



## Charge applied to specific points

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](http://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](http://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



## Charge applied to specific points

### Definition of the building block

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Road charges for specific points are applied to vehicles that travel through a given location or series of locations on the road network.

### Timing, phasing, scaling and replication

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This building block has no-timing related issues requiring specific attention.

### Time windows

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- Allowing vehicle access at particular times of day
- Allowing vehicle access on given days of the week (e.g., weekends)
- Allowing seasonal vehicle access
- Triggered access restrictions (e.g., by pollution levels)

### Enforcement options

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- Cameras with automated number plate recognition (ANPR)
- Radio frequency identification (RFID)
- Dedicated short-range communication (DSRC)

### Gender and equity

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Consider avoiding areas with schools, other educational institutions and hospitals/health clinics with this measure.

### Future considerations

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

### Further guidance

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- Communicating the aim of the scheme
- Signage to communicate UVARs
- Complementary sustainable mobility measures
- Enforcement options
- Camera enforcement and privacy issues

## 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.

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)



### Charge applied to specific points

Consider combining with:

## Spatial Interventions

## Speed reduction

Traffic filter:

- Recirculation of traffic
- Road block

## Reallocating road space for cycling: Cycle lane

## Reallocating road space for public transport: Bus/ tram priority lane

## Pricing Aspects

Parking charge:

## From on-street to off-street parking

## Regulatory Measures

### Regulation by vehicle type and dimensions:

- Vehicle type
- Dimensions

Regulation by trip purpose:  
Through traffic ban



The Dart Charge is a charge applied to specific points. Dartford Crossing, Greater London Area (GOV.UK 2021)



## Charge applied to specific points

*Example: Dart Charge, Dartford, United Kingdom*Description

The Dart Charge is a free flow charging service for road vehicles crossing the Thames River at Dartford.

Payment methods

- The charge is paid online or offline, in advance, or by midnight the day after crossing.
- Drivers can set up a pre-pay account and save up to a third of the cost on every crossing.
- With a pay-as-you-go service, drivers can register their vehicles and payment details, so they can automatically pay Dart Charge each time they use the crossing.

Enforcement methods

Automatic number plate recognition (ANPR)

Time windows

In effect daily from 6:00 to 22:00

Phasing and upscaling

- 2003. First collection of road user charges on the river crossing, by physical payment
- 2014. Start of the Dart Charge

Other building blocks put in placePricing Aspects

Road charges / tolls:

- Charge applied to a perimeter or an area (congestion charge)
- Charge based on emission standards (pollution charge)

Regulatory Measures

Regulation by emissions:

- EURO standard
- Zero emission vehicles

Complementary measuresExemptions

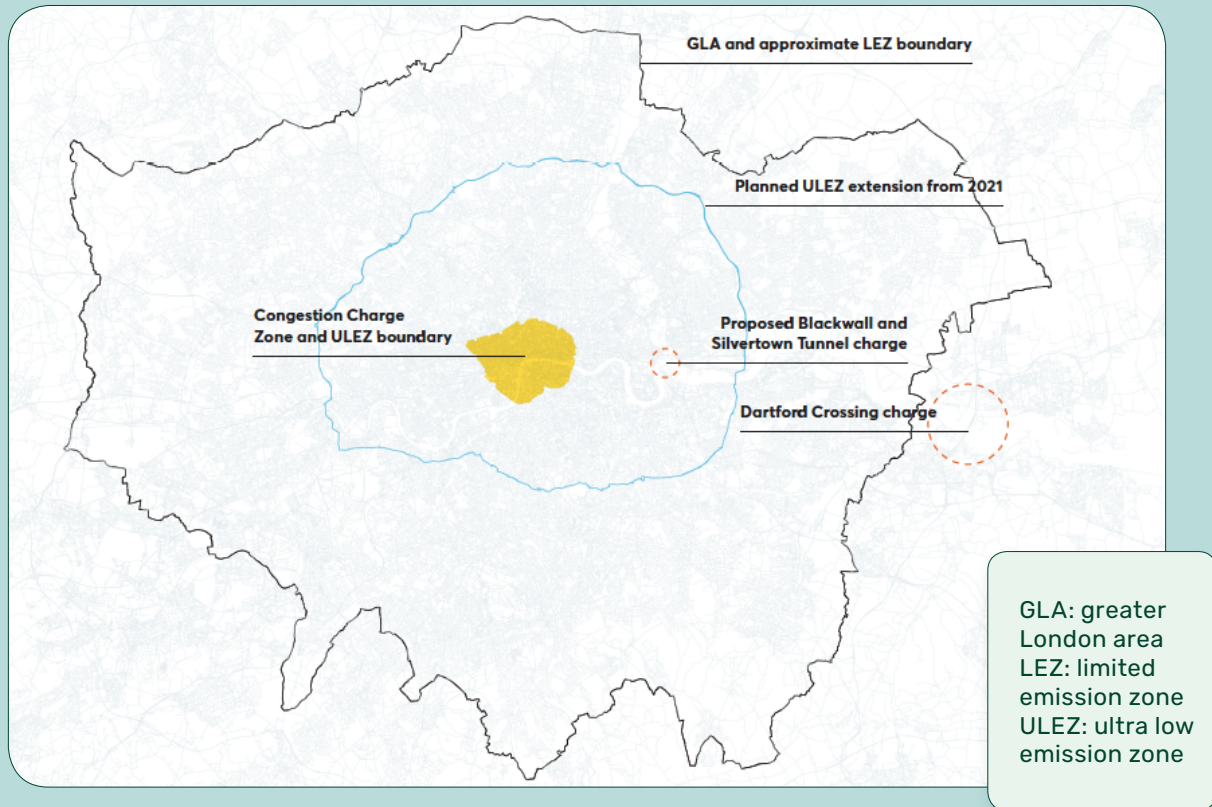
Complete exemptions by vehicle type: mopeds, motorcycles, motor tricycles, quad bikes





## Charge applied to specific points

## Dart Charge, Dartford, United Kingdom



The large red dashed circle indicates the position of the Dartford Crossing in the Greater London Area. The area covered by the 'planned extension of the ULEZ from 2021' is the actual extent of the ULEZ updated to 2022. (Barrett, Wedderburn, and Belcher, 2019).

## References

- Barrett, S., Wedderburn, M., & Belcher, E. (2019, April 29). *Green Light: Next generation road user charging for a healthier, more liveable London*. Centre for London. <https://www.centrefor-london.org/publication/road-user-charging/>
- GOV.UK. (2017). *Dart Charge*. <https://www.gov.uk/government/collections/dart-charge>
- GOV.UK. (2021). *Pay for the Dartford Crossing (Dart Charge)*. <https://www.gov.uk/service-standard-reports/pay-for-the-dartford-crossing-dart-charge>



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