



Safer speeds, better cities

Redesigning streets to manage speed and support sustainable transport

Melinda Hanson

Melinda@nacto.org

Leipzig, Germany | May 2018

NACTO National Association of City Transportation Officials
GDCI Global Design Cities Initiative



Global
Designing
Cities
Initiative

@GlobalStreet
www.globaldesigningcities.org



Janette Sadik-Khan

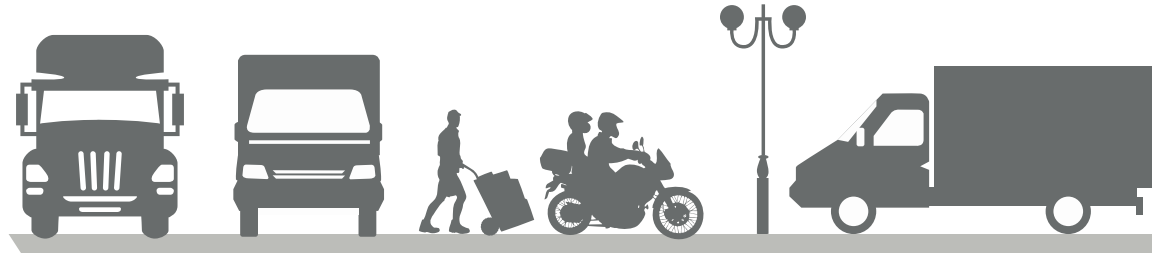
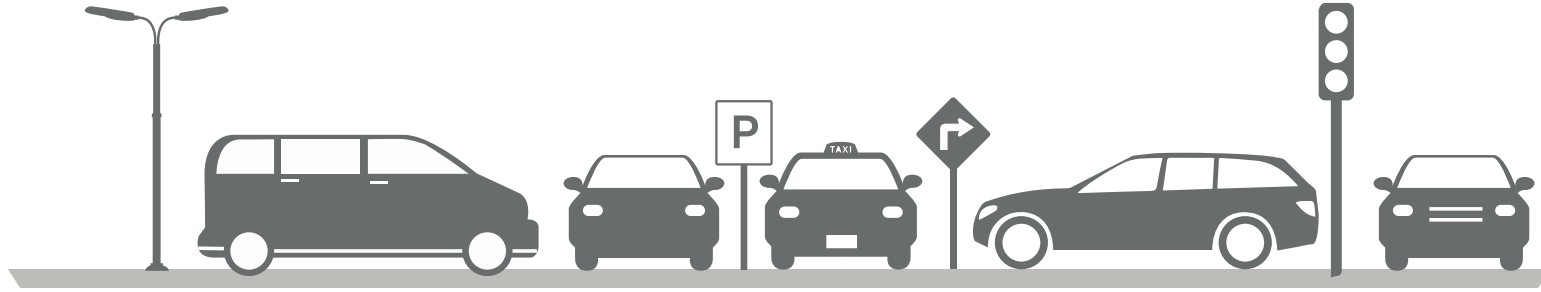


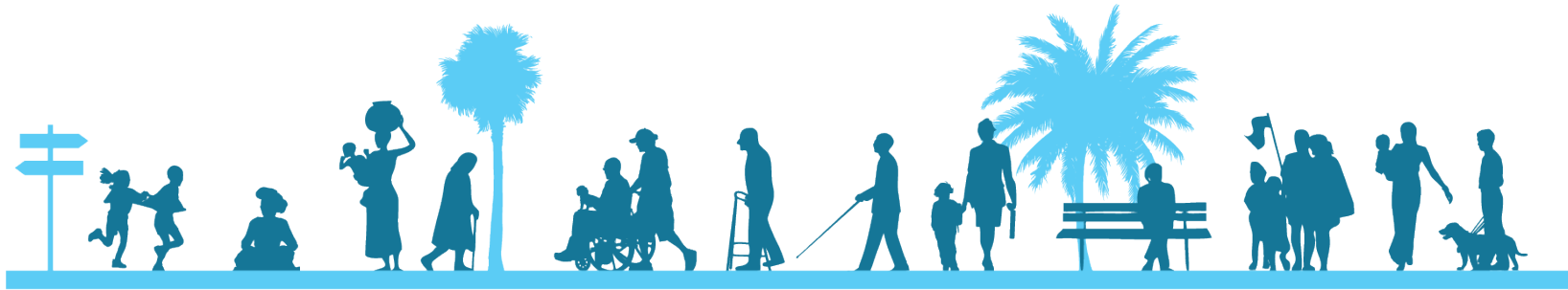
**Global
Designing
Cities
Initiative**



**Bloomberg
Philanthropies**

INITIATIVE FOR GLOBAL ROAD SAFETY





A group of about eight pedestrians are crossing a street from left to right. In the background, there is a large white truck on the right and a yellow taxi in the center. The scene is set in an urban environment with trees and buildings in the background. The text "1.3 million traffic fatalities annually" is overlaid in large white font across the center of the image.

1.3 million traffic fatalities annually



**1 person every
30 seconds**





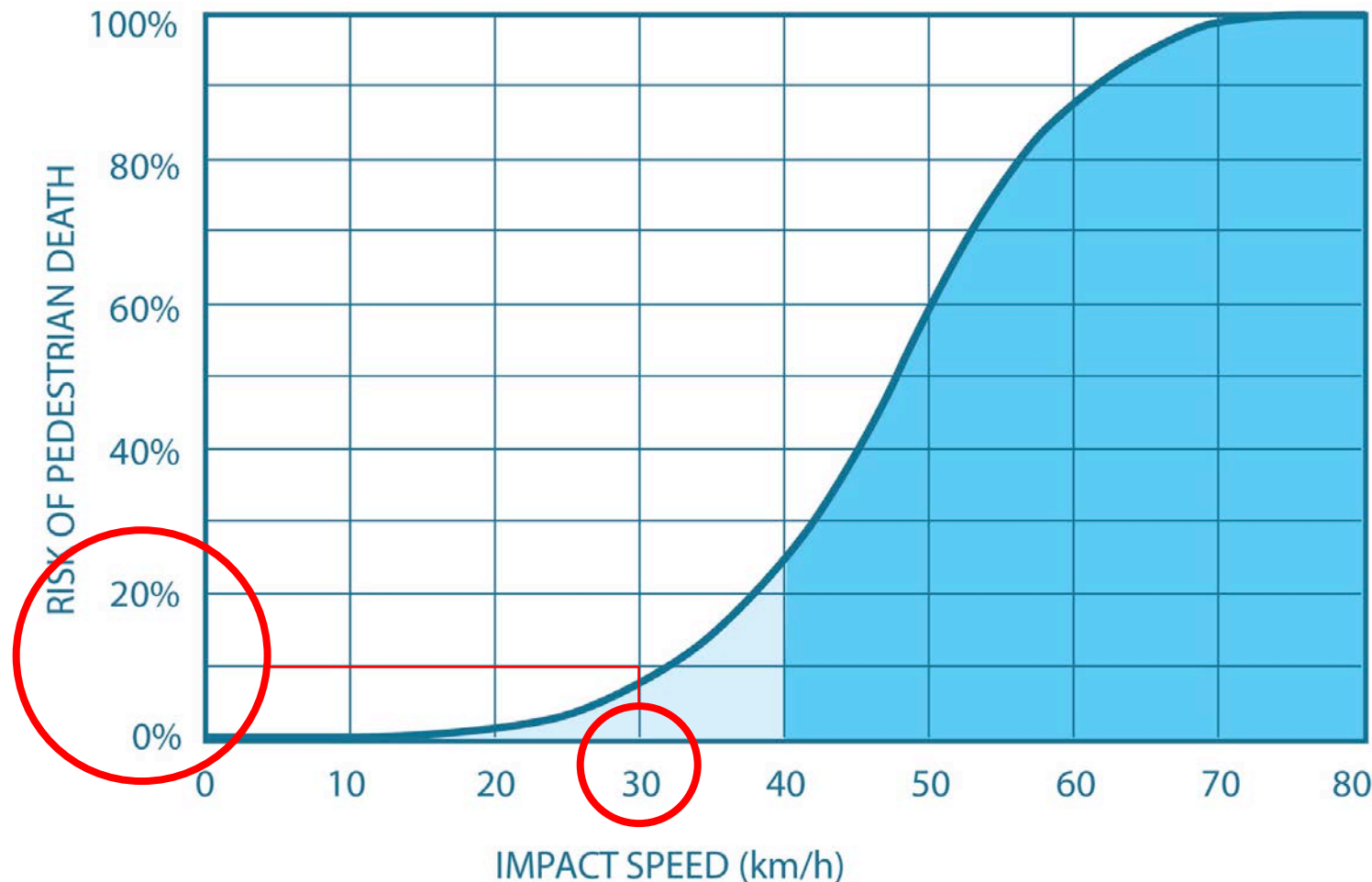




Speed turns crashes into fatalities



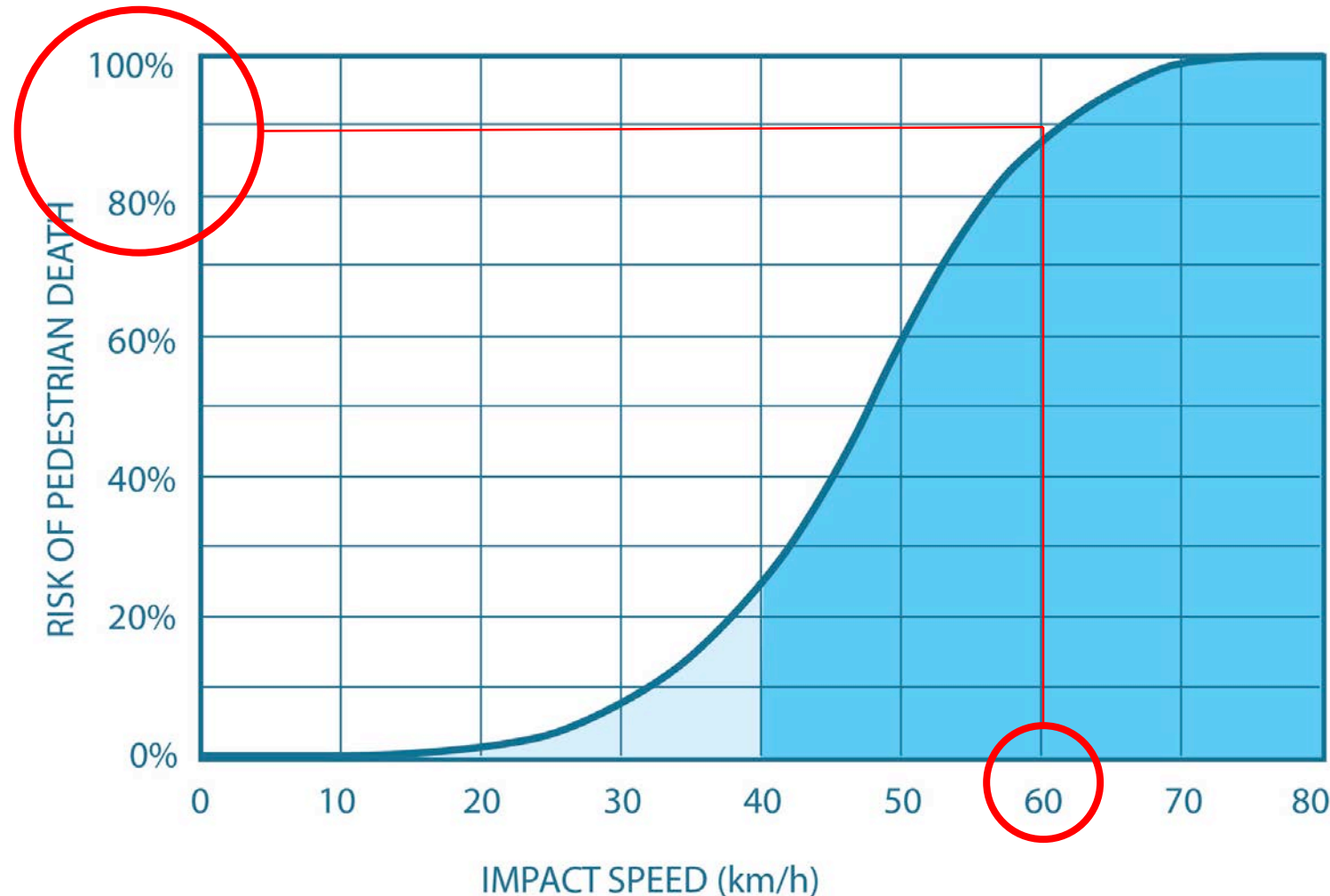
Risk of Pedestrian Death and Impact Speed



30km/h =
90%
chance of
SURVIVAL

Note: The above figure shows the relationship between pedestrian fatalities and vehicle impact speed published by the OECD (2006). Some recent studies show a similar relationship, but account for sample bias to find slightly lower risks in the 40 to 50 km/hr range. (Rosen & Sander 2009, Tefft 2011, Richards 2010, Hannawald and Kauer 2004) There are not, however, studies from low- and middle-income countries where things like vehicle type, emergency response time and other characteristics may influence this relationship. In any case, there is clear evidence to support policies and practices that lower vehicle speeds to 30 km/hr where pedestrians are commonly present, and no more than 50 km/hr on non-grade separated streets.

Risk of Pedestrian Death and Impact Speed



60km/h =
90%
chance of
DEATH

Note: The above figure shows the relationship between pedestrian fatalities and vehicle impact speed published by the OECD (2006). Some recent studies show a similar relationship, but account for sample bias to find slightly lower risks in the 40 to 50 km/hr range. (Rosen & Sander 2009, Tefft 2011, Richards 2010, Hannawald and Kauer 2004) There are not, however, studies from low- and middle-income countries where things like vehicle type, emergency response time and other characteristics may influence this relationship. In any case, there is clear evidence to support policies and practices that lower vehicle speeds to 30 km/hr where pedestrians are commonly present, and no more than 50 km/hr on non-grade separated streets.

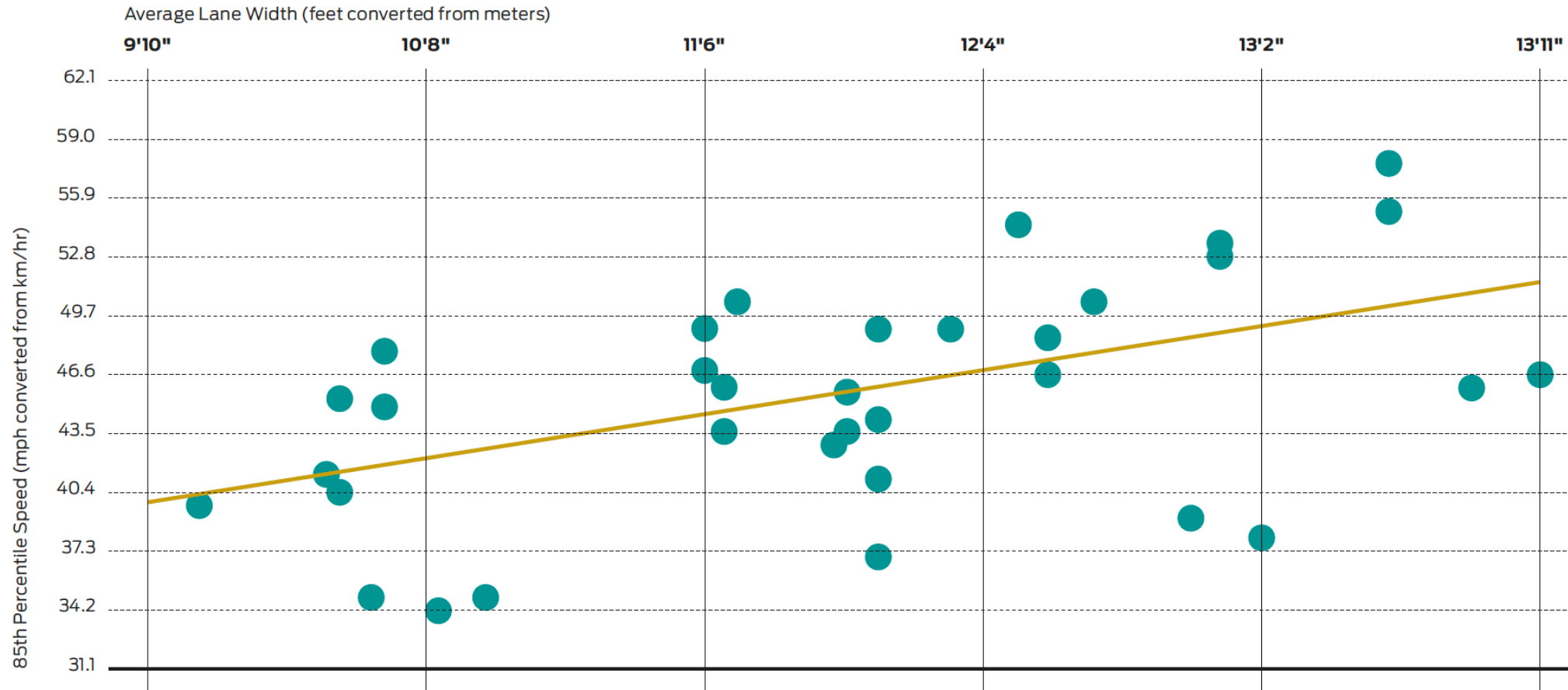
Speed inhibits vision.



Speed inhibits vision.



Wider travel lanes are correlated with higher vehicle speeds.



Wider Lanes = Higher Speeds

People are dying on arterials



An examination of the increases in pedestrian motor vehicle crash fatalities during 2009–16

May 2018

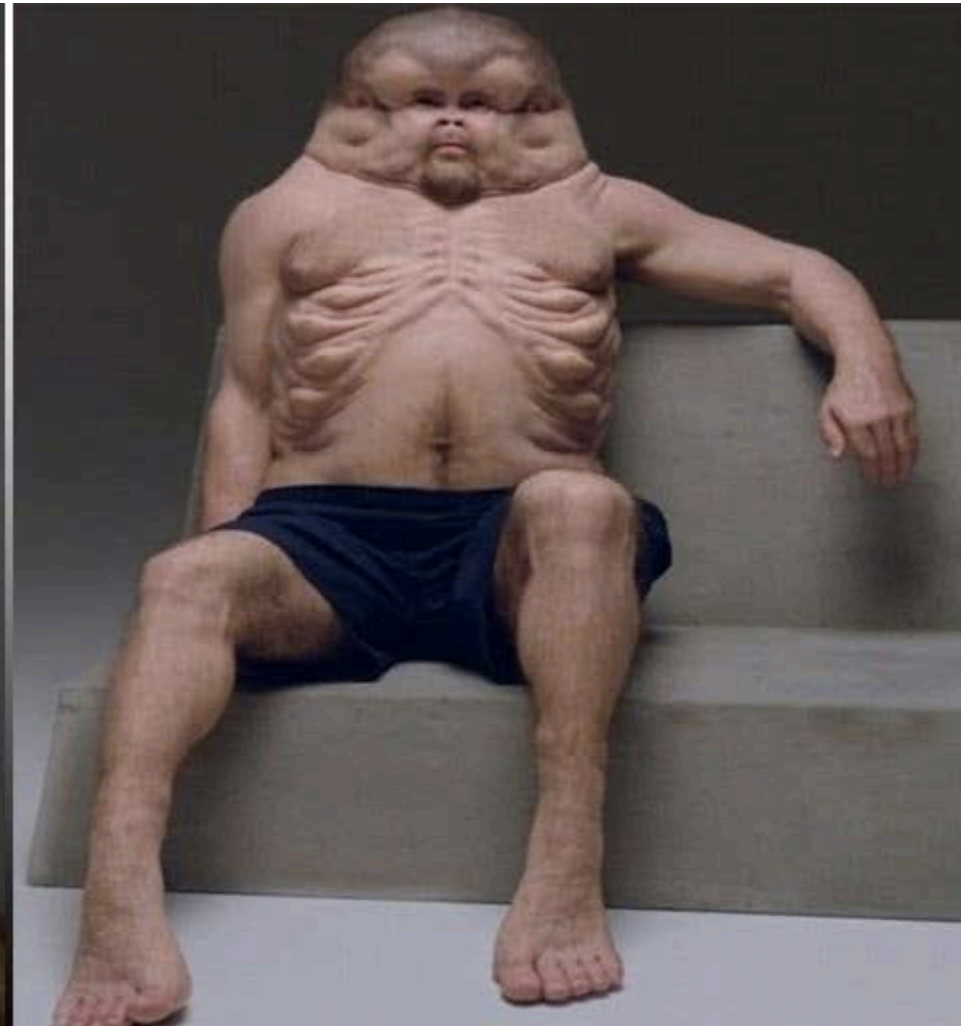
Wen Hu
Jessica B. Cicchino
Insurance Institute for Highway Safety

- From 2009 to 2016, the number of people who died while walking **increased from ~4,000 to almost 6,000.**
- Almost the entire increase occurred on **arterials.**

And at intersections

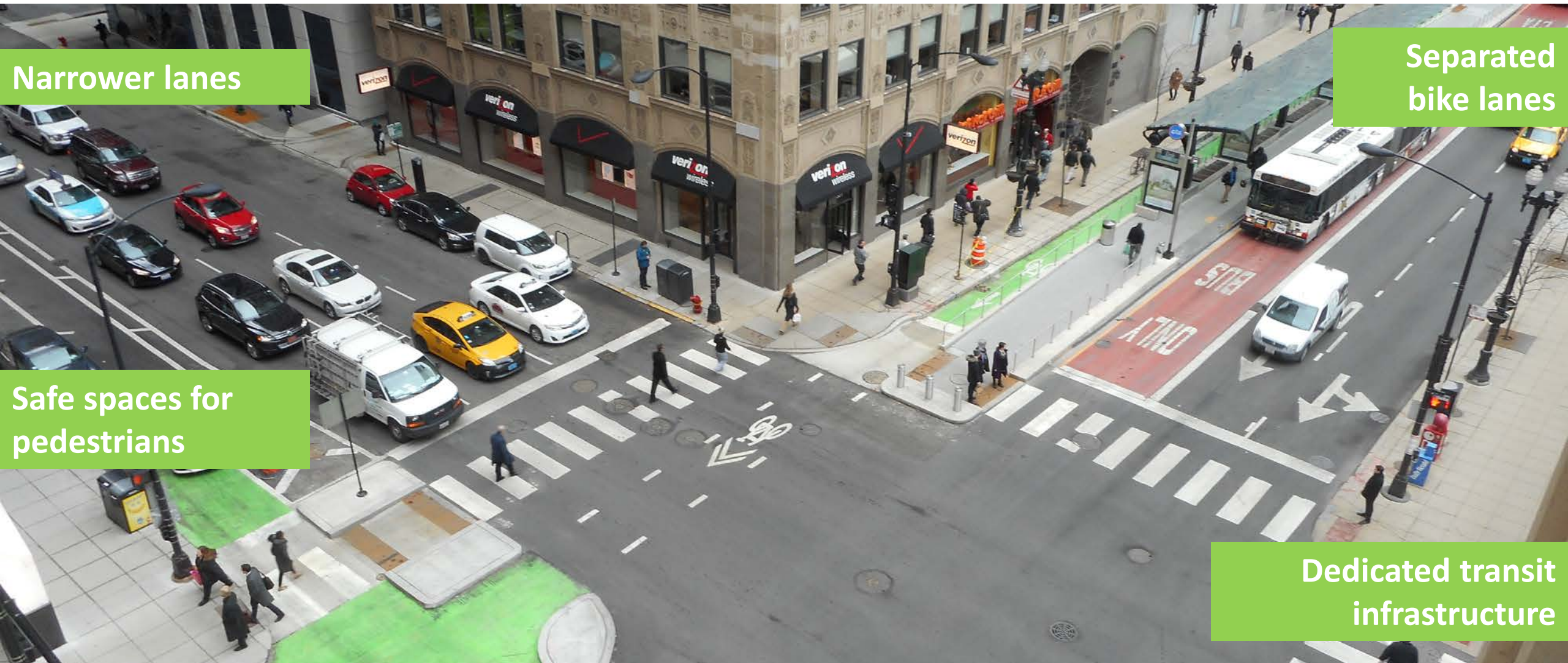


Instead of re-engineering the human body...



<http://www.meetgraham.com.au/>

...cities are reimagining and redesigning streets



Narrower lanes

Separated bike lanes

Safe spaces for pedestrians

Dedicated transit infrastructure

And taking a more **proactive** approach

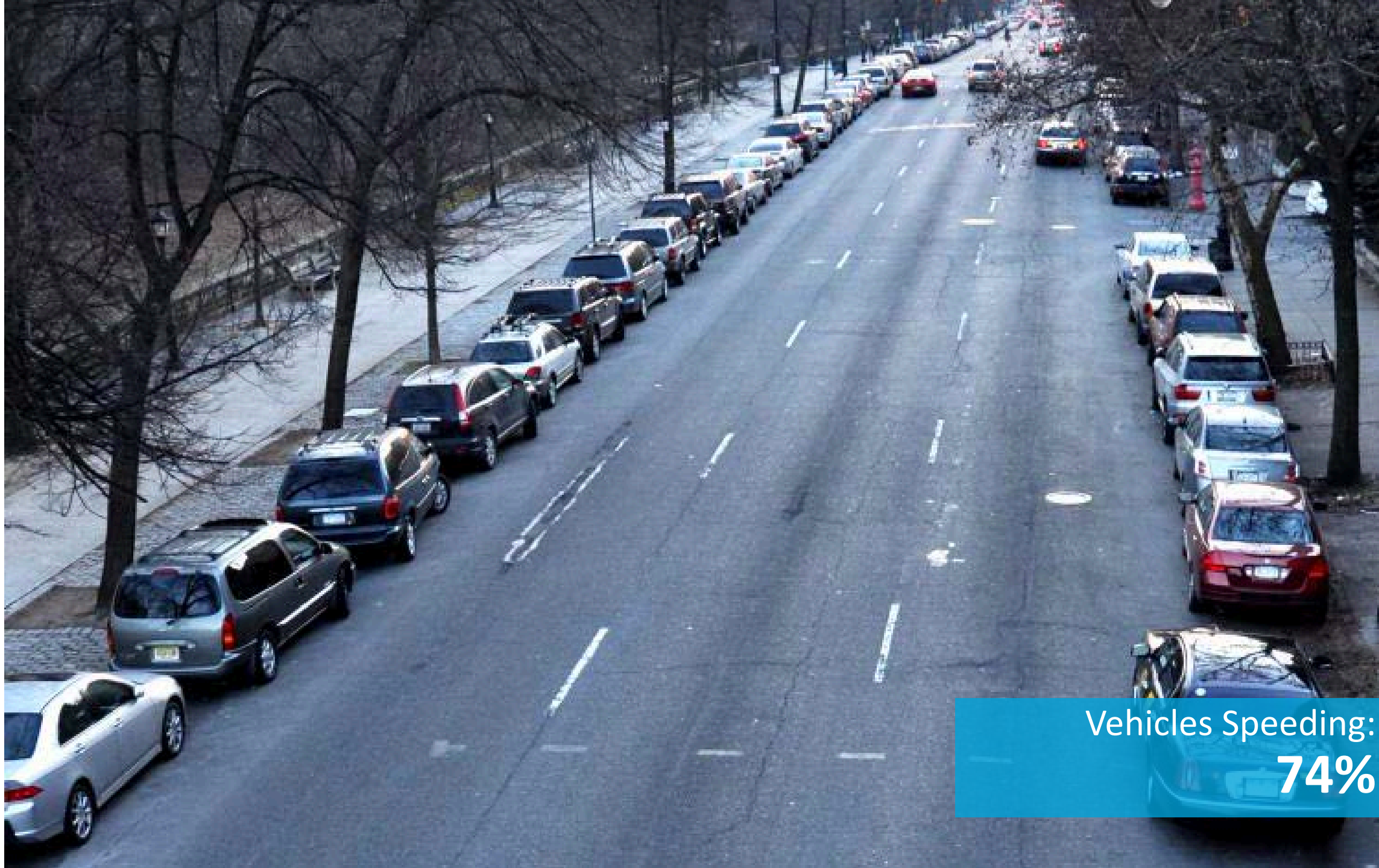
Target Speed



Design Speed



Posted Speed



Vehicles Speeding:
74%



Vehicles Speeding:
20%

Addis Ababa, Ethiopia



BEFORE



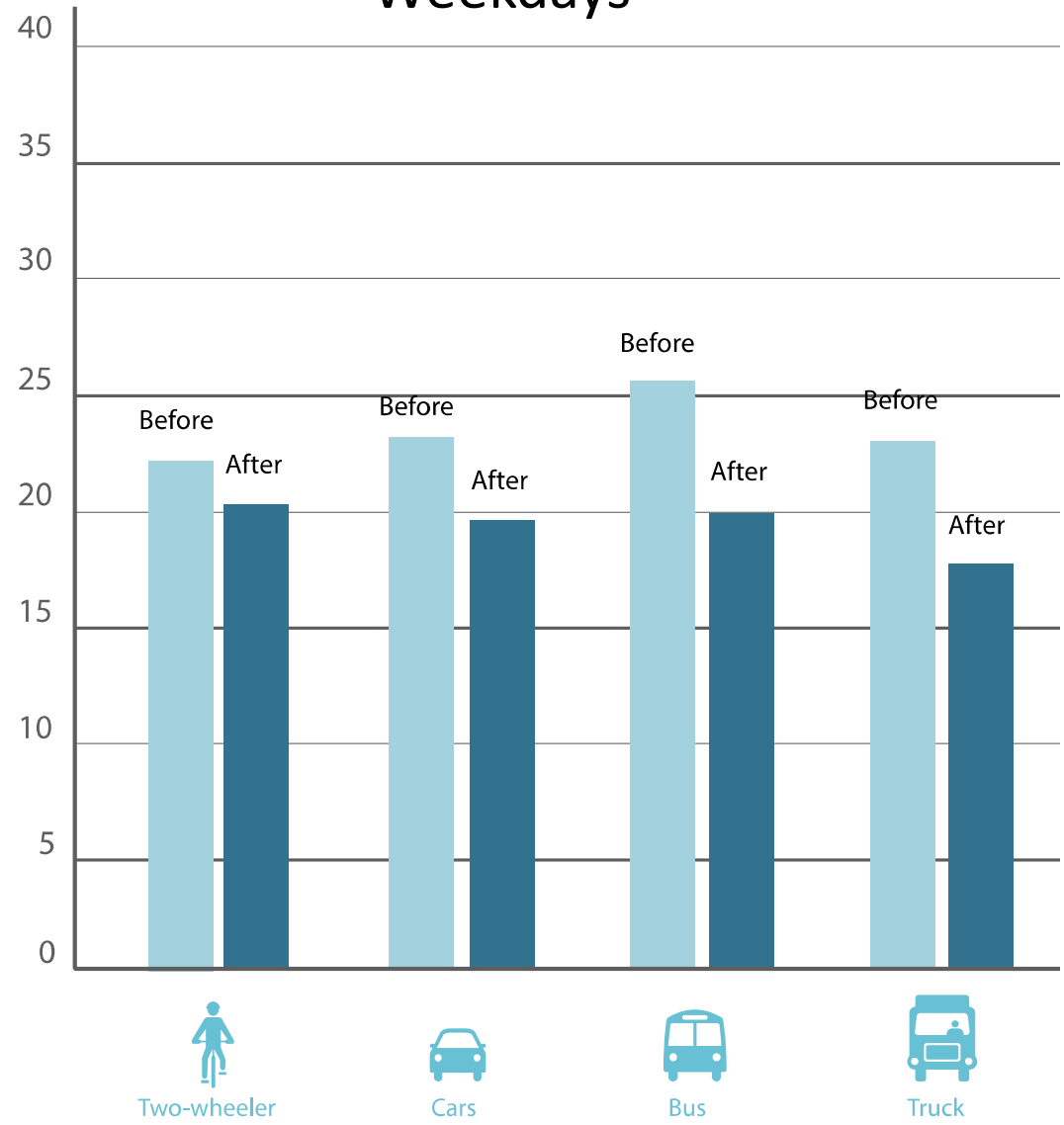
AFTER

Speeds decreased!

Weekends



Weekdays



Bogota, Colombia



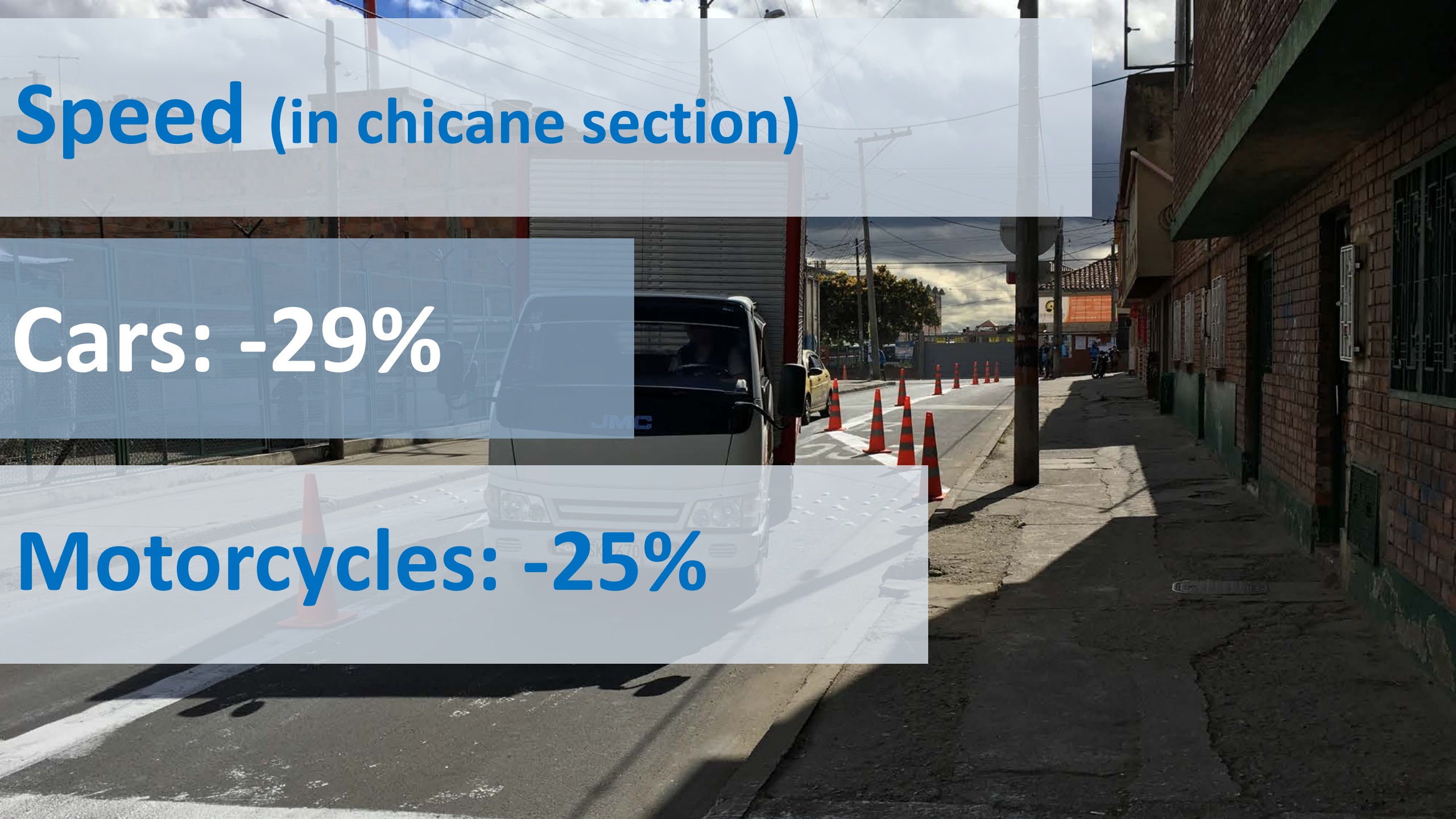
Testing chicanes



Speed (in chicane section)

Cars: -29%

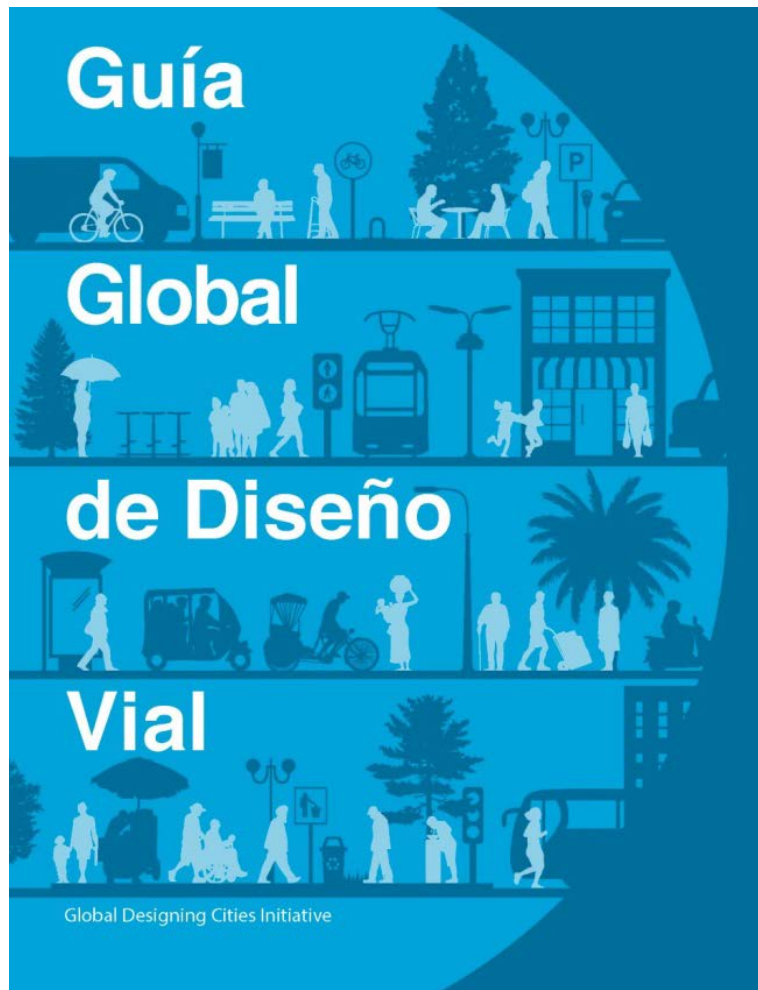
Motorcycles: -25%



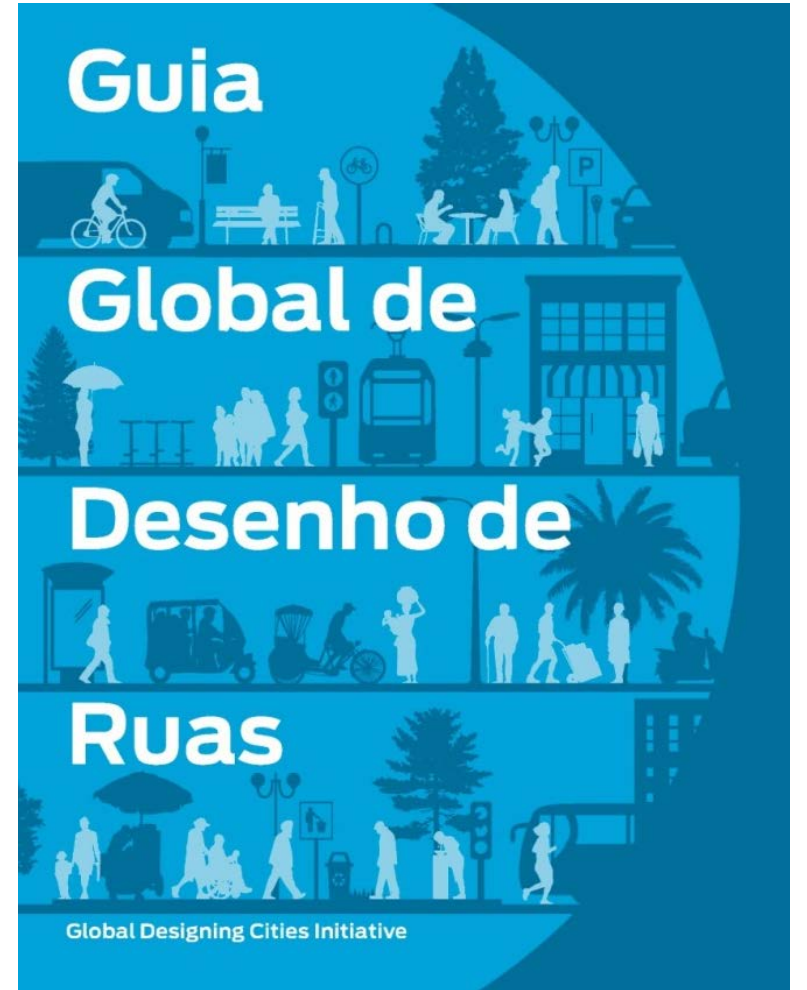
The Global Street Design Guide



English

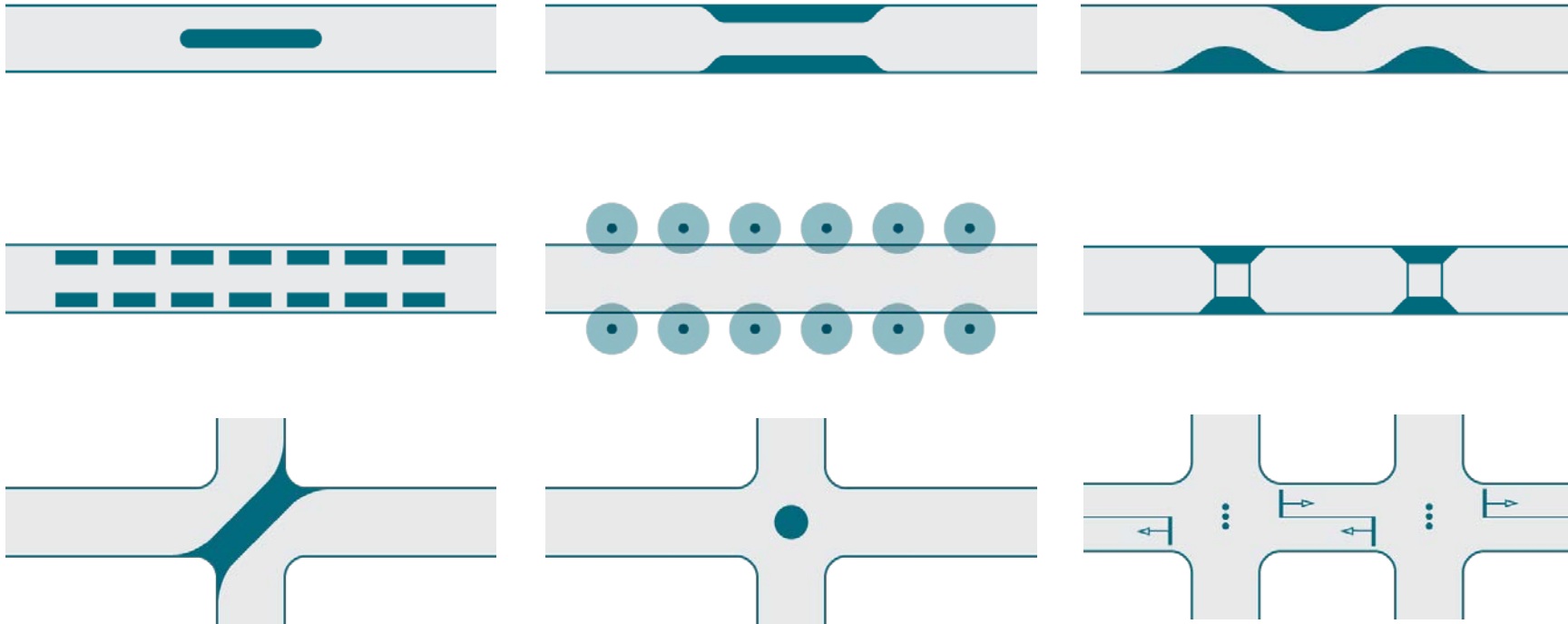


Spanish

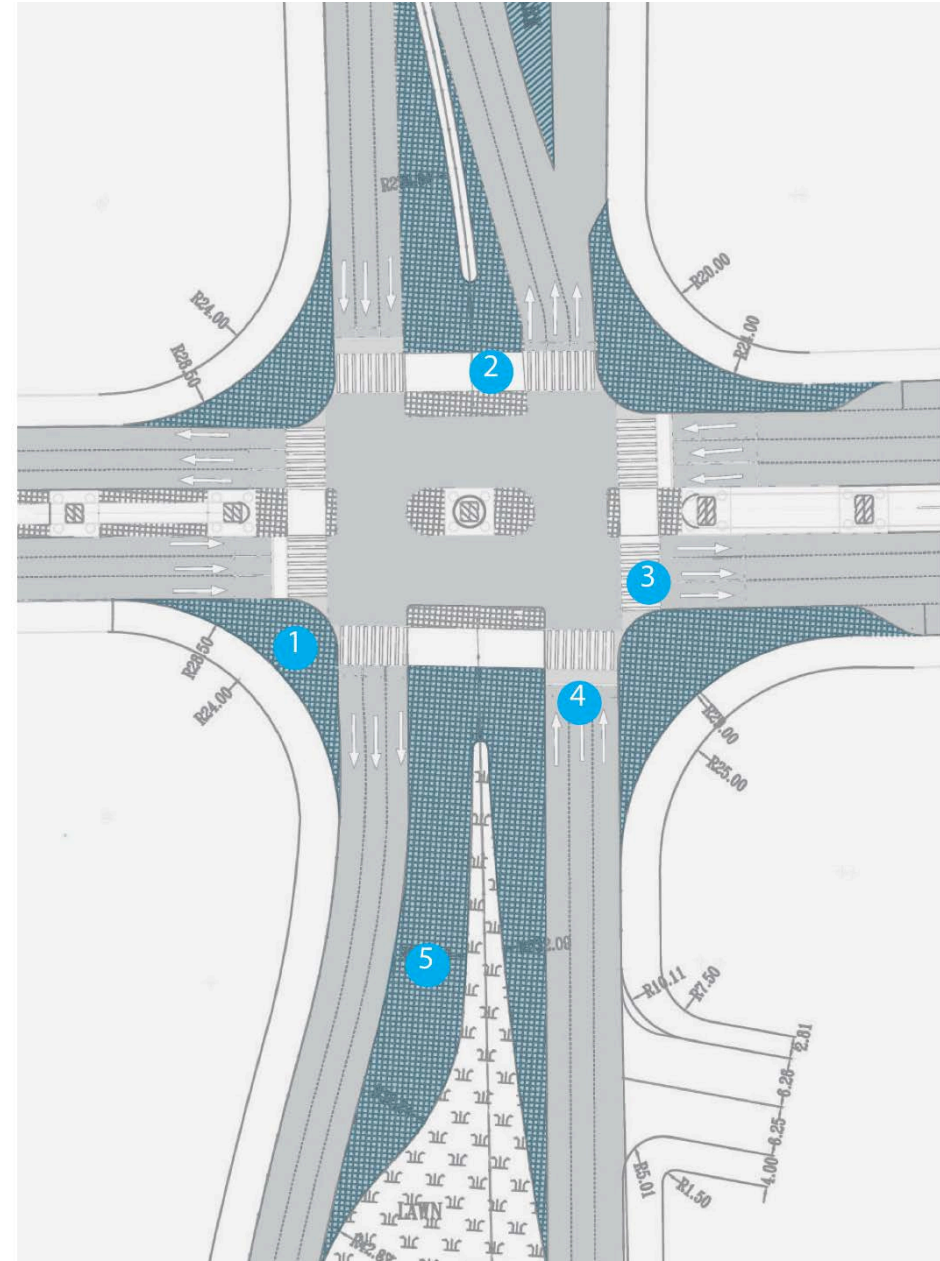
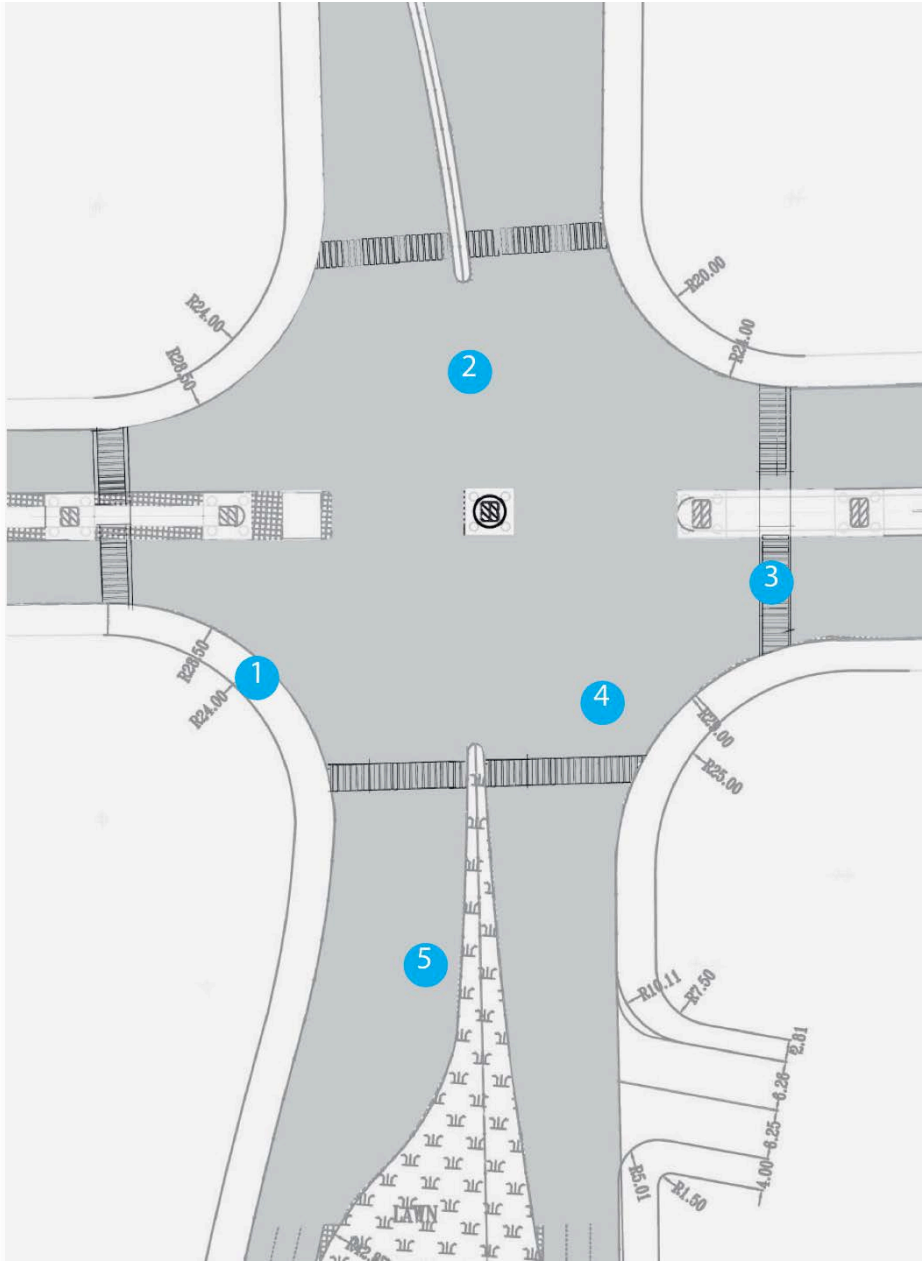


Portuguese

Simple design strategies support safe speeds



...and reclaim underutilized space



Giving us space for sustainable transport





And inviting activities that create better cities



Thank you!

Melinda Hanson

Melinda@nacto.org



Global
Designing
Cities
Initiative

[@GlobalStreet](https://twitter.com/GlobalStreet)

www.globaldesigningcities.org

NACTO National Association of City Transportation
Officials

GDCI Global Design Cities Initiative