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

- Enjoyable
- Comfortable
- Convenient
- Safe
- Accessible
- Passable

Source: Graphic created by Michael Flynn, Sam Schwartz Engineering
Features of Walkability: Infrastructure
Features of Walkability: Activity
Features of Walkability: Priority
THREE SCALES
<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>DESCRIPTION</th>
<th>TARGET POPULATION</th>
<th>PURPOSE</th>
<th>TYPE OF INTERVENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Citywide Walkability Comparison</strong></td>
<td>Database of high-level, easy-to-measure qualities of a metropolitan area that facilitate walkability.</td>
<td>• Decision-makers • Advocates • Planners and policymakers</td>
<td>• Facilitate comparisons • Foster understanding • Track progress • Disseminate data</td>
<td>• Urban planning • Zoning • Growth control policies • Subdivision planning</td>
</tr>
<tr>
<td><strong>Neighborhood Walkability Assessment</strong></td>
<td>Analysis and data collection tool for accurate and detailed measurement of neighborhood-level walkability.</td>
<td>• Technical practitioners • Technical advocates • Local advocates</td>
<td>• Foster understanding • Facilitate consistent measurement • Facilitate tracking • Facilitate comparisons</td>
<td>• Urban planning • Zoning • Building regulations • Street design</td>
</tr>
<tr>
<td><strong>Street-Level Walkability Design Checklist</strong></td>
<td>Checklist of the detailed design solutions that facilitate walkability at the block level.</td>
<td>• Technical practitioners • Technical advocates • Local advocates</td>
<td>• Foster understanding • Give guidance for implementation and evaluation</td>
<td>• Street design • Urban design</td>
</tr>
</tbody>
</table>
CITY SCALE
Block Density

City

Nairobi
Beijing
Washington, D.C.
Boston
Pune
Chennai
Rio de Janeiro
New York
Seoul
Kuala Lumpur
Dallas
Los Angeles
Vancouver
London
Jakarta
Dar es Salaam
Sao Paulo
Mexico City
New Delhi
Denver
Paris
Manila

Blocks per Square KM
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 should be provided in all directions to create a complete pedestrian network.

Crosswalks that cross two or more traffic lanes have a wheelchair-accessible pedestrian refuge.
PERCENTAGE OF INTERSECTIONS WITH SAFE, WHEELCHAIR-ACCESSIBLE CROSSTWALKS 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.
Implement safe, all-accessible crosswalks at intersections of all roadways where vehicular speeds exceed 15 km/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.
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

CENTRAL ST. GILES
London, UK

1. B. 1

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
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**

**Best Practice Example**

Västra Hamnen
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
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 sales person with wares on the sidewalk who contributes to the active nature of the area without obstructing the walkable path of the sidewalk.

---

Distance to transit:

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

- More city-wide indicators
- Online format
Thanks!

Joe Chestnut
joe.chestnut@itdp.org

www.itdp.org/walk