

Is the Bus the Solution to the 15-minute City?



Hyeonjin Kim
Ahasan Bhuiyan
Supervisor: Dr. Meg Holden

Background



Vancouver City Council endorses prioritizing Hastings Street rapid transit

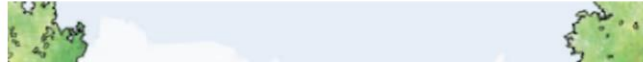
Kenneth Chan | Oct 4 2023, 3:12 pm



NEWS POLITICS TRANSPORTATION CITY HALL URBANIZED

New bus lanes with automated enforcement to be debated by Vancouver City Council

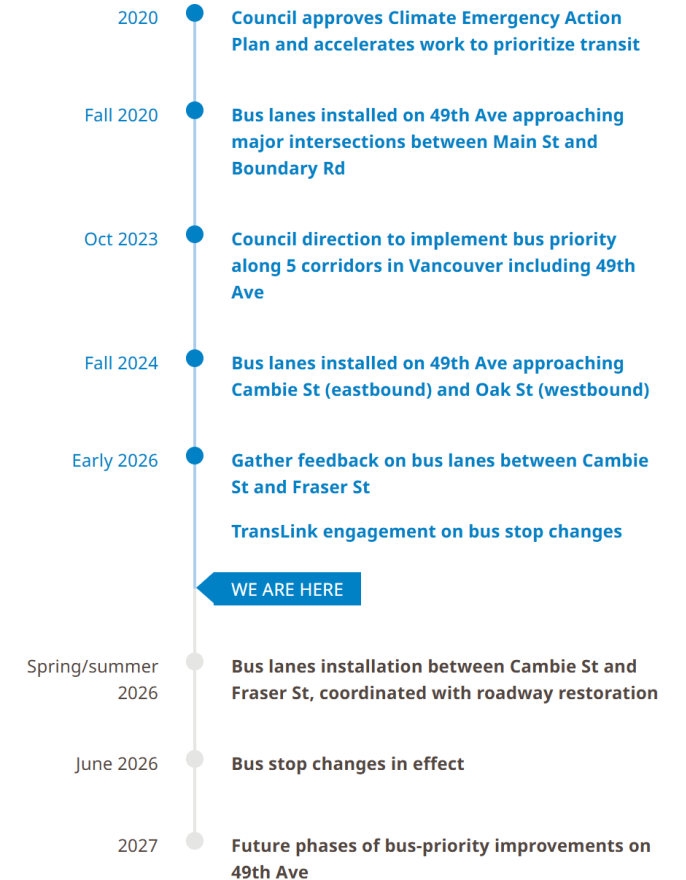
Kenneth Chan | Jul 17 2024, 9:51 pm



49 AVE TO UBC

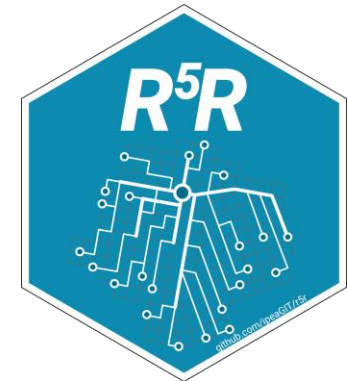
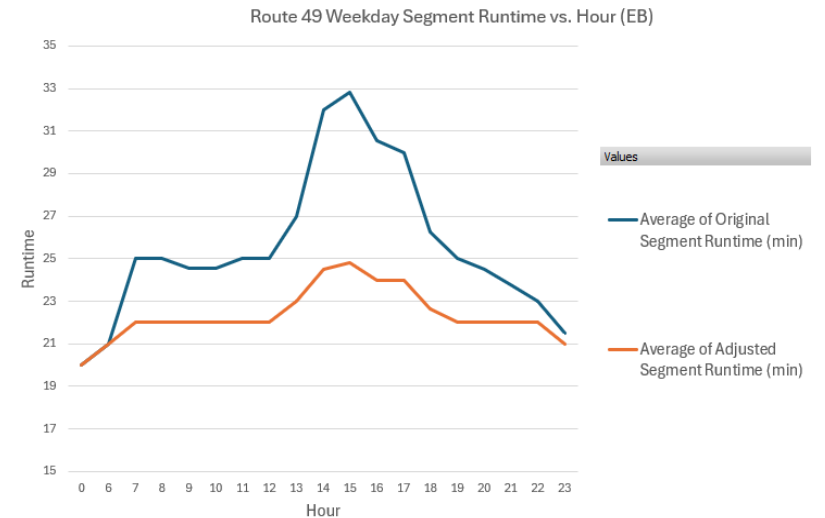


49th Avenue project timeline



Methodology

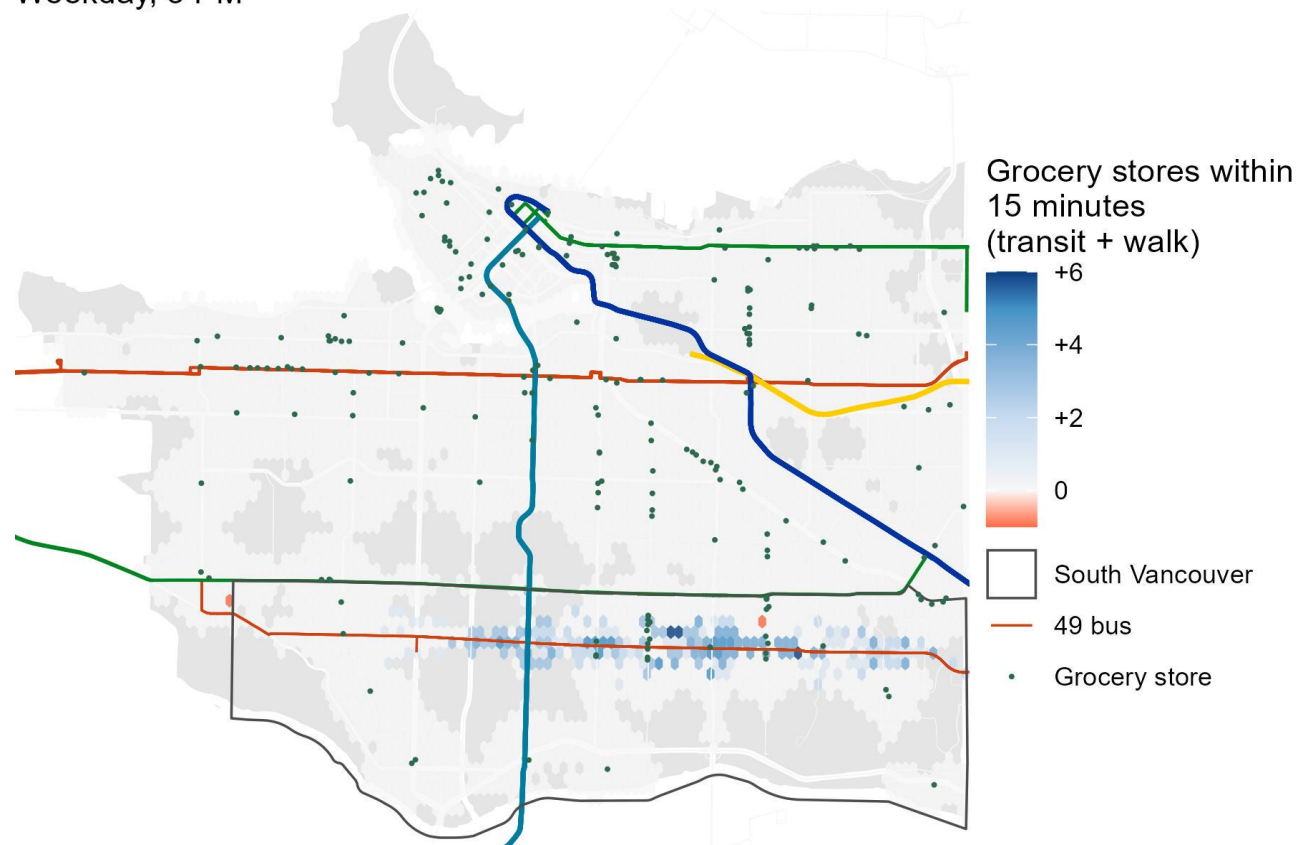
- Defining social infrastructure of interest
 - Grocery stores
 - Health facilities
 - Rapid transit stations
 - Community centres
 - Education facilities
 - Religious institutions
 - Childcare
 - Public spaces, parks, green spaces
- Creating a modified transit schedule (GTFS feed) simulating bus priority measures on 49th Ave (Boundary Rd to Oak St)
- Running R5R to calculate the change in accessibility to social infrastructure



Results

- With a faster 49 bus:
 - **20,835** people gained access to an increased number of grocery stores within a 15-minute trip
 - **1,480** people who previously had no grocery stores accessible in 15 minutes now have at least one

Change in Access to Grocery Stores with Bus Priority on 49th Ave
Weekday, 3 PM



Future Research Direction

- **Population Analysis**
 - Analyze demographic variables
- **Social Infrastructure Accessibility Mapping through Community Engagement - Community Engaged Verification on Data**
 - Community-informed services
 - Develop indicator systems on measuring the level of services of social infrastructures in SV
- **Network Mapping - Crayoning**
 - Community-engaged bus network redesign

Deliverables:

Workshops

- Informing residents role of different agencies and stakeholders in Transit space
- Where residents can make an impact

South Van Transit Future™

- Priorities
- Community Action List / Advocacy Tool Kit
 - Propose bus routes

Publish *Is the Bus the Solution to the 15-minute City?*