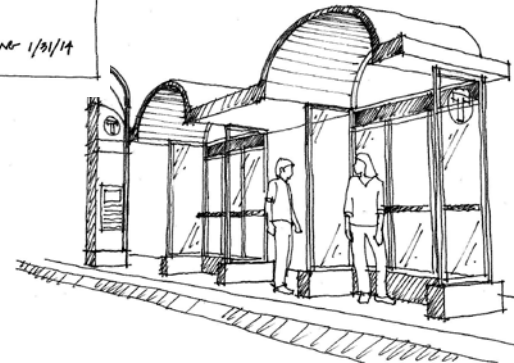
CONCEPT 4 - "CIRCUIT"
MIDTOWN ALT. ANALYSIS
LAKE ST. ARTERIAL BRT SHELTERS AND PYLON

SRF CONSULTING 1/31/14



CONCEPT 3 - "WEAVE"
MIDTOWN ALT. ANALYSIS
LAKE ST. ARTERIAL BRT SHELTERS AND PYLON

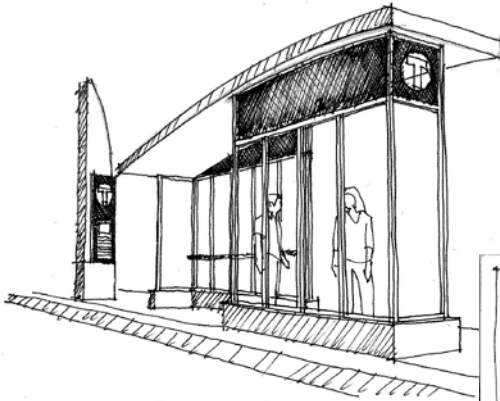
SRF CONSULTING 1/31/14



CONCEPT 5 - "PULSE"
MIDTOWN ALT. ANALYSIS
LAKE ST. ARTERIAL BRT SHELTERS AND PYLON

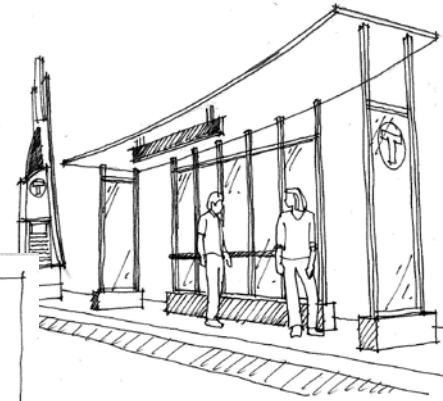
SRF CONSULTING 1/31/14

10 Sketch Concepts



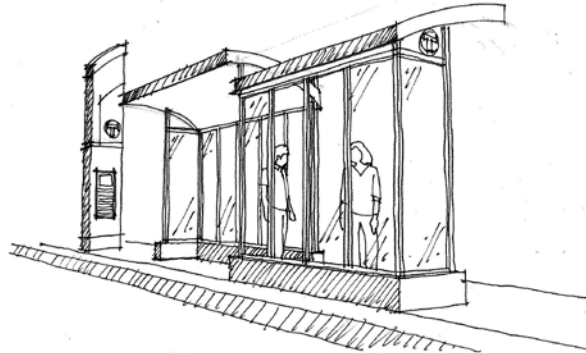
CONCEPT 6 - "RISE"
MIDTOWN ALT. ANALYSIS
LAKE ST. ARTERIAL BRT SHELTERS AND PYLON

SR



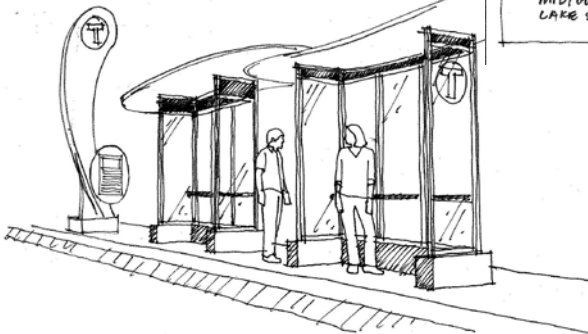
7"
YES ANALYSIS
T SHELTERS AND PYLON

SRF CONSULTING- 1/31/14



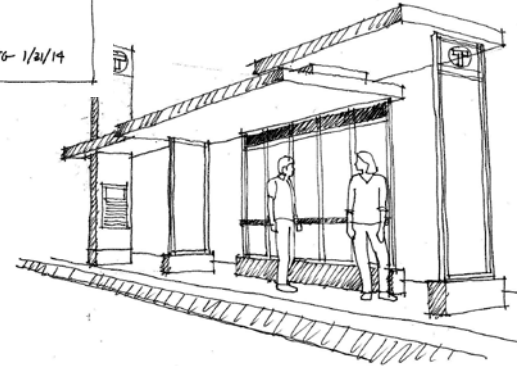
CONCEPT 8 - "HOP"
MIDTOWN ALT. ANALYSIS
LAKE ST. ARTERIAL BRT SHELTERS AND PYLON

SRF CONSULTING- 1/31/14



CONCEPT 9 - "SWING"
MIDTOWN ALT. ANALYSIS
LAKE ST. ARTERIAL BRT SHELTERS AND PYLON

SRF CONSULTING- 1/31/14



CONCEPT 10 - "GLANCE"
MIDTOWN ALT. ANALYSIS
LAKE ST. ARTERIAL BRT SHELTERS AND PYLON

SRF CONSULTING- 1/31/14

Station & Pylon Design Concepts



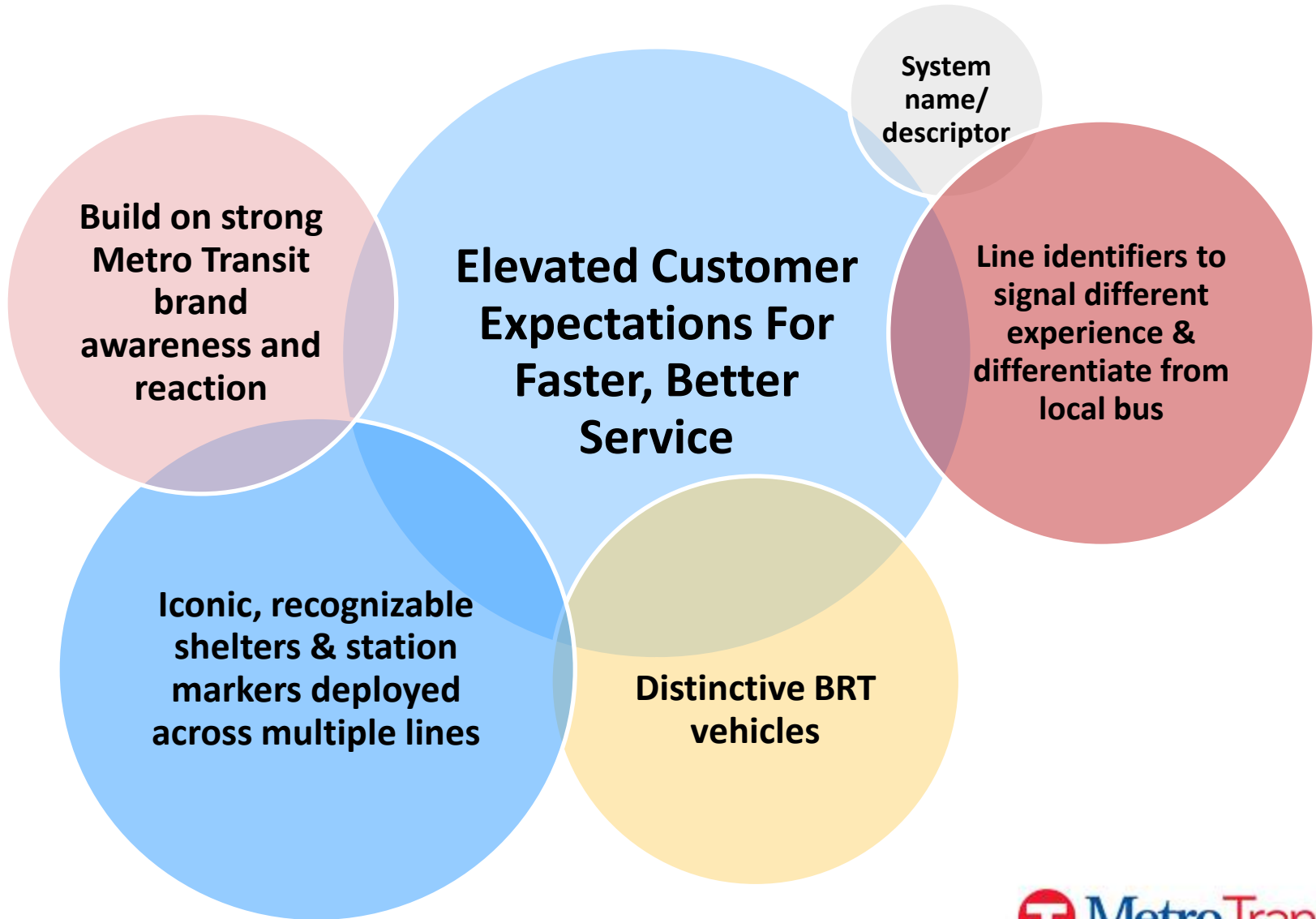
- 1,100 survey responses collected through social media
- Strong preference for two concepts
- Validation of BRT features: heat, substantial stations, security features, off-board fare payment



Preferred Concept & Input to Future Design



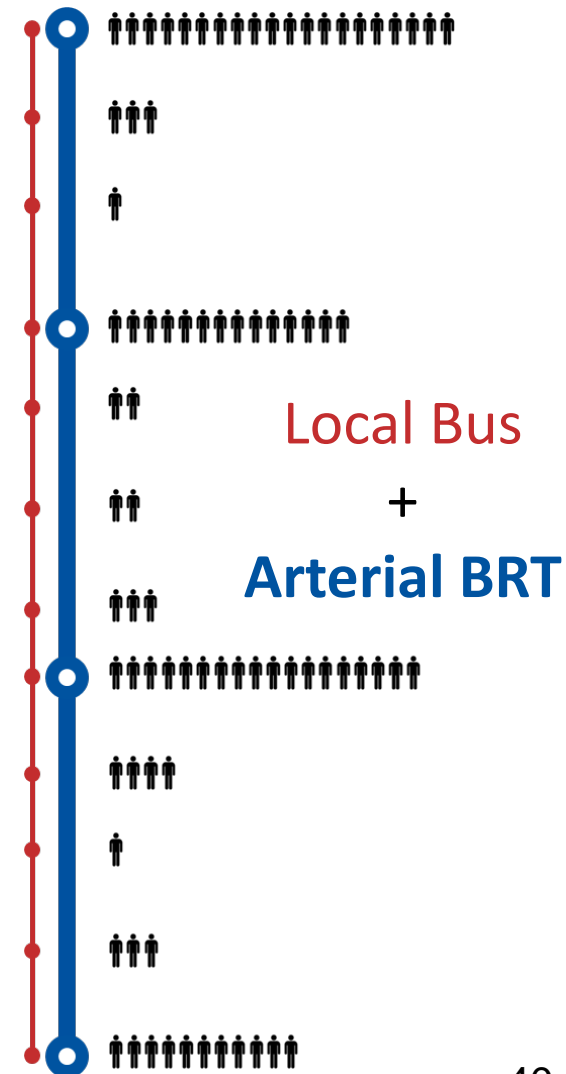
ARTERIAL BRT BRANDING UPDATE



ANTICIPATING FUTURE LINES

- **Customer demand & access**

- Station spacing and location of stations
- Service mix: Frequency of local & BRT service
- Potential for local route branching to provide coverage
- Kit of parts at individual stations



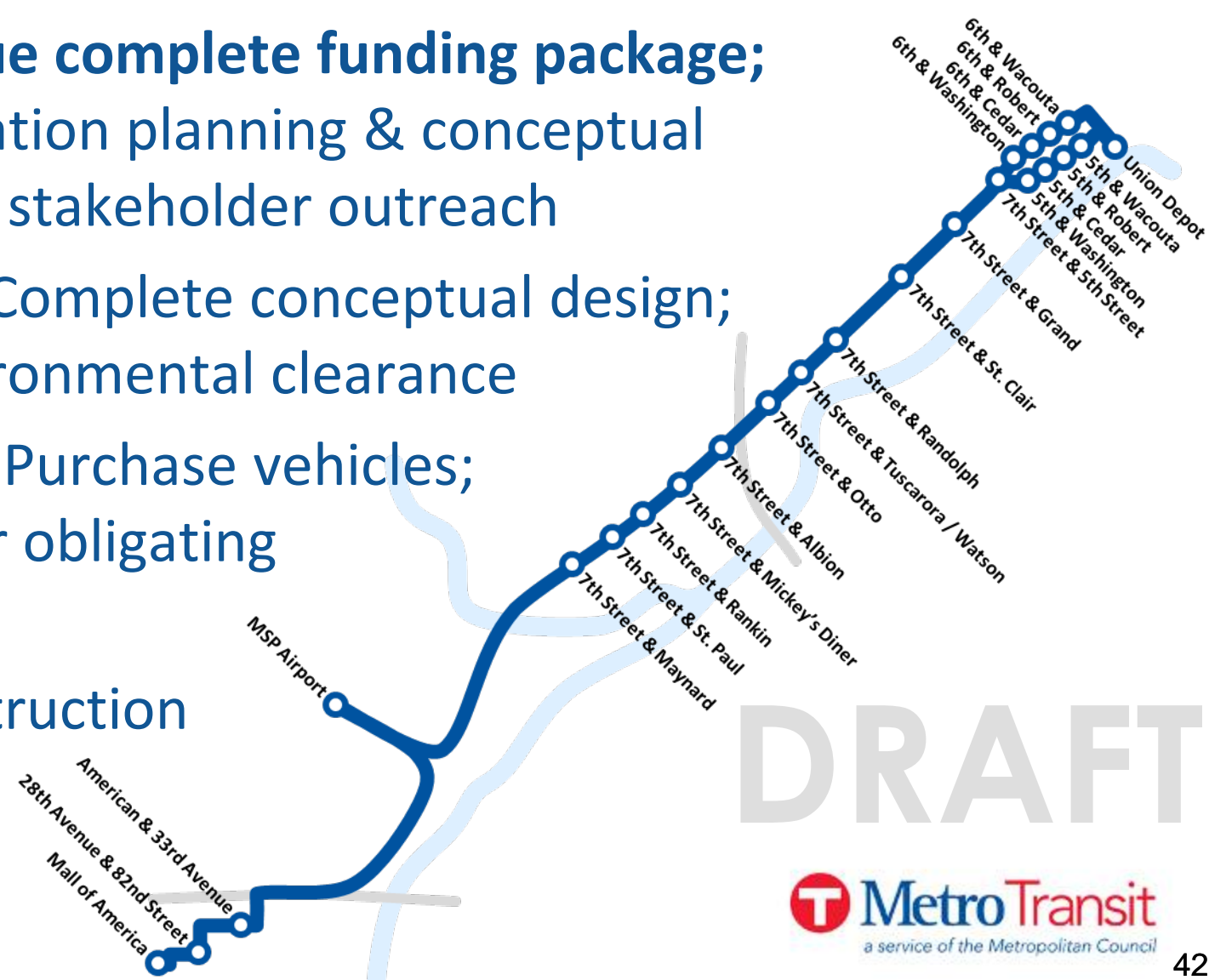
- **Roadway integration**

- Station placement (bumpout / curbside fit)
- Street interaction
- Bike facility interaction
- Transit signal priority



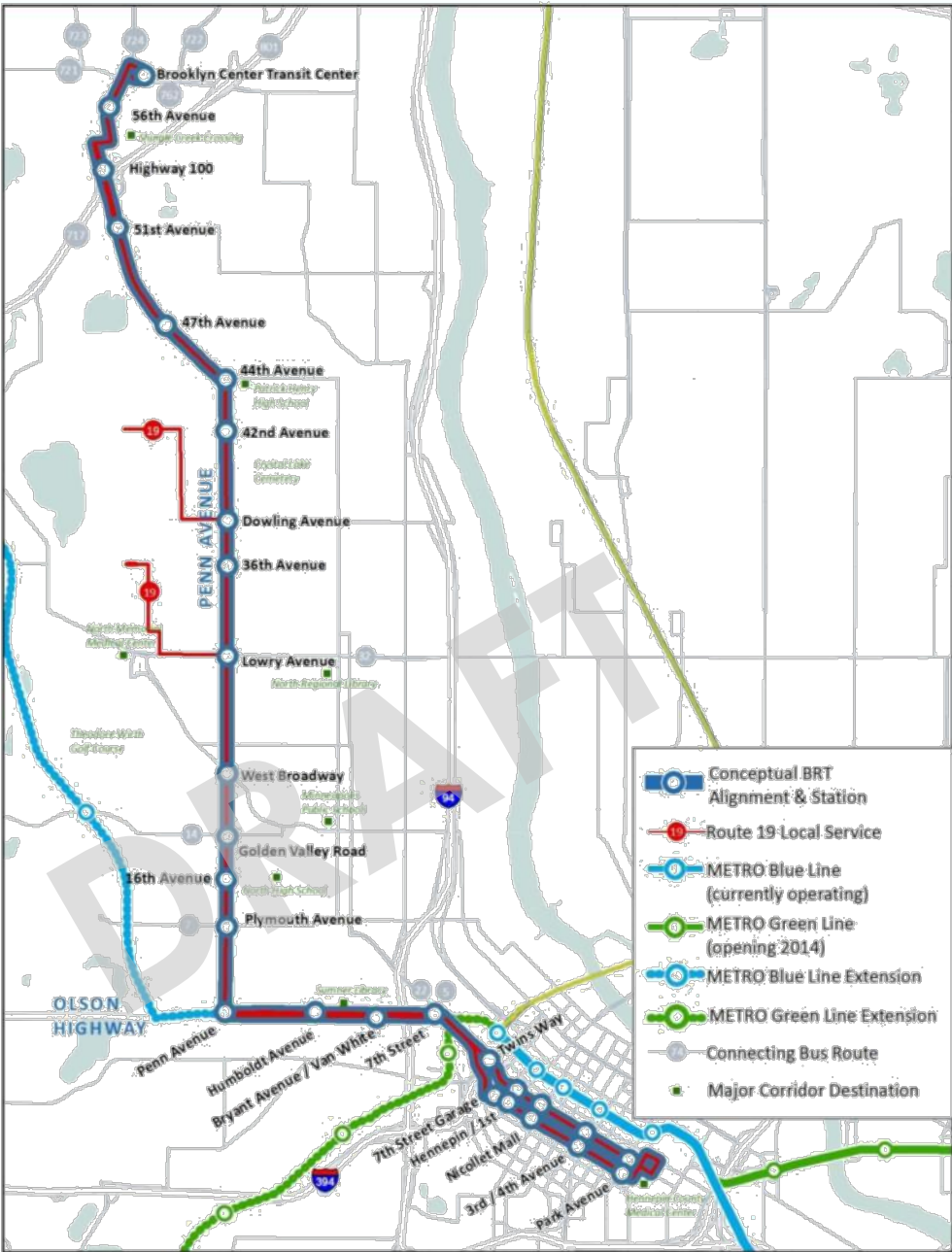
B Line (West 7th Street)

- **2014:** Pursue complete funding package; Advance station planning & conceptual design with stakeholder outreach
- **Late 2014:** Complete conceptual design; obtain environmental clearance
- **Early 2015:** Purchase vehicles; deadline for obligating funding
- **2016:** Construction
- **Late 2016:** Open



C Line (Penn Avenue)

- **2014-15:** Early planning and community engagement with Hennepin County-led **Penn Avenue Community Works** process
- Results of this work will inform design phase when project advances

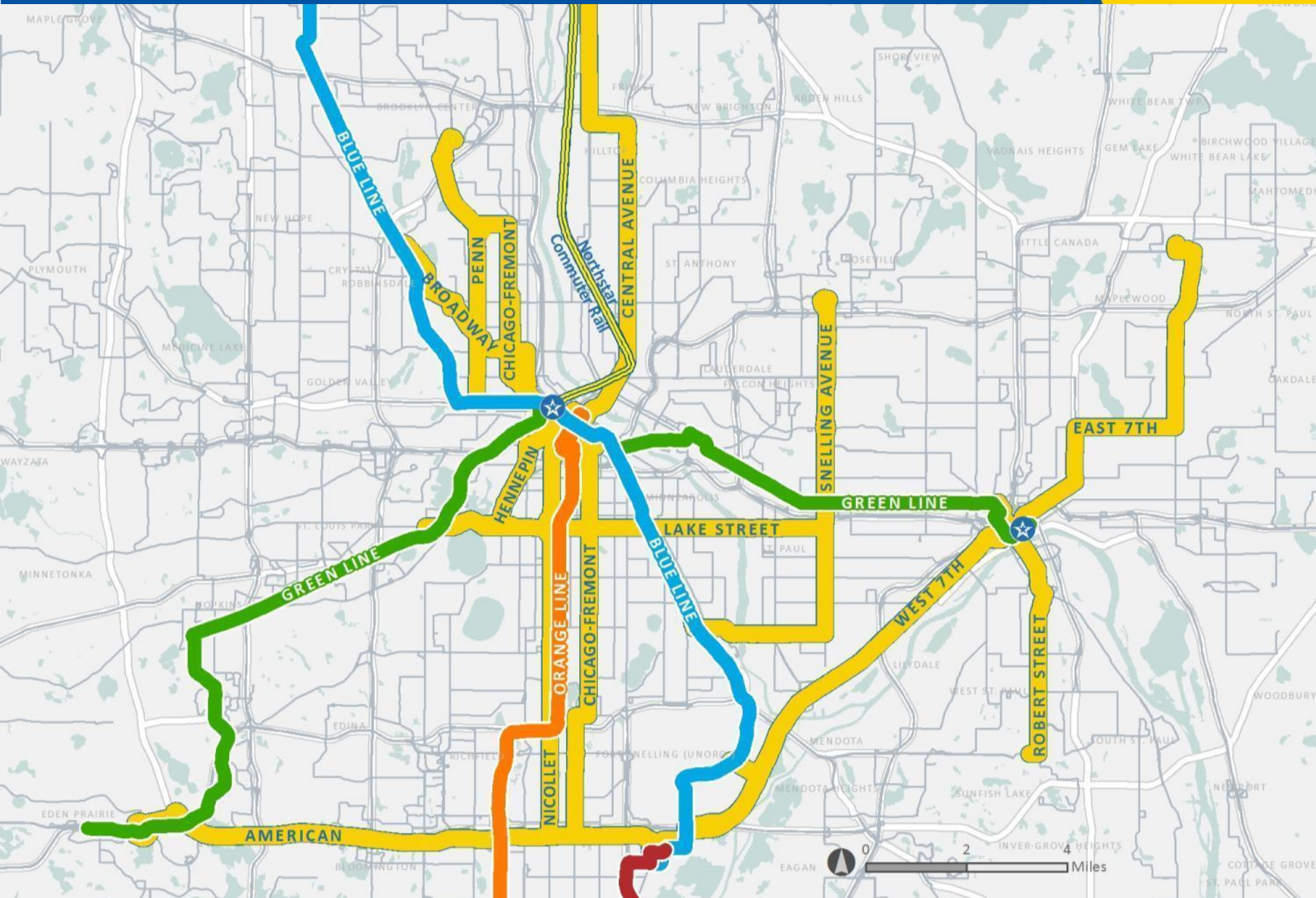


Planned system buildout



	2012	2013	2014	2015	2016	2017	2018		
A Line Snelling		Advanced Planning	Concept Design	Final Design	Construction	OPEN			
B Line West 7th			Advanced Planning	Concept Design	Final Design	Construction	OPEN		
C Line Penn			Advanced Planning through Penn Avenue Community Works		Concept Design	Final Design	Construction	OPEN	
<i>D Line</i>					Advanced Planning	Concept Design	Final Design	Construction	OPEN
<i>E Line</i>						Advanced Planning	Concept Design	Final Design	
<i>F Line</i>							Advanced Planning		
<i>G Line</i>									
<i>H Line</i>									

Future Lines





ROUNDTABLE



More information:
metrotransit.org/snelling-brt
metrotransit.org/arterial-study

Katie Roth, Senior Planner
612-349-7772
katie.roth@metrotransit.org

Charles Carlson, Senior Manager
612-349-7639
charles.carlson@metrotransit.org

