

7: Block paving helps to emphasize this carriageway constriction in Tuly Street, Barnstaple. (Photo: Devon County Council)

8: Through road narrowed where a pedestrian zone crosses. Buses get priority entry to the narrowed section. Bergisch Gladbach, Germany. (Photo: T. Pharoah)

3.9 CARRIAGEWAY CONSTRUCTIONS

(SEE ALSO FOOTWAY EXTENSIONS)

OBJECTIVES

- To limit the ability of vehicles to pass one another, and thus to limit speeds and/or to interrupt traffic flow
- To limit overtaking
- To reduce pedestrian crossing distance
- To restrict the size of vehicle
- To provide priority for buses
- To prevent on-street parking
- To define or shelter on-street parking spaces

SPEED REDUCTION RATING "B"

In some circumstances speed reduction can be good, but the effect is unreliable and dependent on traffic conditions, e.g. when



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cars have to proceed behind cyclists, or give way to oncoming traffic.

DESIGN FEATURES

Constrictions are "spot" measures at intervals along the street (e.g. at vertical shifts or at junctions). They can be achieved on one or both sides of the road, or by the inclusion of a central island (see Diagram 3.9.1). Constrictions will have different effects and design requirements in one-way and two-way streets. They are an important feature of multi-objective traffic calming design, but need to be combined with other measures for effective speed reduction.

APPLICATION

Constrictions are useful in both "living" and "mixed priority" areas where traffic volumes are less than 500 vehicles per hour. They are suitable for one-way and two-way streets and useful in association with prohibitions relating to large vehicles.



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DIMENSIONS

Width is influenced by various factors including:-

- One-way or two-way traffic
- Traffic volume
- Bicycle/vehicle mix
- Separate cycle provision
- Provision for buses
- HGV prohibition

SUGGESTED WIDTHS OF CONSTRICTIONS

TWO-WAY TRAFFIC (<500 VEHICLES PER HOUR)

- Local streets (no passing, parking) - 3.0m to 3.6m
- Collector streets - 4.0m
- Mixed priority (occasional HGV) - 4.5m
- Traffic priority streets - not suitable

ONE-WAY TRAFFIC (ANY VOLUME)

- All streets (single lane only) - 3.0m
- HGV prohibition (single lane only) - 2.0m to 2.1m

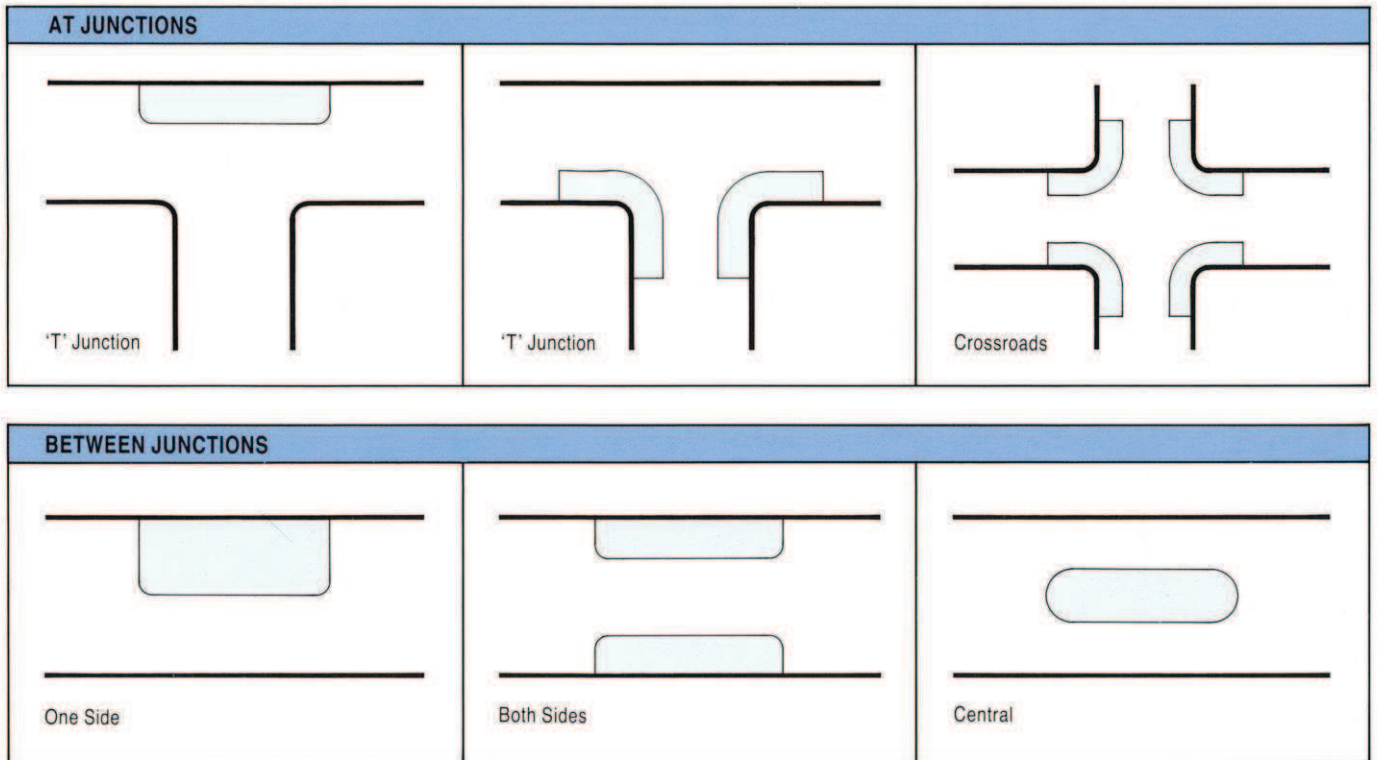


DIAGRAM 3.9.1 CARRIAGEWAY CONSTRICTIONS



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9: Constriction with separate cycle "gates". Camden, London. (Photo: T. Pharoah)



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10: Concrete bollards and raised planters reinforce this constriction in Church Road, Exeter. (Photo: Devon County Council)

SUPPORTING MEASURES

Planting and other vertical features are required. To ensure reliable speed reduction constrictions may need to be combined with vertical or lateral shifts. Specific provision for cyclists may be necessary in some cases.

POSITIVE FACTORS

- Useful speed reduction in some circumstances, and positive contribution to several traffic calming objectives
- Assists pedestrians crossing the road
- An important supporting measure for other speed reduction measures

NEGATIVE FACTORS

- Not always reliable as a "stand alone" speed reduction device
- Can cause problems for cyclists if specific provision is not made