



Designing Complete Streets

- Making room for Complete Streets
- Rethinking the role of Streets



Do we have to widen roads to fit everything?



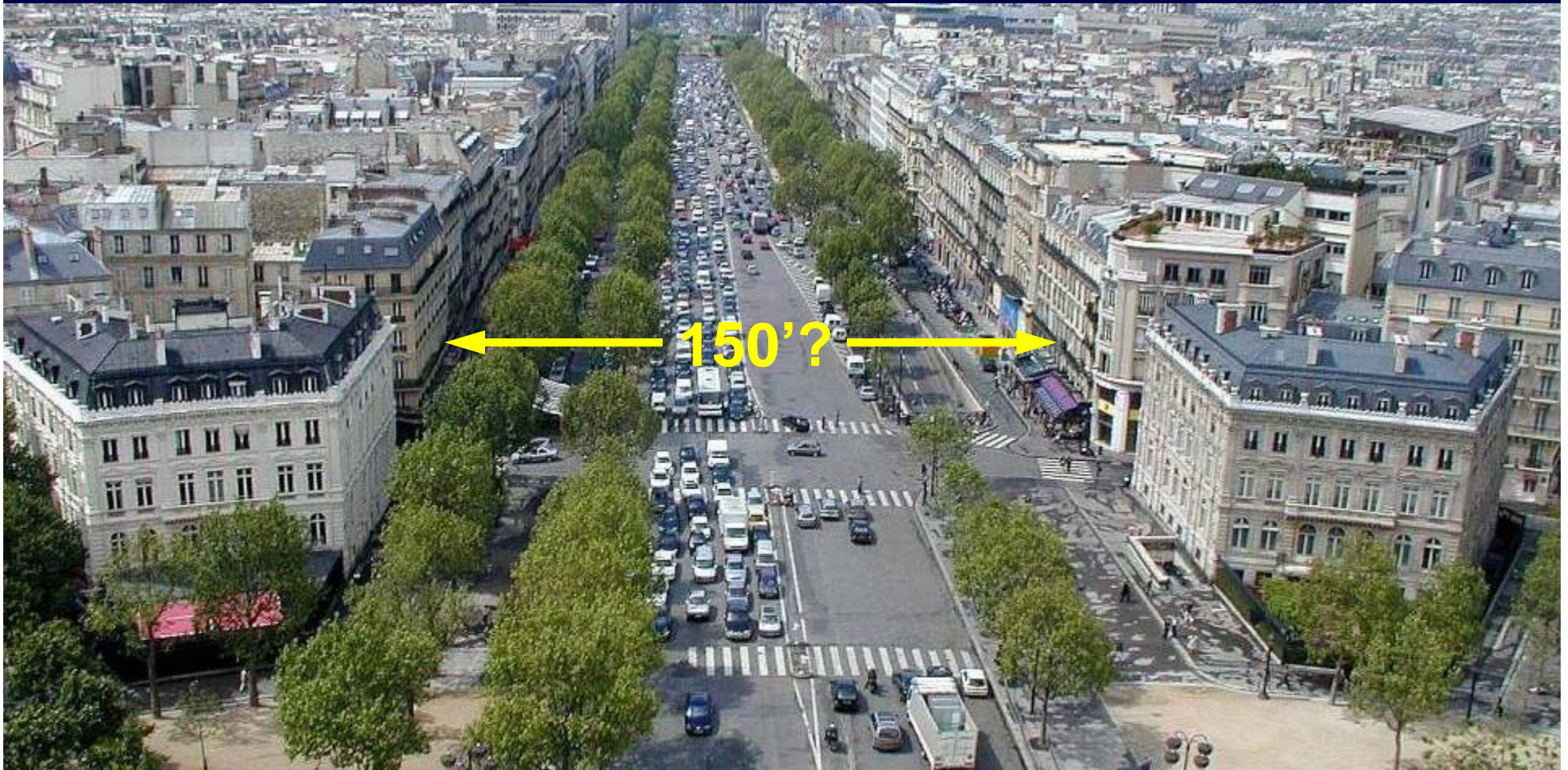
There's room; it needs to be recaptured



Does it fit within the available right-of-way?



Does it fit within the available right-of-way?



**Don't ask "How much ROW do we have?" but
"What do we want, and how do we design it?"**



Conventional design – from the inside out



**Add up (wide) travel lane, run out of ROW
Result: one narrow curbside sidewalk**

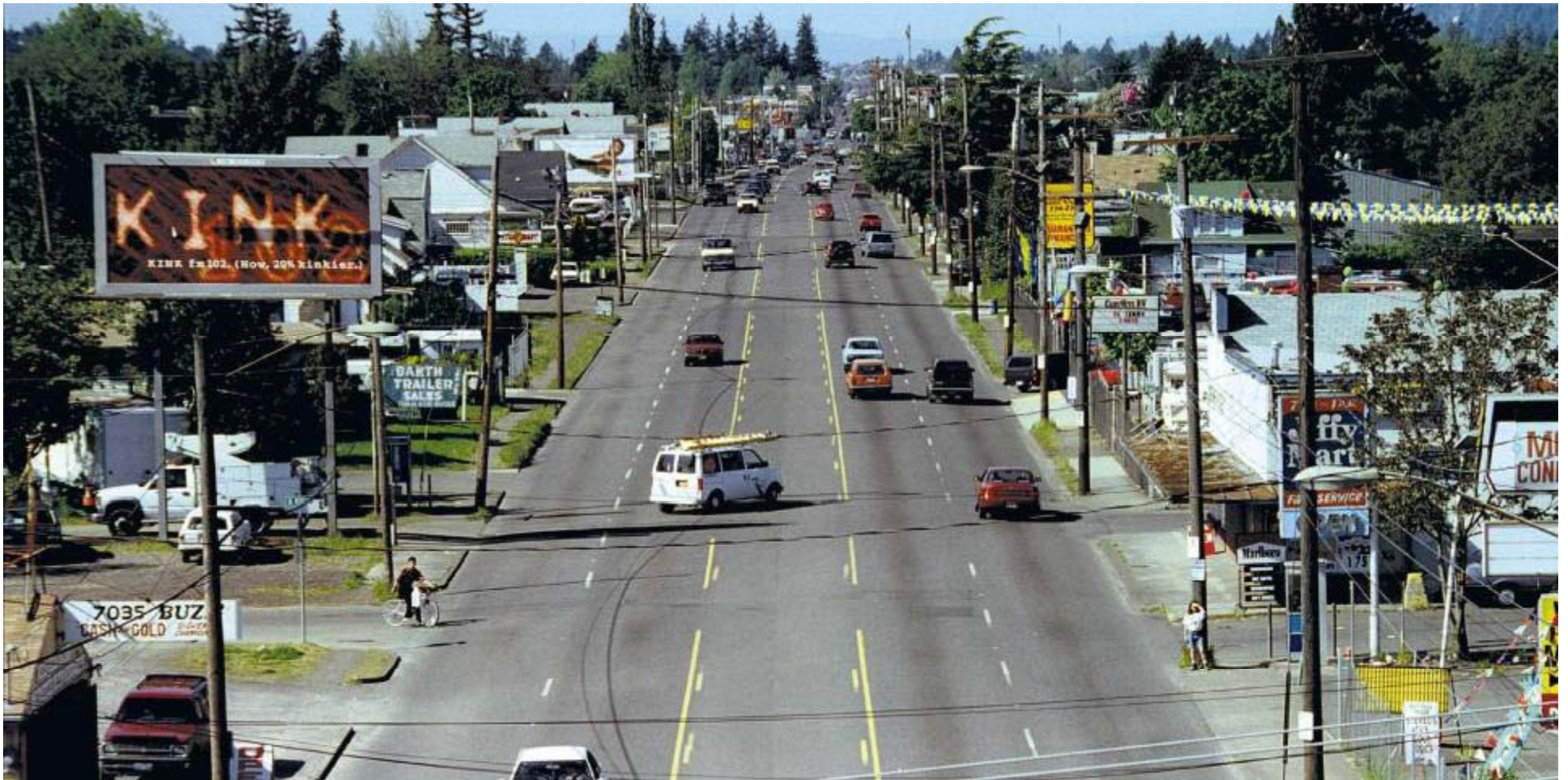


Proposed design – from the outside in



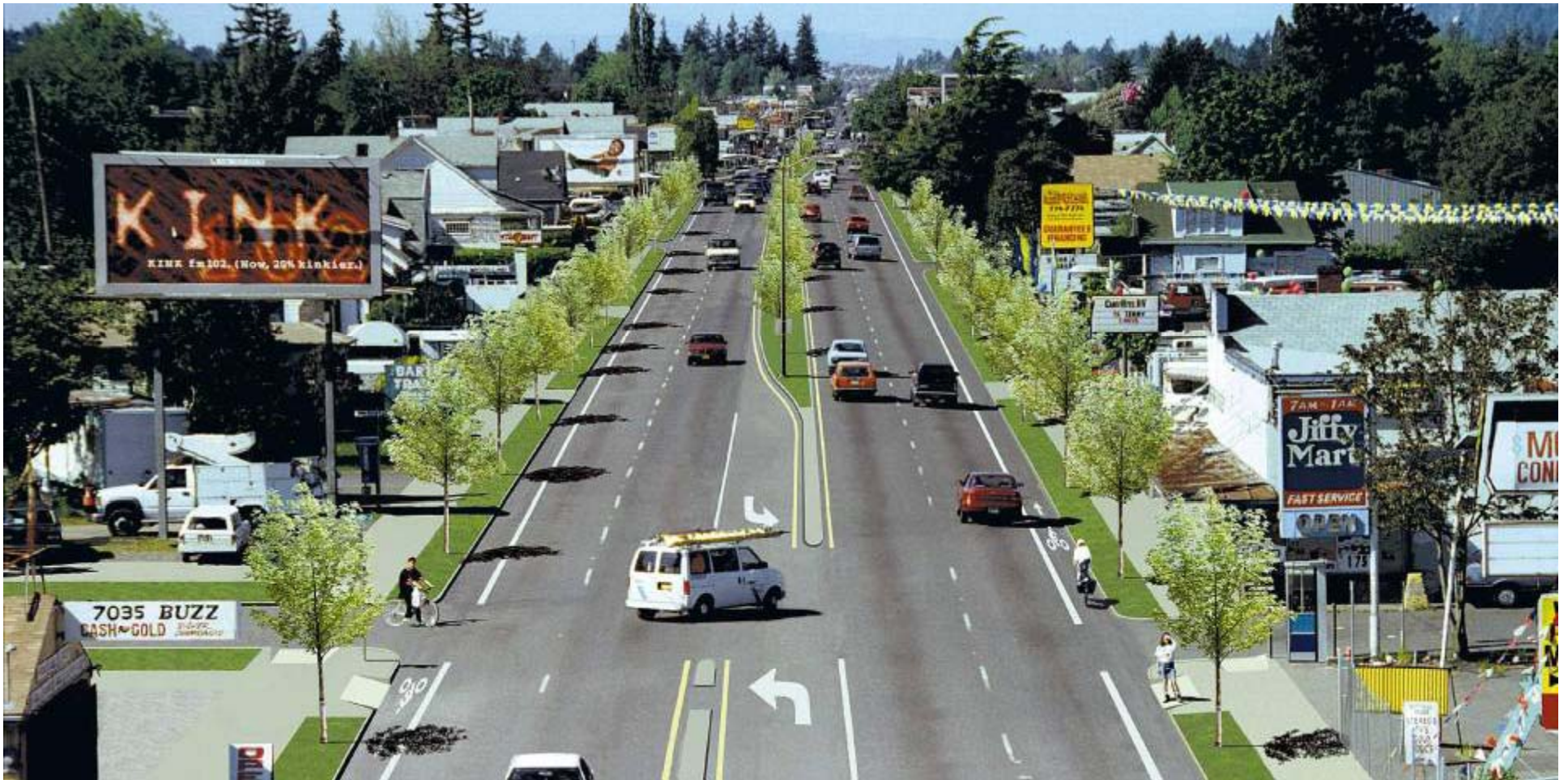
**Add up desirable elements, fit in ROW; result:
nice sidewalks, bike lanes, adequate travel lanes**





**Reinventing a roadway:
Transform a 5-lane commercial strip to ...**





...a safer road for everyone, without adding r.o.w.

How? Narrow travel lanes



How to make room: Road Diets



Convert 4-Lane Road to 3-Lane and TWLTL
29% crash reduction



Before



Reclaiming road space creates room for ped islands



Concept



Reclaiming road space creates room for ped islands



After



Reclaiming road space creates room for ped islands





This 5-lane Main Street was converted to...





Fewer travel lanes; added bike lanes; parallel to back-in diagonal parking on one side; new pavement





**There's potential on one-way streets too:
Is this street operating at capacity?**





**This area was recaptured from a 4th travel lane;
the street took on a whole new life**



Intersections – the biggest obstacles



Intersections – the biggest obstacles



Intersections – the biggest obstacles



Intersections – the biggest obstacles



Rethinking The Role of Urban Streets



A “complete street” accommodates many uses and provides for all purposes of a street:

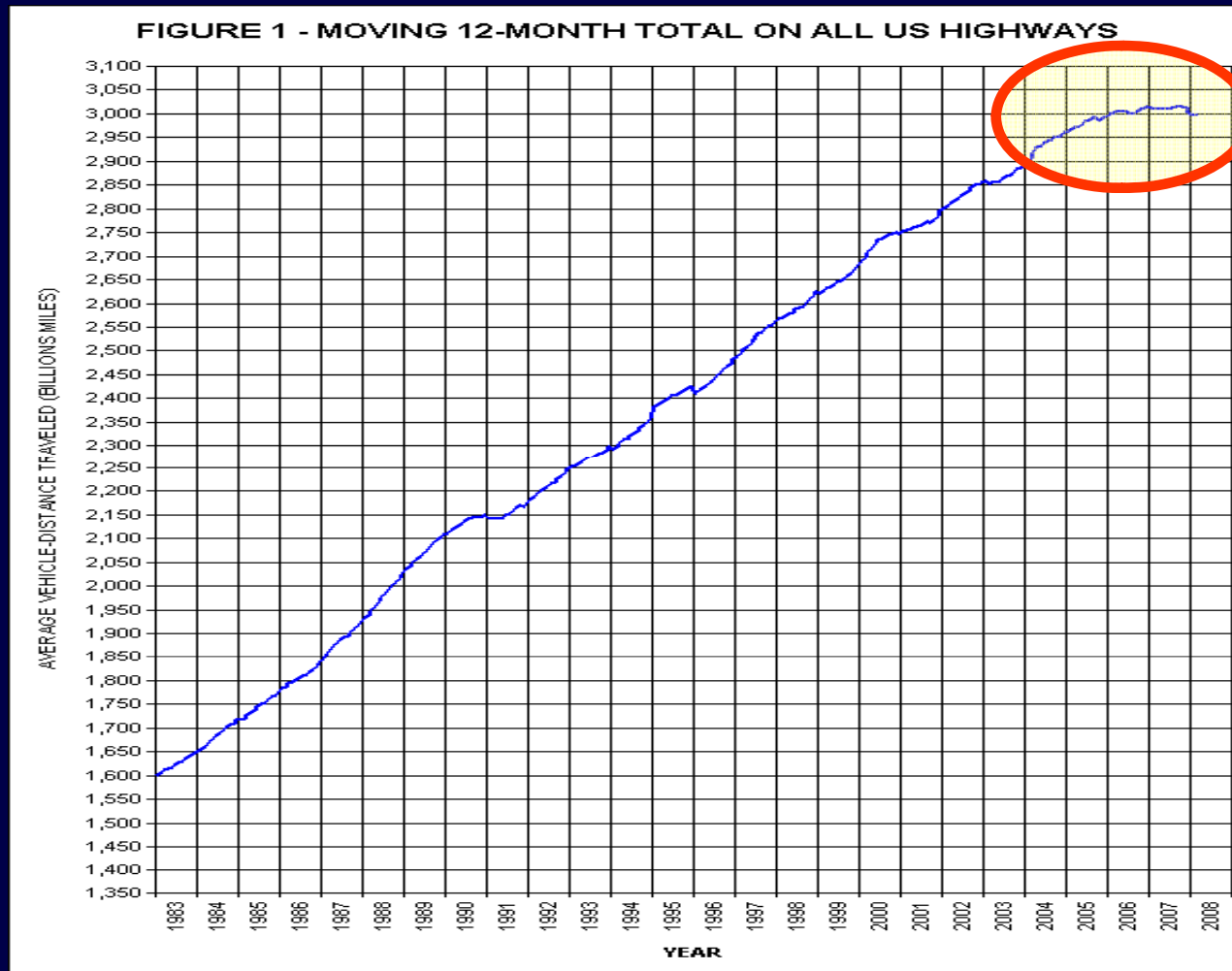
- Mobility (all modes)
- Access to destinations
- Thriving businesses
- Beauty

Wide roads and motor vehicle LOS

- Designing to LOS C or higher is waste of \$\$
 - Allocate space for all users, accept resulting vehicle LOS
- What about ped, bike and transit LOS?
- Shorter ped crossing increases vehicular LOS at signals



Will traffic volumes always increase? Maybe not



Since 2005 US VMT has been flat, now starting to decrease



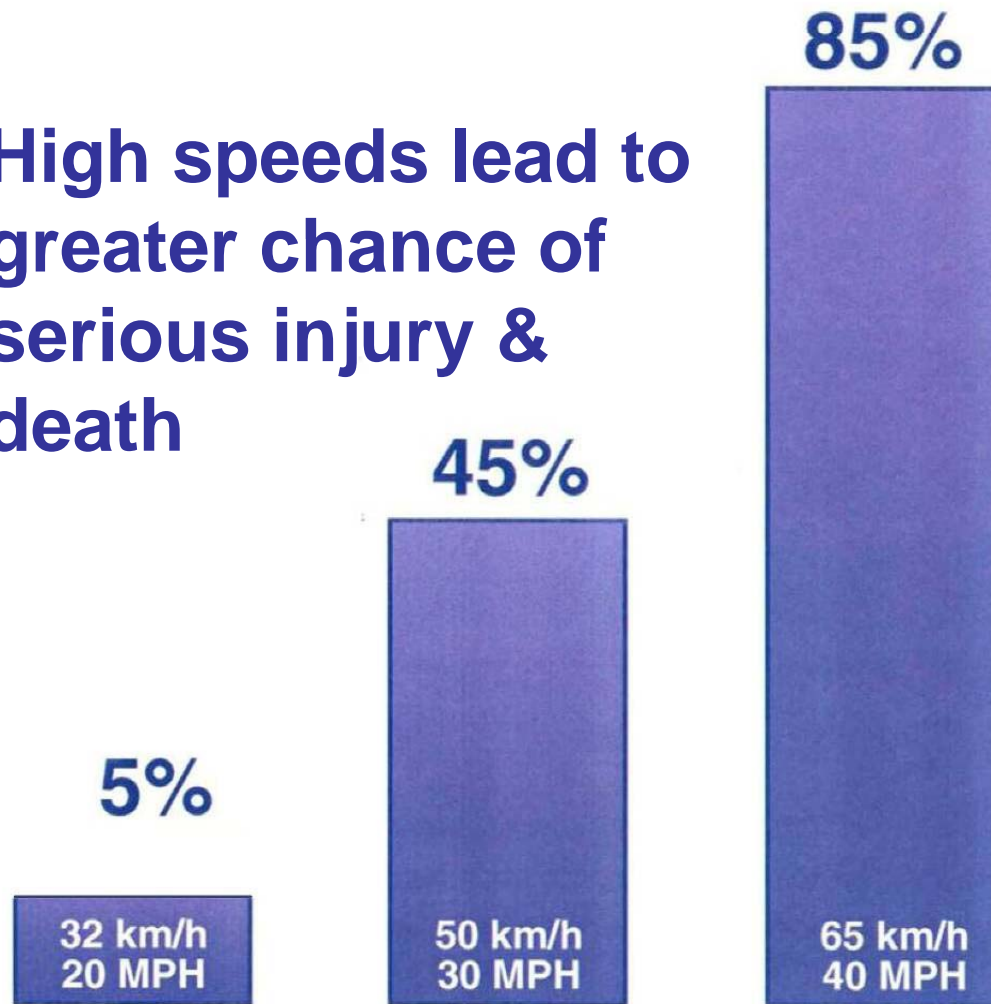
Wide road increase motor vehicle speed

- Speed increases crash severity for all users
- Over 35 MPH reduces roadway capacity



Speed Matters

High speeds lead to
greater chance of
serious injury &
death



Pedestrians' chances of death if hit by a motor vehicle

SOURCE: *Killing Speed and Saving Lives*, UK Department of Transportation





Transforming a street





Narrow lanes; add bike lanes, median, trees, texture





Bring in buildings that face the street





More buildings: Infill





The street now has life and is safer for all users

