METRO Green Line Extension:
Virtual Town Hall
City of Minneapolis

March 16, 2022
Today’s topics

- Project Overview
- Project Update
- 2021 Construction Recap
- 2022 Construction Highlights
- Systems Overview
- Communications & Outreach
METRO Green Line Extension

- Extends the Green Line with 14.5 miles of new LRT
- 16 new stations
- One seat ride from Eden Prairie to Downtown St. Paul
- Direct service to Downtown Minneapolis, U of M, stadiums
- Connections to rail and bus routes
- Downtown Minneapolis to Eden Prairie: ~35 minutes
METRO Green Line Extension Scope

• 16 new stations
• 44 structures
  – 29 new bridges: LRT, pedestrian, roadway, freight
  – 7 existing bridges with modifications
  – 6 pedestrian tunnels
  – 2 cut and cover tunnels:
    • TH 62 582 ft., Kenilworth 2,236 ft.
• 15 at-grade LRT crossings
  – Includes 5 shared crossings w/freight rail
• 127 retaining walls
• Track: ~182,000 TF
• 7.8 mi shared LRT and freight rail corridor
Project Update
LRT Construction Sequencing and Status

Utilities
- Excavation
- Relocation / installation

Site Prep
- Clear buildings
- Establish work zones, detours

Structures, track, stations
- Track beds
- Track
- Buildings
- Roadwork
- Trails

Systems
- Overhead catenary
- Safety & security
- Ticket vending

Outreach & Communications

- Done!
- Done!
- 60% Complete
- Initiated
- Prior to revenue service

Testing
- Safety
- Comms
- Operator training
Civil construction challenges: Key issues

- Corridor protection wall
  - Added to the civil construction contract by change order
  - Adds significant time to the construction schedule in Minneapolis

- Secant pile (retaining) wall
  - Unforeseen soil conditions (settling during initial tunnel construction) necessitated an alternative construction method
  - This was a major change that sets the overall completion of civil construction due to complexity of construction involved

- Eden Prairie Town Center Station
  - Added to the civil construction contract by change order
Civil construction schedule and cost

Original civil construction schedule & cost + New civil construction agreement & change orders = Revised civil construction schedule and costs

Additional 34 months
Revised project schedule and cost process: Current step

- Taken together, these issues impact:
  - Other Green Line Extension contracts
  - Staffing, supplies, overhead, etc.
  - Overall project schedule and cost
Revised project schedule and cost process

- Estimated project cost: $2.65B - $2.75B
- Revised costs will be known when all agreements are finalized
- Project opening day: 2027
Project budget

• The Green Line Extension has undergone cost cutting measures already, we are building a well-constructed line that meets the needs of our communities

• With the project 60% complete meaningful reductions are not available

• Additional funding will be needed to complete the project
  ▪ We are working with partners to identity available funding solutions
  ▪ We will not be asking city partners to contribute more
  ▪ Stopping the project would be more costly
How Do Costs Compare?

• Compared to our peer group of metropolitan areas including Seattle, Portland, and Houston, our costs are currently at or below their similar projects
  ▪ Previous Green Line Extension: ~$152 million per mile
  ▪ Revised Green Line Extension: $180 million to $190 million per mile
  ▪ Peer projects: between $200 million and $500 million per mile
## National Comparisons

<table>
<thead>
<tr>
<th>LRT Project</th>
<th>Length in Miles</th>
<th>Number of Stations</th>
<th>Cost Per Mile</th>
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<tbody>
<tr>
<td>Twin Cities METRO Green Line Extension</td>
<td>14.5</td>
<td>16</td>
<td>$180 - $190 million</td>
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<tr>
<td>Pittsburgh: North Shore</td>
<td>1.2</td>
<td>3</td>
<td>$560 million</td>
</tr>
<tr>
<td>Seattle: U-Link</td>
<td>3.2</td>
<td>2</td>
<td>$511 million</td>
</tr>
<tr>
<td>Seattle: East Line</td>
<td>13.9</td>
<td>10</td>
<td>$259 million</td>
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<tr>
<td>Portland: Orange Line</td>
<td>7.3</td>
<td>10</td>
<td>$243 million</td>
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<tr>
<td>Los Angeles: Expo Line Phase 2</td>
<td>6.6</td>
<td>7</td>
<td>$225 million</td>
</tr>
<tr>
<td>Houston: Green Line</td>
<td>3.2</td>
<td>7</td>
<td>$223 million</td>
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</table>

Source: Eno Center for Transportation, “A Blueprint for Building Transit Better”
$2+ Billion in Permitted & Planned Community Development

- Elevate At SouthWest Station, Eden Prairie
- The Moline at Downtown Hopkins Station
- Minnetonka Station at Opus Station
- Beltline Station Development, St. Louis Park
## Disadvantaged Business Enterprise

<table>
<thead>
<tr>
<th>Construction Contract Description</th>
<th>DBE Billed to Date</th>
<th>DBE Percentage Achieved*</th>
</tr>
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<tbody>
<tr>
<td>Civil: 16%</td>
<td>$139.0 Million</td>
<td>21.0%</td>
</tr>
<tr>
<td>Systems: 12%</td>
<td>$11.5 Million</td>
<td>16.2%</td>
</tr>
<tr>
<td>Franklin OMF: 15%</td>
<td>$7.6 Million</td>
<td>18.9%</td>
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<tr>
<td>OVERALL ACHIEVEMENT: 15%</td>
<td>$163.4 Million</td>
<td>20.3%</td>
</tr>
</tbody>
</table>

*As of December 31, 2021
Green Line Extension = Statewide Jobs

$\text{53,170,758}$

IN PAY GOING TO

65 of the 87 MINNESOTA COUNTIES

SO FAR

*As of July 2021
Statewide economic benefits

• Putting people to work:
  ▪ More than 1.8 million hours worked
  ▪ Paychecks for Minnesotans worth more than $53.1 million and growing
  ▪ Employing folks from 75% of counties statewide
  ▪ $134 million billed by Disadvantage and Business Enterprise companies (20.9%) for civil construction activities, exceeding the goal of 16%
  ▪ Project will support 7,500 construction and construction related jobs and $350 million in payroll to be reinvested in communities throughout the Twin Cities and the state

Minnesota counties have someone bringing home a Green Line Extension paycheck
2021 Construction Recap
Construction highlights: 2021

- Civil construction: 60% complete
- Under construction:
  - 25 bridges completed or underway out of 29
  - 8 tunnels underway out of 8
  - 114 retaining walls completed or under construction out of 131
- 95% of 946 private utilities completed
- 75% of nearly 1,300 public utilities completed
- Completed all 15 building demolitions
- Systems contractor mobilized and in design and procurement
- Franklin Operation & Maintenance facility modifications are nearly complete
- 26 of 27 Light Rail Vehicles delivered
LRT stations underway

• 11 stations underway of 16
  ▪ When complete will allow a stress-free commute from Eden Prairie to downtown Minneapolis
    – Consistent commute time, unimpacted by traffic
  ▪ Improved connections to regional destinations such as Minneapolis Grand Rounds, Methodist Hospital, Downtown Hopkins, UnitedHealth Group's Optum corporate campus, Eden Prairie Center
Kenilworth LRT Tunnel
Corridor Protection Barrier, Bryn Mawr
LRT Bridge over 5th Avenue and 7th Street
2022 Construction Highlights
2022 Minneapolis Construction Activity Map

Minneapolis – West Lake Street to West 21st Street | 2022 Highlights - Major Construction Impacts

- Historic WPA wall work anticipated to begin fall 2022
- Trail bridge demolition and construction anticipated summer 2022
- Tunnel construction progresses to the east through 2022
- 10-month closure of Cedar Lake Parkway anticipated to begin winter/spring 2022
- Tunnel construction anticipated to progress west starting fall 2022
- Secant wall construction continues through summer 2022

LRT Station, Road Closure, Laydown and Staging Areas, Pile Driving/Sheeting/Vibration Activity, Building Activities

Metro Green Line EXTENSION
Minneapolis, West Lake Street to West 21st Street: 2022 Construction Highlights

• Stations
  ▪ West Lake Street Station: advance station, vertical circulation structures
  ▪ West 21st Street Station: advance station work

• Bridges and Tunnel
  ▪ Kenilworth LRT Tunnel: secant wall construction, tunnel construction to both east and west
  ▪ Cedar Lake Channel LRT Bridge: set beams and advance fencing, railings
  ▪ Cedar Lake Channel Pedestrian Bridge: demolition and construction, pile-driving
  ▪ WPA wall construction: begins fall 2022

• Traffic Impacts
  ▪ Long-term closure of Cedar Lake Parkway
Cedar Lake Parkway Closure
2022 Minneapolis Construction Activity Map
Minneapolis, Bryn Mawr to Target Field: 2022 Construction Highlights

• Stations
  ▪ Bryn Mawr Station: advance station, pedestrian bridge, retaining walls
  ▪ Bassett Creek Valley Station: advance station, Luce Line overpass construction
  ▪ Royalston Avenue/Farmers Market Station: advance station construction

• Structures
  ▪ Corridor Protection Wall: continue concrete panel construction
  ▪ Glenwood Avenue bridge: advance retaining walls, abutment construction and setting of bridge beams
  ▪ 5th Avenue/7th Street LRT bridge: advance pier construction and setting of beams
Minneapolis, Bryn Mawr to Target Field: 2022 Construction Highlights (cont.)

- Traffic Impacts
  - Impacts to Border Avenue and Holden Street for roadway and sidewalk reconstruction from spring through fall.
  - 5th Avenue and 7th Street: impacts for overhead bridge construction
  - Potential closure at Wayzata Boulevard at Penn Avenue for roadway reconstruction

Corridor Protection Wall
Communications and Outreach
2021 Communications

- Construction updates: 16,600+ subscribers; 46% open rate
- Hotline: 60+ calls from “Minneapolis” residents
  - 612-373-3933
- Hundreds more non-hotline calls and emails from community members to outreach staff
  - Email: david.davies@metrotransit.org
- Construction Information Workgroup meetings: 11
- Public Walking Tours: 5

Kenilworth Walking Tour, June 2021
Upcoming Community Outreach

• Public construction tours
  ▪ Running spring, summer, fall as weather allows
  ▪ Efforts to connect with schools and youth groups
  ▪ Virtual tours

• Pop-up events

• Continued weekly/bi-weekly construction updates
MORE INFORMATION

Website: GreenLineExt.org
Email: swlrt@metrotransit.org
Twitter: @GreenLineExtMN
Instagram: @GreenLineExtMN