

## DESIGN INNOVATIONS –

# Indirect Left Turn

**FASTER • SAFER • GAS SAVING**

## HOW THE INDIRECT LEFT TURN BENEFITS YOU ...

### A Shorter Wait at Light

- Reduces the amount of time vehicles are stopped at the intersection by 42%.

### More Fuel Savings

- Reduces fuel consumption by approximately 9% for all vehicles using the intersection.

### Safer

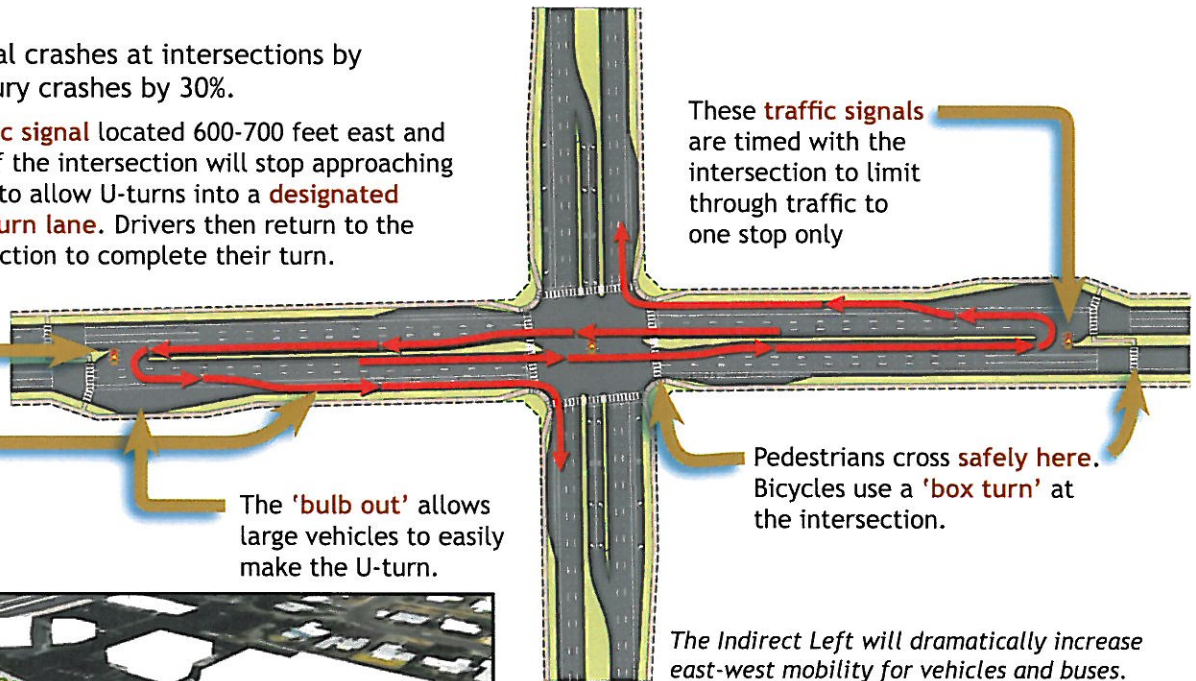
- Reduces total crashes at intersections by 16% and injury crashes by 30%.

### Smaller Intersections

- Smaller intersection means less right-of-way needed, lower costs, and possibility of preserving existing businesses and reduces the distance pedestrians have to cross by 20 feet.

A **traffic signal** located 600-700 feet east and west of the intersection will stop approaching traffic to allow U-turns into a **designated right-turn lane**. Drivers then return to the intersection to complete their turn.

These **traffic signals** are timed with the intersection to limit through traffic to one stop only



The **'bulb out'** allows large vehicles to easily make the U-turn.

Pedestrians cross safely here. Bicycles use a **'box turn'** at the intersection.

*The Indirect Left will dramatically increase east-west mobility for vehicles and buses.*

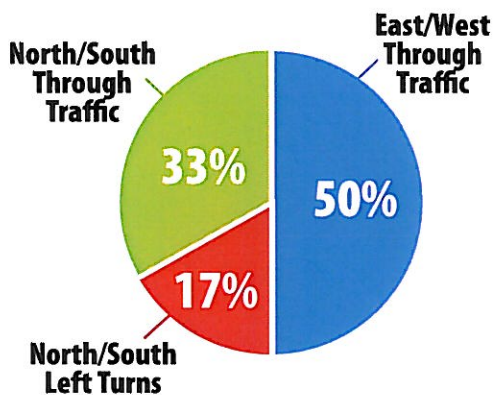


*The 'bulb out' allows U-turns for larger vehicles such as buses and semi-trucks.*

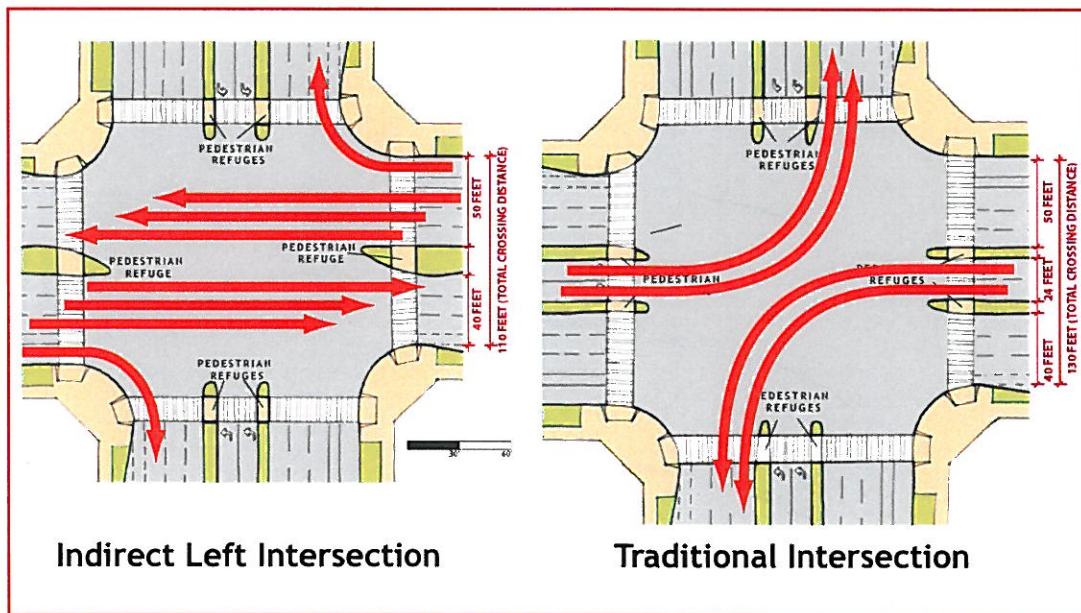
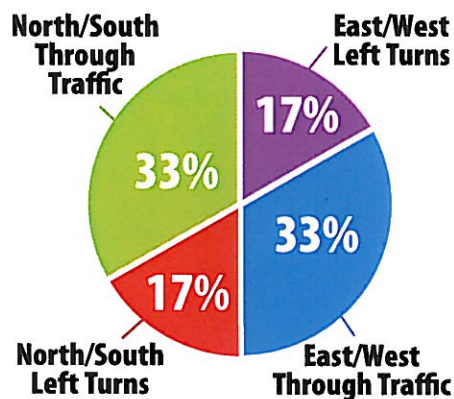
## Improving East-West Travel

The Indirect Left Turn Intersection Design allows significantly more time to be given to traffic moving east-west along Grant Road.

### Indirect Left Turn Traffic Signal Timing



### Traditional Traffic Signal Timing



The Indirect Left Turn is recommended for seven major intersections along Grant Road:

- Swan Road
- Campbell Avenue
- Oracle Road
- Alvernon Way
- 1<sup>st</sup> Avenue
- Country Club Road
- Stone Avenue