

TRANSIT MEASURES

DEPARTMENT OF



TRANSPORTATION

How the Twin Cities got transit right

Big projects often divide cities. But Minneapolis' light rail line is creating jobs and driving development in underserved areas.

By: Steve Hargreaves and Dominic V Aratari



TARGET FIELD STATION

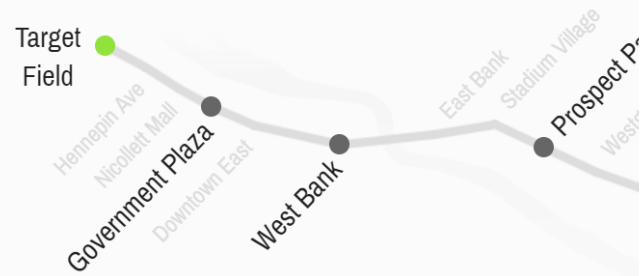
The right way to renew a city

When the Minneapolis metro region went to build a light rail line connecting downtown Minneapolis and St. Paul, the initial reaction was not good. Several community groups from lower-income neighborhoods along the proposed route opposed the project. They'd been scarred from a previous highway project that cut right through the neighborhood, dividing homes from the retail district and resulting in hundreds of evictions. They were afraid the new rail line would do the same.

Yet many of the train's supporters wanted to run the line through the neighborhood. They saw it as not only a tool to move people but also one to drive economic development. The 11-mile, billion dollar Green



Courtesy: Michael Hicks/Flickr





3:53

+ [QUEUE](#)

[DOWNLOAD](#)

[EMBED](#)



NATIONAL

'Talent Wants Transit': Companies Near Transportation Gaining The Upper Hand

November 29, 2018 · 9:16 AM ET



DAVID SCHAPER



[SIGN IN](#)[SHOP](#)[DONATE](#)[NEWS](#)[ARTS & LIFE](#)[MUSIC](#)[SHOWS & PODCASTS](#)[SEARCH](#)

SCHAPER: The council's research shows that more than half of the jobs created in the Chicago area now are located within a half-mile of public transportation stops. Other studies show similar economic development patterns in downtown areas all across the country, with job growth greatest in the areas that are well-served by transit. And Wennink says it appears that mass transit also fosters economic resiliency.

¹ SCHAPER: Chicago isn't the only region experiencing this kind of business boom.

² From Seattle to St. Louis and Minneapolis to Atlanta, companies are relocating to be near transit lines. But Kirk Dillard, who heads Chicago's Regional Transportation Authority, says many of the nation's aging transit systems are in desperate need of upgrades.

[Transcript](#)

Transit



Street



Design



Guide



National Association of City Transportation Officials



**Better Streets,
Better Service**



**Transit Creates
Urban Places**



**A Mobility
Service for the
Whole City**



**Growth
Without
Congestion**



**Safe
Movement at a
Large Scale**

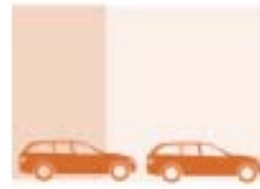


**Permanent
Economic
Benefits**

DEPARTMENT OF



TRANSPORTATION



PRIVATE MOTOR VEHICLES
600–1,600/HR



MIXED TRAFFIC WITH FREQUENT BUSES
1,000–2,800/HR



TWO-WAY PROTECTED BIKEWAY
7,500/HR



DEDICATED TRANSIT LANES
4,000–8,000/HR



SIDEWALK
9,000/HR



ON-STREET TRANSITWAY, BUS OR RAIL
10,000–25,000/HR

**Transit Provides
the Opportunity
for More
Throughput**

1 Bus ~ 40 cars

The capacity of a single 10-foot lane (or equivalent width) by mode at peak conditions with normal operations.

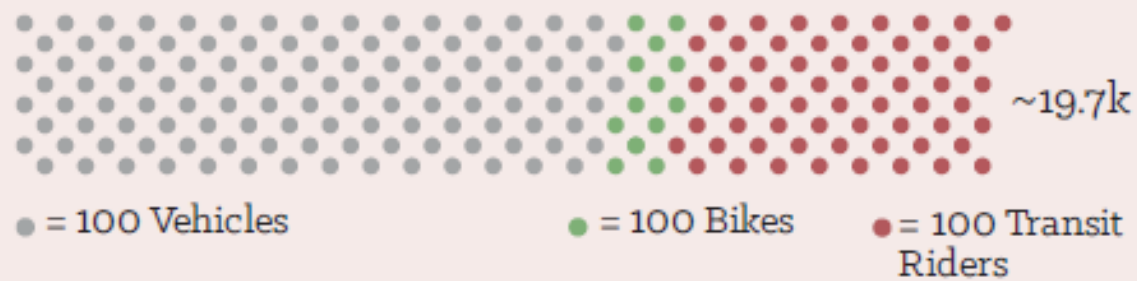
DEXTER AVENUE N, SEATTLE

Average Daily Person Throughput

A project on Dexter Avenue N reduced the street from four general travel lanes to two, and added buffered bike lanes and in-lane stops for buses. In spite of the lane reduction, total person throughput increased 14% following the project without growing travel times.¹



Before:



After:



+14%
Total Person Throughput

Source: Seattle Department of Transportation and King County Metro

DEPARTMENT OF



TRANSPORTATION

A DIFFERENT PATH

38 Buses

Capacity of 1500 people per hour

Our inbound buses carry the same amount as 1 ½ lanes on East Washington

Capacity

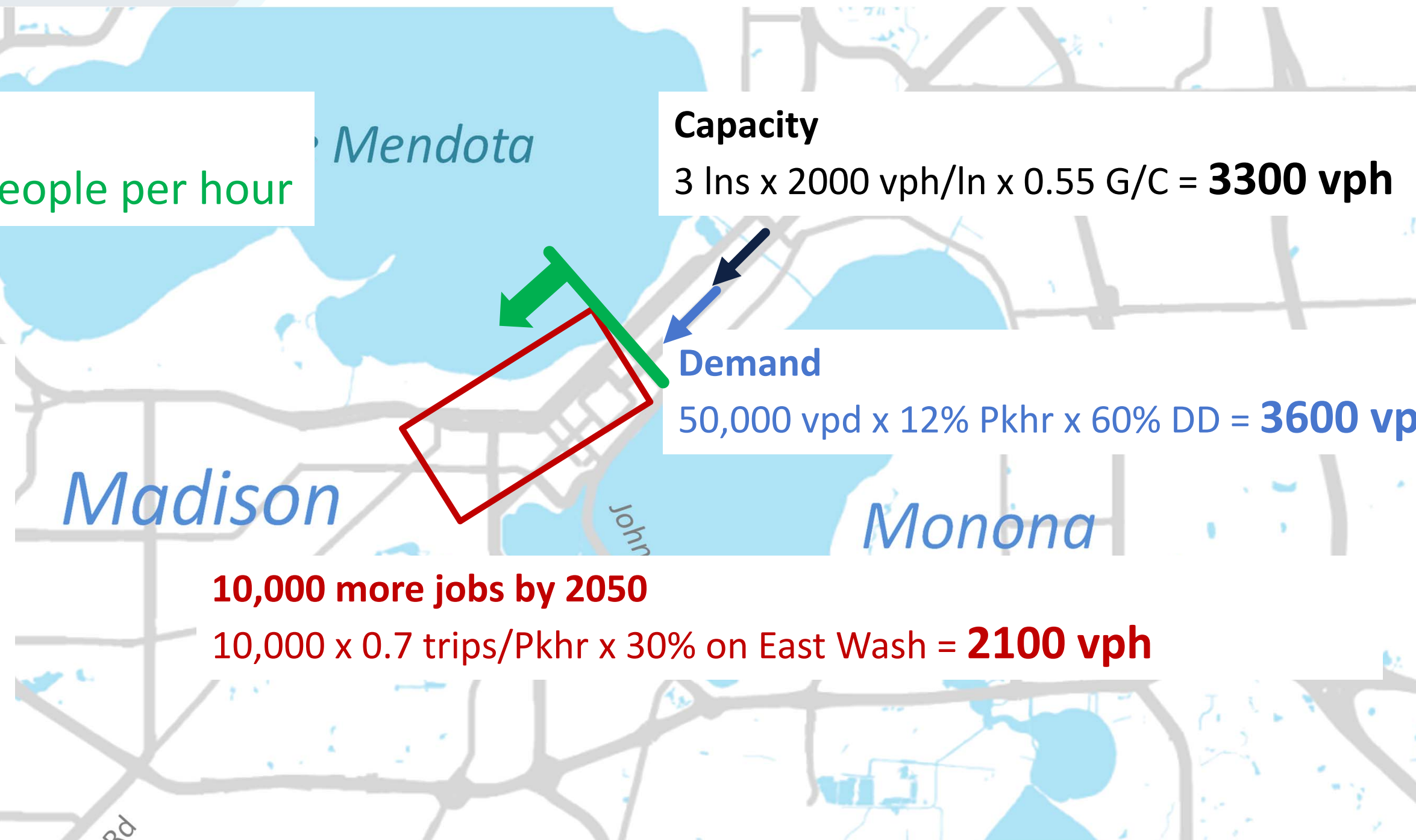
3 lns x 2000 vph/ln x 0.55 G/C = **3300 vph**

Demand

50,000 vpd x 12% Pkhr x 60% DD = **3600 vph**

10,000 more jobs by 2050

10,000 x 0.7 trips/Pkhr x 30% on East Wash = **2100 vph**



2100 MORE PEAK HOUR TRIPS ON EAST WASHINGTON

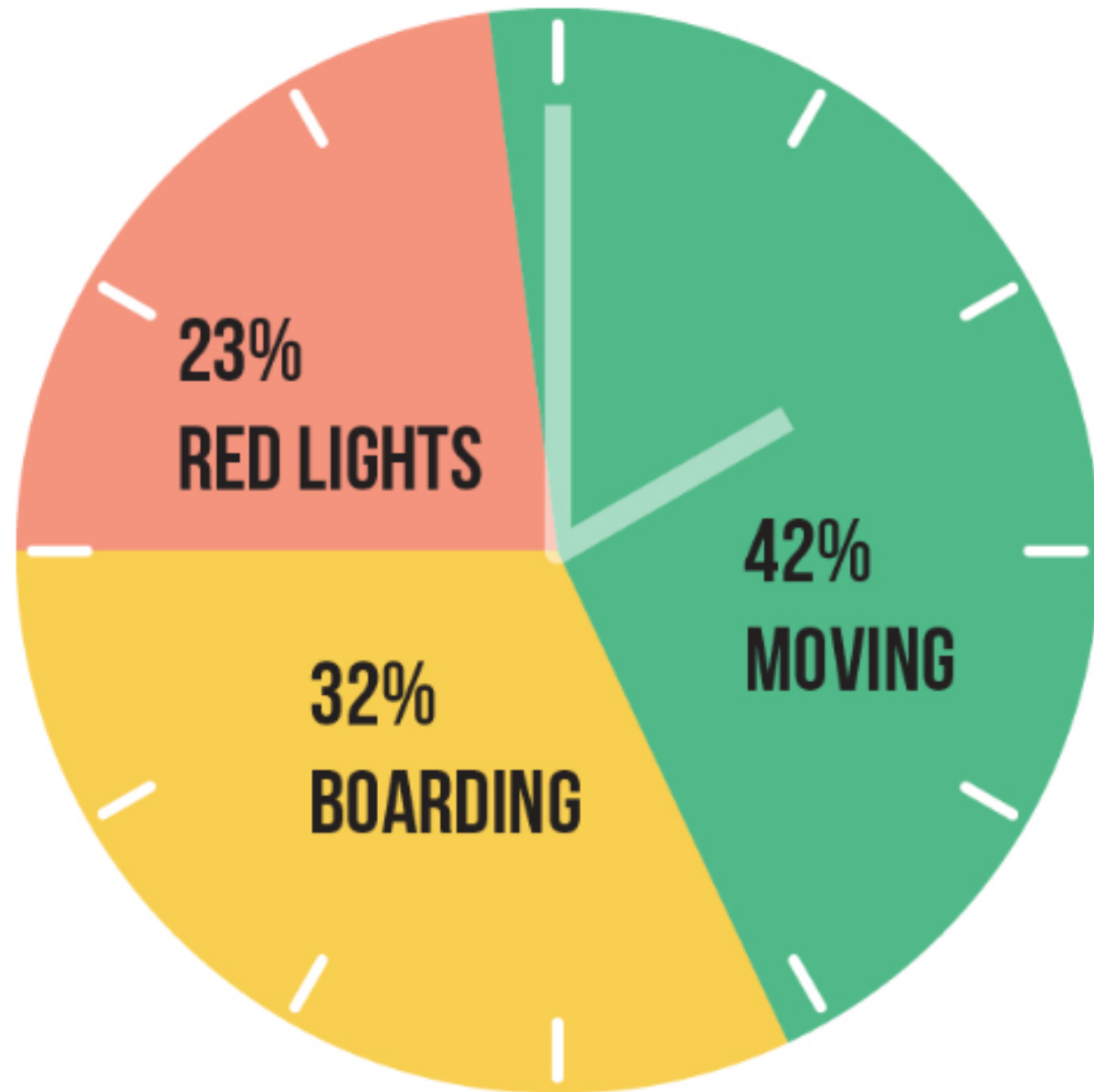
- 2 extra inbound lanes at 1100 vph per lane
(2000 vph x 0.55 g/c ratio)

- 35 long buses (60 person)

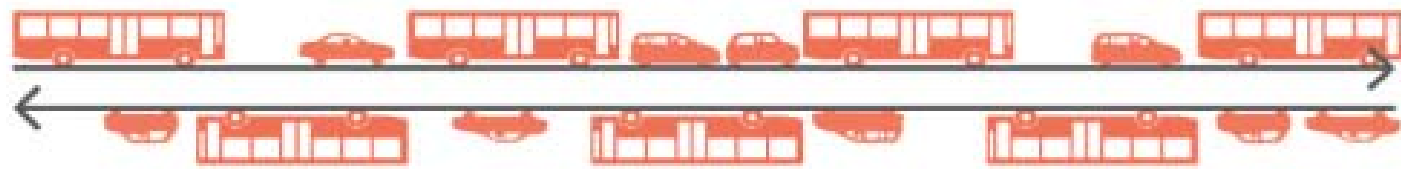
A bus every 1 minute and 40 seconds

Which is more realistic?

How Transit Experiences Delay



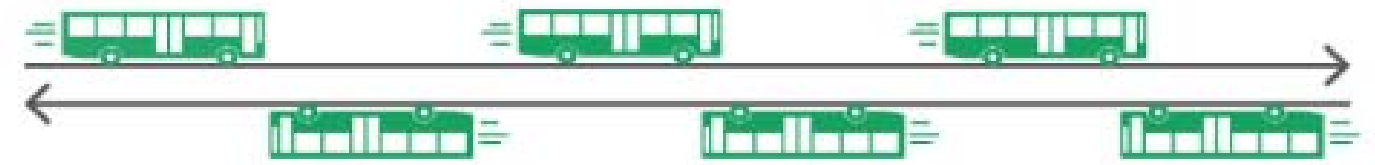
Minneapolis, MN: In the Twin Cities, the transit agency estimates that the majority of transit runtimes on a major corridor are when transit vehicles are not moving. (Source: Metro Transit).



70 MINUTES ROUND TRIP
10 MINUTE HEADWAYS



7 BUSES
NEEDED
FOR ROUTE



10 MINUTES
TIME SAVINGS

60 MINUTES
ROUND TRIP



1 LESS BUS
NEEDED
FOR ROUTE

OR

SHORTER
8.5 MINUTE
HEADWAYS

Example of operational savings from transit improvements.

14% reduction in resources
\$6-\$8 million dollars in Metro's budget

DEPARTMENT OF



TRANSPORTATION

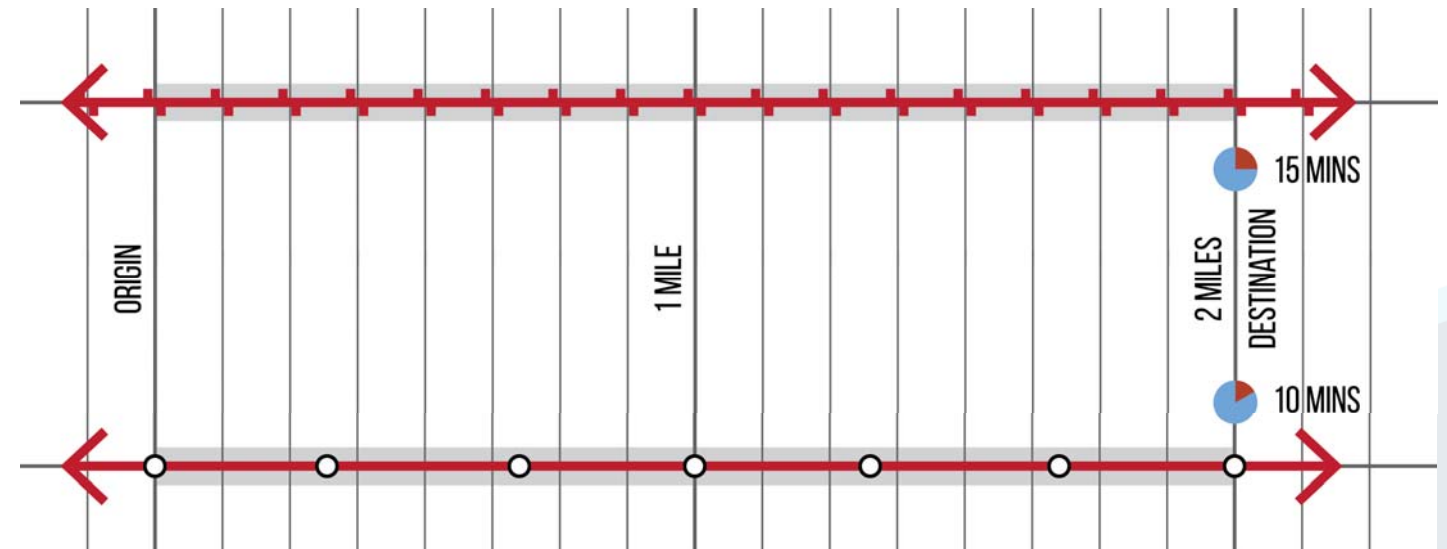
WAYS TO MAKE TRANSIT A PRIORITY

Exotic



Dedicated running ways
Queue Jumps

Ordinary



Stop consolidation

DEPARTMENT OF



TRANSPORTATION

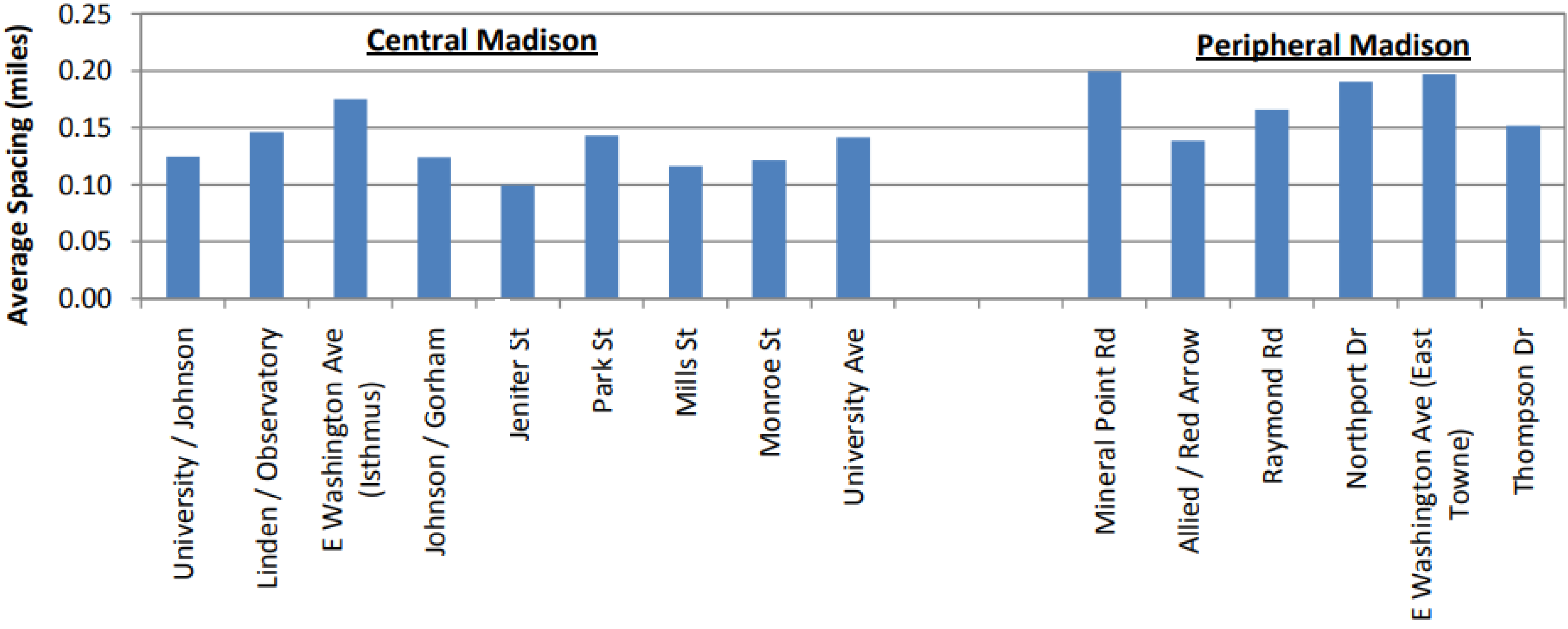
TransitCenter

presents



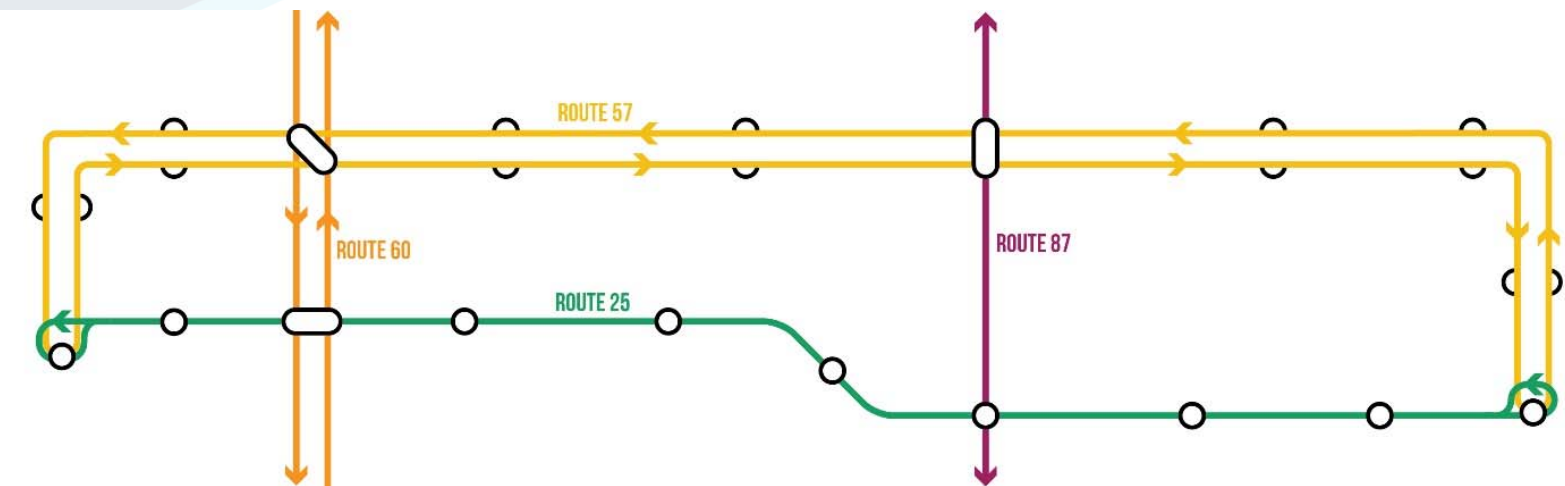
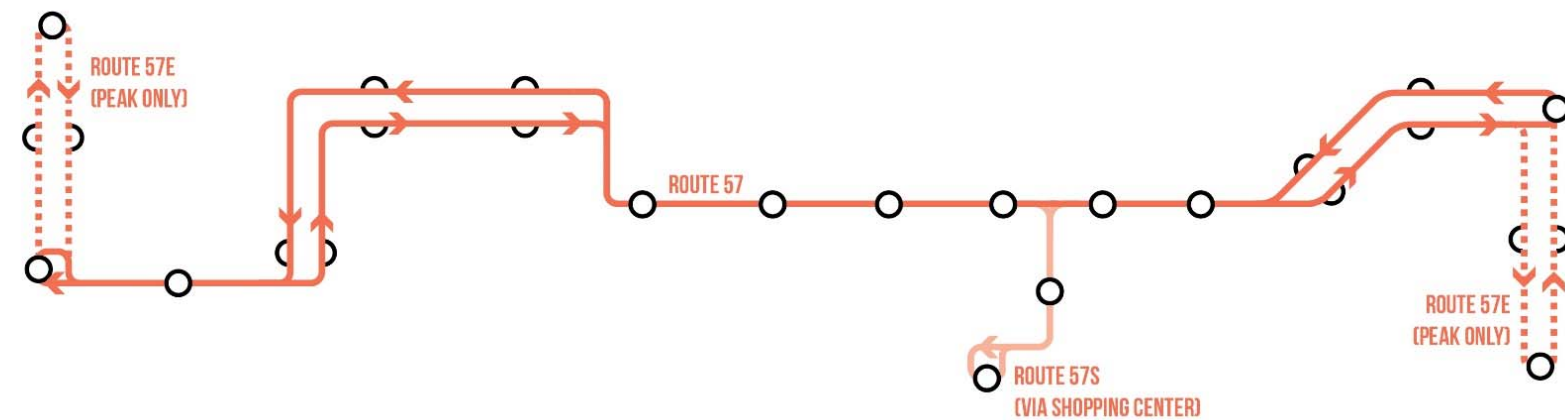
<https://vimeo.com/240382367>

Average Bus Stop Spacing



2013-2017 Transit Development Plan

ROUTE SIMPLIFICATION



Direct, simple routes are easy to use, and save time compared with circuitous routes. Transit routes that have evolved in a piecemeal fashion over decades can be simplified to create more frequent and direct service.

Generally, longer walk distance with more frequency is preferred over shorter distance with less frequency

DEPARTMENT OF



TRANSPORTATION