



Permit to travel

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 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



Permit to travel

Definition of the building block

Vehicle access is regulated by a permit that is granted prior to entry into the area. This can take the form of a windscreen sticker, and/or be 'virtual' through registration of the vehicle plate in a database (i.e., white list), or sometimes by letter. There can be different requirements for gaining a permit, including trip type, emissions, vehicle type, ISA, etc. Permits can be granted with or without (differential) payment.

Timing, phasing, scaling and replication

This building block can be phased in by tightening the requirements to receive a permit, by increasing fees, by increasing the number of vehicles affected or by increasing the size of the area affected.

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
- Physical barriers
- Radio frequency identification (RFID)
- Dedicated short-range communication (DSRC)
- Intelligent speed adaptation (ISA)
- Road sign

Gender and equity

It is worth considering exemptions or subsidies for those with special needs. This may include people with disabilities or their caregivers.

Future considerations

It may become more feasible to require Intelligent Speed Adaptation (ISA) in vehicles requesting a permit to travel in a restricted area. This would facilitate enforcement of such permits.

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.

Organisational support

This can include logistical, administrative, promotional or other support provided by the city. This might include supporting alternative business models (e.g., for car parks that have no/fewer customers), facilitating changes and working on individual solutions to resolve issues.

Permit to travel

Consider combining with:

Spatial Interventions

Speed reduction

Traffic filter: Capacity restraint

Reallocating parking space:

- Parklet
- Drop-off zone shared mobility

Reallocating road space for pedestrians:

- Widen pavement
- Pedestrian priority street or zone

Reallocating road space for cycling:
Cycle lane

Regulatory Measures

Regulation by emission:

- EURO standard
- Zero-emission vehicles

Regulation by vehicle type and dimensions:

- Vehicle type
- Dimensions

Regulation by trip purpose:
Delivery and logistics

Regulation by permit: Parking permit

Pricing Aspects

Road charges/tolls: Permit charge

Parking charge:

Dynamic price (real time)

A permit to travel can be used in combination with spatial interventions to use the space gained for increased liveability.



On the left, one of the access gates to the LTZ in Bologna, with signage indicating the categories of vehicles and users with a permit to travel (Comune di Bologna, 2019)

Permit to travel

*Example: Bologna, Italy*Description

The city of Bologna has had a permits regime in place since 1974, linked to the limited traffic zone. Some permits require a registration only, some a fee (permit charge). There are temporary and less temporary paid permits. All the permits apply to the central limited traffic zone and other areas of the city where additional traffic restriction measures are in force.

Enforcement methods

Automated number plate recognition (ANPR)

Time windows

- Central limited traffic zone: in effect daily from 7:00 to 20.00
- Areas with additional measures are enforced 24 hours/7 days

Phasing and upscaling

- 1968. First implementation of the pedestrian area in the city center
- 1974. Introduction of LTZ in two small areas of the city center 1989. The LTZ covers the entire area inside the old city walls
- 1994. First-in-the world use of ANPR camera enforcement
- 2020. Combined LTZ / LEZ
- Between 2020 and 2025, the emissions classification of vehicles allowed into the LTZ are increasingly restricted every year.

Other building blocks put in place

Spatial Interventions

Speed reduction

Reallocating road space for pedestrians:
Pedestrian priority street or zone

Reallocating road space for public transport: Bus or tram priority lane

Pricing Aspects

Road charge: Permit charge

Parking charge: Fixed price

Regulatory Measures

Regulation by emissions: EURO standard

Regulation by trip purpose

- Delivery and logistics
- Through traffic ban



Complementary measures

Exemptions

From access limitation, payment, and registration:

- Buses
- Bicycles, mopeds (two-, three- and four-wheelers) and motorbikes (two- and three-wheelers)
- Vehicles belonging to customers of hotels, garages, car repair shops
- Vehicles in expressly authorised car sharing services

Financial incentives

Bonuses:

- Residents can convert their access and parking permits into bonuses for a public transport pass, services of taxi and car-rental with driver, car sharing and bike sharing for up to two years
- Residents over 70 can choose a ten-year public transport pass

Additional information

There are areas in the city centre where additional measures apply.

The so-called “T” area, which is named after the shape of the intersection between three of the main arterial roads in Bologna (Via Indipendenza, Via Rizzoli, and Via Ugo Bassi), becomes a fully pedestrian area each Saturday, Sunday, and holiday.

Other areas with additional measures are: the three special LTZs around the university, the intersection of Piazza San Francesco with via del Pratello, and the intersection of via delle Moline with via Capo di Lucca; the area next to the “Archiginnasio” municipal public library; the priority lanes for public transport; the two pedestrian areas in via Azzo Gardino and Piazza Aldrovandi, and the three fully pedestrian areas of Via dei Falegnami, Piazza S.Stefano, and Corte Galluzzi.

References

- Comune di Bologna. (2019, July 22). *La Zona a Traffico Limitato diventa ambientale dal 2020*. http://www.comune.bologna.it/sites/default/files/styles/page_image/public/field/image/ZTLa_articolo%2022%20luglio%202019.JPG?itok=Y-0vxyOHq
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