

CITIES ARE FOR PEOPLE

The National Association of City Transportation Officials (NACTO) from the USA presented in the 2016 Transit Street Design Guide a comparison between different modes of transportation regarding their capacity to move people within a single lane of road. Traditionally, streets are evaluated according to vehicle traffic throughput and speed, the proposition being that as a city transit's objective is to move people, it should be measured by the capacity of doing so.

Using that concept it was found that the most ineffective way to transport people is by private cars. Considering one or two people per vehicle, a 3.04-metre lane has the capacity of moving 600 to 1,600 people per hour. The numbers increase dramatically for a two-way protected bikeway, which has the ability to transport 7,500 people per hour and a sidewalk capacity of 9,000 people per hour, always using the parameter of a 3.04-metre lane. NACTO used previous studies to determine the parameters in each case: for pedestrians 60 people per metre per minute, allowing 1.5 square metres per pedestrian and a 75 metre per minute walking speed. For bicycles, it was assumed that 2,500 bikes per metre per hour can travel on cycle paths.

The best results are achieved by on-street transitway, bus or rail, with 10,000 to 25,000 people per hour capacity. For NACTO "transitways are running ways dedicated to the exclusive use of transit vehicles, protected from incursion by physical separation". The infographic below shows the full picture of the differences.



The capacity of a single 3.04-metre lane by mode at peak conditions with normal operations.

It is important to consider that the effectiveness of a city's transport depends on a number of variables. Regarding public transport, its reliability, ability to get people in a walkable distance from their final destination and cost for the users are some of the aspects to be considered. Analysing bicycle usage, protected bike lanes are essential for increasing cycling as mode share as it is providing a network of bicycle paths enabling users to get to their destination in a safe, fast and easy way. Good cycling infrastructure includes all these factors in the city design.

Well before the release of this study, the city of **Bogotá** already moved towards this direction shifting from car centric to people centric, in order to improve the mobility and life quality of its citizens. Enrique Peñalosa, the city's mayor between 1998 and 2001, implemented radical transport projects for the city. Under the concept of equality and democracy of public space, a pedestrian, cyclist, bus passenger, and a private car driver have the same right to space. Bogotá's landscape was shifted by the development of exclusive and separated bus lanes, bicycle paths, and increases in the sizes of sidewalks. Best of all, these strategies are usually financially feasible for a developing country reality. Bogotá was subject of two posts in the Wayfinding Forum Blog, read more: Equality the goal in planning cities of the future and Bogotá leads the way with a car-free week.

A more recent example of increasing people's importance in the city transit scene is **Barcelona**. The city is implementing the Superblocks concept which is an urban mobility solution that increases pedestrian space. The Superblocks are polygon grids measuring 400 by 400 metres where non-resident traffic and above ground parking are not allowed.



Barcelona's Superblock Concept

Only residents, urban services and emergency vehicles can drive within the Superblock at a maximum speed of 10km/h, while other motorised vehicles and public transport flows in the perimeter of the area. This turns the interior of the Superblock into a safe, preferred zone for

pedestrians and cyclists. Read more about it in the Wayfinding Forum Blog: <u>Superblocks:</u> <u>Barcelona's concept for traffic reduction</u>.

During Cristina Lynn's recent visit to **Vancouver** for the 2016 World Parking Symposium, she was able to see firsthand the results of the process recently undergone by this city to enhance the interaction between all forms of transport illustrated by the event's keynote speaker Larry Beasley.

However, this is not always the case. As reported by <u>Streetsblog USA</u>, the American federal government has suggested evaluating highway congestion based only on car speed, affecting municipal streets that are classified as principal arterials. This measure is likely to harm transit assessments in cities that are accommodating higher levels of pedestrian and cycling on their main roads. Chicago, Seattle and New York have added bike lanes in their principal arterial streets and this could result in a negative federal evaluation. The appraisal system proposed is not the most effective, since it does not take into account how many people are being transported nor how long and how far vehicles travel, but only at what speed cars are moving.

A city's challenge to maximise the capacity of its streets to transport people can be met by providing the most convenient public transport, cycling and walking infrastructure. Generally, people will determine the most convenient mode share for a particular journey. This evaluation involves the cost, time spent, safety and the distance they will need to walk in each case. Other factors can be included, such as parking availability and cost, for car drivers, and health motivations for walkers and bikers. Therefore, public strategy for urban mobility within a specific locality must include a universal analysis to determine the best solutions and the right incentives for the adoption of alternative transport modes.

Source: National Association of City Transportation Officials

Image sources: NACTO and Co.Exist

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