PEDESTRIANS FIRST

TOOLS FOR A WALKABLE CITY

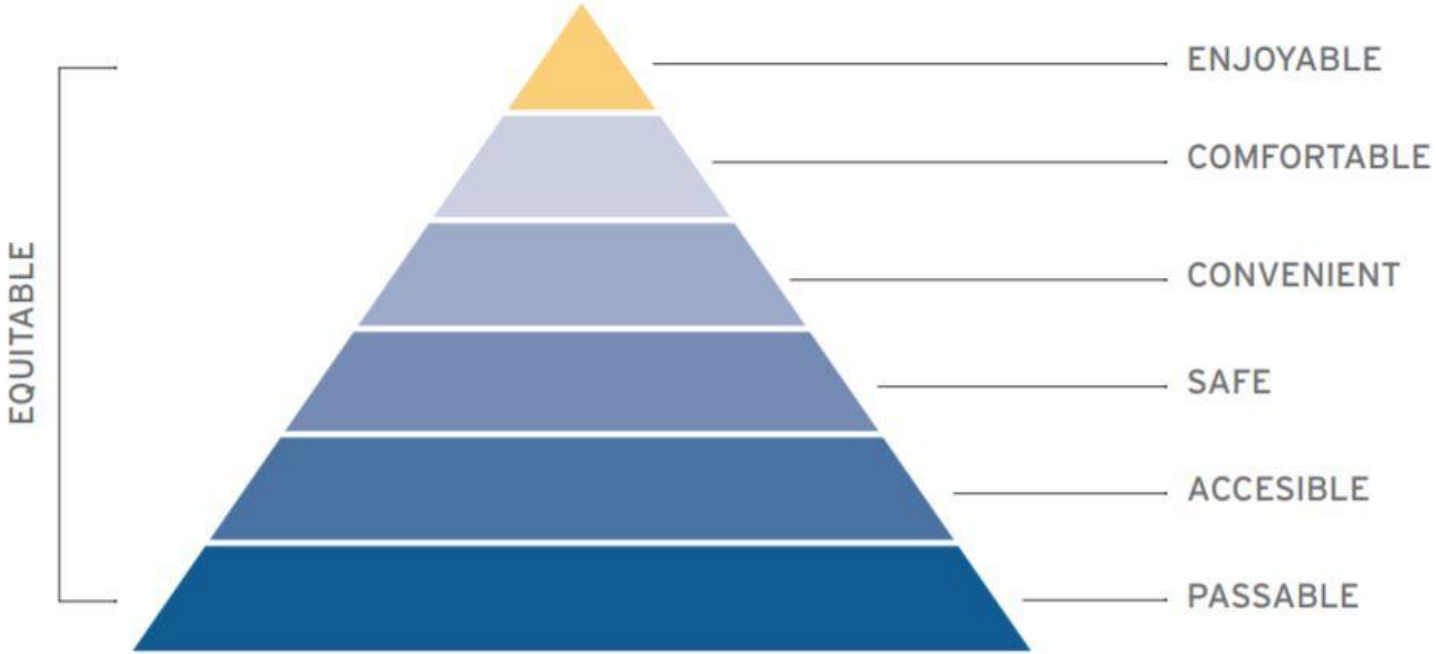
ITDP

Another Walkability Tool?

- Global examples
- Quick and inexpensive data collection
- Easy to understand metrics
- Multiple scales to understand walkability
- Globally applicable

FRAMEWORK

Walkability Hierarchy of Needs



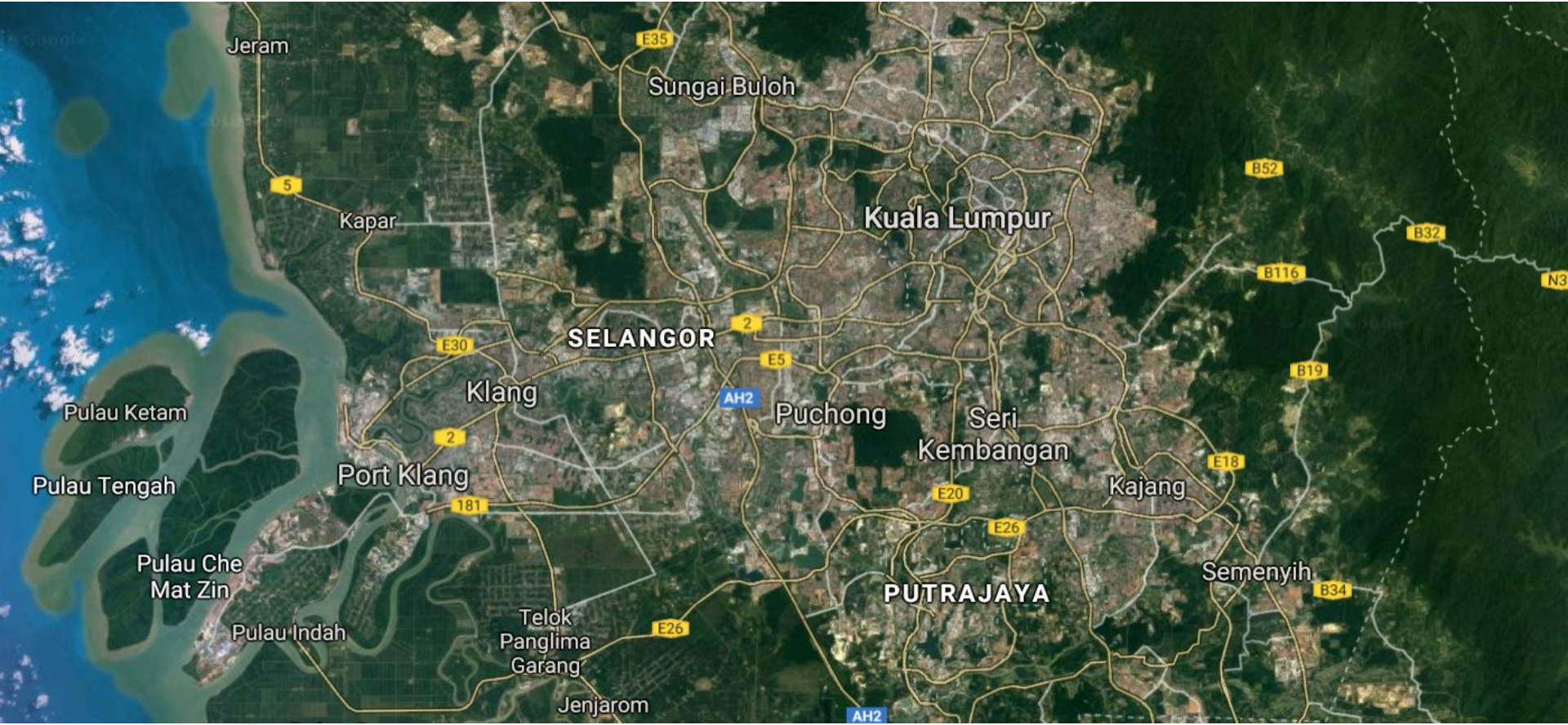
Source: Graphic created by Michael Flynn, Sam Schwartz Engineering

Features of Walkability: Infrastructure

Features of Walkability: Activity

Features of Walkability: Priority

THREE SCALES

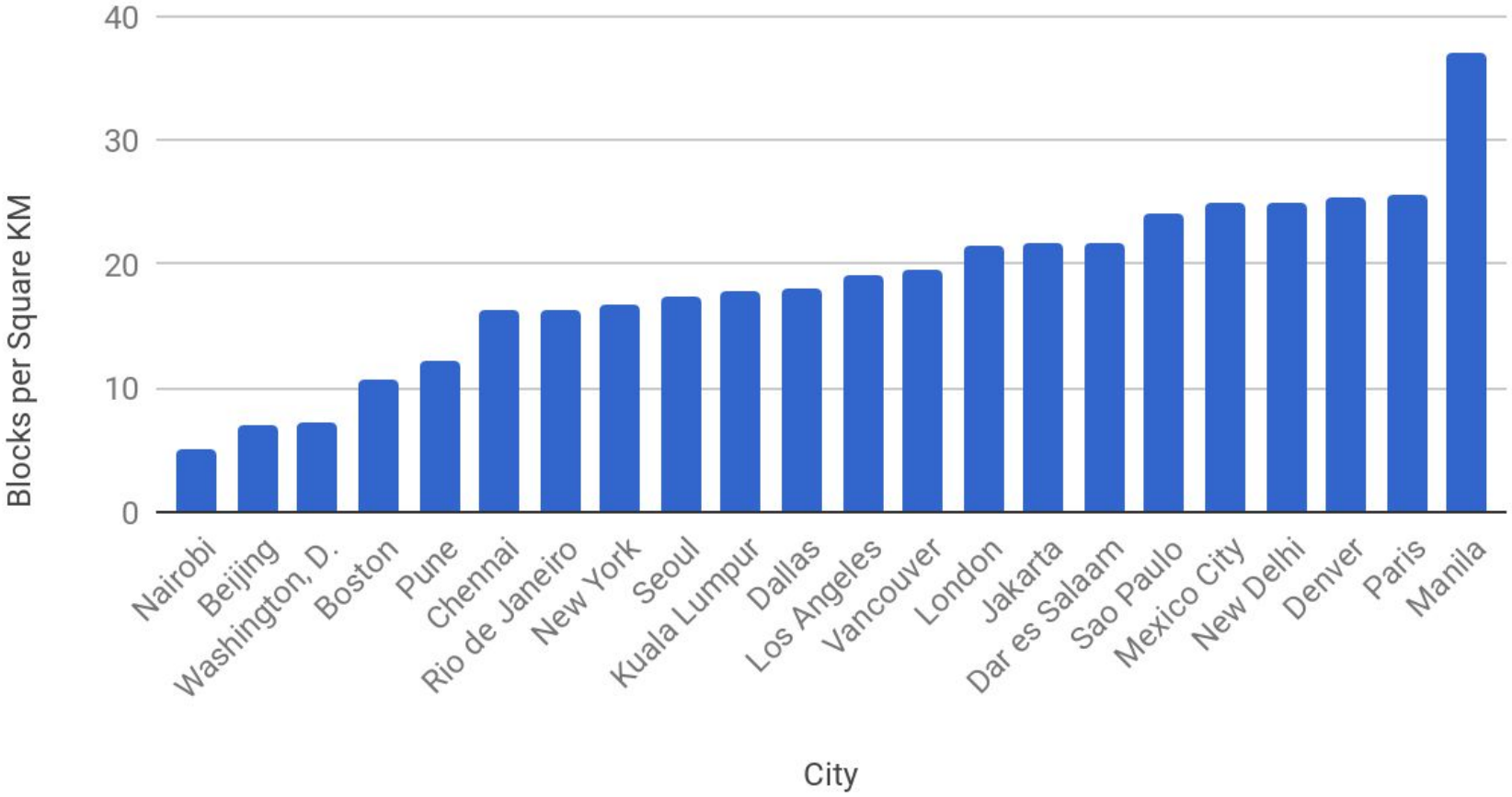

Jeram
E35
Sungai Buloh
5
Kapar
Kuala Lumpur
B52
B32
B116
N3
SELANGOR
2
E30
E5
B19
Klang
AH2
Puchong
Seri
Kembangan
Pulau Ketam
2
E18
Pulau Tengah
Port Klang
E20
Kajang
181
E26
Pulau Che
Mat Zin
Semenyih
PUTRAJAYA
B34
Telok
Panglima
Garang
Pulau Indah
E26
Jenjarom
AH2

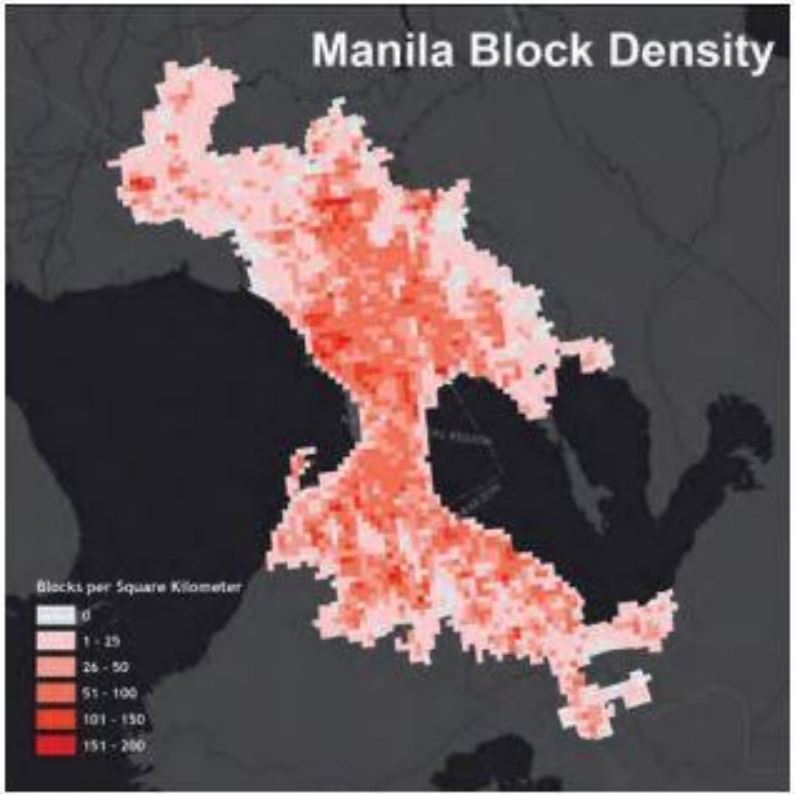
HOTEL
Bukit Bintang

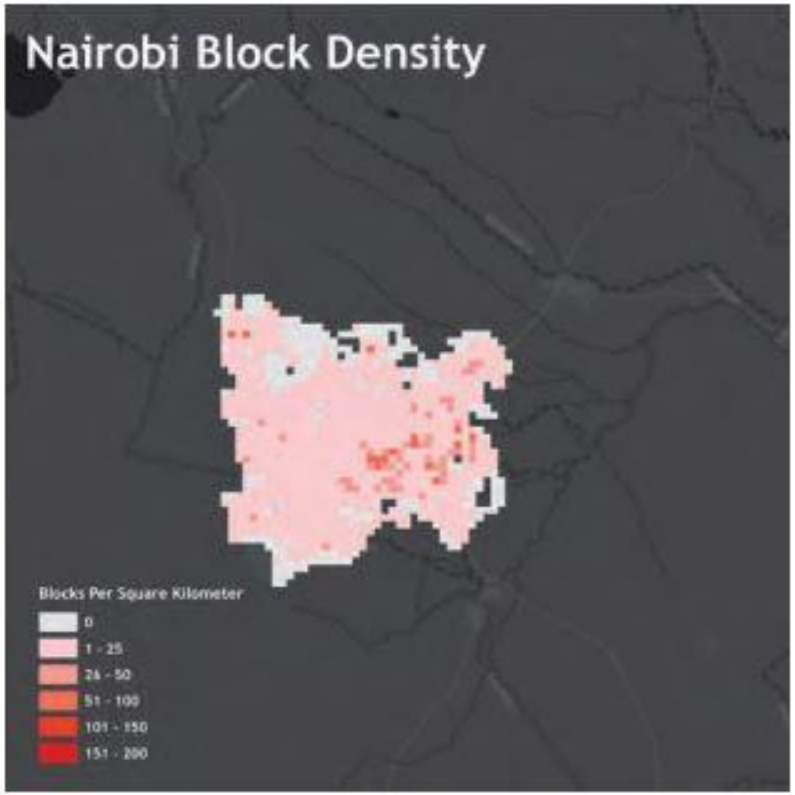
COMPONENT	DESCRIPTION	TARGET POPULATION	PURPOSE	TYPE OF INTERVENTION
CITYWIDE WALKABILITY COMPARISION	Database of high-level, easy-to-measure qualities of a metropolitan area that facilitate walkability.	• Decision-makers • Advocates • Planners and policymakers	• Facilitate comparisons • Foster understanding • Track progress • Disseminate data	• Urban planning • Zoning • Growth control policies • Subdivision planning
NEIGHBORHOOD WALKABILITY ASSESSMENT	Analysis and data collection tool for accurate and detailed measurement of neighborhood-level walkability.	• Technical practitioners • Technical advocates • Local advocates	• Foster understanding • Facilitate consistent measurement • Facilitate tracking • Facilitate comparisons	• Urban planning • Zoning • Building regulations • Street design
STREET-LEVEL WALKABILITY DESIGN CHECKLIST	Checklist of the detailed design solutions that facilitate walkability at the block level.	• Technical practitioners • Technical advocates • Local advocates	• Foster understanding • Give guidance for implementation and evaluation	• Street design • Urban design

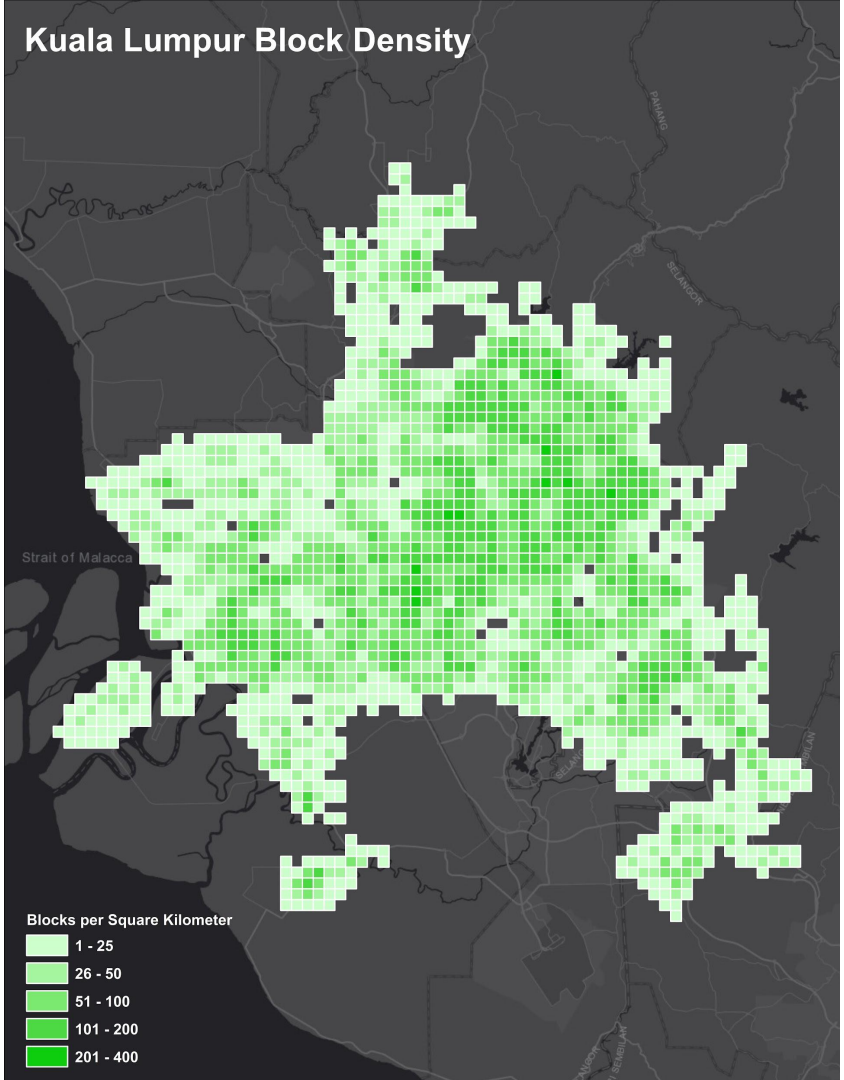
CITY SCALE

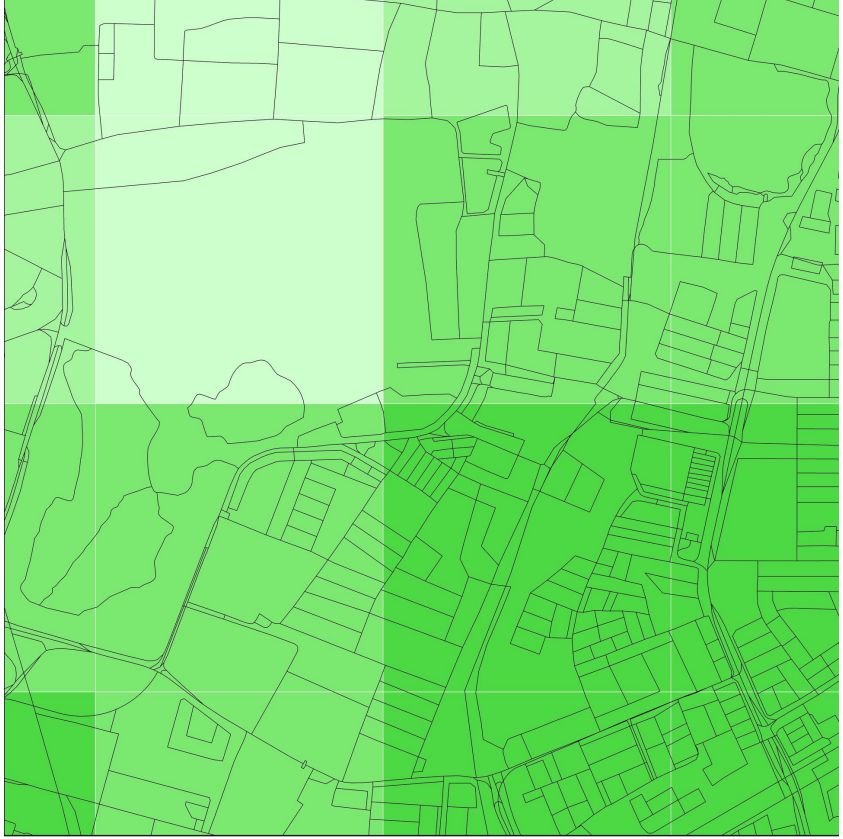
Block Density




Manila Block Density
Blocks per Square Kilometer
0
1 - 25
26 - 50
51 - 100
101 - 150
151 - 200


Nairobi Block Density
Blocks Per Square Kilometer
0
1 - 25
26 - 50
51 - 100
101 - 150
151 - 200





Blocks Per Square Kilometer

- 1 - 25
- 26 - 50
- 51 - 100
- 101 - 200
- 201 - 400
- Streets

Kuala Lumpur Block Density

Other City Scale Indicators In Development

Activity: Weighted Residential Density

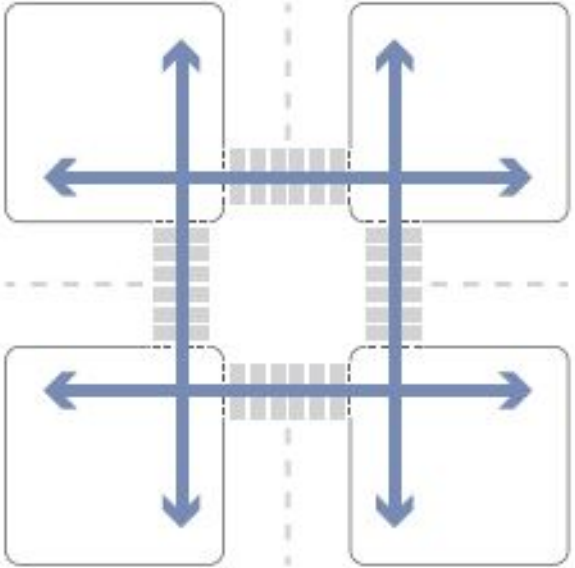
Infrastructure: People Near Frequent Transit

Priority: Reduced Car Space

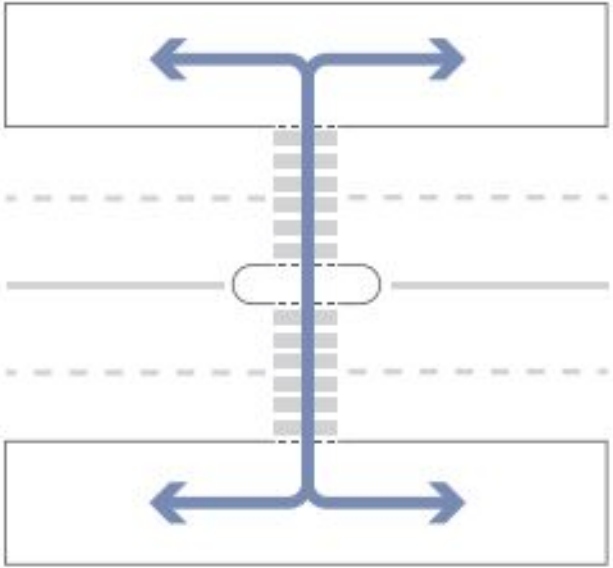
NEIGHBORHOOD SCALE

1. Walkways
2. **Crosswalks**
3. **Visually Active Frontage**
4. Physically Permeable Frontage
5. Shade and Shelter
6. Small Blocks
7. **Prioritized Connectivity**
8. Complementary Uses
9. Access to Local Services
10. Driveway Density
11. Roadway Area

Crosswalks



Crosswalks should be provided in all directions to create a complete pedestrian network



Crosswalks that cross two or more traffic lanes have a wheelchair-accesible pedestrian refuge.

H&M
28°C / 20°C
PERAK
Partly Cloudy
28°C / 20°C
PERAK
Partly Cloudy

PERCENTAGE OF INTERSECTIONS WITH SAFE, WHEELCHAIR-ACCESSIBLE CROSSWALKS IN ALL DIRECTIONS

GOAL: 100%

1. Quantify the number of intersections requiring pedestrian crossing facilities.
2. Quantify the number of these intersections with qualifying crossing facilities (see description of metric).
3. Divide the second measure by the first to calculate the percentage of complete intersections.

CROSSWALKS

TOD STANDARD
WALK **1.A.2**

BEST PRACTICE EXAMPLE

REFORMA 222
Mexico City, Mexico

- 5 of 5 (**100%**) intersections requiring pedestrian crossing facilities have qualifying facilities

POLICY RECOMMENDATIONS

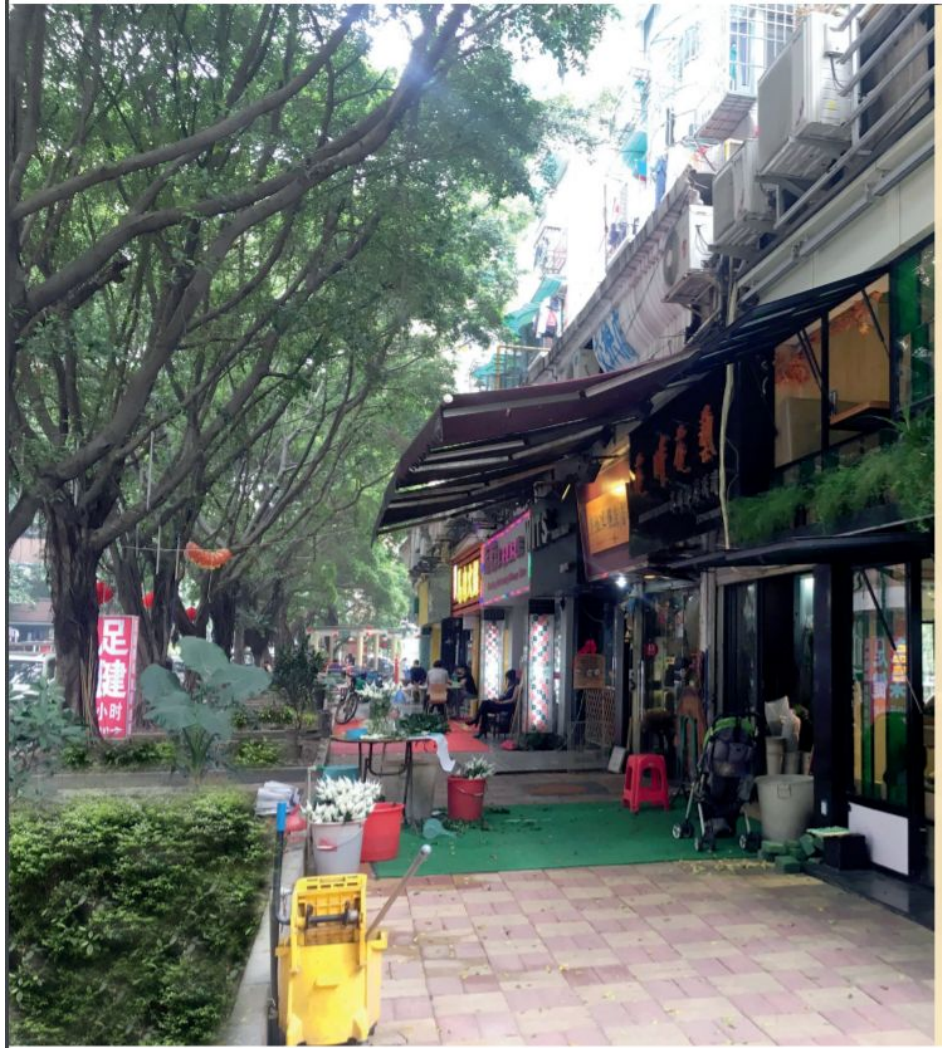
Implement safe, all-accessible crosswalks at intersections of all roadways where vehicular speeds exceed 15km/h. (See metric for detail on qualifying crosswalks.)

Adopt street design standards that promote the safety of pedestrians, including requirements for features such as ramps to raise the intersection to the level of the footpath, and bulb outs to reduce crossing distance. Other examples can be found in the ITDP India Street Design Guide, Global Designing Cities Initiative's Street Design Guide, and C.R.O.W manual.

Visually Active Frontage

- A length of building frontage that abuts public walkways and is visually penetrable.
- If 20 percent or more of its abutting building frontage is visually active frontage, then the walkway is visually active.

TEH
TenRen's
TEA
天仁
茗茶
TenRen's TEA
天仁茗茶
TokuToku
PEARL
ASIA
PEARL ASIA
JOURNA
KK
TICKET COUNTER



PERCENTAGE OF WALKWAY SEGMENTS WITH VISUAL CONNECTION TO INTERIOR BUILDING ACTIVITY

GOAL: 90% OR MORE

1. Quantify the total number of public walkway segments.
   A. For streets where the right of way from building line to building line is less than 20 meters, public walkways on both sides can be counted as one public walkway segment.
   B. For streets where the right of way from building line to building line is more than 20 meters, each public walkway along a building must be counted as a separate walkway segment.
2. Quantify the number of public walkway segments that qualify as visually active (20 percent or more of the walkway segment; for more details, see metric description).
3. Divide the second measure by the first to calculate an active frontage percentage.

VISUALLY ACTIVE FRONTAGE

TOD STANDARD
WALK **1.B.1**

BEST PRACTICE EXAMPLE

CENTRAL ST. GILES
London, UK

- 15 of 15 (**100%**) public walkways with block frontage have visually active frontage

POLICY RECOMMENDATIONS

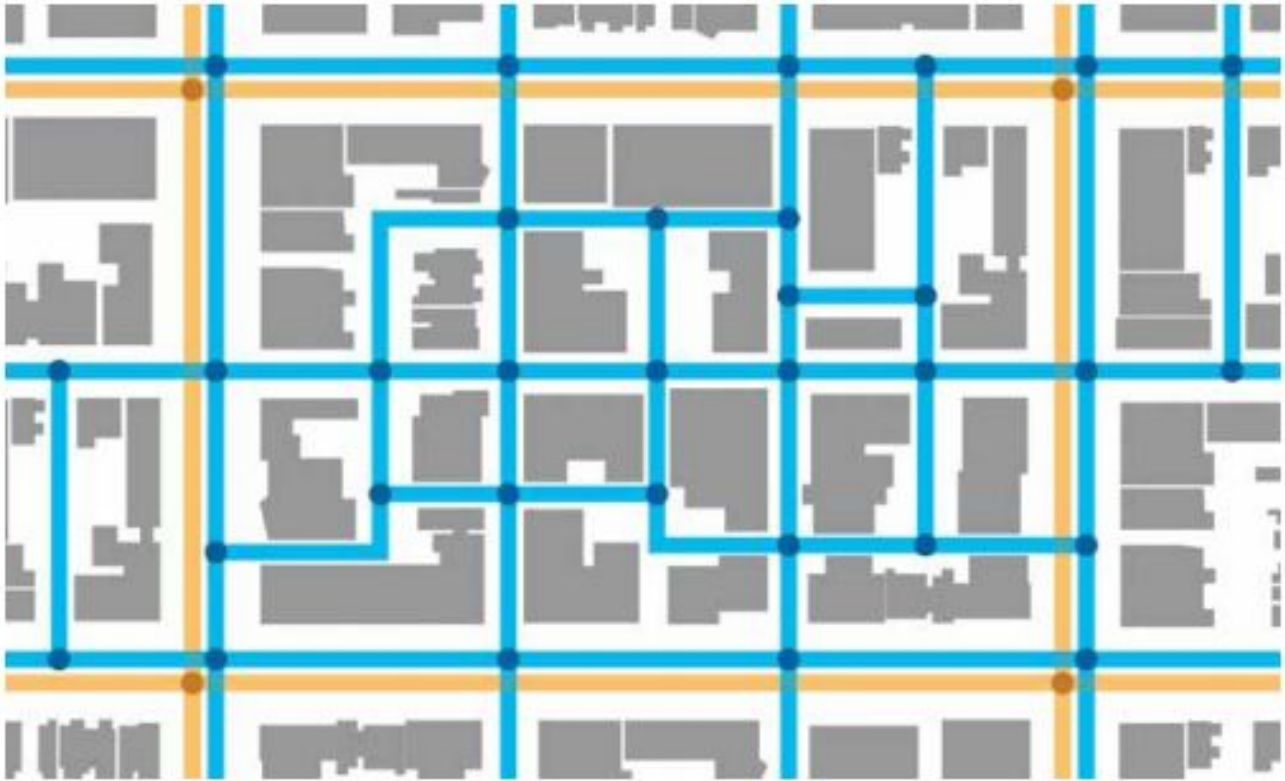
Adopt building regulations and corresponding processes for permits that require buildings to have a significant amount of transparency in boundary walls.

Update zoning code to require off-street parking to be located behind or in the basement of buildings.

Update zoning code to require parking garages to have active uses on the ground level, or be located on secondary streets.

Prioritized Connectivity

Ratio of pedestrian to motor vehicle intersections



new balance
MANGO
PAVILION

Pedestrian only streets, like this one in Mexico City, Mexico, are important for shifting space in the city from cars to people, prioritizing walking as a mode of transport.

RATIO OF PEDERESTRIAN INTERSECTIONS TO MOTOR VEHICLE INTERSECTIONS

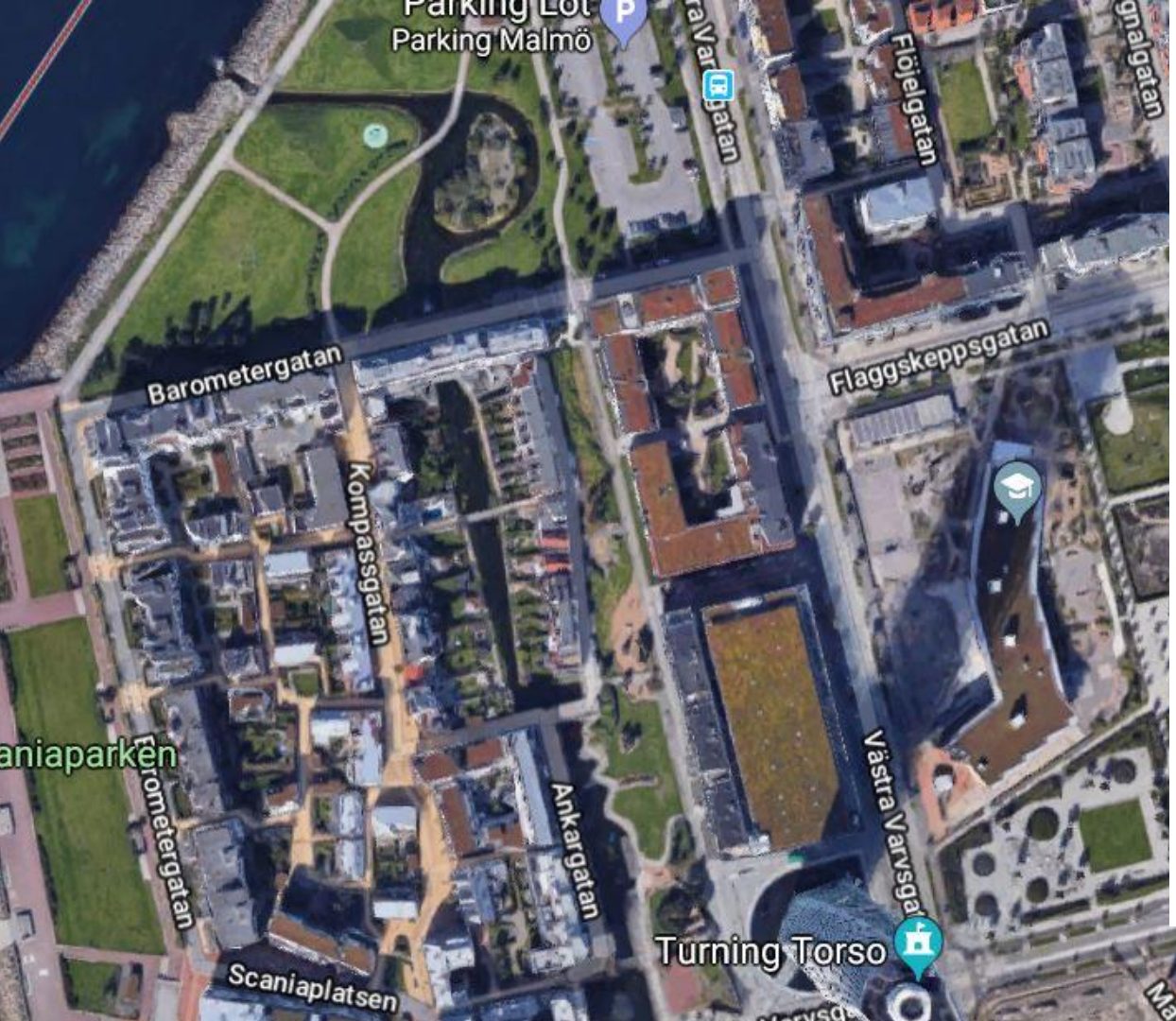
GOAL: 2 OR HIGHER

1. Map all motor vehicle intersections within the district and to the centerline of peripheral streets.

2. Map all pedestrian intersections within the district and to the centerline of peripheral streets. This includes motor vehicle intersections with appropriate walkways and crosswalks.

3. Quantify all intersections for motor vehicles and then for pedestrians as follows:
   - A four-way intersection = 1 intersection
   - A three-way, or "T", intersection = 0.75
   - A five-way intersection = 1.25

4. Divide the number of pedestrian intersections by the number of vehicle intersections to calculate a prioritized connectivity ratio.



PRIORITIZED CONNECTIVITY

TOD STANDARD CONNECT **3.B.2**

BEST PRACTICE EXAMPLE

VASTRA HAMMEN
Malmo, Sweden

- 4 motorized vehicle intersection points
- 35 pedestrian and cycle intersection points
- 8.75 prioritized connectivity ratio

POLICY RECOMMENDATIONS

Convert existing streets to pedestrian-only traffic, allowing direct continuous pedestrian connectivity.

Adopt building regulations that require or incentivize public passage through the ground floor of buildings that are for commercial purposes.

STREET SCALE

INFRASTRUCTURE | ACTIVITY | PRIORITY

Presence of sidewalk amenities

There are adequate amounts of the following in the public right-of-way, but only including those that are provided for the public:

- [ ] Seating facilities. Do not count informal seating such as ledges or curbs not specifically designed for sitting. UN guidelines suggest that a facility be provided at intervals of between 100 and 200 meters and that seating is especially needed in popular locations where people gather.
- [ ] Public toilets (only functioning ones).
- [ ] Garbage bins.
- [ ] Presence of street vendors. Vendors include any non-permanent salesperson with wares on the sidewalk who contributes to the active nature of the area without obstructing the walkable path of the sidewalk.

Presence of transit

Distance to transit:

- [ ] The nearest transit station (rapid transit, bus stop, etc.) is within walking distance (less than 1km)
- [ ] There are many different transit options that are within walking distance (1km).

UOB 大華銀行
RN
7912

Future Plans

- More city-wide indicators
- Online format

Thanks!

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www.itdp.org/walk

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