CMC Agenda

- Welcome and Introductions
- Review Additional Information on Downtown Alternatives
- CBAC & TAC Update
- Discussion/Questions
- Adjorn
Review Additional Information on Downtown Alternatives
Downtown Timeline Overview

2016: Approved Locally Preferred Alternative (LPA)

May 2018: Refined LPA

Nov 2018:
- Review data and public input
- Advise staff on how to proceed with LPA

July 2018: Request to add End at Depot Alternative

METRO Gold Line
2016 Adopted Locally Preferred Alternative

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

- Alignment A-B-C-D3
- Peak: Downtown Routing to Smith
- Off-peak: Union Depot Bus Deck only

December 2016 LPA
Refined Locally Preferred Alternative

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: 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.
# Gold Line Project Timeline

<table>
<thead>
<tr>
<th>PRE-PROJECT DEVELOPMENT</th>
<th>PROJECT DEVELOPMENT</th>
<th>ENGINEERING</th>
<th>CONSTRUCTION</th>
<th>REVENUE SERVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>January 2018-January 2020</td>
<td>1-2 Years</td>
<td>2-3 Years</td>
<td>2024</td>
</tr>
<tr>
<td>ENVIRONMENTAL ASSESSMENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DESIGN ADVANCEMENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ONGOING PUBLIC ENGAGEMENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**WE ARE HERE**
Environmental Assessment Timeline

- FTA dictates their required review times
- FTA wants environmental decision document to be completed by Oct 2019 (6 appendices, 9 technical reports, approx. 1,000 pages, hundreds of figures)

PROJECT DEVELOPMENT
January 2018-January 2020

ENVIRONMENTAL ASSESSMENT

Issue Resolution Process

Complete Technical Analysis and Write EA

FTA 1st Review
FTA 2nd Review
FTA Legal Review
30-day Public Comment Period & Response
Develop Decision Doc & FTA Review
Apply to Enter Engr-ing Phase & FTA Review

WE ARE HERE
Review Additional Information on Downtown Alternatives
Outreach Activity

Dayton’s Bluff Elementary
Sun Ray Library
Woodbury Central Park/Library
Securian Farmer’s Market
Woodbury Lutheran Park and Ride
Yoga at Union Depot
Sun Ray Transit Center
Green Line Central Station
Oakdale Library
Open House 1 (Skyway, Alliance Bank)
Open House 2 (Union Depot)
Online Survey
Comments via email

Engagement Summary:

• Report with all comments was prepared

• People preferring End at Depot: ~22%
  – Lower cost
  – Would transfer or walk
  – Live/work near Depot

• People preferring Downtown Routing: ~78%
  – Going to destinations throughout downtown
  – Would not take Gold Line if they had to transfer or walk from Depot
DRAFT New Starts Project Rating

• EA Scope, as confirmed by CMC on Sept. 6, 2018:
  – End at Union Depot: borderline Medium-Low / Medium-High
  – Downtown Routing: Medium-High

• Ridership updates during design advancement:
  – Both alternatives have strong potential to be a Medium-High
    • Because of ridership differences, the Downtown Routing alternative will always have a greater mobility rating
    • FTA makes the final determination
Downtown St. Paul Transitway Routing

METRO Gold Line

Alignments subject to change.
Current Downtown On-Time Performance

5th Street / Eastbound

- Outside of Downtown: 88.5%
- Xcel / Rice Park Area: 89.8%
- Cedar / Minnesota: 90.9%
- Lowertown: 90.0%

6th Street / Westbound

- Xcel / Rice Park Area: 90.2%
- Cedar / Minnesota: 92.9%
- Lowertown: 88.9%
- Outside of Downtown: 91.4%

YTD Systemwide On-Time Performance

- All Day
- PM Peak

Source: Spring 2018 Weekday AVL Data
Other Feedback on Boarding Options

Level Boarding
- 14” curb
- Buses to dock within 3 inches of curb
- Ramp deployment-TBD
- Premium Service for BRT bus only

Near Level Boarding
- 9” curb
- Ramp is deployed
- Premium BRT Service & compatibility with all bus models

Standard Boarding
- 6” curb (standard sidewalk height)
- Ramp is deployed
- Compatibility with all bus models
Other Questions from the CMC

• Additional Information Provided:
  – Ridership Forecasting 101 Packet
  – Research Brief: Perception of Waiting Time and Transit Stops and Stations
  – Fall Engagement Summary (emailed)
  – Additional Reference Slides
CBAC and TAC Update
CBAC Input

- All members present preferred Downtown Routing Alternative
  - Should listen to the public feedback that is collected
  - In hot and cold weather, people would prefer to get as close to their destinations as possible
  - Environmental Justice – low income and minority populations live on west side of downtown and the project should serve them directly
  - There would be more buses on streets but people choosing to drive would lead to more congestion
- Members that didn’t attend were offered opportunity to provide input via email or phone
Gold Line Committee Structure

- Issue Resolution Teams (IRTs)
- Technical Advisory Committee (TAC)
- Community and Business Advisory Committee (CBAC)
- Corridor Management Committee (CMC)
- Counties
- Metropolitan Council

Follows LRT project precedents and Transitway Guidelines
Discussion/Questions
For Discussion – Downtown Routing

• Downtown Routing, as recommended by the Issue Resolution Team, is the preferred alternative. The Union Depot Bus Deck Terminus Alternative will be evaluated in the Environmental Assessment and reevaluated at a later date, if warranted, by changes in project assumptions.

• All stations will be evaluated for level boarding, including those downtown.
  – Near-level boarding will be considered on a case by case basis with input from the project advisory committees.
Next Steps

- Community Planning
- Station Area Planning
- Environmental Assessment Scope
- Local Scope
- Gold Line Project Scope

Timeline:
- Ongoing
- 2017-2018
- 2018
- 2018-2019
- 2019

Metro Transit a service of the Metropolitan Council
Next Steps

- Next scheduled CMC meeting is December 6
  - Corridor-wide update on issues resolution
Reference Slides
### Downtown Alternatives Summary Data

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Ridership Difference</th>
<th>Capital Cost Difference</th>
<th>Annual O&amp;M Net Cost Difference</th>
<th>FTA Rating</th>
<th>Public Input Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downtown Routing to Smith Ave</td>
<td>+ 950 daily rides (~250 are from zero car households)</td>
<td>+ $5.8M* from baseline</td>
<td>+ $70K**</td>
<td>Medium-High</td>
<td>~ 78%</td>
</tr>
<tr>
<td>Union Depot Bus Deck Terminus</td>
<td>- $7.6M from baseline</td>
<td></td>
<td></td>
<td>Medium-Low or Medium-High***</td>
<td>~ 22%</td>
</tr>
</tbody>
</table>

* Includes Upgraded Stations (like A Line), Level boarding is $11.1M over baseline
**$450K in additional operating costs less $380K in increased fare collection
***Rating is dependent on ridership refinements
## Gold Line Project Goals and Objectives

- All project decisions need to be based on goals and objectives

<table>
<thead>
<tr>
<th>Tier One Goals</th>
<th>Objectives</th>
<th>Alternative that best meets Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal 1: Improve Mobility</strong></td>
<td>1. Maximize number of people served (future)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Maximize transit ridership</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Maximize travel time savings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Minimize traffic mobility impacts</td>
<td></td>
</tr>
<tr>
<td><strong>Goal 2: Provide a Cost-Effective, Economically Viable Transit Option</strong></td>
<td>5. Minimize costs and maximize cost-effectiveness</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tier Two Goals</th>
<th>Objectives</th>
<th>Alternative that best meets Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal 3: Support Economic Development</strong></td>
<td>6. Maximize number of people served (existing)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Maximize future development opportunities</td>
<td></td>
</tr>
<tr>
<td><strong>Goal 4: Protect the Natural Environmental Features of the Corridor</strong></td>
<td>8. Minimize potential environmental impacts</td>
<td></td>
</tr>
<tr>
<td><strong>Goal 5: Preserve and Protect Individual and Community Quality of Life</strong></td>
<td>9. Maximize potential benefits to and minimize potential impacts on the community</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10. Minimize adverse parking, circulation, and safety impacts</td>
<td></td>
</tr>
</tbody>
</table>
### Cost Comparison of Downtown Alternatives

<table>
<thead>
<tr>
<th>Baseline (1%)</th>
<th>Downtown All-Day Routing Alternative (IRT Recommendation)</th>
<th>Union Depot Bus Deck Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Union Depot Bus Deck Station</td>
<td>Station relocated from Union Depot bus deck to front of Depot at Sibley and at Wacouta</td>
<td>Upgrade to full amenity platform (like A Line) as part of the premium BRT service</td>
</tr>
<tr>
<td>• Pylon Sign &amp; Off-Board Fare Collection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Enhanced Downtown Stops</td>
<td>9 Full Amenity Downtown Stations</td>
<td>No additional downtown stops included</td>
</tr>
<tr>
<td>Station amenities include:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Pylon Sign</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Off-Board Fare Collection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Small Shelter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Civil Improvements at Wacouta</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost Comparison</th>
<th>Union Depot Bus Deck Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ $0</td>
<td></td>
</tr>
<tr>
<td>+ $5.8M (1.4%)</td>
<td></td>
</tr>
<tr>
<td>- $7.6M (- 1.8%)</td>
<td></td>
</tr>
</tbody>
</table>
Downtown Stations

Previous Assumptions for Downtown Stations

- Small shelter
- Off-board fare collection
- Pylon
- 7 stations in downtown

Refined Assumptions for Downtown Stations

- Full amenity stations, similar to A Line
- 9 stations in downtown

Platform Shelter (A-Line shown)
Projected Downtown Stations Boardings

Projected Boardings for Downtown Stations

- Smith Ave WB
- Hamm Plaza
- 6th St & Minnesota St
- 6th St & Robert St
- Sibley St at Union Depot
- Wacouta St at Union Depot
- 5th St & Robert St
- 5th St & Cedar St
- Rice Park
- Smith Ave EB

METRO Gold Line

Metro Transit
a service of the Metropolitan Council
Projected Hourly Bus Volumes - Downtown

Maximum capacity: approx. 80 buses per hour

- 5th Street - AM: 44.7
- 5th Street - PM: 45.4
- 6th Street - AM: 50.7
- 6th Street - PM: 43.1

# of buses per hour

- Existing
- With Gold Line Downtown Routing

METRO Gold Line

Metro Transit, a service of the Metropolitan Council
October 11, 2018 field observations summary:

- Staff rode buses in AM and PM peak periods along 5th and 6th Streets
- Observations
  - Buses stop at signals along 5th and 6th sporadically throughout the day
  - Minnesota Street stop was busy during AM peak; resulted in longer dwell times
  - Eastbound congestion on 5th during PM peak between Market and Minnesota
- Findings are consistent with Performance Data
### 5th / 6th Street Bus Ride Summary - AM

<table>
<thead>
<tr>
<th>Route</th>
<th>Time</th>
<th>No. of Stops</th>
<th>Duration</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Westbound</strong> 4th Street / 5th Street to Smith Avenue Transit Center</td>
<td>AM Peak</td>
<td>6 out of 10</td>
<td>10-min.</td>
<td>Busy, but not congested; hit multiple red lights</td>
</tr>
<tr>
<td></td>
<td>AM Non-Peak</td>
<td>6 out of 9</td>
<td>7-min.</td>
<td>Free-flowing traffic; hit multiple green lights</td>
</tr>
<tr>
<td><strong>Eastbound</strong> W 5th Street / 7th Street to Union Depot</td>
<td>AM Peak</td>
<td>4 out of 8</td>
<td>8-min.</td>
<td>Uppertown 5th was busy, but not congested; only stopped due to red lights; Lowertown 5th had free-flowing traffic</td>
</tr>
<tr>
<td></td>
<td>AM Non-Peak</td>
<td>6 out of 8</td>
<td>10-min.</td>
<td>Free-flowing traffic; hit many green lights; 2-minute delay due to driver switch at Minnesota Street</td>
</tr>
<tr>
<td>Location</td>
<td>Time</td>
<td>No. of Stops</td>
<td>Duration</td>
<td>Comments</td>
</tr>
<tr>
<td>----------</td>
<td>-----------</td>
<td>--------------</td>
<td>----------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Westbound</strong>&lt;br&gt;4th Street / 5th Street to Smith Avenue Transit Center</td>
<td>PM Peak</td>
<td>6 out of 9</td>
<td>12-min.</td>
<td>Minnesota St station very busy, lengthened dwell time; traffic generally free-flowing; multiple buses in bus lane</td>
</tr>
<tr>
<td></td>
<td>PM Non-Peak</td>
<td>6 out of 8</td>
<td>9-min.</td>
<td>Free-flowing traffic; hit multiple green lights</td>
</tr>
<tr>
<td><strong>Eastbound</strong>&lt;br&gt;W 5th Street / 7th Street to 7th St E / Wall Street</td>
<td>PM Peak</td>
<td>6 out of 8</td>
<td>14-min.</td>
<td>Washington St. to Minnesota St. was congested; sat through more than one light-cycle at each intersection</td>
</tr>
<tr>
<td></td>
<td>PM Non-Peak</td>
<td>6 out of 8</td>
<td>8-min.</td>
<td>Free-flowing traffic; stopped at a few red lights</td>
</tr>
</tbody>
</table>
2017 projected ridership interpolated from horizon year forecasts.
• Rush Line and Riverview are **not** currently included in the Gold Line Ridership Model

• Historically, FTA has desired that CIG project ridership forecasts **not** include future CIG projects to ensure their evaluation process is consistent for all projects around the country

• FTA requires projects to “stand on their own” and not have meaningful benefits derived from other potential CIG projects that have yet to be funded by FTA

• Both projects could be incorporated into the model for local sensitivity analysis or decision making-purposes
# Existing Transit Service to Union Depot

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

*Does not include Amtrak, Intercity Bus, and Private service connections*
Gold Line Project Travel Markets

• ~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
How are Transfers Modeled by FTA?

- 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

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Traditional Model</th>
<th>STOPS Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time between alighting &amp; boarding</td>
<td>$\frac{1}{2}$ of the average headway of the 2nd route</td>
<td>The actual scheduled time between bus arrival and departure</td>
</tr>
<tr>
<td>Time to walk between the two routes</td>
<td>Walking time between the two routes (if any)</td>
<td></td>
</tr>
<tr>
<td>Time penalty</td>
<td>Perceived time penalty assessed for each transfer</td>
<td></td>
</tr>
</tbody>
</table>
Distribution of Reduction in Ridership

Origin of 950 Lost Rides*
without Gold Line Downtown Routing

- St. Paul-Downtown: 34%
- St. Paul-Other: 33%
- Woodbury: 22%
- Maplewood, Oakdale, Landfall: 11%

*50% of the lost rides would choose to drive instead
### Distribution of Downtown Trips

<table>
<thead>
<tr>
<th>Downtown Zone</th>
<th>Ridership Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Union Depot Station (Front)</td>
<td>40%</td>
</tr>
<tr>
<td>Central Downtown</td>
<td>30%</td>
</tr>
<tr>
<td>Rice Park/Xcel Energy Center Area</td>
<td>30%</td>
</tr>
</tbody>
</table>
Costs for Downtown Alternatives

$420M Estimate
Project Baseline

Cost Comparison

Downtown Routing - Upgraded Stations: +$5.8M
Downtown Routing - Full Stations & Level Boarding: +$11.1M
Union Depot Bus Deck Terminus - Upgraded Station: -$7.6M
Operating Costs for Downtown Alternatives

Operating Cost Comparison

+$0.30M

$3.82M Estimate
Project Baseline
Annual Service Costs

-$0.14M

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

- Additional Operating Costs: -$0.38M
- Increased Fare Collection: +$0.45M
- Net Operating Costs: +$0.07M
BRT Station Infrastructure Program Elements

• 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)

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)