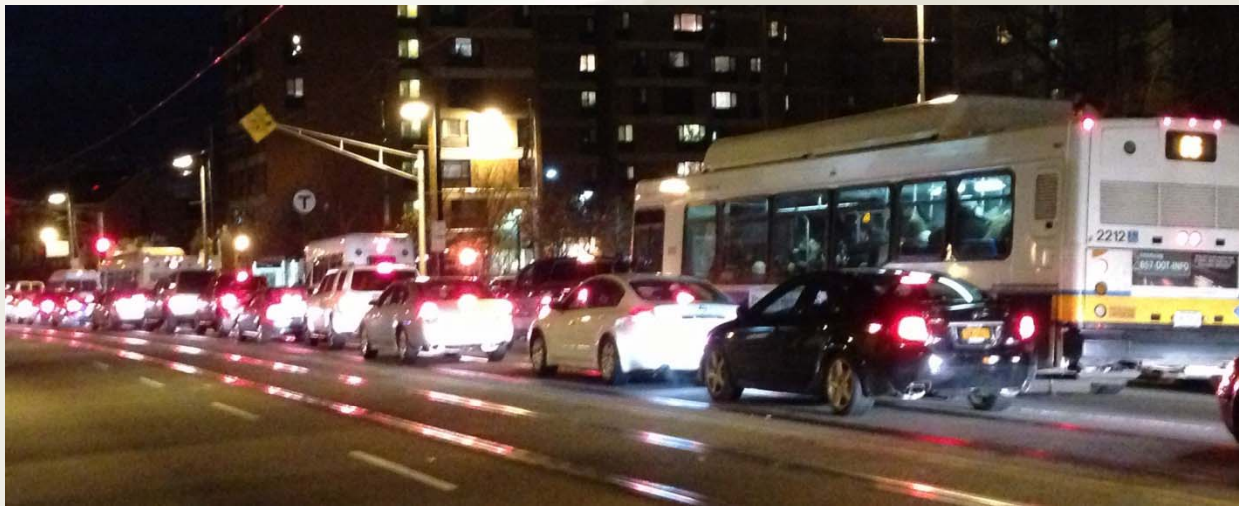


Turning Huntington Ave Right-Side Up: Transit Lanes and Safety Improvements

Peter Furth
Chaoqun (Charlie) Guo



No Platforms; streetcars stop in the middle of the street!



(in contrast to) Toronto

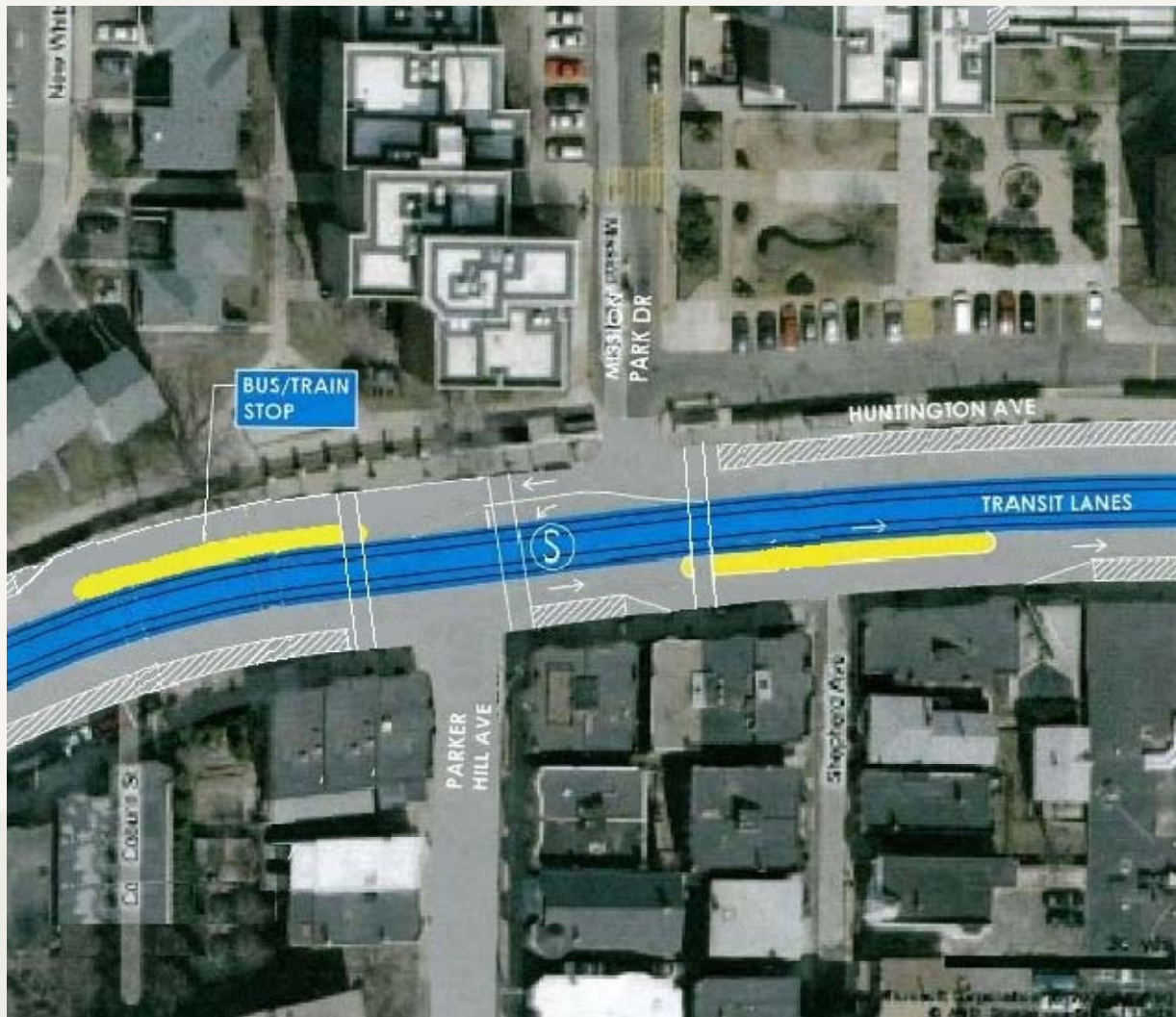
3% of the vehicles carry 70% of the people

| | | People per vehicle | Vehicles per hour | People per Hour | Total people | |
|----------------|-------------------|--------------------|-------------------|-----------------|--------------|-------------|
| Auto | Auto | 1.15 | 864 | 994 | 994 | 30 % |
| Transit | Bus 66 | 30 | 6.7 | 200 | 2300 | 70% |
| | Bus 39 | 50 | 10 | 500 | | |
| | Green Line | 160 | 10 | 1600 | | |

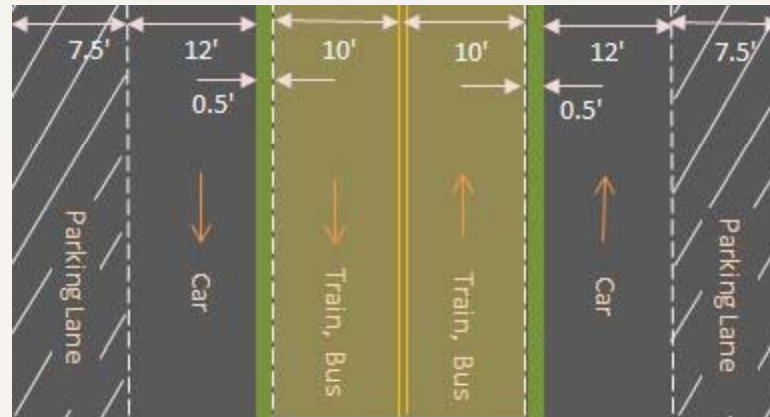
... so doesn't it make sense to give priority to the 70%?

Simulation of Existing Conditions, pm peak (VISSIM)

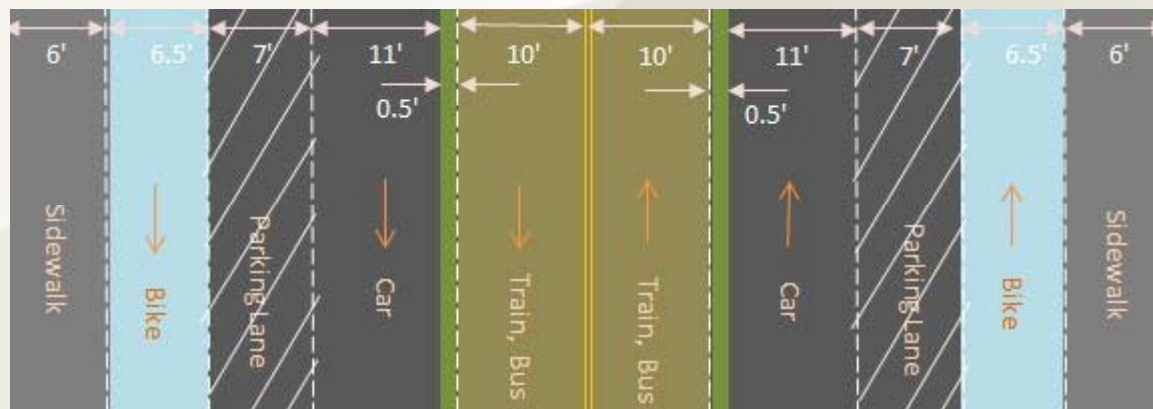
Proposed Design



For bike safety, we can shift the curbs and build cycle tracks



Option A: No change in curb, no bike accommodation



Option B: Cycle tracks possible by shifting curbs

Traffic Delay Impacts (minutes)

Simulation of Proposed Design, pm peak (VISSIM)

| | Outbound | | | Inbound | | |
|----------|----------|--------------|-----|---------|-------|-----|
| | Bus | Train | Car | Bus | Train | Car |
| Existing | 6.3 | 7.7 | 7.0 | 1.2 | 2.2 | 1.4 |
| New | 1.5 | 1.8 | 2.1 | 0.5 | 1.0 | 1.2 |

- Peak direction buses & trains save 4 to 6 minutes!

Savings to Transit Would Justify a Large Project Cost

| | Annual Savings | Net Present Value* |
|--|-----------------------|---------------------------|
| Operating Cost Savings only | \$800,000 | \$20 M |
| Operating Cost Savings + value of passengers' time | \$4,200,000 | \$100 M |

* Assumes a discount rate of 4%. The savings to transit alone will justify a project cost this great.

Auto Capacity Reduction is Only 20%

This is a shift the transportation system can absorb. People can

- Shift trip time (avoid the peak)
- Change their route (use the Mass Pike)
- Shift mode to a much improved transit or bicycling system

Impact Summary

| | |
|---------------------------|--|
| Transit | HUGE operating cost savings and passenger travel time savings |
| Traffic | Small, appropriate loss |
| Resident parking | Lose 20 spaces, mainly for platforms |
| Pedestrians | MUCH SAFER due to platforms Accessible for people with disabilities |
| Bikes | SAFE cycle tracks possible |
| Emergency response | MUCH better |

Let's turn this street right side up!