

UVAR building blocks **Regulatory Measures**







Parking permit







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.







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

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:

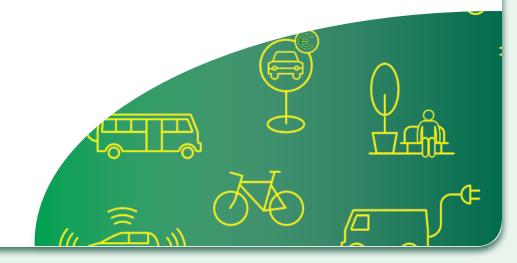
- Vehicle type
- Dimensions

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 by a permit required in order to be legally allowed to park a vehicle within the area or to drive to the parking space. Permits can be subject to a (differential) fee.

Timing, phasing, scaling and replication

The phases of this building block often include scaling up the size of the area affected – usually starting from the city centre. Subsequent phases could also exclude more vehicles, tighten emission restrictions or increase fees.

Time windows

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

Enforcement options

- Cameras with automated number plate recognition (ANPR)
- Manual enforcement through visual inspection
- · Radio frequency identification (RFID)

Gender and equity

Certain parking spaces can be reserved for vehicles used for transporting people with disabilities.

Future considerations

No specific effects are foreseen for this building block from future technologies.

Further guidance

- · Communicating the aim of the scheme
- Signage to communicate UVARs
- · Managing permits (and exemptions)
- · Enforcement options



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:

Pricing Aspects

Road charges/tolls:

- · Permit charge
- Charge based on emission standards (pollution charge)

Parking charge:

- Dynamic price (real time)
- Fixed price
- Charge based on emission standards (pollution charge)

Regulatory Measures

Regulation by emission:

- EURO standard
- · Zero-emission vehicles

Regulation by trip purpose: Delivery and logistics

Regulation by permit:

- Permit to travel
- Planning permit conditions



Regulation by permit can be combined with reallocating parking space for other purposes as parking capacity is reduced.

On the left, a regulated parking area in the city centre of Stockholm, by Architects Mauritz Dahlberg and Harry Egler, 2018, January 14. CC BY-SA 4.0. Wikimedia Commons



















Example: Stockholm, Sweden

Description

Stockholm has a system of parking permits for residents and companies. The permit allows a driver to park in areas close to the permit owner's home and/or business and in other regulated areas. Motorists with a residential parking permit may park within their residential parking area for a lower fee and for a longer period than visitors.

The parking fees for both permit holders and visitors depend on area, times of the day, and days indicated by road signs. Residents in new developments can apply for permits in car garages, but not for onstreet parking, for which they must pay the same price as visitors do.

Enforcement methods

Parking inspectors

Time windows

There are variations in time windows on Saturdays, Sunday, public holidays, and one day pre-holiday.

Phasing and upscaling

2012. City Vision 2030 specifies that onstreet parking will gradually be reduced.



A project of converted on-street parking in Stockholm (Trafikkontoret, Stockholm city, 2021)



Stockholm, Sweden

Other building blocks put in place

Spatial Interventions

Speed reduction

Traffic filters: Roadblock

Reallocating road space for pedestrians: Pedestrian priority street or zone

Pricing Aspects

Road charge:

- Charge applied to a perimeter or an area (congestion charge)
- · Permit charge

Parking charge:

- · Fixed price
- · Workplace levy
- · From on-street to off-street parking

Regulatory Measures

Regulation by emissions: EURO standard

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
- · Planning permit conditions

Complementary measures

Increased mobility options

- Park & Ride with connections with public transport
- · Shared mobility

Financial incentives

Vehicles for people with disabilities pay a reduced fee



















Stockholm, Sweden



Residential parking areas in Stockholm (Stockholms Stadt, 2022)

Additional information

The vehicle must always be moved during the time it is forbidden to park and parking may not take place longer than a maximum of 7 days. Even if you paid the residential parking fee, your park is subject to space availability.

References

Architects Mauritz Dahlberg and Harry Egler (2018, January 14) Ostemans marmorhallar, Grev Turegatan 3-5, CC BY-SA 4.0. https://creative-commons.org/licenses/by-sa/4.0. Wikimedia Commons

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