

Vision Zero and Speed Management in Portland Oregon

January 17, 2024



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Centering people ❤️



Presentation outline

- **Vision Zero in Portland**
- Speed management approaches
- Speed management on arterial streets

Zero is the goal.
A **Safe System** is how we get there.



Portland's Vision Zero work is grounded in **racial equity**

Process

We build relationships with affected communities and use data to invest where the need is highest

Outcomes

We work to make these communities safer



Portland's Vision Zero work is data-driven

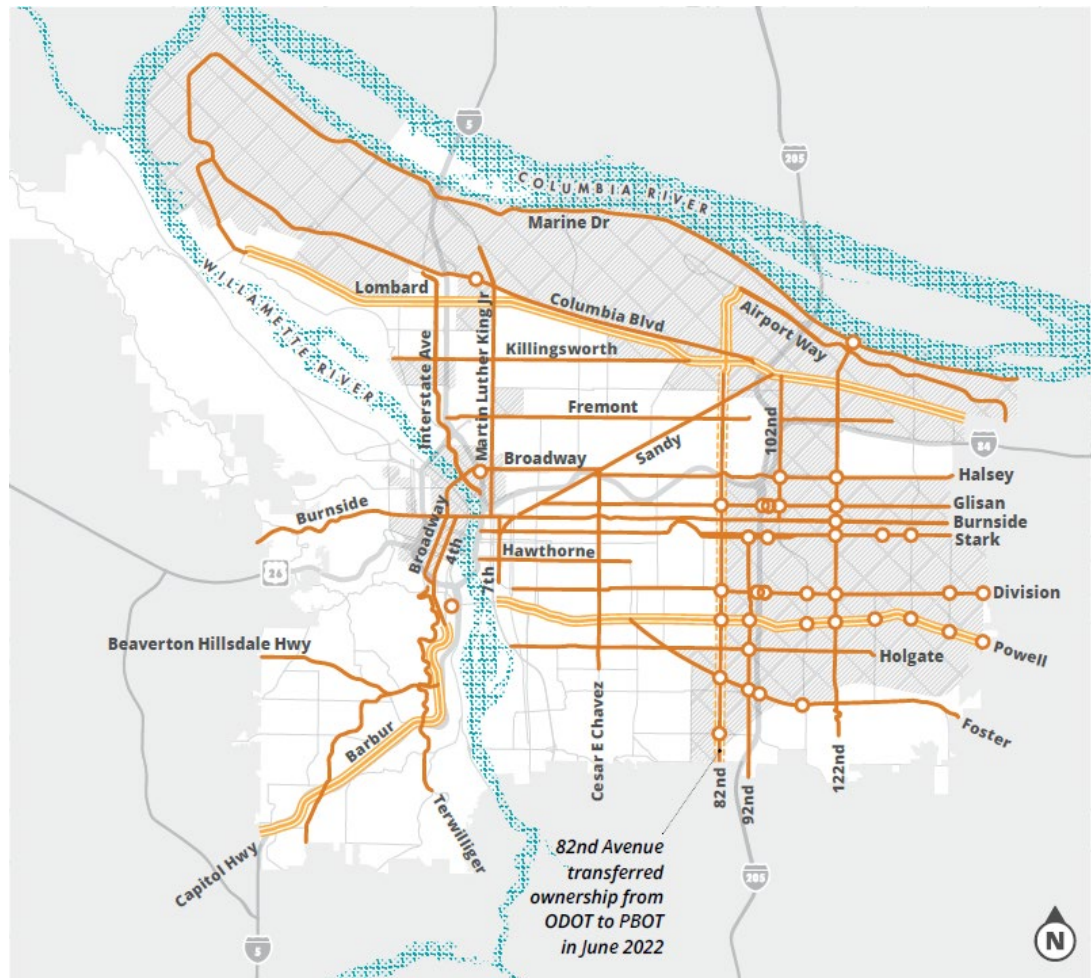
Crash data +
Equity data

62%

of traffic deaths are on

8%

of streets in Portland



Presentation outline

- Vision Zero in Portland
- **Speed management approaches**
- Speed management on arterial streets

Speed management approaches

- Street design
- Speed limit reductions
- Speed safety cameras
- Education



Crash data and speeds

- Speed plays a role in at least 42% of deadly traffic crashes
- Wide streets are faster and more deadly
 - In 2023, 52 out of 69 total traffic deaths occurred on streets with more than two travel lanes
- Excessive speeds are prevalent late at night (about 10pm to 6am)
 - In 2023, of 32 deadly crashes late at night, 20 to 29 involved high speeds

Street Design

Big changes

Lane reductions: 72% top-end speed reduction



Small adjustments

Left-turn calming: 13% slower turning speeds



Signal management

Green wave: 13 mph speeds downtown;
Rest-in-red is promising



Speed limit reductions

- Goal: 20 or 25 mph on most streets; Higher than 35 mph rare exception
- In 2018, 25 → 20 mph on all residential streets (76% of streets)
- Continually seek Oregon DOT permission to reduce speed limits on higher speed streets



Speed-safety cameras

94% reduction in top-end speeding

- Average % reduction at Portland's 8 speed safety camera locations

22 active cameras

- 18 additional in 2024



Education



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- **Speed management on arterial streets**

Street design influences behavior



- Each modal space is defined
- Space provided for auto left turns
- Crossing movements controlled
- Predictability = Safety
- Design elements = Slower speeds



Multi-lane arterial design strategies

- Systemically evaluate multi-lane roadways citywide
- Create a culture of “right sizing” roads on capital projects
- Convert 4-lane roadways to 3-lane roadways to realize the significant crash reduction (Portland averages 29% reduction) and slow speeds
- Convert 5-lane roadways to 3-lane roadways to slow speeds and provide space for people walking and rolling
- Add protection for people walking and rolling, which adds friction and slows drivers
- Use signals to slow speeds

Road reorganization

4-lane to 3-lane

Street design can exacerbate user mistakes



Road reorganization

4-lane to 3-lane

75%

reduction
top-end
speeding

Street design can
protect users when
mistakes and
violations occur



SE Division Street at 67th Avenue, 2022

Road reorganization

5-lane to 3-lane



Road reorganization

5-lane to 3-lane

69%

reduction
top-end
speeding



NE 102nd Avenue at Shaver Street, 2021

Road reorganization

2-lanes, added protected bike lanes and crossings



NE Halsey Street at 106th Avenue, 2009

Road reorganization

2-lanes, added protected bike lanes and crossings

Pending
speed
data
collection



Road reorganization

5-lane to 4-lane, center median and protected bike lanes

West-end:

21%

decrease
top-end
speeding

East-end:

27%

increase
top-end
speeding



Increased speed = No reduction in travel lanes + more than 20% reduced volumes post-Covid + fewer conflict points

Signal management

Green wave

13mph
downtown
speeds



SW Broadway at Taylor Street, 2023

Signal management

Rest-in-red



NE Lloyd Boulevard and 9th Avenue, 2023

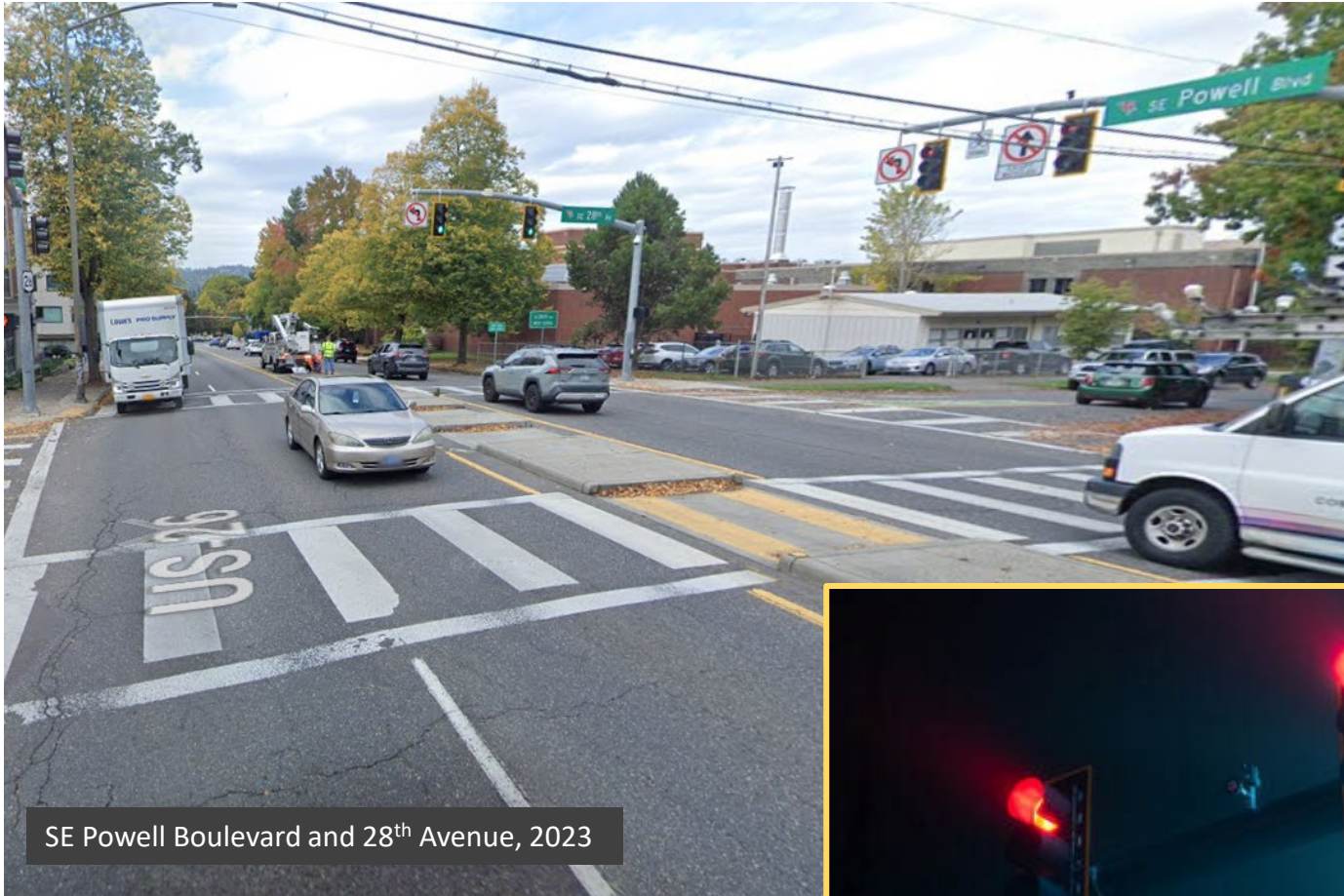
Signal management

Rest-in-red in action!



Signal management

Rest-in-red



SE Powell Boulevard and 28th Avenue, 2023

