

UVAR building blocks Regulatory Measures



Planning permit conditions



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This ReVeAL building block fact sheet is one of a series of 33, each describing one Urban Vehicle Access Regulation (UVAR) building block and providing an example of its use in a city. The ReVeAL building blocks can be combined with one another to create a structured UVAR package for a city. Try out the ReVeAL online tool, www.AccessRegulationsForYourCity.eu, to receive suggestions of appropriate UVAR building blocks for your city as well as guidance in their implementation.



The EU-funded research and innovation project, CIVITAS ReVeAL, aims to add Urban Vehicle Access Regulations and associated policies and technologies to the standard range of urban mobility measures in cities across Europe. The project mission is to enable cities to optimise urban space and transport networks use to improve urban accessibility, sustainability, and liveability.

For more information, please visit: www.civitas-reveal.eu.





ReVeAL

### **Spatial Interventions**

Spatial interventions are where the road layout has been altered to favor more sustainable mobility and prevent vehicles entering. Examples of these are removing road and parking space taken for vehicles and using the space for sustainable mobility or amenities (bus lanes, logistics hubs, parklets, restaurants and more)

### Speed reduction

#### Traffic filter:

- Recirculation of traffic
- Road block
- Capacity restraint

## Reallocating parking space:

- Parklet
- Drop-off zone shared mobility
- Logistics bay (mini-hub)
- Kiss & Ride (K&R)

# Reallocating road space for pedestrians:

- Widen pavement
- Pedestrian priority street or zone

# Reallocating road space for cycling:

- Cycle lane
- Cycling street

Reallocating road space for public transport:

Bus or tram priority lane

### **Pricing Aspects**

Pricing aspects are when the entry to an area or to the entirety of the city is given a price tag to encourage more sustainable transport. Pricing aspects also include the (differential) levels of penalty fees to encourage (and enforce) compliance.

Road charges / tolls:

- Charge applied to a perimeter or an area (congestion charge)
- Charge applied to specific points
- Distance-based charge
- Time-based charge
- Permit charge
- Charge based on emission standards (pollution charge)

#### Parking charge:

- Dynamic price (real time)
- Fixed price
- Charge based on emission standards (pollution charge)
- Workplace levy
- From on-street to off-street parking

#### **Regulatory Measures**

Regulatory measures are those where there is a legal instrument that states who can and cannot enter an area. They could often also be called "bans" and include Zero Emission Zones, Low Emission Zones, and Limited Traffic Zones.

#### Regulation by emissions:

- Euro standard
- Zero-emission vehicles

# Regulation by vehicle type and dimensions:

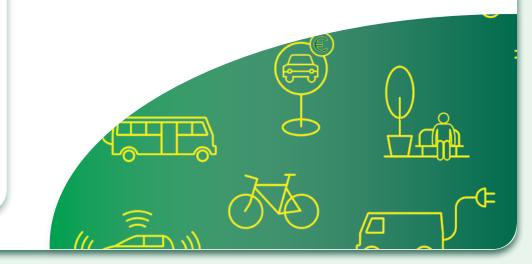
- Vehicle type
- Dimensions

### Regulation by trip purpose:

- Delivery and logistics
- Through traffic ban

#### Regulation by permit:

- Permit to travel
- Parking permit
- Planning permit conditions



#### Definition of the building block

Vehicle access is regulated through planning permit conditions and can be used in two ways: 1) Regulations may specify how many parking spaces (on or off street) will be permitted per unit. This can result in a low-car or car-free development, or one where vehicles are limited to the outskirts of the development. 2) Regulations may set requirements on the vehicles used during the construction of a new development, e.g., emissions of vehicles used (both onroad and off-road) in the construction process, perhaps specifying the number of parking permits or vehicle emissions.

# Timing, phasing, scaling and replication

This option needs to be considered early in the planning process if planning conditions are to be used. For the building phase, construction vehicle stages, together with on-road emissions standards, could be used. This is best done with retrofit options (mainly PM, but NOx is also possible). Other nonroad dust limiting techniques can also be required. A maximum number of car parking spaces should be set in the planning process (as opposed to setting minimums). Goals could be a maximum of 0.2 - or even 0. A limited traffic zone could also be required, but parking limits are more common.

#### **Time windows**

- Allowing vehicle access at particular times of day
- Allowing vehicle access on given days of the week (e.g., weekends)
- Having no time differentiated vehicle
  access

#### **Enforcement options**

Enforcement through the planning system and/or planning officers

#### Gender and equity

People with reduced mobility need to be considered specifically when establishing planning permit conditions.

#### **Future considerations**

As more ZEV construction vehicles become available and costs become competitive, it will become easier to require zero-emission developments.

### **Complementary measures**

#### **Exemptions**

The types of exemptions will be different depending on the scheme type, but some examples are:

- Key exemptions for police, fire department, waste collection, etc.
- User needs exemptions, e.g. for people with disabilities with forced car dependency, taxis, classic car owners, residents, deliveries
- Exemptions for adapted vehicles (e.g., retrofitted or converted electric or hybrid vehicles)
- Limited numbers of purchased exemptions for entry (e.g., per day/ month/year) to a specific zone
- Specified maximum amount of kilometre "credits" allocated to individuals or businesses

#### Increased mobility options

The types of increased mobility options will be different depending on the scheme type, but some examples are:

- Creation of mobility hubs
- Increasing/improving walking or cycling facilities
- Increasing/improving public transport
- Facilitating vehicle hire and/or car sharing
- Providing parking spaces in alternative locations (e.g., Park & Ride)

### **Financial incentives**

These will differ depending on the planned UVAR measures, but some options include:

- Financial incentives for fleet renewal, e.g., for the purchase, renting or leasing of greener vehicles (including tax exemption)
- Membership or vouchers for sustainable mobility options (e.g., public transport and shared mobility services) such as discount cards, free rides or annual passes for public transport or consolidation centres
- Monetary incentives for cycling trips (e.g., for bike-to-work) or for (e-)cycle or (e)-cargobike purchases
- Grants towards retrofits (e.g., diesel particulate filters, new engine or fuel conversion)
- Compensation for scrapping an old vehicle (either financial or through a voucher), often differentiated by emission standards, vehicle type or owner income.

#### Consider combining with:

#### **Regulatory Measures**

Regulation by emission:

- EURO standard
- Zero-emission vehicles

Regulation by permit: Parking permit

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### Example: Brainport Smart District (BSD), Helmond, the Netherlands

#### Description

Inside Brainsport Smart District, parking for residents, workers and visitors of the homes and businesses located in the district is only allowed in the parking hubs. The parking regulation entails 0.2 parking spaces per house, or per 100 m2 for businesses. The walking distance between the parking hubs and the residential area is preferably 250 metres and no more than 400 metres.

#### **Enforcement methods**

Implicit in the permit process

Time windows

Implicit in the permit process

Phasing and upscaling

In future only zero-emission vehicles will be allowed to access the area.

### Other building blocks put in place

#### **Spatial Interventions**

**Speed reduction** 

Reallocating road space for pedestrians: Pedestrian priority street or zone

Reallocating road space for cycling:

- Cycle lane
- Cycle street

### **Pricing Aspects**

Parking charge: Fixed price

#### **Regulatory Measures**

Regulation by emissions:

- EURO standard
- Zero-emission vehicles

Regulation by vehicle type and dimensions:

- Vehicle type
- Dimension

Regulation by trip purpose

- Delivery and logistics
- Through traffic ban

#### **Regulation by permit:**

- Permit to travel
- Parking permit



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Brainport Smart District, Helmond, the Netherlands

### **Complementary measures**

#### Increased mobility options

- Mobility as a Service
- Mobility Hub next to the train station
- Shared mobility



#### Additional information

As of June 2022, most of the residential area was under development with some of the units already sold and the first residents moving in.



Above and on the left, concept pictures showing the area around the residential units without private parking spots (Brainport Smart District, 2022)

#### References

- Brainport Smart District (2020) Quality Book. https://brainportsmartdistrict.nl/wp-content/uploads/2020/06/Q-Book-2020-Brainport-Smart-District.pdf
- Brainport Smart District (2022) Masterplan. https://brainportsmartdistrict.nl/wp-content/ uploads/2022/03/220218\_BSD\_ BKP\_SMP-1.1\_UNS\_hi\_res-gecomprimeerd.pdf



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