

Intersection Form – Priority Intersection

This fact sheet provides guidance and information regarding priority intersections (those controlled by a give way or stop sign).

Pros	Cons
<ul style="list-style-type: none"> • Low cost • Low space requirements • No delays for major road through traffic 	<ul style="list-style-type: none"> • Can be poor for cyclist and pedestrian safety • On busy roads, pedestrian delays for crossing the road may be excessive • When volumes on main road are high, can result in excessive delays and poorer safety outcomes for side road traffic

Best Practice Considerations:

- Crossing distances for pedestrians should be minimised
- If cycle lanes are provided between blocks, these should be marked across the intersections
- Where cycle lanes are provided on the major leg, the minor leg should be controlled by a give way or stop
- Sight distances can dictate whether the intersection is uncontrolled, a give way or a stop
- Some traffic turning movements can be banned to improve safety

Basic

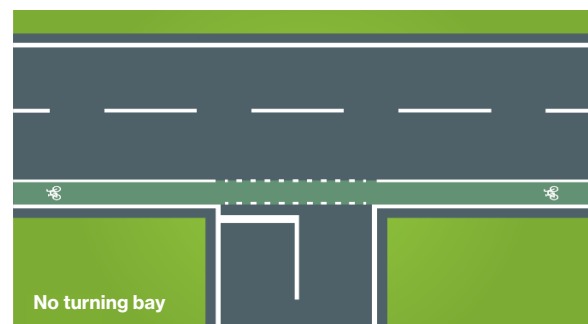
A basic priority intersection treatment is where no right turning facilities are provided on the main road. In these layouts, turning traffic on the main road briefly blocks through traffic. These intersections are low cost due to the limited space required but can create safety issues if the traffic flows are heavy.

Appropriate Locations

- Intersections where the traffic volumes on the side road(s) are low
- Low volume of right turning vehicles on the main road

Limitations

- Right turning vehicles on the main road impede through traffic
- Vehicles turning out of the side street must find gaps in both directions of traffic.



Local examples: Roberts Street / Titirapunga Street

Flush Median

A flush median is a painted area between traffic lanes which motorists can take refuge in while waiting to turn in/out of side roads or local accessways and where pedestrians can wait to cross the road. They are denoted by white diagonal lines. The cost of installing a flush median is low to medium depending on whether the road width needs to be increased. A pedestrian island can be located in the flush median to assist pedestrians crossing. Care must be taken considering the spacing of intersections as right turn queues can overlap and/or block back into through lanes.

Appropriate Locations

- Intersections with moderate-high turning volumes
- Intersections where the traffic volumes on main road are moderate

Benefits

- Right turning traffic on main road does not impede through traffic.
- Right turning traffic from side road can utilise the flush median to perform the manoeuvre in two stages (although there is no protection on the median for right turning vehicles).
- Able bodied pedestrians can use the flush median to cross the road in two stages



Local examples: Shepard Road / Lake Terrace

Right turn bay

A right turn bay is where space is painted within the intersection for motorists on the main road to wait in until they can turn right into the side road. In this layout, right turning vehicles do not impede through traffic. This treatment can be low cost if sufficient space is available or medium cost if localised widening is required.

Appropriate Locations

- Intersections with moderate turning volumes
- Intersections where the right turning volumes on the main road are moderate

Limitations

- Vehicles turning out of the side street must find gaps in both directions of traffic.



Local examples: Rifle Range Road / Tamatea Road

Solid Median

A solid median is where a kerbed island is constructed between traffic lanes. The solid median can either be continued through the intersection to physically prevent motorists from turning right in and/or out of a side street or the median can accommodate a right turn bay. The cost of installing a solid median is high.

Appropriate Locations

- Intersections with moderate-high turning volumes
- Intersections where the right turning traffic volumes on main road are high

Benefits

- Right turn movements out of the side road can be prevented to improve the safety of the intersection
- Where right turn bays are provided, turning vehicles do not impede through traffic



Local examples: Lake Terrace/ Ferry Road / Tongariro

Seagull

A seagull intersection is a type of intersection where kerbed traffic islands are used to separate right turns in and out of the intersection. Vehicles turning right out of the side street give way to vehicles on their right, move into a protected lane and then merge with through traffic. The cost of a seagull intersection is high due to the costs associated with widening the intersection and constructing kerbed islands.

Appropriate Locations

- Where there are high right turning volumes and long delays for right turning vehicles from the side road

Inappropriate Locations

- Where there is a busy driveway or road opposite the side road
- Where there are high volumes of pedestrians and/or cyclists

Benefits

- Can improve safety especially if right turn is protected by traffic islands
- Can improve efficiency when designed appropriately and used correctly



Local examples: Wairakei Drive / Poihipi Road

Additional Resources:

Austrroads Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings
NZ Transport Agency Traffic Control Devices Manual
NZ Transport Agency Cycle Network Guidance
NZ Transport Agency Pedestrian Planning and Design Guide
NZ Transport Agency High Risk Intersections Guide