



METRO Gold Line BRT CMC Meeting

October 4, 2018

- Welcome
- CBAC Update
- Update on Downtown Alternatives
- Next Meeting
- Adjourn



CBAC Update

- Joint bus tour of alignment with TAC and CBAC on 9/25





Review of Project Baseline and Issue Resolution Process

- Project Baseline
 - Presented to CMC on 4/26/18
 - Represents 1% Concept Design

Baseline Project Scope - Stations



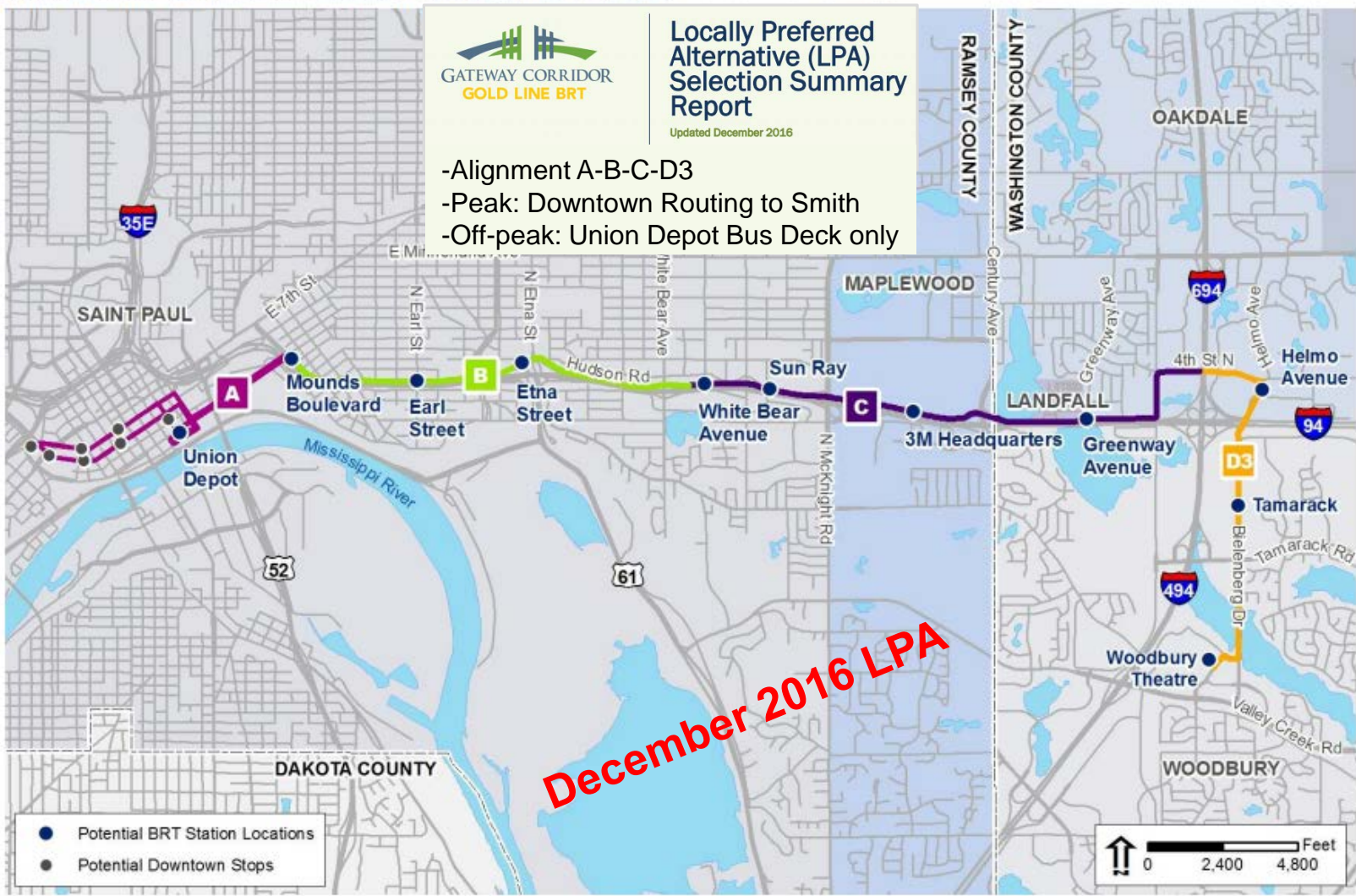
- 6 Enhanced Downtown Stops
 - WB Minnesota Station
 - WB Landmark Station
 - Smith Avenue Transit Center
 - EB 7th Street Station
 - EB Landmark Station
 - EB Minnesota Station
 - Station amenities include: Pylon Sign, Off-Board Fare Collection, Small Shelter
- Union Depot Stop
 - Pylon Sign & Off-Board Fare Collection
- Wacouta Stop
 - Pylon Sign & Off-Board Fare Collection
 - Includes Civil Improvements

**April 26, 2018
CMC Meeting**

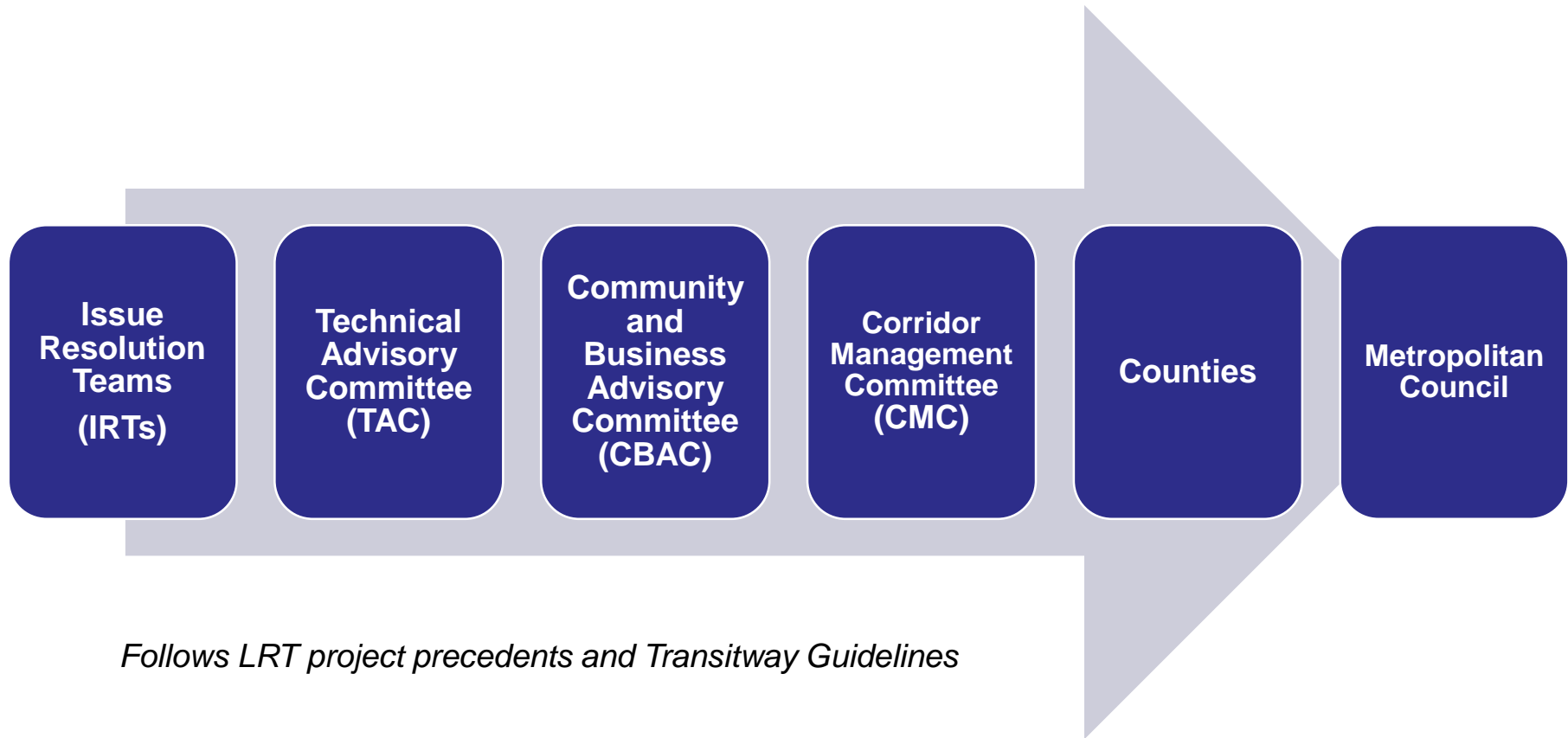
Background: Project Baseline “1% Design”



Figure 10. Refined LPA Recommendation in 2016 (Alternative ABC-D3)



Gold Line Committee Structure



Gold Line Bus Rapid Transit Project Timeline



PRE-PROJECT DEVELOPMENT	PROJECT DEVELOPMENT January 2018-January 2020	ENGINEERING 1-2 Years	CONSTRUCTION 2-3 Years	REVENUE SERVICE 2024
	<div data-bbox="256 506 1008 611" style="background-color: #c8e6c9; padding: 5px; margin-bottom: 10px;">ENVIRONMENTAL REVIEW</div> <div data-bbox="256 686 1304 791" style="background-color: #bbdefb; padding: 5px;">DESIGN ADVANCEMENT</div>			
ONGOING PUBLIC ENGAGEMENT				

WE ARE
HERE

Summary of Issue Resolution Team Participation

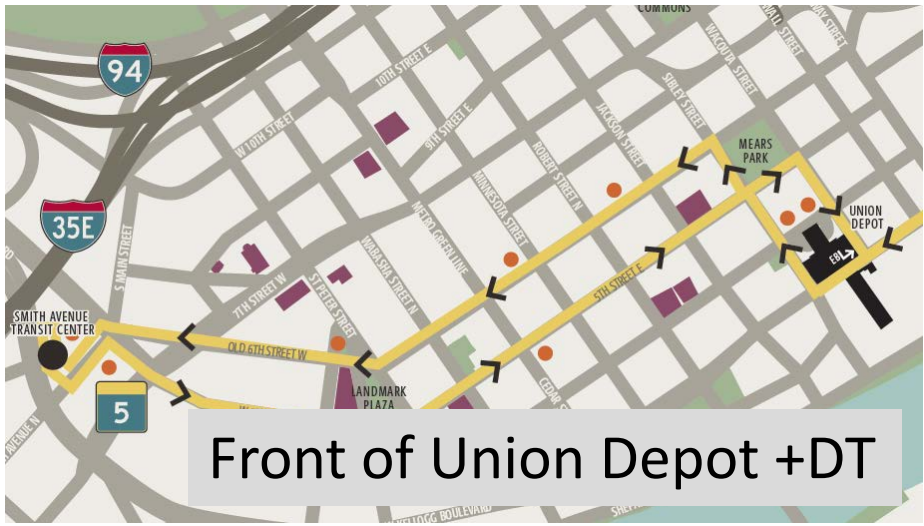


Representation on St. Paul Issue Resolution Team

- Ramsey County Regional Railroad Staff
- St. Paul Planning and Economic Development
- St. Paul Public Works
- MnDOT Cultural Resources
- MnDOT Metro District
- Metro Transit Service Development
- Metro Transit Engineering and Facilities
- Metro Transit Street Operations
- Gold Line Project Office

- Focus Areas:
 - Downtown routing and service planning
 - Develop downtown station concepts
 - Interface with current planning topics
 - Broadway Street detour routing/Wacouta St consideration
 - Metro Transit downtown facilities planning
 - Xcel Center- event staging and curbside management
 - Interface with future projects
 - Rush Line
 - Riverview
 - Evaluate layover capacity
 - Smith Ramp
 - Union Depot
 - Review traffic impacts
 - Develop BRT travel time and operating cost and capital cost
 - Identify historic resources
 - Consider ridership/connections to population and jobs

Routing Options During IRT Process



May 22: IRT recommended a refinement of LPA

- All-day service downtown
- Relocation of Union Depot stop from bus deck to front
- Modified downtown route due to special event closures
- Upgraded stations (similar to A Line stations) for premium BRT service

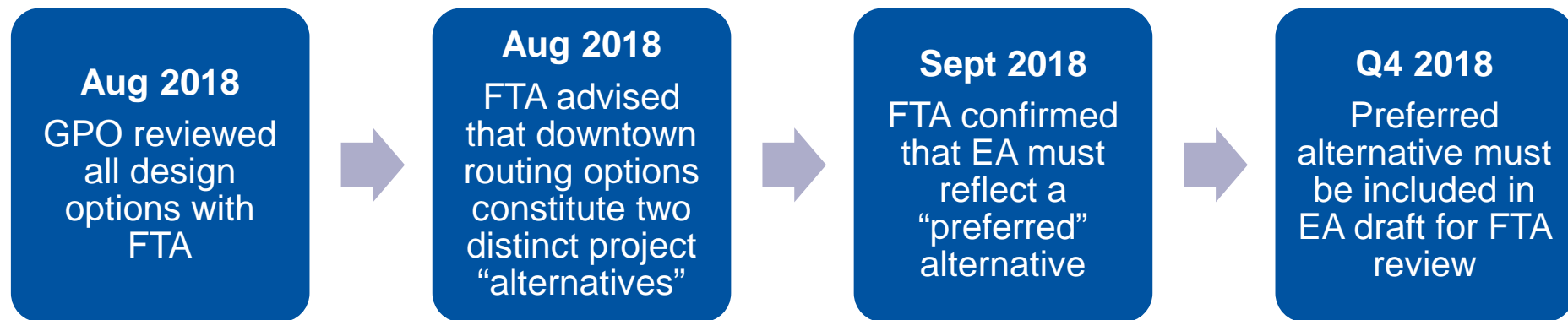
July 12: TAC confirmed IRT recommendation

- Also added a Union Depot bus deck terminus alternative to the Environmental Assessment (EA) Scope

August 23: CBAC reviewed full EA Scope

Sept 6: CMC confirmed EA Scope recommended by TAC/CBAC/IRT

- Downtown all-day service to Smith Avenue terminus
- Union Depot bus deck terminus



DEFINITIONS

***“Options”** reflect minor design choices within the project, such as the location of White Bear Ave station or the 4th Street bridge consideration.*

***“Alternatives”** constitute major differences between project scope elements and potential outcomes and a preferred alternative must be declared in the Environmental Assessment.*



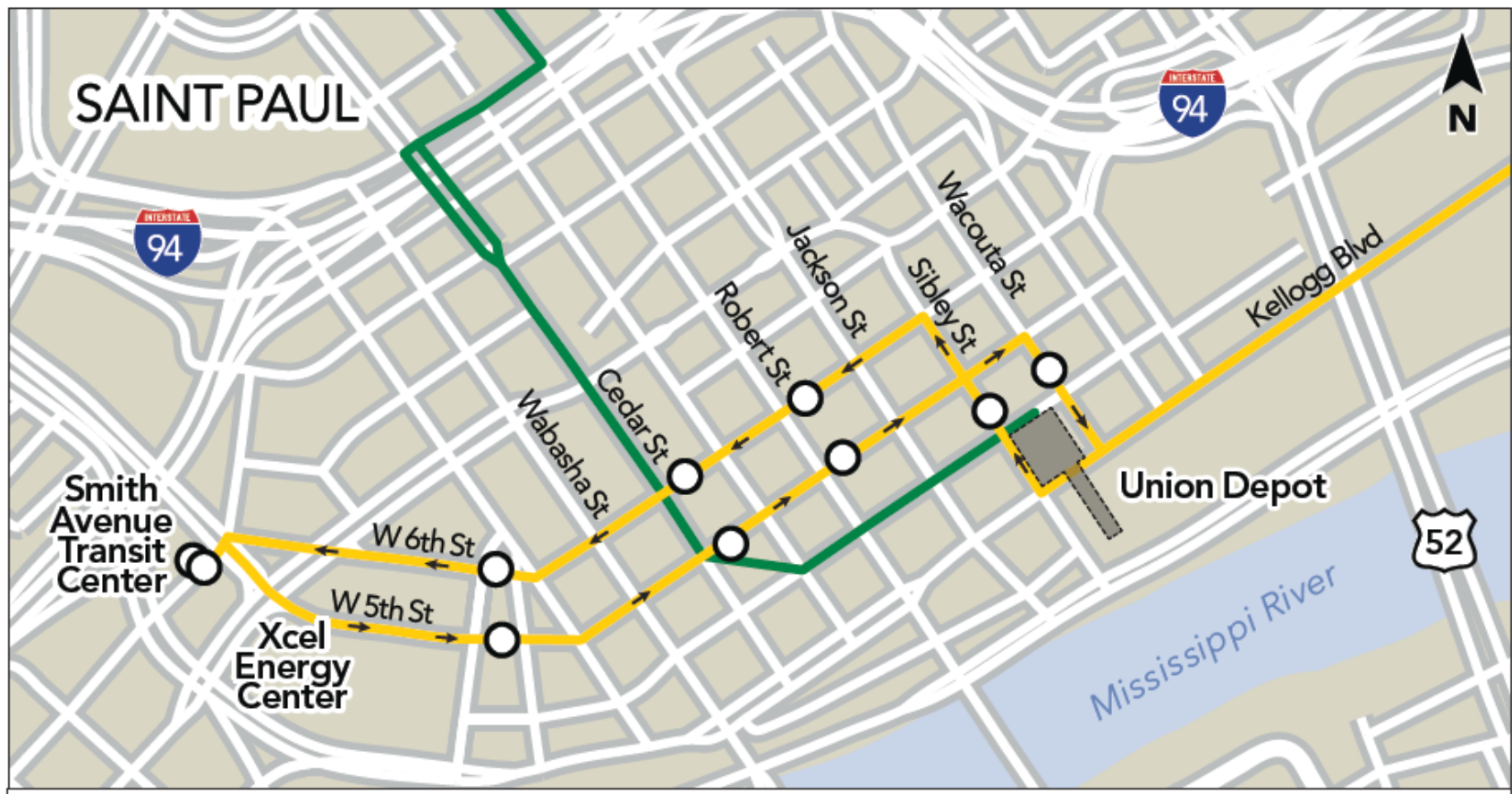
Comparison of Downtown Alternatives

Review of Downtown Alternatives: DT Routing



ALTERNATIVE: ROUTE THROUGH DOWNTOWN

The METRO Gold Line BRT will begin (eastbound) or end (westbound) at Smith Avenue Transit Center, providing a one-seat ride through downtown that will also have a stop in front of Union Depot on Wacouta and Sibley streets. Between the stops at Union Depot and Smith Avenue Transit Center, the Gold Line will route down 5th Street or 6th Street.



- Alternative Route
- Potential BRT Station Location
- METRO Green Line

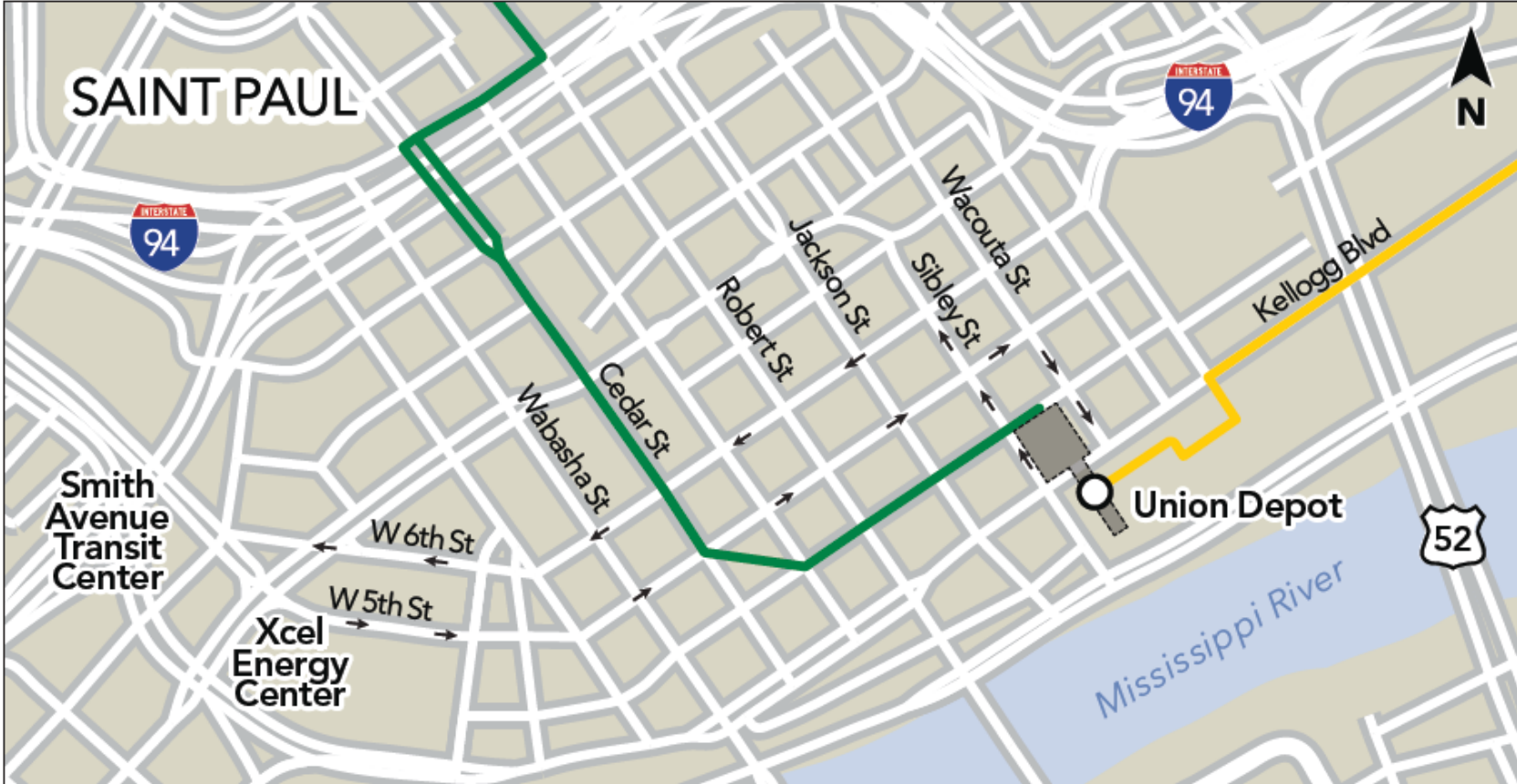


- Baseline Comparison

Baseline (1%)	Downtown All-Day Routing Alternative (IRT Recommendation)
Union Depot Bus Deck Station <ul style="list-style-type: none"> Pylon Sign & Off-Board Fare Collection 	<i>Station relocated from Union Depot bus deck to front of Depot at Sibley and at Wacouta</i>
7 Enhanced Downtown Stops Station amenities include: <ul style="list-style-type: none"> Pylon Sign Off-Board Fare Collection Small Shelter Civil Improvements at Wacouta 	9 Full Amenity Downtown Stations <ul style="list-style-type: none"> Upgrade to full amenity platforms (like A Line) as part of the premium BRT service Relocated Union Depot station to front of Depot
+ \$0	+ \$5.8M (1.4%)

ALTERNATIVE: BEGIN/END AT UNION DEPOT

The METRO Gold Line BRT will begin (eastbound) or end (westbound) on the bus deck at the Union Depot, a multimodal transportation hub that provides transfer connections to the METRO Green Line and local bus service throughout downtown Saint Paul, as well as Amtrak, Jefferson Lines, Greyhound and Megabus services. Union Depot is also the planned terminus for additional future transitways.



- Alternative Route
- Potential BRT Station Location
- METRO Green Line



- Baseline Comparison

Baseline (1%)	Union Depot Bus Deck Alternative
Union Depot Bus Deck Station <ul style="list-style-type: none"> Pylon Sign & Off-Board Fare Collection 	<i>Upgrade to full amenity platform (like A Line) as part of the premium BRT service</i>
7 Enhanced Downtown Stops Station amenities include: <ul style="list-style-type: none"> Pylon Sign Off-Board Fare Collection Small Shelter Civil Improvements at Wacouta 	<i>No additional downtown stops included</i>
+ \$0	- \$7.6M (- 1.8%)

Gold Line Project Goals and Objectives



- Goals and Objectives developed and reviewed by project partners during Alternatives Analysis

Goals	Objectives
Goal 1: Improve Mobility	<ol style="list-style-type: none">1. Maximize number of people served (future)2. Maximize transit ridership3. Maximize travel time savings4. Minimize traffic mobility impacts
Goal 2: Provide a Cost-Effective, Economically Viable Transit Option	<ol style="list-style-type: none">5. Minimize costs and maximize cost-effectiveness
Goal 3: Support Economic Development	<ol style="list-style-type: none">6. Maximize number of people served (existing)7. Maximize future development opportunities
Goal 4: Protect the Natural Environmental Features of the Corridor	<ol style="list-style-type: none">8. Minimize potential environmental impacts
Goal 5: Preserve and Protect Individual and Community Quality of Life	<ol style="list-style-type: none">9. Maximize potential benefits to and minimize potential impacts on the community10. Minimize adverse parking, circulation, and safety impacts

Downtown Alternatives Summary Data



Alternative	Ridership Difference	Capital Cost Difference	Annual O&M Net Cost Difference	FTA Rating	Public Input Preference
Downtown Routing to Smith Ave	+ 950 daily riders	+ \$5.8M* from baseline	+ \$70K**	Medium-High	~ 81%****
Union Depot Bus Deck Terminus		- \$7.6M* from baseline		Medium-Low***	~ 19%****

* Includes Upgraded Stations (like A Line), Level boarding is \$11.1M over baseline
 **\$450K in additional operating costs less \$380K in increased fare collection
 ***If ridership would increase by 5% for Union Depot Alternative, rating could move to Medium-High
 ****Public outreach input collected through 10/4

Outreach Update for Downtown Alternatives



Event	Date	Prefer Downtown Routing	Prefer Depot Bus Deck	Total Attendees
Dayton's Bluff Elementary	Sept. 11, 2-4PM	1	0	8
Sun Ray Library	Sept. 13, 4-6PM	4	0	12
Woodbury Central Park/Library	Sept. 25	16	1	31
Securian Farmer's Market	Sept. 26	11	3	21
Woodbury Lutheran Park and Ride	Sept. 28, 6:30-8:30AM	18	3	25
Yoga at Union Depot	Sept. 29, 9-10:30AM	7	2	15
Sun Ray Transit Center	Oct. 4, 2-4PM			
Green Line Central Station	Oct. 5, 11AM-1PM			
Oakdale Library	Oct 8, 4-6pm			
Open House 1 (Skyway, Alliance Bank)	Oct 9, 11AM-1PM			
Open House 2 (Union Depot)	Oct 9, 4-6PM			
Online Survey	Open until Oct 15	36	13	51
TOTALS		93	22	163



- Next scheduled CMC meeting is November 1
 - Update on Downtown Routing Outreach
- Fall/Winter Meetings:
 - Ongoing design discussions and updates
 - Update of Issues Resolution at Woodbury Theater
 - Review updated project costs at 15% design
 - Refine scope if possible, where options exist
- 2019
 - Review 30% Design, Cost Estimate and Funding
 - Confirm final Gold Line Scope



Reference Slides

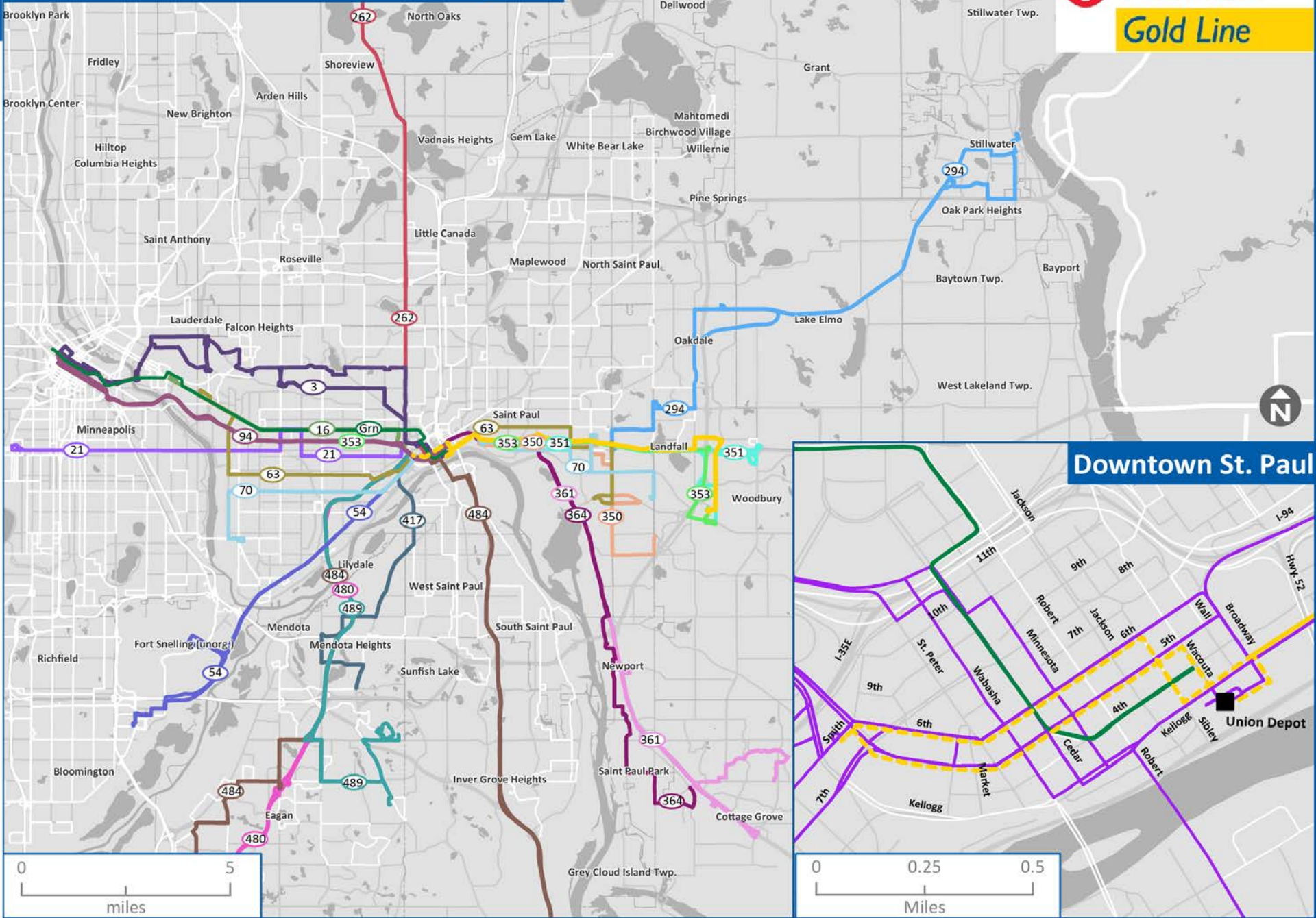
Existing Transit Service to Union Depot



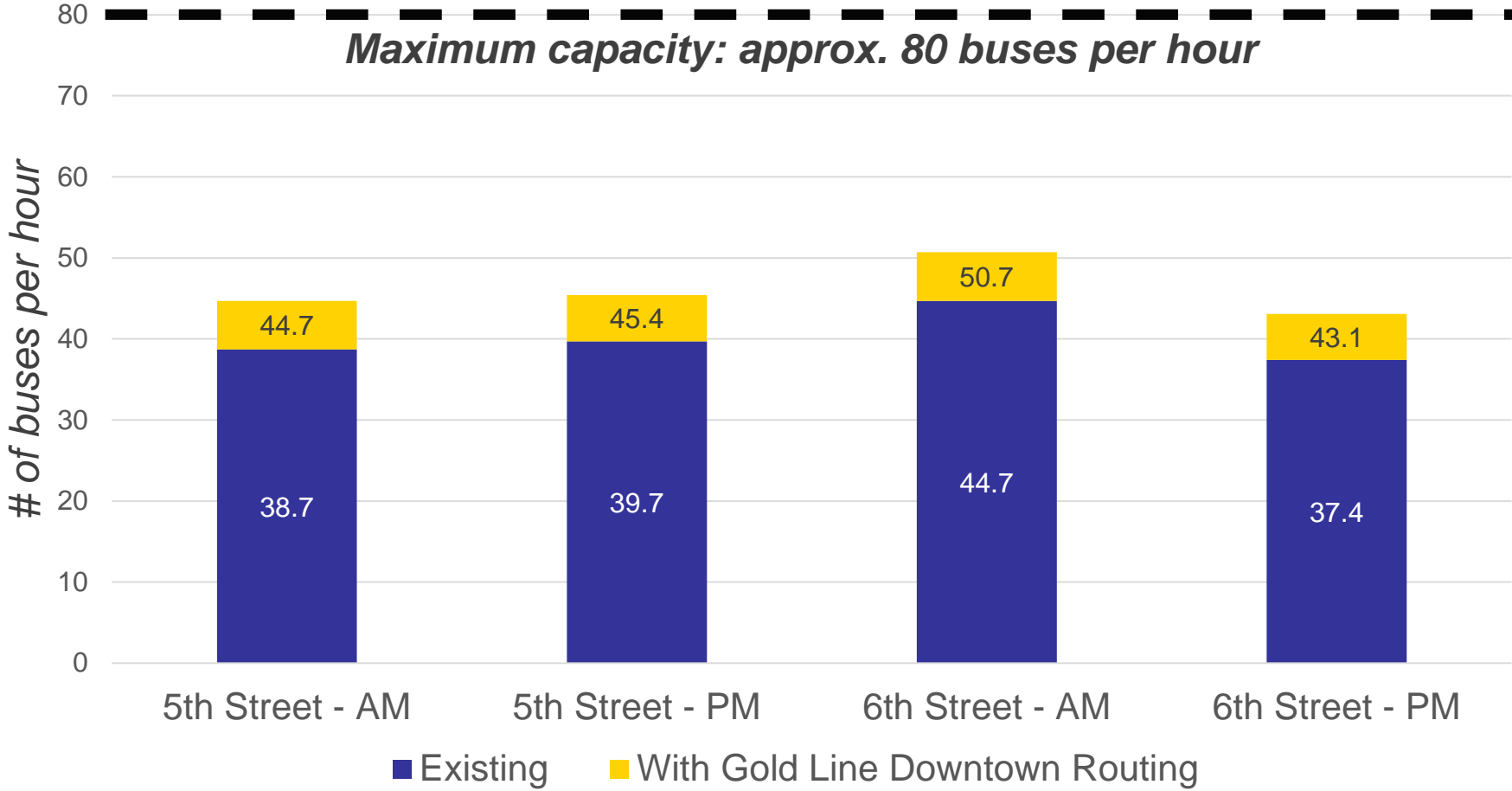
Location	Routes*	Weekday Transit <u>Vehicle</u> Trips
Union Depot Bus Deck	3, 16, 21, 54, 94, 262, 417, 480, 484, 489	470 Trips
Green Line- Union Depot Station	Green Line LRT	230 Trips
Kellogg/Broadway	63, 70, 294, 350, 351, 353, 361, 364	209 Trips
Total	19 Transit Routes	909 Total Trips
Gold Line Proposed	Union Depot Station	~160 Trips

**Does not include Amtrak, Intercity Bus, and Private service connections*

Transit Service to Union Depot



Projected Hourly Bus Volumes - Downtown



- ~80% of riders are peak trips to/from Downtown St. Paul stations and the suburbs
- ~10% of riders are traveling within St. Paul
- ~10% of riders are dispersed throughout corridor

Ridership Modeling Key Points:

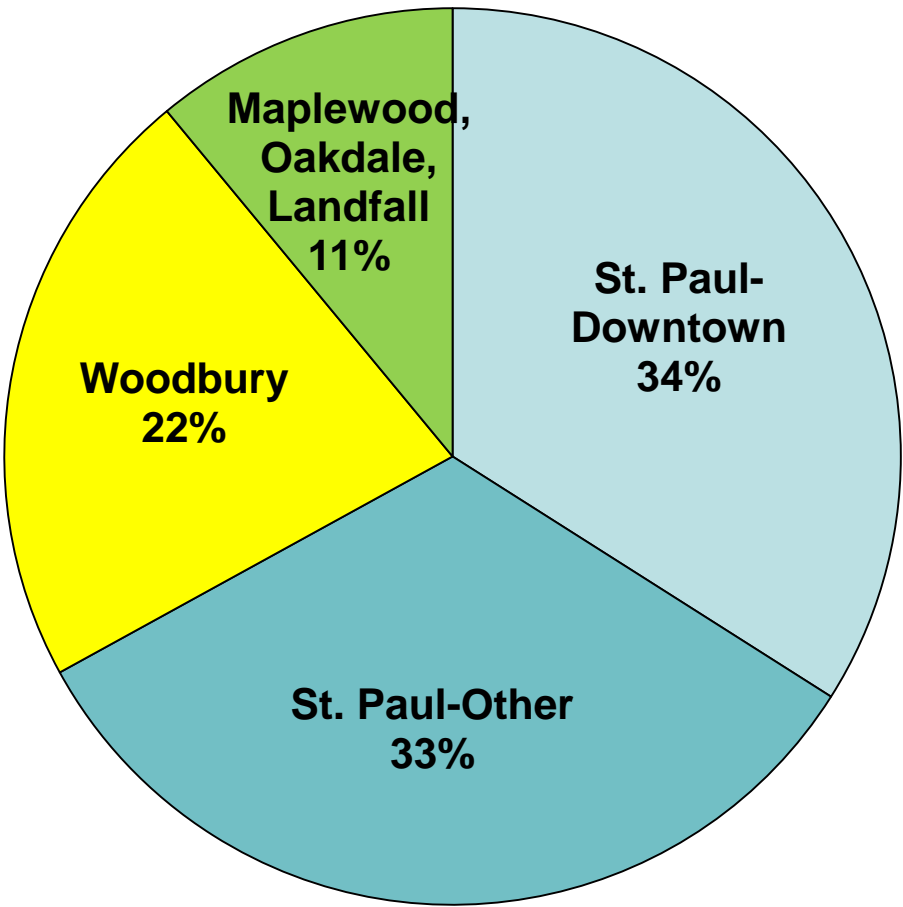
- Union Depot Bus Deck Alternative results in approximately 950 fewer riders
 - Connecting service has been optimized in the FTA's STOPS model
- Overall Gold Line STOPS ridership model still being refined
 - Updated overall ridership and remaining per station ridership along corridor not yet available
- FTA still needs to review and concur with model results

- Compared to traditional models, the FTA STOPS model better reflects the actual time needed to make the transfer
 - STOPS uses the actual Metro timetables rather than average headways
- While there is still a transfer penalty for the Union Depot Bus Deck terminus, the STOPS model reduces that penalty

Characteristic	Traditional Model	STOPS Model
Time between alighting & boarding	½ of the average headway of the 2 nd route	The actual scheduled time between bus arrival and departure
Time to walk between the two routes	Walking time between the two routes (if any)	
Time penalty	Perceived time penalty assessed for each transfer	



Origin of 950 Lost Rides* without Gold Line Downtown Routing



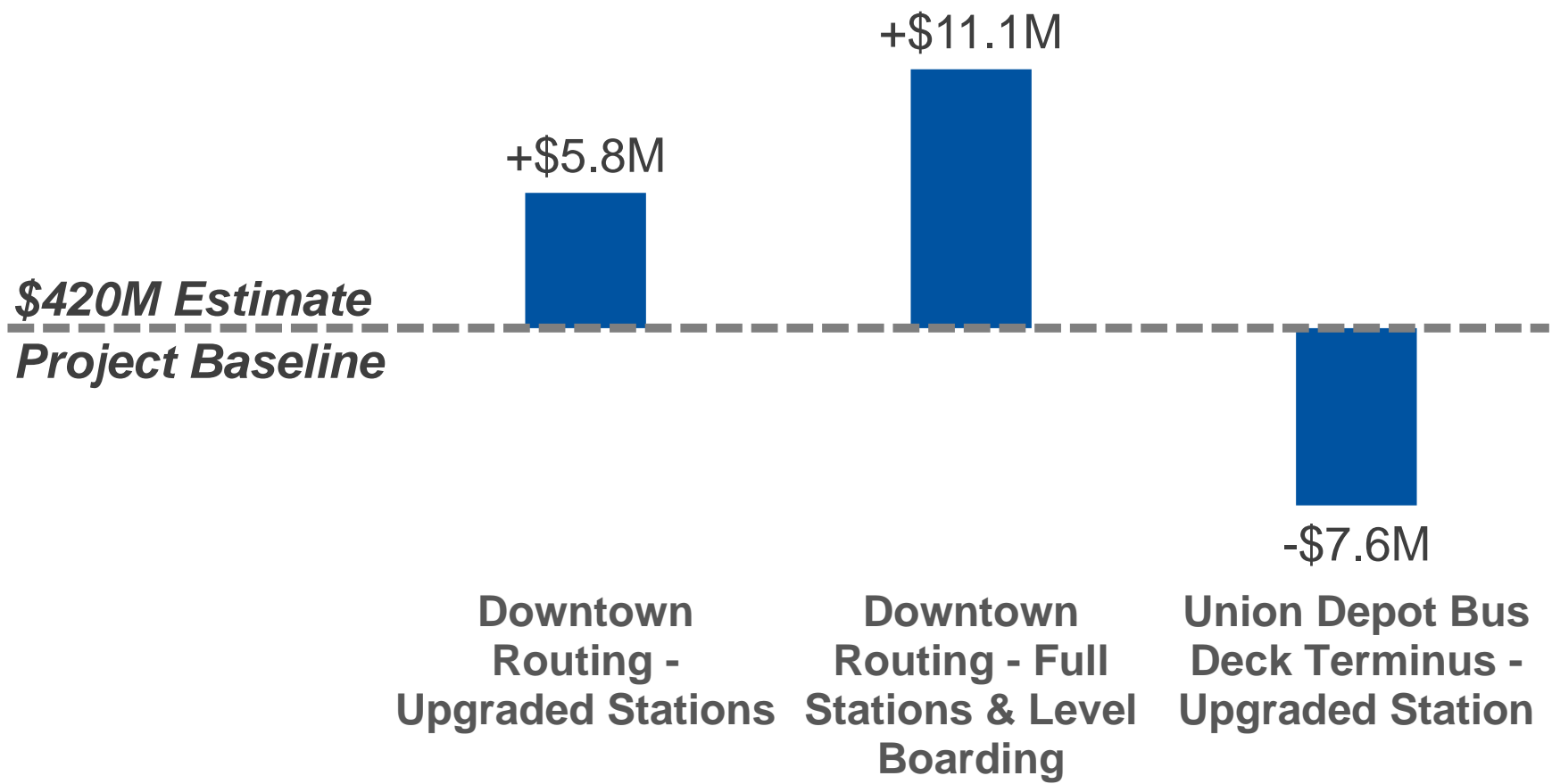
*50% of the lost rides would chose to drive instead



Downtown Zone	Ridership Distribution
Union Depot Station (Front)	40%
Central Downtown	30%
Rice Park/Xcel Energy Center Area	30%

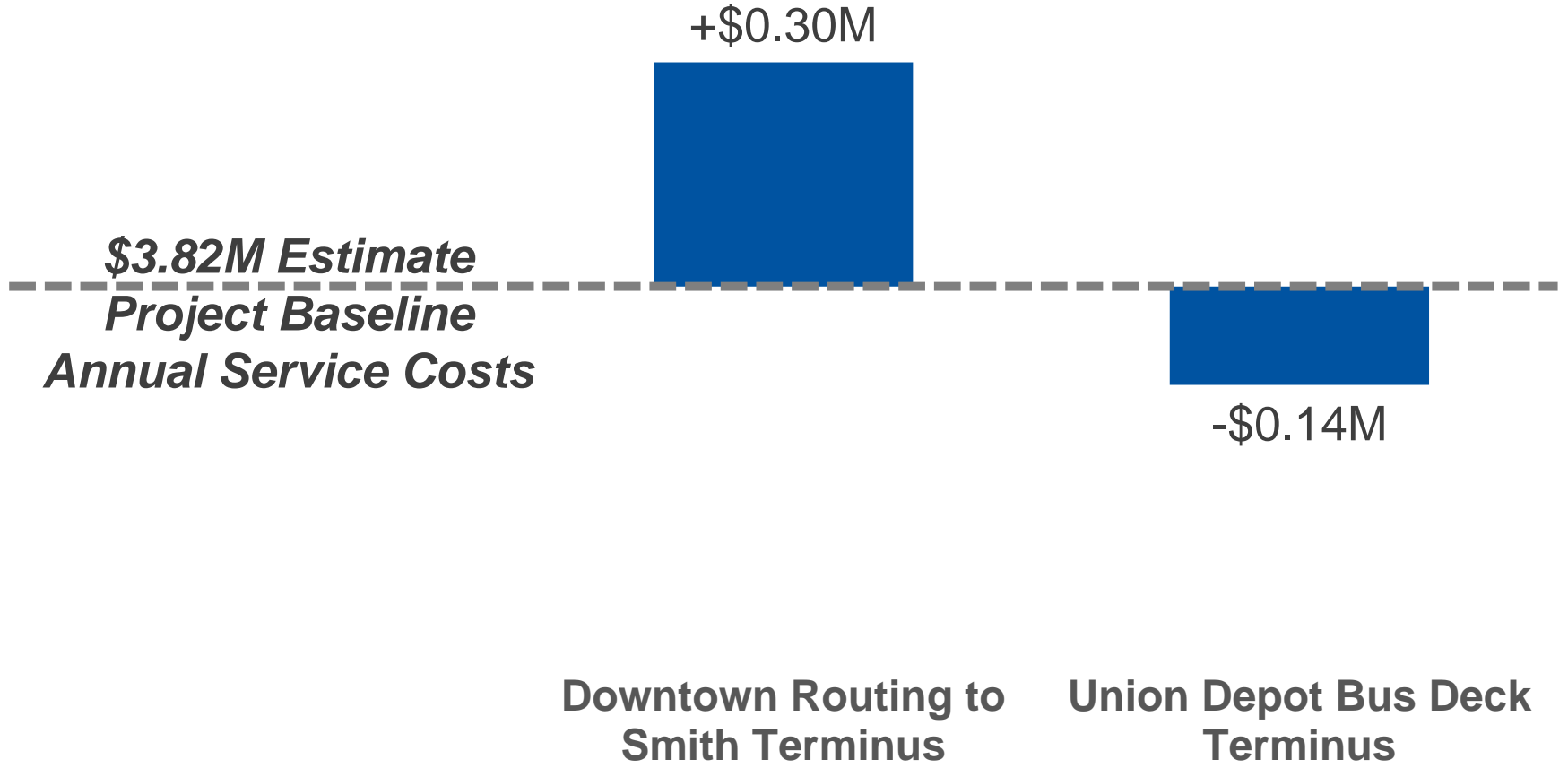


Cost Comparison



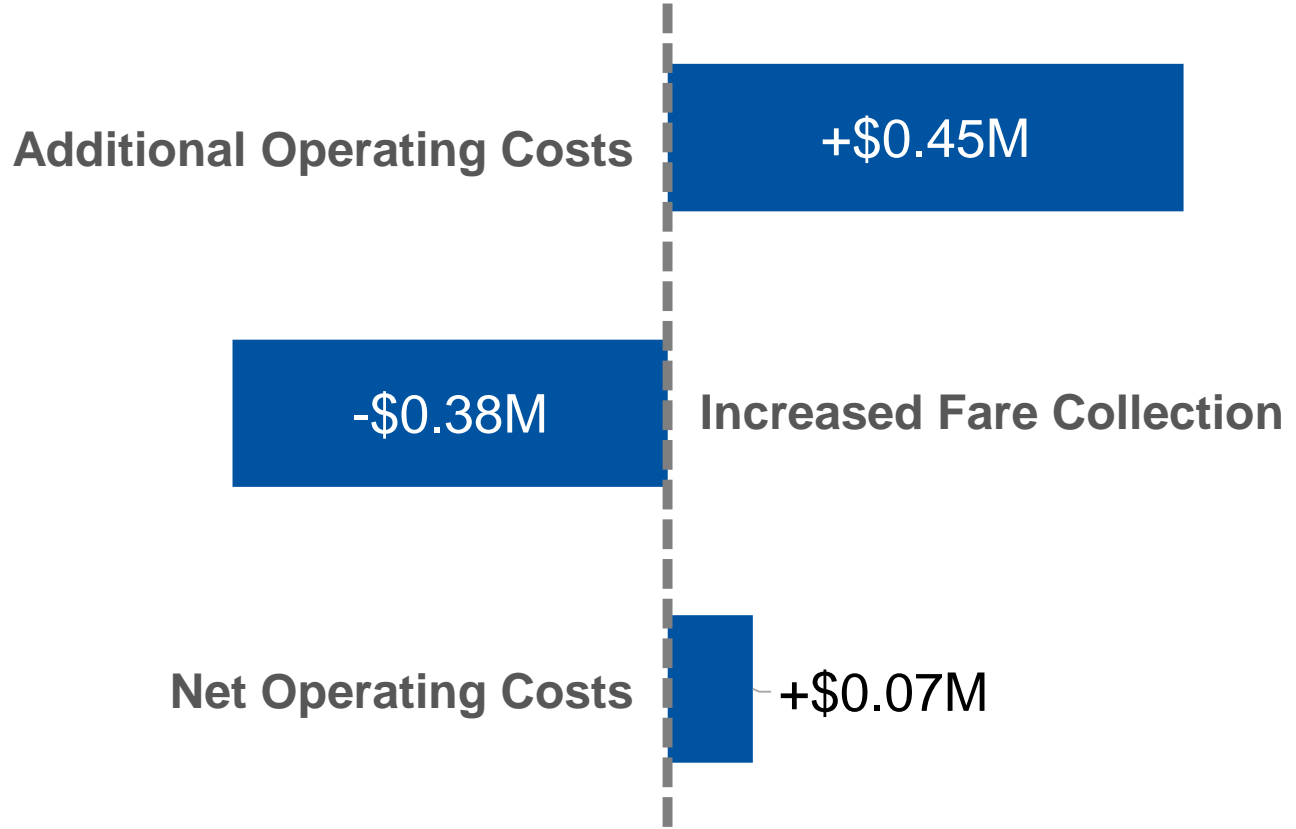


Operating Cost Comparison





\$70,000 annual Net Service Cost to travel through Downtown to Smith vs. terminate at Union Depot Bus Deck



- Platform
 - Raised platform
 - Tactile warning strip
 - Bump out
 - Light
 - Bench
- Waiting Shelter
 - Light
 - Heat
 - Bench
- Health, Safety, and Security
 - Trash/Recycling
 - Security Cameras
 - Emergency Phone
- Fare collection
 - Ticket vending machines
 - Validators
- Customer communication
 - Station Pylon
 - Station Sign
 - Route/Schedule Display
 - Digital Info Panel Area
 - Wayfinding
 - Real Time Sign
 - Push-button Annunciator
- Pedestrian/Customer access

BRT Station Elements



Platform Shelter (A-Line shown)



Tactile Warning Plate
Concrete Platform Pavement



Emergency Telephone (A-Line shown)



Shelter Light & Heaters (A-Line shown)



Security Camera (A-Line shown)



Pylon (A-Line shown)



Light Fixture (A-Line shown)



Variable Message Sign (VMS) (METRO Green Line shown)



Ticket Vending Machine (TVM) (METRO Blue Line shown)



Ticket Validator (A-Line shown)



Bench (C-Line shown)



Bicycle Rack (A-Line shown)



Waste & Recycling Receptacle (A-Line shown)