## Using a Roundabout



1. Slow down once you see the roundabout approach sign.



2. Traffic entering the roundabout must wait for a gap in the circulating traffic.



3. Approaching traffic must yield to traffic in the circular lane.



4. Maintain a safe speed between 30-40 km/h around the roundabout until your exit.



5. Signal for right turn as you approach your desired exit while maintaining a slow speed.

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Why is the Roundabout the Right

# Solution?

#### **INTRODUCTION:**

Alberta Infrastructure and Transportation has engaged Earth Tech Canada to carry out engineering work for the Highway 8 upgrade:

**STAGE 1:** Roundabout construction at Highway 22, 2006/2007;

**STAGE 2:** 4-Laning beyond the 5 year time frame from Highway 22 to Calgary.



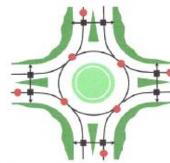


#### What is a Roundabout?

- A circular intersection design for improved traffic flow at a slower speed.
- Traffic circulates in a counterclockwise direction around the centre island.
- Traffic entering the roundabout must yield to traffic already in the roundabout.
- Drastically decreases
   vehicle to vehicle contact
   points, thereby increasing
   safety while maintaining
   the same or higher level
   of service.
- Lower maintenance costs.
- Eliminates high speed collisions.

## Features At–A–Glance

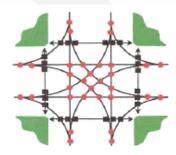
#### Roundabout



- 8 Vehicle to vehicle
- 8 Vehicle to pedestrian
- Drastically reduces conflict points and potential collisions.
- Reduces collision severity (all approaches enter the roundabout at controlled and reduced speed).
- Vehicles are not forced to stop, thereby reducing the overall vehicle delay.
- > Self-regulating and maintains serviceability at all times.
- Traffic handling capacity up to 30 years.
- Low maintenance cost (landscaping only).
- Innovative solution successfully adopted worldwide.

## Hwy 8 &22:

## **Signalized Intersection**



- 32 Vehicle to vehicle
- 24 Vehicle to pedestrian
- High number of conflict points and potential collisions.
- ➤ Increases collision severity! (Possible rear end, angle or T-bone types).
- > "Stop and go" conditions create overall longer delays.
- Requires manual intervention when signals are down which may create dangerous situations.
- Traffic handling capacity up to 5 years.
- High annual maintenance and power consumption cost for signals.
- > Traditional method of handling intersection traffic.