D Line Rapid Bus
Project Planning
City of Richfield Transportation Commission
July 12, 2017

Katie Roth, Project Manager
Scott Janowiak, Planner
BRT/Small Starts Project Office
D Line: Scope

- Substantially replace Route 5
- 18.2 miles (about 2 mi. in Richfield)
- Service every 10 minutes, 20-25% faster than Route 5
- Approximately 50 stations
- More comfortable
  - Rapid bus style shelters with heat, light, security features, signage
  - Larger buses
- Improved travel time
  - Pre-boarding fare payment
  - All-door boarding
  - Transit signal priority
- 2030 daily ridership forecast with rapid bus improvements: 23,500
## Project Schedule

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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<tbody>
<tr>
<td>Planning issues resolution</td>
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<tr>
<td>Publish &amp; approve station plan</td>
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<tr>
<td>Complete NEPA document</td>
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<td>Develop service plan</td>
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<tr>
<td>Design services procurement</td>
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<tr>
<td>Preliminary design</td>
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<tr>
<td>Final design</td>
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<tr>
<td>ROW acquisition</td>
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<tr>
<td>Construction procurement</td>
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<tr>
<td>Construction</td>
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</table>

Assumes engineering funds are identified mid-2018; construction funds identified mid-2019

Revenue service to begin following construction & testing
Planning Process Overview

- Planning objective: Approved D Line Station Plan
  - What intersection?
  - What intersection quadrant?
  - How was location determined?

- Issue-based approach
  - Known locations
    - Portland & 66th, Portland & 77th
  - Unresolved locations
    - Portland & 70th/73rd
Coordination w/ street projects

- Portland Avenue reconstruction
  - Completed 2015-2016
  - Portland & 67th to 77th

- Planned Portland Avenue bike-ped improvement
  - Planned 2020
  - Portland & 60th to 66th

- Roundabout at Portland & 66th
Richfield D Line Planning Considerations

- Connecting transit service
  - Route 515 at 66th; Route 540 at 77th

- Ridership
  - About 95 boardings/day at 66th; 110 boardings/day at 77th

- Spacing
  - About 1.4 miles between 66th & 77th

- Land use

- Existing roadway
Portland & 66th

- Northbound: Nearsid
  - Adequate length available for standard 60-ft platform
- Southbound: Nearsid
  - Adequate length available for standard 60-ft platform
- Roundabout
  - Platform design under 1 and 2 lane concepts
  - Southbound farside considerations
Portland & 77th

- **Northbound: Farside**
  - Increases potential for TSP benefit and decreases transit delay
  - Adequate length available for standard 60-ft platform

- **Southbound: Nearsid e**
  - Driveway access farside limits available platform length

- **Recent reconstruction**
  - Ongoing coordination of potential platform designs
  - Identify multi-modal tradeoffs under design scenarios
Station Location: Portland & 70th/73rd

• Between Portland & 66th and Portland & 77th
  – 1 or 2 stations?
  – Appropriate intersection location?
  – Intersection quadrant constructability?

• Initial proposal: single station at 73rd
  – Compared to 70th, provides access at higher ridership location
  – Stations at both 70th and 73rd result in less than 0.5 mi. spacing in lower ridership area
**Station Location: Portland & 70th/73rd**

- **Portland & 70th**
  - Signalized
  - Residential (single-family)

- **Portland & 73rd**
  - Unsignalized
  - Residential (single-family and multi-family)
Outreach and Engagement Activities

• July and August
  – Connections and conversations
    • VEAP
    • Hope Church
    • Others?
  – Activities
    • Pop-up outreach, tabling
      – City Hall
      – Hope Church programming
      – National Night Out
      – Summer Concert Series
      – Others?
metrotransit.org/d-line-project

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Health and transportation

Research Results on Land Use, Transportation, and Community Design
(For slides related to walking/biking to school, please see the set titled School Environment and Active Transportation to School)

Active Living Research
www.activelivingresearch.org

A national program of the Robert Wood Johnson Foundation

Any of the slides contained in this set are available for public use. If you have comments or questions about a particular slide, please contact Debbie Lou at dlou@projects.sdsu.edu
A study of 357 Atlanta adults using accelerometer data found people who live in walkable neighborhoods are more likely to meet recommended daily levels of physical activity.

Residents of walkable neighborhoods were more likely to meet physical activity guidelines

37% 18%

High walkability Low walkability

% meeting physical activity guidelines

A national study of US adolescents (N=20,745)* found a greater number of physical activity facilities is directly related to increased physical activity and inversely related to risk of overweight.

*using Add Health data

Pedestrian Plan - 69th Street

Sidewalk on 69th Street is consistent with:

• Comprehensive Plan
• Sidewalk Policy
• Complete Streets Policy
• Guiding Principles
Pedestrian Plan - 69th Street

CITY OF RICHFIELD
FUNCTIONAL CLASS OF ROADS

MINNEAPOLIS

EDINA
Pedestrian Plan - 69th Street

Car crashes rank among the leading causes of death in the United States

Impact Speed and a Pedestrian’s Risk of Severe Injury or Death
September 2011

SWEET STREETS: better roads, better Rickfield
Safe Speeds

Risk of Severe Injury vs. Impact Speed (mph)

- Struck by Light Truck
- Struck by Car
69th Street - Before Conditions

- ADT: 3000 vpd
- Speeds: 85% speeds 35-38 mph (Posted 30)
- Cross Section: 36’ roadway in 60’ ROW
Safe Speeds

69th Street (Xerxes to Penn)
Safe Speeds

69th Street (Xerxes to Penn)
69th Street Public Process

- Open House 8/24/2016
- Facebook posts
- “On-Street” Posters/flyers
## 69th St Design

### Alternatives

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Pedestrian</th>
<th>Bicycle</th>
<th>Parking impacts</th>
<th>Cost</th>
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<tbody>
<tr>
<td>10’ Wide sidewalk on south side</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>$$$$$$$</td>
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<tr>
<td>10’ Wide sidewalk with southern curb shifted north</td>
<td>✓</td>
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<td>-</td>
<td>$$$$$$$</td>
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<tr>
<td>10’ On-Street shared use path-Painted edge line</td>
<td>✓</td>
<td>✓</td>
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<td>$$</td>
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</tbody>
</table>

### Pilot Project

- SWEET STREETS
  - better roads, better Rickeyfield
Pedestrian Measures

The goal of the pedestrian network is to provide for safe, secure and efficient movement along and across the roadways. The following performance measures will be used to evaluate the pedestrian success of any alternative in addition to ADA criteria.

- Speed of traffic (slower)
- Number of Vehicles
- Offset to traffic, (buffer zone)
- Crossing distances
- Number of lanes to cross
- Median refuge
- Traffic controlled intersections
- Crosswalk visibility, (i.e., pavement markings, lighting, signage)
- Number of conflict points with vehicles and bicycles
- Minimize circuitous routing
- Shade
- Lighting
69th Street Pilot Project
69th Street Public Process

- Direct communication to Open House participants
- Email communications
- On-line survey April 2017
69th Street Speed Study

Initial Speeds: 85% speed 35-38 mph (Posted 30)

Striped Roadway:
  Westbound- 85% speed 35-36 mph
  Eastbound- 85% speed 30-31 mph

Pilot Project:
  Westbound- 85% speed 33-35 mph*
  Eastbound- 85% speed 33-35 mph*
  *66th St Detour traffic included
Safe Speeds

69th Street (Xerxes to Penn)
69th St Crash Data (2006-2015)

STUDY AREA
## 69th St Pedestrian/Bicycle Counts

<table>
<thead>
<tr>
<th>Date</th>
<th>Pedestrians per Day</th>
<th>Bicyclists per Day</th>
<th>Total</th>
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<tbody>
<tr>
<td>September 2016</td>
<td>52</td>
<td>56</td>
<td>108</td>
</tr>
<tr>
<td>June 2017</td>
<td>76</td>
<td>78</td>
<td>154</td>
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<tr>
<td>Change</td>
<td>+46%</td>
<td>+39%</td>
<td>+43%</td>
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</tbody>
</table>
Key Considerations

• Traffic near southern curb
• Driver confusion
• Slower vehicle speeds
• Safer pedestrian space
• Shorter pedestrian crossings
• Increased pedestrian and bicycle use
69th Street Pilot Project

Transportation Commission Recommendation

- Develop a **Permanent Solution** for 69th Street
- Modify the vehicle lanes widths to better accommodate adjacent neighbors and eastbound bicyclists during the interim.
69th street Alternative

Pedestrian Pilot Project Modified
Narrowed travel lanes and wider shoulder on south side
SWEET STREETS: better roads, better Richfield