Micro-Mobility in Nashville

Using Scooter Data to Improve Overall Transportation Planning

My role

- Active Transportation Planner
  - Lead capital bikeway projects around Davidson County
  - Lead transportation policy around active mobility and smart cities
  - Coordinate on strategic and master planning work around active mobility
  - Starting to lead more work around how we manage curb space

Background

Planning background

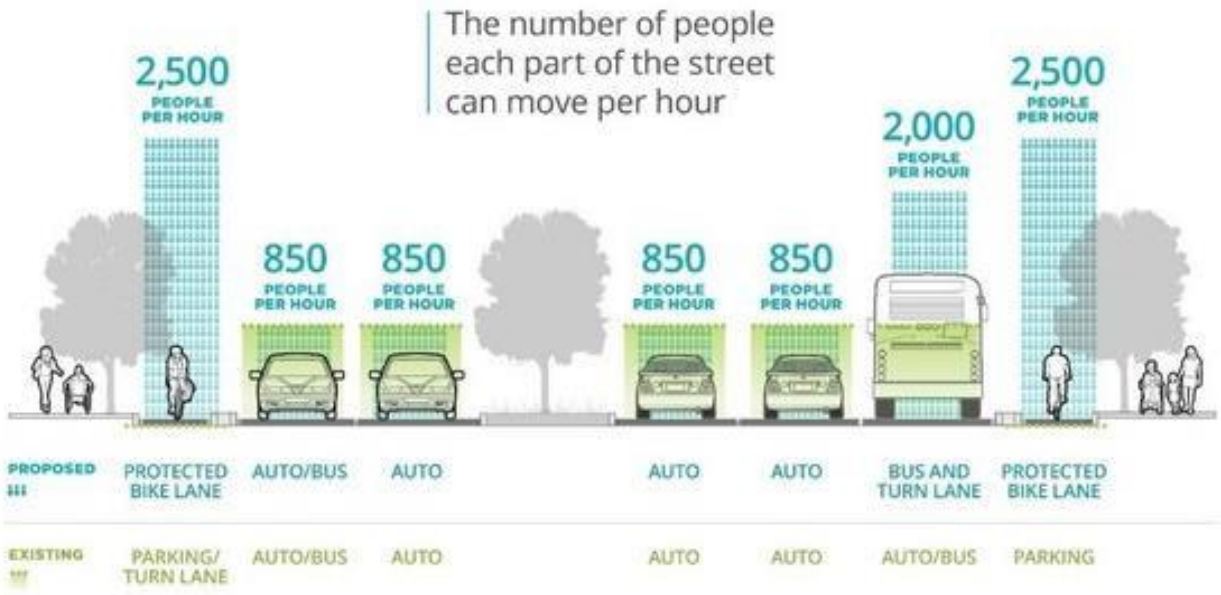
Land use & infrastructure

nashvillenext

2015 motion

walknbike

Safer, more efficient streets designed for people



Graphic Source: Portland Bureau of Transportation

Scooters (SUMDs in Nashville)

Definitions:

- *Micromobility – National catchall for devices smaller than a car*
  - *May be shared or privately owned*
- *SUMD Shared Urban Mobility Device – Nashville-specific legal definition*
  - *Same as Class II Electric Bikes per TN State Code*
  - *Not a bike, but not quite a Vespa*

- How scooters got here

- Connecting policies to goals and asking the right questions

How scooters got here

- May 2018
  - Bird dropped hundreds of scooters on streets with no permission
  - Metro sued, and after a couple tries, Bird agreed to remove and wait for permit
- May – October 2018
  - I led a team to create definitions and regulations for SUMDs (shared urban mobility devices)
- October 2018
  - Metro Council passed legislation enacting a one-year pilot program for SUMDs
- July 2019
  - Metro Council passed legislation terminating the SUMD pilot and directing staff to develop an RFP that will allow up to 3 companies with new regulations
- November 2019
  - Our deadline to have signed contracts with SUMD companies, to be approved by Council

Planning for—not just reacting to—scooters

- Challenges
  - Scooters riding and parking where they shouldn’t be
  - Perception that scooters are just “toys for tourists”
  - People on scooters are scofflaws who don’t care about rules

- My role is to make sure we’re asking the right questions
  - What role does infrastructure have on design?
  - How do we baseline things like safety and usefulness, and avoid making capricious decisions based on anecdotal evidence?

Scooter Data

Don’t want “data for the sake of data”

Progression of data standards

- GFTS – General Transit Feed Specification (2005)
  - Used by transit agencies and docked bikeshare
- SUMD – Shared Urban Mobility Device (2018)
  - Custom API developed my Metro ITS to support our pilot program
- MDS – Mobility Data Specification (2018)
  - Data standard developed by LADOT for scooters; now also being piloted for a future of connected and automated vehicles and infrastructure

Data types

- Stationary
  - Historic
  - Real-time
- Trip-level
  - Historic
  - Real-time

Scooter Data Question for this Group

Data types

- Stationary
  - Historic
  - Real-time
- Trip-level
  - Historic
  - Real-time

Major planning question for scooters

- What is the ideal density of available scooters to:
  - enable scooters to serve our transportation goals,
  - discourage scooters piling up on sidewalks,
  - keep it economically viable for companies to operate equitably in the city?

Major planning question for scooters

- What is the ideal density of available scooters to:
  - Enable scooters to serve our transportation goals,
  - Mitigate scooters piling up on sidewalks,
  - Keep it economically viable for companies to operate equitably in the city?

- Major planning goal to reduce the number of people driving alone
- 3 rides per day per scooter is our baseline for ridership goals
- Original pilot program limited scooter density to 340 scooters per square mile
- Other cities have limited the number of scooters per block face

Looking backward:

- There has always been a steady fear of new modes of transportation
  - Trains: https://www.atlasobscura.com/articles/railway-madness-victorian-trains
  - Bicycles: https://www.theatlantic.com/technology/archive/2014/06/the-technology-craze-of-the-1890s-that-forever-changed-womens-rights/373535/
  - Subways: https://historyofmassachusetts.org/boston-first-subway-america/
  - Cars: https://timeline.com/forget-self-driving-car-anxiety-in-the-early-days-human-drivers-were-the-fear-55a770262c10

Looking forward:

- 84 million micro-mobility trips in the US last year (38.5 million on scooters)

- Vehicles may change, but micro-mobility is here to stay: https://www.govtech.com/fs/transportation/Micro-Mobility-Is-Here-to-Stay-Cities-Should-Act-Accordingly.html

Additional Resources

- Original Nashville SUMD pilot program: https://www.nashville.gov/Metro-Clerk/Legislative/Ordinances/Details/7d2cf076-b12c-4645-a118-b530577c5ee8/2015-2019/BL2018-1202.aspx

- Recent Council action on SUMDs: https://www.nashville.gov/Metro-Clerk/Legislative/Ordinances/Details/051ae176-1aee-4adc-9a19-4c20e4ec6fd8/2015-2019/BL2019-1658.aspx

- National statistics on bike share (including scooters) in 2018: https://nacto.org/shared-micromobility-2018/

- LADOT MDS specifications: https://github.com/CityOfLosAngeles/mobility-data-specification

Questions?

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