PARKING: AN IMPORTANT, BUT OVERLOOKED, TRANSPORTATION PLANNING TOOL

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PRESENTATION PLAN

• Why is parking important?
  - An integral part of the transportation system
  - Important societal costs
• Tools to manage demand: need to understand the types of users and characteristics
• Applying parking policies and measures
PARKING – AN INTEGRAL PART OF THE TRANSPORTATION SYSTEM

- Vehicles
PARKING – AN INTEGRAL PART OF THE TRANSPORTATION SYSTEM

- Vehicles
PARKING – AN INTEGRAL PART OF THE TRANSPORTATION SYSTEM

• Network

Source: WTL Photos
PARKING – AN INTEGRAL PART OF THE TRANSPORTATION SYSTEM

- Network
PARKING – AN INTEGRAL PART OF THE TRANSPORTATION SYSTEM

- Terminal
PARKING – AN INTEGRAL PART OF THE TRANSPORTATION SYSTEM

- Terminal
• Most parking spaces are not shared (3 to 5 off-street parking spaces per vehicle; Davis et al., 2010)
PARKING – AN IMPORTANT USE OF LAND

8M parking spaces = 200 km²
VARIETY OF PARKING USERS

- Resident
- Employee
- Meeting
- Long-term
- Delivery
- Client Looking For A Spot
- Merchant
- Resident
VARIETY OF PARKING USERS – PRESENT AT DIFFERENT TIMES

- Various users with different behaviours:
  - Residents
  - Workers
  - Clients / Visitors
  - Special events
  - Deliveries
VARIETY OF PARKING USERS – DIFFERENT BEHAVIOURS

Source: City of Denver – Denver Strategic Parking Plan (2010)
PARKING SUPPLY – NOT JUST THE NUMBER OF SPACES

NEED TO UNDERSTAND BOTH ON-STREET AND OFF-STREET SUPPLY (TIME-SPACE)

- Number of Spaces
- Time Limits
- Cost
- Reserved Spaces
PARKING USER STRUCTURE – TIME-SPACE USE STRUCTURE

NEED TO UNDERSTAND BOTH ON-STREET AND OFF-STREET SUPPLY (TIME-SPACE)

- Some vehicles use a disproportionate amount of space-time and these different users required different tools

10 hour period

1 car parked during a 10 hour period

10 cars parked during 1 hour each
PARKING USER STRUCTURE

CHOOSING THE RIGHT TOOLS

• What is a parking problem? What policy objectives should be followed?
  - Unavailability of spaces during certain times? Globally or only certain areas?
  - User information?
  - Effect on land-use and streetscape?
  - Overly aggressive policy (unanticipated consequences)?
  - Cost of providing additional spaces?
  - Other modes of travel?
CHOOSING THE RIGHT TOOLS

Optimising the Number of Spaces

- Sharing Parking
- Enforcement
- Parking Meters
- Reserved Resident Parking
- Variable Pricing
- Parking Minimums
- Managing Parking
- Carsharing
- Cycling
- Reserved Spaces
- Supplying Transit Passes to Workers

Improving Transit Service

- Parking Taxes
- Time Limits
- Walking Distances (park & walk)
- Shuttles
- Carpooling
CHALLENGES FACED BY MUNICIPALITIES WHEN IMPLEMENTING POLICIES AND MEASURES

• Control of parking provision as part of the development process, but often these are highly codified due to as-of-right zoning bylaws:
  - Some are outdated due to the changing nature of land-use
  - Often not adapted to the local context or the area of the city
  - Few municipalities allow sharing parking provisions
• Control of on-street parking and municipal parking lots, but little control of privately held off-street parking after they are built (difficult to incentivize private landowners to adapt a coherent policy when there is a large supply of inexpensive parking). Parking fees should not be seen as a revenue source, but a tool to incentivize different behaviours.
• Political pressure from residents, users and business owners when applying measures, especially in only one area
• Many types of measures exist, but communication can be a significant challenge
• Goals and objectives of the municipality, users and businesses often diverge
• Many changes are underway and could have profound impacts on parking (car-sharing, improved information, driverless cars, etc.)
THANK YOU
REFERENCES